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NATO'S SELECTIVE SEA BLINDNESS

Assessing the Alliance's New Navies

Thomas-Durell Young

overnments of the countries of the North Atlantic Treaty Organization (NATO) are guilty of inattention to, and sea blindness in, modernizing their navies. While among "old" NATO navies this reality is understood and documented widely, the state of development and readiness of those navies considered "new" receives considerably less attention. On examination, these new navies are deficient in building integrated capabilities, ensuring common operating procedures, projecting battlespace awareness, and accomplishing interoperability in all maritime combat domains.

This is because of a combination of three factors: the tyranny of Mackinder-esque geography; the legacies of the former communist countries that inform how forces man, equip, and train for war; and Western governments' inability when proffering advice and assistance to understand fully the operational and cultural contexts within which the new navies exist. To date, a focused analysis is lacking, not only of the status of development of these navies, but, perhaps even more importantly, of the common challenges they face as they modernize their respective fleets. This lack of an across-the-board analysis is not necessarily obvious, given the disparities in size of these navies and their different geographic locations—the Baltic, Black, and Adriatic Seas, none of which are contiguous.

However, this lack of attention is no longer prudent in light of Russia's seizure of Crimea and its policy of challenging the post–Cold War international order. Those states with shores on the Black and Baltic Seas now find themselves on the front line with, or indeed adjacent to, an aggressive Russia. Arguably, because we lack a clear conceptual framework, we are hindered in our full understanding of those endogenous influences that continue to obstruct the modernization of these postcommunist navies.

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This article builds a foundation of understanding that provides a clearer analysis of the many challenges facing new navies in their modernization efforts and provides an explanation for these navies' limited operational capabilities. More importantly, it identifies those influences that are inhibiting them from adopting the basic and relevant tenets of Western defense and naval concepts.² This is not to imply that these navies should adopt a Western, blue-water rationale; rather, there is an overwhelming need for them more systematically to adopt Westernstyle mission command and combat readiness, as well as operational and tactical leadership—practices that support the development of reliable, lethal naval capabilities to deter Russian revanchist activities. To achieve this objective, it is necessary that they more closely align themselves with Western defense governance norms and adopt a stronger operational focus through more training and exercises and, consequently, more sea time for their forces. Yet, as the author argues elsewhere, communist concepts are quite difficult to eradicate even after legacy kit is retired and replaced by Western weaponry.³ Thus, a clearer appreciation of the conceptual and institutional challenges faced by these navies, as well as instances where they have been able to overcome them, is applicable within central and eastern Europe and beyond.

In its examination of NATO's new navies, the article addresses four core areas. First, the best means to assess these navies is through the small-navy school of thought—notwithstanding the ostensibly large size of the Polish navy, if one counts hulls. An examination of the characteristics of this typology provides a clearer understanding of the inherent challenges and operational limitations under which these navies must function. Second, on this foundation the article describes and analyzes the communist-era legacy institutional and conceptual impediments to reform and modernization. That the Baltic States' navies were created from scratch implies that Soviet naval legacies are modest at best; however, their larger national defense institutions, as in other legacy countries, continue to harbor atavistic inheritances in their concepts, assumptions, and, indeed, institutional logic. Third, the article assesses these navies within the context of a resurgent Russia, with its offensive capabilities in the Baltic and Black Seas, along with the different challenges that exist in the Adriatic Sea. These challenges include the current underperforming state of their fleets, the lack of or insufficiency of modernization plans, and the policies and planning assumptions that are inhibiting them from achieving greater levels of operational capability. Fourth, the article assesses the policies, planning assumptions, and programs that Western nations and their navies have employed in assisting these new navies to modernize and become more lethal, then identifies how such advice and assistance can improve.

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UNDERSTANDING SMALL NAVIES

The small-navy model provides the greatest explanatory power for assessing the forces and policies of the navies in the Baltic, Black, and Adriatic Seas. Although the model was developed relatively recently, a modest body of useful literature has emerged that addresses the characteristics and challenges facing small navies. To give an appreciation of the challenges unique to small navies, Till notes that a small navy is one with "limited means and aspirations." He adds additional limitations of small navies: "geographic range, function and capability, access to high-grade technology, and reputation." Likewise, Germond observes that navies can be categorized using the criteria of their reach and projection capabilities.⁵ Lacking economies of scale (in terms of numbers of platforms), small navies with limited numbers of hulls are likely to be disproportionally subject to the realities of the iron laws of required refits, which could keep them from conducting continuous and cost-effective operations at sea. This complicates operational planning and training, because their availability and readiness rates are lower than those of larger navies. At the policy level, the fleets' small sizes render them vulnerable to budget cuts, and this further exacerbates their challenge of maintaining operational readiness. In small organizations with correspondingly modest personnel numbers, commanders must understand how to exploit limited opportunities for gaining professional experience at sea and in challenging postings. Gaining experience and command at sea—essential to developing and growing commanders—is complicated in smaller ships because they have limited endurance and therefore spend less time at sea than larger, blue-water vessels.⁶ These generic small-navy realities complicate such services' ability to produce leaders who have the credibility to give advice at the national level on what naval forces are capable of providing.⁷

Because small navies cannot achieve the economies of scale that midsize and larger navies enjoy, officials must command these forces effectively to provide maritime-defense capabilities. For successful recruitment and retention of sailors, small navies must implement effective personnel-management policies to create a sustainable career structure that includes a healthy balance between ship and shore postings.⁸ Adding to the personnel-management challenges, small navies often must put self-reliant ships to sea—those that operate alone instead of within integrated squadrons. Given these stark realities, small navies, depending on defense policy priorities, often rely on multinational cooperation, develop niche capabilities, accept limited operational roles, and accept compromises in designs and performance of their ships. With this background in mind, one can appreciate better the realities that NATO's new navies face. All the navies assessed in this article can be considered small navies; however, there are moves afoot in Poland that could break the Polish navy out of this classification and expand its reach and power projection by increasing the size and capabilities of the fleet.⁹

CONCEPTUAL IMPEDIMENTS TO REFORM AND MODERNIZATION

The continued employment of legacy forces is a key impediment to small navies' adoption of Western naval concepts. Their entire approach to naval architecture, weapons, training, and even crew space is vastly different from that characteristic of Western concepts. ¹⁰ Yet it is not only maintaining legacy platforms that has slowed the adoption of the Western approach to naval warfare. In these countries, all armed forces are built on a family of military concepts that in the case of communist military doctrine were quite coherent and highly integrated. ¹¹

Addressing the issue of legacy communist concepts is a twofold problem. First, in the rare instance where officials have attempted to retire legacy doctrine, its supporting concepts have proved quite resilient. Second, to date, Western officials and knowledgeable analysts have not acknowledged that the principles' continued use (conscious or otherwise) in an organization presents a major impediment to adopting Western defense and military concepts.¹² It is essential to understand that communist and Western military and naval concepts are antithetical, and therefore incapable of coexistence in the same institution.

