

# FORGOTTEN WATERS

## Minding the GIUK Gap

A Tabletop Exercise

Julianne Smith and Jerry Hendrix

*Foreword by Robert D. Kaplan*

## About the Authors



**JULIANNE SMITH** is a Senior Fellow at the Center for a New American Security (CNAS) and Director of its Transatlantic Security Program. She previously served as the Deputy National Security Advisor to the Vice President of the United States and as the Principal Director for European and NATO Policy in the Office of the Secretary of Defense in the Pentagon.



**JERRY HENDRIX** is a Senior Fellow at the Center for a New American Security and Director of its Defense Strategies and Assessments Program. As a Captain in the United States Navy (now retired), his staff assignments include tours with the Chief of Naval Operation's Executive Panel (NOOK), the Office of the Undersecretary of Defense for Policy, and the Office of Net Assessment. Most recently, he served as the Director of Naval History.

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### Cover Photo

Illustration and Design by Erin Rothback and Melody Cook/CNAS

## Comments from Participants

**“Since the fall of the wall NATO has enjoyed and expected free transit of the Atlantic. Recent Russian deployments and activity in the Northern Atlantic and along both U.S. and European coasts make it clear that this cannot be assumed in the future. This TTX gave us a clear picture of what we are to face should we need to reinforce Europe in the future.”**

—GENERAL PHIL BREEDLOVE, USAF (RET.)  
Distinguished Professor,  
Sam Nunn School at Georgia Tech  
Senior Advisor, Culpeper Security Solutions

**“For several decades, the GIUK Gap has been a key strategic maritime crossroad for global economic security. We have to sustain maritime dominance here, particularly in the undersea domain, to assure global economic security. This was particularly essential in the Cold War and applies today. Accordingly, the GIUK Gap remains a strategic imperative of our global maritime strategy.”**

—ADMIRAL JONATHAN GREENERT, USN (RET.)  
Former Chief of Naval Operations

**“A challenging, realistic series of simulations that highlighted the need for NATO to relearn and renew its plans for defense of the North Atlantic. Mind the GIUK Gap!”**

**This exercise was a timely reminder that NATO’s post-Crimea defense challenges are not confined to the Eastern flank—new strategies and new capabilities needed in all domains, including cyber.”**

—THE HONORABLE ALEXANDER “SANDY” VERSHBOW  
Former NATO Deputy Secretary General, and Former  
U.S. Ambassador to NATO

**“Russian military doctrine and capabilities are undergoing qualitative changes that require serious re-thinking of American defense policy, especially in Europe. Table top exercises enable U.S. defense experts to understand these changes and their implications for U.S. defense planning, and enable the U.S. government to ensure that our military will be equipped and trained to deter conflict, or defend the U.S. and its allies should deterrence fail.”**

—DR. CELESTE WALLANDER  
Former Special Assistant to the President and  
Senior Director for Russia (2013–2017)  
Former Deputy Assistant Secretary of Defense for  
Russia, Ukraine, and Eurasia (2009–2012)

## Forward

*by Robert D. Kaplan*

**G**eography still rules, despite the conceits of the jet age and the information age. Geography is where any discussion of the strategic environment must begin. To know a country's geography provides clues to its intentions better than any wiretap of its national security meetings. The geography that concerned us in the "Forgotten Waters" exercise described in this paper is the North Atlantic passage between Greenland and Iceland to the west and the United Kingdom to the east: the GIUK Gap, as it was known throughout the Cold War. The key here is precisely the geography that cannot be seen from above: the underwater domain where the slope and composition of the bottom, as well as nearly isothermal temperatures, make for ideal sound propagation. This geography is further complicated by pipelines, communications cables, and economic exclusion zones. Indeed, below the surface of a boisterous ocean is a critical strategic world.

The GIUK Gap forms the principal choke point between Russia's great Northern Fleet and its strategic interests in the North Atlantic and all points south. The Russians, as a resurgent power, have modernized their military forces, but they still face the same geographical limitations as in the past. For a Russian warship to get from icy northern waters to the eastern Mediterranean, it must pass through the GIUK Gap. If American warships are sent with large numbers of troops and materiel to reinforce Europe, they must cross Atlantic waters infested with Russian submarines, surface vessels, or aircraft that transited south through the gap. It is here that the geographies of North America and Europe meet and intermesh.

Because the GIUK Gap made for a perfect strategic gateway during the Cold War, the West invested heavily in capabilities there to keep the gate shut. Almost three decades since the Berlin Wall fell, the Gap is returning to

its Cold War importance, but it is yet underappreciated by contemporary policymakers. NATO faces threats from all directions, so how can the Alliance also pay attention to the North Atlantic? How can it rebuild military capabilities and skillsets for this region when resources are constrained? Should the NATO members in the region adopt a defensive posture and protect convoys, or should they adopt an offensive posture and venture out to hunt subs, or perhaps both? Such questions, pondered by World War II naval planners, are once again relevant.

The Forgotten Waters tabletop exercise concentrated on what is hidden from view, but is critical nevertheless. And something new and even larger informed this exercise: the vast increase in container shipping over the decades, underwater cables for electronic communications, and the growth of the American, Chinese, Indian, and other navies have made the seas as important as the dry land. They can no longer be relegated to the outer boundaries of strategic thinking. Newly pertinent is the celebrated 1904 essay by British geographer Sir Halford J. Mackinder, "The Geographical Pivot of History," that shook the foundations of strategic theory. It declared that the Central Asian heartland of Eurasia had become the key battleground, as European power struggles had grown to encompass the entire Eastern Hemisphere. This spatial way of thinking would now, however, place increased importance on the seas. Mackinder's theory would now conclude that, rather than the Central Asian hub on dry land, it is the rim of the imaginary wheel that revolves around that hub that has attained strategic dominance. Along that rim are the seas: the East China Sea, the South China Sea, the Indian Ocean, the Mediterranean via the Suez Canal, and the GIUK Gap. And so this paper is concerned with a puzzle-piece of the earth that, rather than obscure and marginal, is critical to NATO's strategic thinking and its future.

