



Q&A

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# Interpreting North Korea's Failed Satellite Launch

*On 31 May, Pyongyang tried – and failed – to send a military reconnaissance satellite into space. In this Q&A, Crisis Group expert Chris Green explains why it took this action and what can be done to keep regional tensions from rising.*

## What happened?

At 6:27am on 31 May, North Korea launched its Chollima-1 rocket, intending to place in orbit the Malligyong-1, which it describes as a military reconnaissance satellite. The launch drew extensive international condemnation because many suspect that such a launch, which came after a six-year hiatus, is a disguised way for Pyongyang to test its long-range ballistic missile technology, rather than part of a genuine space program, as the regime claims. The rocket took off from the newly refurbished Sohae facility at Dongchang-ri in North Pyongan province, approximately 50km from the China-North Korea border. Flying on a southerly trajectory, it failed after six minutes and fell harmlessly into the sea 200km west of the South Korean island of Eocheong-do.

The launch rang alarm bells in South Korea. It prompted President Yoon Suk-yeol to convene an emergency meeting of his National Security Council, and the Seoul municipal authorities to send an alert to residents at 6:41am, warning them to prepare for evacuation. The alert, only the third since 2016, went out even though the South Korean capital lies far to the east of the rocket's flight path and the projectile had already crashed. The authorities then withdrew the alert at 7:03am, prompting a flurry of

recriminations, with the Yoon administration blaming the metropolitan government for the error. Areas closer to the rocket's flight path also received alerts, as they generally do when the North launches missiles that approach surrounding airspace. These included Baengnyeong-do and Daecheong-do, disputed islands close to the inter-Korean border in the West Sea, as well as Okinawa in Japan.

Both governments and international organisations lambasted the launch as a violation of UN Security Council resolutions that forbid North Korea from developing or testing ballistic missile technology. In South Korea, government and opposition agreed that it “[did all harm and no good](#)”, in the words of opposition leader Lee Jae-myung. A spokesperson for the U.S. National Security Council concurred, stating that while Washington remains open to diplomacy with Pyongyang, the launch [imperilled regional stability](#). UN Secretary-General António Guterres, for his part, called on the North “to cease such acts and to swiftly resume dialogue to achieve the goal of sustainable peace and the complete and verifiable denuclearisation of the Korean peninsula”. North Korea's principal international backers, China and Russia, meanwhile remained silent, a choice [the European Union implicitly criticised](#)

*“Sending satellites into space provides [North Korea] with valuable ... opportunities to develop technologies useful in its ballistic missile and nuclear programs.”*

in a statement contending that it is “critical that all Members of the United Nations, especially Members of the UN Security Council, speak out and demonstrate that such actions will never be accepted”.

Pyongyang was forthcoming about the launch’s failure. It [reported the destruction](#) of the rocket and its payload later in the day via the state news agency, KCNA, mirroring a similar admission after a rocket exploded in flight in April 2012. A spokesperson from the country’s National Aerospace Development Administration provided more details, explaining that the failure came about because the rocket lost thrust during the separation of its first and second phases. The spokesperson went on to explain that Pyongyang would conduct additional testing of rocket parts prior to a new launch, necessitating a delay, but North Korean leader Kim Jong-un’s sister Kim Yo-jong reaffirmed in a pugnacious statement released on 1 June that “it is certain that a military reconnaissance satellite will be correctly put in space orbit in the near future”. When a similar rocket failed in April 2012, a replacement launch took place in December the same year.

#### **Why is this launch important?**

Although Pyongyang claims it is exercising its sovereign right to the use of space, the 31 May launch was meant to serve several militarily significant functions. A successful reconnaissance satellite launch is part of a laundry list of military objectives Kim Jong-un presented at the 8th Congress of the Korean Workers’ Party in January 2021, which are to be achieved during a five-year plan that runs until 2026. At one level, the satellite program is designed to improve the regime’s reconnaissance abilities, particularly to allow real-time surveillance of U.S. and South Korean military movements in the southern half of the peninsula, although

as discussed below that is not the entire story. North Korea also seeks to augment its capabilities by developing drones with a 500km range.

