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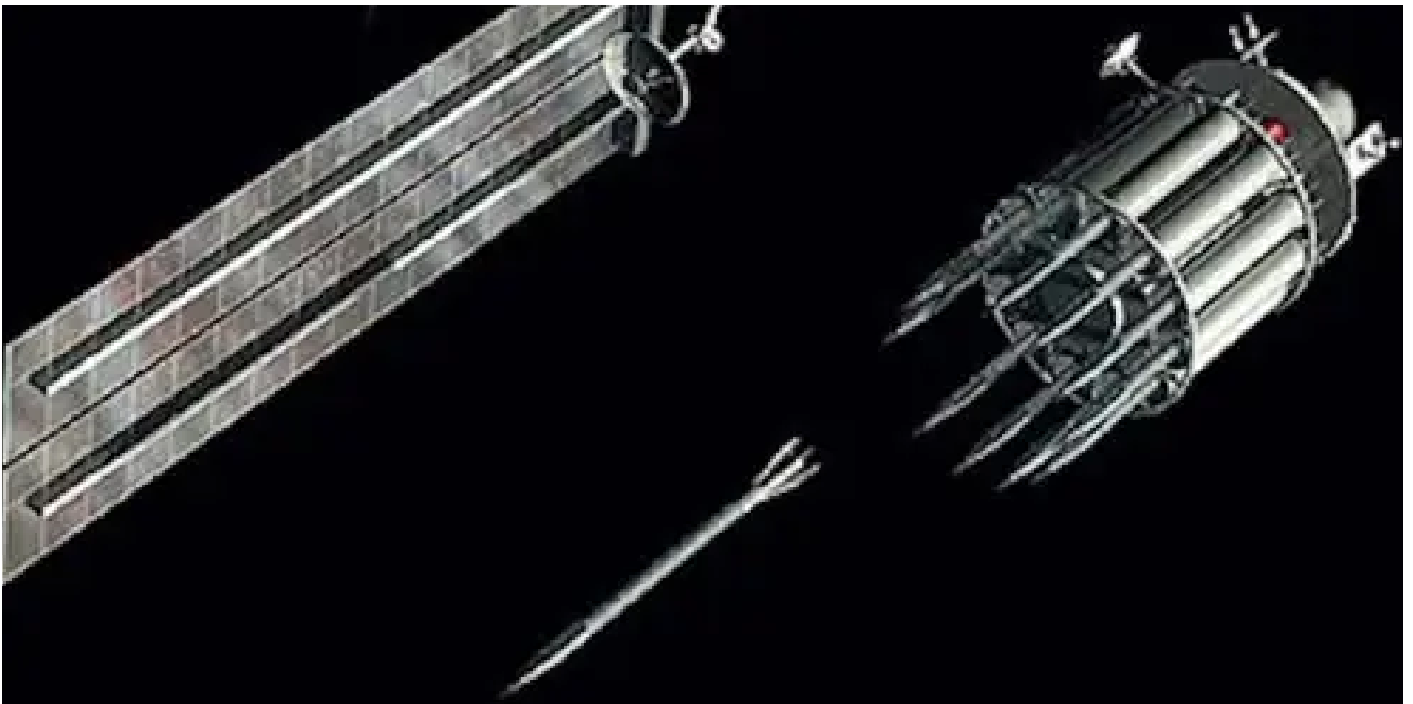
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## The US Air Force's 'rods from god' could hit with the force of a nuclear weapon — with no fallout

Blake Stilwell, We Are The Mighty Updated Feb 4, 2019, 9:05 AM



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Project that envisioned large projectiles dropped from orbit to hit targets on earth at up to 10 times the speed of sound.

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**The project was seen as prohibitively expensive, but it was an early sign of what hypersonic weapons could do.**

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The 107-country Outer Space Treaty signed in 1967 prohibits nuclear, biological, or chemical weapons from being placed in or used from Earth's orbit.

What they didn't count on was the US Air Force's most simple weapon ever: a tungsten rod that could hit a city with the explosive power of an intercontinental ballistic missile.

There was no explosive: They were simply dropped by the hundreds from planes flying above Vietnam.

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[Lazy Dog projectiles](#) (aka "kinetic bombardment") could reach speeds of up to 500 mph as they fell to the ground and could penetrate 9 inches of concrete after being dropped from as little as 3,000 feet.

The idea is like shooting bullets at a target, except instead of losing velocity as it travels, the projectile is gaining velocity and energy that will be expended on impact. They were shotgunning a large swath of jungle, raining bullet-size death at high speeds.

**Two types of Lazy Dog Bombs: the top forged from steel; the bottom a later design made on high-speed lathes. Both had sheet-metal fins spot-welded to the tail. [lkessurplus/Wikimedia Commons](#)**

That's how Project Thor came to be.

Instead of hundreds of small projectiles from a few thousand feet, Thor used a large projectile from a few thousand miles above the Earth. The "[rods from god](#)" idea was a bundle of telephone-pole-size (20 feet long, 1 foot in diameter) tungsten rods, dropped from orbit, reaching a speed of up to 10 times the speed of sound.