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*Robert D. Kaplan is a Senior Fellow at the Center for a New American Security*

## Introduction

Russia’s aggressive actions in recent years have reminded us of the importance of transatlantic resolve and of maintaining strong deterrence. In the quarter-century since the end of the Cold War, and particularly during the most recent tenure of President Vladimir Putin, Russia has changed; once a reluctant but pragmatic partner, it is an increasingly aggressive actor as in earlier strategic eras. Its military has begun to transition, too: in a state of disrepair after the collapse of the Soviet Union, it is now a steadily modernizing force with significant capabilities focused on traditional and asymmetric missions. Russia has paired its military capabilities with an array of gray zone tactics involving proxies, subterfuge, and disinformation designed to intimidate neighbors and sow divisions among the transatlantic partners. The current reality of Russian power and ambition necessitates a renewed examination of Russian strategy across traditional and emerging domains.

The maritime domain, in particular, is once again garnering increased attention among NATO allies, especially as Russian submarines have become more capable, while Allied anti-submarine warfare (ASW) capabilities have atrophied over time. Defense experts now caution that the “GIUK Gap”—a line stretching between Greenland and Iceland to the United Kingdom—is a potential flashpoint between NATO and Russia, whose Murmansk-based Northern Fleet must transit the Gap to reach the Atlantic.<sup>1</sup> So that Russia’s maritime assets might project force and support its interests, Putin revamped Russia’s national security strategy in 2016 to stress unfettered maritime access to the Atlantic. This partially explains

why the GIUK Gap has seen more submarine traffic and higher tensions in recent years.<sup>2</sup> Although Russia recently announced cuts to its defense spending, the authors believe that it will continue to devote resources to advanced nuclear submarines and other platforms that promise asymmetric advantages.<sup>3</sup> Russian submarine patrols in the area hit recently a post–Cold War high; low-level, high-speed Russian aircraft flybys of U.S. naval warships have increased. As a result, focus on Allied maritime capabilities that could deter these actions has heightened.

Although America’s navy remains considerably larger than Russia’s, the United States, the United Kingdom, and Norway have announced both upgrades and expansions to their maritime patrol aircraft fleets after realizing that they had allowed these capabilities to wane over the past two decades. The Pentagon has proposed a five-year investment of \$8.1 billion in undersea warfare capabilities, including nine Virginia-class attack submarines that can launch up to 40 Tomahawk cruise missiles each. The United States is also planning to use part of the recently quadrupled U.S. European Deterrence Initiative (EDI) to modernize facilities at Iceland’s Keflavik Air Station to support rotational deployments of the P-8 aimed at increasing surveillance of Russian maritime traffic. In 2016, the United States also deployed F-15 aircraft and 350 Air Force personnel to Iceland and the Netherlands for support and training. Furthermore, both the Norwegian and United Kingdom governments have agreed to purchase P-8s to improve allied capability to monitor the GIUK Gap. These moves represent a renewed interest in ASW to address the security needs of the GIUK Gap.



The geography produces a natural choke point between the Atlantic Ocean and the North and Norwegian Seas.

## The Exercise: “Forgotten Waters”

As Allies begin to upgrade their respective naval capabilities to counter an increasingly aggressive Russia, the importance of investigating various scenarios in which those capabilities may be employed has grown. With this in mind, in early 2017 the Center for a New American Security (CNAS) conducted a tabletop exercise (TTX) to shine a new light on the GIUK Gap. Policymakers and think tank analysts regularly turn to tabletop exercises for fresh insights on national security challenges; such exercises allow players to test assumptions about future actions in real time, exposing policy and capability gaps before fictitious crises erupt into real ones. Building on “Assured Resolve,” the successful Nordic-Baltic tabletop exercise hosted in early 2016, CNAS convened another group of senior transatlantic security experts to examine three scenarios tied to the GIUK Gap.<sup>4</sup> This report captures the key insights and recommendations from “Forgotten Waters: Minding the GIUK Gap” for policymakers from both sides of the Atlantic.

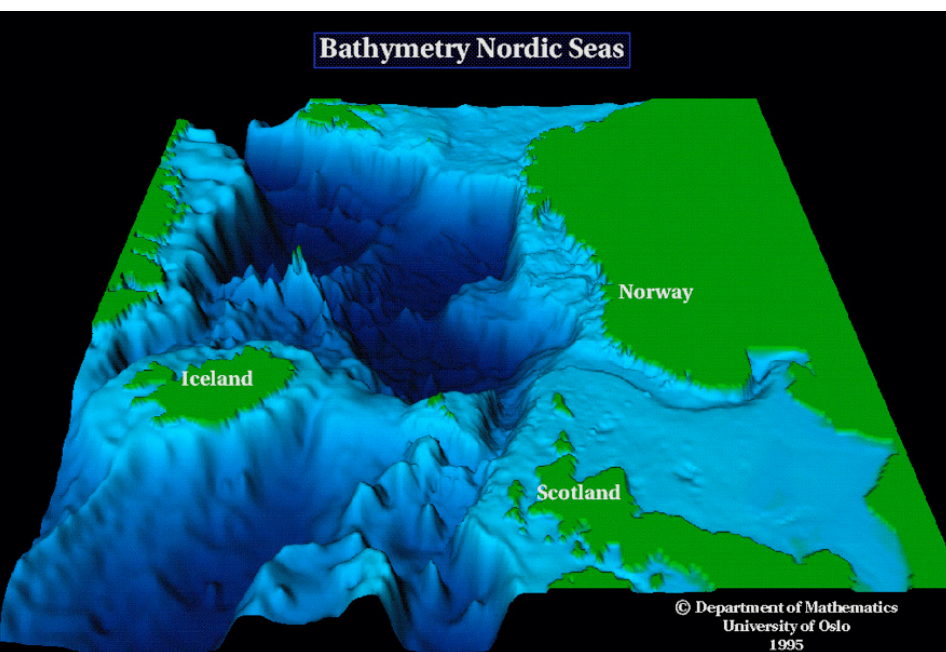
Seventy participants from Europe and the United States were divided into six teams: the United States, NATO, France, Norway, the United Kingdom, and Russia. Over the course of two days, the six teams were given three sequential, unclassified, increasingly escalatory moves to which each team must respond.