With respect to expanding reconnaissance capabilities, North Korea’s satellite program has been a decidedly mixed bag, with unclear benefits. The regime claims to have conducted five satellite launches since August 1998, only two of which – in December 2012 and February 2016 – resulted in placing an object in orbit. Available information suggests that those two satellites may have failed to function as anticipated. International observers concluded that the 2012 launch was tumbling in orbit and probably out of control, and while there is some evidence that the 2016 launch was [brought under control](#), it is unknown whether it performs practical functions. South Korea’s main intelligence agency, the NIS, believes that the satellite North Korea tried and failed to launch this time is a “small low-orbit Earth observation satellite capable of only elementary reconnaissance tasks”. In any case, Pyongyang is unable to take full advantage of satellites once they are launched. Isolated as it is internationally, it lacks access to monitoring stations abroad, and therefore it can only communicate with its satellites when they are over the Korean peninsula.

Against this backdrop, the more immediately useful of Pyongyang’s programs in terms of boosting its surveillance capacities is probably the one focused on long-range drones. But unlike launching drones, sending satellites into space provides the country with valuable additional opportunities to develop technologies useful in its ballistic missile and nuclear programs, including re-entry technology for nuclear warheads. The U.S. and others see this as the program’s primary objective.

Military considerations apart, Pyongyang seeks to join a small elite club of nations, which includes South Korea, able to launch satellites.

Seoul placed a number of [satellites in orbit aboard its Nuri rocket on 25 May](#), and the NIS believes this action may have [prompted North Korea to expedite its own launch](#). In this regard, the North's satellite program is a prestige project that confers legitimacy on the Kim regime domestically, and puts the two Koreas in direct, measurable competition.

Relatedly, Pyongyang is also seeking to challenge the legal and normative constraints imposed by a succession of UN Security Council resolutions that prohibit such launches. Ever since the 1990s, the secretive country has asserted its right to a peaceful space program. But rocket technology is functionally indistinguishable from intercontinental ballistic missile technology. For this reason, many observers suspect that Pyongyang's satellite program is actually meant to perfect ballistic missile technology that is subject to international sanctions. A sequence of UN Security Council resolutions dating back to July 2006 ban North Korea from developing such technology, "given the potential of such systems to be used as a means to deliver nuclear, chemical or biological payloads".

By all appearances, North Korea's goal is to intimate that the heavy international restrictions and sanctions arrayed against it are fundamentally unfair and unreasonable. Part of this effort is to make the case that it is a responsible international actor. To this end, in advance of the launch, Pyongyang notified the International Maritime Organization, and [subsequently also the Japanese coast guard](#), of a rocket launch window spanning the period 31 May-11 June, something that it does not do when preparing to test ballistic missiles. That it issued a clear and seemingly honest appraisal of the launch failure on the same day it occurred is also notable.

The most immediately concerning aspect of the launch is what it could portend. Both the rhetoric North Korea has been using and its apparent decision to devote more of its scarce resources to fast-paced military advancement suggest that Pyongyang may be preparing for

a surge in missile technology testing reminiscent of its intensive activities between early 2016 and December 2017. This period is often referred to with the phrase "[fire and fury](#)", in an echo of the bombast from Donald Trump, then U.S. president, over the course of 2017 to deter what the U.S. saw as a growing threat emanating from Pyongyang. The 31 May attempted launch was the North's first of a satellite since it put the Kwangmyongsong-4 into orbit at the outset of that period, one that saw the Korean peninsula lurch closer to conflict than at any time since the [first North Korean nuclear crisis in 1993-1994](#).

### **What are the implications for stability in North East Asia?**

As noted, North Korea is in a period of intense military advancement. The pace of its missile testing, in particular, has been extremely rapid in the last two years, with more than 100 tests, eight of them of intercontinental ballistic missiles, taking place since the beginning of 2022. Yet its current ballistic development program has garnered far less international attention than the efforts of 2016-2017, partly due to factors unrelated to peninsular dynamics: the COVID-19 pandemic, the Ukraine war and economic turmoil have combined to attract most of the global spotlight.

