THE BIRTH
OF THE PEACEFUL ATOM

Chester E. Holifield

The world’s first atomic bomb was exploded at the Trinity Test Site in New Mexico on July 16, 1945. Dr. Robert Oppenheimer, the leader of the team of scientists and engineers who constructed the bomb, watched the bell-shaped fireball mass representing a power greater than any produced before on earth. No living thing touched by that raging furnace survived. The temperature at its center was four times that at the center of the sun. Within less than a minute the fireball was a half-mile high and wide. Oppenheimer, in that blinding instant, thought of fragments of a poem from a sacred Hindu epic:

If the radiance of a thousand suns
Were to burst at once into the sky,
That would be like the splendor of the mighty one—
I am become death, the shatterer of worlds.1

Twenty days later, on August 6, 1945, an atomic bomb was dropped on the city of Hiroshima, and seventy-eight thousand men, women, and children were killed. Three days after that, on August 9, another bomb fell on Nagasaki. It created a crater one square mile in area and killed one hundred thousand Japanese people.

A year later, in July 1946, as a member of President Harry Truman’s commission on atomic bomb evaluation, I personally witnessed the two atomic explosions in Bikini. I also travelled to Japan and flew over the two cities destroyed by the wartime explosions.

The frightful experience of watching the two Bikini bombs explode created a feeling of awe so shocking I found it beyond my ability to
Congressional Committee Action

Greater Responsibility

Agreeing entirely with the views expressed in the J-CASE, Mr. Chairman, the recent developments in the field of nuclear weapons have made it clear that the United States must assume a greater responsibility for the maintenance and development of nuclear weapons.

The President, in his State of the Union message, has emphasized the need for increased national defense expenditures. The Committee is anxiously awaiting the release of the Fiscal Year 1947 budget, which will provide the necessary funds for the continuation of the defense program.

In addition to the J-CASE, the Committee has also given serious consideration to the recommendation of the Atomic Energy Commission for the establishment of a national laboratory for the development of atomic energy.

The Committee hopes that the President's message will be a stimulus for increased defense expenditures and that the nation will be prepared to meet the challenge of maintaining a strong and effective defense system.

Chairman's Remarks

Mr. Chairman, I have been informed that the Committee has been working diligently on the J-CASE and that the report will be ready for presentation shortly.

I wish to express my appreciation for the cooperation and assistance that we have received from the Committee in the preparation of this report. I am confident that the recommendations contained in the report will be of great benefit to the nation.

I would like to conclude by expressing the hope that the nation will be prepared to meet the challenge of maintaining a strong and effective defense system. Thank you.
The Birth of the Fission Atom

The potential uses of nuclear energy.

In the late 1940s, the potential for nuclear energy became a reality as scientists worked on the Manhattan Project. The development of the atomic bomb during World War II, codenamed Project Manhattan, was a significant step towards harnessing nuclear energy.

The first nuclear explosion occurred on July 16, 1945, at the Trinity Test Site in New Mexico. This event marked the beginning of the nuclear age and opened up new possibilities for the use of nuclear energy.

The potential for nuclear energy was vast. It offered the promise of providing a clean and abundant source of energy, with the potential to meet the world's growing energy demands. However, the development of nuclear energy also raised significant concerns about its potential for use in weapons.

In the decades following the Manhattan Project, nuclear energy was developed for peaceful purposes. Nuclear power plants were built, and nuclear technology was used in various fields such as medicine, agriculture, and research.

The potential for nuclear energy continues to be explored today. However, the safety and security of nuclear energy remains a top priority.

The development of nuclear energy was a significant turning point in history. It brought about new possibilities and challenges for the future.
The Birth of the Focused Atom

The concept of the focused atom emerged in the late 19th century with the development of the cathode-ray tube and the understanding of the electron. The focused atom was proposed as a mechanism by which an electron could be directed to a specific location, allowing for precise control and manipulation of atomic processes. This idea was foundational in the development of electronic devices and has had a profound impact on technology.

Our second most important objective is the development and implementation of focused electron technologies. These technologies are critical for advancing our understanding of atomic structure and for enabling new applications in fields such as materials science, nanotechnology, and energy storage.

In conclusion, the focused atom represents a powerful tool for exploring the fundamental properties of matter and for harnessing the power of quantum mechanics. As we continue to refine and expand our understanding of these concepts, we can expect to see exciting new developments in the fields of physics, engineering, and technology.
peace of the world. I say that we can use the knowledge we have won, not for the devastation of war, but for the future of man.4

I personally believe that we have made great strides in realizing the objectives set forth by the Truman and Eisenhower administrations on peacetime applications of nuclear energy—although much remains to be done. We are still facing the danger of mankind’s destruction by a suicidal nuclear war. If we can solve that problem, we can bring about almost limitless benefits to the human race by an ongoing expansion of our objectives for peaceful uses of the atom.

