

## Background

The United States was the first country to sign the Comprehensive Test Ban Treaty (CTBT) in 1996, and today 182 nations are signatories. Despite broad international support for the treaty, it has not taken full effect. For the CTBT to enter into force, nine additional “Annex 2” countries must ratify the treaty. The United States, along with China, Egypt, India, Indonesia, Iran, Israel, North Korea and Pakistan, are the only remaining holdouts on the treaty.



The U.S. Senate failed to ratify the treaty in 1999, when intense partisan politics soured the vote and some senators’ concerns about maintaining the effectiveness of the U.S. nuclear arsenal went unaddressed. Despite not ratifying the CTBT, the U.S. has not tested a nuclear weapon since 1992, and the U.S. Department of Energy’s Stockpile Stewardship Program has proven that the U.S. nuclear arsenal will be reliable for decades to come. Additionally, while the technological capabilities of the monitoring system were a concern in 1999, the system’s capabilities have greatly improved in the last decade— proven by detecting two real-world nuclear tests by North Korea in 2006 and 2009.

Ratifying the treaty is one of the top priorities on President Obama’s nuclear security agenda. U.S. ratification would pressure other holdout states such as China, India, Pakistan, Israel and Iran to ratify the treaty and bring it into full effect.

## Purpose

The CTBT prohibits all nuclear explosions and tests of nuclear weapons. It also provides for a global monitoring system and a means for short-notice on-site inspections to detect and deter cheaters. By prohibiting the testing of nuclear devices, the treaty prevents states without nuclear weapons from developing them and keeps states with nuclear weapons from developing new weapons systems.

## Major Issues

Some conservative U.S. senators advocate for “modernizing” the U.S. nuclear arsenal. If pursued, such programs could require explosive testing of new models, which would violate the CTBT and encourage other states to test. However, modernization is unnecessary. Scientists have proven that the U.S. can maintain the effectiveness of its nuclear deterrent through existing programs like Stockpile Stewardship. Additionally, modernization programs would indicate to our allies that the U.S. has little intention of adhering to its Article VI commitment in the Nuclear Nonproliferation Treaty (NPT) to work towards disarmament. Modernization would compromise U.S. leadership on arms control and nonproliferation.

In 1999, many opponents of Senate ratification of the CTBT questioned the verification capabilities of the CTBT. In the past decade, the Comprehensive Test Ban Treaty Organization (CTBTO), which implements the treaty’s verification measures, has drastically improved the treaty’s international monitoring system. The monitoring system, coupled with extensive detection systems in the U.S. and other member states and enhanced seismic monitoring capabilities (like those used for earthquakes), ensure that any would-be cheater will be deterred and that actual cheaters will be detected.

Despite these scientific and technological advancements, Republican Jon Kyl of Arizona leads an extremely vocal minority in the Senate in opposition to these arms control initiatives. Kyl directed the charge against CTBT ratification in 1999 and is currently posturing to defeat the treaty again when it is reintroduced to the Senate. Kyl, who consistently ignores the testimonies of senior officials at the Department of Energy, has advocated for the U.S. to resume testing in order to ensure the stockpile’s credibility and he is favor of building new warheads in place of existing Stockpile Stewardship Programs. Overcoming Kyl’s will be a great political challenge for the CTBT and the entire nuclear security agenda.