



Russian Naval Aviation Upgrade in Precision Fire and Interoperability

OE Watch Commentary: The “Hammer of Gefest” [Молот Гефеста] refers to the Greek God Hephaestus, god of metallurgy, masonry, fire and volcanos. As blacksmith and armorer to the gods, he produced the weapons and chariots of Mount Olympus. His Roman equivalent was Vulcan. His Russian equivalent is now airborne. The Russian military is watching it rubles and upgrading serviceable equipment while designing equipment for the future. Precision-guided munitions are expensive and the Russian SVP-24 *Gefest* system provides aircraft with the capability of delivering unguided bombs more precisely. Combat-tested in Syria, the system is widespread in the Russian aerospace forces and is now debuting in the Navy. **End OE Watch Commentary (Grau)**

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Compendium of Central Asian Military and Security Activity

By Matthew Stein

Since Central Asian states gained independence in 1991, new regional military and security alliances have been created (some of which are Russian-led), new military partnerships with non-NATO countries have been established, a number of joint military exercises have been conducted, over a dozen high-profile incidents of violence and civil unrest have taken place, and military installations have been used by foreign militaries. While this activity gained attention, it has not been collectively compiled. A compilation of this activity can serve as a guide for current and future military and security involvement in Central Asia.

<https://community.apan.org/wg/tradoc-g2/fmso/m/fmso-monographs/194880>





Continued: Russian Naval Aviation Upgrade in Precision Fire and Interoperability

Source: Anton Lavrov and Roman Kretsul, “The “Hammer of Gefest: Russian naval bombers will strike with special precision “, *Izvestia*, <https://iz.ru/1037376/anton-lavrov-roman-kretcul/molot-ge festa-morsk i e-bombardirovshchiki-udariat-s-osoboi-tochnostiu>, 20 July 2020.

The “Hammer of Gefest: Russian naval bombers will strike with special precision

Russian Navy aviation is upgrading its Su-24M aircraft with modern sighting and navigation systems according to the Defense Ministry. The naval “Fencers” are acquiring sniper sights--the high-precision SVP-24 Gefest system. These systems were used by Russian Aerospace Forces aircraft in Syria. The Su-24M (the Fencer in NATO classification) aircraft of the 43rd Separate Naval Assault Aviation Regiment in Crimea were the first to receive this upgrade, which makes it possible to hit small targets with conventional bombs. According to experts, the regiment’s pilots will now be able to interact with the ground forces of any affiliation: the Ground Troops, special operations forces, and the Airborne Troops....

The SVP-24 Gefest will enable these aircraft to engage ground targets and surface targets. The sight significantly increases the accuracy of the strikes with unguided bombs compared to ordinary sights. The Black Sea Fleet crews were the first to receive the upgrade. They began to train with the system at the beginning of the year. Pilots of the Baltic and Northern fleets will engage in the same activity in the near future.

The upgraded Su-24M of the Black Sea Fleet will soon take part in the Kavkaz-2020 strategic command and staff exercises, which will be held in September.

Initially, the aerospace force bombers and ground attack aircraft were equipped with the Gefest system. Three years ago, Major General Igor Kozhin, the Navy aviation commander, said that the Navy would also receive around 100 new upgraded aircraft and helicopters by 2020. These included the Su-24M equipped with the SVP-24. Recently, he announced that “the Black Sea pilots have successfully mastered the new sighting systems installed on the aircraft.”

Hero of Russia Valeriy Gorbenko, former commander of the 4th VVS [Air Force] and PVO [Air Defense] Army stated that “The Su-24 is quite an old aircraft. The upgraded version of the Su-24M initially had a much better sighting system than the original version. Also, the more sophisticated navigation equipment makes it possible to run at the target more quickly....The Su-24M used to have rather large deviations during bombing missions. With the new equipment, the bombs will hit the bull’s eye. This will make it possible to accomplish the task more quickly with fewer aircraft, drastically reducing the expenditure of munitions. Another advantage is that data on the target can be transmitted by air observers to the system in an automatic mode, and the computers will perform all operations without the pilot’s intervention.”

Gefest in Syria

The SVP-24 specialized computer subsystem was accepted into service in 2008. But it was the successful experience of its employment in Syria that accelerated its introduction in the Aerospace Force. The majority of Su-24M bombers in the Syrian Arab Republic were equipped with this improved sight.

Russian servicemen highly appreciated the effectiveness of the SVP-24. According to the Defense Ministry’s statements, in real conditions, it made it possible to achieve accuracy comparable to guided munitions. With its employment, the Su-24M’s accuracy increased more than three fold. The impact error of the bombs, dropped from the altitude of six kilometers, was merely tens of meters.

The new system continuously tracks the target coordinates and those of the aircraft, and calculates the falling parameters of the dropped bombs. It automatically inputs adjustments for the wind, temperature, and maneuvers of the aircraft. The command for the use of munitions is precisely calculated. In Syria, single unguided bombs delivered precision strikes against pinpoint objects: detached houses, tanks, militant vehicles.

The SVP-24 system is also installed on Su-25SM3 ground attack aircraft, the long-range Tu-22M3 bombers, and other types of aerospace force vehicles. Certain ship-based Su-33 fighters have also been equipped with these sights. The latest types of Russian-made combat aircraft, such as the Su-35 or Su-57, already have similar built-in hardware and do not require additional upgrades.

The SVP-24 closely interacts with the Strelets reconnaissance, command and control, and communications system (KRUS). Thanks to it, the naval bombers equipped with the Gefest can directly interact with the Ground Troops and the Spetsnaz [Special Forces].

The Sukhoi Aircraft of Crimea

According to military historian Dmitriy Boltenkov, Navy aviation uses its own aircraft classification, and according to it, the Su-24 is considered to be not a bomber, but a ground attack aircraft. “In all, there are four squadrons of such aircraft in the naval aviation. There is one in the 43rd Separate Naval Assault Regiment in the Crimea Saki, another one in the 4th Separate Naval Assault Regiment in Chernyakhovsk, Kaliningradskaya Oblast. Two squadrons are part of the 98th Composite Aviation Regiment, based in Monchegorsk, Murmanskaya Oblast. These units cover the Black Sea, Baltic Sea, and Arctic respectively.

The first Su-24M aircraft, upgraded with the Gefest system, were supplied to the 43rd Separate Naval Assault Aviation Regiment in Crimea. Prior to 2014, Ukraine prohibited upgrading the equipment of this regiment. Therefore, for a long time this was the lowest priority unit, the inventory of which consisted of the basic, outdated version of the Su-24. But this did not prevent the 43rd aircraft from participating in the peace-enforcement operation in Georgia in 2008, and ensuring the security of the Winter Olympics in Sochi in 2014.

The rearmament of the regiment with new equipment began since 2015. The Su-24 was replaced with the Su-24M version. The unit was augmented with a squadron of Su-30SM multirole fighters. They are capable of not only shooting down airborne targets, but also delivering guided weapons strikes against enemy ships.

In 2016, the last Su-24 in the original configuration was removed from the regiment. The upgrade improved Su-24M equipped with the Gefest system increase combat effectiveness and firepower. Now, the fleet’s aircraft can be fully integrated into modern automated control systems.