Latest North Korean Missiles Tests Raise Questions about Missile Defense

by Jerry Gordon (July 2016)

North Korean Musudan Intermediate Range Ballistic Missile 4,000 KMs

On May 6, 2016, a panel was held on "Naval Aviation – Today and Tomorrow," at the National Naval Aviation Museum, Pensacola, Florida. There, Admiral William "Bill" Gortney, retiring NORAD Commander, raised the matter of how "hot the Korean Peninsula" has become. He was concerned about threats from missile and nuclear testing by North Korea. We asked him during the Q&A how problematic was our missile defense in view of this threat? As an aside to the audience, he said this was "not a paid planted question," welcoming the opportunity to respond.

Adm. William "Bill" Gortney
Former NORAD Commander
Source: author

Gortney cited the installation of 44 ground-based mid-course interceptors in California and at Fort Greeley, Alaska. He said the interceptors developed in the $85 billion program only dealt with mid-course kills of incoming ICBMs. He referred to the Theater High Altitude Anti-Missile Defense (THAAD) system under discussion for implementation with South Korea. Gortney suggested the missing components of the ballistic missile defense umbrella were sensors and an anti-missile defense system during the boost phase. Regarding the North Korean missile tests, he noted the successful short range missile firings. The submarine launched missile, while only achieving 10 percent of its 300 kilometer range achieved the most important phase; the launch.

Admiral Gortney cautioned against dismissal of the three medium range Musudan launches in April 2016 because they were not unlike the failures in our own early rocket program. He said the fact that North Koreans are testing means they

will derive the data to ultimately achieve success. He was concerned about the longer range KN-08 and KN-14, like the Musudan, mounted on mobile carriers with prospective short launch capabilities. Both the KN-08 and KN-14 are yet to be tested.

The Latest North Korean Missile Tests

Fast forward to June 22, 2016 and the latest North Korean missiles tests. Admiral Gortney's remarks at the Pensacola Naval Aviation forum appear prescient. North Korea fired two Musudan missiles; the first one launched near the east coast city of Wonsan disintegrated in flight after 150 miles. Musudans are solid propellant intermediate mobile missiles capable of a range of 1,800 miles covering both the main Islands of Japan and the American Territory of Guam. The first launch was the fifth such failure in missile tests this year. However, it was the successful launch two hours later of the second Musudan missile that rattled South Korea and intensified the threat to Japan. The second Musudan launch was more successful, splashing down after about 250 miles, half-way to Japan's main Island of Honshu. It was the high altitude reached by the second Musudan (620 miles) that most concerned the Japanese. *Reuters* reported Japanese Defense Minister Gen Nakatani saying:

> "We don't know whether it counts as a success, but North Korea has shown some capability with IRBMs (intermediate range ballistic missiles)," he told reporters in Tokyo. "The threat to Japan is intensifying."

The anxiety of these latest North Korean missile tests were also reflected in comments from South Korean President Park and NATO Secretary General Jens Stoltenberg:

> South Korean President Park Geun-hye denounced the test.
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> "The North Korean regime must realize that complete isolation and self-destruction await at the end of reckless provocation," she said.
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> NATO Secretary General Jens Stoltenberg also decried North Korea's "provocative actions".
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> "I strongly condemn the launch by North Korea of two ballistic missiles," Stoltenberg said in a statement.

> “These repeated provocative actions … undermine international security and dialogue,” he said, calling for North Korea to “fully comply with its obligations under international law, not to threaten with or conduct any launches using ballistic missile technology and to refrain from any further provocative actions”.

The UN Security Council passed more stringent sanctions in March 2016 against the hermit state led by Kim Jung-Un, grandson of the Communist founder, Kim il Sung. Kim claims North Korean sovereignty to conduct such tests despite UN sanctions against ballistic missile testing. Those sanctions were backed by China, a sometime ally of North Korea. The latest North Korean missile tests brought this statement from a Chinese Foreign Ministry spokesperson, Hua Chunying:

> At present, the situation on the peninsula remains very complex and severe. We think that the relevant party should avoid doing anything to further worsen tensions.

Significance of the latest North Korean missile tests

In April 2016, North Korea conducted static tests of more powerful engines that could be fitted on the longer range KN-08 and KN-14 intercontinental missiles. The significance of these latest North Korean missile tests was noted in a *Wall Street Journal* report:

> Jeffrey Lewis, an arms control expert at the California-based Middlebury Institute of International Studies, has examined images released this year by North Korean state media and believes the KN-08 uses a pair of engines matching those used on the Musudan.
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> “The North Koreans are making progress toward a workable Musudan. If we do nothing, they will move on to a missile, using the same technology, that can reach the U.S.,” said Mr. Lewis, who advocates trying to reach a test moratorium with North Korea on its missile program.