The United States, which during the last period of elevated tensions led efforts to galvanise international pressure, also appears to have adopted a different posture this time around. While, as discussed below, Washington has increasingly flexed its muscles through joint exercises with the South Korean military and demonstrations of its conventional and nuclear capabilities – all manifestations of a posture sometimes referred to as "extended deterrence" – it has generally shied away from public sparring with Pyongyang. President Joe Biden shows no inclination to engage in Trump-style fulminations or spend political capital trying to deal with Kim. Far from resuming Trump's "summit diplomacy", a blitz of somewhat productive but ultimately disappointing

leader-level interactions that followed the “fire and fury” phase, the Biden administration has [gone back to leaving open the door to talks at the working level](#), which Pyongyang perceives as humiliating.

But the subdued international reaction to the uptick in North Korean testing activity may also partly reflect one thing Pyongyang has chosen not to do, at least not yet. Unlike in the “fire and fury” phase – when North Korea conducted three nuclear tests (in January and September 2016 and September 2017) – this time it has carried out none. Kim no doubt recalls that Beijing, unhappy to see nuclear activity on its borders, punished the North by signing on to extensive and damaging sectoral sanctions in the UN Security Council. North Korea seems to have learned from that experience, and so a nuclear test (which would be the seventh since it launched its nuclear program), has not happened despite having been anticipated for the last year. Activities at the Punggye-ri nuclear testing site, however, suggest preparations are well under way and may even be complete.

Meanwhile, the 31 May satellite launch adds to growing threat perceptions in North East Asia, with North Korea’s enemies in the region clearly jittery. Tokyo issued an order that [military units should prepare to destroy the rocket if it threatened Japanese territory](#), something that was never likely as North Korea launched the rocket in a southerly direction from its west coast, on a flight path that would not take it near Japan. The audience for Tokyo’s order was almost surely primarily domestic; it was a demonstration of Japan’s determination and preparedness to defend itself from whatever North Korea might do.

In any case, the main threat to regional stability is not that of a North Korean rocket striking another state’s territory, either by accident or design. Rather it is that with each high-profile provocation the two sides – North

Korea on one, and South Korea and the U.S. on the other – edge further toward a dangerous escalatory spiral between nuclear-armed states in which a misjudgment or miscalculation could be catastrophic. In power since mid-2022, the conservative Yoon has, unlike his predecessor Moon Jae-in, shown scant interest in inter-Korean dialogue. Instead, Yoon has focused on [strengthening the U.S.-South Korea alliance](#) and [improving relations with Japan](#), while demanding that North Korea do something that it has publicly foresworn many times: take the path of complete denuclearisation.

Meanwhile, international backers of the two Koreas are in no mood to collaborate on the North Korea file, either. Washington is focused on sprucing up its alliances in Asia to counter China’s rapid military modernisation. Following the recent rapprochement between South Korea and Japan, it is putting considerable energy into smoothing military coordination between the two, especially in the sphere of intelligence sharing. While the Biden administration’s strategy to date has been to avoid feeding any drama around North Korea’s actions, that tack could become difficult to sustain, for example if North Korea crosses the line into resumed nuclear testing. The risk of escalation is augmented by the seeming lack of a diplomatic track to provide the parties an off-ramp.

For their part, Beijing and Moscow – which have sometimes shielded Pyongyang in the UN Security Council but joined Washington in upping sanctions pressure during the “fire and fury” period – are embroiled in their own disputes with the U.S. over Taiwan and Ukraine, respectively. As such, they have no interest in helping punish the North for its transgressions today. Facing very little risk of fresh sanctions from the UN Security Council, Pyongyang may reasonably assume that it can act with impunity – with the caveat that nuclear testing could be a bridge too far even for its current protectors.

