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Dissimilar Naval War in the Black Sea

Implications for the Caspian Maritime Theatre

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"Force is never more operative than it is known to exist, but is not brandished."

– Alfred Thayer Mahan, *Armaments and Arbitration, Or, The Place of Force in the International Relations of States,* 1912

Any big war revolutionizes warfare, compelling both political leaders and commanders to critically review many aspects of military strategy, operational art, tactics, and defense technologies. The war in Ukraine—the biggest armed conflict in Europe since 1945—provides the latest striking example of the changing nature of warfare. One of its intriguing facets is the course of action in the Black Sea, where a belligerent that virtually has no naval forces embattles the numerically superior navy of its adversary, thereby shifting the strategic environment in that theatre.

The operational and technological lessons learned from the dissimilar naval warfare in the Black Sea, amplified through the prism of geopolitical effects, surpass the precise boundaries of that area. One of the particular regions where this experience turns out to be relevant is the Caspian maritime basin.

That being the case, the present IDD Analytical Policy Brief examines the operational and technological patterns of the naval war between Russia and Ukraine and their potential "migration" to the Caspian Sea region. The analysis rests on the probabilistic assumption that the Black Sea and the Caspian Sea regions are merging into a single strategic space through the enduring open-ended war in

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Ukraine, the North Caucasus geostrategic bridge, and the ongoing redesign of the continental geoeconomic map.

Kindly note that the present paper is a continuation of a series of previous IDD publications by the same author, particularly those released on 20 December 2022, 9 June 2023, and 23 June 2023.

Black Sea Naval War: Shadow Boxing

Russia's strategic planning prior to the onset of the present stage in the conflict over Ukraine was centered on the launch of a brief decisive campaign that would meet little resistance and be overwhelmed by superior force. That fundamental miscalculation did not survive the reality check provided by the battlefield.

The Russian military command contemplated the establishment of total dominance in the Black Sea and did not sufficiently consider Ukraine's rudimental coast guard-type navy as a factor. Therefore, a number of the warships belonging to the Black Sea Fleet (BSF) remained stationed outside the theatre (they were tasked with continuing to monitor Western naval activity in the Mediterranean), while several amphibious landing ships from the Baltic Sea and the Arctic became reassigned to the BSF. Such cross-deployments did not take into account the possibility that Ankara would close the Turkish Straits for wartime transit, as is its prerogative under the provisions of the 1936 Montreux Convention. When this materialized, the Russian navy in the Black Sea became bottled-up—without the opportunity for reinforcements or rotations.

In the first three months of the war, the Russian navy was blocking the Ukrainian ports and trying to establish its supremacy in the northwestern part of the sea. However, the ill-fated course of the ground offensive cancelled the initial plan for the amphibious assault on Odessa. Furthermore, the sinking of Russia's sole missile cruiser *Moskva* (by Ukrainian shore-based anti-ship missiles that were believed not to exist) and the loss of its control over Snake Island (after a series of skirmishes) forced the Russian war fleet to cease active operations and retreat to its main home base in Sevastopol. From that point onwards, the role of the BSF came down to the delivery of cruise missile strikes against Ukraine's critical infrastructure and to the interdiction of maritime traffic carrying Ukrainian grain for export.

Yet, a few months later, Sevastopol turned out to be a sort of trap. In October 2022, Ukraine introduced a brand new dimension to its maritime campaign when it began attacking Sevastopol with uncrewed surface vehicles (USVs, a.k.a. naval explosive drones). The strategic 19-km-long Crimean Bridge connecting the peninsula with the Russian mainland also was targeted. This technical innovation by Ukraine appeared to be an operational surprise to the Russian navy. Then, in late spring 2023, the Ukrainians gradually started to expand the operational zone of their naval drones towards the eastern

part of Crimea, Russia's western Caucasian coast, and the southwestern area of the sea. Between 24 May 2023 and 14 September 2023, there were 52 Ukrainian USV attacks (eight of which were successful) in 21 different locations across the theatre.

