



0. THE BOMB - Story Preface

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The Soviet Union successfully tested a nuclear bomb at Semipalatinsk (in Kazakhstan) on the 29th of August, 1949. Dubbed "First Lightning," the bomb which shocked members of the United States government (and others around the world) was a 22-kiloton nuclear bomb which exploded at 7 am local time. The image was originally released by TASS (Russia's News Agency); image [online via Radio Free Europe Radio Liberty](#).

In August of 1949, the Soviet Union successfully tested its first weapon of mass destruction. Dubbed "Joe-1" (after Joseph Stalin), the Russians' hydrogen bomb took the U.S. government by surprise.

Only four years previously—on the 16th of July, 1945—the United States had tested the world's first atomic bomb. Its power shocked even the men who designed it, and Americans were worried that the USSR would develop a bomb of its own. It didn't take long for their worst fears to be realized.

What happened during that very first test? A plutonium bomb (which scientists nicknamed "the gadget") was assembled and readied for testing. The detonation site was located 210 miles south of Los Alamos (New Mexico) in an area called *Jornada del Muerto* ("Journey of Death").

At first scientists witnessed (this is a BBC video recreation) a fireball. Sixteen milliseconds later the fireball grew into a full-blown "mushroom" cloud. Luis W. Alvarez, a scientist who witnessed the blast, drew a picture of the first "mushroom cloud" ever seen.

Twenty-four hours later, scientists and Major General Leslie Groves inspected "Trinity Crater," the spot where the bomb went off (otherwise known as "ground zero"). Temperatures at the test tower had been so high that Robert Oppenheimer (the project's scientific director) and General Groves (its military leader) saw that the soil now had a kind of glassy crust (called "trinitite").

The next month atomic bombs were dropped on two Japanese cities, and the world learned what happens when people are near an exploding nuclear weapon. If they aren't maimed, disfigured or vaporized, they might later die of radiation sickness.

See Alignments to State and Common Core standards for this story online at:

<http://www.awesomestories.com/asset/AcademicAlignment/THE-BOMB-Indiana-Jones-4-Crystal-Skull>

See Learning Tasks for this story online at:

<http://www.awesomestories.com/asset/AcademicActivities/THE-BOMB-Indiana-Jones-4-Crystal-Skull>

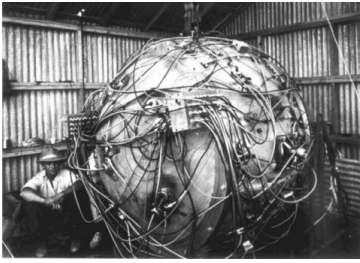
Media Stream



Plutonium Test Bomb

"The Gadget," at its test tower - image online, courtesy the Truman Library.

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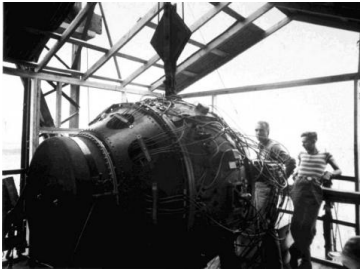


Assembling the Plutonium Test Bomb

Trinity-test plutonium bomb, image online courtesy Truman Library.

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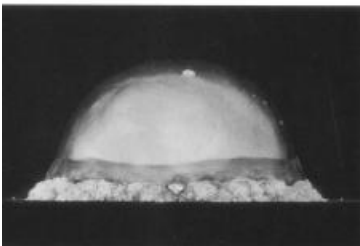
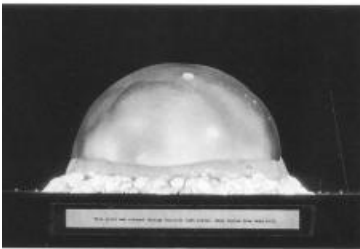
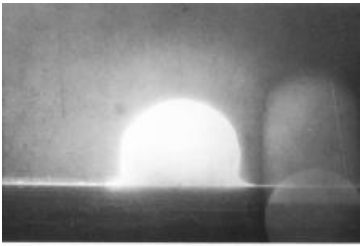


Preparing to Detonate the Plutonium Test Bomb

Photograph online, courtesy U.S. Department of Energy.

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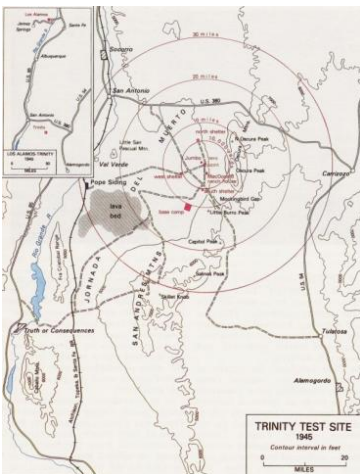


Time Lapse Photos of the Explosion

Photo, courtesy U.S. Department of Energy and the Los Alamos National Laboratories.

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Trinity Test Site

Map, courtesy of The U.S. Department of Energy.

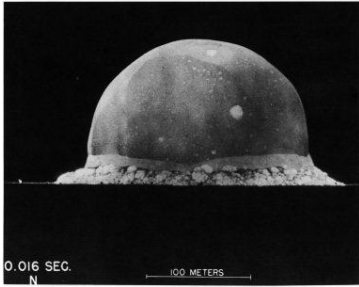
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Location of Los Alamos

Map, online courtesy Epodunk.com.

