



UNITED STATES AIR FORCE  
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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

[“What Is the Sole Purpose of U.S. Nuclear Weapons?”](#) Adam Mount, Federation of American Scientists; Sept. 16, 2021.

"This piece examines the range of options available to officials working to define sole purpose and reduce reliance on nuclear weapons. It explores the practical implications of different definitions of sole purpose and the steps necessary to ensure that they are implemented in a way that is responsible, effective, and most likely to endure over time." [Read Report](#).

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

### NUCLEAR WEAPONS AND DETERRENCE

- [China Missile Buildup Exposes Nuclear Spending Divide in Congress](#) (Wall Street Journal)  
U.S. nuclear missile defenses are in some cases decades old and in need of modernization, but congressional leaders and the military are at odds on how best to update the Cold War systems.
- [New NTI Paper Identifies Strengths and Weaknesses in the Global Nuclear Security Architecture](#) (NTI)  
The Paper "provides an overview of today's nuclear security architecture, identifies areas of weakness, and recommends ways to close gaps."
- [Initial Analysis of North Korea's "New Type Long-Range Cruise Missile"](#) (38 North)  
The September 13 statement reported the missile is "a strategic weapon of great significance" and "another effective deterrence means."
- [Hyten: China's 'Unprecedented Nuclear Modernization' Chief Concern](#) (USNI News)  
Unlike the Soviet Union, where both powers maintained a nuclear deterrent and the U.S. had NATO allies in Europe to keep the deterrent credible, Hyten said "China is a very different competitor."
- [Survey Finds Broad Public Support for Nuclear Deterrence, Modernization](#) (Air Force Magazine)  
For the Air Force, this means replacing the aging Minuteman III intercontinental ballistic missile with the Ground Based Strategic Deterrent and introducing the B-21 Raider bomber.

### COUNTER-WMD

- [Missile Defense Agency Successfully Tests New Booster for Homeland Missile Defense System](#) (Defense News)

The GMD system is designed to protect the homeland from intercontinental ballistic missiles from Iran and North Korea.

- [US Successfully Tests New Homeland Missile Defense Capability](#) (Breaking Defense)  
"This long-planned and important milestone will go towards ensuring that GMD continues to improve and adapt to increasingly complex ICBM threats from the likes of North Korea," he [Karako] said.

- [Congress Wants Answers on How DoD is Solving a Hypersonic Weapons Detection Gap](#) (Defense News)

Picking up low-flying hypersonic missiles — ones that can hug the earth at roughly just 500 feet in the air — is a particularly hard problem to solve.

- [New Cruise Missile Gives North Korea Lethal Capability](#) (Foreign Policy)

This trend underscores the need to enforce and strengthen sanctions against North Korea and to accelerate delivery of improved cruise missile defenses to U.S. and allied forces.

## US ARMS CONTROL

- [The Future of Strategic Arms Control](#) (Council on Foreign Relations)

To manage the increasingly stark geopolitical power shifts of the past decade-plus, the U.S. should pursue arms control strategies that regulate rivalry and introduce a broader array of restraints.

- [Iran Nears an Atomic Milestone](#) (New York Times)

Edging close to a bomb's worth of fuel is seen as a tactic to pressure the Biden administration into agreeing to a quick renewal of the 2015 nuclear deal.

- [Analysis of IAEA Iran Verification and Monitoring Report - September 2021](#) (Institute for Science and International Security)

The report shows Iran's rapidly advancing nuclear activities and steps to limit IAEA monitoring, while inspectors have a diminishing ability to detect Iranian diversion of assets to undeclared facilities.

- [North Korean Missiles Land in Japan EEZ as Nuclear Threat Grows](#) (Japan Times)

The spate of tests in the span of less than a week have served to highlight that the North Korean nuclear issue can bubble to the surface at any time, despite the U.S. push to focus on China.

## COMMENTARY

- [Why North Korea's New Cruise Missile Matters](#) (Carnegie Endowment for International Peace)

"North Korea's newest cruise missile test shows its nuclear capabilities are growing. Here's what policymakers from the U.S. and elsewhere should do now to set up future negotiators for success."

- [Twenty Years after 9/11, Terrorists Could Still Go Nuclear](#) (Bulletin of the Atomic Scientists)

"Violent Islamic extremists desperately want to strike back at the 'crusader forces' who have inflicted such punishing blows on their organizations."

- [The US Navy's Nuclear Proliferation Problem](#) (Breaking Defense)

"US Navy reactors currently use about 100 nuclear bombs' worth of HEU each year, more than all of the world's other reactors combined."



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