

Nevada Test Site

Sedan

March 2001

Introduction

Sedan Crater was formed on July 6, 1962, when the U.S. Atomic Energy Commission, forerunner of the U.S. Department of Energy, conducted an excavation experiment using a 104-kiloton thermonuclear device.

The test, detonated 635 feet underground, helped develop technology for earth moving projects. The awe-inspiring explosion displaced about 12 million tons of earth, creating a crater 1,280 feet in diameter and 320 feet deep. The force of the detonation released seismic energy equivalent to an earthquake with a magnitude of 4.75 on the Richter Scale.



Sedan Crater, shown shortly after the 1962 detonation.

Plowshare Program

The Atomic Energy Commission established the Plowshare Program as a research and development activity to explore the technical and economic feasibility of using nuclear explosives for industrial applications. The reasoning was that the relatively inexpensive energy available from nuclear explosions could prove useful for a wide variety of peaceful purposes. The Plowshare Program began in 1958 and continued through 1975. Between December 1961 and May 1973, the United States conducted 27 Plowshare nuclear explosive tests comprising 35 individual detonations.

Conceptually, industrial applications resulting from the use of nuclear explosives could be divided into two broad categories: large-scale excavation and quarrying, and underground engineering.

Possible excavation included: canals, harbors, highway and railroad cuts through mountains, open pit mining, construction of dams, and other quarry and construction related projects. Underground nuclear explosion applications included: stimulation of natural gas production, preparation of leachable ore bodies for in situ leaching, creation of underground zones of fractured oil shale for in situ retorting, and formation of underground natural gas and petroleum storage reservoirs.

Name Selection

The Plowshare Program was named for the biblical injunction to ensure peace

by beating swords into plowshares.

“And they shall beat their swords into plowshares, and their spears into pruning hooks; nation shall not lift up sword against nation, neither shall they learn war any more.”

While the technology proved to be highly successful, the process was never used by the United States.

Favorite Visitors Spot

Visitors on escorted tours of the Nevada Test Site come from every region of the United States. A platform on the edge of the crater allows visitors to experience the impact of the crater's size.

The site is visited by more than 10,000 tourists a year. On April 1, 1994, it was entered into the National Register of Historic Places, by the Director of the National Park Service.

h h h h h h h h

For more information, write or call:
U.S..Department of Information
Nevada Operations Office
Office of Public Affairs and Information
P.O. Box 98518
Las Vegas, NV 89193-8518
phone: 702-295-3521
fax: 702-295-0154
email: nevada@nv.doe.gov
<http://www.nv.doe.gov>

DOE/NV--712
MARCH 2001