

China's new superweapon exploits U.S. blind spot

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China has shocked the U.S. intelligence community and the world by the surprise test of an awesome new superweapon in August. Demetri Sevastopulo and Katherine Hille broke the story in the Financial Times on Saturday, October 16, in a report confirmed by five defense officials.

China used a Long March-2C Space Launch Vehicle (SLV) to send a Hypersonic Glide Vehicle (HGV) into low-earth orbit, which circled the planet before descending from space to simulate an attack on a terrestrial target. It is the first time any nation has combined the technologies of a Fractional Orbital Bombardment System (FOBS) with a Hypersonic Warhead or HGV, inventing a revolutionary new space weapon.

Prior to the Financial Times revelations, several defense officials made public statements alluding to China's surprise breakthrough in military space technology.

In September, Secretary of the Air Force, Frank Kendall, warned China was developing a Fractional Orbital Bombardment System: "If you use that kind of approach, you don't have to use a traditional ICBM trajectory. It's a way to avoid defenses and missile warning systems."

Commander of North American Aerospace Defense (NORAD), General Glen VanHerck, speaking before a conference on aerospace and cyber warfare in August, said China had "recently demonstrated very advanced hypersonic glide vehicle capabilities" that would "provide significant challenges to my NORAD capability to provide threat warning and assessment."

"Such a capability could potentially allow China to execute a nuclear strike on any target on Earth with near-impunity and very little warning" reports Tyler Rogoway, summing up the views of defense officials (The War Zone, 16 October 2021).

A U.S. intelligence official admits: "We have no idea how they did this." According to others, China's test is "astounding" and "far more advanced than U.S. officials realized." ("China Stuns U.S. Intelligence With Hypersonic Missile Test" Breitbart 17 October 2021.)

The Fractional Orbital Bombardment System or FOBS was first invented as a secret weapon during the Cold War by the USSR as a means of executing a surprise nuclear attack against the United States. A high-yield nuclear warhead would be disguised as a peaceful satellite, placed into orbit by a Space Launch Vehicle, not an ICBM, and flown on a southern trajectory, away from the United States, to appear non-threatening.

The nuclear-armed satellite would pass over the South Pole and fly toward the U.S. approaching from the south. During the Cold War and today, the U.S. has no Ballistic Missile Early Warning System (BMEWS) radars or anti-missile interceptors facing south. The U.S. is blind and defenseless from the south.

A FOBS warhead could make a surprise nuclear electromagnetic pulse (EMP) attack, paralyzing U.S. electric grids, communications, and potentially military command-control-communications-intelligence (C3I) and U.S. nuclear retaliatory forces—thereby winning a nuclear war with a single blow.

Miroslav Gyurosi in *The Soviet Fractional Orbital Bombardment System* (Air Power Australia, Technical Report APA-TR-2010-0101, January 2010 – April 2012), describes Moscow's development of the FOBS as part of "a long-running campaign of strategic deception against the West through the whole Cold War period, and the protracted development of the Soviet FOBS nuclear weapon system presents an excellent case study of such." Gyurosi:

The Fractional Orbital Bombardment System (FOBS) as it was known in the West, was a Soviet innovation intended to exploit the limitations of U.S. BMEW radar coverage. The idea behind

FOBS was that a large thermonuclear warhead would be inserted into a steeply inclined low altitude polar orbit, such that it would approach the CONUS from any direction, but primarily from the southern hemisphere, and following a programmed braking maneuver, re-enter from a direction which was not covered by BMEW radars. The first warning the U.S. would have of such a strike in progress would be the EMP...

The Congressional EMP Commission warns that Russia appears to have transferred technology for FOBS and Super-EMP weapons to North Korea:

North Korea's KMS-3 and KMS-4 satellites orbit over the U.S. daily...Their trajectory is similar to that planned for a Soviet-era secret weapon called the Fractional Orbital Bombardment System (FOBS) deployed by the USSR to make a surprise nuclear attack on the United States. In 2004, two retired Russian generals, then teaching at Russia's Voroshilov General Staff Academy, told the EMP Commission that the design for Russia's Super-EMP nuclear weapon was accidentally transferred by Russian scientists and engineers working on North Korea's missile and nuclear weapons program...Such weapons would be small enough for North Korea's satellites. (EMP Commission, Chairman's Report, July 2017).

Russia is developing new nuclear superweapons, including the Satan II heavy ICBM, that dictator Vladimir Putin boasts can strike any target on Earth, can overcome any missile defenses, including by flying over the South Pole—in effect describing Satan II as having FOBS capability.

China's FOBS capability is unique and revolutionary in that it has demonstrated the capability to deliver a Hypersonic Glide Vehicle. HGVs armed with Super-EMP nuclear weapons could be small enough for a single heavy-lift Space Launch Vehicle or heavy ICBM to deliver a dozen of them in a surprise attack against the United States.

The HGVs could de-orbit to make Super-EMP attacks on U.S. ICBM wings, bomber bases, SSBN ports, and C3I centers like NORAD HQ, Tinker AFB, and Washington, DC, about a dozen targets, placing peak EMP fields over each to maximize electronic damage. Such an attack is described in the EMP Commission report *Nuclear EMP Attack Scenarios and Combined-Arms Cyber Warfare* (July 2017: all the unclassified EMP Commission reports are available at www.firstempcommission.org).

In China's August test of its FOBS/HGV combination, the Hypersonic Glide Vehicle reportedly missed target by two dozen miles—but this would be spot-on target, if a Super-EMP attack was being simulated. A “miss” of two dozen miles would be a bull's-eye as the radius of the peak EMP field is over 100 miles for a Super-EMP weapon at optimum burst height, 20-40 miles above target. Strange that an HGV would allegedly “miss” target by miles, since these warheads are maneuverable not only to avoid missile defenses, but to achieve pinpoint accuracy.

Reportedly, China is also developing non-nuclear EMP weapons for missile delivery by Hypersonic Warhead. A recent report by Chinese nuclear scientists urges Beijing to be ready

to wage an EMP war with the United States by or before 2032 (“China: EMP Armageddon By 2032?” Newsmax 20 July 2021).

In addition to EMP attack, China’s FOBS/HGV space weapon could be used for a wide range of other revolutionary possibilities:

- The kinetic energy from a supersonic HGV could destroy the hardest targets without use of a nuclear or conventional warhead;
- FOBS/HGVs could be used to sink aircraft carrier groups, naval fleets, deliver smart submunitions to destroy airbases or field armies;
- FOBS/HGVs could project military power anywhere in the world in 30 minutes or less, the perfect realization of the U.S. Global Strike Initiative, but owned by China and Russia.

In the early 1980s, at the University of Southern California’s Defense and Strategic Studies Program, defense scientist John Darrah briefed graduate students, me among them, on fascinating possible military technologies of the future, such as those described above. These never came to fruition for the United States.

The U.S. of arms control and bureaucratization of military research, development and procurement, had these impediments existed during the Eisenhower and Kennedy administrations, probably would have prevented or delayed such revolutionary military technologies as ICBMs, SLBMs, satellites, and the Nuclear Navy—with catastrophic consequences for the world.

Nuclear deterrence must not fail. But can it be sustained in a world where China and Russia dominate the technological high frontier?

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