Because of their coherence, these legacy concepts remain entrenched firmly in practice, in law, and even within organizational sociology. Furthermore, as related to navies, these legacy practices have impeded the adoption of Western defense and military concepts because the former were designed to ensure that senior officers were not permitted to make independent decisions at the tactical level. In Western navies, commanders expect their subordinates to use critical thinking and their own initiative to solve problems, while in many legacy navies commanders are expected only to execute orders and never to take the initiative. To a degree almost inconceivable to the Western mind, former communist defense institutions not only undermined the ability of commanders to exercise command but also centralized decision-making power in ministries of defense, both of which all but ensured that the armed forces would struggle to grow commanders, in comparison with Western culture. In comparison with Western culture.

While it is true that these legacy concepts continue to exist throughout central and eastern Europe, their intensity varies among defense institutions and navies. It is instructive to identify key legacy concepts that continue to influence governments. These include the following:¹⁵

1. Policy, as it is understood in the West, often is not accepted in the region and many times is confused with *politika* (partisan politics). It is rare

that a defense institution has been able to formulate even modest policy frameworks to express government guidance and priorities and develop plans to execute them. Where policy documents do exist, they typically are meaningless because it is rarer still that priorities are expressed at all, let alone their financial costs (neither short-term nor life-cycle). The observation to political, defense, and military officials in the region that in a democracy, policy is money is met all too often with a blank, uncomprehending stare.

- 2. Highly centralized decision-making, often occurring well above the level of chiefs of services and even chiefs of defense, is employed for even the most mundane issues. This is the case particularly with financial decision-making. The norm throughout the region is that most capability providers—chiefs or commanders of services—do not possess their own operations and maintenance budgets. As a result, collective training and overall readiness remain underdeveloped by Western standards.
- 3. This centralized decision-making continues to dissuade leaders' critical thinking. One observable consequence of this practice is that staff work is of low quality, voluminous, and turgid, and it rarely provides leaders with the information necessary to make informed decisions.
- 4. In place of critical thinking, one finds an organizational instinct to rely on the legacy of using the algorithmic approach to problem solving. Quantification of what are subjective issues, such as day-to-day planning and management, allows leaders to avoid individual responsibility because the algorithm is always correct—after all, it is "scientific."
- 5. Defense planning at the national level throughout the region (including by the defense institutions of even such relatively advanced cases as Poland, Romania, Slovenia, and the Baltic States) is underdeveloped at best and a failure at worst. The region is awash with long-term defense plans that are unrealistic, financially unassessed, and therefore not feasible.16
- 6. Legacy platforms, systems, and weaponry do not include the Western concept of force management as part of the design process, which further weakens defense planning. The result is that force development as a concept—which must be inexorably tied to force management—remains underdeveloped throughout these armed forces.
- 7. Lastly, in this summary of remaining antithetical concepts, in central and eastern Europe there is an odd absence of either a conceptual

understanding of or linguistic cognate for *capability*. In some Slavic languages this is defined as *potential*, which misses the fundamental meaning of such a key concept of modern Western military planning and operations. Thus, the concept that a platform is not an asset unless its crew is fully trained, exercised, and provisioned is being recognized only slowly. The lack of understanding of this key concept throughout these defense institutions partly explains why commanders do not have operations and maintenance budgets, and therefore cannot reliably produce capabilities.

This summary of prevailing legacy concepts should give pause to Western officials who have the task of cooperating with these defense institutions and navies to introduce them to Western naval concepts. If Western officials fail to assist small navies in changing their individual and collective conceptual "souls," those services will remain inhibited from integrating effectively into allied military structures. As will be demonstrated clearly, the sale or gift of platforms and systems alone has not enabled these navies to adopt modern Western naval concepts, and arguably it cannot in the future.

NATO'S NEW NAVIES: CHALLENGES AND STATUSES

If divesting themselves of communist legacy defense and naval concepts were not sufficiently difficult for NATO's new navies, their leaderships face an additional challenge: because they are all continental states, their governments universally suffer from acute sea blindness.¹⁷ This all-but-universal continental focus, in which armies predominate, can be observed in the continued practice of organizing the armed forces under general staffs, as opposed to transitioning them to joint defense staff organizations. Indeed, it is not unusual to find only a few naval liaison officers posted to these general staffs, rather than a staff manned from all three services. Sea blindness is exacerbated further at the national level because few ministries of defense possess institutional knowledge of naval affairs or understand the requirements for survival in the modern maritime battle space. Not surprisingly, naval policy, or endorsed national concepts, hardly exists in either written or publicly published form, let alone within the institutional cognizance of defense institutions.

Further complicating naval planning is the stark reality that many of these ministries of defense lack a methodology for financially assessing even generic capability options. As a result, naval modernization plans do not receive adequate attention and therefore suffer financially. Modernization plans cannot be developed properly, since in almost all these navies naval and fleet headquarters are effectively one and the same. The net result can be found in the poor quality or complete lack of staff work to support national defense planning. Similarly

to their respective ministries of defense and general staffs, these navies do not develop accurate costings to support force-development plans and they fail to formulate priorities, which results in capability incoherence that is easily observable in many of these fleets (e.g., platforms absent weapon systems and modern sensors).

Additional evidence of the centralization of decision-making in capitals is that few commanders of navies are entrusted with operations and maintenance budgets to enable them to train and exercise their fleets in any predictable and rational fashion. Or, as in the case of the Latvian navy, the navy commander has a budget but lacks authority over maintenance. Therefore, the commander is forced to coordinate maintenance efforts with the ministry of defense, which is time-consuming and results in lower readiness of the fleet. The net result of these conditions has been ships and crews at sea for far fewer days than their older NATO navy counterparts—which reinforces the Soviet concept that it is better to be ready to go to sea rather than the prevailing Western norm of habitually being at sea. 19 In addition to limiting the navies' ability to train crews, these practices also preclude them from conducting the normal operations at sea that would provide greater opportunities for closer cooperation with more-sophisticated navies as a matter of course.

In comparison with new NATO armies, and perhaps even air forces, these navies also have suffered from an unintended externality: they generally have missed out on the assistance that the other services received during their deployments to Afghanistan and Iraq. Thus, there is an unintended imbalance created by how much attention and operational experience armies, particularly special operations forces, have gained as opposed to their generally ignored navies. Consequently, many officers and sailors missed out on the invaluable experience of deploying and maintaining ships for long periods on distant multinational operations.

This lack of hard operational experience particularly has prevented the development of senior naval leaders who have a deeper understanding of Western naval concepts. This has been mitigated in part by the deployment of ships to NATO standing maritime forces and participation in some operations nearer to home (e.g., Operation ACTIVE ENDEAVOUR, the United Nations maritime task force off the coast of Lebanon, and support for NATO air operations off Libya). The centralization of resource management within ministries of defense has starved these navies of the funding necessary for adequate sea time, thereby further limiting habitual contacts with allied navies. This has stunted their institutional understanding of how they fit into larger allied formations and the associated exercise and training planning. This is costly to the Western alliance, because these navies' self-limitation from intensive sea training means Western

navies miss the opportunity to profit from their regional knowledge and technical expertise in fields such as mine countermeasures (MCM).

