U.S. Officials Suspect New Nuclear Missile in Explosion That Killed 7 Russians

Image

President Vladimir V. Putin of Russia in 2018 at a state-of-the-union address, playing an animated video of missiles designed to evade American missile defenses.CreditCreditMarat Abulkhatin/TASS, via Getty Images

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• • • American intelligence officials are racing to understand a mysterious explosion that released radiation off the coast of northern Russia last week, apparently during the test of a new type of nuclear-propelled cruise missile hailed by President Vladimir V. Putin as the centerpiece of Moscow's arms race with the United States.

American officials have said nothing publicly about the blast on Thursday, possibly one of the worst nuclear accidents in Russia since Chernobyl, although apparently on a far smaller scale, with at least seven people, including scientists, confirmed dead. But the Russian government's slow and secretive response has set off anxiety in nearby cities and towns — and attracted the attention of analysts in Washington and Europe who believe the explosion may offer a glimpse of technological weaknesses in Russia's new arms program.

Thursday's accident happened offshore of the Nenoksa Missile Test Site and was followed by what nearby local officials initially reported was a spike in radiation in the atmosphere.

Late Sunday night, officials at a research institute that had employed five of the scientists who died confirmed for the first time that a small nuclear reactor had exploded during an experiment in the White Sea, and that the authorities were investigating the cause.

Vyacheslav Solovyov, the scientific director of the Russian Federal Nuclear Center, said in a video interview with a local newspaper that the institute had been studying "small-scale sources of energy with the use of fissile materials."

But United States intelligence officials have said they suspect the blast involved a prototype of what NATO calls the SSC-X-9 Skyfall. That is a cruise missile that Mr. Putin has boasted can reach any corner of the earth because it is partially powered by a small nuclear reactor, eliminating the usual distance limitations of conventionally fueled missiles.

As envisioned by Mr. Putin, who played animated video of the missile at a state-of-the-union speech in 2018, the Skyfall is part of a new class of weapons designed to evade American missile defenses.

In several recent Pentagon and other government reports, the prospect of a Russian nuclear-powered cruise missiles has been frequently cited as a potential new kind of threat. They are launched into the air and able to weave an unpredictable path at relatively low altitudes.

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That makes them virtually unstoppable for the existing American antimissile systems in Alaska and California, which are designed to intercept intercontinental ballistic missile warheads in space, traveling a largely predictable path.

Image

A 2011 photo of the military base near Nenoksa, Russia, where the explosion occurred.CreditAgence France-Presse — Getty Images

Yet for all the hype, Russia's early tests of the cruise missile appeared to fail, even before last week's disaster. And Russia's story about what happened Thursday in the sea off one of its major missile test sites has changed over the past four days as the body count has risen.

Beyond the human toll, American intelligence officials are questioning whether Mr. Putin's grand dream of a revived arsenal evaporated in that mysterious explosion, or whether it was

just an embarrassing setback in Moscow's effort to build a new class of long-range and undersea weapons that the United States cannot intercept.

Many outside arms experts have long regarded his effort as part fantasy, using a technology the United States tried and failed to make work in the 1950s and 1960s. If so, it may call into question one of the Trump administration's justifications for major new spending on American nuclear weapons to counter the Russian buildup — though the United States also cites a parallel program underway in China.

The accident came at a critical moment in the revived United States-Russia nuclear competition. This month, the United States withdrew from the Intermediate Nuclear Forces agreement, citing long-running Russian violations, and there are doubts that New START, the one remaining major treaty limiting nuclear forces, will be renewed before it runs out in less than two years.

To Russian military officials, one of the appeals of the new class of hypersonic and undersea nuclear weapons is that they are not prohibited by any existing treaties — giving them free run to test and deploy them.

Russia's military, in statements carried by state news agencies, first said that a fire broke out when a liquid-fueled rocket engine exploded at a testing site, but that radiation remained at normal background levels.

That contradicted a report from local authorities in the city of Severodvinsk, about 25 miles away. An official in charge of civil defense said two radiation meters registered a spike. Russian news media later reported radiation briefly rose to 200 times normal background levels.

The reports were quickly taken off the city's websites, but not in time to stop a run by city residents for iodine, a way of protecting the thyroid gland against absorbing radiation.

