Manhattan Project Essay, Research Paper

Manhattan Project

The Manhattan Project is the code name for the US government’s secret project that was established before World War II and culminated in the development of the nuclear bomb. The idea of forming a research team to create a nuclear weapon was endorsed in a letter than Einstein sent to Franklin Roosevelt, the president of the United States at the time. This was in 1939. In 1942, Enrico Fermi, a physicist, successfully controlled a nuclear reaction in his reactor called CP-1. CP-1 was located at the University of Chicago under a squash court, The following was said by a member of the project:

When everything was ready, Fermi had the [control] rods withdrawn one by one and he was sitting there looking at the counter. As the counter started to go up and up, finally when all the rods were withdrawn, we could hear the counter rrrrrRRR! and off the scale. And Fermi said, “That’s enough. Put the rods back, and let’s go to lunch.” -Bernard Feld, physicist

Later in the project the first atomic bomb was exploded at Los Alamos. This was on July 6, 1945. The director of Los Alamos said upon witnessing the first test of a nuclear weapon:

We knew the world would not be the same. A few people laughed, a few people cried, most people were silent. I remembered the line from the Hindu scripture, the Bhagavad-Gita. Vishnu is trying to persuade the Prince that he should do his duty and to impress him takes on his multi-armed form and says, “Now, I am become Death, the destroyer of worlds.” I suppose we all felt that one way or another.

-J. Robert Oppenheimer

A month after the first bomb was tested; two nuclear weapons were exploded over Japan, at Hiroshima and Nagasaki. There were many reasons for this. The official reason is that it would immediately end the war, thus saving the lives of thousands of American servicemen. Immediate deaths from the bomb are estimated to be about 100,000. This figure is astounding. However, it is comparable to the estimated number of casualties that would have resulted from an allied invasion of the Japanese home islands. However, the choice to drop the bombs on Japan is very controversial and there are many people that feel they were unnecessary, and that Japan would have surrendered anyway.

Undoubtedly, the atomic bomb is the most powerful destructive force that mankind has ever wielded. However, many scientists defend their participation in its creation:

At Los Alamos during World War II there was no moral issue with respect to working on the atomic bomb. Everyone was agreed on the necessity of stopping Hitler and the Japanese from destroying the free world. It was not an academic question, our friends and relatives were being killed and we, ourselves, were desperately afraid.

-Joseph O. Hirschfelder, chemist

At Los Alamos we had some conversations on the subject and I must admit that my own position was that the atom bomb is no worse than the fire raids which our B-29s were doing daily in Japan, and anything to end the war quickly was the thing to do.

-George B. Kistiakowsky

Soon after the Manhattan Project became a success, the Soviet Union developed their own atomic bomb. With these new weapons that could destroy entire cities and civilizations, the atomic arms race and cold war began. First these weapons were attached to bombers, but soon space-based systems were developed. These systems utilized rockets that could take a nuclear warhead from one side of the globe to another in under an hour. Since the 1950’s, there has existed an amount of weaponry on earth great enough to destroy humanity and all it’s accomplishments. No one has used these weapons against another country since WW-II, however. This is because of the concept known as Mutally Assured Destruction (MAD). If the US were to launch an attack against Russia, the Russians would immediately retaliate by launching their missiles, and not only would the US be destroyed, but Russia would as well. Thus, in this game of nuclear warfare, no one can win. If either side decides to play, they both lose, as well as the rest of the world.