



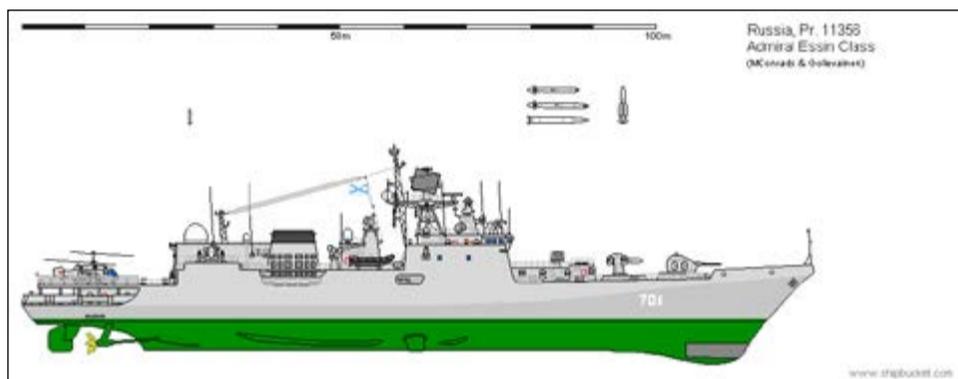
## New Naval System Will Be Capable of Launching Air, Shipping, and Ground Attack Missiles

**OE Watch Commentary:** The Russian Federation has made great efforts to enforce the principles of interoperability and modularity throughout her Armed Forces. The accompanying passages from *Izvestia* discuss how these principles are being implemented in naval air defense, and shed light on the next generation of Russian universal missile launchers.

In terms of naval air defense, these principles are being implemented in two ways. The first is the type of munitions that are being fielded. Instead of developing new air defense missile systems, Russian air defenders are ‘borrowing’ systems from their Ground Forces and Aerospace Forces brethren. For example, as mentioned in the first accompanying passage, Russian naval vessels are being equipped with naval variants of the S-400, an Aerospace Forces air defense system, and the Buk, a Ground Forces air defense system. (Although not mentioned in this article, a naval variant of the Aerospace Forces close-range Pantsir-S air defense system can also be found mounted on Russian ships.) Aside from the obvious benefit of reducing development costs, the economy of scale issues involved with producing existing systems also provide additional financial benefits for state coffers.

The second way that Russia is implementing these principles is through the development of a modular launch system capable of firing different types of missiles. The Russian Federation is already fielding the 3S-14 universal vertical launcher. The 3S-14 is capable of firing several different missiles including the: 3M55 Onyx (SS-N-26 Strobile) anti-ship missile, the 3M-54 Kalibr (SS-N-27 Sizzler) anti-ship missile, the 3M-14 Kalibr-NK (SS-N-30A) land-attack cruise missile, and Russia’s new 3M22 Tsirkon (SS-N-33) supersonic anti-ship missile.

The second accompanying passage discusses the next generation of Russian universal missile launchers. The UKSK-M will be capable of not only firing the same missiles as the 3S-14, but will also be capable of firing air defense and antisubmarine missiles. Due to the varying lengths and diameters of these different missiles, these launchers are likely to waste a significant amount of space for most applications, but in exchange Russia would gain a universal launcher capable of being installed on Russian submarines, cruisers, destroyers, frigates, and even corvettes. This universal launch system will certainly complicate ascertaining the capabilities of any given ship equipped with such a system, as the capabilities of the ship would only be known, if the type of missiles loaded into the internal launchers is known. **End OE Watch Commentary (Bartles)**



Admiral Essen.

Source: By Gollevainen, MConrads, <http://www.shipbucket.com/drawings/2572>, CC 4.0.

**Source:** Aleksandr Kruglov, Aleksey Ramm, and Nikolay Surkov: “«Адмиралов» вооружат «сотовыми ракетами» (The ‘Admirals’ Will Be Armed With ‘Cell Missiles’),” *Izvestia Online*, 3 January 2018. <https://iz.ru/682833/aleksandr-kruglov-aleksei-ramm-nikolai-surkov/admiralov-vooruzhat-sotovymi-raketami>

*Russian ships are to be protected by supersonic weapons. Project 11356 frigates (the so-called Admiral series) will be equipped with unique 9M100 interceptor missiles. Currently the 11356 frigates are armed with Shtil-1 anti-aircraft missile systems. Missiles from this system are capable of hitting targets at long range but cannot easily cope with maneuverable objects near the ship. Special cells with the 9M100 will be loaded onto vertical launchers of the Shtil system. According to experts, this will significantly expand the combat capabilities of the frigates—a layered air defense system will be deployed around them.*

