



Capabilities of the 2S35 Koalitsiya-SV Self-Propelled Howitzer

OE Watch Commentary: The accompanying excerpted TASS interview of Pavel Kovalev, the head of the Scientific Design Center, TsNII Burevestnik, specifies a few of the capabilities of Russia's 2S35 Koalitsiya-SV self-propelled howitzer. TsNII Burevestnik is Russia's primary artillery design bureau, responsible for designing the Koalitsiya-SV. Of particular interest is the 2S35's ability to fire several projectiles in rapid succession and, by varying the barrel trajectory, have them arrive simultaneously on target. This capability is known as Multiple Rounds Simultaneous Impact (MRSI). It was first seen in the 2S19M2 Msta-S self-propelled howitzer, which was adopted for service with the Russian army in 2014. Based upon various Russian mass media reports, *Janes* publications have assessed that the 2S35 could at least conduct an eight round MRSI at a range of 30 km. **End OE Watch Commentary (Bartles)**



“The presence of such a firing mode [Multiple Rounds Simultaneous Impact (MRSI)] in the gun significantly facilitates the accomplishment of the firing mission and the possibility of a rapid antifire maneuver. Having carried out an artillery strike, the crew quickly repositions the SAO to a reserve fire position, escaping a retaliatory strike by the enemy, which the latter carries out upon determining the firing SAO coordinates”

-Pavel Kovalev, the head of the Scientific Design Center of the TsNII Burevestnik

Source: “Огневой налет одним орудием: Комплекс “Коалиция-СВ” превзошел мировые аналоги (Multiple Round Simultaneous Impact: The Koalitsiya-SV System Surpasses World Equivalents),” TASS Online, 3 July 2020, <https://tass.ru/armiya-i-opk/8785241>

It is the latest generation of self-propelled guns and in terms of its main tactical and technical characteristics -- the rate of fire, range, and accuracy of firing -- surpasses modern domestic and foreign equivalents. The basis of its firepower is the 152-mm cannon with a fire rate of more than 10 rounds per minute, which is higher than that of other artillery systems. One of the main features of the Koalitsiya is the possibility of remote control of firing, the accuracy of which is provided by an automated command and control system of weapons guidance, target selection, and navigation...

The advanced Koalitsiya-SV self-propelled artillery system (SAO) has no equivalents in the world, thanks to the introduction of innovative technical solutions into the design. Above all, it is the unmanned robotic combat compartment. The SAO command and control is carried out by a reduced three-men combat crew, from automated workstations in an isolated compartment of the chassis...the SAO offers a fully automated firing preparation process, including the choice of the projectile type, the formation of a modular propelling charge, the installation of the detonator, and the targeting of the gun. “Thereby, the first shot preparation time is reduced, and a high rate of fire is ensured at any angle of the gun’s elevation. The time of reaction to any surprise target is being reduced, which is especially important in modern conditions and cannot be ensured by existing models of artillery armament,” Pavel Kovalev, the head of the Scientific Design Center of the TsNII Burevestnik, said.

The Koalitsiya-SV employs a high-ballistics artillery cannon, which provides a large firing range. “The accuracy of firing was enhanced thanks to the onboard system of automatic firing adjustment based on the results of own trajectory measurements. The necessary firing mode is ensured by the automatic operation of the barrel bore cooling system’s cooling liquid injection,” the Burevestnik TsNII specialist notes...

As with the Msta, the new self-propelled gun has a Multiple Round Simultaneous Impact (MRSI) capability. Until recently, this task was unattainable in the Russian artillery. According to Kovalev, this firing mode consists of the fact that “several projectiles, which have been successively released at various angles of the gun’s elevation, strike the target simultaneously, ensuring its effective destruction.” Its implementation on this advanced SAO, the constructor adds, has been made possible by the presence of high-precision powerful targeting drives on the cannon, as well as by its high rate of fire.

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