In Move 1, a NATO maritime exercise was interrupted by asymmetric Russian meddling. Using enhanced submarine and electronic warfare technology, Russia slipped undetected into the exercise and disrupted navigation and communications equipment of the NATO participants. The move was further complicated by a collision between a Russian submarine and a NATO vessel. Move 1 required coordination and communication throughout the NATO alliance in order to preserve the integrity of the NATO exercise and respond to the Russian provocation.

**As Allies begin to upgrade their respective naval capabilities to counter an increasingly aggressive Russia, the importance of investigating various scenarios in which those capabilities may be employed has grown.**

Move 2 presented the participants with two events that at first seemed unrelated. The first was a disinformation campaign that shifted the anticipated outcome of a national election in Iceland. As a result, the new prime minister arrived in office with a pledge to end the NATO air policing campaign over her country and to end all future NATO deployments to and through Iceland. Then, as participants were grappling with this scenario, they were told that an undersea cable between Iceland and Canada had been cut, creating a significant telecommunications disruption. This move challenged participants to develop national and NATO policies to address such asymmetric tactics.

In Move 3, as fighting inside Ukraine intensified, the Alliance began to deploy, via air and sea, additional forces into Central and Eastern Europe. As U.S. forces were moving across the Atlantic toward Europe, a Russian submarine sank a U.S. military transport ship 100 miles southwest of the English Channel; it had been en route from the port of New Orleans to Gdansk, Poland. This move highlighted shortfalls in the Alliance’s current force structure, its inability to monitor maritime traffic through the GIUK Gap effectively, and difficulties in coordinating an allied response.



The topography of the GIUK Gap makes for ideal ASW operations. (Department of Mathematics, University of Oslo)

## Key Insights

The “Forgotten Waters” exercise revealed a lack of familiarity with the GIUK Gap: geographically, strategically, and tactically. It provided CNAS analysts and participants with several important insights about hybrid threats, the critical role of Iceland, intelligence sharing, disparities among NATO states, and NATO decision-making. Particularly in its third move, which involved a more conventional set of military threats, the exercise exposed numerous gaps in military capability and capacity as well as technical shortfalls. Here, we focus first on strategic issues, and then on alliance issues, that the exercise highlighted.

### Strategic and Planning Challenges

CNAS decided to host a tabletop exercise on the GIUK Gap because, as the name of the exercise suggests, allies have forgotten why it is necessary, as well as how to operate there. At the end of the Cold War, NATO understandably turned away from the North Atlantic to focus on expeditionary operations of growing importance in places like the Balkans, Afghanistan, and Iraq. “Forgotten Waters” held true to its name even before the exercise got underway: CNAS staff often had to explain to potential participants and supporters where the GIUK Gap was located, how Alliance naval activity in the gap had atrophied in recent years, and why this Cold War hot spot has been creeping back into focus. As the Alliance has returned to its core mission of collective security in the wake of Russia’s illegal annexation of Crimea in 2014, many of NATO’s recent efforts have focused on the vulnerability of the Baltic States and Poland.

During the game, participants’ questions and comments also demonstrated a lack of familiarity with NATO’s crisis management procedures. As they grappled with everything from electronic warfare to a collision between a surface ship and a submarine to a breach in an undersea cable, players sought information on what was illegal, what types of activities could be considered “normal,” what procedures were in place to cope with specific scenarios, and how much they could “see” below the surface. While some players had been selected because of their pre-existing interest in and knowledge of the GIUK Gap, most players left the game with a much deeper understanding of this strategic corner of the North Atlantic.

In addition to exposing a general lack of familiarity with the GIUK Gap, “Forgotten Waters” showed participants how a hybrid threat affecting the internal politics of a NATO ally could be a great disruptor to

transatlantic unity, resolve, and action. In the second move, for example, players were told that a disinformation campaign in Iceland (assumed to be stemming from Russia) had altered the outcome of that country’s national election, putting into power a leader intent on reducing the U.S. military presence in Iceland. Players faced a string of complicated challenges: the need to expose and counter the disinformation campaign, the need to maintain and fortify alliance unity, and the need to develop alternative basing options for U.S. P-8 ASW patrol aircraft.

Responses by NATO and national governments to the disinformation scenarios often lacked imagination. Whereas in other parts of the exercise, participants would study their orders of battle (documents outlining the military forces they could deploy or use in a crisis), in Move 2, facing an aggressive disinformation or cyber campaign, there was no “order of battle” that participants could consult. The Alliance did dispatch the Secretary General and SACEUR to Iceland to try to persuade the new Icelandic leader to maintain close ties to NATO and its members. NATO also issued many public statements stressing alliance solidarity and announcing its actions. Participants learned in this game, however, that countering disinformation with truth isn’t necessarily effective. While national capitals and international organizations such as NATO had an understanding of such challenges, based on considerable firsthand experience, most have failed to develop tools to cope with these types of challenges. Addressing the disinformation challenge will require new partnerships with the private sector, agile systems that allow countries to respond rapidly, and more advanced digital operations.



