"Sea of Peace" or Sea of War—Russian Maritime Hybrid Warfare in the Baltic Sea

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Overnight on February 26–27, 2014, Russian forces invaded the Ukrainian territory of Crimea. Twenty-eight days later they had completed the first forced transfer of territory to take place in Europe since 1945. The transfer was effected by small groups of armed men (the so-called little green men) who appeared at strategic points all across Crimea. These men, Russian president Vladimir Putin assured the world at a press conference on March 4, were nothing to do with him. They were, he said, “local self-defense forces.”

In reality, they were Russian personnel permitted and deployed to use force on Ukrainian territory. They used it to confine Ukrainian forces to their bases; take control of all media outlets and communications channels, to ensure that the only news the population of Crimea saw or heard was controlled by Russia; take over government offices, to ensure that the only decisions taken were approved by them; and occupy the Crimean assembly, guaranteeing that it voted to approve a plebiscite, which eventually would return a near–Soviet era approval rating of 93 percent for the (re)unification of Crimea with Mother Russia.

Putin later admitted that his earlier denial about Russian involvement was untrue, and that the entire operation had been planned at and conducted by the highest levels of the Russian government. This move, in blatant contravention of international law, challenged the very foundations of the postwar European order.

Ironically, most observers at the time believed that what they were seeing was the first moves in a Russian offensive, one that amounted to a new approach to warfare. In fact, it was the final move in a campaign against Ukraine that had begun years earlier, and the reinvigoration of a form of warfare Russia has practiced since the Bolshevik Revolution.
The most absurd reaction came from Martin Schulz, then the president of the European Parliament, when he asked how “war could become a genuine possibility in a country which shares a border with the European Union.” The most informed came from Latvian foreign minister Edgars Rinkēvičs, who noted that the “Crimea scenario resembles the occupation of the Baltic states by the USSR in 1940.”

The governments and peoples of the Baltic States recognized immediately that they too were once again in the Kremlin’s sights. Since then they have remained very much alive to the prospect of Russian destabilization and even outright invasion. This article will focus on the aspect of that possibility that has received the least attention: destabilization at and from the Baltic Sea itself.

If that destabilization is to occur, it will be maritime in origin. It will be, for the most part, nonlethal and nonnaval. The Russian Baltic Sea Fleet will have a role, but for the most part it will be as a threatening over-the-horizon presence tasked with dissuading NATO from interfering; what it will not do is engage NATO naval forces in pitched battle. The tools of the confrontation will be largely political, diplomatic, informational, psychological, and economic. If physical force becomes necessary, the units performing it will be paramilitary, such as coast and border guards, special operations forces (SOFs), and regular forces disguised as local-defense forces and civilians. Regular forces will be deployed in a regular manner only after any campaign, and only if absolutely necessary to consolidate gains and “keep order.”

We begin by asking why Russia would want to disrupt what it once termed a “sea of peace”; the short answer is that the Baltic Sea region (BSR) offers Russia a point of relatively high political leverage vis-à-vis NATO and the West. We will examine the concept of hybrid warfare, emphasizing its political and information-warfare dimensions, and suggest how it could be applied in and from the Baltic Sea itself. We will look briefly at maritime hybrid warfare in practice and suggest that Russia will see clear parallels with its own land-based approach (even as the leaders of China and Iran are likely to admire and even envy the speed and aggression with which Russia achieves its aims, compared with their own more-cautious approaches). Finally, we will argue for measures that the BSR states can take to mitigate the effects of possible Russian hybrid aggression.

**WHAT IS HYBRID WAR?**

Most observers of Russian actions in Ukraine point, quite correctly, to the 2008 conflict in Georgia as the precursor. It validated the use of military force and the employment of irregular units and proxies as a foreign policy tool, while demonstrating that strategic gains could be achieved at little long-term cost. The Chechen wars (1994–96 and 1999–2009), however, had a more profound impact on
Russian military and political thinking than the brief Georgian conflict. While the Chechens eventually were defeated by the application of overwhelming force, the Russians found their opponents’ fusion of unconventional military tactics with information warfare (IW) and psychological operations difficult to deal with.  

Russia was successful in Crimea because it had learned the lesson of Chechnya and built on its partial success in Georgia in ways that reinvigorated two long-standing instruments of its power: its armed forces and its capacity for intensive IW. When Frank Hoffman defined hybrid warfare in 2007, he made it clear that it could be conducted by states as well as nonstate actors. He returned to this point in a later essay, arguing that hybrid warfare was one of a number of lenses through which Russian actions should be analyzed, including protracted, ambiguous, irregular, and gray-zone warfare.

The term gray zone best captures the orchestrated multidimensionality of Russian actions that are calibrated to gain specified strategic objectives without crossing the threshold of overt conflict—actions that appear to be aimed at exploiting a Western (and specifically U.S.) strategic culture that, unlike Russian military practice, conceptualizes war and peace as two distinct conditions. This binary divide presents enemies with a seam they can exploit. Actions that in Western eyes are ambiguous—such as Russia’s operations in Crimea, which it disguised with a substantial disinformation campaign—play well in this seam. Russia, however, has demonstrated vividly that it will “pulse” its actions, moving from nonviolence to violence when it judges the risks to be acceptable, and back again when they are not.

If gray-zone conflicts fall short of violent warfare, hybrid conflicts most certainly do not: they are ones in which adversaries employ a “fused mix of conventional weapons, irregular tactics, catastrophic terrorism, and criminal behavior in the battlespace to obtain desired political objectives.” In eastern Ukraine, for example, where nonviolent and ambiguous methods met with less success, Russia did not hesitate to deploy regular forces in support of an irregular proxy force that, acting in classic irregular fashion, fought to erode the Ukrainian government’s “power, legitimacy, and will.”

