

The Crossroads: The End of World War II, The Atomic Bomb and the Origins of the Cold War

This exhibit contains graphic photographs of the horrors of war.
Parental discretion is advised.

[Editor's Note: The following is the verbatim text of the original Smithsonian script including a few parenthetical indications of material that was to come. This reproduction omits all photographs and their captions, but retains an illustration, a chart and a few facsimiles of documents from the planned exhibition.]

UNIT 2:
THE DECISION TO
DROP THE BOMB
RRS 23-56

"100 MILLION HEARTS BEATING AS ONE"

By the summer of 1945, every man and woman in Japan over the age of 13 was a member of the People's Volunteer Army, and subject to military discipline. All across Japan, the subject-soldiers of the Emperor drilled with spears and other makeshift weapons in preparation for the final battles on the beaches. If the invasion came, the Japanese people were prepared, as one of them later recalled, to "match our training against their numbers, our flesh against their steel." But the ability of the Japanese people to fight was increasingly undermined by blockade, starvation, overwhelming Allied air power and the collapse of industrial production.

UNIT 2: THE DECISION TO DROP THE BOMB

"That was not any decision you had to worry about."
President Harry S. Truman

While Americans and Japanese alike expected the war to end after a bloody invasion of Japan, the U.S. government was readying a secret weapon that would dramatically affect the war's outcome: the atomic bomb. In the spring and summer of 1945, American leaders would have to decide whether to use this new weapon without warning against Japanese cities.

According to British Prime Minister Winston Churchill, however, "the decision whether or not to use the atomic bomb... was never even an issue." Upon becoming President in April 1945, Harry Truman inherited a very expensive bomb project that had always aimed at producing a military weapon. Furthermore, he was faced with the prospect of an invasion and he was told that the bomb would be useful for impressing the Soviet Union. He therefore saw no reason to avoid using the bomb. Alternatives for ending the Pacific war other than an invasion of atomic-bombing were available, but are more obvious in hindsight than they were at the time.

DECIDING TO BUILD THE BOMB

The atomic bomb was ultimately used against Japan, but it was built as a weapon against Germany. In late 1938, German scientists accidentally discovered how to split ("fission") the uranium atom, releasing nuclear energy. When physicists in the United States learned of this discovery, many immediately realized that Hitler might acquire a fearsome new weapon: an atomic bomb. Refugees from the Nazis, most notably the Hungarian physicists Leo Szilard and Eugene Wigner, feared this possibility so much that they began to search for a way to warn Western governments.

THE EINSTEIN LETTER

Szilard and Wigner, in their search for a way to warn the U.S. government, eventually hit on the idea of asking the famous physicist Albert Einstein, himself a refugee from Nazi Germany, to sign a letter to President Franklin Delano Roosevelt. In August 1939, Einstein put his signature on the letter at his summer home in Long Island, New York. It was conveyed to President Roosevelt in October.

The letter may have initiated the American atomic-bomb project, but its effect has often been exaggerated. The United States did not immediately begin a crash program to build nuclear weapons. Until 1941, efforts went ahead rather slowly.

Albert Einstein
312 Provo Rd.
Newtown Point
Pasadena, Lon; Island
August 2nd, 1939

F. D. Roosevelt
President of the United States,
White House
Washington, D.C.

Sir:

Recent work in nuclear physics made it probable that uranium may be turned into a new and important source of energy. New experiments performed by E. Fermi and L. Szilard, which have been communicated to me in manuscript, make it now appear likely that it will be possible to set up a chain reaction in a large mass of uranium and thereby to liberate considerable quantities of energy. Less certain, but to be kept in mind, is the possibility of making use of such chain reactions for the construction of extremely powerful bombs. Such bombs may be too heavy for transportation by air plane, but not too heavy for being carried by boat, and a single bomb exploded in a port might very well destroy the port together with the surrounding territory.

This being the situation, you may find it desirable that some contact be established between the Administration and the group of physicists who are working in this country on the subject of chain reactions. One possible way of achieving this would be for you to entrust a person who has your confidence, and who could perhaps act in an unofficial capacity, with this task.

I understand that Germany has stopped the sale of uranium. That she should have taken such early action might perhaps be understood on the ground that the son of the German Under-Secretary of State, von Weizsäcker, is attached to the Kaiser-Wilhelm-Institut in Berlin where some of the American work on uranium is now being repeated.

The United States has only poor ores of uranium. Better ores in moderate quantities are mined in the former Czechoslovakia and in Canada, while the most important source of uranium is Belgian Congo.

Yours very truly,

A. Einstein
(Albert Einstein)

This is the original letter from Albert Einstein to President Roosevelt. Lent by the Franklin Delano Roosevelt Library.

LEO SZILARD (1898–1964)

No one was more central to both the origins of the atomic bomb, and to protest against its use on Japanese cities, than this exiled Hungarian physicist. Born in Budapest of a wealthy Jewish family, Szilard was a brilliant student and the winner of the Hungarian national mathematics prize at the age of eighteen. He received his Ph.D. in physics from the University of Berlin in 1922, but was forced to leave Germany in 1933 when Hitler came to power. In that same year he first conceived of a nuclear chain reaction as the means of liberating atomic energy—and of making an atomic bomb. He came to the United States in January 1938.

During the war, Szilard worked at the Chicago Laboratory of the atomic bomb project. But after the defeat of Germany, he feared that using the bomb on Japan would start a nuclear arms race with the Soviet Union. He was a key figure in the scientists' movement against using the bomb in the spring and summer of 1945. After the war, he devoted his life to warning the world about the dangers of the nuclear arms race.

A CRASH PROGRAM BEGINS

In 1941, even before the Japanese attack on Pearl Harbor, the American atomic-bomb program was greatly accelerated. Independent research in Britain strongly supported the feasibility of a bomb. Furthermore, Vannevar Bush, the head of American civilian scientific research for the military, received a report that German scientists were pushing ahead on their own bomb project. On October 9, 1941, President Roosevelt approved intensified research into the feasibility of an atomic bomb.

THE GERMANS DECIDE NOT TO BUILD A BOMB

Soon after the American decision, the German authorities (unaware of the American deliberations) decided not to build a nuclear bomb. The huge investment required in industrial and research facilities was judged—correctly—to be too large for the

German war economy to bear. Some historians and scientists have also asserted that German physicists were uncooperative with Nazi authorities because they were afraid of giving Hitler the bomb, but this assertion remains questionable.

In June 1942, Armaments Minister Albert Speer made the final decision not to proceed with a bomb, although research on nuclear reactors continued. The Western Allies, however, did not know this fact. The United States and Britain had to continue on the assumption that the Nazis would acquire the atomic bomb, possibly before they did.

