

# The nuclear arms race is back ... and ever more dangerous now

Simon Tisdall

Donald Trump has increased spending on America's arsenal while ripping up cold war treaties. Russia and China are following suit

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A missile test launch by North Korea on 25 July this year. Photograph: AP

**I**magine the uproar if the entire populations of York, Portsmouth or Swindon were suddenly exposed to three times the permissible level of penetrating gamma radiation, or what the nuclear physicist Ernest Rutherford termed gamma rays. The outpouring of rage and fear would be heard across the world.

That's what happened to the roughly 200,000 people who live in the similarly sized northern Russian city of Severodvinsk on 8 August, after [an explosion at a nearby top-secret missile testing range](#). Russia's weather service, Rosgidromet, recorded radiation levels up to 16 times higher than the usual ambient rate.

Yet the incident has been met with surly silence by [Russia](#). It was five days before officials confirmed a blast at the Nyonoksa range had killed several people, including nuclear scientists. No apologies were offered to Severodvinsk residents. There is still little reliable information. "Accidents, unfortunately, happen," a Kremlin spokesman said.

That callous insouciance is not universally shared. According to western experts, the explosion was caused by the launch failure of a new nuclear-powered cruise missile, one of many advanced weapons being developed by Russia, the US and [China](#) in an accelerating global nuclear arms race.

Vladimir Putin unveiled the missile, known in Russia as the Storm Petrel and by Nato as Skyfall, in March last year, claiming its unlimited range and manoeuvrability would render it "invincible". The Russian president's boasts look less credible now.

But Putin is undeterred. Denying suggestions that the missile is unreliable, the Kremlin insisted Russia was winning the nuclear race. "Our president has repeatedly said that Russian engineering in this sector significantly outstrips ... other countries," a spokesman said.

Now fast-forward to 16 August, and another threatening event: the [test-firing by North Korea](#) of potentially nuclear-capable ballistic missiles, the sixth round of launches since July. More than two years of vanity diplomacy by Donald Trump has not convinced Pyongyang it is safe to give up its nukes – proof, if it were needed, that unilateral counter-proliferation initiatives do not work.

Arms control experts say a consistent, joined-up international approach is woefully lacking. Thus Israel's undeclared nuclear arsenal is tolerated, and the idea of a bomb developed by Saudi Arabia is no longer ruled out. But the merest hint that Iran may build a nuclear weapon is greeted with [megatons of hypocritical horror](#).

In a sense, the problem is circular. Putin argues that Russia's build-up is a response to destabilising US moves to modernise and expand its own nuclear arsenal – and he has a point. Barack Obama, the former president, developed a \$1.2tn plan to maintain and replace the “triad” of US air, sea and land-based nuclear weapons.

Trump has gone much further. The Pentagon's nuclear posture review, published last year, proposed an additional \$500bn in spending, including \$17bn for **low-yield, tactical nuclear weapons** that could be used on conventional battlefields. The first of these new warheads is due to become operational next month.

Critics in Congress say low-yield weapons make nuclear warfare more likely, and oppose Trump's budget increases. But with US planners saying the biggest national security threat is no longer terrorism but nuclear-armed states, there is little doubt that many new weapons projects will get the go-ahead.

The renewed nuclear arms race is a product of Trump's America First outlook and that of comparable ultra-nationalist and insecure regimes elsewhere. Trump's emphasis on defending the “homeland” is leading inexorably to the militarisation of US society, whether at the Mexican border, on inner-city streets or in its approach to international security.

“We have far more money than anybody else by far,” Trump said last October. “We'll build up until [Russia and China] come to their senses.” Outspending the opposition was a tactic employed by Ronald Reagan in the 1980s. And Trump is putting taxpayers' money where his mouth is. Overall, annual US military spending is soaring, from \$716bn this year to a proposed \$750bn next year.

The paradox is that even as the risk of nuclear confrontation grows, the cold war system of treaties that helped prevent Armageddon is being dismantled, largely at Trump's behest. Earlier this month, the US withdrew from the 1987 Intermediate-range Nuclear Forces (INF) treaty with Russia (which rid Britain and **Europe** of US missiles deployed in the early 80s).

