

USAF Microwave Weapon to Destroy North Korean Missiles

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North Korea has made several nuclear and ICBMs tests recently. Also, the country's leader Kim Jung-Un voiced threats towards his Southern neighbor and Western nations. The US and its allied nations have been developing different measures to use at a time when the erratic regime will decide to launch its missiles at those nations it sees as their enemy. The U.S. has a weapon called CHAMP (Counter-electronics High Power Microwave Advanced Missile Project) that could potentially stop North Korean missiles from launching, or force them to fall down harmlessly in the ocean after launch. The system is launched in a cruise missile shot from an aircraft and it is fitted with high-powered microwave generators, rather than having conventional explosives or nuclear payloads. This effectively means that this is a no-casualties weapon, as those microwaves, much like EMPs (Electro Magnetic Pulses), are harmless to anything not electronic.

The idea is that the CHAMP cruise missile would fly in low over its targets and activate the powerful bursts of microwaves that would cause electronics to shutdown.

"These high-powered microwave signals are very effective at disrupting and possibly disabling electronic circuits," said Mary Lou Robinson, who heads development of the weapons at the Air Force Research Laboratory in Albuquerque, in an exclusive interview with NBC News.

As for how the weapon system works, Sen. Martin Heinrich said, "Think about when you put something in your microwave that has metal on it. You know how badly that goes? Imagine

directing those microwaves at someone's electronics."

Retired Air Force intelligence officer Col. Cedric Leighton went further, saying in an interview to CNN.com that CHAMP could be a game-changer with North Korea.

"It would be very useful in the Korean theater because it wouldn't require the presence of significant numbers of ground forces," Leighton said. "It wouldn't require Special Operations forces. And it wouldn't require kinetic bombing attacks. ... In essence, what could happen is an attack can occur, and not a single person on the enemy side would lose a life."

Leighton said a CHAMP system could disable a North Korean missile on the launchpad or in flight.

The control centers of enemy targets are rife with electronics and the systems are highly vulnerable to high-powered microwaves. The U.S. Air Force and other government agencies have been working on weapons using these high-power microwaves for over twenty years. The weapon was tested back in October of 2012 in at the Utah Test and Training Range which covers 2,500 square miles. Buildings on the range were mocked up with electronics and the weapon worked exactly as intended.

Robinson indicated that the weapon "absolutely did exactly what we thought it was going to do. We had several different target classes in those facilities, and we predicted with almost 100 percent accuracy which systems were going to be affected, which systems failed, and how."

As noted on HotHardware.com, the only catch to the weapon is that CHAMP must be very close to its target, although just how close is classified.