The problem, of course, is that the Russian invasions of Crimea and eastern Ukraine were more than purely military adventures. As the Defence and Security Committee of the NATO Parliamentary Assembly noted in its 2015 draft report on hybrid warfare, “the new arena for the strategic competition between Russia and NATO is actually more likely to be played out at the Article 4 level.” Countering such incursions by Russia in the future will require more than the deployment or rotation of military forces. For the West, agreeing on such responses, coordinating their implementation, and putting them in effect promptly will give rise to considerable intergovernmental challenges.
one: ensuring every NATO nation raises its defense outlays to 2 percent of gross domestic product will add little to the resources needed to counter the political, information, cyber, and subversive aspects of hybrid warfare if they are expended solely on big-ticket items such as fighter aircraft.¹⁹

**NAVAL HYBRID WARFARE**

Hybrid warfare as deployed by Russia in Crimea and subsequently in eastern Ukraine has received considerable analytical coverage.²⁰ By comparison, hybrid warfare at sea has received rather less consideration.²¹ The geography of the Crimean and eastern Ukrainian theaters, combined with the circumstances of the incursions, has meant the naval role has been limited in both, although naval activity did take place in and around the port of Sevastopol, where an aged Russian cruiser was sunk at the entrance to prevent five Ukrainian warships from leaving.²²

Therefore, given that Russia, to date, has not extended its hybrid-warfare capability to the maritime domain, it is worth diverting the discussion for a moment to review what China and, to a much lesser extent, Iran have been able to achieve.

In the South and East China Seas, China has deployed a layered maritime force consisting of fishing vessels supported by a maritime militia backed by its recently formed China Coast Guard to conduct operations at a level of conflict below anything that justifies an armed response.²³ Chinese-language publications talk openly about these ambiguous agencies with their numerous cutters as being the tip of the spear for carrying out China’s maritime strategy.²⁴ The role of the People’s Liberation Army Navy is to stay in the background, making its presence felt from over the horizon.

This combination of naval force and naval proxies is brought together with an IW campaign consisting of diplomatic pressure, menacing media stories, economic incentives, boycott threats, accusations that its enemies are militarizing the situation, spurious claims of historical rights, and perverse and self-serving interpretations of international maritime law. Meanwhile, China has been changing the facts on the ground. In the South China Sea, this has involved building artificial islands; and in the East China Sea, declaring an air-defense identification zone that, by overlapping with those of Japan, South Korea, and Taiwan, is intentionally destabilizing.²⁵

Iran’s attempts to use hybrid-warfare techniques to remake the Middle East have been inhibited by U.S. interventions in Iraq and Afghanistan and the sanctions the international community has imposed to force Iran to give up its nuclear program.²⁶ The same impediments also have limited the country’s naval actions in the Persian Gulf. Nonetheless, the Iranian Islamic Revolutionary Guard Corps Navy has been operationally and tactically innovative despite severely restricted
technology, like the Russian armed forces before 2008. It has planned and exercised to fight guerrilla warfare at sea, using “hit and run attacks with sea[-] and land-launched anti-ship cruise missiles, mines, mini-sub and suicide boats.”

Both China and Iran have engaged in extensive harassing behavior aimed at deterring foreign warships and military aircraft from operating close to their coasts. This was standard Soviet practice against NATO assets until it was curtailed by mutual agreement. Russia now has resumed similar operations, with multiple incidents taking place on and over the Baltic and Black Seas. At the same time, Russia has resumed Soviet-style probing missions against NATO countries, while the Baltic States, Sweden, and Finland all have had their territorial waters and airspace compromised.

The Chinese have made extensive use of their maritime paramilitary forces to assert maritime claims and to deny neighboring states access to waters for fishing and resource-extraction purposes. The opportunities for the disruptive use of coast guard and border forces appear to be fewer in the BSR, as all but a few maritime borders are agreed; a well-established system for settling fishery, environmental-protection, and other issues is in place; and, for such a small geographic space, the diversity of coast guard and border-force organizations is considerable. Yet Russian behavior—for instance, withholding ratification of the Narva Bay and Gulf of Finland treaty because the Estonians have “created tensions” by protesting against violations of their airspace—demonstrates that the Russians are maintaining the potential for disruption inherent in the handful of disputes that remain.

RUSSIA AND THE BSR
While common sense suggests that Russia should be a status quo power, given its economic weakness and strategic vulnerability, it clearly is not—Russia is a revisionist power. It wants to revise the existing regional order unilaterally, albeit at the least possible political and military cost to itself. It wants to diminish U.S. power and replace the unipolar with a multipolar world. To achieve that, it needs to test U.S. strength when and where it can. The Putin regime also needs an enemy it can blame to divert attention from its own failures.

Geographic and Strategic Dimensions
The Baltic States lie at the point where American power is most extended and Russian power can be concentrated most easily. Testing the strength of a great power often begins by testing the strength of its allies and the resilience of their mutual allegiance. America’s allies have given it many advantages over the past seventy-five years; but now, when America’s power is in relative decline, coercion of its allies on the periphery will test the limits of its strength and the support it
could provide those states should Russia choose to escalate. Russia is under no illusion that it can fight the United States directly, or a coalition of America’s core allies, although local or regional superiority is well within its grasp. That is not its intent. It will want to stay below the level of direct confrontation.\(^\text{34}\)

However, it is important to recognize that it “might be entirely possible that the Putin regime evaluates costs and benefits in a way different from what the West assumes.”\(^\text{35}\) If Russian leaders believe that the political and military risks are acceptable or warranted, they may exercise military options up to and including the nuclear level.\(^\text{36}\) If Russia could engineer a situation to warrant military action against a NATO member, so that it was responding to a situation rather than provoking a crisis, the reward of weakening NATO and calling into question America’s value as an ally would be extraordinary, as it would revise current European and global power balances and perhaps merit the costs to be paid.

