

Critical Issues Forum
Nuclear Disarmament:
Challenges, Opportunities,
and Next Steps
Benchmark III

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Benchmark III

This benchmark will discuss what the future of nuclear weapons shall be. Should nuclear weapons be eliminated entirely? Should nuclear weapons be kept for national security reasons? This benchmark will attempt to determine what is best for the world in terms of nuclear weapons. There will be examples of events supporting the decision we will make in this benchmark. A hypothetical situation will be created to show how our decision will accomplish the goal of a safer world. This benchmark will also focus on our experiences at the Critical Issues Forum and how they have impacted our views and thoughts on nuclear weapons.

The Future of Nuclear Weapons

We believe nuclear weapons should be eliminated altogether. Nuclear weapons have only caused problems and destruction in our world. We will give two examples of the destruction nuclear weapons have caused. The first will be the nuclear testing of the Marshall Islands. The second will be the bombings of Hiroshima and Nagasaki, Japan. We have chosen to focus on these places because being from Hawaii we feel a special connection with the people of these places. For one, there are many natives of the Marshall Islands in Hawaii because of the relocation. Secondly, there are many relatives of survivors of the Hiroshima and Nagasaki bombings in Hawaii.

Nuclear Testing in the Marshall Islands

Our first example of the destruction nuclear weapons have caused is the nuclear testing in the Marshall Islands. Deformed children and helpless mothers are the result of nuclear testing on the Marshall Islands. The testing of nuclear weapons on the Marshall Islands damaged the physical well being of pregnant women and their children.

The United States received administrative jurisdiction over Micronesia after Japan, when World War II ended. The U.S. was responsible for helping them advance, providing security, and guiding them towards independence. With this, the U.S. was granted permission to use the islands as they wished, without consulting the local people (Salvador, 2). Twenty-three nuclear tests were carried out on Bikini, and 43 were carried out on Enewetak. The most destructive of the bombs was Bravo, a hydrogen bomb tested on Bikini in 1954.

After finalizing plans to test the nuclear material and sending 42,000 U.S. personnel, the United States finally contacted Bikini's people. But they lied by telling them that the testing was "for the good of mankind, to end all wars" (Beacham, 1). With this, the islanders were willing allow the testing in their islands. The 167 Bikinians were moved East to Rongerik Atoll, which was much smaller than Bikini and lacked the resources needed for the Bikinians to live their normal lives, off of the land, in a subsistence economy. Because of this, the natives quickly began to starve and get sick. Bikinians started preparing for Ujelang which was their next relocation, but Enewetak's people were moved there. The Bikinians then had to transfer to the Kwajalein Atoll, after living there for a few months, the Bikinians moved to Kili Island, their third move in just two years (Niedenthal 4, 5). Although U.S. personnel kept people away from the actual testing grounds, the fallout from the Bravo blast traveled over 7,000 miles, affecting all islands nearby. Radiation levels sky rocketed. Natives were already sick from relocating and from the lack of food. The islands were radioactive. To this day, Bikini and Enewetak are uninhabited and will remain that way for years to come, however the side effects of the testing will last just as long (Atomic Archive, 17).

Children are naturally more susceptible to sickness therefore they were affected most by the radiation. Children were affected from the higher concentrated levels from fallout that settled into the ground. Children came in contact with radioactive material both directly and indirectly. Breast milk, a staple for infants and toddlers, was contaminated through radioactive iodine. The effects of radioactivity in children is inhuman. Children suffer from the burns and itches that everyone else does, but they also suffer mental retardation and deformity of the body (Committee on Environmental Health 22). Unborn babies are contaminated even more so than toddlers. They are sometimes born with over sized heads, heads too small, missing limbs, or missing organs. The body parts that do end up forming tend to be misshaped or in the wrong place. Some were so bad that they weren't considered babies and were barely considered human. The term for this unfortunate radioactive result is a jellyfish baby, because they resembled jellyfish more than an actual child (Beacham, 1). Because children were so affected, mothers were as well. Mothers were scared of giving birth, knowing that many gave birth to jellyfish babies. Mothers will be mentally scarred forever, living in fear for their children (Committee on Environmental Health, 23; Beacham, 1).

