



## **Nuclear Targeting: The First 60 Years**

By **Arjun Makhijani** [\[1\]](#)

On May 5, 1943, the Military Policy Committee of the Manhattan Project met for the first time to discuss potential targets for the nascent atomic bomb. While Manhattan Project scientists had been pursuing the bomb with the single-minded desire to beat Hitler to the punch, the meeting produced the first official signals that the government was beginning to take a much broader view of the project: Such a weapon could be used not only to deter the Nazis, but to craft and maintain a U.S.-dictated postwar new world order.

Between May 5, 1943 and early December 1944, the bomb acquired a rationale of absolute power and privilege. The exercise of that power on August 6, 1945 bred a military, political, social, moral, and legal monstrosity, whose nature is only now coming into fuller view. Rather than establishing long-term peace monitored and maintained by a single bomb-wielding overseer, the bomb made tangible the illusion of absolute power, spurring greater violence, human rights abuses, and near global annihilation in the quest to obtain and manage it. Yet the nuclear-bomb-equals-total-control formula survives today, and with recent moves away from arms controls, the threat from such an attitude is growing.

The global political fallout has been more than anyone considered at the outset of the Manhattan Project. Harold Urey, a leading project scientist, believed if Hitler got the bomb, “the war will be over in two weeks.” In that time, in the deafening roar of the dictator’s blitzkrieg across Europe, Hitler simply could not be allowed a monopoly on the weapon—other questions related to its development were secondary. What would happen if the United States gained a monopoly on the bomb? What would such absolute power do to those who wielded it? What would those leaders do to their societies and to the world?

It wasn’t until May 5, 1943 that the answers to these secondary questions began taking shape in secret. The nuclear bomb began to create its very own strategic universe centered on nuclear materials and capabilities. At that meeting, five members of the Military Policy Committee— Vannevar Bush, director of the Office of Scientific Research and Development; James B. Conant, chairman of the National Defense Research Committee; Adm. W. R. Purnell; Gen. Wilhelm Styer; and Manhattan Project leader Gen. Leslie Groves—ruled out Germany as the first target, reasoning that if the bomb turned out to be a dud, that country, with its advanced scientific capabilities, could use the unexploded fissile material to make one of its own. They decided instead to target the Japanese fleet stationed at the Pacific island of Truk, so if the bomb did not explode, it would sink to the bottom of the ocean. [\[2\]](#)

Only Manhattan Project officials attended the historic meeting. No World War II commanders were present. None served on the Military Policy Committee, nor is there any evidence that one was consulted. In fact, neither Gen. Dwight Eisenhower nor Gen. Douglas MacArthur even knew about the Manhattan Project at the time of the first targeting decision. Furthermore, Manhattan Project scientists, including émigrés like Hans Bethe and Leo Szilard, had no clue about this secret decision and continued to be driven by the threat of a nuclear-armed Hitler.

During 1944, U.S. atomic intelligence missions to Germany gathered increasing evidence that Germany had no effective bomb project. By early December 1944, when U.S. troops were already in parts of



Germany, that became a certainty. Joseph Rotblat, a Polish émigré scientist at Los Alamos, quit then, but his was a lonely walk away from the project.

By January 1945 it was clear inside the Manhattan Project that Hitler would be defeated before the bomb was ready. Only then did the scientists realize that Japan would be the target. Some of them tried to stop the use of the bomb on cities; most did not.

The nuclear bomb program had become its own justification. The bomb had to be used because it was made. The immense expenditure had to be justified by something more than the fact that a project of deterrence had been undertaken as a precaution. The proof of the scientific and engineering work had to be carried through to a nuclear test. The technical questions about the destructive power of nuclear bombs had to be answered by their use on cities. The power of the bomb had to be demonstrated to the world, especially to the Soviet Union.

The idea that the United States might use the monopoly of the bomb to rearrange the world to its liking was formally raised by Henry L. Stimson, who was Secretary of War during World War II. After President Franklin D. Roosevelt's death, Stimson had the job of briefing President Harry Truman about the Manhattan Project. On April 25, 1945, Stimson told Truman, "If the problem of the proper use of this weapon can be solved, we will have the opportunity to bring the world into a pattern in which the peace of the world and our civilization can be saved."