Since the end of summer 2023, Ukraine has turned to more complex multi-domain operations to isolate the Crimean Peninsula from the Russian mainland and erode its adversary's military capabilities there. At that stage, the attacks involved different combinations of unmanned aerial vehicles (UAV), uncrewed surface vehicles (USV), shore-based anti-ship missiles, and air-launched cruise missiles, synchronized with seaborne raids conducted by Ukrainian special operation forces. Autumn 2023 saw the introduction of yet another Ukrainian technological novelty: uncrewed underwater vehicles (UUV). These submersibles were able to hit and damage several BSF warships out on naval patrol near Sevastopol.

Those pooled attacks delivered several painful blows to the BSF's capabilities and infrastructure. In particular, cruise missiles under Ukrainian control hit the BSF's *Minsk* amphibious landing ship, the *Rostov-on-Don* diesel-electric submarine, and the *Askold* missile corvette, damaging them beyond repairs. In total, during the campaign, the BSF lost a missile cruiser, a corvette, a submarine, two landing ships, and several minor combat crafts and auxiliary vessels. More than a dozen warships sustained damage. Onshore naval infrastructure (including shipyard facilities, headquarters, ammunition dumps, and naval aviation bases) was also hurt. Beyond the physical damage, the BSF and the Russian navy in general suffered a prestige blow. Such an embarrassing outcome is not the end, however, as the fighting against Ukraine's shadow fleet continues.

Size Does Not Matter: Technology Outdoes Mass

The USV-centered asymmetric naval capabilities and tactics, introduced and successfully applied by Ukraine in the Black Sea maritime theatre, initially emerged as an operational surprise that was later transformed into a severe challenge for Kiev's battlefield opponent. The development of unmanned war technologies is Ukraine's great success. In the conditions of an enduring war, its defense industry was able to locally design and manufacture at least three different types of USVs and two types of UUVs, whose operational range could extend up to 1,200 km for some vehicles. The Ukrainian navy is the first in the world to integrate suicide drones into a specialized formation, the 385th USV Brigade. The Ukrainians have devised quite an effective tactic for their "mosquito fleet" by deploying them in swarms (three to five vehicles in each attack) and in coordinated "combos" with aerial drones and cruise missiles, whose synchronized release overloads Russia's defense system.

Although it cannot be said that the Russian side was completely helpless before that integrated blend of sophisticated technological systems, the eventual effects of their projection are grim. The Russian fleet had lost the initiative and turned defensive. Its

main naval base in Sevastopol stays exposed to long-range missile strikes harmonized with UAV-USV attacks. Considering its deteriorating operational security, the BSF's capital assets (such as all operational submarines and frigates) had to withdraw from Sevastopol to escape the Ukrainian threat, redeploying to other locations in Crimea, Russia's western Caucasian coast, the Azov Sea, and even to the breakaway Georgian region of Abkhazia. However, even there, the BSF's ships remain vulnerable, providing an increasing range of Ukrainian capabilities. Being cornered into the eastern area of the theatre restrains the BSF's operational maneuver and complicates its strikes against Ukraine's strategic rear—this is due to the missiles' increased ingress time towards targets, which provides the defender with additional reaction time.

Beyond operational outcomes, there is also a vital economic dimension. No less than 30 percent of Russia's exports and 15 percent of its imports proceed by ships across the Black Sea into the Turkish Straits and beyond. After the summer 2023 attacks against the oil terminal in Novorossiysk and the merchant vessels in the Kerch Strait, all Russian seaports in the region turned into war-risk areas. Subsequently, hazard insurance rates for commercial shipping operations in the Black Sea increased by 20 percent.

Overall, 20 months after the start of the war, the Black Sea Fleet finds itself operating in a confined maritime theatre insulated by the inaccessible Turkish Straits. Russia's failure to effectively counter the dual challenge of new technologies and unorthodox tactics has significantly affected the fleet's war performance, compelling the BSF to focus primarily on the tasks of self-defense and survivability. Likewise, the BSF is not able to effectively protect Russian economic interests and activities. Oddly, all this is occurring in wartime conditions against an inferior foe having no conventional naval capabilities.

