

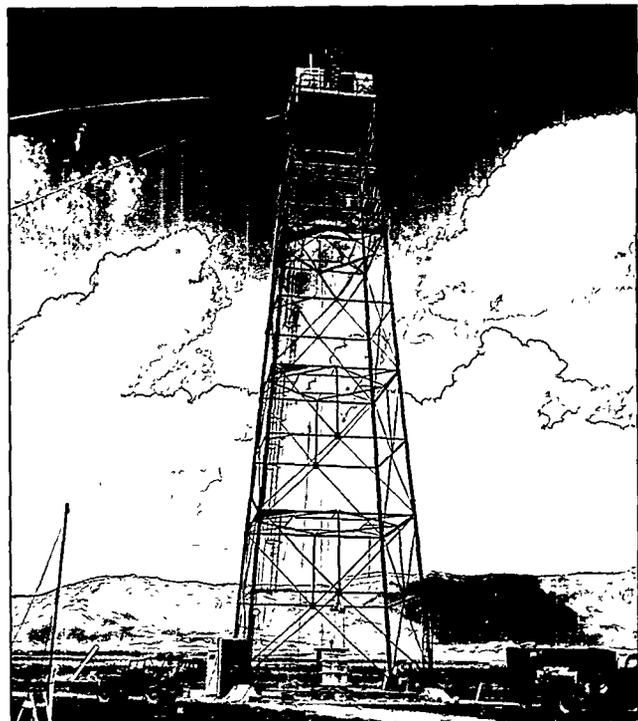
The Trinity Test

Meanwhile, the test of the plutonium weapon, named Trinity by Oppenheimer (a name inspired by the poems of John Donne), was rescheduled for July 16 at a barren site on the Alamogordo Bombing Range known as the Jornada del Muerto, or Journey of Death, 210 miles south of Los Alamos. A test explosion had been conducted on May 7 with a small amount of fissionable material to check procedures and fine-tune equipment. Preparations continued through May and June and were complete by the beginning of July. Three observation bunkers located 10,000 yards north, west, and south of the firing tower at ground zero would attempt to measure critical aspects of the reaction. Specifically, scientists would try to determine the symmetry of the implosion and the amount of energy released. Additional measurements would be taken to determine damage estimates, and equipment would record the behavior of the fireball. The biggest concern was control of the radioactivity the test device would release. Not entirely content to trust favorable meteorological conditions to carry the radioactivity into the upper atmosphere, the Army stood ready to evacuate the people in surrounding areas.

On July 12 the plutonium core was taken to the test area in an army sedan. The non-nuclear components left for the test site at 12:01 a.m., Friday the 13th. During the day on the 13th, final assembly of the gadget took place in the McDonald ranch house. By 5:00 p.m. on the 15th, the device had been assembled and hoisted atop the one-hundred-foot firing tower. Groves, Bush, Conant, Lawrence, Farrell, Chadwick (head of the British contingent at Los Alamos and discoverer of the neutron), and others arrived in the test area, where it was pouring rain. Groves and Oppenheimer, standing at the S-10,000 control bunker, discussed what to do if the weather did not break in time for the scheduled 4:00 a.m. test. At 3:30 they pushed the time back to 5:30; at 4:00 the rain stopped. Kistiakowsky and his team armed the device shortly after 5:00 a.m. and retreated to S-10,000. In accordance with his policy that each observe from different locations in case of an accident, Groves left Oppenheimer and joined Bush and Conant at base camp. Those in shelters heard the countdown over the public address system, while observers at base camp picked it up on an FM radio signal.⁴⁸

The Dawn of the Atomic Age

At precisely 5:30 a.m. on Monday, July 16, 1945, the atomic age began. While Manhattan staff members watched anxiously, the device exploded over the New Mexico desert, vaporizing the tower and turning asphalt around the base of the tower to green sand. The bomb released approximately 18.6 kilotons of power, and the New Mexico sky was suddenly brighter than many suns. Some observers suffered temporary blindness even though they looked at the brilliant light through smoked glass. Seconds after the explosion came a huge blast, sending searing heat across the desert and knocking some observers to the ground. A steel container weighing over 200 tons, standing a half-mile from ground zero, was knocked ajar. (Nicknamed Jumbo, the huge container had been ordered for the plutonium test and transported to the test site but eliminated during final planning). As the orange and yellow fireball stretched up and spread, a second column, narrower than the first, rose and flattened into a mushroom shape, thus providing the atomic age with a visual image that has become imprinted on the human consciousness as a symbol of power and awesome destruction.⁴⁹



Tower For Trinity Test. *Department of Energy.*