



**A G.I. surveys what is left of Hiroshima after U.S troops entered the devastated city.**

## ***Terrible toll of the explosion***

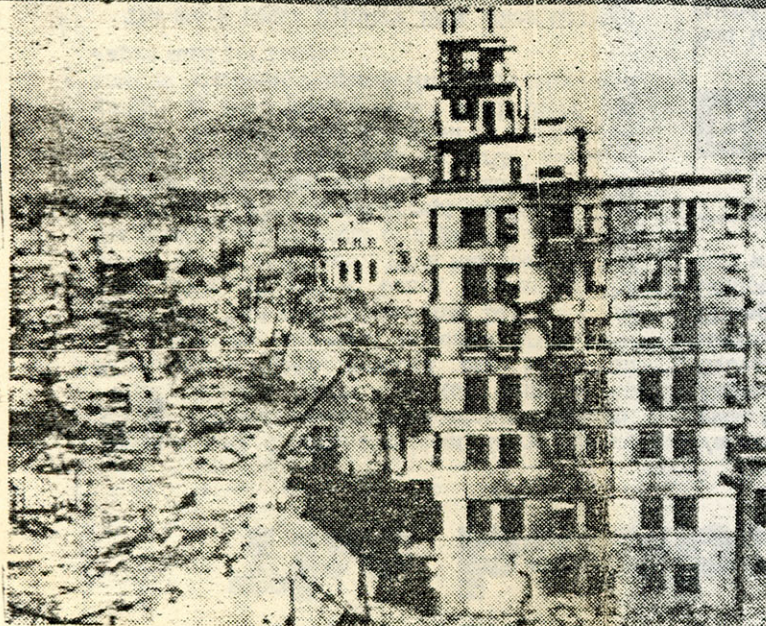
- Some 130,000 people died when the nuclear bomb fell on Hiroshima or within three months of the blast.
- The fission bomb detonated 1900 feet in the air, directly over the center of the city
- Those anywhere near "ground zero" — the bomb's epicenter where the temperature was 4000 degrees centigrade — were zapped into nothingness, literally vaporized.
- Windows 17 miles away were shattered and 68 per

cent of the city's buildings were razed.

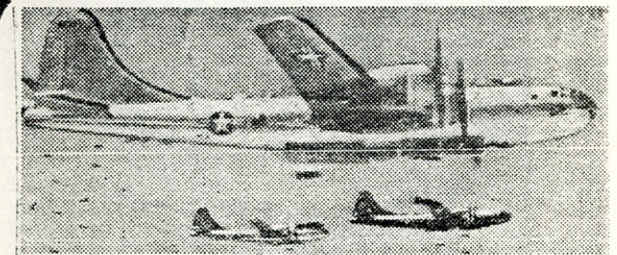
- Many of the victims met agonizingly slow ends from thirst, lack of shelter and radiation sickness.

- The nightmare was repeated with similar results three days later over Nagasaki when 70,000 more died.

— PHILIP MESSING



**The once-flourishing city of Hiroshima laid waste by the atomic bomb explosion in 1945.**



# The bomb: A chain of events

**ON Aug. 7, 1945**, President Harry Truman went on radio to tell an astonished nation: "Sixteen hours ago (on Aug. 6) an American airplane dropped one bomb on Hiroshima, an important Japanese Army base. That bomb had more power than 20,000 tons of TNT... It's an atomic bomb, harnessing the power of the universe... What has been done is the greatest achievement of organized science in history... If they do not accept our terms, they can expect a rain of ruin from the air, the like of which has never been seen on earth." He later added, "We have spent \$2 billion on the greatest gamble in history—and won." Well, there was another bomb—on Nagasaki three days later—and Japan sued for peace.

The story began January 1939, when German physicist Otto Hahn and his group achieved a first stage of nuclear fission. As war clouds gathered over Europe, Allied scientists were trying the same experiment.

Albert Einstein, in a letter to President Franklin Roosevelt, warned: "A single bomb of this type, carried by a boat and exploded in a port, might very well destroy the whole port, together with some of the surrounding country."

