

## **MILITARY OPERATIONS TO PREVENT THE NAVAL BLOCKADE OF UKRAINE. BATTLES FOR SNAKE ISLAND**

Geographically, Snake Island is located near Ukraine's maritime border with Romania, 34 kilometers from the Ukrainian coast (the mouth of the Danube River). This makes it a key observation point for all approaches to the ports of the Odesa region.

In February 2022, at the beginning of the full-scale Russian-Ukrainian war, the Russian Federation seized Snake Island in the Black Sea with the goal of establishing a military base there. This base was intended to be the main component of a naval blockade of Ukraine's major ports.

The operation to capture the island began on February 23, 2022. According to the head of the island's border post, B. Hotskyi, a Russian warship made radio contact (channel 16), advising civilian vessels to change their course away from the Snake Island area due to mine danger. The vessel also issued an ultimatum to the island's garrison to lay down their arms. Shortly after, a patrol ship, project 22160 "Vasily Bykov," and a missile cruiser, project 1164 "Moskva," were visually observed from the island. The seizure operation began with the use of naval aviation and ship artillery against the island's air defense and fortifications. On February 24, 2022, Snake Island was captured by the forces of the Russian Federation.

*"A Project 1164 ship has no business being in the Black Sea,"* said Vice Admiral Oleksiy Neizhpapa, commander of the Ukrainian Navy. On April 13, 2022, a target was identified as a large cruiser 120 km away, and two Neptune 360 MC missiles were launched at it. On April 14, 2022, it was confirmed that the missile cruiser Moskva had sunk near Snake Island as a result of the missile strikes.

After the sinking of the cruiser Moskva, the Armed Forces of Ukraine began actively destroying the island's air defense and logistical support. The active use of coastal missile and artillery systems and the Bayraktar TB2 unmanned aerial system on April 26 and 30, 2022, led to the destruction of a Russian command post, a Strela-10 anti-aircraft missile system, a command and staff communication vehicle, a Repellent-1 electronic warfare station, and three anti-aircraft artillery mounts on Snake Island. On May 2, 2022, two Raptor-class patrol boats, which were providing personnel rotation to and patrolling the island, were sunk. On May 7, 2022, Ukraine used aviation to bomb the island's defensive structures and shelters.

On May 8, 2022, an airborne assault operation was conducted to recapture the island. The operation involved eight Mi-8 helicopters and special forces units. During intense close-quarters combat, the Russian garrison could not be dislodged

from the island's shelters. The command decided to halt the assault and evacuate the assault groups to the mainland.

The main reasons for the operation's cessation were intense fire from Russian aviation against supporting forces (Ukraine lost one Mi-14 helicopter and one boat) and intensive work by Russian naval air defense systems against Ukrainian drones, which were coordinating the operation from the air. Despite the active air defense, the evacuation of the assault groups from the island occurred without casualties.

Also during the operation, a Russian Serna-class landing craft, two Raptor-class patrol boats, and a Tor anti-aircraft missile system were destroyed with the help of a Bayraktar TB2. Later that same day, after the operation concluded, a helicopter with Russian paratroopers, which had arrived to reinforce the garrison and evacuate the wounded, was also destroyed.

*"A low bow to the designers and manufacturers of the Ukrainian self-propelled howitzer 'Bohdana,' which played an important role in the liberation of the island,"* said Valerii Zaluzhnyi, Commander-in-Chief of the Armed Forces of Ukraine. After the failed attempt to liberate Snake Island, Ukraine's coastal missile and artillery forces were tasked with preventing any logistical support to the island. Additionally, the island began to be shelled from the coast by "Bohdana" and "Caesar" self-propelled artillery systems. These systems were loaded onto special pontoons and transported along the Danube River to locations from which they could fire on the island, as their range was insufficient otherwise.

Due to these operations, from May 17 to June 30, Russia, in its attempts to organize the island's defense, lost: a Serna-class landing craft, the rescue tug "Vasiliy Bekh" with a Tor anti-aircraft missile system on board, and a significant amount of military equipment and personnel.

On June 30, the Russian Federation completely left the island. According to the official statement of the Ministry of Defense of the Russian Federation, the withdrawal of Russian troops from Snake Island was called a "gesture of goodwill." The Russian side explained this decision by claiming that it allegedly would not impede the UN's efforts to organize a humanitarian corridor for the export of agricultural products from the territory of Ukraine and would not allow Ukraine to "speculate on the topic of the impending food crisis, citing the impossibility of exporting grain due to Russia's total control over the northwestern part of the Black Sea."

On July 7, 2022, Ukrainian special forces groups landed to clear the island of mines and secure it.

Such tactical actions helped to ease the tension in the Odesa region, made further expansion through the unstable regions of Moldova from the sea impossible, and created the conditions for lifting the coastal naval blockade and opening a logistical sea corridor. The existence of this corridor became a strategic defeat for the Russian Federation in the northwestern Black Sea region and opened up further prospects for limiting and isolating the actions of the Russian Black Sea Fleet.

Conclusions:

1. The main mechanisms of coordination between the Ukrainian Armed Forces and NATO forces during the operation to liberate Snake Island are characterized by:

Ukraine's use of NATO-supplied weapons to strike Russian positions on the island and Russian Black Sea Fleet ships. Specifically, this included "Harpoon" anti-ship missiles and "Caesar" self-propelled artillery systems (SPGs).

The provision of intelligence information. This is particularly evident in the use of "Neptune" and "Harpoon" anti-ship missiles, which require precise data on targets, their location, and movement. This data was likely received by the Armed Forces of Ukraine not only from domestic intelligence assets but also from Western partners, who have significantly broader capabilities in space, signals (radio-technical), and aerial reconnaissance. While official confirmations of NATO countries providing targeted intelligence data to Ukraine are absent, circumstantial evidence and statements from Ukrainian and Russian sources suggest that the information exchange between Ukraine and Western intelligence services likely played a critical role.

2. The key innovation lay in the application of an anti-access/area-denial (A2/AD) tactic. The Armed Forces of Ukraine relied on constant, precise strikes from a long distance. The main goal was not the destruction of the garrison, but the complete severance of its supply lines. The sinking of vessels and continuous shelling forced the Russians to realize the futility of holding the island, which led to their retreat.

The Bayraktar TB2 played a critically important role in reconnaissance, fire adjustment, and striking the island's air defense systems and infrastructure. This allowed for real-time data collection and hitting targets with minimal risk to Ukrainian forces.

The use of Ukrainian "Neptune" anti-ship missiles and partner-provided "Harpoon" missiles (to destroy supply vessels), and "Bohdana" and "Caesar" artillery systems, which were moved along the Danube River estuary on specialized floating platforms (for strikes on the island itself), made the island's maintenance logistically impossible for Russian troops.