Nuclear technology has impacted the United States. That technology is nothing without testing. Through testing, the U.S. was able to see what their creations were capable of. The best and the strongest nuclear arsenals are needed for the protection of America. Testing is necessary to find any flaws, and to fix them, thus making the best and the strongest nuclear arsenals in the world. Through testing in the Marshall Islands, the U.S. received more support to expand and even create more labs (Salvador, 5). People

did get sick but those that did were sent to Hawaii and Guam to be cared for (Beacham, 3).

The act of non proliferation is expanding and we can't get rid of what we continue to use. To contaminate an entire population is too far of an extreme to go to just for the improvement of technology. Some people did get treatment but many had to die, and many had fallen ill before that happened. Most people were left untreated, with radioactive or even dead loved ones. Medical care shouldn't have been considered a benefit in the first place; it was because of the testing that the native people of the Marshall Islands were sick. Entire populations were removed from their homes, only finding themselves afflicted by the reason they left (Niedenthal, 11; Beacham, 3).

The U.S. immorally tested hazardous material on lands that were inhabited with people unaware of the destruction that was to come. Lives were ruined. Above all, children, one of the most innocent life forms, were hurt and had to suffer unbelievable pains and trudge through life carrying the scars of their native lands. Mothers carried contaminated babies and feared giving birth to unnatural creatures. The testing on the Marshall Islands impaired lives of mothers and children, making it more destructive, detrimental, and menacing, than possibly helpful.

The Bombings of Hiroshima and Nagasaki

Another example of the destruction nuclear weapons have caused is the bombings of Hiroshima and Nagasaki, Japan. On August 6, 1945 the first atomic bomb was dropped on Hiroshima, Japan by a B-29 heavy bomber. Three days later, on August 9, another B-29 bomber dropped the second bomb over Nagasaki, Japan (Manhattan Engineer District Staff, 2).

Unlike the nuclear testing in the Marshall Islands, people in Hiroshima and Nagasaki felt direct effects of the nuclear bombs. The bombing of Hiroshima was the more devastating of the two because the bomb was dropped dead-on target versus the bombing of Nagasaki where the bomb was not dropped on target because of cloudy skies. However, the bombing of Nagasaki was still destructive. It is estimated that the atomic bomb that was dropped over Nagasaki at 21 kilotons was 40 percent greater than the bomb that was dropped over Hiroshima (The Atomic Bombing of Nagasaki, 1).

Everything from up to half a mile away from where the bomb was dropped in Nagasaki was destroyed. Within one kilometer of ground zero animals and mankind alike died almost instantly after the explosion. Within 10,000 feet from the epicenter of the explosion, flammable items just burst into flames and most of the homes were engulfed by the explosion. It never can be certain how many people died because of the bombing but it is estimated that 40,000 people died at the time with about 60,000 injured (The Atomic Bombing of Nagasaki, 1).

However, the death toll of Nagasaki does not compare to the death toll of Hiroshima. It is estimated that about 70,000 people died initially of the atomic bomb's effects. However, you must also take into account the radioactive fallout. It killed even more people. The death toll of Hiroshima rose to over 100,000 at the end of 1945 (The Atomic Bombing of Hiroshima, 1).

Much like the bombing of Nagasaki, many of the surrounding buildings from the site of the bomb were instantly destroyed. People were killed instantly by the blast and heat effects and much like the nuclear testing in the Marshall Islands, people suffered from radiation effects. However, the effects of radiation did not kill instantly. It took a

few weeks before the death toll from the radiation maximized (The Atomic Bombing of Hiroshima, 1).

