

# United States Nuclear Tests

## July 1945 through September 1992



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U.S. Department of Energy  
Nevada Operations Office

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*Pictured on the front cover is Sedan Crater. Sedan Crater was formed when a 104 kiloton explosive buried under 635 feet of desert alluvium was fired at the Nevada Test Site on July 6, 1962, displacing 12 million tons of earth. The crater is 320 feet deep and 1,280 feet in diameter.*

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## **July 1945 through September 1992**

Date Published - December 2000

Prepared by the  
United States Department of Energy  
Nevada Operations Office  
Las Vegas, Nevada

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# Introduction

This document lists chronologically and alphabetically by name all nuclear tests and simultaneous detonations conducted by the United States from July 1945 through September 1992.

Two nuclear weapons that the United States exploded over Japan ending World War II are not listed. These detonations were not “tests” in the sense that they were conducted to prove that the weapon would work as designed (as was the first test near Alamogordo, New Mexico on July 16, 1945), or to advance nuclear weapon design, or to determine weapons effects, or to verify weapon safety as were the more than one thousand tests that have taken place since June 30, 1946.

The nuclear weapon (nicknamed “Little Boy”) dropped August 6, 1945 from a United States Army Air Force B-29 bomber (the *Enola Gay*) and detonated over Hiroshima, Japan had an energy yield equivalent to that of 15,000 tons of TNT. The nuclear weapon (virtually identical to “Fat Man”) exploded in a similar fashion August 9, 1945 over Nagasaki, Japan had a yield of 21,000 tons of TNT. Both detonations were intended to end World War II as quickly as possible.

Data on United States tests were obtained from, and verified by, the U.S. Department of Energy's three weapons laboratories -- Los Alamos National Laboratory, Los Alamos, New Mexico; Lawrence Livermore National Laboratory, Livermore, California; and Sandia National Laboratories, Albuquerque, New Mexico; and the Defense Threat Reduction Agency. Additionally, data were obtained from public announcements issued by the U.S. Atomic Energy Commission and its successors, the U.S. Energy Research and Development Administration, and the U.S. Department of Energy, respectively.

## Caveat

The information contained in the document has been gleaned from multiple sources over time. Some of the data has been updated to reflect the most recent analysis conducted by the national weapons laboratories. When discrepancies were encountered, every attempt was made to use the most acceptable or verifiable information. In some instances, multiple spellings of test names were encountered and the most commonly used name is included in this document, i.e., *Johnnie Boy* versus *Johnie Boy*. Once a “test” has been categorized as such, no attempt has been made to change its categorization based on the current definition of a “test” found in the Protocols to the treaties on Limitation of Underground Nuclear Weapons Tests and the Underground Nuclear Explosions for Peaceful Purposes (1990). For example,

*Huron Landing* and *Diamond Ace* were conducted simultaneously on September 23, 1982 and announced as individual tests. Based on the current definition of a “test,” they would be considered as “one test with two simultaneous detonations.”

## Detonation Times and Dates

Detonation time and date for all detonations listed in this document were converted from local time to Greenwich Mean Time (GMT). The date listed is the GMT date for the detonation. Times are given in the hundredth of a second where available, otherwise a default value of 0.00 seconds is used.

## Locations

The first test of a nuclear weapon was in the atmosphere on July 16, 1945, in a remote part of New Mexico on what was then the Alamogordo Bombing Range, and is now the White Sands Missile Range. The site is 55 miles northwest of Alamogordo, New Mexico.

At various times between June 1946 and November 1962, atmospheric and underground tests were conducted by the United States in the Marshall Islands, Christmas Island, Johnston Atoll in the Pacific Ocean, and over the South Atlantic Ocean.

Between January 1951 and July 1962, atmospheric and underground nuclear tests were conducted at the Nevada Test Site.

Since July 1962, all nuclear tests conducted in the United States have been underground, and most of them have been at the Nevada Test Site. Some tests were conducted on the Nellis Air Force Range (NAFR); in central and northwestern Nevada; in Colorado, New Mexico, and Mississippi; and on Amchitka, one of the Aleutian Islands off the coast of Alaska.

