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The Russian Naval Infantry: Increasing Amphibious Warfare Capabilities

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The Russian Naval Infantry

Increasing amphibious warfare capabilities

by Charles K. Bartles

The Russian Naval Infantry garners much less coverage in the Russian media than the Ground Forces and Airborne Troops (VDV) but is still a major beneficiary of efforts to reform and modernize the Russian Armed Forces. The Russian Naval Infantry is considered an elite force in the Russian Armed Forces, falling somewhere in the hierarchy of Russian military elites between the VDV on the higher end of the spectrum and the Spetsnaz GRU—reconnaissance—on the lower end. Since the collapse of the Soviet Union, the Russian Naval Infantry reportedly has been quite effective during the Chechen campaigns, Russia's counter-piracy operations off the Somali coast, the 2008 Russo-Georgian War, Russia's annexation of Crimea, the Syrian campaign, and in current operations in Eastern Ukraine. Russia is currently increasing its Naval Infantry's capabilities at all levels, to include equipment, landing vessels, and naval support, and has recently upgraded Naval Infantry regiments in the Pacific and Northern Fleets into full Naval Infantry brigades.¹

The Operational Role of the Naval Infantry

It is important to understand that the Russian Naval Infantry is not equivalent to the United States Marine Corps, only having an estimated 12,000 personnel in 2018, with no organic aviation capability. This size difference and the fact that Naval Infantry units are directly subordinate to fleets and the flotilla mean that the Russian Naval Infantry is only capable of coastal defense missions and tactical offensive missions



Russia is currently increasing its Naval Infantry's capabilities at all levels. (Photo by author.)

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and is not capable of conducting large-scale (operational-level) missions. At the operational level, amphibious operations are conducted by the Naval Infantry to support the Ground Forces' units operating on a maritime salient. The size and scope of these amphibious operations are determined by the military's requirements for support; by the range of shore-based aviation, which has to cover the landing of the assault force and provide support; and

by the naval fleet's ability to protect the amphibious force in transit and provide fire support during the assault. But even if the Naval Infantry could conduct operational-level missions, it was only envisioned to secure the initial beachhead and was never intended to further prosecute the offensive. When conducting operational-level missions, the Naval Infantry may be reinforced by VDV units, but the main landing force would consist of the Ground Forces'

units, unloaded from conventional transports at existing ports captured in the initial offensive.²

Amphibious Assault Doctrine

The Naval Infantry is tough and well trained, has led the Russian ground effort in Syria, and was instrumental in the Crimea takedown, but it has had no recent combat experience with amphibious assaults. According to most Russian accounts, the Naval Infantry has lost the capability to conduct brigade-level amphibious assaults and is only capable of executing battalion-level amphibious assaults. As expected, the main offensive mission of the Naval Infantry is amphibious landing operations, with the intent of securing beachheads to facilitate the arrival of heavier (Ground Forces) units. Given Russia's sparse population and vast coastline, likely scenarios for Russian amphibious assault often involve hostile forces occupying a portion of the Russian coast.

The Russian Naval Infantry will not conduct amphibious assaults as the USMC did during WWII (naval bombardment followed by amphibious assault). Instead, it will likely use airborne or air assault operations first in order to disable heavy coastal defenses before amphibious forces land on the beachhead. The Naval Infantry's training scenarios typically involve parachute drops and air assaults from helicopters. An opposed amphibious assault might only occur without the benefit of air assault in situations where the enemy is weak and/or disorganized. The Naval Infantry's interest in airborne/air assault operations stems from its close relationship with the VDV. This relationship dates back to World War II, when certain Naval Infantry units were commanded by VDV officers. These close ties continue today; Naval Infantry units have select units on jump status, and naval infantrymen routinely train at the VDV's Ryazan Higher Airborne Command School. Other Naval Infantry training sites include the Far East Higher Military Command School in Blagoveshchensk for officers, the 907th Joint Naval Training Center in the Leningrad Region for contract NCOs, the 333rd Ministry of Defence Training

Center in Mulino, and the Nizhny Novgorod Region for unit training. Entry-level training for conscripts is conducted at each unit.³ (See Map 1.)

