



The Modernization of Russian Coastal Defense Missiles

OE Watch Commentary: The first accompanying excerpted article from *Izvestia* explains how Russia is retiring its Soviet-era 4K51 Rubezh and SPU-35V Redut mobile coastal missile systems. The 4K51 Rubezh [4K51 «Рубеж»] (NATO: SSC-3 Styx) transporter erector launcher can launch two P-15 Termit [П-15 «Термит»] (NATO: SS-N-2 Styx) anti-ship missiles with an approximately 80km range. The SPU-35V Redut [СПУ-35В «Редут»] (NATO: SSC-1 Sepal) transporter erector launcher can launch one P-5 Pyatyorka [П-5 «Пятёрка»] (NATO: SS-N-3C Shaddock) anti-ship missile with an approximately 750-kilometer range.

In the mid-1990s, the Russian Coastal Defense Artillery started fielding the 3K60 Bal [3K60 «Бал»] (NATO: SSC-6 Sennight) transporter erector launcher to replace the 4K51 Rubezh. The Bal can launch eight Kh-35 [X-35] (NATO: AS-20 Kayak) missiles with approximately a 130km range (260km with



Transporter erector launcher of Redut coastal missile system.

Source: <https://www.vitalykuzmin.net/Military/Park-Patriot/i-rWjJfDF>, CC BY 4.0

the new Kh-35U missile). A typical Bal complex (battalion) consists of 2 command vehicles, 4 TELs, 4 transport-loader vehicles, 2 Monolit-B coastal and air reconnaissance radars, and 1 support vehicle. In 2016 the Coastal Defense Artillery fielded the first K-300P Bastion-P [К300П «Бастيون-П»] (NATO: SSC-5 Stoge) transporter erector launcher, that can launch two P-800 Oniks [П-800 «Оникс»] (NATO: SS-N-26 Strobile) missiles with a 300km range. A typical Bastion-P complex (battalion) consists of 1 K380P command vehicle, 4 K-300P TELs, 4 K342P transport-loader vehicles, 2 Monolit-B coastal and air reconnaissance radars, and 1 support vehicle. According to *Izvestia*, by 2021 each Coastal Defense Artillery brigade will now have 3-5 Bastion and 1-2 Bal battalions. *Izvestia* mentioned another interesting capability of the Bastion-P, the capability to also engage ‘limited mobility’ ground targets such as command and control facilities, radar stations, airfields, helicopter landing areas, and artillery batteries. This mention is in reference to Russia’s reported use of Bastion-P to attack ground targets in Syria in November 2016.

The second accompanying excerpted article from *Izvestia* explains how the Forpost UAV will support coastal defense operations by providing targeting data to Bal and Bastion battalions, as well as naval vessels equipped with anti-ship missiles. The Forpost is a day/night all-weather reconnaissance UAV based upon the Israeli Searcher II UAV. It can operate up to 250km from its ground station (future variants will reportedly have an additional 100km range), can remain aloft for up to 17 hours, reaching an altitude of up to 5000m. The use of UAVs to provide persistent reconnaissance data is viewed by the Russians as being more effective, costing significantly less, and being far more sustainable than manned aviation solutions for this purpose.

As can be seen by ranges of these missiles, Russian capability development is not focused on simply increasing the range of its coastal defense missiles. (The soon to be retired P-5 Pyatyorka has the longest range of these missiles, with a 750km range.) Instead, Russia appears to be emphasizing the reconnaissance/targeting aspect, and choosing to employ many shorter range missiles, instead of fewer long range missiles.

End OE Watch Commentary (Bartles)

“The ‘Forpost’ has everything necessary in order to accomplish the forward air controller function for cruise or anti-ship missiles. The drone’s dimensions and cargo capacity permit it to carry powerful optical-electronic equipment. The ‘Forpost’ can easily be used to detect large targets – first and foremost the probable enemy’s surface ships...”



Continued: The Modernization of Russian Coastal Defense

Source: Aleksey Ramm, Aleksey Kozacheno, and Bogdan Stepovoy, “Отряд не заметят: Арктику защитят маневренные группы с «Бастиями» (Detachment Will Remain Unseen: Arctic Will Be Defended by Maneuver Elements with ‘Bastions’),” *Izvestia Online*, 12 August 2019, <https://iz.ru/908520/aleksei-ramm-aleksei-kozachenko-bogdan-stepovoi/otriad-ne-zametiat-arktiku-zashchitiat-manevrennye-gruppy-s-bastionami>

Detachment Will Remain Unseen: Arctic Will Be Defended by Maneuver Elements with ‘Bastions’

*Maneuver detachments comprising Bastion coastal defense missile systems and naval infantry are being created in the Arctic. These elements are able to patrol unpopulated northern territories surreptitiously, in autonomous mode, for several months at a time. The technical capabilities of these long-range systems enable hundreds of kilometers of seacoast to be securely protected against an assault landing by an adversary. They can be deployed in a matter of minutes. The first detachments have already been constituted within the Pacific Fleet’s coastal defense troops, the *Izvestiya* newspaper has been told by Defense Ministry sources. The formations have also incorporated naval infantry and supply subunits in addition to the coastal defense missile systems.*

Admiral Valentin Selivanov, Chief of the Navy Main Staff, believes that the experience and operational tactics of Strategic Rocket Forces (RVSN) mobile systems can be utilized during the employment of the Bastion systems... “The positions of the Bastion coastal defense missile systems need to remain secret in order for them to be utilized to the maximum effect and to avoid incurring losses,” the expert stated. “In today’s circumstances this is quite a difficult thing to achieve because the developed countries now have powerful technical intelligence and reconnaissance assets at their disposal. A package of space-based, radiotechnical, and radio communications intelligence along with spy planes and unmanned air vehicles are employed in preparing for a landing operation.