THE MANHATTAN PROJECT:
A GIGANTIC ENGINEERING ENTERPRISE

In June 1942, President Roosevelt transferred that atomic-bomb project to the War Department's Army Corps of Engineers. In order to disguise this ultra-secret project, the Corps created a Manhattan Engineer District to direct the effort, with a shadow headquarters in New York City. Appointed as head of the Manhattan Project, as it came to be called, was General Leslie Groves.

Groves' major task was to build the huge industrial facilities that would be required to separate the small quantities of fissionable uranium and plutonium needed for a bomb. Although the Manhattan Project is best remembered for its brilliant scientific leadership, it was more than anything else a massive engineering enterprise. At the height of construction in mid-1944, the Project employed nearly 129,000 people.

A MOST SECRET PLACE

In late 1942, Manhattan Project chief Gen. Groves chose physicist J. Robert Oppenheimer to head a new laboratory devoted to the final design of atomic bombs. Oppenheimer recommended a remote site in New Mexico for the facility, which gathered many famous scientists together in complete secrecy. Los Alamos Laboratory was opened in April 1943.

During the last two years of World War II, the Los Alamos

staff made a crash effort to design two different bombs. A nuclear explosion could be triggered in uranium 235 by employing a gun to fire one piece of U235 at another. It was found, however, that the more-easily-made plutonium 239 could only be successfully exploded by first compressing it into a smaller sphere with high explosives. This "implosion bomb" proved to be Los Alamos' most difficult challenge.

LESLIE GROVES (1896-1970)

General Groves was the central organizer of the Manhattan Project. The son of a military chaplain, he graduated from the U.S. Military Academy at West Point in 1918 with a degree in civil engineering. During the military buildup that began in 1940, Groves served as the deputy commander of all Army construction projects. He was responsible for building the Pentagon, which was finished just as the war began.

Groves wished to be assigned overseas to command combat engineers, but on September 17, 1942, he was told that he would take over the Manhattan Project, which was in need of a strong leader. Some eminent scientists within the Project found him authoritarian and arrogant. Groves was, however, indispensable to the success of the massive construction program that began in 1942. His technical competence and decisive leadership were also essential.

J. ROBERT OPPENHEIMER (1904-1967)

At the instigation of Groves, Dr. Robert Oppenheimer became a key scientific leader in the Manhattan Project. Oppenheimer was born into a wealthy New York Jewish family and was a brilliant student who mastered exotic Oriental languages as well as theoretical physics. He graduated with a Ph.D. in physics from the University of Goettingen, Germany, in 1927 and became a professor at the University of California, Berkeley. In the late 1930s the Nazi persecution of the Jews and the Spanish civil war turned the formerly apolitical physicist into a leftist with personal ties to a number of Communists.

In 1942, Oppenheimer was Groves' inspired and unexpected choice to head the Los Alamos Laboratory. The relatively young physicist proved to be a superb leader and scientific manager. After the war, Oppenheimer played an important role in advising the U.S. government about nuclear weapons. In 1954, as a result of the McCarthy-era "witchhunts," he was stripped of his security clearances after a controversial investigation into his earlier political history.

AN EXPECTATION OF MILITARY USE

"At no time, from 1941 to 1945 did I ever hear it suggested by the President, or any other responsible member of the government, that atomic energy should not be used in the war."

Henry Stimson, Secretary of War (1940-1945)

"If this weapon fizzles, each of you can look forward to a lifetime of testifying before congressional investigating committees."

Gen. Groves to his staff, December 24, 1944

The small number of decision-makers who knew about the ultra-secret Manhattan Project always assumed that the bomb would be used, either against Germany or Japan. The United States' huge investment in the atomic bomb—two billion 1940s dollars, or roughly forty billion 1990s dollars—also drove Gen. Groves and his project leaders to demonstrate that the money had not been wasted. In the spring of 1945, production of fissionable materials was accelerated, because Groves was afraid that the war would be over before an atomic bomb could be dropped.

Historical Controversies:

Would the Bomb Have Been Dropped on the Germans?

Some have argued that the atomic bomb would never have been dropped on the Germans, because it was much easier for Americans to bomb Asians than "white people." The racial character of the Pacific conflict has been cited to support this view.

During 1943 and 1944, Gen. Groves and others discussed employing the atomic bomb in the Pacific first because the Japanese were judged to be less capable of analyzing a bomb that failed to explode.

Racial stereotypes may have had a role in this attitude, but the consensus of most, if not all, historians is that President Roosevelt would have used the bomb on Germany if such an attack would have been useful in the European war. The point became moot because sufficient uranium and plutonium to make bombs could not be produced until the summer of 1945, after the German surrender.

THE "FAT MAN" ATOMIC BOMB

The Manhattan Project produced two different types of atomic fission bombs: the "Fat Man" plutonium implosion bomb and the "Little Boy" uranium gun bomb. The "Fat Man" type, one of which was eventually dropped on Nagasaki, Japan, was based on the principle that a sphere of the metal plutonium 239, when compressed suddenly, would reach a critical density sufficient to create a nuclear chain-reaction. Around the plutonium sphere were arrayed blocks of high explosives, which were specially designed to produce a highly accurate and symmetric implosion to compress the sphere.

The design of this bomb was very difficult and scientists at Los Alamos were not entirely confident of success. A test of the "Fat Man" would therefore be needed. In the spring of 1945, that test was scheduled for July.

ATOMIC FISSION BOMBS: HOW DO THEY WORK?

The nuclei of atoms are primarily composed of two elementary particles: protons and neutrons. Protons have a positive charge, while neutrons have no such charge. Certain very heavy nuclei, when hit by a neutron, have the tendency to split ("fission") into two smaller nuclei, resulting in the release of energy and more neutrons. If a "critical mass" of these elements are brought

together, neutrons released by fission will run into other nuclei, causing more fission. If the conditions are right, this nuclear chain reaction can run out of control in millionths of a second, producing gigantic quantities of energy.

All nuclear weapons today use fission as the basic process for creating a nuclear explosion. Many current weapons, however, are "thermonuclear" bombs, which employ a fission explosion to create the extreme heat and pressure conditions needed to trigger the "fusion" of nuclei of the light element hydrogen. This "hydrogen bomb," to use the popular term, is far more efficient and destructive than an atomic bomb.

The principle of nuclear fission.

"The Most Terrible Weapon Ever Known in Human History"

On April 12, 1945, President Roosevelt died in Warm Springs, Georgia, to the shock and surprise of many Americans. Vice-President Harry S. Truman, who had only been in office since January 20, was immediately sworn in. Truman was quickly confronted with the need to approve the use of the atomic bomb, which could be ready by August.

