

Ukraine and Russia in the Black Sea: a naval war of mutual denial

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The ongoing war in Ukraine is primarily a continental war. This doesn't mean that the maritime domain has no role. Studying it becomes all the more important because much current naval doctrine is still largely grounded in experiences in the Falklands War. But from a naval point of view, this war is completely different.

The war between Russia and Ukraine started almost two years ago. Many argue that a deadlock is unavoidable. Both Ukraine and Russia are embroiled in a war in which neither side has an incentive to stop fighting. Both sides lack the capability to dominate the theatre using airpower. This article will argue that also in the maritime domain a decisive gain is unlikely for either of the belligerents.

Usually in naval wars there is a stronger naval power that will secure sea control in order to exercise it to achieve objectives, such as the projection of power ashore or the defense or attack of sea lines of communications. For the other, usually weaker party, it is normally better to dispute command of the sea and to deny control of the sea to the opponent. World Wars I and II, the Falklands War and the Gulf Wars could be categorized in this way. This war however, is different.

This article will describe how the two sides apply naval denial strategies and explain why this approach is unlikely to deliver victory to either of them. First it will discuss the objectives of each side. After that it will examine operations from the end of the grain deal in July 2023 until October of the same year, during which time both sides focused on denial and mitigation of pressure from the opponent's use of denial.

The data for my research have been obtained by the author's systematic analysis of internet resources. This has

limitations as detailed verified information on this war is rare. Although operations on land are intensely monitored and reviewed, the maritime picture is much less clear and few systematic publicly available analyses exist.

OBJECTIVES

Russia sought to exploit the Black Sea for three purposes. It tried to blockade ports such as Odessa to strangle Ukraine's economy and prevent supply and reinforcement from the sea. Formally Russia's action should not be called a blockade as it didn't meet all legal criteria, such as proper announcement, but this doesn't change the material goal. The second purpose was to use the sea as space to maneuver and position missile-launching ships and submarines for strikes on Ukraine territory. Thirdly, Russia could transport supplies via the sea. At the start of the war Russia had destroyed most of Ukraine's navy and gained sea control, which doctrinally includes the capability to deny access to the opponent. The first blockade-objective involves a denial purpose. The other two objectives require control for own purposes. The loss of the cruiser Moskva meant that Russia lost control of the sea. Control became mutually disputed, and gradually shifted away from Russia, which, however, didn't mean that Ukraine could gain this control.

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Ukraine obviously seeks free access to the open sea to



Russian missile cruiser 'Moskva' in Sevastopol, Crimea. The cruiser sunk on April 14, 2022 in the Black Sea. shutterstock.com / vadim getmanski

support its exports. But without a sailing navy this objective needs to be achieved by other than military methods. Nevertheless, using drones, special forces and land-launched missiles it could still pursue denial objectives. It could attack Russian naval forces engaged in or capable of conducting missile strikes, and it could try to limit Russia's freedom to maneuver at sea, for example to support transport. Although Ukraine's ultimate objective may be to restore territorial integrity to the pre-2014 situation, taking back Crimea may be unrealistic. However, attacks on land targets will degrade Russia's ability to sustain the war. Such attacks from the sea will require local sea control for the Ukrainians.

Ultimately, for Ukraine its survival as an independent state is at stake. Therefore, these Ukrainian war aims are part of an unlimited war. For the other parties, the Western allies and Russia, their war objectives are limited. Too great an escalation will put other interests at risk. Russia has a large submarine fleet in the Black Sea but using it to intercept and attack merchant shipping with torpedoes will be a clear and strong violation of international law and escalate Russia's tensions with the West. Conversely, the West has been reluctant to deliver deep-strike weapons and to bring NATO's ships into the Black Sea. These factors have constrained the naval war in the Black Sea and kept it limited.

END OF GRAIN DEAL

The grain deal was established mid-July 2022, after Russia

had lost the cruiser Moskva and Snake Island and needed to accept the consequence that it could no longer exercise sea control in the Western part of the Black Sea. Another consideration was that friendly African leaders complained of soaring wheat prices. An alternative would have been to regain some control of the Black Sea by escorting the freighters by coalition warships and minesweepers. Such suggestions were made by Ivo Daalder, a former U.S. ambassador to NATO.¹ NATO countries, however, considered the danger of escalation too high. Fortunately for Ukraine, the international diplomatic flow of events made the deal emerge as a welcome non-military method to mitigate the blockade. The agreement was renewed several times allowing Russia to negotiate arrangements to support its own exports. By mid-July 2023, however, Russia was no longer prepared to continue the agreements. Prices of wheat had stabilized and most Ukrainian grain was flowing to Europe instead of Africa. Although this development produced the side effect of eroding Poland's support for Ukraine, stagnating progress in land operations may have encouraged Putin to put more pressure on Ukraine by ending the deal.