**THE NAZI VICTORIES** disrupted experiments of Allied physicists. France's Frederic Joliot-Curie, who had been experimenting in heavy water (water with reinforced hydrogen—deuterium—used in atomic bomb research) from Rjukan, Norway, sent his assistant Hans von Halban—with the French stock of heavy water—to England at the height of the Battle for France. There, Anglo-French scientists at Cambridge achieved a chain reaction and reported it to the American scientific community.

In May, 1941, Roosevelt had created the Office of Scientific Research and Development under Dr.

Vannevar Bush and in June '42, gave the okay to make the bomb. Two months later, the Manhattan Engineer District was formed by Gen. Leslie R. Groves. On Dec. 2, 1942, Enrico Fermi achieved a controlled chain reaction in an atomic pile at Chicago University. Nobel physicist Arthur Compton wired Harvard prexy James B. Conant, also with the project: "The Italian navigator has

TOM McGOVERN

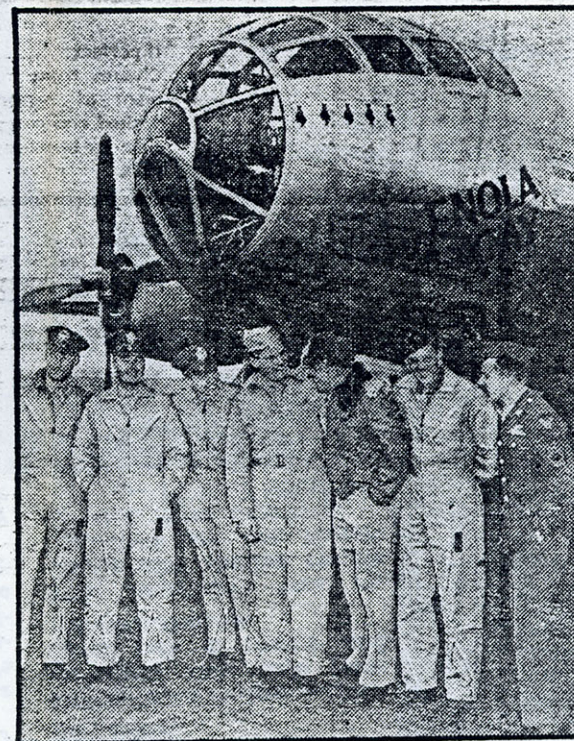
## REMEMBER WHEN?

just landed in the New World. The natives are friendly."

Meanwhile, the Nazis, who had overrun Norway in 1940, ordered the heavy water plant to produce 3,000 pounds of heavy water a year. By 1942 the quota was 10,000 pounds. The Ling (the Norwegian underground), British commandos and the Royal Air Force combined to eventually halt production at the plant. When the Nazis sought to move the last supplies of heavy water, the transport sank, victim of a saboteur's bomb. At that it was a near thing, Werner Heisenberg and a group of physicists almost succeeded in making a bomb. Luckily, Hitler opted for rocket weapons, V-1 and V-2, and jet aircraft.

**IN THE U.S.**, PLANTS were established at Oak Ridge, Tenn., and Hanford, Wash., to build the bomb. At Los Alamos, N.M., Dr. Robert J. Oppenheimer worked on a warhead.

Then at 5:30 a.m., July 16, 1945, the first atomic bomb was successfully detonated—from a steel tower—in a remote desert area near Alamogordo Air Force Base.



Col. Paul Tibbets and crew in front of the Enola Gay at LaGuardia Airport after they returned from Tinian and the Japanese had surrendered.

The go-ahead was given and Col. Paul Tibbets and his specially trained group flew to Tinian. There the heavy cruiser Indianapolis delivered important segments of the bomb and steamed into oblivion. Tibbets and his crew, aboard the B-29 "Enola Gay" flew to Hiroshima on Aug. 6 and, at 8:15 a.m., obliterated a city.

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