2/31/2016

**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.

**Introductory Paragraph:**

The modernization of the nuclear arsenal of the United States has been in contention since the fall of the Soviet Union. Because the threat of total nuclear annihilation is no longer something every American citizen worries about on a daily basis, the necessity of the nuclear arsenal has become no longer clear. The need to spend large amounts of money on weapons that are likely to never be used is hard to justify to the American taxpayers. 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]
* A strong deterrent discourages the development of nuclear arms by nations that may be hostile to the US and its allies. [5, p. 34]

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]
* A smaller, modern nuclear arsenal would save money and maintain proper worldwide nuclear deterrent. [6]

**Conclusion:** In conclusion, a nuclear deterrent is still necessary in the modern world to protect the United States from the threat of nuclear weapons. To maintain this potent deterrent force, the current US arsenal must be modernized to adapt to its new, long-term, role in the twenty-first century. It is recommended that the U.S. military ceases use of costly Life Extension Programs and instead shifts 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.

[5] Oelrich, Ivan. “Missions for Nuclear Weapons After the Cold War.” Federation of American Scientists. Jan. 2005. Web. 09 Mar. 2016.

[6] O'Hanlon, Michael. "To save Money, Look to Nukes." Los Angeles Times. Los Angeles Times, 16 Nov. 2011. Web. 09 Mar. 2016.