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**


Belfer: "While America’s position as a global military superpower remains unique—with power projection capabilities no one can match, more than 50 allies bound by collective defense arrangements, and a network of bases on almost every continent—both China and Russia are now serious military rivals and even peers in particular domains. Russia’s nuclear arsenal has long been recognized as essentially equivalent to America’s, and, while China’s nuclear arsenal is much smaller, Beijing has nonetheless deployed a fleet of survivable nuclear forces sufficient to ensure mutually assured destruction (MAD)." [Read Report](#).

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

**NUCLEAR WEAPONS AND DETERRENCE**

- **North America’s Imperative: Strengthening Deterrence by Denial** (Strategic Studies Quarterly) Rather than deterrence by punishment, however, the focus of NORAD, USNORTHCOM, and the Canadian Joint Operations Command must be on deterrence by denial.

- **Will Emerging Technology Cause Nuclear War?: Bringing Geopolitics Back In** (Strategic Studies Quarterly) Incorporating emerging technologies into US, Ally, and partner militaries will likely reinforce the prevailing global strategic stability.

- **Strategy & Policy: China’s No Longer Peaceful Rise** (Air Force Magazine) Part of China’s intimidation campaign is the quickening pace of its development and fielding of a nuclear triad.

- **Meeting the B-21 Raider: 2022 to Bring New Bomber’s Eagerly Awaited Rollout** (Defense News) This will be the first public unveiling of a new Air Force bomber in more than three decades, since Northrop Grumman’s B-2 Spirit was revealed at Air Force Plant 42 in Palmdale, California.

**COUNTER-WMD**
• China’s Hypersonic Future (CSIS)
This challenge highlights the need to reconceptualize the United States’ approach to air and missile defense.

• US Army Awards Northrop $1.4 billion Contract for Future Battle Command System (Defense News)
The service has since expanded its role to tie together a broad array of sensors and shooters capable of defeating other complex threats, such as cruise missiles and unmanned aircraft.

• US Missile Defense Agency Declares Initial Delivery of Long-Range Discrimination Radar in Alaska (Defense News)
MDA said that once “fully operational, LRDR will provide unparalleled ability to simultaneously search and track multiple small objects, including all classes of ballistic missiles ... .”

US ARMS CONTROL

• The 2021 Nuclear Year in Review—with Five Enduring Stories (Bulletin of the Atomic Scientists)
Putin and Biden injected the nuclear landscape with a dose of cautious optimism when they reaffirmed the Reagan-Gorbechev statement that a nuclear war cannot be won and must never be fought.

• A Last-Ditch Effort to Save the Iran Deal (Foreign Policy)
The eighth round of nuclear talks kicks off this week in Vienna, with U.S. officials saying Iran has only weeks to play ball.

• US, Russia to Hold Security Talks in January (VOA)
The United States and Russia will hold talks in January about nuclear arms control and tensions along the Russia-Ukraine border.

COMMENTARY

• Bear, Meet Porcupine: Unconventional Deterrence for Ukraine (Defense One)
"By 'going porcupine,' Ukraine can make it clear to Russia that invasion will be costly and unsuccessful. But Kiev needs help."

• North Korea’s Signaling on Nuclear Weapons and Negotiations (Foreign Affairs via 38 North)
“Pyongyang has resumed its nuclear development based on a power-for-power policy to pursue a military balance on the Korean Peninsula and increase its leverage over Washington.”

• Strategic Ambiguity and the Risk of War with Russia over Ukraine (War on the Rocks)
“It is the second category of events, those that involve show-of-force or freedom of navigation missions, that is more strategically destabilizing.”