

July 1945: The Moment of Decision

By the time the atomic bomb was tested in July 1945, the defeat of Japan was the last important item remaining on the Allied war-time agenda. U.S. military officials had begun planning for large-scale landings on the Japanese main islands months earlier. Their initial strategy called for attacking the southernmost island of Kyushu with more than 750,000 troops—a plan that would not be ready to proceed until November 1945. If necessary, more than 1.5 million troops would invade Japan's largest island, Honshu, in March 1946.

The toll on American forces was expected to be staggering. The battles of Okinawa and Iwo Jima had resulted in some of the highest U.S. casualty rates of the war, as Japanese defenders demonstrated their willingness to fight to the death and even undertake suicide missions. Japanese resistance to an attack on their main islands would be even fiercer. In addition to facing two million Japanese troops, American soldiers would have to fight women and children who had been trained to counter the invaders using sharpened bamboo sticks.

Factors in U.S. Decision-Making

As the atomic bomb program neared completion, President Truman formed a high-level advisory panel, known as the Interim Committee, to offer recommendations on the use of the new weapon. The committee included representatives from government, the military, and the scientific community. In addition, a group of Manhattan Project scientists concerned about the political and moral questions raised by the atomic bomb issued its own conclusions in the Franck Report. Finally, several prominent figures in U.S. foreign policy, including the influential former ambassador to Japan, Joseph Grew, put forward their ideas on ending the war. They believed that the Japanese would surrender unconditionally if they were assured that their emperor would be allowed to keep his position.

In the next section of this unit, you and your classmates will consider three distinct

options for ending the war against Japan. Top government officials, military leaders, and Manhattan Project scientists discussed and evaluated these same options in the closing weeks of the war.

As you review the options that were discussed by the small circle of Americans aware of the atomic bomb program, imagine that you are a U.S. official in July 1945. Keep in mind that the choices confronting U.S. policymakers were framed by the six critical factors below.

1. American military casualties: By July 1945, U.S. forces in World War II had already suffered more than one million casualties, including those killed, missing in action, and wounded. American prisoners of war in Japan were dying of starvation. Some had been tortured and others publicly executed. The Japanese government had announced that it would execute Allied pilots captured over Japan. Both at home and at the battle front, Americans wanted a quick end to the war with a minimal loss of American lives.

2. The policy of unconditional surrender: The United States adopted the demand that the Axis powers surrender unconditionally shortly after our country's entry into the war. There were three main reasons for the policy. First, the United States and Britain wanted to reassure the Soviet Union that they would not negotiate a separate peace with Nazi Germany. Second, the demand for unconditional surrender reinforced President Roosevelt's message to the American people that the war was a struggle between good and evil, and that no compromise could be made with the forces of evil. Third, U.S. leaders did not want a repeat of the aftermath of World War I, when German military officials claimed that their army had not been defeated on the battlefield. U.S. leaders believed that this assertion had helped pave the way for a resurgence of German militarism under the Nazis. On May 7, 1945, the German armed forces had been forced to surrender without conditions, after Adolf Hitler committed suicide.

The Allied terms toward Japan were spelled out in the Potsdam Declaration. Japan would be expected to give up the territory it had acquired since 1914. Japan itself would be occupied by Allied forces, its wartime government removed, and its armed forces dismantled. The declaration, however, did not address the postwar status of the Japanese emperor, whom the Japanese viewed as divine. Japanese military officials had vowed to fight

to the death to preserve the emperor's position. The status of the emperor was also a subject of debate within the Truman administration.

3. Emerging problems with the Soviet Union: The uneasy wartime alliance with the Soviets began unraveling soon after the defeat of Nazi Germany. On the diplomatic front, U.S. and Soviet officials increasingly found themselves locking horns over the political future of Eastern Europe, particularly of Poland, and