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Coinciding with the end of the deal, Russia launched intense missile attacks on agricultural port facilities in Odessa and, according to US official sources, it mined Odessa's

waters.² Mines are the most typical denial weapons that have been used for centuries. In this scenario it is the most effective method and together with the attacks on grain infrastructure the use of mines cripples Ukraine's economy. In the same period Ukraine attacked Sevastopol Naval Base and Kerch Bridge with naval drones from the sea.³ Attacks on these support facilities will degrade Russia's ability to conduct naval operations. The attack on the bridge will obstruct logistic supplies, but the primary purpose of the attack on this iconic symbol will likely be psychological, aiming to break the will to fight.

INTERCEPTING SHIPPING

In the period from mid-July to mid-August both sides aimed at intercepting each other's shipping. The Russian corvette *Sergey Kotov* was patrolling at the end of July between the Bosphorus Strait and Odessa, most likely to blockade the shipping lane, according to the British Ministry of Defence. Ukraine made an attempt to attack it by drones but failed.⁴ Ukraine declared that all ships proceeding to or from Russian-held ports "may be considered by Ukraine as carrying military cargo with all the associated risks."⁵ On August 4 it did attack the Russian tanker *Sig*. Ukrainian naval reach even advanced as far as the port of Novorossiysk on the eastern Russian mainland by a successful attack eliminating a Ropucha amphibious warfare vessel on August 3. Nevertheless, Ukraine's ability to substantially interdict Russia's shipping has been limited. Russia's weapons-carrying ships and tankers are vulnerable to attacks by unmanned systems, but reports indicate that Russia's escorting patrol ships are reasonably capable of repelling such attacks and Russia's flow of arms by sea remains largely uninterrupted.⁶

Ukraine's ability to substantially interdict Russia's shipping has been limited

INFORMATION WARFARE

Violent action may not be the primary method used to disrupt the opponent's operations. Information warfare could be equally effective. By spreading false information, fear among the opposing sailors could be created without running the risk of operational escalation or failure. An example could be the so-called boarding of the Turkish merchant vessel *Sukru Okan* on August 13 by Russian forces. The Russian MoD had spread a video on social media that displayed the inspection by a Russian boarding team launched by a helicopter, firing warning shots.⁷ Ukrainian sources, however, rebutted the claim, stating that the Russian patrol vessel had only uttered threats by radio communications, which were entirely ignored by the Turkish crew.⁸

This Russian approach to create fear instead of massive interdiction of shipping resembles old French logic of the *Guerre du Course*. In the 18th and 19th centuries, the



View over the port of Sevastopol on Crimea. shutterstock.com / Vladimir Mulder

French didn't intend to achieve British starvation by blockade but rather to cause anxiety on the London stock market. Sea mines are particularly suitable weapons for this type of warfare. Ukraine claimed that since early August, six merchant ships have been damaged by mines. These reports, however, are clouded in uncertainty. Attribution for mine attacks is almost impossible to establish and also the damage can be unclear. Turkish authorities disputed a mine attack and claimed that the Turkish-flagged *Kafkametler*, which had been cruising off the coast of Romania on October 5, observed an explosion but that it occurred 15-20 meters behind the ship.⁹ In early October British authorities released an intelligence report stating that Russia 'considered the use of mining'. This disclosure was intended to deter Russia from doing it, but such a report also contributes to fear in the shipping community.¹⁰ Mining reports cause investigations in port areas, such as the Danube entrance near the Romanian port of Sulina. Such investigations cause further delays to shipping in an area that since the start of the war is already heavily congested with on average 80 ships at anchor causing more than a week of delay. So, although both formally and effectively there is no blockade, substantial damage to trade is caused by ambiguous Russian actions.