The first experiments in "proper use" were the bombings of Hiroshima and Nagasaki. The swift end to the war after those bombings created an aura of complete military success for the United States. It obscured the role that the Soviet declaration of war on Japan (on August 8, 1945) also played in the Japanese surrender decision and the fact that the Japanese had been close to surrender in July. Post-war official proclamations about the huge numbers of American lives that were saved were exaggerated and had no relation to the official estimates of fatalities made by the military during the conflict. But in their relief at the end of a brutal war, Americans believed them. And so, along with the horror of the bombings, an attraction to the power of the bomb was born.

Sixty years after the fateful day when the Manhattan Project's anti- Nazi purpose was bent to other destructive aims, the idea that the nuclear bomb is still a useful means of exercising power is spreading. A dozen years after the end of the Cold War, North Korea is threatening nuclear war. Osama bin Laden has publicly announced his nuclear ambitions and rationalized his determination to kill innocents by making reference to Hiroshima. India and Pakistan are hurling nuclear threats at one another as their troops face off across a frozen mountainous line, inflamed with religious and nationalistic passions.

Russia and the United States between them have 4,000 warheads on hair-trigger alert, ready to be fired within minutes, thereby keeping the world at the edge of utter annihilation. They insist it is necessary, even though the Cold War is long since over and despite the fact that in January 1995, when a scientific rocket launched from Norway was thought by the Soviets to be a U.S. nuclear launch, that policy brought the world within minutes of all-out nuclear war by miscalculation.

The world is now faced with a stark question: Will the determination of some to wield the power of annihilation triumph over the rule of law, over justice, over human rights and democracy, over the laws of war, over the protection of the environment, and even over common sense about not aggravating risks of



nuclear terrorism and accidental nuclear war?

## Casualties

In early December 1944, when it was clear that Germany had no bomb program worth the name, large-scale separation of plutonium had not yet begun in the United States. The U.S. program to make highly enriched uranium was nowhere near its goal of having enough to make at least one bomb.

But instead of declaring the Manhattan Project a success and shutting it down, General Groves sped it up. He was determined that the bomb should be ready in time for use against Japan, which, he declared in April 1945, was “always” the target. The vast airborne armadas that were incinerating Japanese cities in early 1945 with firebombs would be replaced by the decisive terror of a single atom bomb dropped from a lone plane. It was also to be a message to the Soviets. Stalin got it; he ordered the Soviet bomb program accelerated to break-neck speed after Hiroshima.

Nuclear establishments have subverted the rule of law and democracy, where they existed, in the name of national security. In 1989, as the Cold War was ending, U.S. Deputy Secretary of Energy W. Henson Moore criticized prior administrations as operating the nuclear weapons establishment as “a secret operation not subject to laws.” He said the government and its contractors ran the bomb plants with the idea that “This is our business, it’s national security, everybody else butt out.”<sup>[3]</sup> “Everybody else” meant, evidently, the people of the United States.

Nuclear governments have consistently put their own workers, citizens, and soldiers at risk. For instance, in the United States, the Atomic Energy Commission and its contractors covered up highly hazardous working conditions in part to deny workers hazardous duty pay. In the Soviet Union Stalin used slaves. Many workers at Soviet reactors and plutonium separation plants received huge doses of radiation.

Nuclear governments have poisoned people living downwind of testing and production sites. They have covered up their acts and lied to their people. By atmospheric testing in Nevada and Kazakhstan, nuclear weapons powers made their people sick, while insisting that fallout would not hurt them (this was called “reeducation,” aimed at correcting the “hysterical and alarmist complex now so prevalent,” in the words of U.S. military officers involved with the testing program).

While reassuring the public that nuclear tests posed no radiation danger, the military was contemplating the use of the terror of radioactive contamination after a nuclear explosion as a weapon of war. A Joint Chiefs of Staff evaluation of the 1946 tests at Bikini was graphic:

“We can form no adequate mental picture of the multiple disasters that would befall a modern city, blasted by one or more bombs and enveloped by radioactive mists. Of the survivors in the contaminated areas, some would be doomed by radiation sickness in hours, some in days, some in years. . . . Added to every terror of the moment, thousands would be stricken with a fear of death and the uncertainty of the time of its arrival.”<sup>[4]</sup>

At the peak of U.S. production in the 1950s, about 10 plutonium pits a day were being made at Rocky Flats, 16 miles upwind from Denver. The peak U.S. arsenal reached nearly 32,000 bombs. Yet, in the



mid- 1950s, one U.S. strategic nuclear war plan called for the use of about 750 nuclear bombs. That was judged to be enough to turn Russia into “a smoking, radiating ruin at the end of two hours.”<sup>[5]</sup> The Soviets did one better; their peak arsenal was more than 40,000 bombs.