The Potsdam Declaration

1. [We] have conferred and agree that Japan shall be given an opportunity to end this war.
2. [Our] forces are poised to strike the final blows upon Japan. This military power is sustained and inspired by the determination of all Allied nations to prosecute the war against Japan until she ceases to resist.
3. ...The full application of our military power, backed by our resolve, will mean the inevitable and complete destruction of the Japanese armed forces and just as inevitably the utter devastation of the Japanese homeland.
4. The time has come for Japan to decide whether...she will follow the path of reason.
5. Following are our terms. We will not deviate from them. There are no alternatives. We shall brook no delay.
6. There must be eliminated for all time the authority and influence of those who have deceived and misled the people of Japan into embarking on world conquest, for we insist that a new order of peace, security and justice will be impossible until irresponsible militarism is driven from the world.
7. ...Points in Japanese territory to be designated by the Allies shall be occupied to secure the achievement of the basic objectives we are here setting forth.
8. [Japan will be stripped of all territory acquired or conquered since 1914.]
9. The Japanese military forces, after being completely disarmed, shall be permitted to return to their homes with the opportunity to lead peaceful and productive lives.
10. We do not intend that the Japanese shall be enslaved as a race or destroyed as a nation, but stern justice shall be meted out to all war criminals, including those who have visited cruelties upon our prisoners. The Japanese government shall remove all obstacles to the revival and strengthening of democratic tendencies among the Japanese people...
11. Japan shall be permitted to maintain such industries as will sustain her economy and permit the exaction of just reparations in kind, but not those industries which would enable her to rearm for war...
12. The occupying forces of the Allies shall be withdrawn from Japan as soon as those objectives have been accomplished and there has been established in accordance with the freely expressed will of the Japanese people a peacefully inclined and responsible government.
13. We call upon the Government of Japan to proclaim now the unconditional surrender of all the Japanese armed forces, and to provide proper and adequate assurances of their good faith in such action. The alternative for Japan is prompt and utter destruction.

the joint Allied administration of occupied Germany. The Soviets also wanted the United States to continue providing the Lend/Lease aid that had helped them win the war against Germany. In addition, U.S. leaders were concerned about the Soviet position in East Asia. Stalin had agreed that three months after the defeat of Germany, the Soviet Union would enter the war against Japan. Although Roosevelt had welcomed the Soviet pledge to attack Japanese forces in China, the Truman administration came to fear that Soviet involvement in the war would lead to demands for territory and play into Stalin's strategy to expand Soviet influence in East Asia.

4. The destructive power of the atomic bomb: Originally, the Manhattan Project had been launched to counter the threat posed by Germany's atomic program. The Japanese had not seriously pursued an atomic program. By the time the atomic bomb was available, however, Japan was the only possible target. U.S. officials were confronted with wrenching moral questions. The atomic bomb was known to be able to wipe out an entire city at once. The radiation emitted from the explosion permeates the landscape; the bomb not only destroys people and buildings on impact, but its effects continue to harm the environment for many years. Scientists at the time were aware of the dangers of radiation, but did not fully understand its potential.

5. The preservation of American values: The United States did not choose to fight World War II. Japan brought the war to American shores, and U.S. leaders insisted that they were fighting to repel aggression, preserve freedom, and champion the dignity and rights of

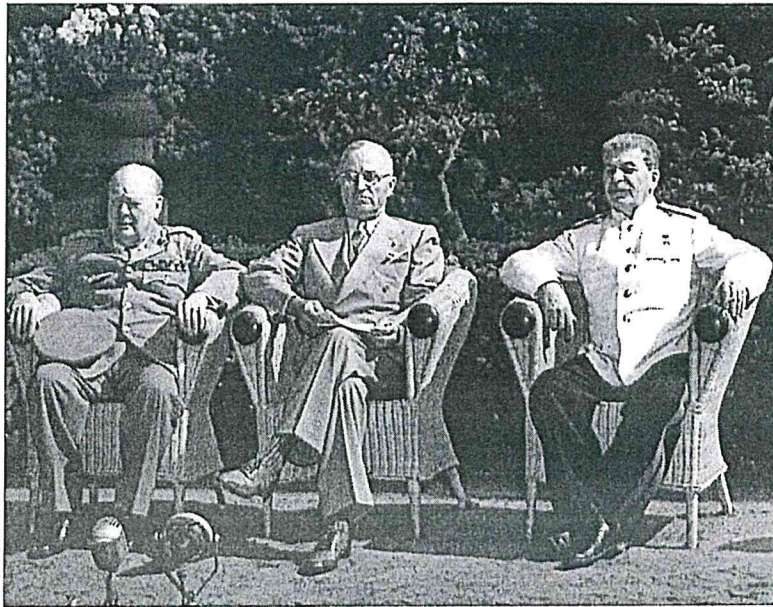


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British Prime Minister Winston Churchill, U.S. President Harry Truman, and Soviet Premier Josef Stalin meet at Potsdam in 1945.

the individual. By July 1945, the United States had all but achieved victory against an enemy that, in American eyes, had started an unjust war and had fought in a barbaric and uncivilized manner. U.S. leaders now possessed what they believed to be the means to bring about a quick conclusion to the war. As the moment of decision neared, they were forced to ask themselves if the ends they had pursued for four years justified using the means at their disposal.

