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Russian Defence Export

Rosoboronexport to exhibit Klavesin-1RE underwater drone at 2023 International Maritime Defense Show in Saint Petersburg



Press Release
May 30, 2023

Rosoboronexport JSC (part of Rostec State Corporation) will be exhibiting Klavesin-1RE, its cutting-edge autonomous unmanned underwater vehicle (UUV), during this year's International Maritime Defense Show in St. Petersburg. A robotic vehicle of this kind will be in demand both in the domestic market and abroad.

“Rosoboronexport is closely watching trends in the global arms market,” said Alexander Mikheev, Director General of Rosoboronexport. “The main focus now is on unmanned military equipment, robotic systems. Unmanned vehicles and systems are expected to be used in all environments – on land, in the air, on and under the water. Among those advanced high-tech systems developed by the Russian defense industry is Klavesin-1RE (literally: “Harpichord”), the latest autonomous UUV. This is an entirely indigenous Russian development, which has a number of unique characteristics, enabling it to occupy top positions in its segment. This product will be in demand both in this country and among international customers. We will be exhibiting the underwater drone to our international partners shortly at the forthcoming International Maritime Defense Show in St. Petersburg.”

The Klavesin-1RE is designed to perform surveillance and search operations, inspect bottom objects at depths ranging from 5 to 6000 m when operating in autonomous mode and also in correction mode via a hydroacoustic communication channel from the carrier vessel.

The UUV makes it possible to conduct bottom topography survey using a sonar and identify objects worthy of detailed examination on board the carrier vessel. It is capable of inspecting underwater objects in detail using a sonar, TV and electromagnetic sensors, as well as of automatically identifying and tracking extended objects using TV and electromagnetic locators. In addition, the drone can perform acoustic profiling of the seabed and measure environmental parameters across the entire range of operational depths and motion speeds.

The UUV system can be operated in any possible hydrological conditions, in Sea State 3 and at water temperatures from -4°C to +35°C. Launch and recovery operations involving the UUV can be carried out at a wind velocity of up to 15 m/s, and the system can be stored and transported at ambient temperatures from -50°C to +70°C.

“With the technical specifications it has, the Klavesin-1RE unmanned underwater vehicle can be operated both in a hot tropical climate and in Arctic regions,” added Alexander Mikheev. “Rosoboronexport is ready to consider various delivery options for the Klavesin-1RE UUV as



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a final product, as well as joint work on the drone through industrial cooperation in the interests of the naval forces of our partners.”



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ROSOBORONEXPORT is Russia’s sole state agency for export of the full range of defense-related and dual-use products, services and technologies. It is part of Rostec State Corporation. Rosoboronexport is among leaders in the global arms market. Rosoboronexport accounts for over 85% of Russia’s exports of arms and military equipment. Rosoboronexport cooperates with more than 700 Russian defense industrial enterprises and organizations. The geographical scope of Russia’s military-technical cooperation encompasses more than 100 countries.

Rostec State Corporation is the largest industrial company in Russia, uniting over 800 research and production organizations across 60 regions of the country. The company plays a crucial role as a major supplier of armaments, military, and special equipment through the state defense order. Additionally, Rostec focuses on the development of high-tech civilian production in strategically important industries, including aircraft engineering, engine building, transportation, power engineering, medical technologies, pharmaceuticals and innovative materials among others. In 2023, the corporation achieved a consolidated revenue exceeding RUB 2.8 trillion.