## Moratorium

On October 31, 1958, the United States entered into a unilateral testing moratorium announced by President Eisenhower with the understanding that the former Soviet Union also would refrain from conducting tests. The Soviet Union resumed testing in September 1961 with a series of the largest number of tests ever conducted.

On September 15, 1961, the United States resumed testing at the Nevada Test Site on a year-round basis.

On October 2, 1992, the United States entered into another unilateral moratorium on nuclear weapons testing announced by President Bush. President Clinton extended this moratorium in July 1993, and again in March 1994 until September 1995.

On August 11, 1995, President Clinton announced the decision to negotiate a comprehensive nuclear test ban treaty while continuing the cessation of nuclear testing by the United States.

On September 24, 1996, President Clinton signed the Comprehensive Nuclear Test Ban Treaty which prohibits "any nuclear weapons test explosion" by any State Party. (See *Treaties*.)

### Purposes of United States Tests

Past tests have been described as being for one of seven purposes: Joint US-UK, Plowshare, Safety Experiment, Storage-Transportation, Vela Uniform, Weapons Effects, and Weapons Related.

With the declassification of all previous simultaneous detonations, purpose is now attributed to each detonation. Weapons related tests were conducted to gather data on nuclear devices; weapons effects tests were conducted, usually by the U.S. Department of Defense (DoD), to determine the effects of nuclear detonations on military offensive and defensive systems; and tests conducted for the United Kingdom (UK) are shown as "Joint US-UK."

### Radiological Effluents Released from Nuclear Detonations

Unless otherwise noted, all nuclear tests at the Nevada Test Site or the Nellis Air Force Range (NAFR) to September 15, 1961 produced radioactivity detected offsite. (See **Glossary** for definition of offsite.)

Unless otherwise noted, no test at the Nevada Test Site or the NAFR on or after September 15, 1961 had a release of radioactivity that was detected offsite. The release of radioactivity from a test can occur:

- accidentally as a result of a containment failure;
- accidentally or deliberately as a result of post-event operations; or
- deliberately as a result of post-event controlled purging of gases from a tunnel.

All releases resulting from a containment failure, even if not detected offsite, are reported. Radiation releases resulting from tunnel purging or normal operations are not reported in this document unless detected offsite, since they are carefully monitored. These releases are listed in the U.S. Department of Energy, Nevada Operations Office publication titled, *Radiological Effluents Released from U.S. Continental Tests*, DOE/NV-317.

### Seismic Source Data

Detonation times and locations (latitude, longitude, and surface elevation) are included and are intended for use in the calibration of seismic stations that are part of the International Monitoring System called for in the Comprehensive Nuclear Test Ban Treaty.

Detonation time and location of past underground nuclear detonations are ideal quantities for calibrating a seismic network for accurate location of a new source. This ground truth information can be used, for example, to refine seismic velocity models and to determine station corrections for parts of North America.

For completeness, even underground nuclear detonations with little or no nuclear yield have been included. Those detonations that could be especially valuable for International Monitoring System calibration are identified with **boldface** type. Included in this subgroup are 8 detonations that took place somewhere other than the Nevada Test Site and 14 that occurred at the Nevada Test Site. These 14 were selected because they:

- occurred within the last five years of testing, therefore increasing the chance that the detonations were recorded on modern seismograph systems;
- are well distributed about the Nevada Test Site to include at least two from each of the major test regions (i.e., Pahute Mesa, Rainier Mesa, and Yucca Flat);
- are relatively large allowing recording on multiple instruments; or
- were the subject of special study.

The seismic source data for underground nuclear detonations was gathered from all available official sources, including reports by the U.S. Department of Energy, its predecessors and contractors, and the former U.S. Defense Nuclear Agency. All reasonable effort has been expended to ensure the greatest possible accuracy of this seismic data. A blank entry means that the data was either not available or substantial conflicts between different sources could not be resolved.

Time calibrations are obtained from the National Institute of Standards and Technology WWV radio stations. Tests were typically planned to be detonated on the exact hour, minute, or second. However, the firing systems always introduce some delay so that the actual detonation time could be as much as 150 milliseconds later than intended. When this delay is available, detonation times are given to the nearest 0.01 second, uncorrected for WWV propagation, otherwise a default value of 0.00 is given.