If the overarching reason for a Russian attack is to revise the regional order, the potential triggers for such action in the BSR are plentiful, and not just in the Baltic States. Keir Giles offers a wise reminder that a “distinctly Russian concept of what constitutes national security, and a view of international relations which is at odds with that held in the rest of Europe, mean that—as was the case with Ukraine—assessing actions and reactions by criteria that seem rational in Western capitals will be of limited use.”\(^\text{37}\) He cites a Finnish government study that concludes bluntly, “Russia’s sore points are almost invariably psychological and tactical.”\(^\text{38}\)

The most obvious point of leverage is the Russian minorities (Russia refers to them as “compatriots”) who reside in the Baltic States. Others have addressed this subject at length.\(^\text{39}\) It will not be revisited here except to note that there are concentrations of ethnic Russians in key maritime areas of each Baltic state.\(^\text{40}\) In Estonia, ethnic Russians constitute over 70 percent of the population in the county of Ida-Virumaa in the northeasternmost part of the country.\(^\text{41}\) It contains most of Estonia’s energy resources, primarily oil shale, and is bounded to the north by the Gulf of Finland, to the south by Lake Peipus (shared with Russia), and to the east by Russia itself. Russians also make up over 30 percent of the population in the area in and around the capital and port city of Tallinn. In Latvia, ethnic Russians make up over 40 percent of the population in the capital and port city of Riga, 20–30 percent in its suburbs, 30–40 percent in the port city of Liepaja, and 20–30 percent in the port city of Ventspils, with larger concentrations inland on the border with Russia.\(^\text{42}\) Finally, there are no significant concentrations of ethnic Russians in port or shore areas in Lithuania, although they constitute 10–20 percent of the populace of the capital, Vilnius.\(^\text{43}\)

Nor are the Baltics removed from Russia’s deeply ingrained sense of insecurity arising from its loss of strategic depth. Advancing the Russian right flank to the Baltic Sea would offer only a marginal increase in its own security, but would
right a perceived wrong, prevent the encirclement of Kaliningrad—the main base of the Russian Baltic Sea Fleet—and provide a platform from which Russia could threaten the entire Baltic Sea littoral. From a NATO perspective, the Baltic States are vulnerable geographically: they are flat, offer few natural defensive features, and lack strategic depth of their own—it is only 150 miles from the Russian border to Riga. Greater depth could come only from either operations from a sea base steaming in the Baltic Sea—an exceptionally hazardous proposition against Russian land-based airpower and quiet submarines—or NATO operation from bases in Sweden and Finland.

Sweden and Finland are not members of NATO; they are unlikely to join in the immediate future; and if they did join, they would do so in tandem. Nonetheless, the Finnish government has stated it may apply at any time, while Swedish public opinion has displayed some volatility, with a positive showing in 2015 falling back again in 2016. One of the factors influencing opinion in both places has been increasingly aggressive incursions into the airspace of both countries, including what appeared to be a simulated nuclear attack on Sweden’s capital, Stockholm. More recently Sweden, which had withdrawn its army garrison from the strategically important island of Gotland after the Cold War, brought forward its return, in a move some observers attributed to a specific intelligence warning. At the same time, towns and cities across Sweden were told to make preparations against a possible military attack. Conscription also has been reintroduced. However, any move by either state to join NATO—thereby meaningfully increasing NATO’s strategic depth—could “provoke Russia to launch a pre-emptive provocation in order to demonstrate the alliance’s weakness” and deter either country from proceeding with its application.

Finally, it is not even clear that a prolonged campaign against the West, including the BSR, is not under way already. Russian statements in nuclear matters exceed even the rhetoric of the Cold War, while in domestic matters accusations that the United States is attempting to overthrow the Russian government and widespread reports of Russian interference in Western elections suggest that President Putin and his inner circle believe conflict with the West has begun. If that is the case, the various measures taken in Georgia, Ukraine, and, most recently, Syria signal their willingness to use every means at their disposal to counter what they perceive as subversive Western actions.

**Political and IW Dimensions**

The BSR is a peripheral region, and only three things matter when it comes to its security: (1) how much the core NATO powers, especially the United States, are prepared to commit to the region’s defense, (2) whether Russia’s determination to restore its sphere of influence in the region exceeds NATO’s commitment to...
prevent it, and (3) how important it is to Russia to probe Western weakness and undermine its archenemy.

For some twenty years, the United States has viewed central and eastern Europe (CEE) as stable, secure, and steadily more prosperous. This is not a view the Baltic States share. They remember the Soviet Union’s messy exit from their territory and are conscious of the ties that still bind them to their former imperial ruler. Their Nordic neighbors, having observed Russian actions in Ukraine and Russia’s increasingly aggressive stance in the BSR, have come to share many of their fears.

