



UNITED STATES AIR FORCE  
CENTER FOR STRATEGIC  
DETERRENCE STUDIES

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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 Paper

"[Why Do States Build Nuclear Weapons? Proliferation Models as Concurrent Pressures on a State](#)". By Maj Scott Curtice; published March 23, 2021, ACSC/Air University Press.

"Major Curtice applies three theoretical models of nuclear proliferation and argues that they are more accurate when used in conjunction with each other than separately. Nuclear proliferation, Curtice states, occurs when Domestic Politics-Positive and Normative-Positive pressures are greater than their negative counterparts when a state is facing a security threat. By using India as a theoretical model, Major Curtice demonstrates how threats from neighboring countries, as well as internal political perspective shifts, changed the country from championing nuclear disarmament to conducting nuclear tests in just one decade." [Read Paper](#).

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

### NUCLEAR WEAPONS AND DETERRENCE

- [Washington's Battle over Nuclear Weapons Budget Already Underway](#) (Defense News)

The Biden administration is expected to conduct a broad nuclear posture review that would examine plans to modernize the nuclear triad — an effort estimated to cost \$1.7 trillion over 30 years.

- [Congressional Testimony | Future Defense Spending: Nuclear Modernization](#) (Carnegie Endowment for International Peace)

Almost every U.S. nuclear delivery system, missile, and warhead will require some kind of modernization over the next ten to twenty years.

- [America's Alliances After Trump: Lessons from the Summer of '69](#) (Texas National Security Review)
- Richard Nixon's 1969 Guam doctrine led America's allies in Asia to pursue a variety of strategies based on perceptions of America's reliability.

- [Nuclear Deterrence Forum: Franklin C. Miller](#) (Mitchell Institute)

"They discuss the importance of the ICBM leg ..., the need for warhead modernization, and why maintaining a modern nuclear triad is essential to U.S. national security needs of the 21st century.

### COUNTER-WMD

- [Pentagon Picks Lockheed, Northrop-Raytheon Team to Develop Missile Interceptors](#) (Defense One)

The announcement comes just days after North Korea reportedly fired missiles in response to U.S. and South Korean military exercises.

- [Special CBRN Plume Modeling Team Supported Biden Inauguration Security](#) (Naval Research Lab via Global Biodefense)

[Adam] Moses deployed a 3D computer-simulated modeling program ... which can track the release of chemical, biological, and radioactive substances that can spread large distances in minutes.

- [SWSP x Girl Security: Covid-19, Biothreats, and Biodefense Policy](#) (CSIS)

The group discusses the holes in U.S. biological policy revealed by the Covid-19 pandemic and the role of dual-use biotechnologies in strategy and policy.

## US ARMS CONTROL

- [How Kim Jong Un Keeps Advancing His Nuclear Program](#) (Washington Post)  
Of North Korea's six atomic tests, Kim was responsible for four. They've come a long way since the first detonation in 2006.
- [Book Release: Nuclear Choices for the Twenty-First Century](#) (Center for Nonproliferation Studies)  
The last section of the book focuses on nuclear terrorism, nuclear arms control and ballistic missile defense and a world without nuclear weapons.
- [CSIS Commission on the Korean Peninsula: Recommendations for the U.S.-Korea Alliance](#) (CSIS)  
This report ... offers concrete proposals for a journey of revitalizing the alliance in the areas of extended deterrence, global contributions, regional relations, denuclearization and peacebuilding ... .
- [Russia, China Tensions Rise with White House](#) (The Hill)  
Biden [admin] is hoping to work with both countries in areas of shared agreement, like confronting climate change and repairing the Iran nuclear deal, to which China and Russia are both signatories.

## COMMENTARY

- [It Is Time to Negotiate Global Treaties on Artificial Intelligence](#) (Brookings)  
"This emerging reality could feature swarms of drones that may overwhelm aircraft carriers, cyberattacks on critical infrastructure, AI-guided nuclear weapons, and hypersonic missiles ... ."
- [The Future of the INF Treaty](#) (Harvard Political Review)  
"The Biden administration's re-engagement with the international community and its recent extension of the New START Treaty ... could indicate that the US is willing to rejoin the INF."
- [The State of \(Deterrence by\) Denial](#) (War on the Rocks)  
"A forward defense is not always necessary to deter an adversary."