The assessment of these navies by region that follows will facilitate a deeper understanding of the unique challenges they face.

Baltic Sea

All navies operating in the Baltic Sea face considerable physical challenges. The sea is shallow (two hundred feet on average, which has earned it the nickname in German of the "flooded meadows"), registers low salinity and visibility, and experiences wide temperature variations.²⁰ It is also quite busy, with some 2,500 ships under way at any one time.²¹ These factors combine to produce a complicated hydroacoustic environment for antisubmarine warfare (ASW). The Baltic Sea also has the unique distinction of being home to between forty and fifty thousand sea mines still unaccounted for from the two world wars.²² From a Western perspective, the Russian-controlled Kaliningrad Oblast located between Poland and Lithuania has become highly militarized. It contains the S-400 surface-toair missile (SAM) system and surface-to-surface missiles (SSMs). According to some sources, from this oblast Russia is capable of carrying out an antiaccess/ area-denial campaign in a conflict with NATO.²³ Kacprzyk and Friis recommend that, in light of these capabilities, in most scenarios between Russia and NATO the Baltic and Nordic regions should be considered a common operational area, given the likelihood of conflict escalation beyond either region.²⁴

Poland. NATO's new navies in the Baltic share a few similarities, but overall are quite different. The missions of the Baltic States' navies are focused primarily on MCM, and to a lesser degree patrolling, while the Polish navy is in a class by itself. On paper, to support its stated mission of defending territorial waters and the country's exclusive economic zone (EEZ), the Polish navy appears fairly modest in terms of hulls compared with old NATO navies. It consists of two former USN FFG-7 frigates, three operational (albeit aged) ex-Norwegian Type 207 submarines, one Kilo-class submarine, and many legacy warships and support ships. It is in the process of commissioning a newly built offshore patrol vessel (MAKO A100 class); it possesses SSMs, Link 11 on some of its vessels, and Link 16 secure datalink systems at its maritime operations center (MOC) and maritime component command in Gdynia; and it plans to procure Link 16 for new maritime platforms and helicopters.²⁵ On closer examination, the Polish navy shares many of the same weaknesses that plague all other navies addressed in this article, except that it has a larger fleet. Fundamentally, the government in Warsaw largely has ignored the Polish navy, a situation the navy has not helped by keeping the naval fleet headquarters in Gdynia, as opposed to the capital, where decisions (particularly financial ones) are made. Poland's FFG-7s are almost forty years old, have deployed on only three occasions, and have never been modernized properly; efforts to build new warships in government-owned shipyards have been plagued by long delays and cost overruns.²⁶ A misguided 2013 reorganization of the armed forces that closed service headquarters and replaced them with inspectorates undermined effective force management of the fleet and made modernization and operational planning even more challenging.²⁷ A recent government defense concept aims to reverse this decision and reestablish a fleet headquarters, but it remains to be seen whether the redesigned commander of the navy will possess an operations and maintenance budget.²⁸

In terms of weapon systems, the Polish navy currently possesses and fields a number of types of SSM and SAM systems, such as the Norwegianmanufactured Naval Strike Missile, RBS-15 Mk 2, and Harpoon SSMs, as well as RIM-67 Standard systems. The navy has two missile unit squadrons armed with Naval Strike Missiles supported by Link 11 and Link 16, based in Siemirowice. That said, a senior Polish defense official admitted in 2016 that the missiles' range (two hundred kilometers) exceeds that of the current network of coastal radars, which raises questions regarding the missiles' general effectiveness, given that they are new and digital.²⁹ This point apropos a recognized maritime picture (RMP) speaks to a problem common to all new navies: the lack of effective interministerial cooperation—between government ministries. In Poland, the government has yet to create an interministerial maritime operations center (IMOC) where one national RMP can be produced and effective coordination can be done at the expert level. The border guards' radar picture currently does not feed into the navy's MOC in Gdynia, providing further evidence of the poor state of coordination. Finally, although they are of questionable use, the navy possesses a legacy network of underwater sensors in the Gulf of Gdańsk.³⁰

Poland's current government has pledged to modernize the navy by spending over four billion dollars by 2030. 31 Yet without significant changes to the conceptual framework by which the navy is commanded and its finances are managed, this ambitious modernization plan could fall short of reaching its full operational potential.

The Baltic Navies. The Baltic States' navies, although small and largely centered on fulfilling MCM missions, are still sufficiently different to warrant a degree of individual treatment. Estonia falls short in relation to other countries in the region because it has conflicting jurisdictional authorities between the ministry of defense and civilian law-enforcement agencies.³² As a result, development of one of the most basic capabilities needed to effect maritime security—an RMP to produce maritime situational awareness (MSA)—has been stalled for years by bureaucratic disagreements over ministries' respective institutional roles and

missions. This infighting has inhibited the creation of what should be thought of as a national asset. The current, outdated RMP was developed for peacetime conditions and is controlled by the Police and Border Guard Board (PBGB). The problem with entrusting such a responsibility to a civilian ministry is identified in an insightful study on Estonia's maritime security requirements chaired by an eminent Estonian expert in defense planning: "As a matter of agency policy, the PBGB capabilities have been optimized for the lowest level of crisis escalation—the level of nonkinetic reactions, and therefore there is a systemic gap between its expected performance and the capabilities and performance required on higher levels of crisis escalation." ³³

The current system cannot cover the waters that fall under Estonia's jurisdiction (both territorial waters and the EEZ) at all times, and the existing data-

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communications link to the naval headquarters is unsuitable. Moreover, the PBGB's three rotary-wing aircraft are insufficient for the size of the country and are not configured to conduct naval

operations. Owing to the lack of a wartime-capable RMP to support targeting, the report concludes that it is not possible to conduct the maritime defense of the country or employ its current fleet of three MCM vessels effectively. Finally, that such a study had to be commissioned, as opposed to being produced organically as routine staff work, speaks to the mistake made in the 2014 reorganization of the Estonian Defense Forces that closed the naval headquarters at Miinisadam, thereby undermining the navy's ability to operate in a modern maritime defense environment. Estonian Defense Forces that closed the naval headquarters at Miinisadam, thereby undermining the navy's ability to operate in a modern maritime defense environment.