The invasion of Crimea instilled a belief in Russia’s leadership that it is possible to take bold military action without prompting a Western military response. NATO may possess the capability to blunt and most likely defeat a thrust against it, but Russia just does not believe that Europe’s will to use force in any way matches its own.52 Moreover, the intervention in eastern Ukraine may have reinforced the belief that to succeed in a probing action Russia cannot allow itself to be bogged down, but instead needs to act swiftly and decisively if and when a political opportunity presents itself. The new National Defense Control Center in Moscow is intended to facilitate such swift and coordinated action.53

It may well be true, as Keir Giles notes, that “Russia’s borders are, for its leadership, provisional—determined by accidents of history—and to be adjusted when necessary.”54 But NATO is falling into the trap of concentrating on military measures to defend the Baltic States, when in fact the challenge it will face is the deployment of all arms of Russian power to identify and exploit political, economic, and military vulnerabilities in Russia’s target states and the Western alliance. “[I]n the Baltic context, Russia’s strategy aims to weaken NATO’s willingness to follow through on its own deterrent threats. Military solutions overlook this dimension of Russian hybrid warfare because they focus disproportionately on modifying or restructuring military capabilities.”55

The political dimension has been underplayed in NATO’s thinking, a tendency reinforced by the military nature of the organization’s charter and institutional culture. “A year ago, NATO’s discussion of Baltic defense was couched in terms of hybrid warfare and ‘little green men.’ Today it is much more focused on conventional military issues and the danger of nuclear escalation.”56 The point is that the organization needs to concern itself with both. Questions remain regarding whether NATO’s own legal framework, and the instruments with which it traditionally has worked, are sufficient to deal with these nonmilitary challenges, and certainly whether they are able to respond to a fast-changing situation.57 Recalling NATO preparations for Soviet coercion and limited aggression during the Cold War is a useful reminder of what can be achieved militarily but is largely irrelevant in the current circumstances.58 Yes, the means Russia is prepared to use
now to deceive and confuse NATO and the West are based on the same tools it used then, but it has adapted them to the mores of a social-media environment that lacks the experience to judge the import of Russian messaging and actions. Edward Lucas writes that Russia “exploits Western perceptions of abnormality and normality . . . such as when it convinced a large portion of world opinion that Russian-speakers in Ukraine were being persecuted by the new leadership in Kiev [and] by claiming that NATO also engages in intimidatory military aviation exercises.” In a BSR scenario, the Kremlin’s deceptive messaging would be filtered through Western media that culturally are attuned to look for moral equivalence, and therefore are predisposed to find failings in the West's response. This would confuse Western publics and complicate matters for Western decision makers, possibly slowing down any response until it was too late. “Russia could then declare air and sea exclusion zones in the region on the pretext that this prevents military escalation.” Giles and his colleagues express this more succinctly. Russian information campaigns, they write, “need not even remotely resemble the truth to be successful.”

If Russian aggression were allowed to reach this point, NATO would be faced with an unenviable dilemma: attempt to recapture NATO territory occupied directly or indirectly by Russia, or negotiate. Russia almost certainly would be open to negotiations: effect matters more than territory, and the demands it could impose would be humiliating. If NATO attempted to dislodge Russian forces militarily, Moscow immediately would brand it a coaggressor against the Russian minority. NATO also would have to decide how it would respond to Russian occupation of an island in the Baltic Sea such as Bornholm, or to nuclear threats and, possibly, a “de-escalatory” Russian nuclear strike.

MARITIME HYBRID OPPORTUNITIES IN THE BSR
However, Russia’s high-end forces—including the Baltic Sea Fleet—would not constitute the first movers in a hybrid conflict. They should be regarded as deterrents to local resistance and intervention by NATO and other Nordic states. Russia would rather practice more-ambiguous methods. Aside from Moscow’s ability to manipulate the loyalty of Russian expatriate communities in the Baltic States, many of the points where it can apply pressure lie on or under the Baltic Sea itself.

Geographically Isolated Islands and Disputed Borders
The obverse of the geographic advantage of concentration that Russia enjoys is the geographic separation of Danish, Swedish, and Finnish islands that have considerable strategic significance: whoever holds them could influence the outcome of any conflict. Many are ideal as bases, supply points, staging areas, and jumping-off points for SOF operations and ambushes, while bays, fjords, and peninsulas provide hiding places and launch points for fast raiders.
The Danish island of Bornholm is positioned ideally to serve as a Russian advanced base; it is worth recalling that Soviet forces occupied it in 1945. The Swedish island of Gotland offers whichever power controls it dominance over all sea routes and much of the airspace over the Baltic Sea and its littorals, which explains why Sweden has moved to regarrison the island. The Åland Islands, located at the mouth of the Gulf of Bothnia, are Finnish territory, but were demilitarized in 1856, a status that has been confirmed twice since then. They overlook the narrow entrance to the Gulf of Finland. During World War II, German forces blocked this passage with mines and nets, successfully confining the Soviet Baltic Sea Fleet to its bases. Finland is known to have plans to remilitarize the waters around these islands in the event of conflict, as their location dominates all sea movement in the northern part of the Baltic Sea. Russia has practiced invading all three locations.

**Undersea Cables**

Modern economies depend on an information and communications–technology infrastructure that is remarkably vulnerable. “Today, roughly 95 percent of intercontinental communications traffic—e-mails, phone calls, money transfers, and so on—travels not by air or through space but underwater,” through fiber-optic cables, most no thicker than a garden hose. When it comes to the Baltic Sea particularly, Poland, Lithuania, and Latvia have only a few nodes that need be severed, while Estonia, the Nordic countries, and Germany have much more redundancy available in their connections. Still, the disruption of communications by severing these undersea cables would cause severe economic distress in the region for a considerable period and would be difficult to mitigate, even for those countries with multiple nodes. These cables therefore would be a prime target in a hybrid-warfare campaign. As a former Supreme Allied Commander, Europe, Admiral James Stavridis, USN (Ret.), has written, “The tactical reasons for doing so are plain: in the case of heightened tensions, access to the underwater cable system represents a rich trove of intelligence, a potential major disruption to an enemy’s economy and a symbolic chest thump for the Russian Navy.” While cutting cables would remove an important conduit for disinformation, tapping into them and ultimately cutting them would contribute significantly to a campaign designed to create instability in the targeted states and societies, making state authorities look weak as they pressured cable owners to restore services.