The US is also signalling it will not renew the New Start strategic nuclear weapons treaty when it expires in 2021. Washington claims Moscow cheated on the INF pact; Russia denies it. But the real US concern is that both treaties tie its hands, especially regarding China – another example of the impact of America First thinking.

This increasingly unregulated, three-way contest poses indisputable dangers. The US plans were “unnecessary, unsustainable, and unsafe” and “increase the risks of miscalculation, unintended escalation, and accelerated global nuclear competition”, the independent US-based **Arms Control Association** said in April.

With a much smaller arsenal than the US and Russia, China, too, is “aggressively developing its next generation of nuclear weapons”, according to a major Chinese **weapons research institute**. Nor, given Moscow's and Washington's behaviour, has it an incentive to stop, despite Trump's vague proposal for a trilateral disarmament “grand bargain”.

Like the US, China – while historically pledged to “no first use” – wants potential enemies to believe it may actually use tactical nukes. As **Dr Strangelove** would doubtless appreciate, this, perversely, increases the chances that it will.

The dreadful example these nuclear arms-racers are setting to non-nuclear states such as Iran is obvious. By failing to uphold arms control agreements, neglecting collaborative counter-proliferation efforts, and building new, more “usable”, dangerously unproved weapons like the one that irradiated Severodvinsk, the nuclear powers are digging their own graves – and ours.

## Russia and China say US missile test could revive arms race

### Beijing urges US to ‘let go of cold war mentality’ after it fires nuclear-capable weapon

*Agence France-Presse in Moscow*

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The weapon tested by the US was a version of the nuclear-capable Tomahawk cruise missile. Photograph: Scott Howe/AFP/Getty Images

Russia and China have said a new US missile test has heightened military tensions and risks triggering an arms race, weeks after Washington **ended a cold-war-era weapons pact** with Moscow.

The US and **Russia** terminated the intermediate-range nuclear forces (INF) treaty this month after accusing each other of violating the accord. Washington said the agreement also tied its hands in dealing with other powers such as China.

The US defence department announced on Monday it had tested a type of ground-launched missile that was banned under the 1987 INF agreement, which limited the use of nuclear and conventional medium-range weapons.

“The US has obviously taken a course towards escalation of military tensions. We won’t react to provocations,” Russia’s deputy foreign minister, Sergei Ryabkov, told the state news agency Tass. “We will not allow ourselves to get drawn into a costly arms race.”

Ryabkov said the test showed Washington had been working on such missiles long before its official withdrawal from the deal.

In Beijing, the Chinese foreign ministry spokesman, Geng Shuang, said: “This measure from the US will trigger a new round of an arms race, leading to an escalation of military confrontation.”

He said the test would have a “serious negative impact” on the international and regional security situation. The US should “let go of its cold war mentality” and “do more things that are conducive to ... international and regional peace and tranquillity”, Geng added.

The missile was launched from the US-Navy-controlled San Nicolas Island off the coast of California.

Speaking in France on Monday, before news of the US test launch broke, **Vladimir Putin** said Russia would only deploy medium- or shorter-range missiles in response to similar moves by the US.

“If the United States produces such offensive systems, we will also do so,” the Russian president said at a press conference before a meeting with the French leader, Emmanuel Macron.

Moscow and Washington have long criticised the treaty but Putin said it was the US that had made the decision to “unilaterally” withdraw.

The weapon tested on Sunday was a version of the nuclear-capable Tomahawk cruise missile. The ground-launched version of the Tomahawk was removed from service after the INF was ratified.

This month the defence secretary, Mark Esper, said the US had begun work to develop mobile, conventional, ground-launched cruise and ballistic missile systems.

“Now that we have withdrawn, the Department of Defense will fully pursue the development of these ground-launched conventional missiles as a prudent response to Russia’s actions,” he said.