"This information should be open" to inform those who might be exposed or wish to take precautions, said Aleksandr K. Nikitin, a former Russian naval officer and researcher with the Norwegian environmental group Bellona. "But in Russia it is done differently."

Image

The Chernobyl nuclear power plant in May 1986.CreditLaski Diffusion/Getty Images

The Russian nuclear energy company Rosatom on Saturday said the failure occurred in an “isotope power source for a liquid fueled rocket engine.” While the wording was confusing, it was the first official acknowledgment that the accident was nuclear in nature.

The change in Russia's account, along with separate American intelligence reporting and satellite imagery, got the attention of American intelligence officials. They are now exploring whether the small nuclear reactor that Mr. Putin talked about when promoting the weapon failed, or exploded.

While the scale of the accident appeared vastly smaller than the explosion of the Chernobyl nuclear reactor in 1986, which killed thousands, the slow release of muddied information, the public confusion and distrust of official accounts, and the race for some limited form of protection, seemed to have echoes of the reaction to that disaster.

It has never been clear just how far along Mr. Putin's grand plans for the cruise missile — called the 9M730 Burevestnick by the Russians — had gotten.

A missile-defense review published by the Pentagon — after careful scrubbing to avoid signaling to Moscow what American intelligence officials think they know — notes that "Russian leaders also claim that Russia possesses a new class of missile" that travels five times faster than the speed of sound and moves "just above the atmosphere," in an evasive pattern that would defeat American antimissile technology. But the report made no assessment of whether they would work.

"I've generally been of the belief that this attempt at developing an unlimited-range nuclear-powered cruise missile is folly,'' said Ankit Panda, a nuclear expert at the Federation of American Scientists. "It's unclear if someone in the Russian defense industrial bureaucracy may have managed to convince a less technically informed leadership that this is a good idea, but the United States tried this, quickly discovered the limitations and risks, and abandoned it with good reason."

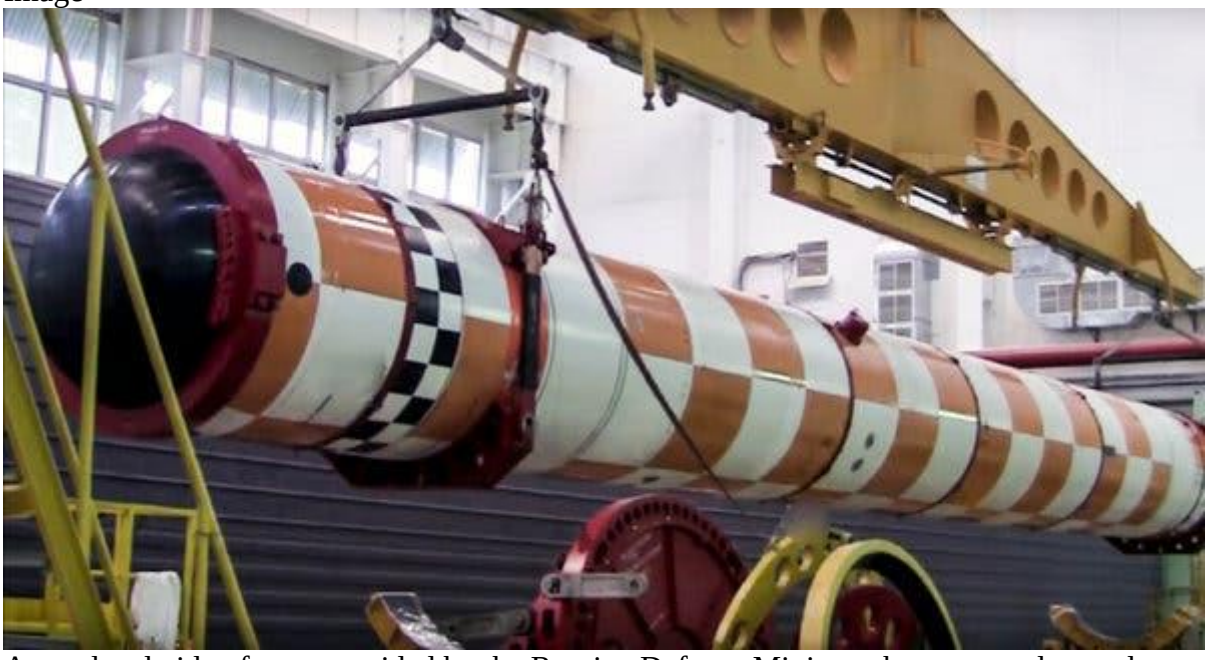
Ivan Konovalov, director of the Center for Strategic Trends in Moscow and a military analyst, characterized the experiments underway now as "pioneering" work on a new technology and fraught with danger.