*Izvestia was told in the Navy High Command that the project to equip Shtil-1 anti-aircraft missile systems with 9M100 missiles is at the technical evaluation stage. It is assumed that they will be included in the armament of project 11356 frigates and other newly constructed ships.*

*The 9M100 was originally designed for the S-400 Triumf anti-aircraft missile system and its maritime modification, the Poliment-Redut... The 9M100’s firing range is from 500 meters to 15 kilometers. It can hit targets at altitudes from 5 meters to 8 kilometers. The missile can effectively hit targets moving at speeds up to 3,600 kilometers per hour...The new project 11356 interceptors on board the frigates will be placed in special cells. These are several plastic transport-and-launch containers combined in a single structure. This cell fits in a standard Shtil anti-missile system launcher.*

*Naval expert Aleksandr Mozgovoy told Izvestia that the presence of highly maneuverable anti-aircraft missiles in the on-board anti-missile system is of great importance for project 11356 frigates. “These are ships operate without air cover, so they need a layered air defense,” the expert explained. “The Shtil anti-missile system that is now mounted on them has a range of about 70 kilometers and it ensures a reliable interception of aerial attack assets on distant frontiers. But to operate at close quarters it is advisable to have small, fast, maneuverable missiles. Plus, they take up less space and many more can be taken on board. The new missiles will significantly expand the combat capabilities of these ships.”*

*The Shtil-1 anti-aircraft missile system is equipped with the upgraded Buk-class 9-M317-ME guided missile-interceptor system. It can hit air targets at altitudes from 15 meters up to 35 kilometers and at distances up to 70 kilometers. This anti-aircraft missile system comprises from one up to three combat modules, each with 12 transport-and-launch containers. Depending on the number of modules, the munition comprises from 12 up to 36 missiles. The design of the anti-aircraft missile system initially suggests the possibility of using missiles of other types and smaller sizes. That made it easy to upgrade the 9M100 product for the Shtil.*

(continued)



## Continued: New Naval System Will Be Capable of Launching Air, Shipping, and Ground Attack Missiles

*“It will be possible to install the UKSK-M [universal launch system] not only on cruisers and frigates but also on the lighter corvettes and even on small missile ships of very compact dimensions. Older ships will be fitted with the launcher during routine overhauls.”*

**Source:** Aleksey Ramm, Nikolay Surkov, Yevgeniy Dmitriyev, “Универсальная пусковая установка позволяет применять любые ракеты в любых погодных условиях, [Multipurpose System Will Enable Use of Any Missile in Any Weather],” *Izvestia Online*, 17 November 2017. <https://iz.ru/654343/aleksei-ramm-nikolai-surkov-evgenii-dmitriyev/rossiiskii-flot-poluchit-superraketnicu>

*Russia’s warships are to get an “everything” launcher that can store and fire all types of missile in service with the Navy, even in the strongest storm -- anti-aircraft, cruise, anti-ship, and even anti-submarine. They currently have several types of launcher for different missile types. The new product’s official name is UKSK-M (ship’s universal launch system). It comes as a container with pods and is mounted beneath the ship’s deck. Each pod is designed to hold one missile. Externally, only the protective lids are visible. According to experts, this new development means that warships can make maximum use of their capabilities and take on board only the type of missile they need for a specific purpose.*

*Development work on the UKSK-M is already under way, *Izvestia* was told at the Navy’s high command. The plan is that after completion of trials, the launcher will enter service with Russia’s warships of the future. It will be possible to install the UKSK-M not only on cruisers and frigates but also on the lighter corvettes and even on small missile ships of very compact dimensions. Older ships will be fitted with the launcher during routine overhauls...*

*Naval expert Dmitry Boltenev told *Izvestia* that a universal system with vertical launch gives greater flexibility when deploying ships. “You can load the exact type of missile you need to do a specific job,” he pointed out. “For example, to support an operation on land you take more cruise missiles and to escort an aircraft carrier task force -- anti-aircraft and anti-ship missiles. But there are certain technical challenges. Missiles come in various sizes and the fixing points inside the UKSK-M will have to be equally effective at holding both light and short and heavy and long items. It will also need a unified system for the missile and the ship to exchange information. For that, you need not only the same connectivity for the missiles but also specialized software for the electronics.”*

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