Esper confirmed the US was not embarking on a new arms race. “The traditional sense of an arms race has been in a nuclear context,” he said. “Right now, we don’t have plans to build nuclear-tipped INF-range weapons. It’s the Russians who have developed non-compliant likely, possibly, nuclear-tipped weapons.”

The US launch came weeks after a **deadly explosion at a Russian testing site**, which western experts linked to Moscow’s attempts to develop a nuclear-powered missile.

The blast killed five scientists and caused a spike in radiation levels, although Russian authorities have remained tightlipped on

the nature of the explosion. US experts have said it could be linked to testing of the Burevestnik cruise missile, touted by Putin this year.

The INF banned all land-based missiles that could travel between 310 and 3,400 miles (500 and 5,500km) in an effort to abolish the class of nuclear arms that then most threatened [Europe](#).

# Nuclear monitoring stations went mysteriously quiet after Russian missile facility explosion

By [Barbara Starr](#) and [Ryan Browne](#), CNN

Updated 1003 GMT (1803 HKT) August 20, 2019



**(CNN)**Four Russia-based nuclear monitoring stations that monitor radioactive particles in the atmosphere have mysteriously gone quiet after an August 8 explosion at a [Russian missile testing facility](#), an explosion that has sparked confusion and concerns about possible increases in radiation levels, according to the Comprehensive Nuclear-Test-Ban Treaty Organization.

CTBTO is an independent body which watches for nuclear weapons testing violations with over 300 monitoring stations around the world. Both Russia and the US are signatories to the treaty.

The two Russian radionuclide stations, called Dubna and Kirov, stopped transmitting data within two days of the explosion, the organization said.

"According to our routine global procedure, the CTBTO contacted the Station Operators as soon as the problems started. They have reported communication and network issues, and we're awaiting further reports on when the stations and/or the communication system will be restored to full functionality," a spokesperson said.

In addition, a senior CTBTO official tells CNN that stations in Bilibino and Zalesovo went silent on August 13.

"Experts continue to reach out to our collaborators in Russia to resume station operations as expediently as possible," the official said.

The organization has 80 radionuclide stations around the globe which "measure the atmosphere for radioactive particles," it says, adding that "only these measurements can give a clear indication as to whether an explosion

detected by the other methods was actually nuclear or not."

US officials believe the deadly explosion was caused during testing of the nuclear propelled Russian missile SSC-X-9 which NATO has designated the code name of "Skyfall."

The missile is believed to use a nuclear reactor to help power its flight, giving it the ability to fly for longer periods than a conventional missile.

The explosion at the missile site, which resulted in the death of five Russian military scientists, has been the subject of intense speculation as Moscow has provided few details about the incident, with the Kremlin only saying that ["accidents happen."](#)

The mysterious disruption to the radionuclide stations, which track radioactive particles in the atmosphere, comes as Russian officials have given contrasting accounts about the level of radiation released in the explosion.

Local authorities reported a brief spike in radiation following the incident but Russia's Defense Ministry said radiation levels were normal.

Russian authorities also [called off the evacuation](#) of a village in northern Russia near the site of the suspected failed missile test, Russian state news agency TASS reported last week.

Last week, the Norwegian Radiation and Nuclear Safety Authority said that "tiny amounts of radioactive iodine" had been detected at an air-filter station, one week after the mystery-shrouded explosion.

President Donald Trump said on Twitter last week that the US "is learning much from the failed missile explosion in Russia," adding, "the Russian 'Skyfall' explosion has people worried about the air around the facility, and far beyond. Not good!"

## Putin says there is no risk of increased radiation levels

Russian President Vladimir Putin said Monday that there is no risk of increased radiation levels.

"There is no threat here, no increase in the [radiation] background exists either," Putin said ahead of a meeting with French President Emmanuel Macron at Fort of Brégançon in France.

"We don't see any serious changes there, but preventive measures are being taken so there are no surprises," Putin said, adding that independent experts were sent to the site to monitor the situation.