In keeping with many other legacy navies, the Estonian naval commander also does not possess a budget. Despite the government's decision to limit the navy to conducting MCM missions and providing support to international operations, there are some discussions about expanding some of its capabilities. Expansion efforts (e.g., procuring Link 11) could improve communications and data exchange, or use the army's existing FGM-148 Javelins in the coastal-defense mission, although their modest range (2,500 to 4,700 meters, depending on the variant) should be assessed as a limitation.³⁶

The other two Baltic navies, those of Latvia and Lithuania, possess both MCM vessels and purpose-built patrol craft.³⁷ They are fortunate in that—as is the case with Finland, Denmark, and Norway—their national maritime-surveillance infrastructure falls under their respective defense institutions.³⁸ Thus, each possesses an RMP in which the navy plays the leading role. Latvia's coast guard

falls under the navy, but inexplicably it purchased four Skrunda-class patrol vessels that carry only light machine guns, although they do have missionmodular weapons potential. The Lithuanian navy possesses four ex–Danish navy Flyvefisken-class patrol vessels, two of which possess variable-depth sonars that enable them to conduct some ASW training. These are the most capable warships in the Baltic States, as they possess modern combat-management systems and are armed with 76 mm guns. Further, consideration is being given to fitting them with ASW mortars or depth charges from regional sources to complement their sonars.³⁹ In principle, both navies also have dedicated minelaying capabilities using ex-Norwegian Vidar-class minelayers, but whether they have mines in sufficient numbers and can execute fast minelaying tasks is unknown. Missing from these navies are critical enablers and weapons: missiles, torpedoes, and Link 11 or Link 16 (although the Lithuanian navy is investigating procurement of the latter).

Most disturbing is a seeming inability of these three Baltic States' governments to agree on something as simple and important as developing a common regional RMP, and each apparently is on its way to developing its own unique intelligence, surveillance, and reconnaissance (ISR) capabilities. ⁴⁰ The fact that these countries cannot yet exchange real-time radar or sensor data with Allied Maritime Command (MARCOM), let alone among themselves, needs to be addressed at the appropriate political level.

Potential in the Baltic. In light of this brief analysis of the new allied navies in the Baltic, one could conclude that in their current configuration they bring few useful lethal assets to the alliance; however, they possess well-developed, modern ports (e.g., Gdańsk, Gdynia, Klaipeda, and Liepaja). The Polish navy has great potential for modernization and has the critical mass (and successive governments' commitment to spend money on defense) to develop a modest but balanced fleet that could make a significant contribution to NATO's defense posture of the region. Yet notwithstanding Poland's ambitious modernization plans, it is clear that the navy's intellectual software needs to be thoroughly rebooted to retire legacy concepts, assumptions, and institutional logic and replace them with the Western approach to modern naval warfare. A justifiable fear is that even if new Western kit is procured it will remain underused or, worse, unused, and constrained by legacy concepts similar to the embarrassing example of the Polish air force F-16s that took almost ten years to be declared full operation capable. 41 The other navies of the Baltic States face different challenges, and they are confronted with the problem of scale and financial penury. That said, given their geographic proximity to Russia and maritime exposure, there is an urgent need to improve their maritime-defense capabilities. As one Estonian naval officer averred in a private discussion, while there is no question that the country's navy is part of the

NATO integrated command structure, the service does not feel it is a part of the alliance's force structure. 42

Black Sea

Russia's military presence in the Black Sea was already significant before its seizure of Crimea, but its occupation of and movement of key offensive assets to Crimean military facilities further complicate NATO naval defense planning. One source argues that the deployment of antiship missile systems in Crimea and on the coast of Krasnodar Krai enables the Russian armed forces to strike surface targets on approximately one-third of the Black Sea. Horrell argues, well before Russia's invasion of Crimea its 2020 state armaments program envisaged significant upgrades to the Russian Black Sea Fleet, to include six upgraded Kilo-class submarines and six *Admiral Grigorivich*—class frigates. Allied naval planners also must account for the operational limitations placed on the deployment of warships from outside the Black Sea, as stipulated by the 1936 Montreux Convention regarding the Regime of the Straits.

The Romanian and Bulgarian navies currently do not possess operational submarines, and both lack sufficient numbers of ASW maritime-patrol aircraft. The situation is complicated further by the physical conditions of the Black Sea that make conducting ASW challenging. ⁴⁶ Black Sea allies also face the reality that cooperation among themselves is meager at best. Bugajski and Doran paint a grim political-military picture of the region from the perspective of Western interests: "Currently, there is little regional integration and infrequent interaction among NATO's Black Sea states, and an absence of well-defined contingency plans in case of a Russian military assault. Romania and Bulgaria conduct no bilateral naval exercises, possess no common surveillance or early warning capabilities, and have no collective defense plan." Finally, allied naval and defense planners must factor in the unpredictability of Turkey's position relative to Russian military actions under the current Justice and Development Party government.

Romania. Of the two new NATO navies in the Black Sea, the Romanian navy has made some progress in redevelopment since the end of the Cold War. As in all legacy navies under discussion, Soviet concepts and assumptions framed its institutional thinking about how its ships would fight and the essential naval engineering of Romania's sizable fleet of ships. It has taken a number of years for leadership to emerge that is not highly influenced by Soviet-imported legacy concepts. Under communism, officers and sailors were narrowly trained and specialized, and the Western style of command was eschewed. There is no question that Sanders is right to observe that restructuring and adopting Western concepts and thinking were delayed in Romania by some ten years owing to successive governments' indifference (sea blindness) and the limited financial resources

dedicated to the navy. 48 Over the past two decades, intensive use of Western professional military education and the procurement of Western warships (two ex-Royal Navy Type 22 frigates in 2004) have combined to push the organization toward modernization and a growing conformance to Western concepts. However, the continued existence in the fleet of Soviet and indigenous Cold Wardesigned warships, all of which are of limited use in modern naval warfare (its rivermonitor flotilla being a case in point), suggests a conceptually confused force. For example, logistics remain more tied to legacy than to Western concepts, which can only impede the readiness and effectiveness of the fleet.

While the procurement of two Type 22 frigates from Great Britain was seen as a significant commitment by the Romanian government to modernizing the

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navy, absent from the sale was the procurement of Western SSMs and SAMs, active shipdefense systems, and modern electronic-warfare systems.⁴⁹ Recent efforts to procure

these capabilities faltered in 2017 because of insufficient funds.⁵⁰ Consequently, these ostensibly modern Western ships cannot be employed throughout the Black Sea. Nevertheless, whereas the ships hardly can be thought of as having reached full operational capability, they have had a positive effect on the Westernization of the navy. Delegation of command has been implemented, albeit slowly, and ship staffs (which enabled collective decision-making) have been disbanded.

Acquisition of these more-modern ships has required an overhaul of the professional military education and training system, which includes conducting principal warfare officer / tactical action officer training in-country, and, since 2008, implementing NATO's Guidance for Operational Planning (subsequently replaced by the Comprehensive Operations Planning Directive).⁵¹ That said, the lack of decentralized decision-making continues to pose a challenge. At the highest levels, it is troubling that many organizations of the navy possess their own budgets (e.g., logistics, facilities, reconnaissance, and surveillance), but the fleet commander does not. It is almost as if there is a belief that these other activities are ongoing and therefore must be funded, but the fighting element of the service is expendable. Rather, the Romanian defense institution employs the practice common in the region (which is the result of legacy assumptions) of funding only a major operation, rather than recognizing the essential need for a naval commander to own an operations and maintenance budget if he is to achieve any reasonable degree of readiness. Because of this, the Type 22s are chronically underfunded and can meet only half of their annual required days at sea.