The President also confronted a complicated situation in both Europe and in the Far East. Japan had effectively lost the war, but its government did not appear to be willing to surrender. The atomic bomb was one way to change that. Truman's advisers also told him that the bomb would be useful as a diplomatic lever in growing disagreements with the Soviet Union. On the other hand, Soviet entry into the Pacific conflict was another possible way of shocking the Japanese into surrender. An invasion of Japan loomed on the horizon if neither atomic bombs nor Soviet entry worked. For the new President, the situation was complex and difficult.

TRUMAN AND THE ATOMIC BOMB

President Truman "was like a little boy on a toboggan. He

never had the opportunity to say 'we *will* drop the bomb.' All he could do was say 'no.'"

General Leslie Groves

President Truman came into office with no knowledge of the atomic bomb, because Roosevelt had never revealed to him the secret at the heart of the Manhattan Project. Shortly after Truman's swearing-in on April 12, Secretary of War Henry Stimson mentioned it to him briefly. On April 25, Stimson gave him a more extensive briefing, accompanied by General Groves.

The President had inherited a project that had always aimed at making a usable weapon. In the following months, he never saw a compelling reason to question that assumption. As a result, Truman's role in the "decision to drop the bomb" was largely confined to verbally confirming proposals by his advisers.

~~TOP SECRET~~

1. Within four months we shall in all probability have completed the most terrible weapon ever known in human history, one bomb of which could destroy a whole city.
2. Although we have shared its development with the UK, physically the US is at present in the position of controlling the resources with which to construct and use it and no other nation could reach this position for some years.
3. Nevertheless it is practically certain that we could not remain in this position indefinitely.
 - a. Various segments of its discovery and production are widely known among many scientists in many countries, although few scientists are now acquainted with the whole process which we have developed.
 - b. Although its construction under present methods requires great scientific and industrial effort and raw materials, which are temporarily mainly within the possession and knowledge of US and UK, it is extremely probable that much easier and cheaper methods of production will be discovered by scientists in the future, together with the use of materials of much wider distribution. As a result, it is extremely probable that the future will make it possible to be constructed by smaller nations or even groups, or at least by a large nation in a much shorter time.

DECLASSIFIED
Authority: E.O. 13526
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~~TOP SECRET~~

An original copy of the memorandum Stimson presented to Truman on April 25, 1945. It opens: "1. Within four months we shall in all probability have completed the most terrible weapon ever known in human history, one bomb of which could destroy a whole city."

HARRY S. TRUMAN (1884-1972)

Rising from humble origins in the Kansas City area, Truman was a veteran of World War I and a successful Missouri politician. He achieved prominence in the Second World War as a U.S. Senator and Chairman of the so-called Truman Committee, which acted as a watchdog over the huge industrial and military build-up during the war. In the fall of 1944, he was elected as Roosevelt's third Vice-President.

Truman was aware of the existence of the Manhattan Project while a Senator, but respected the Administration's request that he not inquire into its nature. As President, he held ultimate responsibility for the decision to use the atomic bomb. After the war, he claimed that he never once had moral qualms about the bombings, but his own diaries and letters indicate that this was not entirely the case. He was reelected in 1948 and was noteworthy for his role in the early Cold War, the Marshall Plan, the Berlin airlift and the Korean War.

HENRY L. STIMSON (1867-1950)

Born into a privileged northeastern family, Stimson was a prominent figure in the American political establishment for over four decades. He had been Secretary of War for President William Howard Taft, Governor-General of the Philippines for President Calvin Coolidge, and Secretary of State for President Herbert Hoover. Although Stimson was a lifelong Republican, President Roosevelt asked him to take over as Secretary of War in 1940 because of the urgent military buildup that began after Nazi victories in Europe.

Stimson was drawn into atomic-bomb decision-making in October 1941 when Roosevelt gave the program top priority. During the war, he remained a key policy adviser on nuclear energy. In spite of poor health and advanced age, Stimson continued to play the same role under President Truman, although he was increasingly displaced by Truman's choice for Secretary of State, James Byrnes. Stimson went into a well-deserved retirement shortly after the surrender of Japan.

Japan Looks for a Way Out of the War

On April 5, 1945, one week before Roosevelt's death, Japanese Prime Minister Koiso and his Cabinet resigned because of the increasingly disastrous course of the war. It was the second such resignation in less than a year. Even the military-dominated Japanese political establishment was beginning to realize that a way had to be found to negotiate an end to the war. The Allied demand for "unconditional surrender" was, however, regarded as intolerable.

Emperor Hirohito approved the appointment of the aged Admiral Kantaro Suzuki as the new Prime Minister. But Suzuki's government was hobbled by severe tensions between civilian politicians interested in peace and die-hard military leaders who wished to fight a last battle in Japan. Surrender could not be openly discussed, nor could direct negotiations with the United States be undertaken, because hawkish Army generals dominated the government. As a result, opportunities to end the war early were greatly limited.

PEACE THROUGH MOSCOW?

Throughout the Pacific War, the Soviet Union and Japan had remained at peace, although they were allied with opposite sides in the European war. In the fall of 1944, the growing desperation of the Japanese government drove it to approach Joseph Stalin's communist regime for help in fending off defeat. After the appointment of the Suzuki cabinet in April 1945, these initiatives were renewed.

Two key civilian politicians—Marquis Kido, the Emperor's closest adviser, and Shigenori Togo, the new Foreign Minister—hoped to use the renewed approach to Moscow as a way to negotiate some kind of conditional surrender with the Allies. But they had to conceal their true intentions from the die-hard militarists who wished to fight on. As a result, the initiative remained weak and indecisive.

EMPEROR HIROHITO (1901-1989)

Crowned as the Showa ("Enlightened Peace") Emperor in 1926, Hirohito played a controversial role in World War II. A retiring and bookish man who was traditionally restricted from exercising much influence over the government, he was simultaneously worshipped as a god by the Japanese people and military. To the outside world he became a symbol of Japanese aggression and barbarism, yet he occasionally expressed his reservations to the military leadership about the course of the war. He nonetheless showed much enthusiasm for the armed forces and their conquests.

In the spring of 1945, Hirohito was aware that the war was lost and gave tentative encouragement to the peace feelers of Marquis Kido and Foreign Minister Togo. But he failed to take more decisive action until August, when the atomic bombs were dropped and Soviets declared war. Following the surrender, the Allies allowed Hirohito to remain on the throne. He presided over the renaissance of modern Japan.