**Energy Supplies**

There long has been a recognition that states’ dependence on Russian energy supplies, particularly among former Eastern Bloc countries—in this case, Estonia, Latvia, Lithuania, and Poland—exposes them to the possibility of economic
These states have pursued policies to reduce their dependence on Russian supplies of oil, natural gas, coal, and electricity, but the advantage that accrues to Russia—given the infrastructure investments necessary to diversify supplies—has been difficult to overcome. Nonetheless, reliance on Russian energy supplies is not uniform across the Baltic States.

Owing to ample domestic energy supplies—shale oil and coal, respectively—Estonia and Poland are among the least dependent on energy imports in the European Union. However, they remain heavily dependent on Russia for other energy supplies: in 2010 it provided 100 percent of Estonia’s gas and 54 percent of Poland’s, in addition to 92 percent of Poland’s oil needs. Yet these portions of their overall energy mix were 15 percent for Estonia and 39 percent for Poland—a far cry from the total dependence that often is suggested. Lithuania and Latvia, on the other hand, were almost entirely dependent on Russian gas, oil, coal, and electricity in 2010. As the European Commission put it, excessive reliance “on one single foreign supplier for oil and gas, the absence of any domestic energy source, and the lack of interconnections with other EU [European Union] countries has further worsened the exposure of Lithuania to potential security of supply risks and price shocks. . . . Excessive reliance on Russia is an issue that Lithuania is trying to resolve.” Similar passages mark the section of the report discussing Latvia. Overall, the ability of Russia to use the supply of different forms of energy as part of a hybrid-warfare campaign varies across the vulnerable parts of the region.

**Port and Supply Chain**

Ports and ships could be subject to sabotage and strikes using SOFs as part of a hybrid offensive. Indeed, it is easy to imagine “little green men” or irregular forces conducting operations against port facilities to disrupt operations and trade, and hence the local economy. Yet conceivably the most serious threat could come from cyber attacks, a concern that already animates much of the landward-resilience debate. Modern ports could not operate absent sophisticated computer systems, while modern ships are increasingly automated to cut crew costs. As the U.S. Department of Homeland Security pointed out in a 2016 report, a cyber attack “on networks at a port or aboard a ship could result in lost cargo, port disruptions, and physical and environmental damage depending on the systems affected. The impact to operations at a port, which could last for days or weeks, depends on the damage done to port networks and facilities.” Any prolonged interference with the region’s maritime trade could impact industrial-production flows and economic security severely.

The attacks that are known to have taken place against ports so far were committed by hackers and other cyber criminals. Russia, however, deploys a
sophisticated cyber-warfare capability that mounted a distributed-denial-of-service (DDoS) attack against Estonia in 2007, effectively forcing it to decouple itself from the Internet. Stockholm has accused Moscow of being behind the cyber attack that closed down Sweden's air traffic–control system for more than five days in November 2015, forcing the cancelation of hundreds of domestic and international flights, allegedly owing to Russia testing its electronic warfare capabilities.

Although most international attention has been directed at China's cyber expertise, former U.S. director of national intelligence James Clapper believed that Russia's cyber threat exceeded the Chinese threat because it employed stealthier and more-advanced methods of attack. Port operations present a vulnerable target. Handling large numbers of different cargoes at once would be impossible without sophisticated information-management systems. Disrupting their complex and time-sensitive operations would have consequences nationally and regionally. Blunt cyber instruments such as DDoS attacks have their uses, but more-targeted tools, such as worms and viruses designed to take down port operations selectively and even randomly, could result in billions of euros in lost economic activity and generate social unrest as a consequence of the unavailability of food, medicine, and energy. This would serve the Kremlin's aims ably, constituting hybrid warfare with more deniability.

Individual ships are also potentially at risk. The Baltic Sea is a major waterway, with between two and four thousand commercial vessels in transit every day of the year. The Baltic and International Maritime Council (BIMCO) recently issued guidelines on maritime cyber security, in partnership with related maritime trade bodies (Cruise Lines International Association, International Chamber of Shipping, International Association of Independent Tanker Owners [known as INTERTANKO], and its equivalent for dry cargoes [INTERCARGO]). The guidelines make the point that, as “technology continues to develop, information technology and operational technology onboard ships are increasingly being networked together—and more frequently connected to the worldwide web,” and attacks mounted against these systems could undermine the “safety and commercial operability” of ships. The list of onboard systems that could be manipulated remotely to place ships at risk is long and growing.

Thus, instead of disabling ships with gunfire or mines, anonymous cyber attacks could leave ships unable to navigate or maneuver, putting them at risk of grounding and presenting a hazard to other shipping. Multiple such incidents in the crowded waters of the Baltic Sea could result in ship operators and crews refusing to serve Baltic Sea ports or marine insurers raising rates to prohibitive levels in the face of an unsustainable aggregated risk.
OPERATIONALIZING MARITIME HYBRID WARFARE IN THE BSR

Broadly speaking, two scenarios for a Russian campaign in the BSR appear possible:

- A low-key, possibly opportunistic campaign that, by exploiting real or manufactured discontent among Russian compatriots to destabilize one or more of the Baltic States, creates a “frozen conflict” that undermines NATO’s credibility.

- A more structured, high-tempo campaign to achieve the same objectives against NATO power in the BSR and also render Nordic defense cooperation redundant.

It is reasonable to assume that the Baltic Sea Fleet and other organs of Russian maritime power would play supporting rather than leading roles in any such conflict.