In 2016, the Romanian government announced an ambitious modernization program to modernize the Type 22 frigates. This is commendable—except for the fact that the ships are dated and the envisaged modernization budget is unlikely to cover all the necessary repairs and upgrades, to include weapons.⁵² The existing *Tetal* corvettes are to be retired and, if funded, four modern, multirole *Sigma*-class corvettes will be built in-country.⁵³ The navy has Link 11 and is expected to procure Link 16, as well as satellite communications. And while the navy lacks modern fixed submarine sensors, it claims to have surface and maritime air pictures.

The modernization plans are indeed ambitious, and bringing them to fruition is essential for the navy to overcome what one Romanian expert claims is a key limitation: the navy currently can undertake only surveillance and constabulary missions in the Black Sea, as well as support for international operations. ⁵⁴ Declaring 2018 to be year of the navy, the minister for national defense announced the ambitious plan to procure three submarines and four surface warships for delivery to the fleet between 2018 and 2024, which would improve its current capabilities greatly. ⁵⁵ As an optimistic observation, the Romanian navy intelligently moved its naval headquarters to Bucharest in 2003 to be close to the locus of defense budget and political decision-making. This sage move to the capital has yet to be followed by any other European postcommunist navy.

Bulgaria. The Bulgarian navy, like other communist navies, emerged from the Cold War oversize and in search of missions. While other countries underwent periodic efforts to modernize and embrace Western defense and military concepts, domestic political disagreements in Bulgaria over the future of the military left the armed forces, and the navy in particular, bereft of guidance by which to reform themselves. A consequence of this strategy deficit was that well into the late 1990s the navy found itself too large in relation to its tasks and still dependent on legacy concepts; even today the navy possesses a large number of ex-Soviet warships and auxiliary vessels.

Modernization began late in 2005 when the navy took delivery of its first *Wielingen*-class ex-Belgian frigate, followed by a second in 2008, while a third was procured in 2009 to provide spare parts. This procurement from the Belgian Marine Component included a *Tripartite* mine hunter. On paper the frigates possess Western missiles (i.e., RIM-7 Sea Sparrow SAMs and MM-38 Exocet SSMs)—a rarity in these new navies. However, these weapons cannot be tested very often, because the ships spend limited time at sea—despite deploying annually to Standing NATO Maritime Group 2, these ships get less than half the amount of time at sea that is considered the norm for ships of their class. Moreover, while the navy possesses Link 11, it does not have Link 16, which limits the

utility of its two Eurocopter AS 565 Panther helicopters (with a third to be procured in 2020). The navy possesses a MOC in Varna; procured some new coastalsurveillance radars in 2012; and is upgrading legacy analog systems, with U.S. assistance. Bulgaria still lacks an IMOC, as well as feeds from civil ministries' radars and sensors, thereby inhibiting a more comprehensive MSA. Bulgaria plans to procure capabilities for secure communications with MARCOM by 2020.

As is so often the case in postcommunist governments, legacy procurement concepts typically focus on platforms and ignore essential items such as training, consumables, and a budget process steered by commanders so as to create naval force capabilities.⁵⁷ This has affected directly the ability of the navy to create and maintain a semblance of readiness. An example of the perilous state of the navy occurred in spring 2011 when the minister of defense directed the deployment of the high-readiness frigate to support allied operations off Libya. Because of the lack of funding within the navy, it took two weeks to deploy this single vessel.⁵⁸

The inability of the ministry of defense to define its development plans financially has stalled planning throughout the armed forces. 59 This lack of effective planning, combined with the international financial crisis, resulted in 2009 in the cancelation of naval modernization plans because the government was forced to abandon the procurement of four French Gowind-class corvettes. A plan to resurrect this needed procurement so that superannuated Soviet ships could be retired was canceled again in 2017. 60 Current modernization plans envisage the procurement of two corvettes. 61 This assessment of the Bulgarian navy demonstrates that the fleet is aging and lacks sufficient funding priorities that would cover essential training. As Sanders observes, this situation is unlikely to improve in the medium term, given the past performance of the defense institution.⁶²

A Tricky Balance. The existing balance of power in the Black Sea, therefore, is far from being in the West's favor. Efforts to modernize the Romanian and Bulgarian fleets have fallen short of creating and maintaining necessary operational capabilities to match the challenges that Russia's military buildup poses.

In light of this assessment, it is difficult to accept Sanders's view that following the Membership Action Plan leading to NATO accession "led to more focused, systematic and effective military reform in both states." 63 The fact that both navies remain conceptually split between legacy and Western naval concepts speaks to the continued presence of residual influences. For example, it is problematic that the practice of keeping in service aged legacy platforms (e.g., river flotilla vessels) can provide utility in modern naval warfare.

But it is the political dynamics in the region that are most challenging for the alliance. These dynamics include a politically unpredictable Turkey, as well as a Bulgarian policy that turned down the establishment of a NATO Black Sea fleet—advocated by a former Romanian minister of defense—on the grounds that Bulgaria did not want to irritate Russia, to which many Bulgarians are favorably disposed. Thus, unfavorable geography, owing to Russia's seizure of Crimea and political discord among NATO nations, leaves the Romanian navy exposed and in need of strong allied support and modernization. Without doubt, the alliance needs to continue the policy initiated after the Russian annexation of Crimea: enter the Black Sea more frequently and take advantage of deploying existing advanced capabilities conveniently not addressed under the terms of the Montreux Convention (e.g., maritime patrol aircraft do not fall under the treaty). 65

Adriatic Sea

In comparison with the Black and Baltic Seas, the Adriatic Sea, strategically speaking, is all but a backwater. The littoral states are members of the alliance and maritime security priorities are dominated by navies and coast guards whose missions are limited to supporting civil authorities in border control, antismuggling, and other law-enforcement tasks. Not one of them possesses any variant of the Link tactical digital information system, nor do they have the active sonars that would enable them to undertake ASW operations. With the exception of Albania, all other littoral navies have the former Yugoslavian navy's (Jugoslavenska Ratna Mornarica, known as JRM from its Yugoslav abbreviation) legacy concepts and platforms of varying intensities.

Overall, the Adriatic is a benign maritime environment, but one that sees heavy traffic (some forty thousand vessels per year). The countries on its eastern seaboard suffer from entrenched legacy civil institutions with conflicting responsibilities and authorities over maritime security. With the exception of the Croatian navy, limited defense budgets have produced only modest naval forces. Since the navies of Slovenia, Montenegro, and Albania exist primarily to render support to civil authorities, the following discussion addresses them together so as to provide an understanding of their common challenges, whereas, given the Croatian navy's size and the scope of its government's maritime ambition, it is addressed separately.

Slovenia, Montenegro, and Albania. It would be easy to dismiss the relevance of the navies of Slovenia, Montenegro, and Albania, given their small fleets, their limited numbers of hulls and limited capabilities, and the priority they give to supporting civil tasks. However, although these services are small and their capabilities limited, strong arguments can be made that they can support missions to counter negative effects on political and social stability as well as to control illegal immigration. They have been structured to provide surveillance, patrolling, and interdiction missions on their limited budgets.