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### **Is the peninsula headed toward a full-blown conflict?**

While concerning, the risk of full-blown war remains a remote prospect. Theatrical bellicosity may mark Korean peninsula politics, but it is tightly controlled. The peninsula is surrounded by powerful countries, as well as hosting sizeable military detachments from the U.S., with China and the U.S. serving to restrain the most provocative impulses of their respective allies.

There is, however, a high and rising risk of clashes brought on by misunderstandings in Pyongyang, Seoul and Washington of one another's intentions, or a provocative act on North Korea's part that leads to unexpectedly aggressive retaliation. These could include naval incidents between North and South in the West Sea, like those that occurred in 1999, 2002 and 2009, or even clashes across the inter-Korean border such as North Korea's shelling of the South Korean island of Yeonpyeong in November 2010.

### **What can be done to lower the temperature in the region?**

Active diplomacy could help lower the temperature in the region, but right now that is not the parties' focus.

North Korea enjoys political backing from China and Russia, both of which also provide a degree of economic support: China supplies a modest but steady flow of oil, and both countries play quiet host to North Korean labourers in defiance of a 2017 UN Security Council resolution ordering their repatriation. These ties reduce the leverage the U.S. and its allies have to bring North Korea back to the negotiating table. Moreover, the topics that Seoul and Washington might put at the top of their lists are not of interest to Pyongyang. Complete denuclearisation, which remains the overarching objective of both the U.S. and South Korea, is not on the cards. Ideas aimed at decoupling Pyongyang's missile and rocket programs from each other and from the North's nuclear program – eg, by arranging for a third party to launch its satellites – are also almost

surely doomed. For the same reason Seoul and Washington would like to see a decoupling, Pyongyang will resist it: the country likely sees its satellite launch program as of great benefit to its nuclear and missile programs. It asserts that [improved military information gathering](#) is integral to its capacity to defend itself. There is no reason to believe it would be ready to give up these programs.

To the extent that re-engagement between the North and its adversaries is at all on the cards, it would likely require that its adversaries more fully accept something that is already widely understood among many experts – ie, that for the time being, North Korea is a de facto nuclear state. This does not mean that either the U.S. or the rest of the world should accept or excuse North Korea's permanent nuclearisation, of course; nor should any country look past Pyongyang's many violations of UN restrictions. The precedent would be too dangerous. But there are grey areas between full acceptance and no recognition at all, and it would be useful for Washington and Seoul to give further thought to how they and North Korea might operate in these spaces. The objective might be to open talks about reducing both the danger of regional escalation and the frightening proliferation risks posed by Pyongyang's possession of nuclear materials and technology, with relief from some of the most painful UN sectoral sanctions on the table in return.

Should they wish to go in this direction, one dilemma for Washington and Seoul will be how to balance the goals of deterrence with those of risk reduction. While the Biden administration has chosen its words carefully thus far when responding to North Korean provocations, it has made its own kind of noise on the peninsula. For example, the South and the U.S. are right now in the middle of what they have been keen to brand as the “largest live-fire military exercise in the history of their alliance”, with [much of the action](#) taking place very close to the inter-Korean border. The U.S. has also [sent nuclear-capable bombers over the region](#), most recently in April, and the [Washington](#).

Declaration that the two sides signed late the same month provides for the return of nuclear missile submarines to South Korean ports.

While the U.S. and South Korea see these as deterrence measures, the North sees them as actively threatening. One question for Washington and Seoul, then, may be what they are gaining through ramping up these activities, and whether they are strictly necessary to reinforce deterrence, which arguably is well established on the Korean peninsula. U.S. nuclear capabilities are well known, and will remain so, regardless of whether or not Washington sends nuclear bombers and submarines to showcase its power in North East Asia. The allied U.S.

and South Korean militaries, for their part, certainly need to train regularly, but they can do so without resorting to excessive publicity – and farther away from the inter-Korean border. By placing geographical distance between Pyongyang and the forces lined up against it, Washington and Seoul may be able to pry open a modicum of political space in which the parties can carry on conversations about pressing matters of mutual concern.

It may be a long shot – but as the peninsula slides toward what is already taking shape as another escalatory cycle, it seems worth a try.