2/30/2016

**Topic:** US Nuclear Modernization

**Expert Role:** Engineer

**Partner’s Name:** Student Two

**Research Question:** Considering the diminished threat of total nuclear war and the amount of governmental funds needed, doesthe nuclear arsenal of the United States need to be modernized?

**Thesis Statement:** Although a modern nuclear arsenal is viewed by some as a waste of government funds, modernizing the arsenal is necessary in order to maintain a worldwide deterrent and to guarantee the safety of the United States and its allies.

**Outline:**

Need for Nuclear Arsenal

* The threat of a nuclear attack on the United States has not vanished with the fall of the Soviet Union. [4]
* By maintaining a worldwide nuclear deterrent, allies of the United States do not have to create their own nuclear arsenal. [1]

Why the Current Arsenal Needs Modernization

* The current nuclear arsenal is not geared towards the threats, strategies, and missions of the twenty-first century. [3, p.21]
* Life Extension Programs (LEPs) are expensive, short-term solutions to maintaining the nuclear arsenal. [2]

How to Modernize

* A Reliable Replacement Weapon would supplant the current arsenal and increase the safety and reliability of the nuclear arsenal. [3, p. 4-5]

**Tentative Recommendation:** The U.S. military should cease use of the costly Life Extension Programs and instead shift its focus to the creation of a Reliable Replacement Weapon.

References

[1] Garwin, Richard L. “A Different Kind of Complex: The Future of U.S. Nuclear Weapons and the Nuclear Weapons Enterprise.” Arms Control Today. 04 Dec. 2008. Web. 09 Mar. 2016.

[2] "Life Extension Programs | National Nuclear Security Administration." NNSA. Web. 09 Mar. 2016.

[3] Medalia, Jonathan. “Nuclear Weapons: The Reliable Replacement Weapon Program.” CRS Web. 20 July 2005. Web. 09 Mar. 2016.

[4] Kroenig, Matthew. "Why US Nuclear Modernization is Necessary." Bulletin of the Atomic Scientists. 2015. Web. 09 Mar. 2016.