The Slovenian armed forces' ship Triglav 11 likely represents the most modern and capable vessel of the three navies.⁶⁷ Montenegro has struggled to find a way to put ships to sea that are not too old or expensive to operate (e.g., ex-JRM Kotor-class frigates) and has opted to repair two aged ex-JRM Končar-class missile boats.⁶⁸ Largely because of limited resources, Albania placed the coast guard within the navy and embraced the concept of one navy with two missions, but proceeded to procure four Damen Stan Patrol 4207-class patrol boats, which

The continued employment of legacy forces is a key impediment to small navies' adoption of Western naval concepts. Their entire approach to naval architecture, weapons, training, and even crew space is vastly different. . . . [C]ommunist and Western military and naval concepts are antithetical, and therefore incapable of coexistence in the same institution.

were unarmed.⁶⁹ The explanation for the anomalous procurement is that they were financed partially by the Netherlands Ministry of Foreign Affairs, which meant the funds could not be used to purchase military items.⁷⁰ That being the case, arming the ships with 20 mm

automated naval guns on the main decks has been delayed until the warranty expiration of the last ship—a period of almost ten years. But despite this limitation, these boats have been deployed (unarmed) in support of Standing NATO Maritime Group 2 in the Aegean Sea.

In addition to procuring vessels that meet mission requirements yet are affordable to operate, the other key challenge with which they have struggled is the creation of effective interministerial coordination arrangements within their respective governments. In this particular context, an effective arrangement is defined as one in which those agencies that possess the capabilities needed to carry out their respective roles and missions lead in those tasks. The depth of this challenge can be found in the difficulties involved in something as basic as creating and maintaining an RMP that meets the requirements of national defense and law enforcement. It was not until 2003 that the Slovenian government recognized the need for such a standing, coordinated, interministerial body that addressed both national and operation-level issues.⁷¹

Albania and Croatia adopted the Norwegian model of creating an IMOC on the basis of the functional division of responsibilities among ministries. Albanian legislation, though, had the unintended consequence of placing the cost of the coast guard missions on the navy but also removing the service from the armed forces' chain of command. Moreover, IMOCs, by themselves and with a standing MOC, cannot maintain secure communications with MARCOM and exchange classified data. The Montenegrin navy created a MOC and coordinated with civilian agencies through an interministerial working group. When required, representatives from civilian ministries augment MOC staff in the port of Bar. Effective interministerial coordination and the creation of an RMP have been essential for these navies to contribute effectively to the Italian-sponsored Virtual Regional Maritime Traffic Center and produce a common virtual maritime awareness picture using information provided by member states and then shared with Allied Maritime Command in Naples, Italy.⁷²

Croatia. Finally, the Croatian navy is the only postcommunist navy in the region with a fleet that is approaching being balanced. This is logical given Croatia's almost two-thousand-kilometer coastline and its possession of over one thousand islands, inlets, and reefs. Unique among neighboring navies, the service also possesses some offensive capabilities (i.e., missiles) and JRM-era mines. The navy is considering acquiring Link 11, and the fleet consists of a mixture of ex-JRM missile craft (of the Končar and Kralj classes), patrol boats (of the Mirna class), and two ex-Finnish navy Helsinki-class missile boats, which possess active sonars. Significantly, the navy fields the Swedish RBS-15 Mk 1 SSM system at sea and ashore, slated for replacement in 2024. The fleet includes one minesweeping vessel and various logistic-support ships, and it has plans to procure MCM vessels. Additionally, the navy is defining the requirement for new offshore patrol vessels to enter the fleet around 2024. A key operational limitation for the Croatian navy is that despite the country's extensive coastline and territorial seas, the navy lacks a dedicated firing range.

As in the other former Yugoslav republics, for Croatia the acquisition of an effective RMP has proved to be challenging, owing to overlaps in responsibilities among the Croatian navy and civil ministries and agencies. The navy's MOC receives radar feeds from civilian ministries and agencies, but they are not integrated into a common picture; creating a national MOC with one RMP is needed. Independently, it maintains an extensive coastal radar system, with nine radar sites, which include four AN/FPS-117 three-dimensional, nine GEM elettronica, and four Enhanced Peregrine radars, and other sensors. The AN/FPS-117 radars are suboptimal for surface surveillance and are slated to be replaced with two-dimensional systems.

The Croatian navy's obvious challenge is its lack of financial means. Note that the replacements for the RBS-15 SSMs and the offshore patrol vessel are to be acquired in the same period. Resource planning likely will be strained by the recent re-creation of the navy's maritime infantry battalion, the need to replace the AN/FPS-117 radars, and the pending acquisition of MCM vessels. Croatia is unarguably a maritime nation, yet the navy receives, on average, only 6 percent of the defense budget. In light of these realities, it is clear that the government in Zagreb suffers from its own form of maritime myopia.

Challenges Ahead. These navies are modest at best and face considerable internal, bureaucratic obstacles to creating nationally, let alone collectively, common RMPs. Moreover, notwithstanding the offensive capabilities of the Croatian navy, key capabilities such as ASW and even the ability to target (i.e., via Link 11) are not currently in their inventories.

However, it would be a mistake to dismiss them. With Montenegro's accession to the alliance in 2017, the Adriatic is now effectively a NATO lake. That being the case, modest levels of relevant Western advice and assistance programs, particularly focused on fixing political barriers to creating RMPs, are long overdue. In the end, the alliance should consider its policies a success if these regional navies are capable of undertaking peacetime surveillance, reconnaissance, and response tasks, thereby allowing the more capable Italian and Hellenic navies to carry out blue-water operations in support of Western objectives farther afield, augmented with these fleets' specialized capabilities.

ASSESSING THE EFFECTIVENESS OF WESTERN ADVICE AND ASSISTANCE POLICIES

A cursory review of NATO's new navies demonstrates that they are burdened with old platforms, sensors, and weapons (or a lack of platforms, sensors, and weapons) and that they are bereft of adequate training concepts, funding, and in some cases experienced senior leadership that understands the need to be at sea rather than only preparing to go to sea. An explanation for the dismal state of capability and readiness of these navies can be found in the lack of policy attention their own national leaderships pay them. Thus, it should not be surprising that these navies long have lacked a strong operational focus and their readiness suffers accordingly.

A frustrating legacy concept that continues to be practiced among these governments is that not all navy commanders are entrusted with operations and maintenance budgets. Therefore, readiness often is seen solely as a function of a discrete operation and is financed on an ad hoc basis, rather than being seen as the lifeblood of any navy. The result is that essential training is funded fully only when the navy is supporting an operation, such as participating in one of the alliance's standing NATO maritime groups. Yet new navies have to use these deployments as opportunities for gaining needed sea days and developing basic skills, as opposed to using them to achieve world-class standards. The evidence suggests that few, if any, of these navies are able to put to sea annually for a number of days adequate to achieve levels of readiness and operational effectiveness comparable to those of old NATO navies.

It is past time to retire these legacy concepts in a coherent fashion. Yet blame for the state of underdevelopment of these navies needs to be shared.