*U.S. Air Force Pararescuemen prepare for a jump from a C-130J aircraft during a training mission as part of Icelandic Air Policing near Keflavik. (Tech. Sgt. Benjamin Wilson, U.S. Air Force/ DoD Flickr)*

The Iceland scenario in Move 2 offered another important lesson: the geostrategic value of this small country. NATO's longstanding and heated debates on burden-sharing tend to equate an ally's value with the percentage of GDP it spends on defense. NATO members should of course deliver on their pledges from the 2014 Wales Summit to spend more on defense, but the indispensable nature of a country such as Iceland cannot be fully evaluated by measuring its defense spending.<sup>5</sup> Iceland's unique geographic position highlights the strategic importance of location and access within the broader debate. Although Iceland spends nothing on military forces—because it does not have them—the exercise highlighted the underlying hard truth that no plan can adequately defend alliance interests in the Atlantic if it does not include access to Iceland.

As participants grappled with the news from Iceland, they also had to address the fact that an undersea cable between Iceland and Canada had been cut. This part of the exercise provided interesting lessons about intelligence sharing. The U.S. team had evidence that the Russians were responsible for the cut in the cable, but in seeking agreement among the allies to reproach the Russians about this incident and to warn against any more such actions, they met some resistance. Some of the allies expressed a lack of trust in U.S. intelligence and asked if any of the other allies might serve as independent verifiers. Only after more than one source could confirm that the Russian government was responsible did the allies agree to proceed with the demarche.



*U.S. Secretary of State Rex Tillerson speaks with NATO Secretary General Jens Stoltenberg ahead of the NATO Foreign Ministerial on March 31, 2017. (State Department)*

Forgotten Waters highlighted other disparities among NATO states that impeded action. First, allies varied in the degree to which they viewed the GIUK Gap as an area of strategic importance. Second, some NATO members considered strategic deterrence assets to be a much greater concern than the anti-submarine threat, a variation reflected in the allies' respective defense investments.

## Participants learned in this game, however, that countering disinformation with truth isn't necessarily effective.

Even where allies have invested in ASW capabilities that are well suited to address the challenges NATO faces in the GIUK Gap, not all those assets are deployed in or near the North Atlantic. U.S. P-8s and Triton Unmanned Aircraft Systems, for example, are forward-deployed to Asia; the challenges associated with “pivoting” those assets to the North Atlantic in a crisis were on full display during Forgotten Waters.

The exercise also highlighted an array of allied views on the utility of relying on the NATO-Russia Council (NRC) during a crisis. During Move 1, the Russia team proposed a NATO-Russia Council meeting to discuss the collision between a Russian submarine and an Italian vessel participating in a NATO exercise. NATO debated this idea for some time and, while most allies supported the idea of a meeting, some suggested that NATO should make the meeting conditional on Russia leaving the area. In making the NRC meeting conditional, however, NATO had to accept that it might not happen at all: if Russia simply declined NATO's request, the alliance would be without any open channel to help ease tensions.

Perhaps the biggest impediment to action during the exercise was the NATO decision-making process, which was disinclined towards rapid action. This phenomenon was not an artifact of the game; all participants attested that it reflected the reality in NATO consultations. Here, blame is shared by all sides. Inside NATO, SACEUR and other leaders lacked pre-formed plans or coordination processes that would facilitate a decisive response to an urgent situation. Considerable confusion over NATO's rules of engagement produced yet more indecision. Some NATO allies, putting more emphasis on their own domestic security needs, showed a preference for unilateral action rather than helping develop a coordinated NATO response.



### Alliance Capability Challenges

The challenges of the alliance's administrative and procedural processes pale in comparison to the difficulties that will confront NATO after it decides to act. Neither the individual member states, nor the alliance as a whole, presently possess the ability to conduct a comprehensive and coordinated anti-submarine warfare campaign under either peacetime or wartime conditions. The Atlantic-facing members of NATO now possess far fewer frigates—the premier class of surface vessels designated to conduct ASW operations—than they did 20 years ago. Where they collectively had around 100 frigates in 1995, that number hovers at 51 today. Similarly, these nations had, in 1995, 145 attack submarines—those dedicated to anti-shipping and anti-submarine warfare missions—but that number has plummeted to a present low of 84. Moreover, most of the 52 U.S. attack submarines are presently being “pivoted” to the rising threat in the Asian Pacific region.<sup>6</sup> In addition, the United States has placed its large underwater Sound Surveillance System (SOSUS) in a standby condition, where data remains available but is unmonitored, while the U.S. Navy's Surveillance Towed-Array Sensor System (SURTASS) fleet is being cut from nine to five ships. As a result, NATO's ability to monitor and track threats in the underwater environment has been badly degraded, just as a revanchist Russia is re-emerging to challenge NATO interests in the Atlantic Ocean and the Mediterranean Sea.<sup>7</sup>