6. The possibility of Japanese surrender: Allied efforts had taken a huge toll on Japan, and there were reasons to believe that Japan might be willing to surrender before an invasion by U.S. troops. The Allied sea blockade of the Japanese islands had effectively cut supplies of food and war materials. Japanese oil shipments, critical to the war effort, had been reduced by 85 percent. The Japanese people were facing the prospect of slow starvation. In addition, the Allied blockade prevented Japan from transporting the three million Japanese troops stationed in China back to their homeland.

Additionally, the U.S. air bombardment

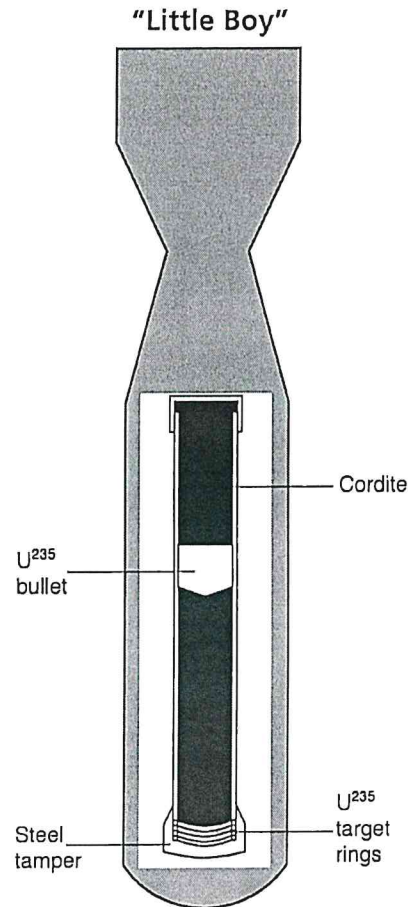
Epilogue: The Decision and the Consequences

On Tuesday, July 24, 1945, President Truman was in Potsdam, Germany, meeting with Soviet leader Josef Stalin, British Prime Minister Winston Churchill, and Chinese President Chiang Kai-shek. The purpose of the conference was to plan for governing postwar Germany and to discuss Soviet participation in ending the war in Asia. At the Yalta Conference in February 1945, President Roosevelt had greeted with enthusiasm Stalin's pledge that Soviet troops would enter the war against Japan within three months of the surrender of Germany. The successful testing of an atomic bomb on July 16, however, had changed the equation. Soviet help in ending the war was not as important in the eyes of U.S. officials. In fact, many believed that the risks of Soviet expansion into northern China outweighed the added pressure the Soviets would exert on Japan.

Late on the evening of July 24, Truman approved a directive prepared by General Leslie Groves authorizing the 509 Composite Group to begin dropping atomic bombs on Japanese cities after August 3. Army Chief of Staff George Marshall and Secretary of War Henry Stimson concurred with the decision. Two days later, at the close of the Potsdam Conference, Truman, Churchill, and Chiang issued a joint ultimatum demanding that the Japanese government surrender unconditionally. That document did not explicitly mention nor did it describe the power of the atomic bomb.

Why did Japanese leaders respond as they did to the ultimatum?

Japanese leaders, meeting in secret on July 27, debated the meaning of the Allied ultimatum and the course they should follow. Some argued for delay until the Soviet Union, which was still neutral, responded to their request for assistance in negotiating an end to the war. The majority, however, contended that national morale would suffer if the ultimatum were not rejected immediately. They held out hope that Japan would be able to inflict so many



casualties on an American invasion force that the United States would be willing to negotiate an end to the war that would not require Japan's unconditional surrender. The next day, Japanese Prime Minister Kantaro Suzuki told reporters, "The Government does not find any important value in it [the ultimatum], and there is no other recourse but to ignore it entirely and resolutely fight for the successful conclusion of the war."

Just before 3 a.m. on August 6, a B-29 superfortress bomber named *Enola Gay* took off from the Pacific island of Tinian carrying the five-ton "Little Boy." The flight's destination was Hiroshima, a medium-sized city on the southern part of the largest Japanese island,

Honshu. Hiroshima had been kept off General LeMay's list of cities to be firebombed and saved as a possible target for an atomic bomb.