Twenty-five years of providing Western advice and assistance and their dismal return on investment should demonstrate to officials that shaking off communist legacy concepts is difficult. As Keynes presciently observed, "The difficulty lies not so much in developing new ideas as in escaping from old ones, which ramify, for those brought up as most of us have been, into every corner of our minds." The difficulty of changing concepts should prompt Western officials to question their policies and assumptions, as they have been ineffectual thus far in generat-

If divesting themselves of communist legacy defense and naval concepts were not sufficiently difficult for NATO's new navies, their leaderships face an additional challenge: because they are all continental states, their governments universally suffer from acute sea blindness.

ing needed change in these navies. The long-standing Western assistance policy rests on the assumption that the challenges facing these navies are largely technical and can be addressed using focused training at the tactical

level. Missing has been any official awareness that such approaches will only treat symptoms, not address causation in a coherent manner. ⁷⁶

As for the new navies' governments, they must make the hard choices to cut ties to as many legacy concepts as possible. Communist military equipment was designed to support legacy-defined military doctrine, and it is problematic whether any of these aged legacy platforms and systems could produce lethality in the modern maritime battle space. Retiring legacy platforms, their systems, and accompanying concepts as soon as possible would free up needed funds for modernization and experimentation.

Officials need to recognize that taking the first step on the road to reform is inherently a political matter and therefore must be addressed as a political problem. This is an important point; acceptance of it leads to the conclusion that responsibility for reform cannot be entrusted to armed forces and ministries of defense alone, but rather must reside with the heads of government in all NATO nations' capitals.

The need for political solutions can be seen in the struggle of the new Adriatic and Estonian navies to resolve jurisdictional disputes over institutional roles and missions to create RMPs. The inability of these navies to clarify institutional roles and missions with other ministries is not just an internal political issue but rather has serious consequences for wider Western interests. Bureaucratic discord has led to suboptimal capabilities that cannot produce an RMP that supports MSA, which in turn prevents the services in question from being able to respond effectively and quickly to events at sea.

In short, NATO and Western governments have been suffering from their own case of sea blindness when it comes to understanding the real challenges these

navies have faced. As a representative example, Hoffman makes the prescient observation that, with regard to the U.S. government's European Reassurance Initiative, almost none of the eight hundred million dollars appropriated in fiscal year (FY) 2016 nor any part of a budget request in FY17 of \$3.42 billion has been allocated to the U.S. Navy to support NATO's new navies. 77 This lack of attention by the Department of the Navy is surprising, given that one of its key strategy documents has cooperative strategy in its title and the Navy's support of these activities is identified throughout the document. 78

In light of the challenging security environment in the Baltic and Black Seas and given the state of underdevelopment of the alliance's new navies, immediate action at the political level of the alliance and its member nations is long overdue. Previous Western assistance policies and programs have been ineffective. Equally, governments in central and eastern Europe have not supported consistently the need to modernize their navies. A refocus of efforts toward reform should be based on the principle, identified by Ullman, of fast-tracking experimentation in the Black Sea to develop new and innovative solutions for deterring Russian adventurism in either the Baltic or Black Sea. 79 The challenges to this initiative are numerous, but they can be overcome with strong support and pressure from governments.

From the perspective of the new navies, the legacy concept—of focusing on maintaining platforms at all costs while deprecating the overwhelming importance in warfare of creating effects—needs to be fully retired and its Western counterpart implemented. As they experiment with new technologies, these navies need to focus on innovation, with the full support and cooperation of their allies.⁸⁰ The alliance should focus on countering Russian offensive threats in the Baltic and Black Seas and should experiment with drones, new sensors and networks, ISR, cyber capabilities, nontraditional platforms, and targeting, all of which should take place across air, sea, and land domains. Whatever capabilities are developed need to be hardened against Russian aggressive use of the electromagnetic spectrum, and to the greatest extent possible tasks and costs should be rationalized across member states. In the case of the Baltic navies, old and relatively inexpensive solutions that could reinforce deterrence include acquiring a reliable fast-mining capability and employing nontraditional delivery means.81 The Adriatic navies should not be left out of this effort; the fleets should be encouraged to use their technical expertise to support these initiatives, given that some of them (e.g., sensors and cyber capabilities) could be relevant to the environment.

Maintaining the delicate balance among all these priorities—including, as noted, innovation, joint/combined experimentation, and increasing operations will pose a significant challenge to these navies and their allies. However, this is where close political oversight by, if not continuous pressure from, alliance governments is essential. Faced with a political mandate to undertake these priorities, all these navies can find efficiencies to free up necessary funding. After all, while the proposal to refocus one of NATO's two standing maritime groups onto high-end naval warfare has great merit, unless the alliance's new navies become more operational and more capable of making national contributions they may end up as nothing more than missed opportunities.⁸²

This article has marshaled extensive fieldwork and a deep review of the literature to argue that national governments and key long-standing NATO members have overlooked NATO's new navies. Indeed, in most cases these navies have been more starved of capital redevelopment and operations and maintenance funding than their respective armies and air forces, in addition to receiving less and less-effective Western advice and assistance. The old Viennese saying that "the situation is desperate but not serious" is not true—the situation is both serious and desperate—and this applies directly to the need for all NATO nations and navies to pay close attention to this issue.

The governments of the new navies must move in the short term to reconceptualize the use and management of their navies. Perhaps controversially, this policy redefinition should precede a commitment of funds to recapitalize their navies so as to ensure that money is not wasted unwittingly supporting legacy concepts and platforms. With Russian provocations occurring frequently at sea, these governments must change their defense policies and priorities to improve their ability to contribute to their maritime security as soon as possible. The importance of naval forces must be reassessed and reinforced to ensure that these navies can and do contribute to their countries' maritime defense to the greatest degree possible. If for no other reason, failure to do so runs the risk of ending up completely outsourcing this key mission to allied navies, thereby opening governments to the accusation of undermining continuity of national sovereignty.

In addition to the navies themselves, almost all of their headquarters are located on the coasts, and often distant, physically and mentally, from their capitals. Organizationally and institutionally, they have been relegated to being mere tactical appendages to the rest of their countries' armed forces, thereby denying government officials a full appreciation of the reality of modern naval warfare and the imminence of Russian maritime threats. To improve oversight and management of these navies, their governments should insist that if naval headquarters are not located in capitals already they should move there as soon as possible. This would provide these governments with the necessary opportunities to reorganize army-dominant general staffs and create integrated defense headquarters. This would provide governments with better instruments of military

power, as well as enable naval staffs to compete more effectively for funding and political attention.

Both old and new NATO members need to respond urgently to the need to transform these navies. Whereas this article has argued that a restatement of priorities for governments in the region is needed, Western governments also need to perform such a review. Fundamentally, Western governments need to change their languid approach to their advice and assistance programs to provide improved aid to the new navies as they modernize and otherwise transform themselves. The necessary assessment of the capabilities of the new navies should leave no one in doubt that the previous approaches to providing advice and assistance simply have not produced sufficient returns on investment. The comfortable approach—of defining reform as a technical challenge that can be addressed with training or by the piecemeal transfer or sale of platforms and systems—has created instead institutional, and therefore capability, incoherence.

