

Opinion

Near miss

Twenty years ago, a string of coincidences nearly set off a US-Russia nuclear crisis, but calmer heads prevailed. Risk of disaster is much higher today.

By Theodore Postol

ON JAN. 25, 1995 — 20 years ago today — the launch of a lone scientific rocket from a small island off the northwest coast of Norway set off Russia's nuclear attack early warning system.

As the rocket took off, it initially passed above the horizon of the curved earth into the field of view of Russian radar. After the motor shut down, the rocket then coasted to higher altitudes — into the middle of the major attack corridor between the US intercontinental ballistic missile fields at Grand Forks, N.D., and Moscow. Unknown to the scientists who launched it, one of the rocket's stages finished its powered flight at an altitude and speed comparable to that expected from a Trident submarine-launched ballistic missile. This combination of events exactly fit the template of an attack scenario under which nuclear weapons are intentionally exploded at high altitudes so as to blind early warning radars before a major bombardment of Russian nuclear forces.

The most immediate explanation for what went wrong that day appears to be serious shortfalls in the Russians' detection apparatus. But the underlying root cause stems from Russian paranoia. Fears created and bolstered by the relentless, obsessive — and ongoing — American nuclear force modernization pro-

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US should rein in senseless nuclear efforts

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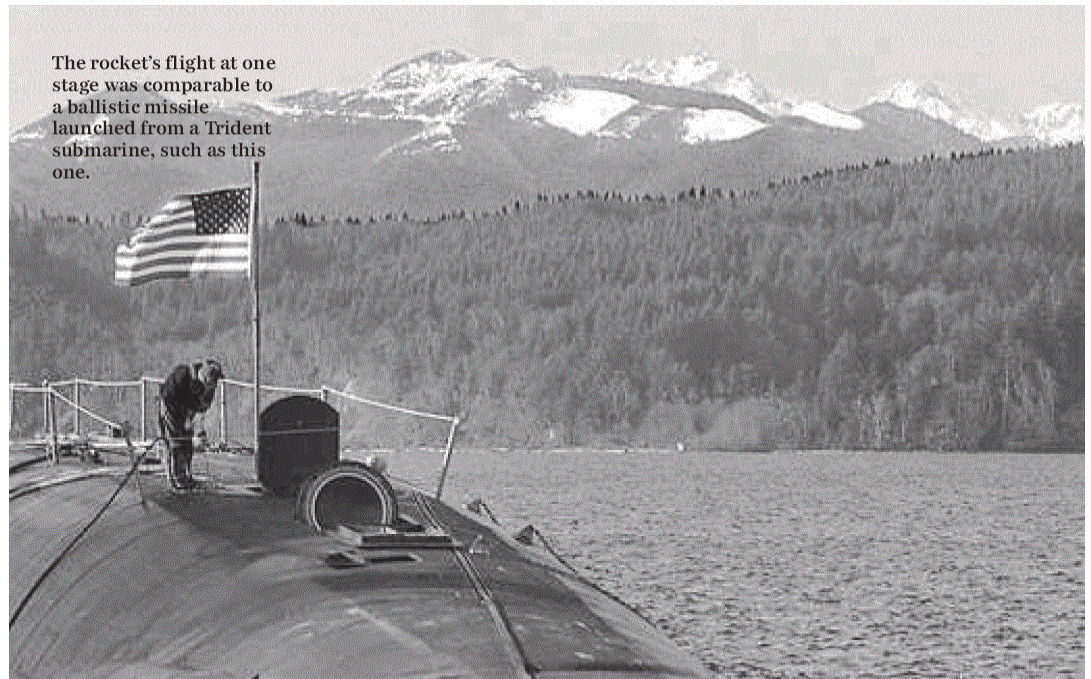
gram. This initiative was, and remains today, heavily focused on increasing the killing power of each deployed US nuclear warhead, producing and reaffirming concerns by Russian military analysts and leaders that the United States might truly be preparing to fight and win a nuclear war against Russia.

What happened after these initially ambiguous events has been a source of extensive speculation in the West. Fortunately, political tensions between Russia and the United States and Europe at the time of the incident were very low, but it is known that the alarm caused Russia's then leader, Boris Yeltsin, to be called and kept closely informed by the Russian military leadership while the rocket was tracked until it reached and passed its maximum altitude of 1,400 kilometers.

Today the situation is far more dangerous.

Had the false alert of 1995 occurred instead during a political crisis, Russian nuclear forces might have been launched. American early warning systems would have immediately detected the launch, and this might then have led to the immediate launch of US forces in response to the Russian launch.

That is because the Russians had no choice but to assume that blinding its early warning triggers would be an American tactic to conceal a much larger flight of warheads that would have not yet risen above the radar horizon — but would have been launched earlier by Trident submarines in the north Atlantic Ocean. According to the “theory” of nuclear war-fighting, the chaos and confusion that could accompany the blinding attack might then be exploited to destroy vulnerable land-based Russian forces before they could be launched. This particular theory of war, of course, does not include any credible evaluation of how the strikes and counterstrikes following these initial events would end the world as we know it.



The rocket's flight at one stage was comparable to a ballistic missile launched from a Trident submarine, such as this one.

MELINA MARA/THE BREMERTON SUN VIA ASSOCIATED PRESS/FILE 2000

If Russia's space-based early warning had been working, Russian military leaders would have immediately been able to see over the earth's horizon from satellites high in space that there was no indication of any launches from Trident subs in the north Atlantic. They would have also seen no activity in the Gulf of Alaska, where the Pacific Trident fleet was on patrol.