Russian Considerations

Since the dissolution of the Soviet Union, the Baltic Sea has become a vital conduit for Russian trade—one, moreover, that is close to important Western markets and (to date) untroubled by the risk of conflict. Prolonged interruptions in flows of energy and goods would inflict considerable damage on Russia’s poorly diversified economy. Russia recognizes that its lack of control over access to the North Atlantic through the Danish straits renders it vulnerable in the event of serious conflict. It does have an alternative—the White Sea Canal, which runs from Saint Petersburg via Lake Ladoga—but this suffers from limited capacity, is vulnerable to sabotage and air attack, and is icebound in winter.83

An additional complication—one that affects Russian naval as well as commercial shipping—is that the Soviet Union invested around 50 percent of its shipbuilding capacity in the Saint Petersburg area. A second vital facility, the Yantar Shipyard, specializing in the construction of large surface ships, is located in the Kaliningrad Oblast. Russia has made no attempt to dilute this concentration of shipbuilding assets by moving them elsewhere.84

In 2015, the two containerports within what is known as “big port Saint Petersburg” handled 52 percent of Russian container traffic. This amounted to 1.9 times the throughput of Russia’s Far Eastern ports and more than three times the volume passing through its Black Sea terminals. Further container traffic is transshipped via Baltic State ports such as Riga in Latvia and Tallinn in Estonia.85

Europe remains, to date, a major customer for Russian crude oil. The bulk of this traffic is shipped by tanker from the ports of Primorsk and Ust’-Luga near Saint Petersburg via the Baltic to northwest Europe. However, volumes are declining, apparently because shipments to China are increasing.86 On the seabed
is the Nord Stream gas pipeline. This consists of two parallel pipes that run from Vyborg in Russia to Greifswald in Germany. The first came on stream in November 2011, the second almost a year later. It is currently the longest undersea pipeline in the world. Despite EU sanctions following Russia’s annexation of Crimea and invasion of eastern Ukraine that limited the volume of gas that could be transmitted, volumes increased by 10 percent in 2015. Furthermore, negotiations continue for the laying of two further parallel pipelines in a project named Nord Stream 2. The plan is controversial. If it overcomes opposition, it would double the capacity of the system, meaning up to 110 billion cubic meters of gas could be transmitted annually to the European market by 2019.

This volume may be additive, but this is unlikely, given that its main purpose appears to be to give Russia the option of shutting down its current pipeline network through Ukraine and other states for political reasons. Nord Stream and other pipelines like it, such as the Turkish Stream, are strategically important to Russia—and strategically perilous to the states in Russia’s near abroad—because they would allow the Kremlin to cut off supplies to the border states it wished to intimidate, while maintaining an uninterrupted supply to its key Western European markets. It is noteworthy that even when confronted by EU sanctions imposed after the invasions of Ukraine, the Kremlin never suggested it would retaliate against its prime Western European energy markets, while conversely it has shown no compunction in wielding the energy weapon against Kiev, and before that the Baltic States. Russia expresses this differently: it argues that by linking Russia and Western Europe directly, EU states are no longer vulnerable to supply disruptions caused by political difficulties in transit countries. This connection reinforces the dependency and mutual interest that already exist between the EU and Russia and, in the absence of plans to balance European purchasing power against Russian supplier demands, risks compromising Western European responses to possible Russian aggression in CEE.

Mitigation Measures
Given the essentially political nature of hybrid war, many of the mitigation measures will focus on political, economic, and information outcomes. The suggestions advanced here draw on and add to two recently published policy proposals—one from the EU entitled *Joint Framework on Countering Hybrid Threats: A European Union Response*, the second from NATO entitled “Resilience: A Core Element of Collective Defence”—that contain suggestions adaptable to the maritime situation confronting the BSR states.

Demonstrable Resolve
Russia needs to be convinced that all BSR states are committed to challenging Russian aggression at sea. NATO has gone some way toward addressing this. The
maritime component of the Readiness Action Plan on which NATO agreed at its 2014 summit includes intensified naval patrols in the Baltic (as well as the Black and Mediterranean Seas), built around the Standing NATO Maritime and Mine Countermeasures Groups; increased sorties by maritime patrol aircraft; and an expansion of the annual BALTOPS naval and amphibious exercise, from thirteen nations in 2014 to seventeen in 2015 and 2016, including Sweden and Finland. However, BALTOPS still reflects the alliance’s focus on high-end military operations.

Prior to Russia’s demonstration of its hybrid-warfare capabilities in Crimea and Ukraine, the Baltic States perceived the possibility of a Russian ground invasion as their most significant military threat. Consequently, the naval and maritime-security forces of all three states have had to work with even more limited resources than the other military and security arms. Each state has chosen to concentrate its naval capabilities on mine countermeasures, seeing this as an affordable way to make a realistic contribution to NATO, while directing other funds toward more constabulary-focused homeland- and maritime-security missions such as countersmuggling and fisheries and border protection.

**Hybrid Fusion Cell**

The EU report recommends the establishment of a hybrid fusion cell to furnish a single focus for the analysis of hybrid threats, established within the EU Intelligence and Situation Centre (known as the EU INTCEN) of the European External Action Service.

Given the position of the BSR on the front line of potential Russian aggression, it would be prudent to set up a BSR hybrid threats fusion cell at a secure location within the region. The center could liaise with the EU hybrid fusion cell and NATO, but also develop a specific understanding of potential threats throughout the region and coordinate closely with regional states on relevant early-warning indicators. The cell undoubtedly would find it useful to rebuild a regional analytical capability focused on Russian priorities, motivation, capabilities, and planning.

The EU and NATO appear to have taken a first step in this direction by agreeing to establish a hybrid threats research center, based in Helsinki, Finland.

**Strategic Communications**

As the EU report comments, perpetrators of hybrid threats “can systematically spread disinformation, including through targeted social media campaigns, thereby seeking to radicalize individuals, destabilize society, and control the political narrative. The ability to respond to hybrid threats by employing a sound strategic communication strategy is essential. Providing swift factual responses
and raising public awareness about hybrid threats are major factors for building societal resilience.