Historical Controversies:**Did the United States Ignore the Japanese Peace Initiative?**

In 1940, American intelligence experts succeeded in cracking the Japanese diplomatic code. "Operation Magic" allowed the U.S. government to decipher messages between Tokyo and the Japanese Embassy in Moscow, giving the United States knowledge of the Japanese peace initiative in the spring of 1945.

Some historians have claimed that the Truman Administration ignored the signs of a Japanese readiness to negotiate because of a desire to drop the atomic bomb on Japan in order to intimidate the Soviet Union. Other scholars have argued that the Japanese initiative was far from clear in its intentions. It is nonetheless possible to assert, at least in hindsight, that the United States should have paid closer attention to these signals from Japan. Like so many aspects of the "decision to drop the

bomb," this matter will remain forever speculative and controversial.

"THE EMPEROR REMAINS AS THE SOLE STABILIZING FORCE"

A key stumbling block to any Japanese surrender was the position of the Emperor. To Japanese leaders, the Allied demand for "unconditional surrender" meant a destruction of the whole Japanese political system, including the monarchy. To many Americans, Hirohito was a hated symbol of Japanese military aggression. A poll taken in the spring of 1945 showed that a third of those surveyed wanted Hirohito executed immediately and another thirty-seven percent thought that he should be tried, imprisoned or exiled.

This public hostility greatly restricted the maneuvering room of President Truman and his advisers. Some Japanese experts, most notably the Undersecretary of State, Joseph Grew, nonetheless argued that the Emperor should be left on the throne as "the sole stabilizing force" capable of making the Japanese armed forces surrender. Truman listened, but did not accept Grew's arguments.

JOSEPH G. GREW (1880-1965)

Grew was the last United States Ambassador to Tokyo before the war. Although sympathetic to Japan, he supported stronger diplomatic action in 1940 as a warning against further Japanese aggression. Grew was interned in Japan for some months after Pearl Harbor, became deputy head of the State Department in 1944 and was often Acting Secretary of State in 1945.

Beginning in May 1945, Grew urged President Truman to make an offer of surrender, conditional upon the retention of Emperor Hirohito on the throne. Grew understood the mentality of the Japanese leadership, and he wished to end the war early to minimize Soviet influence in Asia. But Grew was unable to convince Truman and many of his key advisers, because such a

move was considered too politically risky. Most Americans despised the Japanese and it was difficult to back away from the policy of "unconditional surrender" laid down by Allied leaders in 1943.

Historical Controversies:

Would the War Have Ended Sooner if the United States Had Guaranteed the Emperor's Position?

This is one of the most difficult "what if" questions in the "decision to drop the bomb" debate among scholars. In hindsight, it is clear that American and Japanese leaders might have reached an agreement on Japanese surrender, if the United States had made such an offer and if the Suzuki government had been willing to communicate directly with President Truman through a neutral power. In effect, that is what happened after the atomic bombings.

Some scholars have argued, however, that it took the shock of the atomic bombings and the Soviet declaration of war, which took place at about the same time, to give Hirohito a facesaving way to force a surrender on his hard-liners. A question like this can never be settled, but it is possible that there was a lost opportunity to end the war without either atomic bombings or an invasion of Japan, if Grew's advice had been accepted.

The Soviet Factor

Joseph Stalin's Union of Soviet Socialist Republics (USSR) was a critical factor in all American diplomatic and military calculations regarding the bomb and the Japanese, although Truman and Stimson later downplayed that sensitive fact. The Grand Alliance of the United States, the British Commonwealth and the Soviet Union, which was forged only after Nazi Germany attacked Russia in 1941, was an alliance of convenience. Suspicion between the capitalist West and the communist East remained high, in spite of positive feelings evoked by the com-

mon struggle against the Nazis.

In the spring of 1945, new tensions arose over the Soviet occupation of Eastern Europe that resulted from the German defeat. Moreover, the Truman administration had to consider how to tell Stalin about the atomic bomb and whether the bomb would be a useful diplomatic weapon in post-war struggles with Stalin. The President and his advisers also began to question the desirability of a Soviet entry into the Pacific war. Although the Cold War did not start until 1947, some of its roots can be seen during the war.

THE SOVIET UNION AND THE PACIFIC WAR

While the USSR was preoccupied with battling Germany, and the Japanese Empire was tied down fighting the Western Allies and China, neither power had an interest in disturbing their mutual peace. But as the defeat of the Nazis approached, the United States wanted the Soviets to attack and pin down the huge Japanese Army in China, so that it would be unavailable for transfer to the defense of the home islands. At the Yalta conference in February 1945, Stalin promised to enter the Pacific war two to three months after the surrender of Germany.

During the spring of 1945, some American leaders began to doubt the wisdom of this policy. The U.S. Navy's blockade of Japan was complete by about April, making a troop transfer from China almost impossible. Key advisers to President Truman also began to worry about the power of Communism in post-war Asia. But Stalin was determined to join the Pacific war in any case so that he could gain more influence in China, Korea and Japan.

THE SOVIET UNION AND THE ATOMIC SECRET

The Manhattan Project was a joint undertaking of the United States, Great Britain and Canada, although dominated by American resources and personnel. President Roosevelt and British Prime Minister Churchill had decided not to tell Stalin about the project, however, because they wished to delay the

Soviets' acquisition of nuclear weapons. Spies working for the Russians, including at least two scientists at Los Alamos, nonetheless sent atomic secrets back to Moscow.

As the bomb approached testing and use, the Western Allies had to decide whether to tell Stalin before dropping it on Japan, and what post-war nuclear policy should be. Some scientists and advisers urged that atomic weapons be given to the United Nations under a policy of "international control" so that a nuclear arms race might be avoided. Others did not trust the Soviets and saw advantages in an American or Anglo-American nuclear monopoly.

"PERSUADING RUSSIA TO PLAY BALL"

From the very beginning of Harry Truman's Presidency, Secretary of War Stimson advised him that the atomic bomb might be useful in post-war diplomatic disagreements with the Soviets. As tensions grew over the Soviet domination of Poland and other Eastern European countries, Stimson hoped that American possession of this spectacular new military power might help make the Russians "play ball" in Europe and elsewhere.

But it was Truman's choice for Secretary of State, James "Jimmy" Byrnes, who, more than anyone else inside the Administration, recommended a hard line against Soviet demands. Byrnes hoped that "the bomb... might well put us in a position to dictate our own terms at the end of the war."

JAMES F. BYRNES (1879-1972)

A South Carolina Democratic politician, "Jimmy" Byrnes rose to become one of the most powerful figures in the Roosevelt and Truman Administrations. As a U.S. Senator, he proved instrumental in the passage of Roosevelt's "New Deal" legislation. The President made him a Justice of the U.S. Supreme Court in 1941, but Byrnes only served about a year before resigning to take a leading position in war mobilization after Pearl Harbor. He became so influential in domestic policy that the press nicknamed him "Assistant President." Byrnes was widely expected to become Roosevelt's running-mate in 1944, but the Democratic convention picked Truman instead.

