# Russian navy officer: Fire on Russian nuclear submarine could have led to “planetary catastrophe”

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**12 July 2019**

Further information that has emerged about the July 1 fire on the Russian nuclear submarine Losharik in the Barents Sea, which forms part of the Russian Arctic, sheds light on the enormous dangers bound up with the preparations for world war. The fire claimed the lives of 14 high-ranking Russian navy officers.

Russian president Vladimir Putin called the disaster a “big loss to the Russian navy and army.” The Kremlin has classified details about the disaster as a “state secret.” The navy officers on board had all been trained in St. Petersburg and were, according to the newspaper *Izvestiia*, “the best in Russia.” They were directly subordinated to the Ministry of Defense. The Losharik is deployed by the Main Directorate of Deep-Sea Research, which reports to the Russian military intelligence agency GRU.

At the funeral for the 14 officers on Sunday, an aide to the commander of Russia’s navy, Captain Sergei Pavlov, suggested that a nuclear disaster had been narrowly averted by the crew: “With their lives, they saved the lives of their colleagues, saved the vessel and prevented a planetary catastrophe.”

The Kremlin subsequently denied the gravity of the threat posed by the fire, with spokesman Dmitry Peskov insisting that “there are no problems” with the nuclear reactor. Initially, the Kremlin had denied that a nuclear reactor had been on board the submarine at all.

However, an investigative report that appeared on July 9 in the St. Petersburg-based *Fontanka* newspaper confirms that the situation on the vessel was far more dangerous than previously known. The newspaper reported that the cause of the fire was an electrical short circuit that occurred while the Losharik was docking with its mothership, Podmoskovye, which led to a heat dissipation of the lithium-ion battery, which subsequently exploded and went up in flames.

The information was submitted to the newspaper by five anonymous sources, independent of each other. The newspaper wrote:

“The large-scale fire was provoked, according to our information, by heat dispersal of the battery, which was followed by a series of explosions. The personnel in the front compartment died. So powerful was the shock wave that it was even felt on the mothership. At the moment of the explosion, the apparatus [submarine] was in the process of docking onto it. The survivors sealed off the central compartment, completed the docking, shut down the nuclear reactor and evacuated to the BS-136 Orenburg. Fearing further explosions and that the fire would spread to the carrier, the crew of the mothership flooded the submarine, and this is why by the time it arrived at its base in Severomorsk the submarine was completely underwater.”

Because of the flooding of the submarine, it took over four days to recover 10 of the 14 bodies of the officers. The report about the explosions on board the Losharik would also corroborate a statement by the Norwegian Radiation Protection Authority, according to which they had been notified by the Russians of a gas explosion aboard a vessel in the Barents Sea. The report by the Norwegian Authorities had been denied by the Kremlin.

The struggle to save the submarine by the crew took up to one-and-a-half hours, according to a Russian military expert who spoke to the *Komsomolskaya Pravda*: “The standard fire-extinguishing equipment worked, but they could not completely eliminate the source, and the crew entered the fight for the

survivability of the ship."

Specialists told *Fontanka* that the height of the flames during the explosion of a lithium-ion battery could reach several meters and that it would be impossible to extinguish the fire with a dry-chemical fire extinguisher or water, because the battery itself would release flammable elements and oxygen. The only way to end the fire was to cool the battery.

The emergency breathing apparatus for the crew in the enclosed compartment provided only 15 minutes of air.

Russian fishermen witnessed the emergency surfacing that the crew managed to initiate. One of them told the Murmansk news site *Severpost*, "We were heading toward Kildin, and then, about half past nine in the evening, a submarine surfaces. Suddenly and completely surfaces. I have never seen anything like it in my life. On the deck, people were running around and making a fuss."

While the Losharik is powered by a nuclear reactor, it also includes electrical propellers that are powered by batteries.

In the past, the Russian navy has been known to use silver-zinc batteries to power submarines, which are non-flammable but expensive. According to *Fontanka*, the Russian navy has started looking for alternatives in the form of lithium-ion batteries because they are substantially less expensive.

Lithium-ion batteries, which are commonly used to power devices like laptops and smartphones, are notorious for exploding and causing fires. In 2016, NASA lost the complex robot RoboSimian, designed to rescue people from dangerous situations, when the lithium-ion batteries implanted in the robot exploded and caused a massive fire.

It was not known that any Russian submarine had already started to deploy them and the only lithium-ion battery producer in Russia told *Fontanka* that all their products are still in a testing phase. In October 2018, Japan, involved in a military build-up against China, launched the first-known lithium-ion-equipped Soryu-class submarine, which does not have a nuclear reactor. South Korea has also announced plans to use lithium-ion batteries on its submarines.

The July 1 Losharik disaster is a deadly serious warning about the enormous dangers bound up with the international arms race and preparations for world war.

It remains unknown what exactly was the aim of the Losharik deployment, but there is little question that it was related to the efforts of the Russian state to prepare itself for a potential assault, involving nuclear weapons, by the US and NATO, which have engaged in an open and aggressive military build-up against Russia for years. The US build-up has recently culminated in a $750 billion military budget passed by the Senate in June and has put enormous pressure on the Russian oligarchy, which has recently cut back on military spending amidst a prolonged economic crisis.

Nuclear submarines play an important role in the build-up, both as weapons of nuclear deterrence and as a military means to spy on opponents, intercept and cut internet and other communication cables. Meanwhile, according to one former employee of Russia's General Staff, "The reactors on submarines and other deep-sea vessels aren't typically very well protected."

Russian newspapers have referred to the Losharik submarine, worth an estimated $1.5 billion, as Russia's main military "horror story" for the US. It is deemed capable of cutting internet and other communication cables and can also descend lower into the sea than all other known submarines.

In 2012, the Losharik performed missions on the sea floor in the Arctic Ocean at depths between 2,000 and 2,500 meters (6,600-8,200 ft), whereas the US Navy gives the maximum operating depth of its Los Angeles class attack submarines, the world's largest fleet of nuclear submarines, at 200 meters (650 ft). The Losharik has played an important role in efforts by Russia to explore and dominate substantial parts of the Arctic. The rapidly melting ice in the region—a result of climate change—has dramatically intensified competition over military control over the Arctic and its natural resources in recent years.