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16 Milliseconds After Test-Bomb Explosion

Trinity Test image, online courtesy U.S. Department of Energy and the Los Alamos National Laboratories.

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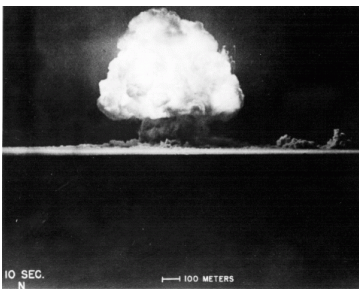


150 Milliseconds After Test-Bomb Explosion

Photo, courtesy U.S. Department of Energy and the Los Alamos National Laboratories.

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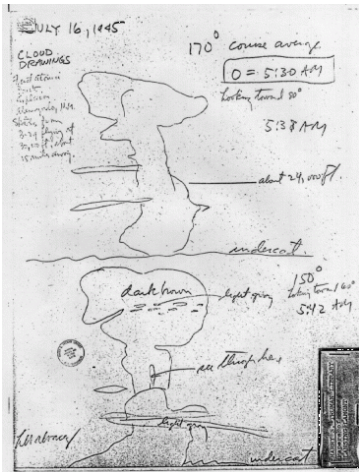


Trinity Detonation - Mushroom Cloud

Photo, courtesy U.S. Department of Energy and the Los Alamos National Laboratories.

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Trinity Detonation - Eyewitness Notes

Drawing online, courtesy Harry S. Truman Library and Museum.

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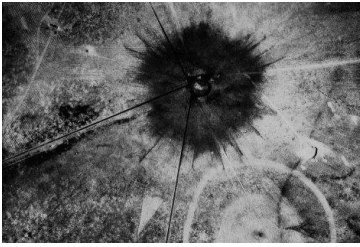


Trinity Crater - Inspection Photo

Photo online, courtesy U.S. Department of Energy.

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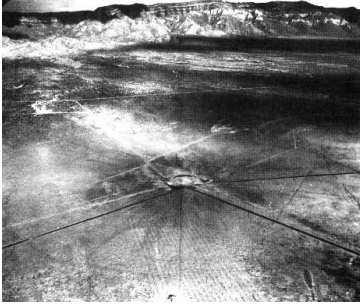


Trinity Detonation Site - Ground Zero Overhead

Photo online, courtesy U.S. Department of Energy.

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Trinity Site - General Area, Ground Zero

Photo online, courtesy U.S. Department of Energy.

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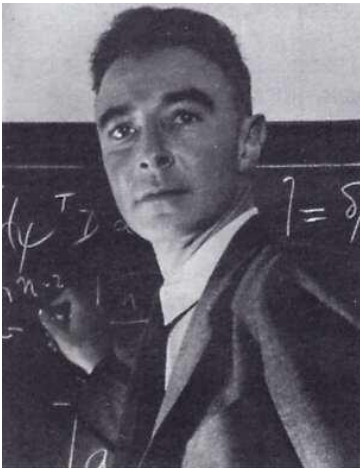


Trinity Detonation - Test Tower Remains

Photo online, courtesy U.S. Department of Energy.

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Dr. Robert Oppenheimer

Photo online, courtesy U.S. Department of Energy.

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Groves and Oppenheimer

Photo online, courtesy U.S. Department of Energy.

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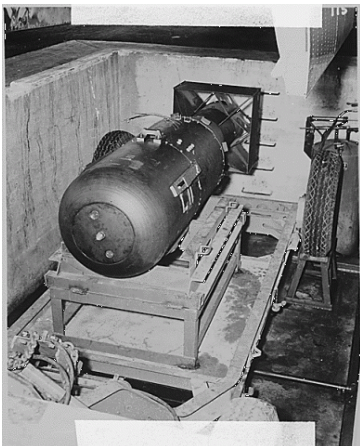


Trinitite - Found at Ground Zero After Detonation

Photo online, courtesy U.S. Department of Energy.

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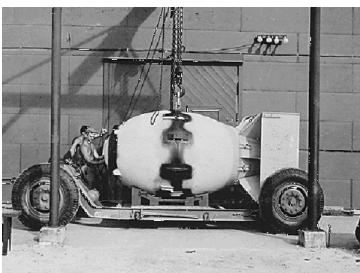
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Little Boy - Atomic Bomb

Photo online, U.S. Department of Energy.

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Fat Man - Atomic Bomb

Photo online, courtesy U.S. Department of Energy.

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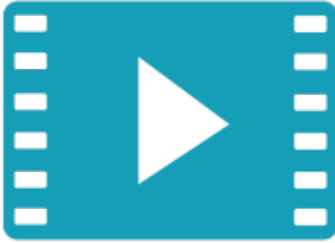


Nuclear Weapons - Their Power

U.S. Civil Defense film.

View this asset at:

<http://www.awesomestories.com/asset/view/Nuclear-Weapons-Their-Power>



Trinity Test - Ground Zero

Clip, from a BBC documentary recreating the Trinity Test, online via BBC's Worldwide Channel at YouTube. Copyright, BBC, all rights reserved. Clip provided here as fair use for educational purposes.

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