When Truman suddenly became President, he had had almost no foreign policy experience. He immediately sought out Byrnes as an adviser. The South Carolinian served as Secretary of State from July 1945 to January 1947.

Historical Controversies:

How Important Was the Soviet Factor in the "Decision to Drop the Bomb"?

Some historians have argued that the real reason why Truman, Stimson and Byrnes decided to use the bomb on Japan was because they hoped to intimidate Stalin and the Soviet Union. According to this argument, Truman and his advisers knew there were alternative ways of ending the Pacific war, but deliberately went ahead with the bombing of Japanese cities anyway because of the perceived diplomatic advantage.

Most scholars have rejected this argument, because they believe that Truman and his advisers saw the bomb first and foremost as a way to shorten the war. These historians also believe that the Manhattan Project had so much momentum in the spring of 1945, that it was difficult for Truman to stop the bombing. Still, virtually all now agree that the bomb's usefulness for "atomic diplomacy" against the Soviets provided one more reason for Truman not to halt the dropping of the bomb.

Selecting the Target

While American leaders considered what to do about Japan and the Soviet Union, planning went ahead for the military deployment of the atomic bomb. Target selection was put in the hands of a Target Committee controlled by General Groves and his Manhattan Project staff, although Army Air Forces personnel participated as well.

The Target Committee first met on April 27, 1945. Its primary concerns were showing off the bomb's power to the maximum effect and making the greatest impression possible on the Japanese. For accuracy, the Committee insisted that the bomb should be dropped in daylight and clear weather. The target should be a city undamaged by conventional bombing and possessing a geographical layout suitable for maximizing damage from the bomb's blast wave. Radiation effects were not thought to be important.

By the end of May, the Committee selected the following cities, in order of priority: Kyoto, Hiroshima, Kokura and Niigata. The Army Air Forces were asked to protect these cities from future firebombing raids.

STIMSON, GROVES AND THE SAVING OF KYOTO

The Target Committee's number one priority, Kyoto, was never bombed. On May 30, 1945, Groves visited the Secretary of War in his offices. Stimson asked for the target list and immediately vetoed Kyoto because it "was the ancient capital of Japan, a historical city, and one that was of great religious significance to the Japanese." Stimson had visited the city at least three times and was "very much impressed by its ancient culture." Stimson was particularly concerned that the destruction of this historic city would permanently embitter the Japanese against the United States after the war, resulting in an increase in Soviet influence.

Groves objected that Kyoto had a population of over one million, did much war work and had a geography highly suitable for

the bomb. Stimson continued to refuse. Groves fought for two more months to reinstate the city to the target list, but never succeeded in overruling Stimson. Eventually the port city of Nagasaki was put on the list instead.

"WE COULD NOT GIVE THE JAPANESE ANY WARNING"

Discussion as to how the atomic bomb was to be used first was left to a second body, the Interim Committee on post-war nuclear policy. On May 31, 1945, Secretary Stimson chaired a meeting of this group of high-level policymakers, including James Byrnes as Truman's personal representative. Also attending were the Committee's scientific advisers, headed by Dr. Robert Oppenheimer.

Over lunch, Committee members briefly discussed whether the Japanese should be given a warning before the atomic bomb was dropped, and whether a bomb demonstration should be held first in the presence of delegates from Japan or neutral countries. These ideas were rejected on the grounds that a warning might cause the Japanese to try to shoot down the bomb-carrying plane or move prisoners-of-war into the target area, and a demonstration would be difficult to arrange and might be a failure.

An original copy of the official minutes of the interim committee meeting of May 31, 1945. The marked passage gives the committee's recommendation regarding the use of the bomb:

... "Secretary [Stimson] expressed the conclusion, on which there was general agreement, that we could not give the Japanese any warning, that we could not concentrate on a civilian area; but that we should seek to make a profound psychological impression on as many inhabitants as possible. At the suggestion of Dr. Conant the Secretary agreed that the most desirable target would be a vital war plant employing a large number of workers and closely surrounded by workers' houses."

Lent by the National Archives and Records Administration.

NUCLEAR WEAPONS AND THE BOMBING OF CIVILIANS

Throughout the discussions of the Interim and Target Committees, the escalation of bombing attacks on civilians in World War II was an important precedent and context. When Oppenheimer suggested on May 31 that several atomic attacks be carried out on the same day to shock the Japanese, Groves opposed the idea on the grounds that "the effect would not be sufficiently distinct from our regular air force [bombing] program." At that time, the firebombing of Japanese cities had already killed around two hundred thousand people.

The yield of the first atomic bombs also estimated at only one-tenth to one-half of what they turned out to be, and, until after the July atomic test, no one had a clear impression of what the heat and radiation effects would be like. As a result, many of those knowledgeable about the bomb did not see it as being drastically different than conventional strategic bombing, nor did they expect that the bomb would automatically end the war.

At the end of the war little remained standing in the firebombed sections of Tokyo.

"SUCH ATTACKS ON JAPAN COULD NOT BE JUSTIFIED"

Not everyone inside the small group privy to the atomic secret agreed that the bomb should be used without warning on Japanese cities. The strongest base of protest was in the Manhattan Project laboratory at the University of Chicago. Leo Szilard and other scientists there felt that the bomb project had been primarily a response to a threat from Germany. Attacking Japan, they felt, would not be fair without an opportunity being given to surrender first. They were equally concerned that using the bomb without warning the Japanese or telling the Soviets would increase the chances of an uncontrolled nuclear arms race with the USSR after the war.

The Chicago group tried writing a report, sending petitions to President Truman, and approaching Truman's adviser and

choice for Secretary of State, "Jimmy" Byrnes. The President never received the petitions and all the scientists' initiatives were frustrated because of the opposition of Byrnes, Groves, Oppenheimer, and other policymakers and scientists in control of the nuclear program.

MILITARY OPPOSITION TO THE BOMBING

Opposition to dropping the atomic bomb on Japan without warning also came from inside the military establishment. The most famous cases are those of Admiral Leahy and General (later President) Eisenhower. Leahy said in 1950 that he had denounced the bombing as adopting "ethical standards common to barbarians in the dark ages," but 1945 documents only suggest that he was skeptical that the atomic bomb would ever work. Eisenhower claimed in 1948, and in his later memoirs, to have opposed the use of the bomb in conversations with President Truman at the Potsdam Conference in July 1945. But corroborating evidence for these assertions is weak.