A large-scale nuclear power program was initiated in the United States as part of Cold War propaganda.

<sup>[6]</sup> Between the race to build more bombs than were required to level every city on Earth and the race to make the atom look peaceful, the world now has about 2,000 metric tons of plutonium, enough to make about 400,000 nuclear bombs—and many more if high-tech designs are used. About a fourth of this plutonium is separated, readily usable in bombs. The rest can be separated by chemical processing. North Korea is doing it, with its bomb program ill-disguised as a nuclear power program. The United States and Russia are separating plutonium in their waste management programs. Britain, France, Japan, and India are doing it in the name of commercial power, though one leading Japanese politician has remarked that Japan could take its commercial plutonium and make a few thousand bombs with it.

The determination of the big powers to hold on to nuclear weapons persists well after the end of the Cold War. The United States has named seven countries as potential nuclear targets, including North Korea. The naming of North Korea as a target in the Nuclear Posture Review was a clear violation of a U.S.–North Korean 1994 pact under which the United States agreed to “provide formal assurances to the DPRK [North Korea], against the threat or use of nuclear weapons by the U.S.” North Korea has violated its part of the bargain, too.

The five major nuclear powers are also the permanent members of the U.N. Security Council, where they sit to decide the fate of billions of people. They are all violating their commitment under the Nuclear Non- Proliferation Treaty to get rid of nuclear weapons and to take irreversible steps toward that goal. Not satisfied with keeping the world at the edge of the nuclear abyss in violation of their treaty commitments, they also want to sit in judgment of everyone else, though some seem to be doing so with more trepidation than others, perhaps only because of practical competition among the powerful.

Since the May 5, 1943 targeting meeting, history has been riddled with examples of the fallacy that nuclear arms can bring peace and safety through absolute power.

The United States and the Soviet Union nearly destroyed each other and everyone else during the Cuban missile crisis but, after a short period of hope that gave the world the atmospheric test ban treaty, continued to expand their arsenals and entertain theories of winnable nuclear war.

Nuclear weapons have frequently been used to threaten non-nuclear states. Nuclear bombers were put on alert and sent to Nicaragua before the CIA-sponsored coup in Guatemala in 1954, which resulted, over time, in the deaths of more than 200,000 people. Nuclear threats have played a role in oil politics, including the 1958 Iraq-Lebanon crisis. Oil and nuclear bombs are now the deadly mix at the center of the current world crisis.

The Comprehensive Test Ban Treaty has been shelved by the United States, breaking a long-standing promise. The nuclear bureaucracy overcame the end of the Cold War, situated itself in a new generalized indefinite war, and now seems set to test or even use weapons in wartime, notwithstanding the possible catastrophic consequences in a time when there are huge amounts of nuclear materials in the world.



Overlapping nuclear crises— potential India-Pakistan-North Korea-U.S.-China-induced nuclear terrors—appear set to overtake the Nuclear Non-Proliferation Treaty. The Middle East, with its festering Israel-Palestine crisis and a nuclear-armed Israel, may well join the list of nuclear hot spots before long, given the rising injustice, violence, and anger in the region.

We shall never be sure of the status of all bomb materials. For instance, in the United States, the Los Alamos National Laboratory and the Energy Department differ on the plutonium content of radioactive waste at the lab. The Los Alamos account shows 765 kilograms (about 150 bombs worth) more than Energy's account. The discrepancy was recognized in 1996 but has not been resolved. The accuracy of military plutonium accounts in Russia is anyone's guess.

Instead of the terror of a lone bomber over a city, we are now faced with the terror that any cargo container might contain a nuclear bomb that could destroy a city.

Even if we eliminate all nuclear weapons verifiably—which is both desirable and technically possible—the technical success of the first test created knowledge and insecurities that will persist.

It is an illusion to believe that instruments of terror can deter terror. Such weapons often inspire the determination to wield them. The policy of deterrence has been a principal engine of proliferation. Fear of a German bomb led to the U.S. bomb, which in turn led to the Soviet bomb and the Chinese bomb. . . . Well over half the world's population now lives in countries that have nuclear weapons or are allied with a nuclear weapon state. In all, 44 countries have the technical capability to make nuclear bombs.