After the Cold War and the dissolution of the Soviet Union, Russia's Navy struggled for a time to define its strategic role. In July 2015, however, President Putin enunciated a new Maritime Doctrine for Russia that

defined the Arctic, Atlantic, Indian, and Pacific Oceans and the Caspian Sea as geostrategic theaters. This new Maritime Doctrine specified the Atlantic Ocean, in particular, as an arena for potential conflict with the United States and NATO: “The national maritime policy on the Atlantic regional direction is determined by the growing economic, political and military pressure of NATO bloc countries ... [which are] drastically reducing the capabilities of the Russian Federation to implement its maritime activities.”<sup>8</sup> In other words, “we are coming out into the Atlantic because you have threatened us along our western border in Central Europe.” If this strategy is carried out, in all likelihood it will be Russia's submarine force—led by the Sierra II, Victor III, and Akula-class submarines that were newly commissioned or under construction as the USSR collapsed—that will represent the vanguard of Russia's strategic assertiveness. These highly effective older boats will be supplemented by new fast attack submarines, the Yasen class, which first entered service in 2014. Armed with land attack cruise missiles, anti-ship cruise missiles, and anti-ship and anti-submarine torpedoes, the Yasen class brings a new level of lethality to the undersea environment. It is also rumored to be quieter than its predecessors, although not as quiet as American Seawolf and Virginia-class submarines.<sup>9</sup> Russia has been persistently testing the NATO alliance in the Baltic Sea for years. Late in 2016, several news sources reported that multiple Russian submarines had transited through the North Atlantic and entered the Mediterranean Sea in support of a Russian carrier strike group that was operating off Syria.<sup>10</sup> Russian submarines have appeared off the east coast of the United States as well.<sup>11</sup>

The Forgotten Waters tabletop exercise made it clear that the alliance is nowhere near ready to respond quickly to undersea challenges. The size of NATO's anti-submarine force is smaller, and it is decidedly less ready to conduct operations; at least one knowledgeable participant suggested that no less than 50 days would be required to assemble a ready ASW force. Some nations that possess new high-technology capabilities are reluctant to share these across the alliance due to commercial and proprietary concerns. Participants recognized that if even a group of multinational alliance ships could be assembled in a high material condition of readiness, they would have had little to no ASW training together as a team in recent decades. The effectiveness of such a force under competitive conditions of real-time ASW operations would be questionable. Former Supreme Allied Commander General Philip Breedlove, USAF (Ret), stated that the alliance lacks



*A U.S. Navy P-3C Orion of Patrol Squadron 56 (VP-56) lands at the Naval Air Station Keflavik, formerly the host command for all U.S. activities in Iceland, in 1977. (Wikipedia Commons)*

experience in basic command and control. “NATO couldn’t pull off Libya today,” he said, in an allusion to the alliance’s 2011 Odyssey Dawn campaign, and it could not execute high-end maritime combat, let alone a theater-wide ASW campaign. It became clear from the Forgotten Waters exercise that additional and persistent NATO ASW exercises are needed to rebuild long-atrophied skills.

Deficits in capabilities and capacities, in qualities and quantities, are occurring as the undersea environment is rapidly gaining strategic importance. In the past, the oceans were viewed as a contested commons across which key supplies and troops would flow to war. Today, in addition, key economic infrastructure are undersea, including communications cables and energy wellheads and pipelines. Ninety-nine percent of all transoceanic communications flow through undersea cables; nearly one third of all oil global and natural gas production is drawn from undersea wells.<sup>12</sup> These are persistently under threat. Forgotten Waters revealed both how crucial these investments are to the daily lives of alliance members and the paucity of thought that has been devoted to their defense. Assumptions that care and maintenance of undersea assets are the responsibility of the commercial sector break down during wartime conditions, when the presence of enemy combatants can prevent commercial ships from

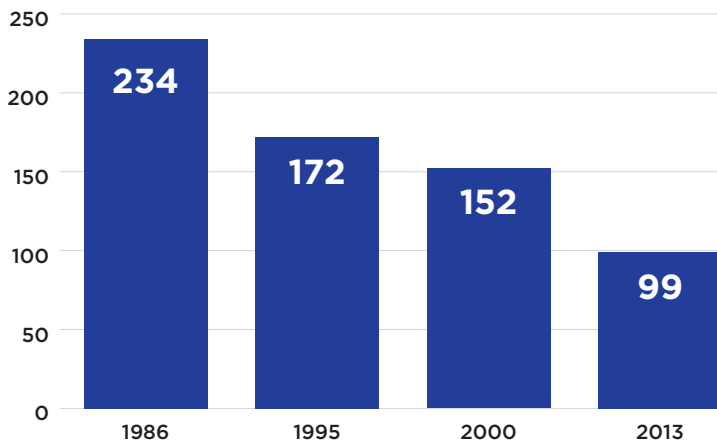
making the repairs necessary to maintain communications and energy flows. In a global economy that is increasingly dependent upon access to the undersea environment, the NATO alliance must adapt rapidly to these new conditions.

**The Forgotten Waters tabletop exercise made it clear that the alliance is nowhere near ready to respond quickly to undersea challenges.**

Deliberations during the exercise and post-move debriefing indicated that many NATO countries are not presently inclined to increase investment in ASW capabilities, nor to devote more of their strategic focus to the GIUK Gap. Russian incursions into Georgia, Crimea, and Ukraine have drawn the focus of the alliance toward the ground competition in central Europe. In fact, a key administrative challenge of the Forgotten Waters exercise was to keep participants focused on the maritime issues under discussion, rather than drifting off to review the situation in central and eastern Europe. Also revealed was a widespread belief that the United States would make up for European ASW shortfalls. In

fact, however, the U.S. fleet of 52 fast attack submarines, tasked to cover worldwide strategic interests, is projected to shrink into the low 40s during the 2020s, while the current American frigate inventory sits at zero. Neither the activities in central and eastern Europe, nor the alliance’s unwarranted hope that the Americans will ride to their rescue, can hide the fact that Putin’s Russia has re-entered the great game of seapower competition, and that NATO must reach consensus rapidly about its strategic path forward.

