



— UNITED STATES AIR FORCE —
**CENTER FOR STRATEGIC
DETERRENCE STUDIES**

NEWS AND ANALYSIS

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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

[“China-Russia Cooperation: Determining Factors, Future Trajectories, Implications for the United States”](#). RAND; Oct. 12, 2021.

"The authors seek to understand the history of cooperation between Beijing and Moscow, the drivers of and constraints on the relationship, the potential future of cooperation between China and Russia, the impact of the Chinese-Russian relationship on the United States, and implications for future U.S. policy." [Read Report](#).

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

NUCLEAR WEAPONS AND DETERRENCE

- [Navy Columbia \(SSBN-826\) Class Ballistic Missile Submarine Program: Background and Issues for Congress](#) (Congressional Research Service)

The SSBNs, in contrast, perform a specialized mission of strategic nuclear deterrence.

- [Northrop Grumman Opens New GBSD Development Facility](#) (Aerospace Manufacturing)
GBSD is a USAF programme to modernise the land-based leg of the US strategic nuclear triad.

- [China’s Development of Hypersonic Missiles and Thought on Hypersonic Defense](#) (Jamestown Foundation)

According to the South China Morning Post (SCMP), Starry Sky-2 can carry nuclear warheads and travel at six times the speed of sound.

- [Symposium: Joe Biden’s Nuclear Posture Review](#) (National Interest)

The National Interest organized a symposium on the administration’s NPR, U.S. nuclear policy, and arms control more broadly.

- [Inadvertent Escalation in the Age of Intelligence Machines: New Model for Nuclear Risk](#) (Cambridge Press)

[The article] addresses a gap in the literature about the strategic and theoretical implications of the AI-nuclear dilemma.

COUNTER-WMD

- [Extending the Horizon: Elevated Sensors for Targeting and Missile Defense](#) (CSIS)

Terrestrial sensors are a critical backbone for air and missile defense architectures, but they have inherent limitations that present known vulnerabilities.

- [US Army, Lockheed Find Faster Path to Field Air and Missile Defense Radar](#) (Defense News)

The air and missile defense radar is able to detect cruise missiles, unmanned aircraft systems, rockets, artillery and mortars, said Mark Mekker, program director of Army radars at Lockheed.

- [Missile Defense and the Space Arena](#) (Real Clear Defense)

The MDA and its predecessor organizations have understood the importance of leveraging space to accomplish the ballistic missile defense mission since Reagan introduced his SDI in 1983.

US ARMS CONTROL

- [Baltic Perspectives on U.S. and Transatlantic Nuclear Negotiations with Russia](#) (Foreign Policy Research Institute)

Russia's willingness to engage remains uncertain, and such negotiations have the potential to open up simmering tensions between the US and its European NATO allies.

- [North Korea Puts on Show of Missile Might as Kim Jong Un Snubs U.S.](#) (Wall Street Journal)

The firepower display at an event in Pyongyang included an apparent hypersonic missile.

- [U.S. Secretary of State and Israeli Foreign Minister Talk Stalled Iran Nuclear Deal](#) (NPR)

With the Israeli foreign minister in Washington to meet Secretary of State Antony Blinken, the focus is on how to approach talks with Iran over reviving the 2015 nuclear deal.

- [Quick Detection of Uranium Isotopes Helps Safeguard Nuclear Materials](#) (Oak Ridge Lab via Phys.org)

The team was able to detect as little as 50 picograms of uranium—80 million times lighter than a grain of sand.

COMMENTARY

- [Bilateral Strategic Stability: What the US Should Discuss with Russia. And China.](#) (Bulletin of the Atomic Scientists)

"While the US investment in ballistic missile defense motivates this panoply of new weapons, it provides no significant additional security against Russian attack."

- [China's Missile Siloes and the Sino-Indian Nuclear Competition](#) (War on the Rocks)

"The head of Strategic Command called the developments 'breathtaking,' and the news is sure to embolden efforts to fund U.S. nuclear modernization efforts on Capitol Hill."

- [Does Taiwan Need Nuclear Weapons To Deter China?](#) (1945)

"It can no longer count on a mercurial United States to keep its security commitments to the island."

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