*This story has been updated.*

# What a mysterious explosion tells us about Russia's 'doomsday weapon'

By [Nick Paton Walsh](#) and Nathan Hodge, CNN

Updated 0454 GMT (1254 HKT) August 18, 2019

**London and Moscow (CNN)** An [explosion](#). An abruptly-canceled [village evacuation](#). Five dead nuclear experts. And a few traces of [radioactive iodine](#) in the air over the northern Norwegian coastline.

These are the fingerprints of what appears to have been Russia's latest failed bid to test its Burevestnik missile, [also known as Skyfall](#).

It's claimed by its owner, [Russian President Vladimir Putin](#), to have unlimited range and be able to outflank all US air defenses. But this month, it proved, for a Kremlin keen to emphasize its growing military muscle, yet another high-profile hiccup.

It wouldn't be the first time that a test of the missile wasn't entirely successful, according to US officials. But what is Skyfall? In truth, analysts don't really know, but their guesswork leads them to believe it's a form of cruise missile designed around a nuclear reactor.

The spiking of radiation levels in the area, potentially reaching as far away as Norway, lends credibility to the theories.



Putin's spokesman, Dmitry Peskov, [declined to confirm widespread international speculation](#) that the accident involved a nuclear-powered cruise missile, but said the mishap would not set back Russian efforts to develop advanced military capabilities.

Peskov said that only experts could speak with authority on such matters, but added: "Accidents, unfortunately, happen. They are tragedies. But in this particular case, it is important for us to remember those heroes who lost their lives in this accident."

Jon Hawkes, associate director of land warfare at Jane's IHS Markit, said the system could work one of two ways. It could be an "air-breathing engine employing a small nuclear reactor core to heat incoming air that is expelled to generate thrust."

Or it could be a "nuclear thermal rocket engine, where the nuclear core is used to heat a liquid fuel such as hydrogen before expelling it through a nozzle to produce thrust."

## 'Doomsday weapon'

Yet he added, "given the Russians are claiming unlimited range, then one would assume it has to be along the lines of the first option, as the hydrogen fuel device would have a limit to its range."

The major problem with the 9M370, or SSC-X-9 Skyfall (as NATO calls it), is the exhaust. You can't use a nuclear reactor to power a rocket without likely creating a form of dirty bomb on wings.



Russia might be trying to look more to look "more militarily formidable than it is."

"This is a doomsday weapon really," said Dr Mark Galeotti, from Royal United Services Institute for Defence and Security Studies.

"It's not something that could be deployed in anything other than a full-scale nuclear war. It is a cruise missile that can stay in the air for a long time, but it is belching out radioactive plumes behind it."

The US indeed had a similar program in the 1960s, called Project Pluto, which was abandoned as they concluded it was too dangerous at the time.

When Putin launched the missile [with great fanfare in March 2018](#) he extolled its unlimited range -- that it could circle the globe many times and then fire itself at its target from an unexpected angle, perhaps even days after launch.

Is Putin bothered that it doesn't appear so far to have worked that well? Not really, said Galeotti.

"Vladimir Putin's Russia is basically trying to puff itself up," he said. "It is trying to look more militarily formidable than it is. Although they don't like the fact that this failed, the fact that we are talking about the latest Russian military technology is definitely something of a plus."

US officials told CNN it's been tested a few times, but never fully successfully. How far along the project is, and how big a setback this, is anyone's guess.

## A bad summer

But the Kremlin has had a number of incidents to brush off in the past month.

In early July, the AS-31, or Losharik, super-deep, super-secret spy submarine, ran into [trouble off the northern coast](#). State media said 14 sailors on board died of smoke inhalation, and the Kremlin insisted its nuclear reactor was intact when it was returned to port.

The Losharik -- named after a Soviet-era cartoon horse because of the compartmentalized components that enable it to dive to the bottom of the ocean floor -- was meant to plunge to depths that nuclear and attack submarines could not.

Again, Putin found himself being briefed on a clean-up operation.

Weeks later, a [munitions dump in Achinsk](#) suffered a series of explosions over five hours, some causing devastating shockwaves and debris to be scattered over the area. A week later, local officials admitted forty people were injured.