Although each state will wish to conduct its own strategic communications strategy, a regionally based center of excellence could act as a focal point for exchange of best practice, audience research, and messaging, including how and why Russian acts in the maritime domain can cause widespread instability.

**Critical Infrastructure**

It is widely recognized that the ability to maintain supplies of energy, food, potable water, and medical supplies as well as telecommunications links will be critical to maintaining civilian morale and trust in government. In the Baltic States, diversification of energy supplies away from exclusively Russian sources is already under way.

A new facility for the import and regasification of liquefied natural gas (LNG) has been built at Klaipeda in Lithuania; ensuring its security is vital. Further diversification could be achieved if additional terminals were built in Estonia and Latvia, with reversible-flow pipelines linking all three. Ideally, a trans-Baltic pipeline should be built to link the Baltic States with the Swedish system (known as Swedegas), which could transmit gas from its new terminal in Göteborg on Sweden’s west coast in the event that LNG carriers were unable to pass through the Danish straits. These pipelines would supplement the NordBalt power cable laid between Sweden and Lithuania. Notably, Russian warships interfered with this link on three occasions during its construction. In each case, Russia claimed the area would be used for military exercises. Additional links should be laid among Sweden, Finland, Estonia, and Latvia. The Baltic States also need to separate themselves from the Russian-dominated electricity grid known as BRELL (for Belarus, Russia, Estonia, Latvia, Lithuania). The financial cost of doing so, however, will be high, and it would incur further Russian displeasure, as the grid currently carries Russian power to Kaliningrad.

Protecting this largely maritime infrastructure would place a premium on effective Baltic Sea maritime domain awareness (MDA). Maritime patrol aircraft (MPA) fleets have declined since the Cold War and need to be rebuilt. At the same time, unmanned aerial vehicles (UAVs) have begun to share the intelligence, surveillance, and reconnaissance burden previously carried by MPA aircraft alone. BSR states currently lack experience with large, long-endurance UAVs, a capability gap they might fill by using the NATO-developed “lead nation” concept to work alongside Poland, which wishes to acquire a fleet of medium-altitude, long-endurance unmanned aircraft (known as MALEs).

On the other hand, BSR states have three existing MDA frameworks: Surveillance Cooperation Finland-Sweden (SUCFIS), Sea Surveillance Co-operation Finland-Sweden (SUCFIS), Sea Surveillance Co-operation
Baltic Sea (SUCBAS), and the European Defence Agency’s Maritime Surveillance (MARSUR). SUCFIS involves the automated exchange of daily reports and classified information between the military commands of Finland and Sweden.\textsuperscript{102} SUCBAS does not supplant this structure, but augments it by facilitating the exchange of MDA data in unclassified form among all member states.\textsuperscript{103} It went “live” in 2010. Russia was invited to join but declined.\textsuperscript{104} MARSUR enables the “exchange of operational maritime information and services” so as to improve maritime situational awareness, interoperability, and cooperation between EU military and civilian maritime authorities and other international maritime actors.\textsuperscript{105}

However, the degree to which these multinational organizations and their participating national MDA agencies are attuned to hybrid threats in the maritime domain and consequently the strength and efficiency with which they can bridge the civil-maritime divide in their respective countries are areas where further work may be needed. For instance, Russia could use normal commercial ship movements to seed mines from nontraditional platforms. The Libyan navy demonstrated that this was perfectly feasible when in 1984 it seeded the Red Sea from the civilian ship \textit{Ghat}, resulting in damage to twenty ships making their way to or from the Suez Canal.\textsuperscript{106}

\textit{Port and Supply Chain}

In line with the steps laid out in the EU Maritime Security Strategy Action Plan, BSR states need to place a strong emphasis on port and supply-chain security. This must include defenses against cyber attacks. Although the maritime industry is taking steps to address the issue of cyber attacks on ports and shipping, there currently is no focal point that brings government and industry together to address the problem.

Russia considers itself to be a maritime power. It always has sought to control the seas that give it access to the world ocean. The Baltic Sea is vital in this regard. During the Cold War, the Soviet concept of “Baltic Sea: Sea of Peace” translated into an assertion of Pax Sovietica that beguiled no one but fellow travelers as Soviet submarines pursued it and NATO and Sweden contested it.

But Russian power, when compared with its Soviet predecessor, is sadly diminished. It is therefore understandable that Russia should continue to augment its remaining military power with the measures of influence, deception, and covert action that were so characteristic of the Soviet approach to interstate relations.

Russia’s methods in Crimea and Ukraine took NATO by surprise for a number of reasons. The most serious was historical amnesia, because it led the alliance to mischaracterize what was taking place as new. Even though NATO, and indeed
almost all of Russia’s opponents since 1917, had experienced before the mix of disguised SOF actions, deception, and misinformation to which the Russians refer as reflexive control, NATO chose to refer to it by a new name: hybrid warfare. The alliance, Western governments, and the EU also have tended to focus primarily on Russian military action when, in fact, conventional military forces played a relatively insignificant role in what took place.¹⁰⁷

Most of the troops involved—the “little green men” who appeared on the streets of Sevastopol and elsewhere—were as much a part of the GRU (the Russian army foreign military intelligence agency) as they were the Russian army per se. Certainly, the presence of Russian conventional forces was advertised widely and was used as an escalatory threat, but the small number of conventional-force units that were deployed operationally consisted largely of indirect-artillery-fire, electronic-warfare, communications, logistical, and aerial-surveillance troops. Any repetition of the Crimean model is likely to make similar use of conventional forces. It will be a whole-of-government effort of political subversion and destabilization in which the conventional military—in contrast to SOFs and proxy militia—will play a largely passive role until the last minute, unless the political campaign fails and can be redeemed only by using conventional military force. Whole-of-government aggression demands a whole-of-government response.

