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**


"RAND researchers apply the established framework to U.S. efforts to deter North Korean aggression against South Korea and U.S. efforts to deter Chinese aggression against Taiwan. The researchers conclude that the state of deterrence in Korea is healthy, and all examined variables (including those related to North Korea’s motivations and the clarity and credibility of the U.S. deterrence message) are robust or effective. In contrast, the state of deterrence with regard to China and Taiwan is mixed." Read Report.

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

**NUCLEAR WEAPONS AND DETERRENCE**

- The Rise and Decline of Global Nuclear Order? (American Academy of Arts & Sciences via Belfer Center) [The author provides] broad-brush sketches of three phases of the nuclear age, sketches that demonstrate movement from an unregulated and highly competitive environment to one that gradually becomes highly regulated and collaboratively (sometimes cooperatively) managed.

- Hearing: United States Nuclear Deterrence Policy and Strategy (Senate Committee on Armed Services) With witnesses Dr. Brad Roberts, Dr. Paul Bracken, General Claude Kehler, and Mr. Franklin Miller.

- Nuclear Triad: DOD and DOE Face Challenges Mitigating Risks to U.S. Deterrence Efforts (GAO) Most of these systems, however, are nearing or past their planned end-of-life dates. And all of their replacement systems are at risk of delays.

- Strategic Forces Chair ‘Not Fully Convinced’ on ICBM Modernization (Defense News) Sen. Angus King, chair of the Senate Armed Services Committee’s Strategic Forces Subcommittee, said he wants more information about extending the life of the 400 Minuteman III missiles.

- Sen. Angus King: Cybersecurity a Major Concern in U.S. Nuclear Command-And-Control System (Space News) King and a bipartisan group of senators on Saturday were briefed on U.S. nuclear modernization efforts at Offutt Air Force, Nebraska, where U.S. Strategic Command is headquartered.
US missile defense systems have also been evolving to deal with North Korea’s nuclear and missile threats.

Midway through the citric acid cycle the body creates alpha-Ketoglutarate. When VX inhibits its production the body stops producing energy, quickly causing death.

The latest edition of Air Force protective shelters built to protect personnel against Chemical, Biological, Radiological and Nuclear threats, is a priority of the Air Force - and more importantly, critical to keeping Airmen safe.

The LRDR is an S-band radar that will not only be able to track incoming ballistic and hypersonic missiles but also discriminate the warhead-carrying vehicle from decoys and other nonlethal objects for the Ground-Based Midcourse Defense System.

The offensive is a part of the politicking before Iran’s presidential election in June, starring a slate of candidates yet to be cast in a poll with potentially significant consequences for the United States.

38 North recently interviewed Dr. Siegfried S. Hecker about the status of North Korea’s plutonium and uranium enrichment production and implications for the North’s nuclear arsenal.

Arms control has so far been a central feature in conversations between Biden and Putin, and the U.S. leader hinted last month at the potential for a bilateral summit to address the issue further.

“What they have not seen is American statements about Iran’s continuing clandestine efforts to build a nuclear weapon and its refusal to allow mandated inspections.”

“The Biden administration should follow precedent and commission an independent look at the case for the Ground Based Strategic Defense program.”

“Three key points demonstrate an effort by the North to signal that it wasn’t going to ignore the president’s singling out the North as a “threat” in his first address to the Congress, but in a carefully calibrated way.”