Latitude and longitude locations are the surface-ground-zero location of the drill hole or other emplacement location. Locations and surface elevations were originally surveyed in the respective State Plane Coordinates, North American Datum of 1927. These were then converted to latitude and longitude using the 1984 reference spheroid (DoD, 1987a) and surface elevation corrections. (These corrections apply to all U.S. tests except for those in Alaska (DoD, 1987b).) These coordinates are presented to an accuracy of 0.001 degree or approximately 100 meters.

## Series

Each series of tests is given a name such as *Operation Crossroads*. United States nuclear tests were conducted on an intermittent basis from June 1946 to October 1958.

On September 15, 1961, when the United States resumed testing at the Nevada Test Site on a year-round basis with Operation Nougat, tests were grouped for fiscal and reporting purposes according to the fiscal year in which they took place. For example, fiscal year 1963 tests -- which began July 1, 1962 and extended through June 30, 1963 -- were in the Operation Storax series.

Between April and November of 1962, the United States conducted Operation Dominic, which included the DoD Operation Fishbowl high-altitude tests in the Pacific. The DoD also conducted four weapons effects tests at the Nevada Test Site in July 1962 as Operation Sunbeam.

In 1976, the federal government changed the fiscal year to begin on October 1 and end on September 30. Accordingly, the fiscal year 1976 series, *Operation Anvil*, did not end on June 30, but was extended through September 30, 1976 -- a period of 15 months.

## Treaties

On August 5, 1963, the United States and the former Soviet Union signed the Limited Test Ban Treaty which effectively banned testing of nuclear weapons in the atmosphere, the oceans, and space.

In 1974 and 1976, the United States and former Soviet Union also signed the Threshold Test Ban Treaty and the Peaceful Nuclear Explosions Treaty, respectively, restricting all nuclear test explosions to yields no greater than 150 kilotons.

The Joint Verification Experiment was conducted in 1988 by the United States and the former Soviet Union as a prelude to the signing of the Protocols to the treaties on Limitation of Underground Nuclear Weapon Tests and the Underground Nuclear Explosions for Peaceful Purposes.

Proposed treaty verification techniques and measurements were employed on the United States test, *Kearsage* conducted on August 17, 1988 at the Nevada Test Site and on *Shagan*, the test by the former Soviet Union, conducted on September 14, 1988 at the Semipalatinsk Test Site.

In May 1995, the United Nations reached consensus and indefinitely extended the Nuclear Nonproliferation Treaty. This action was a priority for the United States arms control agenda and critical to proceeding with a test ban treaty. Later that year on August 11, 1995, President Clinton announced the decision to negotiate a comprehensive nuclear test ban treaty while continuing the cessation of nuclear testing by the United States.

On September 24, 1996, President Clinton signed the Comprehensive Nuclear Test Ban Treaty which prohibits "any nuclear weapons test explosion" by any State Party. In response to the Treaty's prohibition against nuclear weapons testing, however, the U.S. Department of Energy has been directed to maintain an underground test readiness program in case it is in the "supreme national interest" to resume nuclear weapons testing.

## Types and Purposes

The definition of terms used in this document appears in the **Glossary**. **Type** refers to the method of deployment of the nuclear device at time of detonation such as **tower**, **tunnel**, **airdrop**, etc.

**Purpose** indicates whether the test was part of the weapons development program, a DoD effects test, a joint United States-United Kingdom (US-UK) test, or was part of some special program that involved the use of nuclear devices. In the **Summary**, the sum of all tests conducted underground (**tunnel**, **shaft**, and **crater**) appears as **Total Underground**. With the exception of five underwater tests, the remaining tests appear as **Total Atmospheric**.

## Yields

The nomenclature for test yields varied according to information policy governing specific years. In some cases, no yield information has been released; in a few cases, the terms "very slight" and "slight" were used without amplification. Except for tests where specific yields or relative specific yields such as "about 2 kt," "several Mt," "less than 0.1 kt," etc., were announced, test yields are given in these terms:

### 1945 through 1963

- Low (less than 20 kt)
- Intermediate (20 to 200 kt)
- Submegaton (less than 1 Mt, but more than 200 kt)
- Low Megaton (from 1 to several Mt)
- Megaton Range

### 1964 through February 1976

- Less than 20 kt
- 20 to 200 kt
- 200 to 1000 kt

## March 1976

*During a series of high-yield test conducted during this month, two ranges were added, and the 200 to 1000 kt range was dropped.*