**Number of Frigates Held by NATO’s Major Naval Powers from 1986-2013**



The decline in alliance frigate numbers over time is a key indicator of a weakened ASW capability. This graph includes data from the U.K., France, Norway, Spain, Germany, Canada, Italy, and the United States.

Capt. John Moore, *Jane’s Fighting Ships, 1986-87, Eighty-Ninth ed.* (London: Jane’s Yearbooks, 1986); and Bryan McGrath, “NATO at sea: Trends in allied naval power,” *American Enterprise Institute*, September 19, 2013, <https://www.aei.org/publication/nato-at-sea-trends-in-allied-naval-power/>.

## Recommendations

The discussions within and across the six teams that participated in the Forgotten Waters exercise were broad in their treatment of the strategic issues at hand and deep in their attempts to wrestle with the technical challenges associated with the undersea environment. In the end, the CNAS team had no difficulty identifying recommendations for the way forward. There was broad consensus on the key strategic initiatives and investments that will be required to meet the growing Russian challenge in the maritime environment and to keep the NATO alliance whole and effective into the future.

### Strategy

In the years following the end of the Cold War, NATO allies were faced with the reality that, to prepare the Alliance for new threats and challenges outside of NATO's borders, their forces would need to become far more expeditionary. "Out of area or out of business" was the warning. Initially, many NATO allies resisted or ignored the need for transformation away from Cold War forces, even though that theme became a regular feature of NATO summits in the 1990s and early 2000s. Eventually, despite the sizeable costs and an array of bureaucratic and political challenges, NATO allies succeeded in adjusting to NATO's new missions which, after September 11, 2001, included an ambitious role in Afghanistan. Over the last 20 years, NATO allies have abandoned outdated legacy systems; increased the number of expeditionary forces; invested in precision munitions, the F-35, and other new assets; reformed the NATO command structure; and in some cases eliminated conscription in favor of professional militaries. More work remains but, in broad terms, the Alliance proved that it was capable of adapting to new threats.

However, in 2014, after Russia invaded Crimea, the core assumption underpinning all of NATO's transformation efforts—that future missions would increasingly fall "out of area"—was suddenly called into question. After two decades of pushing allies to train and equip for expeditionary operations, NATO Headquarters found itself flooded with requests for reassurance and enhanced deterrence missions in Europe, particularly from allies in central and eastern Europe who had joined NATO for just that reason. Rather than prioritize either expeditionary missions or collective defense, the Alliance encouraged allies to prepare for all possible missions by adapting to what it came to call the "360-degree approach." In other words, the Baltic states might need to help Italy tackle counterterrorism and

migration challenges, while allies in southern Europe could be called upon to deploy forces in the Baltics to deter Russian aggression. This also came to be called the 28-for-28 strategy.

Politically, this approach worked well for NATO, as it avoided favoring the perceived threat to one ally over that of another. It also served as a useful reminder to each ally of the importance of thinking beyond the security needs of its own region and to recognize that NATO faces threats on all sides. But practically speaking, the 28-for-28 approach failed to account for resource constraints: many allies' defense investments and current force structure are simply not large enough to handle a 28-for-28 strategy. Readiness remains a serious challenge for most NATO allies.

NATO therefore finds itself in need of an approach that will enable its members to address a wide array of threats — including those in the North Atlantic — while acknowledging the resource constraints across the European continent. During the Cold War, NATO maintained a vast command structure that helped allies train and equip for specific regional challenges, and allowed the Alliance to earmark forces for particular regions and missions. Returning to that model is not realistic today, because NATO lacks the necessary forces to do so. That said, a set of regional strategies based on regional hubs would enable NATO to address strategic regional threats more effectively, by providing concrete policy guidance and coordination to groups of allies in specific areas. For instance, the Atlantic-facing countries would prepare manpower, equipment, and training for Atlantic



*Exercise Trident Juncture, held in October and November 2015 over and on the seas around Portugal, Spain, and Italy. More than 36,000 personnel from 30 nations took part, including NATO allies as well as seven partner nations. (MARCOM/Flickr)*

missions; those on the Mediterranean and Baltic Sea would, similarly, align their forces to their environments and regional challenges. Nations with larger economies and force structures, such as France and Germany, would not, however, become narrowly focused on just one region or set of missions.

How would such a regional strategy work in the North Atlantic? Norwegian defense expert Svein Efstestad recently recommended that the Alliance develop a joint headquarters, either by creating a new strategic command or by expanding the role of NATO's Maritime Command (MARCOM) at Northwood in the U.K.<sup>13</sup> Such a joint headquarters would assume primary responsibility for the North Atlantic and provide essential coordination and integration.

The risk associated with such regional hubs is that their existence could lead to some dangerous assumptions about alliance-wide responsibilities. For example, the focus only on the capability requirements of a specific region might mislead some allies to believe that they need not meet their defense spending target of 2 percent of GDP (agreed by NATO members at Wales). Others might conclude that the security requirements of other regions matter less and therefore require less attention, less political capital, and less investment. The NATO Secretary General would need to counter such assumptions by consistently pressing allies to meet the defense spending commitments they made at the Wales Summit in 2014. Efstestad also recommends that the Secretary General ask the Alliance to develop a general contingency plan that “would create a better point of departure than focusing on the number of operations that NATO should be able to conduct at any given time.”<sup>14</sup>

**A set of regional strategies based on regional hubs would enable NATO to address strategic regional threats more effectively, by providing concrete policy guidance and coordination to groups of allies in specific areas.**

One way the NATO Secretary General could ensure that NATO members all remain focused on challenges in the North Atlantic would be to revisit and revise NATO's maritime strategy, last updated in 2011. Recently, the