Naval Infantry Organizational Structure

In terms of organizational structure, the Naval Infantry is part of the coastal defense troops, which are in turn part of the Russian Navy. The Navy's command and control of the coastal defense troops is exercised through four fleets and one flotilla, where the commander of the coastal defense troops' units in each of these commands serves on the fleet and flotilla staff. These coastal defense troop commands not only control Naval Infantry and coastal defense artillery units but also select motorized rifle regiments and/or brigades. Three fleets currently have army corps: the Baltic Sea Fleet (11th Army Corps, Kaliningrad), the Northern Sea Fleet (14th Army Corps, Severomorsk), and the Black Sea Fleet (22nd Army Corps, Sevastopol). Although not explicitly stated, these army corps function as intermediate commands between the naval fleets and their associated coastal defense and motorized rifle units, as army groups tend to function as intermediate commands between a military district and their associated maneuver units. In the Russian system, the Ground Forces' army groups, the Navy's fleets, and Aerospace Forces' air and air defense armies are considered operational-level

commands, while army corps are considered operational-tactical commands because they are subordinate to the fleets.⁴

The Naval Infantry Brigade

The Naval Infantry consists of five brigades and two battalions, as follows:⁵

- 810th Naval Infantry Brigade (Black Sea Fleet), headquartered in Sevastopol.
- 336th Naval Infantry Brigade (Baltic Fleet), headquartered in Baltiysk, Kaliningrad.
- 40th Naval Infantry Brigade (Pacific Fleet), headquartered in Petropavlovsk-Kamchatsky, Kamchatka Territory.
- 155th Naval Infantry Brigade (Pacific Fleet), headquartered in Vladivostok.
- 61st Naval Infantry Brigade (Northern Fleet), headquartered in Sputnik, on the Kola Peninsula.
- 414th Separate Naval Infantry Battalion (Caspian Flotilla), in Kaspiysk.
- 727th Separate Naval Infantry Battalion (Caspian Flotilla), in Astrakhan.

The typical Naval Infantry brigade has approximately 2,500 personnel and consists of a command and control element, two naval infantry battalions, an assault (airborne) battalion, a reconnaissance (airborne) battalion, a tank battalion, a sniper company, a self-propelled howitzer battalion, a multiple launch rocket system (MLRS) battalion, an anti-tank guided missile battery, an anti-aircraft missile-artillery battalion, an



Map 1. (Map created by the author.)

anti-aircraft technical support company, a flammability engineer company, a medical company, an assault (airborne) mortar battalion, personnel assault companies, rocket propelled several other

New Combat

One major Russian Naval Infantry equipment is military equipment Ground Forces units and MT-LB

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anti-aircraft missile battalion, a material technical support battalion, a nuclear, biological, and chemical defense company, a flamethrower company, an engineer company, a signal company, a medical company, a landing support company, and several other units. The assault (airborne) battalion contains three airborne assault companies and a mortar battery. The naval infantry battalions have approximately 500 personnel and consist of an airborne assault company, two naval infantry companies, a self-propelled artillery company, an anti-tank platoon, an rocket propelled grenade platoon, and several other units.⁶

New Combat Vehicles and Kit

One major difference between the Russian Naval Infantry and the USMC is equipment. Unlike the USMC, the Naval Infantry has little specialized military equipment. In general, it has used equipment that can be found in lighter Ground Forces units. These "lighter" units are equipped with BTR-80/82 and MT-LB chassis vehicles.