What effect did the bomb have on Hiroshima?

Within six hours, Colonel Paul Tibbets had piloted the *Enola Gay* over Hiroshima. The American crew had not encountered a single Japanese plane nor run into fire from anti-aircraft defenses on the ground. As the B-29 approached the center of Hiroshima, flying nearly six miles above the city, "Little Boy" was dropped. The radar on the atomic bomb was set to detonate the device 1,900 feet above ground level to maximize the effects of the blast. A member of the *Enola Gay* crew reported that a spectacular mushroom cloud soared into the sky when the bomb exploded. He described the sight as a burning, red core surrounded by a bubbling mass of purple-grey smoke.

"Little Boy" struck Hiroshima with an explosive force of 12,500 tons of TNT. At the time, the city was home to approximately 280,000 civilians and 43,000 soldiers. Approximately 100,000 of them died immediately or suffered injuries that killed them within a few months of the attack. As in the firebombings of Hamburg, Dresden, and Tokyo, intense heat transformed thousands of people into small, charred lumps of flesh.

"I felt as though I had been struck on the back with something like a big hammer, and thrown into boiling oil.... The vicinity was in pitch darkness; from the depths of the gloom, bright red flames rise crackling, and spread moment by moment. The faces of my friends who just before were working energetically are now burned and blistered, their clothes torn to rags."

—Hiroshima college student

"The appearance of people was... well, they all had skin blackened by burns.... They had no hair because their hair was burned, and at a glance you couldn't tell whether you were looking at them from in front or in back.... Their skin not only on their hands, but on their faces and bodies too hung down."

—Hiroshima grocer

In addition, the radiation burns and internal damage caused by gamma rays produced lethal injuries to people as far as two miles from the center of the blast. The death rate (the number of deaths as a proportion of the total population) in Hiroshima was nearly five times higher than the death rate resulting from the March firebombing of Tokyo. In addition, forty-eight thousand of Hiroshima's seventy-six thousand buildings were totally destroyed by the atomic bomb, while another twenty-two thousand were seriously damaged.

How did U.S. policymakers and soldiers respond to the dropping of the bomb?

News of the bombing was greeted as a success in Washington. The White House issued a press release on August 6 calling the atomic bomb "the greatest achievement of organized science in history." Hours after the detonation, General Groves informed Robert Oppenheimer, head of the Los Alamos team, that the atomic bomb had worked.

"I'm very proud of you and all of your people," Groves told Oppenheimer by telephone. The general noted that the bomb had gone off "with a tremendous bang." Oppenheimer seemed satisfied. "Everyone is feeling reasonably good about it," he said, "and I extend my heartiest congratulations. It's been a long road." That evening, Oppenheimer was greeted with cheers and whistles when he announced the news to the Los Alamos group. Likewise, most Americans were thankful that the end of World War II was clearly in sight.

“When the bombs dropped and news began to circulate that [the invasion of Japan] would not, after all, take place, that we would not be obliged to run up the beaches near Tokyo assault-firing while being mortared and shelled...we cried with relief and joy. We were going to live. We were going to grow up to adulthood after all.”

—21-year-old U.S. soldier

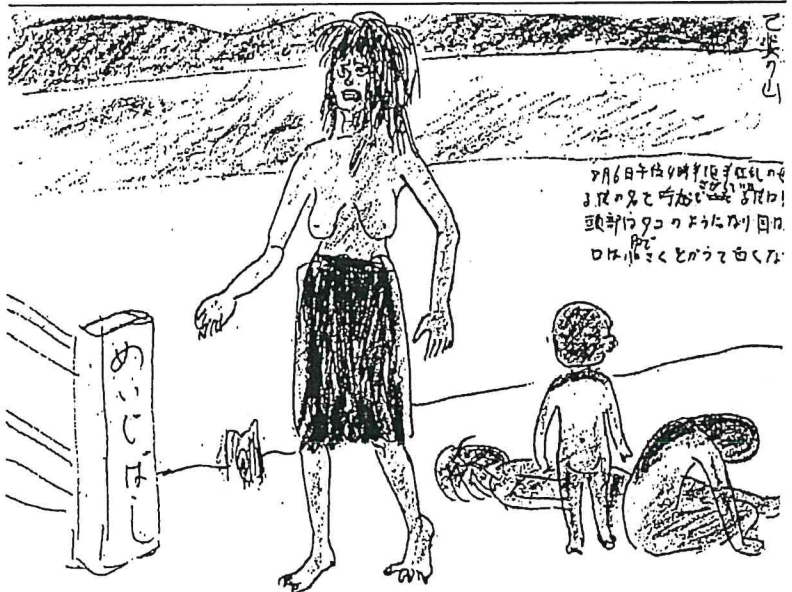
“Thank God the war is over and I don't have to get shot at any more. I can go home.”