This state of affairs reflects a historically recurrent strategic blunder: the Russian obsession of building up its naval capabilities in the Black Sea that goes back several centuries. The fixation on achieving numerical superiority over potential adversaries in such a compact maritime area prompted Russia to build numerous capital warships and submarines whilst overlooking the shifting strategic environment, the evolving nature of warfare, and emerging technologies. The combination of those factors made the BSF traditionally the unluckiest fleet in the Russian navy, which self-scuttled twice in 1855 and 1918 and sustained heavy blows in the 1941-1943 campaign from the Axis forces that had very little naval capability. Instead of the expected major force-on-force engagements for which those expensive warships and submarines were built, the BSF had to face mines, dive-bombers, and the loss of its bases due to the failed ground campaign—a clear illustration of a misjudgment in the Soviet strategic thinking for the time being. After the 2014 annexation of Crimea, the BSF was preparing for anti-access/area denial (A2/AD) operations against NATO allied forces; instead, it became sucked into shadow boxing with the unmanned Ukrainian fleet. The striking historical parallels between past wars and the current conflict teach a clear lesson: quantities may not matter too much; but quality, excellence, and strategic vision do.

Effects of War: Inter-Theatre Blending

The Russian invasion of Ukraine is shifting the geopolitical and geoeconomic conditions of the Caspian Sea, transforming it into a strategic crossroads through which proceed 12.6 percent of global oil and gas exports and 7 percent of commodity exports. The main east-west and north-south transportation corridors are rerouting towards that region due to Russia's "closure" caused by the West-led sanctions and export restrictions regime targeting that country. Two key emerging transit corridors are the latitudinal Trans-Caspian International Transportation Route (TITR, a.k.a. the Middle Corridor) and the meridional International North-South Transport Corridor (INSTC). Different actors support each route. If China, the EU and its member states, and the transit states are backing the Middle Corridor concept, Russia, Iran, and India are advancing the INSTC project. That trend sets the stage for competition and friction. In addition, the region is the start area of the Southern Gas Corridor (SGC) and the proposed Caspian Sea - EU Green Energy Corridor, which, after its operationalization, would initially supply the EU with 4 gigawatts of renewable energy per annum from Azerbaijan (wind and solar) and Georgia (hydro) via the Black Sea. Last (but not least), the Trans-Caspian "digital corridor," providing internet services for several hundred million people in South and Central Asia, the Gulf, and the South Caucasus, will also pass through the region.

From a strategic standpoint, the war in Ukraine has turned the Caspian Sea into the backstage of Russia's military activity. It was launching long-range cruise missiles against Ukrainian targets from Caspian waters and airspace. The Caspian Naval Flotilla redeployed some of its warships and its entire naval infantry to the Ukrainian theatre of operations. More importantly, the Caspian Sea provided direct geographic connectivity to the Russian-Iranian strategic alliance that emerged in 2022. That alliance made Tehran a de facto accomplice to Russia's war in Ukraine. In the framework of the surrogate "lend-lease," Iran reportedly shipped to Russia hundreds of drones and thousands of tons of ammunition desperately needed for the war in Ukraine. In broader terms, the established Trans-Caspian sealift has turned into one of the few remaining lifelines connecting Russia with the outer world (i.e., the Persian Gulf and the Indian Ocean via Iran). The 34.3 percent increase in cargo turnover in Russia's Caspian seaports in 2022 (the number rose to 5.7 million tons) illustrates that trend vividly.

Another important influencing element is the situation in Russia's North Caucasus territories—a landmass sandwiched between the Black and Caspian Seas. As the domestic dynamics in Russia steadily evolve under the blowbacks of the ongoing war, that region is becoming less stable. Chechnya has emerged as an actor that enjoys broad strategic autonomy, wields considerable paramilitary power, and increasingly operates outside Russia's formal legal system. The situation in nearby Dagestan, an inherently volatile Russian republic on the Caspian shores, seems also to be becoming less stable. Parts of the North Caucasus has connections to Georgia's two secessionist territories, located across the Caucasus mountain ridge. In the quite likely case of

the erosion of Russian federal power and the state's monopoly on violence, the North Caucasus could potentially become a lawless zone, affecting stability and security in the broader Caspian region.

All in all, the diverse effects of the war in Ukraine tend to "assimilate" the Black Sea and the Caspian Sea regions into a unified strategic theatre. The foregoing is reason enough to consider the possibility of the maritime dimension of the war in Ukraine projecting into the Caspian Sea, with the aim of assessing the operational and technological lessons derived from developments in the former theatre.