"When there are tests, anything can happen," he said in a telephone interview.

But for Mr. Putin, facing protests that reveal some public restiveness with his long rule, the weapons programs have been part of his argument that he is restoring Russia to the position the Soviet Union held as a great power.

When Mr. Putin first spoke about the new weapons in 2018, most of the attention fell on his description of an undersea drone, called the Poseidon, that could operate autonomously and, American officials feared, hit the West Coast in a nuclear "second strike" after an initial exchange. Mr. Putin seemed to be seeking attention for the new arsenal.

Image



An undated video frame provided by the Russian Defense Ministry shows an undersea drone, called the Poseidon.CreditDefense Ministry Press Service, via Associated Press

“Nobody wanted to talk to us,” Mr. Putin complained in the speech. “Now listen to us.”

He and others have talked about Russia’s plans for the “Poseidon” in a nod to the Doomsday Machine parodied in the 1964 classic “Dr. Strangelove,” which could hit the West Coast even if Moscow and Russia’s military centers were already destroyed in a nuclear strike. While fictional, the movie was based on a real Soviet plan, a demonstration of how long Soviet and Russian leaders have entertained the idea.

The “Poseidon” undersea drone still appears to be years away. But for Mr. Putin, the most promising weapon has been the nuclear-propelled cruise missile, which he advertised to be

able to fly an unlimited range — an answer to American "global strike" weapons that are designed to reach any corner of the earth, with a non-nuclear warhead.

A little more than a year ago, Russia's Ministry of Defense produced a carefully edited YouTube video that showed the missile heading aloft, and left the impression, wrongly, that it was already working.

The Russian admission that the accident centered on an "isotope power source" followed a series of anonymous statements, run on Tass and other Russian news sites, that seemed to mix fact, rumor and some disinformation. But satellite images offer some clues.

An Aug. 8 image released by Planet Labs, a firm that launches small satellites, appears to show the Serebryanka, a ship that carries nuclear fuel and waste, offshore from the Nenoksa Missile Test Site. Its presence, Jeffrey Lewis, a scholar at the James Martin Center for Nonproliferation Studies at the Middlebury Institute, wrote on Twitter, "may be related to the testing of a nuclear-powered cruise missile."

That vessel, which can safely collect nuclear waste, was also seen at another test of the 9M730 Burevestnick. Other facilities examined by Mr. Lewis' experts seemed to show testing facilities consistent with those previously shown in Russian reports on past tests.

On Sunday, Mr. Lewis said that given the string of other suspected failures in tests of the missile's propulsion system, "we think they are having troubles getting the reactor to light" and create the heat to fuel the missile. The images on the Russian YouTube video "doesn't show you enough to prove it's working,'' he said.

"Maybe Putin will make it happen,'' he added. "Maybe it will never work."

Nuclear arms races are partly about the weapons, but they are also about leaving the impression that systems work, even if they don't. Both sides engaged in propaganda and lies about the capability and size of their arsenals during the Cold War. They also covered up accidents.

The United States lost a nuclear weapon at sea off the coast of Japan, and didn't acknowledge it for years, one of many cover-ups.

And this would hardly be the first time the Russian military, and its Soviet predecessors, covered up a testing disaster. A 1960 explosion at the Baikonur Cosmodrome was not acknowledged for nearly three decades. The official death toll then was 78; now there are some estimates that range into the hundreds.

With the passage of nearly 60 years, the truth may never be known.

https://www.nytimes.com/2019/08/12/world/europe/russia-nuclear-accident-putin.html?smid=nytcore-ios-share