Standard Russian Naval Infantry vehicles include the BTR-80, BTR-82A, MT-LB BTR, BMP-2, 2S1 *Gvozhdika* 122mm self-propelled artillery system, 2S3 *Akatsiya* 152mm self-propelled artillery system, 2S9 *Nona* 120mm self-propelled artillery system, and the 2S31 *Vena* 120mm self-propelled artillery system. (Large seafaring equipment such as landing docks, hovercraft, and other specialized equipment are manned and operated by the Russian Navy.) The practice of using the Ground Forces' equipment for amphibious operations may seem odd to those familiar with U.S. amphibious operations (when comparing the Naval Infantry to the Marine Corps and the Ground Forces to the U.S. Army) but not so for the Russians. Because of the geography of Russia, which has many wide, slow-moving, and shallow rivers, most Russian Ground Forces vehicles have some amphibious capability and/or can ford water.⁷

The Russia Federation is currently experimenting with three new chassis, the heavy-tracked Armata chassis, the Kurganets-25 medium-tracked chas-

sis, and the Bumerang wheeled chassis. These chassis are designed to be modular and interoperable so that the vehicles may accept the same turret, despite the turrets and chassis being designed by different manufacturers.⁸ The Naval Infantry is further modifying the Bumerang chassis to increase amphibious assault capabilities. Unlike most other Russian vehicles, this modified Bumerang will not just be capable of "swimming" for relatively short durations to cross water obstacles but will be capable of over-the-horizon amphibious operations by swimming over 60km from ship to shore. Current procedures involve the Naval Infantry conducting amphibious operations by loading onto small high-speed landing craft from large ships and deploying to shore. If these modified Bumerangs are adopted and successful, the Naval Infantry will be able to deploy directly from the bow doors of large ships. If the Bumerang proves successful in State trials, it could start to replace the BTR-80/82 series of armored personnel carriers.⁹

Unlike the USMC, the Naval Infantry has little specialized military equipment.

Large Landing Ships (BDKs) for Amphibious Warfare and Expeditionary Support

Aside from very different responsibilities and capabilities between the Naval Infantry and the USMC in regard to amphibious assaults, there is also an important geographical difference. While the USMC can operate anywhere in the world, the Naval Infantry is not designed to operate far from Russia's borders. This difference has caused these organizations to develop very different requirements for amphibious landing vessels. Russian amphibious doctrine requires universal landing ships (UDKs), a requirement which has been developed from the long-standing Russian practice of using BDKs, which are

best described by being general-purpose, beachable amphibious transport docks.

Russia relies upon BDKs to support amphibious assault operations and to provide the vast majority of the military's heavy lift. The first BDK entered service in 1966, a *Tapir* class (Project 1171) ship, which is still in service. The next evolution of the BDK was the *Nosorog* class (Project 1174), which had a greater capacity and a helicopter pad. Only a few of these ships were produced, and none are in service. The most prominent class is the *Ropucha* class (Project 775), which has fifteen vessels still in service. The *Ropucha* does not have a helicopter pad, but it displaces 2,200 tons and functions as a transport workhorse for the Russian Navy in both tactical and non-tactical situations, as evidenced by the Syrian campaign. The Russian Navy's active transport vessels (including BDKs), auxiliary fleet, and chartered vessels are participating in logistic support operations, often referred to as the "Syrian Express." However, Russia is having difficulty providing logistical support for the operation. On 30 December 2017, the *Yamal*, a 775 *Ropucha*, collided with a Sierra Leone-flagged freighter in the Aegean Sea. The *Yamal* received extensive damage and is unavailable for operations for the foreseeable future, which resulted in some scrambling to mitigate the loss. The temporary loss of the *Yamal* highlights how much difficulty an overtaxed Russian Navy is struggling to support a relatively modest-sized operation with existing assets.¹⁰

Desire for a UDK

In order to effectively conduct amphibious operations, Russia wants a vessel capable of over-the-horizon assault operations. A UDK would be much larger than a BDK, capable of transporting a full Naval Infantry battalion, and act as a docking station for air-cushioned vehicles and other landing craft. UDKs would also function as a helicopter carrier for an aviation group that can land an assault force with heavy equipment, even on shores that are otherwise inaccessible to most amphibious warfare ships, which require a suitable shore to deploy ramps upon.





A Bumerang BTR. (Photo by Itely Kuzmin.)