Current Trends in Naval Warfare: Reflections on the Caspian

Although the prospect of an overt armed conflict in the Caspian Sea region appears low (at least from a short- and mid-term perspective), any assessments should take into account the likelihood of lesser-scale hybrid or subversive scenarios involving state, sub-state, and non-state actors.

The Caspian maritime theatre is a landlocked and compact aquatic area (some 371,000 sq. km) extensively congested with expanding energy and transportation architecture. It includes offshore oil- and gas-fields with their diverse associated infrastructure (such as rigs, terminals, interconnectors, storage facilities, etc.), seaports and in-between shipping lines, seabed pipelines and cables (and other critical infrastructure), and many coastal urban centers. That is a target-rich environment for potential spoilers. The most effective operational design against those targets would be a flexible combination of new-old technologies and tactics, such as unmanned strike systems, sea mines, underwater covert actions, and cyber-attacks (although the use of conventional naval capabilities is possible, too).

Both Iran and Russia—two allied actors whose territories encompass, respectively, the southern and northern shores of the Caspian Sea—possess capabilities and tradecraft applicable to hybrid war scenarios. In the decades of standoff with the U.S. in the Persian Gulf, Iran has honed its skills in naval asymmetric warfare tactics and devised appropriate weapons, cascading them onwards to its proxy non-state actors in Yemen, Gaza, and Lebanon. Its arsenals include, beyond other weapons, a broad scale of unmanned aerial and maritime strike vehicles, dozens of types of sea mines, and anti-ship missiles. In particular, those Iran-made systems have been tested in ongoing hybrid naval warfare in the Red Sea. Russia, in turn, has gained mastery of deep-water covert operations against critical seabed infrastructure. Irrespective of which country was responsible for damaging the NordStream and Balticconnector gas pipelines, as well as internet cables in the Baltic Sea in 2022-2023, the feasibility of subversive attacks against underwater installations has been demonstrated without any doubt. Hence, if any malicious intentions emerge in the Caspian Sea, the capabilities are already available to the two aforementioned actors.

To subdue the previously mentioned challenges, the focus should shift to defeating a hostile UAV/USC/UUV projection, mine countermeasure capabilities, protection of underwater infrastructure, cyber-defense, and the development of a sensors-based maritime awareness system. Subsequently, those considerations must find practical implementation in the future military forces structure, arms procurement policy, and research and development programs in the fields of defense technology, operational planning, forces training, etc. Miscalculations, incompetence, or inaction would precipitate nasty surprises and high penalties similar to those met by Russia in the Black Sea naval war.

Synopsis

- The Black Sea and the Caspian Sea regions are merging into a single geostrategic space.
- The principal catalyst for this phenomenon is the shifting global and continental dynamic brought about by the protracted conflict over Ukraine.
- Inter-theatre assimilation increases the likelihood of the potential migration of patterns of naval warfare from the Black Sea to the Caspian region.
- Therefore, a comprehension of those patterns by the states belonging to the Caspian region itself, as well as by relevant external actors, is particularly relevant: the rising geopolitical stakes, geoeconomic interests, and multibillion-dollar investments highlight the issue of their protection and defense, including in the maritime environment.
- The introduction of sophisticated technologies, unorthodox solutions, and asymmetric (irregular) tactics provide a serious challenge to military forces in the region (e.g., the naval branches of the relevant defense forces) that are often preparing for conventional wars of the past.
- The defense and security establishments must be proactive in foreseeing emerging war trends and act in a timely manner to each round of the technological "challenge-response" cycle.
- Even the most unlikely *force majeure* scenarios must be present in strategic calculi, given the grave consequences of their potential materialization.

Conclusion

In 1912, Admiral John Jellicoe, who later led the British Grand Fleet in the Battle of Jutland, made the following remark, in reference to the emergence of a novel war technology—submarines: "It means that all foundations of our naval strategy that have served us so well in the past are ruined!"

The patterns of present-day naval warfare in the Black Sea illustrate, once again, that neglecting the changing character of war induced by new or emerging technologies can eventually cause severe consequences. That statement is fully pertinent to the Caspian Sea theatre, too.