These navies are no longer legacy services, but neither are they fully Western. While the traditional advice and assistance policies and programs have their place, by themselves they cannot produce the necessary institutional change. New policies—starting from a tabula rasa—should focus primarily on how to help these navies retire legacy concepts and replace them with their Western counterparts, with the objective of helping them to meet their unique maritimesecurity requirements. This review and replacement process requires that a broad policy framework be adopted across allied nations and their navies, one that drives experimentation within the maritime environment to produce cuttingedge, even nontraditional, but predictable, lethality at sea. In the end, it is predictable lethality and a political willingness to use it to defend vital interests that produce what the alliance desperately needs in the Baltic and Black Seas: deterrence. Allied nations must not tarry; the West essentially has lost twenty-five years, and it is imprudent to assume that Russian policy will continue to be so generous as to ignore these Western vulnerabilities ad infinitum.

NOTES

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- 7. Geoffrey Till, "Are Small Navies Different?," in *Small Navies*, ed. Mulqueen, Sanders, and Speller, pp. 23–24.
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- 31. Hoffman, "Assessing Baltic Sea Regional Maritime Security," p. 17.
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- 39. Jeremiah Cushman, "Resources, Limited Capabilities Challenge Baltic Navies as Russia Threat Grows," Center for International Maritime Security, April 1, 2017, cimsec.org/.
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- 57. This is well argued by Georgi Tsvetkov, "Maritime Defence Investment Policy of the Republic of Bulgaria," *Information & Security: An International Journal* 27, no. 1 (2011), p. 169.
- 58. See news reports of this incidence in *Dnevnik* (Sofia), March 29, 2011. *Dnevnik* is a Bulgarian newspaper published in Sofia.
- 59. For a recent example of a planning document that essentially does not address the defense budget in any meaningful and useful way, see *Programme for the Development of the Defence Capabilities of the Bulgarian Armed Forces* 2020 (Sofia, Bulg.: Council of Ministers, September 30, 2015).
- "Bulgaria Cancels Gowind-200 Corvettes from DCNS, Again," *Defense Industry Daily*, August 24, 2017, www.defenseindustrydaily.com/.
- 61. "Bulgarian Parliament Signs Off on Naval Patrol Vessel Acquisition," *Defense-Aerospace*, July 19, 2018, www.defense-aerospace.com/.
- 62. Sanders, Maritime Power, p. 195.
- 63. Ibid., p. 200; cf. Young, Anatomy of Postcommunist European Defense Institutions, pp. 113–14.
- 64. "Romania Calls for Permanent NATO Black Sea Force," *Balkan Insight*, February 2, 2016,

- www.balkaninsight.com/; Yordan Bozhilov, "The Brief Life of the Idea for the Creation of NATO Black Sea Fleet," *New Europe*, January 8, 2017, www.neweurope.eu/.
- Special Report on Advancing Stability in the Black Sea Region, NATO Parl. Ass. Doc. (CDS 159 17 E rev. 1 fin) (2017).
- 66. Ivan Žnidar, "Transformacijski izzivi za varnost na slovenskem morju" [Transformation challenges to safety and security in the Slovenian sea], *Sodobni vojaški izzivi* [Contemporary military challenges] 14, no. 2 (June 2012), p. 80.
- 67. As a part of the armed forces, the formal name for the Slovenian navy is the 430th Naval Division. Triglav 11 was built by the Russian Almaz Shipbuilding Company (an adapted export version of the Russian Svetlyak-class patrol boat) as an element of reparation payment to the former Yugoslavia. The author had the pleasure of touring Triglav 11 in Luka Bar, Montenegro, in June 2011 shortly after its commissioning and again in Ankaran, Slovenia, in April 2018. Although hardly a blue-water warship, it was assessed by a retired Royal Canadian Navy captain as possessing modern sensors, light weapons, and superb (largely German) machinery and electrical systems, as well as a highly professional crew; clearly, this was the result of careful and insightful planning, program management, and solid leadership.
- 68. Strategic Defense Review of Montenegro (Podgorica: Ministry of Defense, July 2013), p. 15.
- 69. Albania, Law No. 8875, April 4, 2002, On Albanian Coast Guard. The author had the opportunity to visit *Oriku* (P 132) in Durres in September 2018 and observed a very well-maintained vessel (e.g., little sign of rust, rubber hatch seals not painted over) and a professional and highly motivated crew; these are positive outcomes of strong leadership and conducting ongoing operations in the eastern Mediterranean.
- 70. Paul Pryce, "The Albanian Navy in Action," Center for International Maritime Security, February 4, 2014, cimsec.org/.
- 71. Žnidar, "Transformacijski izzivi za varnost na slovenskem morju," p. 83.
- 72. More specifically, obtaining the Automatic Identification System, a system that the

- International Maritime Organization requires for ships larger than three hundred gross tons.
- 73. Nathan M. Polak, Ryan C. Hendrickson, and Nathan G. D. Garrett, "NATO Membership for Albania and Croatia: Military Modernization, Geo-strategic Opportunities and Force Projection," Journal of Slavic Military Studies 22, no. 4 (October-December 2009), p. 502.
- 74. Elen Twrdy, Andrej Androjna, and Marko Pavliha, "Proposed Model of Coast Guard Enhancing Maritime Security and Safety in the Republic of Slovenia," Promet Traffic త Transportation 26, no. 6 (2014), p. 500. This is part of this publication's Safety and Security of Traffic Review series.
- 75. John Maynard Keynes, preface to The Collective Writings of John Maynard Keynes, vol. 7, The General Theory of Employment, Interest, and Money, ed. Elizabeth Johnson and David Moggridge (Cambridge, U.K.: Cambridge Univ. Press, 1978).
- 76. A point the author argued strongly in Anatomy of Post-communist European Defense Institutions, pp. 6-7, 165-66, 208-11.

- 77. "This funding will increase five main lines of effort: increased rotational presence, additional bilateral and multilateral training with allies and partners, enhanced prepositioning of U.S. equipment, improved infrastructure, and intensified efforts to build capacity with newer NATO allies and partners." Hoffman, "Assessing Baltic Sea Regional Maritime Security," p. 19.
- 78. U.S. Navy Dept., A Cooperative Strategy for 21st Century Seapower: Forward, Engaged, Ready (Washington, DC: March 2015). This document, however, predates the current administration, which may have different strategic priorities.
- 79. Harlan Ullman, "NATO Should Pivot to the Black Sea, End Russia's Free Ride," Observer, September 29, 2017, p. 5, observer.com/.
- 80. "We need new technologies that stress payload over platforms." Hicks et al., Undersea Warfare, p. vi.
- 81. Magnus Nordenman, Maritime Defense for the Baltic States: Issue Brief (Washington, DC: Atlantic Council, February 2018), p. 7.
- 82. Ibid., p. 3.



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