In this sense, there is no such thing as maritime hybrid warfare, certainly in Russian political or military doctrine or practice. What states in the BSR may be confronting even now, however, is a long-term campaign of politically motivated societal disruption, aspects of which may occur in or from the maritime domain. The seaborne aspects of the campaign will be maritime rather than exclusively naval, in that what takes place could involve any of the ways people use the sea, the seabed, and the airspace over them. Warships, submarines, and military aircraft will be involved, but so will fishing vessels, other ships, and ports, drawing in coast guards and border forces along the way. Any disruptive campaign at sea in the Baltic is likely to use conventional naval forces in ways that are analogous to the background role that ground forces played during the Crimea invasion and the eastern Ukraine intervention.

BSR states are already alert for signs of disruption instigated and sustained by any aspect of Russian state power anywhere on their territories, but they must ensure that their vigilance does not stop at the coast. Russia has a powerful vested interest in the safe movement of its goods and raw materials through the Baltic Sea; but then, so does China in the safe movement of its goods, especially its energy imports, through the South China Sea, yet this has not stopped it from conducting a campaign of political and territorial disruption that has antagonized its regional neighbors, its trading partners, and the United States. The transition from a sea of peace to a sea of war could be slow and subtle or quick.
and merciless; either way, both NATO and the states surrounding the Baltic Sea need to be prepared.

NOTES

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12. Ibid. This binary distinction may be changing, however. As the Chairman of the Joint Chiefs of Staff, Gen. Joseph Dunford, said in 2016: “Our traditional approach, where we are either at peace or at war, is insufficient to deal with that dynamic [of] an adversarial competition with a military dimension short of armed conflict.” Colin Clark, “CJCS
Dunford Calls for Strategic Shifts; ‘At Peace or at War Is Insufficient,” Breaking Defense, September 21, 2016, breakingdefense.com/.


22. Sam Webb and Damien Gayle, “Vladimir Putin Scuttles His Own Navy Warship in Black Sea to BLOCK Ukrainian Vessels from Leaving Port as Crimes Face Referendum on Whether to Join Russia,” Daily Mail, March 6, 2014, www.dailymail.co.uk/.


33. Russian military exercises give a clear indication of the importance placed on the rapid movement of large forces over long distances. See, for example, Thomas Frear, "Anatomy of a Russian Exercise," European Leadership Network, August 12, 2015, www.europeanleadershipnetwork.org/. This is a report on the transcontinental exercise held March 16–21, 2015.


36. See the comments in Larrabee et al., Russia and the West after the Ukrainian Crisis, pp. 5–6.

37. Giles, Russia's "New" Tools for Confronting the West, p. 46.


40. Data for each county or municipality taken from Statistics Estonia, Central Statistical Bureau of Latvia, or Official Statistics Lithuania.


43. For a fuller discussion of this issue, see Martin N. Murphy, Frank G. Hoffman, and Gary Schaub Jr., Hybrid Maritime Warfare and the Baltic Sea Region (Copenhagen, Den.: Univ. of Copenhagen, Centre for Military Studies, 2016), pp. 11–14.


52. Giles et al., The Russian Challenge, p. 49.


54. Giles et al., The Russian Challenge, p. 33.


61. Ibid.

62. Giles et al., The Russian Challenge, p. 47. See also Peter Pomerantsev, “Inside the Kremlin’s Hall of Mirrors,” The Guardian, April 9, 2015, www.theguardian.com/, and Peter


72. Ibid., pp. 167–68 (Lithuania).


82. Nick Gooding, “Maritime Cyber Attack—a Clear and Present Danger,” *Baltic Briefing*, May 15, 2015, thebalticbriefing.com/ . The issue of possible cyber-warfare attacks on shipping took on added saliency following two collisions in 2017 involving Seventh Fleet ships, USS Fitzgerald and USS John S. McCain, after which suspicions were raised that, in the McCain incident specifically, the navigation and radar systems on the merchant ship involved, Alnic MC, had been
hacked. Although the Navy made it clear it had no evidence to support such speculation, nonetheless the Navy’s cyber command, the Tenth Fleet, was, for the first time, called in to participate in accident investigations for both ships. Sam LaGrone, “Cyber Probes to Be Part of All Future Navy Mishap Investigations after USS John S. McCain Collision,” USNI News, September 14, 2017, news.usni.org/. Coincidentally, also in September 2017, the U.K. government issued a report and code of practice warning of the potential for cyber attacks on shipping and advising ship operators on how to lessen the risks. Ben Riley-Smith, “Cyber Attack Could Sink Cruise Ships, Government Advice Warns,” Daily Telegraph, September 16, 2017; Hugh Boyes and Roy Isbell, Code of Practice: Cyber Security for Ships (London: Institution of Engineering and Technology, commissioned by the Department for Transport, 2017), available at www.gov.uk/.


84. Ibid., p. 18.


97. European Commission, Joint Framework on Countering Hybrid Threats, pp. 4–5. Also see Internet Trolling as a Tool of Hybrid Warfare: The Case of Latvia (Riga, Lat.: NATO
Strategic Communications Centre of Excellence, January 2016), available at www.stratcomcoe.org/.


107. Reflexive control was defined as a “means of conveying to a partner or an opponent specially prepared information to incline him to voluntarily make the . . . decision” predetermined by the initiator. Timothy Thomas, “Russia’s Reflexive Control Theory and the Military,” Journal of Slavic Military Studies 17, no. 2 (2004), p. 237.
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