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The Technical Significance of the Sixth Nuclear Test, and North Korea's Political Intentions



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On 3rd September, North Korea conducted its 6th nuclear test. It is almost exactly a year since the last test, held on 9th September 2016. It is worth comparing it to the previous five in a number of regards. First, technically and with respect to the regime's political intentions, this is a very different test. Up to the fifth test, notwithstanding a number of political intentions, testing was primarily conducted for technical reasons. However, both technology and politics coexist as equal causes for the present test. There is a need for an accurate appraisal of both in order to understand the North Korean nuclear problem, anticipate and prepare for future developments.

Following the test, the North declared that it had "successfully tested a thermo-nuclear warhead mountable on an Intercontinental Ballistic Missile." The Korea Meteorological Administration (South Korea) released data indicating that the test had caused an earthquake measuring 5.7 on the Richter scale, from which the Ministry of National Defense (MOND) estimates an explosive force of around 50kt. This is five times more powerful than the fifth nuclear test, and around 3 times more than the second bomb dropped on Japan in 1945.

Yet, there is still debate about whether this was actually a hydrogen bomb test (thermo-nuclear). The size of the earthquake and the 50kt estimate are said to be too small for the bomb to be a thermo-nuclear device. However, we cannot draw definite conclusions from seismic activity alone. Where a nuclear test is conducted, and to what extent the test site is shielded from the outside world can lower the amount of energy conveyed to the outside world. There are already those who believe that the earthquake's force may have been as much as 6.3. This would indicate a much more powerful device with a payload of 300kt. There are even reports that the mountain where the test was conducted has collapsed.

Even if South Korean MOND estimates are correct, we also cannot conclude that this represents the upper limit for the potential destructive force of North Korean nuclear warheads. They may have decided to lower the yield due to safety considerations. In this regard, their statement after the test commented: "[we] have reached a high standard that allows for the yield of the nuclear warhead to be deliberately adjusted in accordance with the target and purpose."

In reality, 50kt is already a vast amount of explosive potential. Hence debating whether it was a thermo-nuclear test or not may not be all that important. The threat and fear of such a blast is already unimaginable. But a nuclear weapon is not just an explosive device. It must be combined with a missile to be deliverable. It must thus be produced to be small and light enough to load onto a missile.

If what North Korea tested was the same as the hourglass-shaped device that they revealed in the media, then this indicates that they have created a weapon with a 50kt yield that can be loaded to an ICBM capable of hitting the US mainland. In technical terms, this can be considered the endpoint of the program. Thus, this may be their last test for technical development reasons. The next step may be to load it onto a Hwasong-14, and launch it into the Pacific Ocean for a full distance test (more than 5000km).

The possibility of a sixth nuclear test has been mooted for some time. The North Koreans had said that should Kim Jong-un merely give the order, it could happen at any time. Yet, many outside observers clearly appear flustered, and right now, one gets the feeling that many are struggling to understand why this has happened. Those who asserted that it wouldn't happen have to demonstrate how their arguments are not simply seeing what they want to see in North Korea, and those argued that it would, have to produce logical evidence as to why. If we do not understand why they did it, we cannot anticipate future action, and cannot respond to such actions. This is the reason why it is important we approach the sixth nuclear test as an indicator of North Korean political intentions, as much as an indicator of technical capabilities.

When we consider the fact that North Korea still has issues to resolve with the United States, the sixth nuclear test probably does not mark the end of the game it is playing in its relations with the United States. The Trump administration has been in office for seven months now, yet the United States continues to merely repeat itself, and has not presented a planned set of actions or policies. Depending on what North Korea hopes to get from the Trump administration, and depending on when we date the start of this game that the North is playing with the US, the roadmap to the sixth nuclear test looks quite different. This is the reason why we can interpret North Korean political intentions in two ways.

First, they may still have hopes for the Trump administration. In other words, they may have chosen a nuclear test as a extreme means by which to make the Trump administration to act, believing that missile tests are insufficient to force the US to the negotiating table. But this in itself might reflect North Korean anxieties,

The second possible interpretation is they chose to test believing there is no possibility that the Trump administration will engage in negotiations or dialogue. I.e. they believed it no longer worth waiting for the Trump administration, and decided to focus raising their status to nuclear state with the highest possible nuclear potential. From here, they could move to appease the United States with proposed negotiations etc. This would reflect supreme confidence on the part of the regime.

What their intentions were will define the trajectory and speed of their actions going forward. If it's the first, if they still have some hope for the Trump administration, they may modify their approach and likely use salami slice tactics. If it's the second, they may decide to go their own way, and operate according to a schedule which they see fit.

If the United States and South Korea does nothing, then North Korea may take the device they tested this time, load it on to an ICBM and fire it into the South Pacific in a full-range test. Whenever US strategic assets are displayed, the threat of an encircling attack on Guam remains, and they may yet test the Pukguksong-3 (a new type of SLBM) that they have thus far only given furtively shown blueprints of, and test the Hwasong-13 ICBM. It is just a matter of timing.

Regardless of North Korean intentions, what is important is the perception and accessment of US President Trump. It is is doubtful that regardless of how North Korea acts, Trump will move to take North Korea's outstretched hand. However, Trump is unpredictable, and we cannot know what choice he will make. Changes in the US-North Korean relationship will result from the Trump administration actually showing real interest in the North Korea problem, not by the North Korean side ceasing provocations.

It would be puerile to assume that with a sixth nuclear test, there will be no changes in US-North Korean relations. The prideful Trump, given sufficient justification, may turn salesman. If that happens, we will be told, but we should not expect him to seek our acceptance or agreement. In such circumstances, the North might propose we also participate in a summit to resolve issues in US-North Korean relations. If, having developed the most powerful nuclear weapons, the North proposes dialogue but the United States refuses, they then propose dialogue with us.

I am interested how our government might respond to such a proposal. It will be grounds for

consideration beyond the inert thinking of our security line.

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