Also contributing to the deaths of Hiroshima was the massive firestorm that was created by the blast. Initially, there were many little fires that were created by the blast all over the city. After awhile, the fires combined to form a massive fire. This firestorm overcame about 4.4 square miles of the city. The bombings of both cities were really devastating with over an estimated total of a few hundred thousand deaths. We must not forget the psychological trauma as well.

Scenario

As mentioned before, nuclear weapons have only caused destruction in our world. The world would be a better place without them. It is quite simple to show how not having nuclear weapons would make the world a safer place. The world would be much like it is now without the threat of certain countries getting their hands on nuclear weapons. Without the threat of certain countries getting hold of nuclear weapons, more people would feel more secure and safer.

Compared to the world now, our scenario is much simpler. There would be no need to worry about treaties and regulations if there were no nuclear weapons in the world. There would be no need for a lot of things. Without nuclear weapons, the world will be safe or at least safer than it is now with nuclear weapons in it.

Experiences at the Critical Issues Forum

Brandon Marzan

My experience at the Critical Issues Forum has had a great impact on me. It has expanded my understanding of nuclear weapons and the issues we face as an

international community. The opinions of other students from the United States and Russia alike have made me look at various issues in new ways. I have learned at this forum that you must be able to respect the view of others even though their views might differ from your own. This forum has made me want to pursue a career in international studies even more. I am really appreciative that I got the chance to participate in this forum.

Celine Casamina

I completed the first two benchmarks and felt like I knew all there was to know about nuclear weapons, issues, and technology; then I went to the actual conference. I learned about so many things I would've known nothing about had it not been for the CIF conference. Things I was already aware of were discussed in depth. During discussions I was able to share my opinions and look at things through different view points. Not only did I learn, but I taught; Brandon and I shed light on unknown subjects. Not only was there new information about nuclear issues, but there was a cultural exchange. This conference broadened my horizons in so many ways. I became more worldly and learned lessons that I can relate to and use throughout my entire life. I gained a lot from my experience.

Bibliography

Atomic Archive, "'Bravo' Both Triumphs and Fails." Cold War, A Brief History. 26 Feb 2009 <http://www.atomicarchive.com/History/hbomb/page_17.shtml>.

Beacham, Catherine. "Jellyfish Babies." Nuclear issues information. WISE. 28 Jan 2009 <<http://www10.antenna.nl/wise/index.html?http://www10.antenna.nl/wise/374-5/3678.html>>.

Committee on Environmental Health, "Radiation Disasters and Children." AAP Policy. 06 June 2003. American Academy of Pediatrics. 28 Jan 2009 <<http://aappolicy.aappublications.org/cgi/content/full/pediatrics;111/6/1455>>.

Dunford, Betty, Reilly, Ridgell. Pacific Neighbors. Third edition. Guam: Bess Press Inc. 1996.

Harris, N.V. The Tropical Pacific. London: University of London Press Ltd, 1966.

Manhattan Engineer District Staff, Manhattan Engineer District. A Bombing Of Hiroshima And Nagasaki. Whitefish, MT: Kessinger Publishing, 2004.

Niedenthal, Jack. "A Short History of the People of Bikini Atoll." Bikini History. Mar 2008. 26 Feb 2009 <<http://www.bikiniatoll.com/history.html>>.

Salvador, Richard. "The Nuclear History of Micronesia and the Pacific." Aug 1999. Nuclear Age Peace Foundation. 26 Feb 2009 <http://www.wagingpeace.org/articles/1999/08/00_salvador_micronesia.htm>.

"The Atomic Bombing of Hiroshima, August 6, 1945." *Department of Energy*. 17 May 2009. 15 May 2009 <<http://www.cfo.doe.gov/me70/manhattan/hiroshima.htm>>.

"The Atomic Bombing of Nagasaki, August 9, 1945." *Department of Energy*. 17 May 2009. 15 May 2009 <<http://www.cfo.doe.gov/me70/manhattan/nagasaki.htm>>.