—Enola Gay crew member

How did the war finally end?

After the attack on Hiroshima, the Japanese government did not immediately respond to the U.S. call for unconditional surrender. On August 8, Josef Stalin announced that the Soviet Union would enter the war against Japan the following day, fulfilling the pledge he made in February 1945.

The Hiroshima explosion left the United States with one atomic bomb, “Fat Man,” which was fueled by plutonium. Where and when it would be dropped was entirely a military decision. Truman’s directive of July 24 had authorized the use of atomic bombs against Japanese cities. The president was not involved in se-



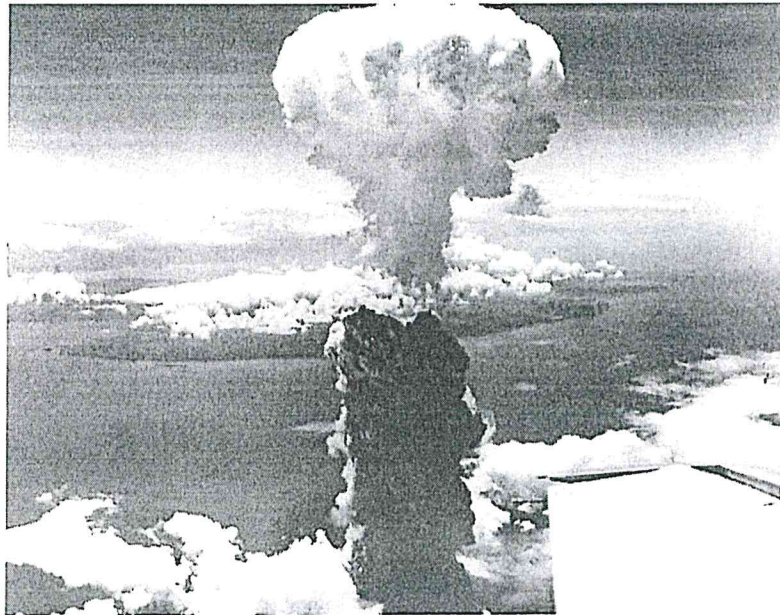
The sketches above, drawn by survivors of the atomic bombing of Hiroshima, illustrate the results of the attack.

lecting the targets or the dates.

For the second atomic bomb attack, U.S. military officials chose Nagasaki, a seaport on the southern island of Kyushu. Unlike the inhabitants of Hiroshima, the people of Nagasaki were warned of the possibility of an

atomic attack in leaflets dropped by U.S. aircraft. The warnings were largely ignored because the Japanese government had not released news about the devastation of Hiroshima. On August 9, "Fat Man" exploded over Nagasaki with a force of twenty-two thousand tons of TNT. Roughly seventy thousand people were killed.

On August 10, the Japanese offered to surrender on the condition that the position of the Japanese emperor not be compromised. U.S. leaders responded that Japan would have to accept the terms of the Potsdam Declaration. Meanwhile, the Los Alamos team informed the president that a third bomb, fueled by plutonium, would be ready for delivery shortly after August 17. The scientists assumed that the plutonium being produced at Hanford, Washington, would provide a reliable fuel supply for additional bombs.



A photograph of the bomb dropped on Nagasaki.

Photo from Army Air Corps, courtesy Harry S Truman Library. Used with permission.