UKRAINE'S WHOLE-OF-GOVERNMENT RESPONSE

A sea control method to restore shipping to and from Ukrainian ports would have been to let NATO warships convoy grain transports. Such suggestions were for example made by James Stavridis, a retired U.S. Navy admiral and



former supreme allied commander of NATO.¹¹ However, out of fear of escalation NATO abstained from naval support.¹² So Ukraine had to solve the problem on its own. It did so by demonstrating a whole-of-government approach to mitigate maritime security risks. It arranged public-private partnerships to share insurance risks assisted by technology to track, monitor and report vessel movements in the grain corridor by a 24/7 operations room. In consultation with the International Maritime Organization, it established, on a temporary basis, a recommended maritime route from the Odessa area, largely via Ukrainian Territorial waters, towards the Danube River entrance. To provide more security for its seafarers, specific agreements between the Ukrainian Marine Transport Workers' Trade Union of Ukraine (MTWTU) and ship registration authorities were made as recruiting sailors who are prepared to navigate these dangerous waters will be challenging.¹³ The naval task to clear mines and escort ships is just one of the activities in this maritime enterprise. Interestingly, the situation has not prevented ships from resuming voyages to Ukraine. From September 28, an average of two or three ships a day have been sailing between the Ukrainian ports of Odessa and Chornomorsk and the Bosphorus.¹⁴

Although this may provide some relief, it's just a drop in the ocean. Ukraine's economic infrastructure is still heavily damaged and at sea most likely many mines are still adrift. At some stage a huge mine-clearing operation will be required. Mine-clearing operations by NATO or a coalition of the willing could be a stepping stone to re-establish firm sea

control, but so far there doesn't seem to be enough political will to engage in such a potentially escalating endeavor.

STRIKES ON CRIMEA

The lack of real navy ships didn't prevent Ukraine from using its uncrewed systems, shore-based missiles and a few vessels to gradually tilt sea control towards Ukraine. This allowed them to conduct strikes on Crimea. By the end of August Ukraine had recaptured the oil and gas platforms called the Boyko Towers 80 kilometres west of Crimea.¹⁵ These platforms can be used to support information gathering and possibly as a launching site for missiles. On August 23, a Russian S-400 long- and medium-range anti-aircraft missile system in northwest Crimea was struck by a likely naval missile attack, according to Russian sources. A day later Ukrainian Special Forces went ashore near Olenivka and Mayak on the south-eastern Crimean coast and planted a flag.¹⁶

These shaping operations prepared for a large attack on September 13 by five Ukrainian SU-24 Fencer attack aircraft that launched approximately ten Storm Shadow missiles and destroyed a Kilo-class submarine and Ropucha amphibious landing ship docked in Sevastopol. Later, on September 22, the Naval Headquarters in Crimea were attacked by another strike, conducted simultaneously with a large cyberattack.¹⁷ These strikes will not be decisive, and large-scale amphibious operations to retake Crimea will be beyond Ukraine's capability, but they will severely constrain Russian naval operations in the western part of the Black



Loading of Ukrainian grain in a Black Sea port. shutterstock.com / Glebzter

Sea. After the attacks Russia withdrew most of its naval assets to the eastern port of Novorossiysk on Russia's mainland. Russia previously, after the severe coordinated drone attack on October 29, 2022, also withdrew Ropucha warships to this mainland port, but facilities on Crimea were still needed for example to repair ships and to load Kalibr missiles. This attack seems to indicate that Russia's naval capacities have been severely diminished.

The sea allows Russia to exploit the advantage of defense

CONCLUSION

Sea control has no function other than to support objectives related to the war ashore. This could be either to protect own and attack other shipping or to use the sea as space to maneuver and project power ashore. In this context both sides manage to deny use of the sea to the other but fail to use it for their own benefit. Ukraine's strikes on Crimea constrain Russia's ability to use the sea to project power on Ukraine's territory, but they will not enable Ukraine to retake Crimea. Despite the tilting of sea control to Ukraine,

Russia's sea-denial tactics using mines and information warfare are still severely constraining transport to and from Ukraine and the threat of mines remains unaddressed. In most previous wars the sea could be used to turn the tables. But in this war the sea cannot play such a key role. The tilt in sea control towards Ukraine is insufficient to support Ukraine from the sea. This illustrates the extraordinary and dominant influence of Black Sea geometry governed by the Bosphorus. Despite all difficulties faced by Russia, this mostly plays into Russian hands by giving them the advantage of defense. This situation is unlikely to change as both the West and Russia have an interest in keeping the war limited.

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