As it turns out, Russia at that time did have some satellite observation of the Grand Forks fields, but it did not have operating ground-based radars that could detect incoming missiles from Tridents in either the Atlantic or Pacific. In short, Russia had no way to know if it was actually under attack, or if the lone rising rocket was simply a coincidence.

In the different political circumstances of 2015, the same cautious assessment of the rocket's trajectory by Russia's political and military leaders might not be possible. Russia has annexed Crimea, interfered in eastern Ukraine, and embarked on a major modernization of its conventional forces. The United States and NATO have responded with sanctions, which, together with the precipitous fall in the price of oil, are destabilizing the Russian economy and threatening President Vladimir Putin's popularity.

Russia has responded by canceling the groundbreaking 1991 “cooperative threat reduction” program, the Globe reported last week, which has substantially improved dialogue to prevent nuclear proliferation as well as increased safety and transparency standards with regard to the handling and dismantling of nuclear weapons. This action has been accompanied by a sharp escalation in Russian military and submarine operations, further raising the chances of unwanted incidents that would exacerbate tensions even more.

On top of this, the relentless modernization of US nuclear forces continues un-

abated.

The current situation has become so dire that only four days ago the Bulletin of the Atomic Scientists decreased the time to Armageddon on their doomsday clock from five minutes to three minutes.

One positive development that will make us all safer is that Russia will shortly no longer have holes in its network of early warning radars. Yet efforts to modernize the large and expensive network of ground-based radars has been accompanied by a decision to abandon the current space-based satellite early warning system. So even with this vital new radar

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early warning system, without the benefit of space-based assistance, Moscow could still have no more than six to seven minutes warning of a Trident submarine attack. That small window of time is inadequate for reflection, assessment, and decision-making. This dangerous shortfall could greatly increase the chances of unrecoverable accidents involving the central strategic nuclear forces of Russia and the United States.

What's more, in addition to the important technical questions, one giant non-technical question remains open — will Russian's current difficulties lead Putin to take other unwise but nationalistic actions? His recent major speeches show a deep resentment of what he takes to be an American insistence on dominating everything. But they also suggest a readiness to discuss all disagreements.

Both sides need to be very careful.

While the United States cannot control what the Russians do, it can act so as to make foolish decisions on their part — and on ours — less likely. Three ways to achieve this end are worthy of consideration.

First, NATO's military capabilities should be carefully strengthened so as to increase its ability to deter, not provoke, further negative Russian actions. In particular, the current Russian conventional force modernization should not be allowed to produce forces superior to those of NATO. This will require significantly greater commitments in funds by the European powers.

Second, the United States should rein in its senseless and dangerous nuclear force modernization efforts. This program creates the appearance that the United States is preparing to fight and win a nuclear war with Russia. The nuclear deterrent on hand, with minor modifications, is already more than enough.

And finally, Russia should have access to specialized satellite sensor technologies. Both the Americans and the Europeans have this technology and could supply it, helping to correct this dangerous shortfall by equaling the nuclear playing field.

Such measures could easily be taken without any risk of transferring sensitive technical information about how to fabricate such sensors and might well increase our chances of surviving future dangerous early warning mishaps.

Those we can expect to occur with certainty.

Theodore Postol has been an adviser to the US Navy's chief of naval operations on strategic and tactical nuclear weapons systems and on missile defenses. He is professor emeritus of science, technology, and national security policy at MIT.

The Boston Globe

Opinion

How a nuclear near-miss in '95 would be a disaster today

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The risk is much higher today

By Theodore Postol January 25, 2015

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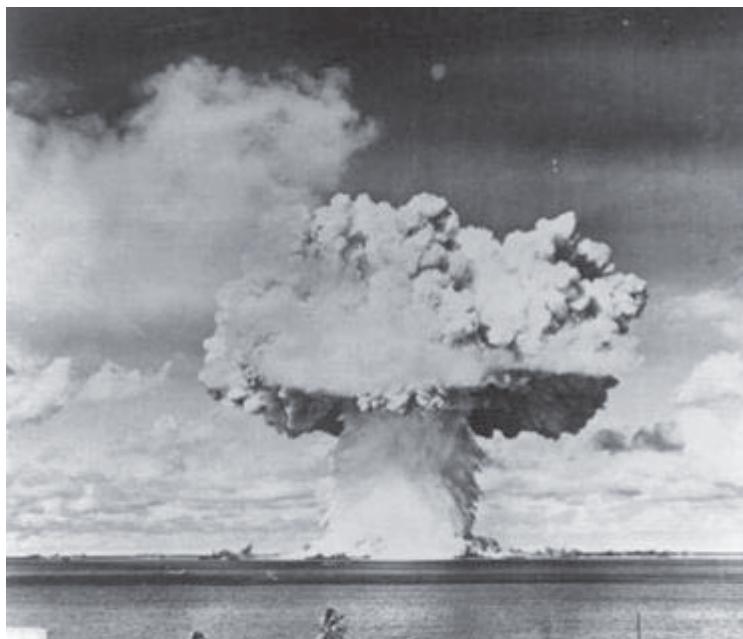
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What happened after these initially ambiguous events has been a source of extensive speculation in the West. Fortunately, political tensions between Russia and the United States and Europe at the time of the incident were very low, but it is known that the alarm caused Russia's then leader, Boris Yeltsin, to be called and kept closely informed by the Russian military leadership while the rocket was tracked until it reached and passed its maximum altitude of 1,400 kilometers.

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