North Korea appears unlikely to respond to another round of test moratoriums. What is concerning is North Korea’s demonstrated shift to development of a

"second strike" capability. That is reflected in development and test of mobile or submarine launched intermediate and intercontinental range missiles, such as the Musudan, KN-08 and KN-14. The latter versions, which might be developed and operational by 2020, may be capable of hitting the US mainland.

Admiral Gortney at an April 7, 2015 Pentagon news conference stated:

> Pyongyang has "the ability to put a nuclear weapon on a KN-08 and shoot it at the homeland [the continental United States]." He expressed confidence that the U.S. could knock down such a missile if launched by North Korea or its ally, Iran.
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> The KN-08 is a road-capable, highly mobile ICBM, which can be hidden anywhere throughout North Korea and could be fired on a short-countdown virtually undetectable by American intelligence.

He also admitted that it is "very difficult" for the U.S. to counter the threat, because it is unable to follow the mobile ICBMs and give an efficient warning before they are launched.

The BBC reported North Korea's Kim trumpeting these latest missile tests:

> "We have the sure capability to attack in an overall and practical way the Americans in the Pacific operation theater," he was quoted by the North Korean state news agency as saying.

Experts remain skeptical; however, we doubt that Admiral Gortney shares that skepticism given the latest Musudan launch which rattled Japan and South Korea.

Pentagon Secretary Ash Carter reflected Admiral Gortney's views in a *Stars and Stripes* interview:

> Carter said, the launch "shows the need for us to continue to do what we are doing, which is build missile defenses of various ranges to protect both our South Korean allies, U.S. forces on the Korean Peninsula, Japan, and U.S. territory. "No matter what this or that test does, in terms of time of flight, it doesn't change the plans that we have … We need to stay ahead of the threat."

The irony is that a preemptive attack proposal against North Korean missiles

originated a decade ago in 2006 in a *Time Magazine* article co-authored by then Deputy Defense Secretary Ashton Carter, now Pentagon Chief, and former Clinton Secretary of Defense William Perry.

How adequate is our Missile Shield?

We noted in our March 2016, *New English Review* article about the questionable status of our ballistic missile shield against the North Korean nuclear missile threat. That concern was heightened following the January and February nuclear test and space satellite launch that preceded the six Musadan missile test series. The Missile Defense Agency (MDA) Ground-based Mid-Course Defense (GMD) system was the subject of a critical February 17, 2016 General Accountability Office report. The GAO report focused on the problems of developing an effective kill vehicle and deploying batteries in California and Alaska. Proposals for installation of GMD batteries on our East Coast and Aegis shore-based systems on the Gulf Coast against Iranian ICBM threats have been tabled. Further, the MDA contends that it has an effective means of countering any launch of container-ship borne cruise missile threats that Iran has tested. North Korea has demonstrated that it can place a satellite in a southern polar orbit crossing the US every 95 minutes is problematic. It raises the possibility of a Fractional Orbital Bomb Satellite equipped with a low yield nuclear device perhaps capable of triggering an EMP effect over the US.

In a prior NER April 2015 assessment of North Korean and Iranian ICBM capabilities, we noted the conclusions of the Johns Hopkins University US-Korea Institute study:

> · Improve U.S. homeland ballistic missile defense. The U.S. should accelerate deployment of additional ground-based midcourse defense interceptors in Alaska and California to prevent an emerging gap between North Korean ballistic missile capabilities and U.S. defenses.
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> · Accelerate development of advanced versions of the SM-3 interceptor for Aegis-capable ships, including restarting the SM-3 Block IIB program, which would give the Aegis system the ability to intercept long-range ballistic missiles.

· Restart the boost-phase ballistic missile defense programs. During the boost phase, a missile is at its slowest, has not yet deployed decoys, and is therefore most vulnerable and easily intercepted. The Obama Administration cancelled all such programs in its first term, including the Airborne Laser and the Kinetic Energy Interceptor.

· Restart the multiple kill vehicle program for ground-based interceptors to increase the probability of interception by only one interceptor, rather than requiring the launch of multiple interceptors.

· Improve and modernize U.S. space-based sensors, including the Space Tracking and Surveillance System. This is a critical capability for detecting missile launches and tracking their trajectory.

Conclusion

Without commitments to an adequate missile defense shield for the continental US and allies in Europe, Middle East, the Korean Peninsula and Japan, the international defense alliances will not be prepared. Ironically, Israel is perhaps the best prepared of our allies to counter the gamut of missile threats from Iran and its rogue proxies. This is reflected in joint development of the missile defense umbrella composed of the Iron Dome, David Sling and the Arrow III anti-ICBM systems. It will be up to the next US President to address the deficiencies of our missile defense to assure that there will be no surprise missile threat against the US heartland.

Also see Jerry Gordon's collection of interviews, here.

Jerry Gordon is a also regular contributor to our community blog. To read his entries, please click here.