*Vladimir Putin takes part in celebrations marking Russian Navy Day as part of a trip to St. Petersburg in 2016. (The Kremlin)*

Alliance committed to reviewing its geographic defense plans, including the plan for Norway, Iceland, and the maritime flanks. That is a great start, but going further and updating NATO's maritime strategy remains an important goal. First, an update should reorient the Alliance toward naval challenges after two decades of focus on air and ground operations. Second, the Alliance should emphasize redundancy, so that no single ally bears the entire burden of providing any particular asset for any particular region: while Denmark, for example, might be encouraged to invest in minesweepers, it should not be the only ally to procure them. Third, NATO's maritime strategy must address the full spectrum of naval challenges that the Alliance might encounter in the future, not just the lower-end operations found in the 2011 version. Fourth, NATO's maritime strategy should stress the critical importance of finding more effective and more constructive ways to partner with the private sector to address cyber threats and the vulnerabilities that undersea cables create for the Alliance.

Finally, NATO should elevate the role of the Alliance's Maritime Command (MARCOM) across the full spectrum of operations from steady state to crisis management to collective defense, as Steven Horrell, Magnus Nordenman, and Walter Slocombe outline in their excellent Atlantic Council paper.<sup>15</sup> MARCOM, at Northwood, should work with the international staff at NATO Headquarters to provide clarity on what types of naval attacks should be considered escalatory. If NATO members and NATO staff lack an in-depth understanding of what types of Russian naval actions should be viewed as escalatory and which less so, the risk of overreacting is high.

The Alliance should tackle two more gaps exposed by the Forgotten Waters exercise. The first is the impact that the dire state of the Russia-NATO relationship has had on crisis communications. During Forgotten Waters, the Alliance relied heavily on Norway's existing military-to-military contacts to communicate with the Russian government, a channel that is very valuable, especially in a crisis. However, NATO and Russia need to ensure that, even during serious policy disputes, they maintain the basic capability to communicate rapidly and easily with one another should a crisis arise.

**Not all needed investments are expensive. Recently emerging unmanned platforms that can detect, locate, and track unidentified submarines from the air, on the surface, and beneath the oceans are becoming less expensive and more effective.**

The second gap concerns a lack of flexibility and strategic nuance in how NATO responds to provocations and crises. In recent years, the Alliance has exhibited a reflexive and often immediate response to Russian acts of intimidation. For example, after Russia annexed Crimea in 2014, NATO moved to reassure its allies in Central and Eastern Europe. But Forgotten Waters revealed the need for a more strategic approach in its responses. NATO should develop a larger menu of options that could include a delayed response, to be executed in a time, place, and manner of NATO's choosing. Obviously, NATO will ultimately need some combination of the two but it should challenge itself through tabletop exercises and other measures to free itself from its fairly predictable list of potential responses.

### Investments and Force Structures

The levels of defense spending by alliance nations has become an issue of international concern. NATO nations are not spending enough on their own defense. Only four nations besides the United States currently meet the commitment to spend 2 percent of their GDP on defense. However, Putin's aggressions in Georgia, Crimea and Ukraine have combined with President Trump's stated concerns regarding nation's paying

their "fair share" to generate tough internal conversation about just what each nation needs to defend themselves and support the alliance as a whole. As the alliance members think through these decisions, it is important that they not ignore naval requirements writ large and anti-submarine warfare capabilities and capacities in particular.<sup>16</sup>

Big-ticket items such as ASW-equipped frigates, nuclear and conventionally powered submarines (if national budgets and technical expertise allow), and maritime patrol aircraft should be priorities for certain ally's defense acquisition plans. Nations with larger and more technically advanced economies should focus more on high-end capabilities, but maritime nations with smaller economies must also contribute some ASW capabilities in proportion with their abilities. NATO should take care to coordinate such acquisitions, both to ensure that nations do not unnecessarily duplicate efforts in any particular capability and to facilitate the integration of future systems with other platforms across the alliance. Ships and aircraft that lack modern weapons or sensors and that cannot communicate with other standing force units would hinder rather than enhance mutual security.

Not all needed investments are expensive. Recently emerging unmanned platforms that can detect, locate, and track unidentified submarines from the air, on the surface, and beneath the oceans are becoming less expensive and more effective. For example, the U.S. Defense Advanced Research Projects Agency (DARPA) has funded a program to develop an ASW Continuous Trail Unmanned Vessel (ACTUV) that moves along the surface, trailing a long sensor array, to provide a



*The Ilyushin Il-38 "Dolphin" is a maritime patrol aircraft and anti-submarine warfare aircraft designed in the Soviet Union. (Wikipedia Commons)*

persistent underwater surveillance capability at various depths and sound propagation channels. Several countries of the alliance are testing underwater unmanned drones that can stay at sea for long periods of time and are able to place themselves at the appropriate depth to detect and track submarines. The air component in this unmanned push is also advancing; the U.S. Navy has recently developed and fielded the MQ-4C Triton as a long-dwell unmanned complement to the Navy's new manned P-8 Poseidon maritime patrol aircraft. The Triton has a published endurance of 30 hours and carries a variety of sensors that can provide real-time surveillance of broad maritime regions.

In ASW, “the deeper the sensor, the better the detection,” and this general rule was the model for the deep-sea SOSUS arrays that were used extensively during the Cold War to track Soviet submarines. Now these older arrays must be replaced or modernized, as previous-generation sensors are not sensitive enough in key frequency bands, nor spaced appropriately, for the dramatically decreased detection ranges associated with modern submarine designs. Allies must also consider new vulnerabilities associated with the undersea energy and communications infrastructures that are vital to their economies, and must determine how to best monitor and protect them. Stepping back and considering the undersea environment in its totality could help NATO identify a more efficient and effective path forward: sensors dedicated to monitoring the security of an undersea communications cable could also provide passive information regarding other objects moving through the underwater environment.