We do know, however, that top civilian officials in the military departments, including Undersecretary of the Navy Ralph Bard and Assistant Secretary for War John McCloy, opposed the policy of use without warning.

SECRET

July 17, 1945

A PETITION TO THE PRESIDENT OF THE UNITED STATES

Discoveries of which the people of the United States are not aware may affect the welfare of our nation in the near future. The liberation of atomic power which has been achieved through atomic bombs in the hands of the Army. It places in your hands, as Commander-in-Chief, the fateful decision whether or not to sanction the use of such bombs in the present phase of the war against Japan.

We, the undersigned scientists, have been working in the field of atomic power. Until recently we have had to fear that the United States might be attacked by atomic bombs during this war and that our only defense might lie in a counterattack by the same means. Today, with the defeat of Germany, this danger is averted and we feel impelled to say what follows:

The war has to be brought quickly to a successful conclusion and attacks by atomic bombs may very well be an effective method of warfare. To feel, however, that such attacks on Japan could not be justified, at least not unless the terms which will be imposed after the war in Japan were made public in detail and Japan were given an opportunity to surrender.

If such public announcement gave assurance to the Japanese that they could look forward to a life devoted to peaceful pursuits in their homeland and if Japan still refused to surrender our nation might then, in certain circumstances, find itself forced to resort to the use of atomic bombs. Such a step, however, ought not to be made at any time without seriously considering the moral responsibilities which are involved.

The development of atomic power will provide the nations with new means of destruction. The atomic bombs at our disposal represent only the first step in this direction, and there is almost no limit to the destructive power which will become available in the course of their future development. Thus a nation which sets the precedent of using these newly liberated forces of nature for purposes of destruction may have to bear the responsibility of opening the door to an era of devastation on an unimaginable scale.

If after this war a situation is allowed to develop in the world which permits rival powers to be in uncontrolled possession of these new means of destruction, the cities of the United States as well as the cities of other nations will be in continuous danger of sudden annihilation. All the resources of the United States, moral and material, may have to be mobilized to prevent the advent of such a world situation. Its prevention is at present the solemn responsibility of the United States—singled out by virtue of her lead in the field of atomic power.

The added material strength which this lead gives to the United States brings with it the obligation of restraint and if we were to violate this obligation our moral position would be weakened in the eyes of the world and in our own eyes. It would then be more difficult for us to live up to our responsibility of bringing the unloosed forces of destruction under control.

In view of the foregoing, we, the undersigned, respectfully petition: first, that you exercise your power as Commander-in-Chief, to rule that the United States shall not resort to the use of atomic bombs in this war unless the terms which will be imposed upon Japan have been made public in detail and Japan knowing these terms has refused to surrender; second, that in such an event the question whether or not to use atomic bombs be decided by you in the light of the considerations presented in this petition as well as all the other moral responsibilities which are involved.

R. S. Rupp
 J. B. Mulliken
 E. P. Wigner
 George D. Thomas
 Leo Szilard
 J. G. Wilson
 H. J. Ziegler
 Francis R. S. Yorke
 John L. Simpson
 Walter Bartray
 John R. Dunning
 Frank Porter

DECLASSIFIED
 ON 07-13-88
 BY [redacted]

One of the original petitions to President Truman by Manhattan Project scientists, with the signature of Leo Szilard at lower left. Lent by the National Archives and Records Administration.

Historical Controversies:

Was a Warning or Demonstration Possible?

The question as to whether there were feasible alternatives to dropping the atomic bomb without warning on civilians has been controversial from the outset. The Interim Committee raised valid concerns that a warning could endanger Allied servicemen and that a demonstration might be ineffective or a failure. The proposed alternatives were examined so briefly, however, that many scholars have argued that they did not get the attention they deserved. By this argument, Groves and the Manhattan Project set the agenda for using the bomb, and the already existing bombing of cities in Germany and Japan made it unlikely that President Truman's advisers would seriously question the dropping of the atomic bomb without warning. Other scholars have, however, defended the original decision that a warning or a demonstration was not a feasible alternative.

The Invasion of Japan: A Giant Okinawa?

American planning for an invasion of Japan continued in spring 1945 as if the atomic bomb did not exist. Not only was the Manhattan Project so secret that even many military planners were unaware of it, the effect of the new weapon on the Japanese was unknown. Under the leadership of Army Chief of Staff General George C. Marshall, the War Department continued to assume that an invasion would be necessary to force the Japanese government to surrender.

Not everyone in the U.S. military agreed with this strategy. The Navy believed that its blockade could force Japan to quit the war, while many Army Air Forces' generals thought firebombing could force surrender by itself or in conjunction with the blockade. Both groups pointed to the terrible casualties of the

Okinawa campaign in arguing against an invasion. General Marshall and his staff also feared heavy losses, but they argued that as in the case of Germany, only the occupation of the enemy's territory and capital would bring the war to an end.

"OPERATION DOWNFALL"—THE INVASION PLAN

On June 18, 1945, President Truman gave preliminary approval to the invasion plans presented by General Marshall. "Operation Downfall" would have two parts. On or about November 1, 1945, 767,000 Marines and Army soldiers would begin landing on the beaches of the southern island of Kyushu in "Operation Olympic." The invasion fleet would dwarf that of the landings in Normandy in June 1944. The objective of this operation was to occupy only the southern half of Kyushu and use it as an air base and staging area for a second invasion.

If the Japanese did not then surrender, the target date for "Operation Coronet"—the landings on the main island of Honshu—was March 1, 1946. A huge force of 28 divisions, twice the size of "Olympic," would land on beaches near Tokyo. Military planners assumed that it would take until about the end of 1946 to occupy the capital and enough of Honshu to force a final Japanese surrender.

GEORGE C. MARSHALL (1880–1959)

No American staff officer made a greater contribution to victory in World War II than General Marshall. A Virginian by birth, Marshall became Chief of Staff of the Army on September 1, 1939, the day Germany invaded Poland. He played an absolutely essential role in expanding the small, poorly armed U.S. Army of 1939 into the massive and effective force of 1943–1945. He was also a key strategist in Allied plans on all fronts.

Marshall was an important adviser to Presidents Roosevelt and Truman on the Manhattan Project. In June 1945, Marshall asked Truman whether it would be possible to give the Japanese a warning before dropping the bomb, but did not press his argument. He believed that an invasion of Japan was probably unavoidable in any case. After his retirement from the Army,

President Truman made him Secretary of State in 1947. He won the Nobel Peace Prize in 1953 for the Marshall Plan, which helped to revive the economies of Western Europe.

HALF A MILLION AMERICAN DEAD?