“Diverse technical means of concealment and camouflage must be utilized to prevent an adversary destroying the missile launchers. Electronic warfare assets along with air defense systems and aircraft that deny the adversary’s aircraft the chance to approach the coastal defense systems will help to preserve undetectability... The Bastions and their covering group must move around actively but undetected, constantly changing their fire positions. This needs to be done particularly rapidly following operational missile launches. This tactic will enable the Bastions to operate successfully and without incurring losses,” the specialist noted...

The coastal defense missile batteries have always been regarded as the “backbone” of coastal defense. In the process of repulsing an amphibious assault landing they are to inflict a decisive strike on enemy combatants and craft headed for the shore. The coastal defense missile and artillery troops are now discarding their obsolete Redut and Rubezh coastal missile systems. By 2021 the navy is to be fully equipped with the state-of-the-art Bastion and Bal missile systems...

It is planned for each upgraded and rearmed brigade to possess three to five Bastion and one to two Bal battalions...

As and when necessary the Bal coastal defense missile systems will be able to support the long-range Bastions in close-in combat. These systems are designed for the control of littoral zones, straits, and the waters around naval bases. The missiles it employs can hit targets at up to 260 kilometers... the Syrian experience has shown that the Bastions operate well against stationary and “limited mobility” ground targets -- command and control facilities, radar stations, airfields, helicopter landing areas, and artillery batteries...

According to the military expert Vladislav Shurygin, it is essential in the Arctic to organize a highly mobile defense. “It is impossible to establish large groupings in the northern latitudes because of the climatic and natural conditions,” the expert announced. “You won’t deploy tank armies or other large combined troop formations here. One of the primary threats in this sector is that posed by combatant ships that can approach the Arctic coast to deliver strikes. And the constantly shifting Bastion mobile antiship systems will be the very weapon to deter an adversary and make him keep his distance...

Source: Aleksey Kozachenko, Roman Kretsul, and Aleksey Ramm, “Присмотрят свысока: Крым укрепят эскадрилей БПЛА «Форпост» (Look From Above: They Will Reinforce the Crimea with a Squadron of ‘Forpost’ UAVs),” *Izvestia Online*, 14 August 2019. <https://iz.ru/909392/aleksei-kozachenko-roman-kretcul-aleksei-ramm/prismotriat-svysoka-krym-ukrepiat-eskadrilei-bpla-forpost>

Look From Above: They Will Reinforce the Crimea with a Squadron of ‘Forpost’ UAVs

The Ministry of Defense has strengthened the Black Sea Fleet with new unmanned aerial vehicles. A separate squadron of “Forpost” Long-Range UAVs has become part of 318th Composite Aviation Regiment, which is based near Sevastopol. They can conduct reconnaissance and provide target designations to the missile systems of ships, “Bastion” coastal complexes, and artillery. In the experts’ opinion, Black Sea Fleet forces will more rapidly detect and destroy targets with those unmanned aerial vehicles.

*A separate squadron of “Forpost” long-range unmanned aerial vehicles became part of 318th Composite Aviation Regiment during the spring of this year, a Navy Main Staff spokesman told *Izvestiya*. The effectiveness of the new subunit was verified during recent fleet exercises. The experience of the employment of the drones was acknowledged to be successful. In the future, the “Forpost-M” modernized version of the unmanned aerial vehicle will enter the Black Sea Fleet inventory, a Department spokesman added.*

The “Forpost” UAV will be able to take under observation a significant portion of the water area of the Black Sea. They are designed for reconnaissance and target designation for Kh-35 and “Kalibr” subsonic low-altitude anti-ship missiles and for ship and coastal artillery and missile complexes. The “Forpost” has everything necessary in order to accomplish the forward air controller function for cruise or anti-ship missiles. The drone’s dimensions and cargo capacity permit it to carry powerful optical-electronic equipment. The “Forpost” can easily be used to detect large targets – first and foremost the probable enemy’s surface ships...

*In the future, the drones will become a mandatory reconnaissance and target designation tool for the majority of Russian surface ships and strike systems, which will significantly expand their combat capabilities, Admiral Valentin Selivanov, the former Navy Main Staff Chief, reported to *Izvestiya*... The “Forpost’s” electronic filling is constantly being improved. In the near future, they will install new modular optical-electronic systems to identify objects and radars (RLS) on certain modifications of the unmanned aerial vehicles. Because of this, the drones, while located in a patrol area, will be able to independently accomplish a series of new combat missions. The state-of-the-art radar will help to detect potential targets for attack and the optical system will take aim and identify the object...*