Aside from the obvious tactical advantages of such a vessel, there is also a less obvious operational or strategic one. A UDK equipped with an assault force and aviation group is an effective instrument of deterrence in remote theaters, making it possible to quickly, easily, and relatively cheaply deploy a complete air, land, and sea force off a given coastline to intervene in local conflicts or possibly even prevent them by the force's mere presence. Although the UDK was conceived of during Soviet times, there were few shipyards capable of building large warships (25,000 tons). Disagreements over the propulsion system and armaments led to several postponements, and the plans were eventually cancelled after the Soviet Union collapsed.

Russian finances improved markedly in the 2000s, leading to a vast increase in military funding, including the Naval Infantry. A lack of adequate construction facilities and technological considerations caused Russia to consider the foreign construction of a UDK. Russia considered UDKs produced by South Korea, the Netherlands, France, and a few other countries. France's *Mistral* class was an early favorite. The two countries had very good relations; Russia was already involved with France in a few military projects, the ship was relatively inexpensive, the Wärtsilä engine was familiar to the Russian Navy,

the manufacturer was willing to heavily modify the ship to Russian specifications, and there was a possibility of building additional vessels in Russia to facilitate technology transfers. In 2010, Russia agreed to purchase two *Mistral* class amphibious assault ships, a deal later cancelled because of fallout from Russia's annexation of Crimea.¹¹

To find a suitable replacement for the *Mistral*, Russia was considering two different designs for UDKs. The Krylov State Research Center has proposed the

Russian finances improved markedly in the 2000s, leading to a vast increase in military funding, including the Naval Infantry.

Lavina class UDK, which would have a displacement of 24,000 tons and the ability to transport 16 helicopters (Ka-29 transport-assault, Ka-52K attack, or Ka-27 antisubmarine warfare), 50 combat vehicles, and 450 troops. The Neva Design Bureau has proposed the *Priboy* class, which would have a displacement of 14,000 tons and the ability to transport 4 to 6 helicopters, 40 to 60 combat vehicles, and 500 troops. Russia is now considering a joint bid from these two formerly competing bid-

ders, costing an estimated \$690 million. (The joint venture is also called *Priboy*.) Design specifications are still under review, but this UDK would have an estimated displacement of 23,000 tons, a length of 200 meters, a width of 34 meters, a top speed of 20 knots, a cruising speed of 14 knots, a range of 6,000 miles, a cruising endurance of 30 days, and a crew of 400. Reportedly, the class will be able to transport 500 to 900 troops, 50 combat vehicles, 10 tanks, and an undisclosed number of helicopters (a battalion tactical group). The Navy has announced that construction could start as early as 2018–2020; even in the unlikely event that there are no disruption or delays, the earliest the new UDK could be handed over is 2024, but given the history of ship production delays, 2024 seems unrealistic at best.¹²

An Interim Solution: The Large Amphibious Warfare Ship (AWS)

Although Russia will not deploy a UDK class vessel within the next few years, there is an interim solution to fill part of the capability gap. Russia reportedly deployed its first *Ivan Gren* class (Project 11711) large AWS in June. The *Ivan Gren* is based on the *Tapir* class (Project 1171) and was designed long before UDK class ships, such as the *Mistral*, were thought of. The Project

11711 is larger than the *Tapir* (5,000 tons), has a helicopter pad, and has greater autonomy in terms of reserves and fuel compared to the BDKs. It is capable of transporting 300 Naval Infantry personnel and 38 armored personnel carriers or 13 tanks. It is fitted with a Grad-M (maritime) MLRS system with a range of up to 20km, two AK-630M 30mm automatic six-barrel artillery systems capable of expending up to 1,000 rounds per minute, an AK-176 76.2mm gun, and facilities for a

ship-based Russia plan class ships build only development more capable similar capabilities interest in Project also been involved with the *Ivan Gren* have contributed (The keel for laid in December lowered into the water. In short, this means a substantial forthcoming some much tactical head

