

From: Leslie Groves, Brigadier General  
To: Henry Stimson, Secretary of War  
Date: July 18, 1945  
Washington, 18 July 1945.

Top secret

MEMORANDUM FOR THE SECRETARY OF WAR

SUBJECT: The Test.

At 0530, 16 July 1945, in a remote section of the Alamogordo Air Base, New Mexico, the first full scale test was made of the implosion type atomic fission bomb. For the first time in history there was a nuclear explosion.

And what an explosion!

The bomb was dropped from an airplane but was exploded on a platform on top of a 100-foot high steel tower.

a. Measured from the point on the ground directly below the explosion the blast should be lethal to at least 1000 feet. Between 2500 and 3500 feet, blast effects should be extremely serious to personnel. Heat and flame should be fatal to about 1500 to 2000 feet.

b. At 10 miles for a few thousandths of a second the light will be as bright as a thousand suns; at the end of a second, as bright as one or possibly two suns. The effect on anyone about a half mile away who looks directly at the explosion would probably be permanent sight impairment; at one mile, temporary blindness; and up to and even beyond ten miles, temporary sight impairment. To persons who are completely unshielded, gamma rays may be lethal to 3500 feet and neutrons to about 2000 feet.

c. No damaging effects are anticipated on the ground from radioactive materials. These effects at New Mexico resulted from the low altitude from which the bomb was set off.

d. Practically all structures in an area of one or two square miles should be completely demolished and a total area of six to seven square miles should be so devastated that the bulk of the buildings would have to have major repairs to make them habitable.



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