## **The judgment of history**

When the late Chinese Prime Minister Chou en-Lai was asked his view of the historical significance of the French Revolution, he replied. "It is too early to tell." Mahatma Gandhi was not so shy about the Manhattan Project and its terrible unveiling to the world with the bombings of Hiroshima and Nagasaki. While condemning the "misdeeds" and "unworthy ambitions" of the Japanese imperialists, Gandhi predicted that the United States might find itself confronted by nuclear terror one day: "What has happened to the soul of the destroying nation is yet too early to see. . . . A slave holder cannot hold a slave without putting himself or his deputy in the cage holding the slave."

The giant nuclear abyss of the Cold War remains though that war is over. In addition, vast crevasses are cropping up over the world's nuclear landscape.

Henry Stimson's suggestion that there might be a "proper use" of the bomb was wrong. There are no hands in which its possession can be deemed safe. There continues to be a real risk that much of the world could become radioactive rubble in any 15-minute period due to a miscalculation in the United States or Russia. India and Pakistan might incinerate each other's cities—their decision time is five minutes, maybe less. East Asia may again see nuclear horror as a result of the U.S.–North Korean confrontation. The danger of loose nukes is mounting.

"It may be that we shall by a process of sublime irony have reached a stage in this story where safety will be the sturdy child of terror, and survival the twin brother of annihilation," commented Winston Churchill in March of 1955 when discussing the hydrogen bomb. But this is hardly "safety"; much less is it a



“sturdy child” of nuclear terror, globally or regionally.

Millions have been killed in proxy wars. For them, the nuclear age brought death, not safety, partly due to the fact that Europeans were too afraid to fight one another again. And the violence of the proxy wars continues, though the Cold War is over. Indeed, the problem of global terrorism, which threatens to go nuclear, is a direct result of some of those wars. The message that nuclear bombs are all-determining has migrated from the capitals of civilization to the caves of Afghanistan.

Since Hiroshima, the Manhattan Project has become a symbol of brilliant achievement, especially in the United States—a technical triumph that combined human ingenuity, bureaucratic organization, money, and single-minded pursuit of a goal. It is commonplace to hear the phrase “We should organize a Manhattan Project to solve [name your big problem].” Yet, scientific brilliance is not enough. Bereft of moral and political vision or consideration for future generations, it can lead to chaos, violence, and in the case of nuclear weapons, annihilation.

States wielding weapons of terror are not the answer to the problem of terror. Only a global movement for democracy that draws inspiration from leaders like Gandhi and Martin Luther King Jr. can overcome the violent and environmentally destructive underpinnings of the nuclear age. Albert Einstein noted the necessity of a change in human thinking so that society could deal with the implications of the bomb. Gandhi showed the manner of its achievement: “We must become the change we want to see in the world.”

Notes:

1. Arjun Makhijani. Nuclear Targeting: The First 60 Years. Arjun Makhijani is the president of the Institute for Energy and Environmental Research in Takoma Park, Maryland. The final, definitive version of this paper has been published in *Bulletin of the Atomic Scientists*, v. 59, no. 3 (May/June 2003), pp. 60-65. DOI: 10.2968/059003014. Online at <http://bos.sagepub.com/content/59/3/60.abstract>. Published by SAGE Publications Ltd., on behalf of *Bulletin of the Atomic Scientists*. All rights reserved. [? Return](#)
2. Arjun Makhijani, “‘Always’ the Target?” *Bulletin of the Atomic Scientists*, May/June 1995, pp. 23–27. [? Return](#)
3. T. R. Reid, “Health, Safety Given Priority at Arms Plants; Energy Department Puts Production 2nd,” *Washington Post*, June 17, 1989. [? Return](#)
4. U.S. Joint Chiefs of Staff, *The Evaluation of the Atomic Bomb as Military Weapon: The Final Report of the Joint Chiefs of Staff Evaluation Board for Operation Crossroads*. Document number JCS/1691/7, Record Group 218, Modern Military Branch, National Archives, Washington, D.C. Operation Crossroads was conducted in July 1946 at Bikini Atoll to carry out the first post–World War II nuclear tests. [? Return](#)
5. Strategic Air Command, nuclear war briefing, March 18, 1954. Cited in David Alan Rosenberg, “‘A Smoking Radiating Ruin at the End of Two Hours’: Documents on American Plans for Nuclear War with the Soviet Union, 1954–55,” *International Security* 6, no. 3, (winter 1981/1982), pp. 3–38. [? Return](#)
6. Arjun Makhijani, [Nuclear Power Deception](#) (New York: Apex Press, 2000) [? Return](#)