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potential hardened targets or secret underground sites. More than that, when the rod hits, the explosion would be on par with the magnitude of a ground-penetrating

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[nuclear weapon](#) — but with no fallout.

Such a weapon could destroy a target with [15 minutes'](#) notice.

One [Quora user who claims to work in the defense aerospace industry](#) quoted a cost of no less than \$10,000 a pound to fire anything into space. With 20 cubic feet of dense tungsten weighing in at just over 24,000 pounds, the math is easy. Just one of the rods would be prohibitively expensive. The cost of \$230 million a rod was unimaginable during the Cold War.

These days, not so much.

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The [Bush administration even considered revisiting the idea](#) to hit underground nuclear sites in rogue nations in the years after 9/11. Interestingly enough, the cost of a single Minuteman III ICBM was \$7 million in 1962, when it was first introduced (\$57 million adjusted for inflation).

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surface. And the fallout from a nuclear device can be devastating to surrounding,

potentially friendly areas

potentially friendly areas.

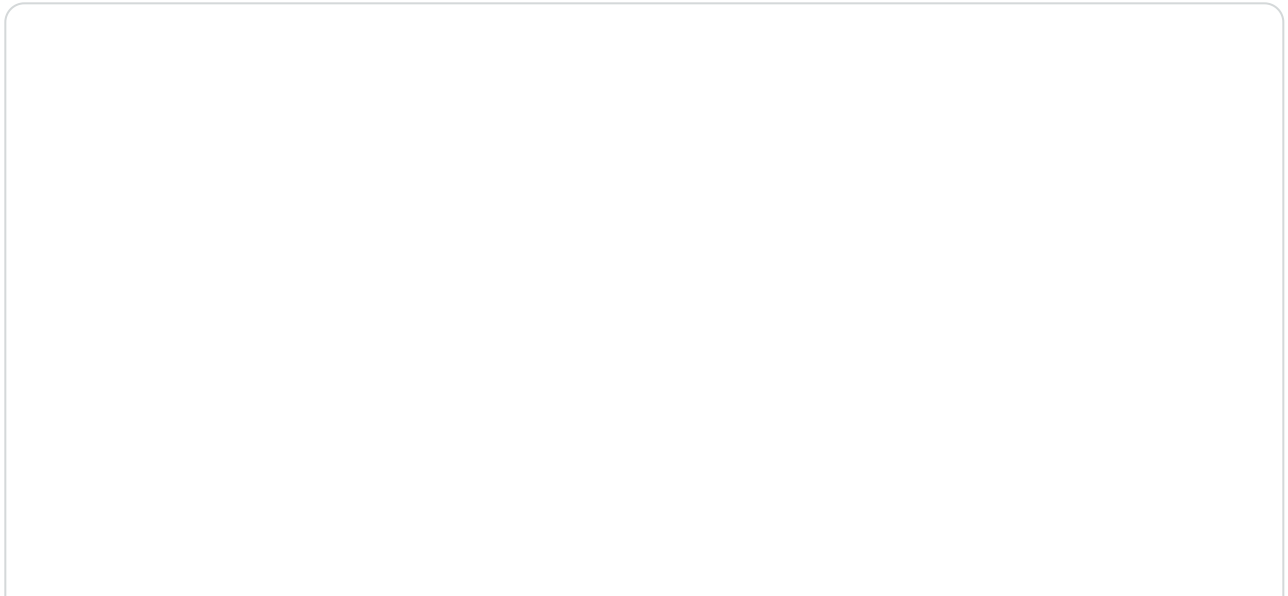
A core takeaway from the concept of weapons like Project Thor's is that hypersonic weapons pack a significant punch and may be the future of global warfare.

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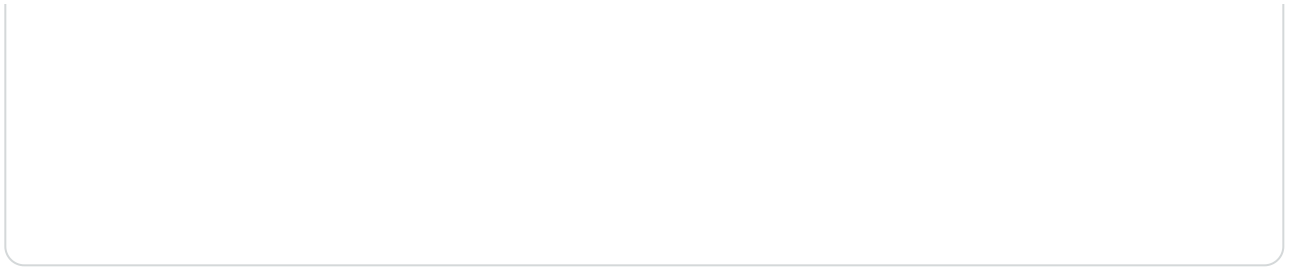
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