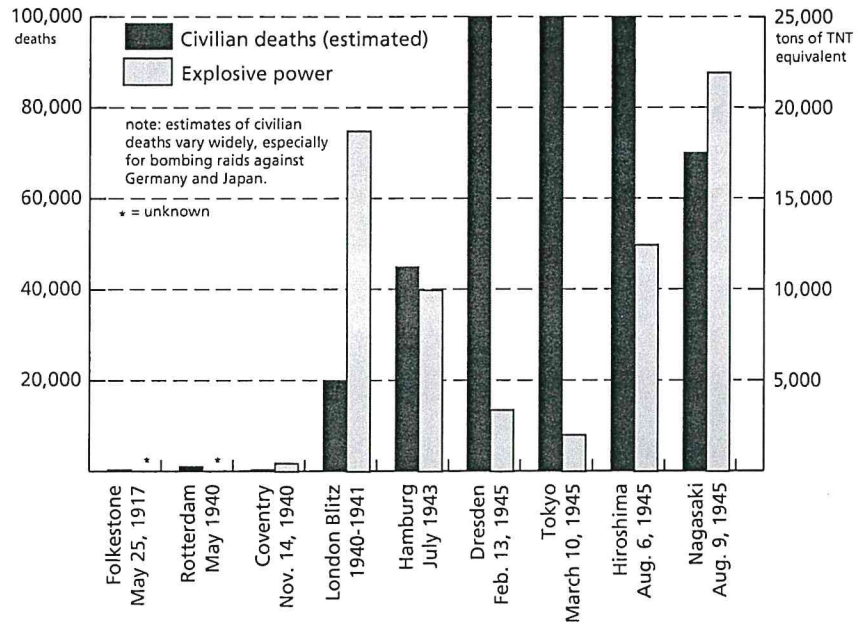
President Truman ordered continued bombing of Japanese cities using conventional explosives. On the night of August 14, 828 B-29s bombed Tokyo in one of the largest air raids of the war. That same day, Japan's leaders indicated that they were willing to accept the terms of the Potsdam Declaration and surrender unconditionally. World War II was over.

Making Connections: Issues Raised by the Atomic Bomb

Sixty years have passed since the concluding days of World War II. The radiation that killed tens of thousands of people in Hiroshima and Nagasaki has largely disappeared. The number of living survivors shrinks with each passing year. And yet, many of the issues surrounding the U.S. decision to drop the atomic bomb on Japan remain as controversial as ever.

This section of the unit will engage you in the political and ethical questions that have emerged from the ashes of Hiroshima and Nagasaki. As you will see, the most hotly debated issues are those that touch on values that influence the direction of current U.S. foreign policy. Each issue concludes with discussion questions and ideas for additional research.

Comparison of Deaths and Explosive Power in Bombings



were convicted for passing atomic secrets to Soviet spies. The couple was executed in 1953. The Rosenberg case continues to spark

controversy. Research the role of Fuchs and the Rosenbergs in the atomic bomb program of the Soviet Union.

Issue #5: Foreign Policy, Deterrence, and Morality in the Nuclear Age

At the end of World War II, General Leslie Groves predicted that the Soviets would need twenty years to develop an atomic bomb. (Groves's thinking was based on the mistaken assumption that the Soviet Union lacked significant uranium deposits.) Most of the scientists close to the Manhattan Project expected that the Soviet Union would have a bomb within five to twelve years.

In fact, the Soviets exploded their first atomic bomb in August 1949. Four years later, they detonated their first hydrogen bomb—a far more powerful weapon based on nuclear fusion. (The United States tested its first hydrogen bomb in 1952.)

The Soviet program to develop nuclear weapons was gaining steam at a time when U.S.-Soviet relations were rapidly deteriorating. By the late 1940s, the wartime alliance between Washington and Moscow had been replaced by the intense hostility known as the Cold War.

The moral dimension of U.S. nuclear weapons policy held a prominent place in international relations during the Cold War. For four decades, U.S. leaders were forced to confront the possibility that they might be called on to launch a nuclear attack against the Soviet Union.

From the outset of the Cold War, nuclear weapons were a critical element in the balance of power between the superpowers. The Soviets had a clear advantage in conventional forces (such as tanks, artillery, and ground troops) in Europe. U.S. officials worried that the Soviets would overrun Western Europe unless the United States was willing to defend its allies. U.S. strategy was based largely on our country's superiority in nuclear weapons. In the 1950s, U.S. bombers stationed in North America and Western Europe had the capability to drop nuclear bombs on the Soviet Union,

while the Soviets' ability to deliver nuclear weapons against the United States was much more limited.

For U.S. nuclear weapons strategy to be effective, however, the threat had to be credible. The Soviets had to believe that the United States had the capacity and the will to follow through on its commitment. The stakes involved in U.S. nuclear weapons policy rose still higher in the 1960s as the Soviets rapidly narrowed the gap in nuclear power. The United States maintained its pledge to use nuclear weapons against Soviet forces invading Western Europe, but U.S. leaders now faced the risk of provoking an all-out nuclear counterattack.