## **The Alliance should establish a standing anti-submarine force, analogous to today's Standing NATO Maritime Groups.**

But investments in ships, aircraft, and new undersea sensors will be of little use if the alliance fails to create command and communication nodes to receive, analyze, and disseminate information gathered from these systems. The underwater environment is both noisy and opaque, and it is difficult to distinguish friend from foe. The recommissioning and manning of ASW Operations Centers is a critical first step. Alliance members must also delineate operating areas for sub-surface operations to indicate what regions are known to be free of threat and which might be contested. The

identification of areas free of enemy submarines can be at least as important to the movement of high-value shipping as identifying where opponents are present.

The Alliance should establish a standing anti-submarine force, analogous to today's Standing Naval Force Atlantic, comprising one nuclear fast attack submarine, one diesel submarine, three frigates, one surveillance towed array sensor system ship, and one detachment of maritime patrol aircraft that either exercise together or are always on ready alert. Perhaps two such squadrons should be designated, one in the Atlantic and one in the Mediterranean, with NATO members contributing ships on a rotational basis to maintain this immediate rapid response force. As assets available to Northwood's MARCOM, these squadrons would play a role similar to the Standing NATO Maritime Groups previously mentioned. The North Atlantic Council should ask the Military Committee for advice on developing response options using these squadrons, so that the regional commander can respond quickly during a potential crisis. Establishing such squadrons would also give partner nations incentives to share intelligence about the undersea environment.

Such intelligence sharing will bring up sensitive issues of waterspace management. Submarines do not have windows, nor do they move around the ocean banging away with their active sonars, which would reveal them to an opponent's ships long before it could locate those ships. Instead, submarines glide silently through the water listening, hence their moniker, “The Silent Service.” To avoid undersea collisions—which can and do happen—allied nations divide up the undersea environment through a process of “waterspace management,” assigning discrete “boxes” to various nations for their fast attack and strategic deterrence missions. This approach means that if a submarine detects another submarine within its assigned “box,” the latter is probably not an allied boat.

If such detection occurs, it will necessitate action and perhaps a call for reinforcement, but NATO is not at present strongly positioned to respond. In a crisis on the continent of Europe, there will not be time to convene a North Atlantic Council or a reinforcement subcommittee. NATO members on the continent that have large militaries must therefore be prepared to mobilize and move quickly in response to threats. Reinforcement from the United States or Canada, previously practiced as “REFORGER” (Return of Forces to Europe) exercises, will require the movement of large amounts of troops and equipment across the Atlantic. Such a scenario was

played out in Move 3 of the Forgotten Waters exercise. Troops and light equipment can be flown in quickly, but coordination of bed down and logistical support of these rapid arrivals must be worked out in advance. Heavier assets such as tanks, large artillery, logistical support trucks, and missile-laden vehicles must come by ships across the Atlantic. Plans must be made for their arrival, too, and their rapid transport to the crisis center. Significant pre-coordination must occur to ensure the safe transport of these vital assets across a contested Atlantic: anti-submarine convoy plans that have not been executed in 70 years might need to be dusted off and utilized under difficult circumstances. Both World War I and World War II provided valuable lessons; these need not be re-learned the hard way if proper attention is paid to the issue ahead of conflict.

During the exercise, views of the cyber domain emerged as a mixture of threat, promise, and magic. What did people fear? A cyber-attack. What was the preferred response to a wide range of low-level threats even beyond the cyber realm? A cyber-attack. The cyber domain is not well understood by policymakers, but there is broad understanding of its growing importance and implications for the future execution of war. NATO alliance members have some inherent cyber capabilities, but coordination of these capabilities by individual member states has received little consideration, and may not be well suited for NATO. While such activities and coordination might be going on behind the scenes, our participants' relative unease and unfamiliarity with the cyber domain's full potential suggests that more discussion must be undertaken to bring policymakers up to speed on cyber's role within the alliance's plans.

Because no single country or organization possesses the tools and know-how to tackle the cyber challenge in isolation, some cyber experts have suggested creating an "International Cyber Stability Board" of highly cyber-capable nations.<sup>17</sup> Such a board could protect critical infrastructure, establish an enforceable set of international standards, and coordinate international responses when crises occur.

## Conclusion

The Forgotten Waters exercise yielded several critical insights. First and foremost, it served as a useful reminder about the evolving nature of the international security environment and the dangers of becoming preoccupied with a single region, mission, or domain. Because no one can predict what the future holds, NATO must invest in a broad mix of air, land, and naval capabilities to ensure that the Alliance remains agile, adaptable, and fit for purpose. As allies make future investments, they will need more interaction, detailed guidance, and coordination from NATO Headquarters and NATO commands regarding prioritization, particularly in light of resource constraints.

In terms of the North Atlantic, Forgotten Waters highlighted the strategic importance of the GIUK Gap while revealing two sobering realities. Participants quickly came to realize that allies' capabilities and knowledge of the region had significantly atrophied over the years. They also encountered an array of asymmetric tactics to which the Alliance is ill-equipped and ill-prepared to respond effectively. NATO will not be able to address all of the identified gaps by its May 2017 Summit in Brussels (President Trump's first NATO Summit), but the alliance should use that gathering to address the dire state of allied readiness, update NATO's maritime strategy, enhance its work in the area of cyberspace, and task the Alliance to craft regional strategies paired with long-term acquisition plans.

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