Dozens were injured in a series of explosions at munitions dump in Achinsk.

These three incidents amount to a bad summer for the Russian military, who after the invasion of Ukraine, and their intervention into Syria, had benefited from a short-term lift in their domestic prestige.

Could over-reach be behind this recent spate of problems?

Andrey Kortunov, Director General of the Russian International Affairs Council, said, "if you look at the current defense budget of the Russian Federation, it reached its peak in 2016."

He added it had decreased since.

"So basically, the military and the defense sector are asked to do more for less," he added, "and that might be a stretch. Maybe some of these accidents are a part of the price that the military has to pay from this relatively modest budget but the [substantial] ambitions behind this budget."

A turbulent month of unexpected blasts and leaks that begs the question as to whether the Kremlin's race to the bottom of the sea, or top of the heavens, will scorch too much in its wake.

## China could overwhelm US military in Asia in hours, Australian report says





By **Brad Lendon**, CNN

Updated 0702 GMT (1502 HKT) August 20, 2019

**Hong Kong (CNN)**The US military is no longer the primary force in Asia, and missiles from China's [rapidly improving military](#) could overwhelm its bases in hours, according to a new report.

The study by the United States Study Center, at the University of Sydney, in Australia, warned that America's defense strategy in the Indo-Pacific region "is in the throes of an unprecedented crisis" and could struggle to defend its allies against China.

That means Australia, Japan and other US partners need to build up and refocus their forces in the region, and consider increased cooperation with the US, to ensure their security, the study claimed.

The report highlights areas where China's military is making huge strides in comparison to the US and its Asian allies and partners. Chief among those is in missiles.

"China has deployed a formidable array of precision missiles and other counter-intervention systems to undercut America's military primacy," the report states. Those missiles number in the thousands, the report says.

Almost all US military installations in the Western Pacific, as well as those of its key partners and allies, "could be rendered useless by precision strikes in the opening hours of a conflict," according to the report.

China's Foreign Ministry said Monday it had not seen the report, but spokesperson Geng Shuang stressed that the country's military policy was "defensive in nature."

"China is firmly on a path of peaceful development and our national defense policy is defensive in nature," Geng said. CNN reached out to the Pentagon for comment but had not heard back at the time of publication.

## Little surprise

Much of the Australian report should come as little surprise to the Pentagon.

A [November 2018 report to Congress](#) from the National Defense Strategy Commission said "the US military could suffer unacceptably high casualties" and "might struggle to win or perhaps lose, a war against China or Russia."

Six months later, [the US Defense Department's annual report](#) on China's military said Beijing was intent on developing a world-class military and becoming "the preeminent power in the Indo-Pacific region."



Chinese military vehicles carrying DF-26 ballistic missiles drive are seen during a 2015 military parade in Beijing.

Upwards of 2,000 short-, medium- and intermediate-range ballistic missiles that can hit land and [sea targets](#) are part of that plan, according to the Pentagon report.

The Australian study questions the US's ability to keep up with [China's advances](#), and warns that Washington is facing a crisis of "strategic insolvency."

For example, the US is seeing its fleet of nuclear-powered attack submarines shrinking at a time when they are needed even more.

"Put simply, as the environment above the surface becomes more deadly because of Chinese deployments of cruise missiles, hypersonic technologies and anti-air defenses, America's enduring advantage in undersea warfare will become increasingly important in the regional balance of power," the report says.

But Adm. Phil Davidson, the head of the US Indo-Pacific Command, told Congress in March that he was only getting half of the submarines needed in the Pacific on a daily basis.

The Australian report says it is critical that Canberra and partners like Japan need to step up to fill the voids the US is leaving.

"Washington will require significant and ongoing support from its regional allies and partners to successfully deter Chinese adventurism," it said.

The report, for example, suggested that Australia increase its production of conventionally powered submarines, which are ideal for operations close to coastlines or in areas like the South China Sea.