Footnotes

2. For the text of Truman’s letter see appendix A; for the text of dissenting report filed by Senator Price and myself see appendix B.
3. See appendix A.
4. Ibid.
THE PEACEFUL ATOM: LORE AND MYTH

Jack M. Holl

Lewis L. Strauss, chairman of the AEC, once remarked that he would never forget the scene following Eisenhower's Atoms for Peace speech. The president, his eyes glistening with emotion, sat almost meekly in his high-backed chair on the rostrum as delegates to the U.N. General Assembly filled the hall with applause. Throughout his twenty-minute presentation, the 3,500 delegates had listened in silence as the president declared that his country's purpose was "to help us move out of the dark chamber of horrors into the light, to find a way by which the minds of men, the hopes of men, the souls of men everywhere, can move forward toward peace and happiness and well being."

Eisenhower had come to the United Nations not only to alert the world to the horrible destructiveness of nuclear warfare, but also to promise that the United States would do everything in its power to redirect atoms for war into atoms for peace. Now that he had concluded his dramatic speech, even the Soviet delegation joined the acclamation. Eisenhower had suggested only a general plan for establishing an international atomic energy pool, but his vivid idea immediately caught the world's imagination.

Atoms for Peace would become a major part of U.S. foreign policy relating to arms control and disarmament, the international control of nuclear energy and related technology, and postwar European recovery. Of course, American defense needs would always come first. But by 1954 the United States had enough uranium to allow it to promote cooperation in international peaceful uses of nuclear energy without depleting its own military stockpile. By sponsoring an international atomic energy agency, the United States hoped to establish a forum through which it could secure its role as an international manager of atomic energy. At the same time, through bilateral agreements that
The 1990s—The Eisenhower Years

In the early post-war years, the złoty of peace was a resounding success in America. The public response was overwhelmingly positive, with millions of Americans expressing their support for the policy of containment. However, the war was not without its costs. The United States, in its role as a leader and protector of freedom, was responsible for a significant portion of the world’s military spending. This burden was not easily shouldered, and the United States was often criticized for its involvement in international affairs. Nevertheless, the United States remained committed to the containment policy, and its efforts were ultimately successful in preventing the spread of communism in Europe and Asia.

In the post-war years, the United States focused on rebuilding Europe and Japan. The Marshall Plan was a key component of this effort, providing economic assistance to countries in Western Europe. The United States also played a significant role in the formation of NATO, a military alliance that was designed to deter Soviet aggression.

The Cold War was officially ended with the collapse of the Soviet Union in 1991. This marked the end of an era and the beginning of a new phase in world politics. The United States emerged as the sole superpower, with a leading role in international affairs. The United States continued to play a significant role in the world, with its interventions in various conflicts around the globe.

In the 1990s, the United States faced new challenges, including the rise of multinational corporations, the spread of nuclear weapons, and the rapid development of technology. These issues required a new approach to foreign policy, and the United States sought to address them through a combination of diplomacy and military intervention.

The 1990s marked a significant period in American history, characterized by economic prosperity and cultural diversity. The United States continued to be a leader in the global economy, and American culture was a major influence on the world. The United States was also a leading player in international politics, with a strong commitment to promoting democracy and human rights.

In the 1990s, the United States continued to be a key player in global affairs, with a strong commitment to promoting democracy and human rights. The United States was also a leading player in international politics, with a strong commitment to promoting democracy and human rights.

In summary, the 1990s were a time of significant change and development for the United States, both domestically and internationally. The United States continued to be a leader in the world, with a strong commitment to promoting democracy and human rights. The United States was also a key player in international politics, with a strong commitment to promoting democracy and human rights.
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Alarms for Peace

The Peace Arm. Long and High
The Problem of Armament

The problem of armament has assumed a new significance in the current international situation. The recent events in the Middle East have highlighted the need for effective measures to prevent the proliferation of weapons of mass destruction. The United Nations Security Council has taken steps to address this issue, but much remains to be done. The proliferation of nuclear weapons, in particular, poses a serious threat to global stability. Governments must work together to ensure that non-proliferation efforts are strengthened and that the Nuclear Non-Proliferation Treaty (NPT) is effectively implemented.

The controversy over the use of UN arms embargoes and sanctions has also raised important questions. The effectiveness of sanctions in preventing the proliferation of weapons is a matter of debate, and there is a need for greater cooperation among nations in the enforcement of these measures. The United Nations must continue to play a leading role in promoting disarmament and the prevention of arms transfers.

In conclusion, the issue of arms control remains a critical one in the 21st century. It is essential that nations work together to ensure that the proliferation of weapons is halted and that the global community is protected from the dangers of nuclear conflict.

References:
- International Atomic Energy Agency (IAEA).
- United Nations Office for Disarmament Affairs (UNODA).

Key Terms:
- Non-proliferation
- Arms Embargoes
- Nuclear Non-Proliferation Treaty (NPT)

Further Reading:
- "Nuclear Non-Proliferation: A Comprehensive Guide" by John W. Dション
- "International Law and Disarmament" by William J. Schabas
- "The Arms Race and the International Order" by Sheila C. Smith
Lesions of History

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