Welcome to USAF Center for Strategic Deterrence Studies News and Analysis. As part of the CSDS mission to develop U.S. Air Force, Department of Defense, and other government leaders to advance the state of knowledge, policy, and practices within strategic defense issues involving nuclear, biological, and chemical weapons, we offer the government and civilian community a source of contemporary discussions.

Feature Report

“Strengthening Global Systems to Prevent and Respond to High-Consequence Biological Threats”. NTI; November 2021.

NTI: "In March 2021, NTI partnered with the Munich Security Conference to conduct a tabletop exercise on reducing high-consequence biological threats. The exercise examined gaps in national and international biosecurity and pandemic preparedness architectures—exploring opportunities to improve prevention and response capabilities for high-consequence biological events." Read Report.

Nukes and Deterrence, Counter-WMD, and Arms Control in News and Research

NUCLEAR WEAPONS AND DETERRENCE

- **AFCEC Leads Beddown Efforts for B-21 Raider Stealth Bomber** (U.S. Air Force)
The B-21 will incrementally replace the B-1 Lancer and B-2 Spirit to perform both conventional and nuclear missions alongside the B-52 Stratofortress.

- **Incoming German Government Commits to NATO Nuclear Deterrent** (Defense News)
"The agreement makes the replacement of the country’s aging Tornado aircraft with an equally nuclear-capable type an explicit goal for the new government."

- **US Has ‘a Lot of Catching Up to Do’ in Hypersonics, Space Force’s No. 2 Says** (Air Force Magazine)
Thompson explained the challenges to the strategic warning system by likening the Chinese hypersonic missile to a “magic snowball.”

- **The Taiwan Question: How to Think About Deterrence Now** (Real Clear Defense)
Success in this regard is not to end ... China’s desire to unite Taiwan with the Chinese mainland; that is a much heavier political burden than deterrence can or should be expected to bear.

- **Assessing Contemporary Deterrence Parallel to Netflix’s Squid Game** (DivOpt via Real Clear Defense)
Both deterrence and Squid Game involve players executing their free will to compete ... . Deterrence becomes complicated today as players and game rules remain undiscovered.
• **Upgraded Missile Warning Satellites Come ‘Another Significant Step’ Closer to Reality** (Air Force Magazine)
The satellites are designed with “improved warning” features to detect missiles that move faster or create a dimmer infrared signature than current systems are designed to track, the release stated.

• **Guam Needs SM-6 Missile for Hypersonic Defense, Navy Admiral Says** (USNI News)
Former U.S. Indo-Pacific Command chief Adm. Phil Davidson earlier this year said building Aegis Ashore on Guam would “free up” three Navy destroyers for other tasking.

• **Here are the Three Companies Selected to Design Hypersonic Missile Interceptors for MDA** (Defense News)
The interceptors are intended to counter a hypersonic weapon during its glide phase, a challenge as the missiles can travel more than five times the speed of sound and can maneuver.

• **Pentagon Scrambles to Defend ‘Juicy Targets’ After Rivals’ Space Tests** (Defense One)
“We are concerned about the weaponization of space,” Austin said. “We’re working as hard as we can to ensure that we can defend ourselves against a range of threats going forward.”

**US ARMS CONTROL**

• **China’s Nuclear Weapons Strategy and Modernization Program** (Belfer Center)
It is clear that it is driven largely in response to the growing United States (U.S.) missile defense program, which China perceives as a threat to its minimum credible deterrence.

• **U.S. Policy Toward the Korean Peninsula** (Council on Foreign Relations)
A CFR Independent Task Force warns that North Korea’s continued provocations pose a serious threat to its neighbors and that its nuclear weapons program must be stopped.

• **Russia Proved it Can Shoot Down a Satellite. Does This Make Space Less Secure?** (Washington Post)
Existing arms control agreements like the 1967 Outer Space Treaty do not cover antisatellite weapons.

• **Analysis: Unspoken U.S. Aim at Iran Nuclear Talks May Be Winning Chinese, Russian Support** (Reuters)
China, however, has undercut U.S. leverage by buying Iranian oil, throwing Tehran an economic lifeline in violation of U.S. sanctions.

**COMMENTARY**

• **Beijing Sprints While America Slumbers** (The Dispatch)
Hyten suggested the comparison was not a good one. “Sputnik created a sense of urgency in the United States,” Hyten said. “The [Chinese] test on July 27 did not create that sense of urgency.”

• **Japan’s Revolution on Taiwan Affairs** (War on the Rocks)
“Despite calls for a clarification of this ‘strategic ambiguity,’ the 1979 law appears likely to remain the main legal basis for Washington’s continued support for Taipei.”

• **Prioritize NATO’s Core Task: Collective Defense** (Defense News)
“Four building blocks for enhanced deterrence are in place, and the new Strategic Concept needs to stimulate vigorous implementation of the next steps in each case.”