It also encouraged "collective defense" through software that enables communications between allies.

## Working together

Increased cooperation between the US and its allies is already happening.

The US and Australia recently completed their biennial Talisman Sabre exercises in northern Australia, which this year also included a bulked-up Japan Self-Defense Force contingent performing two amphibious landings.

The Australian report said more of the same is needed, and farther afield from Australia.

"Exercises should practice and demonstrate rapid dispersal of air- and land-based strike forces from concentrated basing in mainland Japan, Okinawa and Guam, to small geographically diverse operating locations (around the South China Sea)," it said.

"The primary aim of such exercises should be to bolster the collective ability to deter, deny and, if necessary, blunt potential Chinese fait accompli aggression," it said.

The report noted that the Australian military is beset by one of the same ills hurting its American allies -- spreading its forces too thinly. Between 2001 and 2018, Australia spent more than three times as much on operations in the Middle East than it did in the Indo-Pacific.

The strain that conflicts in Afghanistan, Iraq and Syria have placed on the US military's budget, equipment and operations had "ill-prepared" Washington "for great power competition in the Indo-Pacific," it said.

## North Korea now able to miniaturise nuclear warheads – Japan defence report

**Upcoming review out of Tokyo will reportedly say missile programme poses 'serious and imminent threat'**

**Justin McCurry** in Tokyo

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North Korea's test-firing of a short-range ballistic missile has raised tensions in the region. Photograph: Kcna Via Kns/AFP/Getty Images

Japan's government will reportedly state that **North Korea** is capable of miniaturising nuclear warheads in a forthcoming defence report, it has emerged.

Tokyo will upgrade its estimate of the regime's nuclear capability, having said last year only that the technical feat was a possibility, the conservative **Yomiuri Shimbun newspaper** said on Wednesday, without citing sources.

The defence report will maintain Japan's contention that North Korea's nuclear and ballistic missile programmes pose a "serious and imminent threat" to its security after recent meetings between Donald Trump and the North's leader, Kim Jong-un, failed to make progress on denuclearisation.

The report is expected to receive cabinet approval in mid-September, the Yomiuri said.

North Korea has conducted **six rounds of short-range missile launches** in recent weeks, in an apparent attempt to pressure Washington into making concessions in any future talks over Pyongyang's nuclear weapons programme.

North Korea's state KCNA news agency said the **most recent launch**, on Friday last week, was in protest at joint US-South Korea defence drills that the regime claims are a rehearsal for an invasion. The latest drills, named called 19-2 Dong Maeng, began on 5 August and ended on Tuesday.

KCNA said Kim had overseen the launch of the unspecified "new weapon" and expressed "great satisfaction" over his military's "mysterious and amazing success rates" in recent testing activity. "It is our party's goal ... to possess invincible military

capabilities no one dare provoke, and to keep bolstering them,” it quoted Kim as saying.

Earlier this year a [report](#) by the Rand Corporation, a California-based thinktank with close ties to the US military, said North Korea could possess as many as 100 nuclear warheads by 2020.

“North Korea’s ongoing development of nuclear weapons and ballistic missiles increases the possibility of their use against regional states, furthering instability across the region and beyond, thus affecting vital US interests,” the report said.

In 2017, a leaked US intelligence assessment concluded that [North Korea](#) had developed the technology to produce nuclear warheads small enough to fit inside missiles, theoretically giving it the ability to send nuclear-armed intercontinental ballistic missiles [ICBMs] to distant targets, including the US mainland.

North Korea’s short- and medium-range missiles can strike [South Korea](#) and [Japan](#), including US military assets in those countries.

“The IC [intelligence community] assesses North Korea has produced nuclear weapons for ballistic missile delivery, to include delivery by ICBM-class missiles,” the assessment said, [according to the Washington Post](#).

In last year’s [defence white paper](#), Japan said North Korean nuclear weapons and missiles posed an “unprecedented serious and imminent threat” to its security, adding that the security environment around Japan had become “increasingly severe”, despite dialogue between Washington and Pyongyang.