After the war, estimates of the number of casualties to be expected in an invasion of Japan were as high as half a million or more American dead—twice the number of U.S. servicemen killed on all fronts during World War II. In fact, military staff studies in the spring of 1945 estimated thirty to fifty thousand casualties—dead and wounded—in "Olympic," the invasion of Kyushu. Based on the Okinawa campaign, that would have meant perhaps ten thousand American dead. Military planners made no firm estimates for "Coronet," the second invasion, but losses clearly would have been higher.

Early U.S. studies, however, underestimated Japanese defenses. Moreover, the U.S. Navy leadership, who were unenthusiastic about the invasion, was skeptical of the studies. On June 18, 1945, Admiral Leahy pointed out that, if the "Olympic" invasion force took casualties at the same rate as Okinawa, that could mean 268,000 casualties (about 50,000 dead) on Kyushu. It nonetheless appears likely that post-war estimates of a half million American deaths were too high, but many tens of thousands of dead were a real possibility.

Historical Controversies:

Was an Invasion Inevitable If the Atomic Bomb Had Not Been Dropped?

The Japanese and American lives that would have been lost in an invasion have often been used to justify the atomic bombing of Japan. Scholars and analysts have questioned, however, whether an invasion was necessary. In 1946, the U.S. Strategic Bombing Survey said: "certainly prior to 31 December 1945, and in all probability prior to 1 November 1945, Japan would have surrendered, even if Russia had not entered the war, and even if no invasion had been planned or contemplated." Others are less

confident that the Japanese rulers would have accepted defeat, especially if the Allies refused to guarantee the Emperor's position.

Some combination of blockade, firebombing, an Emperor guarantee, and a Soviet declaration of war would probably have forced a Japanese surrender, but to President Truman an invasion appeared to be a real possibility. Matters were not as clear in 1945 as they are in hindsight, because Truman and his advisers could not know how the war would actually end.

TRUMAN, STALIN, POTSDAM AND THE BOMB

In mid-July 1945, at a remote desert site in New Mexico, Manhattan Project scientists prepared for the world's first nuclear explosion—a test of the mechanism for the “Fat Man” bomb. Thousands of miles away, outside Berlin, Germany, the leaders of the major Allied powers were assembling for the Potsdam Conference. President Truman had delayed the Conference so that it would take place at the time the bomb was to be tested. Presumably he hoped to have the new weapon in hand at a time when tough negotiations with the Soviets were expected over the post-war settlement in Europe. The President also wanted to issue an ultimatum to Japan to surrender during the Conference. At Potsdam he in fact gave final verbal approval for dropping the atomic bomb on Japanese cities.

“I AM BECOME DEATH, DESTROYER OF WORLDS”

At 5:29:45 AM, July 16, 1945, a blinding flash and unbelievable heat seared the New Mexico desert—the first nuclear explosion in the history of the world. Codenamed “Trinity,” the Manhattan Project's test of the plutonium implosion bomb was a stunning success. The explosion almost equaled that of 20,000 tons of TNT, many times what some had expected. General Groves and his Project leaders were jubilant and relieved. But for some, the spectacle also cast an ominous shadow over the

world. Los Alamos scientific director Dr. Robert Oppenheimer thought of the lines from the Hindu scripture, the *Bhagavad Gita*, “I am become Death, Destroyer of Worlds.”

“I was flabbergasted by the new spectacle. We saw the whole sky flash with unbelievable brightness in spite of the very dark glasses we wore... (F)or a moment I thought the explosion might set fire to the atmosphere and thus finish the earth, even though I knew that this was not possible.”

Dr. Emilio Segré, Manhattan Project physicist and Nobel Prize winner

TRUMAN TELLS STALIN ABOUT THE BOMB

Coded telegrams about the successful atomic test reached Secretary of War Stimson at Potsdam within hours of the explosion. But it was only after General Groves' detailed report about Trinity was seen by President Truman on July 21, that he, Byrnes and Stimson really understood how powerful the new weapon was.

On July 24, Truman approached Soviet leader Stalin and mentioned as casually as possible that the U.S. now had “a new weapon of unusual destructive force.” According to Truman, Stalin did not react, but merely stated that he hoped that the Americans would make “good use of it against the Japanese.” The President and his entourage were not sure that the Soviet dictator had even understood, but Stalin knew that Truman was referring to the atomic bomb because of Soviet spying on the Manhattan Project.

July 25 1945

We met at 11 A.M. today. That is Stalin, Churchill and the U.S. President. But I had a most important session with Lord Mountbatten & General Marshall before that. We have discovered the most terrible bomb in the history of the world. It may be the first destructive weapon in the Egyptian Valley Era, after Noah and his fabulous Ark.

Anyone who thinks we have found the way to cause a direct destruction of the atom. An experiment in the Manhattan district was startlingly to put it mildly. The ten pounds of the explosion caused the complete destruction of a steel tower 60 feet high, created a crater 6 feet deep and 120 feet in diameter, launched over a steel tower 100 feet away and knocked men down 10,000 yards away. The explosion was visible for more than 100 miles and audible for 40 miles and more.

The weapon is to be used against Japan between now and August 15th. I have told the Sec. of War, the Secretary to use it so that military objectives and soldiers and sailors are the target and not women and children. Even if the Japs are set upon, ruthless, merciless and fanatic, we would like to have the bomb for the common people's use. It is the most terrible bomb in the old world or the new.

We are in accord. The target will be a purely military one and we will issue a warning. It is most asking the Japs to surrender and save lives. I am sure they will not do that but we will have given them the chance. It is certainly a good thing for the world that Hitler's crowd or Stalin's did not discover this atomic bomb. It seems to be the most terrible thing ever discovered, but it can be made the most useful.

HARRY S. TRUMAN LIBRARY
Papers of Harry S. Truman
President's Secretary's Files

President Truman's Potsdam diary for July 25, 1945, alludes to General Groves' report on the Trinity atomic bomb test and to Groves' continuing attempts to designate Kyoto ("the old capitol") as a target. Lent by the Harry S. Truman Library.

"FINI JAPS WHEN THAT COMES ABOUT"

During the Potsdam Conference, the American and Soviet leaders discussed the entry of the USSR into the war against Japan. After Stalin promised entry by August 15, Truman wrote in his diary on July 17, "Fini Japs when that comes about." But a day later he wrote, "Believe Japs will fold up before Russia comes in. I am sure they will when Manhattan appears over their homeland." Many of his advisers were now telling him that Soviet military intervention in the Far East was no longer desirable.