Small Landing

In addition such as the *Ivan Gren* is also in craft. Russia



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ship-based Ka-29 helicopter. Initially, Russia planned to build four *Ivan Gren* class ships but has recently decided to build only two. Undoubtedly, the development of the UDK, a far larger and more capable platform with somewhat similar capabilities, has diminished interest in Project 11711, but there have also been many problems and delays with the *Ivan Gren* class, which may have contributed to the decision as well. (The keel for the first in the class was laid in December 2004, and it was lowered into the water in May 2012.) In short, the *Ivan Gren* class is by no means a suitable replacement for the forthcoming UDKs, but it can provide some much needed tactical and non-tactical heavy lift capability.¹³

Small Landing Craft

In addition to large landing ships such as the BDK, UDK, and AWS, Russia is also interested in smaller landing craft. Russia currently has two *Zubr*

Class (Project 12322) LCACs and plans on resuming their production. The *Zubr* can land 3 tanks, 10 smaller armored vehicles, or 500 troops (up to 150 tons) on an unprepared coast. The ship is reportedly capable of disembarking an assault force on 78 percent of the world's unprepared coasts. Conventional landing ships with opening bow ramps can do this on only fourteen percent of these coasts. It has a length of 57 meters, a width of 20 meters, a displacement of 535 tons, a draft of 2 meters, and it can reach up to an impressive 70 knots (approximately 80 mph). The *Zubr* class is armed with two Grad-M MLRS systems, four *Igla-M* short-range anti-aircraft missile launchers, and two 30-millimeter guns. The new *Zubrs* should be equipped with a new deck-mounted 22-tube (140mm) MLRS system. The *Ogon* flamethrower-incendiary system is intended to destroy coastal area targets, equipment, and personnel at a distance of 9.5 km.¹⁴

The *Dyugon* class (Project 21820) utility landing craft is capable of sustained speeds up to 35 knots (approximately 40 mph). The ship has an air cavity system that pumps air under the bottom of the ship, creating an air bubble to raise the bow of the boat when moving. This reduces hydrodynamic drag, which increases the vessel's speed and maneuverability by reducing its draught. The *Dyugon* is 45 meters long and can land 3 tanks, 5 BTRs, or 90 personnel (up to 140 tons). The boat is equipped with two 14.5mm machine guns and eight *Igla-M* anti-aircraft missiles. Because of the complex air cavity system, which is reportedly somewhat troublesome, and the boat's inability to transfer heavy loads while underway from a UDK, only five *Dyugon* class ships were commissioned between 2010 and 2015, with no plans for future production.¹⁵ The Russian Navy is now considering a successor to the *Dyugon* class, the A223, which can take full

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advantage of a UDK. These ships will be specially designed to fit into, and be loaded within, a UDK. They will also have a hydroplane design somewhat similar to the *Dyugon* class, but they will be based upon existing civilian vessels, likely to mitigate technical problems experienced with the *Dyugon* class. The proposed vessel will be about 35 meters long, 7 meters wide, and capable of speeds up to 40 knots (approximately 46 mph), and it could land 1 to 3 tanks, 4 to 7 BTRs, or 150 personnel.¹⁶

The Russian Naval Infantry cannot match the capabilities of the United States Marine Corps, but this was never the Soviet or Russian intent.

Conclusion

The Russian Naval Infantry cannot match the capabilities of the United States Marine Corps, but this was never the Soviet or Russian intent. Although the Naval Infantry lacks the capability to conduct operational-level (brigade-sized and above) forced-entry operations, it is still an elite force that fills an important niche in the Russian military. On the offensive side, these forces, when properly equipped with UDK class ships, will be able to deploy a respectable ground, air, and sea expeditionary force built around a Naval Infantry battalion or battalion tactical group. This force will be effective for force projection and deterrence operations and likely will be considered an important defensive capability because of Russia's sparse population and vast coastline. Despite the Navy's efforts to grow its amphibious warfare and expeditionary support capabilities, its relatively slow pace of development can be attributed to the higher priorities of coastal defense and the fielding of precision munitions, such as the Kalibr-NK land attack missile, and their associated platforms. In sum, Russia is increasing its amphibious warfare capabilities, but progress is slow.

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