By the end of the 1960s, a new balance of nuclear power had emerged. According to the logic of the nuclear age, neither superpower would dare start a nuclear war if the outcome would be the near-complete destruction of civilization. Nuclear war became almost unthinkable. Nonetheless, U.S. and Soviet leaders poured billions of dollars into nuclear research to make sure that they did not fall behind in the arms race. Both Washington and Moscow feared that weakness would tempt the other side to launch a decisive first strike. By the time the Soviet Union collapsed in 1991, the two superpowers had produced more than seventy thousand nuclear warheads. The largest bombs are over one thousand times more powerful than "Little Boy."

Most of the resources of the nuclear arms race were spent on improving delivery systems, especially as technological breakthroughs reduced the costs of refining fissionable materials. Both the United States and the Soviet Union developed missiles capable of accurately delivering a warhead against a target six thousand miles away in less than thirty minutes, bomber aircraft that could

strike from one continent to another, and nuclear-equipped submarines with enough explosive power to kill tens of millions of people.

In addition, billions of dollars were spent on defense systems to counter incoming nuclear missiles and to protect people from nuclear attack. Underground bomb shelters were built and stocked with food, water, and other necessities. Students were drilled to shield themselves from the effects of a nuclear blast. Fortunately, the Cold War preparations were never put to use.

Issue #6: Radiation, Fallout, and Nuclear Testing

The potential danger of radiation was recognized but not fully understood in the 1930s. Marie Curie, a French scientist who won the Nobel Prize for Chemistry in 1911 for her discovery of radium, died in 1934 from the effects of prolonged exposure to radiation. During this period, scientists learned more about the capacity of gamma radiation to prevent cells from replicating normally, or even to kill them. The first steps were also taken by doctors to use radiation to destroy cancer cells.

The bombing of Hiroshima and Nagasaki

represented the first opportunity to study the effects of high dosages of radiation on large numbers of people. The Japanese and American doctors stationed in Hiroshima and Nagasaki after the war saw two types of short-term effects. Most striking were the severe skin burns caused by the absorption of high levels of radiation at the moment of the explosion. The radiation raised the surface temperature of the skin, resulting in instant burning. Doctors treated the radiation victims using the same methods applicable to normal burns.

Not immediately obvious were the injuries caused by the radiation to the internal organs of the body. “A-bomb disease,” as the condition became known, was marked by the loss of appetite and weight, nausea, and hair loss. Many victims wasted away and died. (Most of the same symptoms, typically in more mild form, are experienced by patients receiving radiation treatment for cancer.)

In addition to short-term effects, the radiation produced serious long-term harm to the inhabitants of Hiroshima and Nagasaki. Human reproductive organs and fetuses in the womb were especially susceptible to radiation damage. Hiroshima and Nagasaki witnessed a sharp increase in cases of sterility, cancer, and birth defects following the atomic bomb attacks.

The long-term impact of radiation in Japan raised concern among American scientists and doctors about our country’s testing of nuclear weapons. In the years immediately following World War II, small units of American troops were often positioned a few miles from nuclear blast sights to determine how an army would function in a nuclear war. Although the soldiers were too far away from the explosion to suffer short-term radiation harm, data collected over time indicated an increase in long-term radiation damage. The United States discontinued the practice in the 1950s.

Potentially more serious was the danger posed by the radioactive materials created in a nuclear blast. When a nuclear bomb explodes, both the bomb’s casing and the earth’s surface at the point of detonation are exposed to intense radiation and themselves become radioactive. The radioactive materials can then be carried for hundreds of miles with the cloud of debris generated by the explosion. What is known as radioactive fallout eventually settles to earth and may contaminate land, water, and the food we eat.

Research about radioactive fallout provided cause for additional concern during the late 1950s and early 1960s. In particular, the increased presence of the radioactive isotope

strontium-90 (Sr-90) in the atmosphere led to calls for a halt to atmospheric testing. Strontium is chemically similar to calcium, and scientists feared that radioactive Sr-90 from nuclear testing would be ingested by dairy cows. In turn, the Sr-90 could be passed on to children through milk and be stored permanently in their bones. Rising public anxiety helped prod U.S. and Soviet leaders to conclude a treaty in 1963 banning the testing of nuclear weapons in the atmosphere. The subject of nuclear testing continues to spark controversy today in international relations.