Stalin and Truman also discussed new diplomatic initiatives from Tokyo to Moscow in July. These messages more clearly expressed Emperor Hirohito's desire for a peace settlement. Since Stalin wished to enter the Pacific war, it was not in his interest to play up the new messages. President Truman and Secretary of State Byrnes, who knew about the messages from American intelligence reports, dismissed the Japanese diplomatic effort as nothing new.

AN ULTIMATUM TO JAPAN

On July 26, 1945, the three largest Allied powers already at war in the Pacific, the United States, Britain and China, issued the Potsdam Proclamation. This Proclamation was an ultimatum to the Japanese Empire to surrender immediately or face "prompt and utter destruction." Because of political opposition in America to concessions or modifications of "unconditional surrender," Secretary of State Byrnes eliminated any reference to the retention of Emperor Hirohito on the throne. Also eliminated were any direct references to the atomic bomb or Soviet entry into the war.

As a result of these changes, the Proclamation was not effective in changing the position of the Japanese government. The reaction of the military was especially hostile. On July 28, Prime Minister Suzuki announced that his government would ignore ("mokusatsu") the Proclamation. This word was translated in the West as "treat with silent contempt," making the Japanese

look even more arrogant. Nothing further stood in the way of using the atomic bomb on Japan.

THE OFFICIAL ORDER TO DROP THE BOMB

No written order from President Truman to drop the bomb on Japan exists. Throughout the spring and summer, the President had verbally confirmed proposals presented to him by Marshall, Stimson, Byrnes and Groves. "As far as I was concerned," said General Groves in his memoirs, "his [Truman's] decision was one of noninterference—basically a decision not to upset existing plans."

The actual order to drop resulted from a request of General Carl Spaatz, the commander of the newly created U.S. Army Strategic Air Forces. He reportedly said to General Thomas Handy, the Acting Army Chief of Staff in Washington, "Listen, Tom, if I'm going to kill 100,000 people, I'm not going to do it on verbal orders. I want a piece of paper." After long-distance communications with General Marshall in Potsdam, Handy issued the order to Spaatz on July 25—before the Potsdam Proclamation was issued.

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SAVE

25 July 1945

RECEIVED
OFFICE OF THE CHIEF OF STAFF
1 DECEMBER 1945

TO: General Carl Spaatz
Commanding General
United States Army Strategic Air Forces

1. The 509 Composite Group, 20th Air Force will deliver its first special bomb as soon as weather will permit visual bombing after about 3 August 1945 on one of the targets: Hiroshima, Kokura, Niigata and Nagasaki. To carry military and civilian scientific personnel from the War Department to observe and record the effects of the explosion of the bomb, additional aircraft will accompany the airplane carrying the bomb. The observing planes will stay several miles distant from the point of impact of the bomb.

2. Additional bombs will be delivered on the above targets as soon as made ready by the project staff. Further instructions will be issued concerning targets other than those listed above.

3. Dissemination of any and all information concerning the use of the weapon against Japan is reserved to the Secretary of War and the President of the United States. No communique on the subject or releases of information will be issued by commanders in the field without specific prior authority. Any news stories will be sent to the War Department for special clearance.

4. The foregoing directive is issued to you by direction and with the approval of the Secretary of War and of the Chief of Staff, USA. It is desired that you personally deliver one copy of this directive to General MacArthur and one copy to Admiral Nimitz for their information.

Thomas Handy
THOS. I. HANDY
General, G.S.C.
Acting Chief of Staff

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1922

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DECLASSIFICATION
11/10/00
8 F 324
COMBENTRIP
70226-AS

15 June 1945
No objection to
declassification
by AFSUP
AFS.C.C.

SEC 10
CLASSIFIED
EXEMPT FROM AUTOMATIC
DOWNGRADING AND
DECLASSIFICATION
11/10/00
8 F 324
COMBENTRIP
70226-AS

This is an original copy of the official order to drop the bomb.
Lent by the National Archives and Records Administration.

Historical Controversies:

Was the Decision to Drop the Bomb Justified?

After fifty years, the controversy over this question remains heated. Many analysts continue to argue that the bomb ended the war quickly and saved lives—even if the American deaths in an invasion of Japan would have been significantly lower than the post-war estimates. On the other hand, other scholars have argued that the atomic bombings were unnecessary; a number of options were available to President Truman, but he decided to go ahead anyway because he wished to intimidate the Soviets.

The current consensus of most scholars is that the Soviets did play a role in the thinking of Truman and his advisers, but saving American lives and shortening the war were more important. Most historians also agree that there was scarcely any “decision to drop the bomb.” Truman merely approved the preparations already underway; the Manhattan Project had a great deal of momentum and the strategic bombing of German and Japanese cities made atomic bombing easier to accept.

It is also clear that there were alternatives to both an invasion and dropping atomic bombs without warning—for example, guaranteeing the Emperor’s position, staging a demonstration of the bomb’s power, or waiting for blockade, firebombing and a Soviet declaration of war to take their toll on Japan. Since these alternatives are clearer in hindsight and it is speculative whether they would have induced the Japanese government to surrender quickly, the debate over “the decision to drop the bomb” will remain forever controversial.

UNIT 3: DELIVERING THE BOMB

August 6, 1945, 2:00 a.m., Tinian Island, the Central Pacific. Bathed in floodlights, the B-29 “Enola Gay” awaits take-off on an historic mission: dropping the first atomic bomb on Japan. The head of the Manhattan Project, Gen. Leslie Groves, had warned the “Enola Gay’s” commander, Col. Paul Tibbets, to expect “a little publicity,” but Tibbets and his crew are stunned by the scene on the tarmac. Movie cameramen, photographers and reporters surround the crew. Groves is determined that this is one moment in history that was not going to go unrecorded. Soon thereafter, at 2:45 a.m., the aircraft took off.

The beginning of the “Enola Gay’s” mission was the culmination of over a year’s work. The U.S. Army Air Forces had modified its most advanced bomber, the B-29, and had created a new, special military unit for delivering atomic bombs. This unit’s mission was so secret that, with few exceptions, the nature of its weapons was concealed even from its members.

The B-29: A Three-Billion Dollar Gamble

Although ultimately chosen to deliver the first atomic bombs, the Boeing B-29 Superfortress was conceived, designed, and rushed into production as a very long-range conventional bomber. Of the total wartime production of over 2,000 aircraft, only 15 were sent to the Pacific as potential atomic bomb carriers before the war’s end. Most of the rest formed the backbone of what was, by the spring of 1945, the most powerful and destructive bomber force of World War II.

The B-29 was the most technologically complex mass-production aircraft of World War II. The program to build it also represented the largest commitment of resources to a single military aircraft up to that time. Initiated in response to German victories in Europe during 1939 and 1940, the B-29 program eventually cost over 3 billion dollars—1 billion more than the Manhattan Project.