

# Russian Rocket Engine Deliveries to the U.S. Evade Sanctions

By [The Moscow Times](#)

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A modified NK-33 engine rocket engine being prepared for installation.

Despite fears of supply disruptions, the flow of Soviet-built rocket engines to U.S. commercial space launch firm Orbital Sciences, will not be hit by flaring tensions between Russia and the West over Ukraine, a representative of the Russian company that owns the engines said Thursday.

The standoff between Russia and the U.S. over the territorial integrity of Ukraine has highlighted just how deeply indebted the U.S. space industry is to certain legacy hardware from the Soviet space program — namely in the form of rocket engines — as Moscow has threatened to forbid any future sales of its engines to the U.S. for military satellite launches.

Orbital Sciences, one of the new commercial rocket builders that have emerged in the last several years, uses Soviet-era NK-33 engines modified in Russia to power to first stage of its Antares rocket.

"There is no rift in the relationship," a spokesman for Kuznetsov, the company that owns and reworks the engines was quoted by ITAR-Tass as saying at an arms expo outside Moscow on Thursday.

"Cooperation on the modification of the NK-33 is mutually beneficial," he explained, adding that despite the high rhetoric, sanctions have yet to impact the space industry beyond hardware used for explicitly military purposes.

Kuznetsov currently is contracted to modify six or seven of the engines for Orbital's upcoming resupply missions to the International Space Station.

Considered to be some of the best engines in the world, the NK-33 is no longer in production. Originally built en masse to power the behemoth N-1 Moon rocket in the 1960s, the program was cancelled and the engines stored in a warehouse until the fall of the Soviet Union. They are now modified and sold exclusively to Orbital Sciences, although some Russian space companies have proposed domestic uses for the remaining stockpile of the engines.

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