- 200 to 500 kt
- 500 to 1000 kt

## Since March 1976

*On March 31, 1976, the former Soviet Union and the United States agreed to limit the maximum yield of underground tests to 150 kt.*

- Less than 20 kt
- Less than 150 kt
- 20 to 150 kt

## Joint Verification Experiment

*Data exchanges provided for in the Protocol to the 1974 Treaty on the Limitation of Underground Nuclear Weapons Tests required the exchange of historic explosion data on five detonations with yields within the 100 - 150 kt range. Thus, this yield range was added.*

- 100 to 150 kt



## United States Nuclear Tests – Total – By Calendar Year

Calendar Year	US	US-UK
CY 1945	1	0
CY 1946	2	0
CY 1947	0	0
CY 1948	3	0
CY 1949	0	0
CY 1950	0	0
CY 1951	16	0
CY 1952	10	0
CY 1953	11	0
CY 1954	6	0
CY 1955	18	0
CY 1956	18	0
CY 1957	32	0
CY 1958	77	0
CY 1959	0	0
CY 1960	0	0
CY 1961	10	0
CY 1962	96	2
CY 1963	47	0
CY 1964	45	2
CY 1965	38	1
CY 1966	48	0
CY 1967	42	0
CY 1968	56	0

Calendar Year	US	US-UK
CY 1969	46	0
CY 1970	39	0
CY 1971	24	0
CY 1972	27	0
CY 1973	24	0
CY 1974	22	1
CY 1975	22	0
CY 1976	20	1
CY 1977	20	0
CY 1978	19	2
CY 1979	15	1
CY 1980	14	3
CY 1981	16	1
CY 1982	18	1
CY 1983	18	1
CY 1984	18	2
CY 1985	17	1
CY 1986	14	1
CY 1987	14	1
CY 1988	15	0
CY 1989	11	1
CY 1990	8	1
CY 1991	7	1
CY 1992	6	0

<b>Total US Tests</b>	<b>1,030</b>
<b>Total US-UK Tests</b>	<b><u>24</u></b>
<b>TOTAL TESTS</b>	<b>1,054</b>

*NOTE: Totals **do not** include two combat uses of nuclear weapons, which are not considered "tests."  
 The first combat detonation was a 15 kt weapon airdropped August 6, 1945 at Hiroshima, Japan.  
 The second was a 21 kt weapon airdropped August 9, 1945 at Nagasaki, Japan.*

## United States Nuclear Tests – Total – By Type

Type	US	US-UK
------	----	-------

Airburst	1	0
Airdrop	52	0
Balloon	25	0
Barge	36	0
Rocket	12	0
Surface	28	0
Tower	56	0
<b>Total Atmospheric</b>	<b>210</b>	<b>0</b>

Crater	9	0
Shaft	739	24
Tunnel	67	0
<b>Total Underground</b>	<b>815</b>	<b>24</b>

<b>Total Underwater</b>	<b>5</b>	<b>0</b>
-------------------------	----------	----------

<b>TOTAL TESTS</b>	<b>1,030</b>	<b>24</b>
--------------------	--------------	-----------

## United States Nuclear Tests – Total – By Location

Location	US	US-UK
----------	----	-------

<b>Total South Atlantic</b>	<b>3</b>	<b>0</b>
-----------------------------	----------	----------

Bikini	23	0
Christmas Island	24	0
Enewetak	43	0
Johnston Island	12	0
Pacific	4	0
<b>Total Pacific</b>	<b>106</b>	<b>0</b>

Alamogordo, New Mexico	1	0
Amchitka, Alaska	3	0
Carlsbad, New Mexico	1	0
Central Nevada	1	0
Fallon, Nevada	1	0
Farmington, New Mexico	1	0
Grand Valley, Colorado	1	0
Hattiesburg, Mississippi	2	0
Nellis Air Force Range	5	0
Rifle, Colorado	1	0
<b>Total Other</b>	<b>17</b>	<b>0</b>

Atmospheric	100	0
Underground	804	24
<b>Total NTS</b>	<b>904</b>	<b>24</b>

<b>TOTAL TESTS</b>	<b>1,030</b>	<b>24</b>
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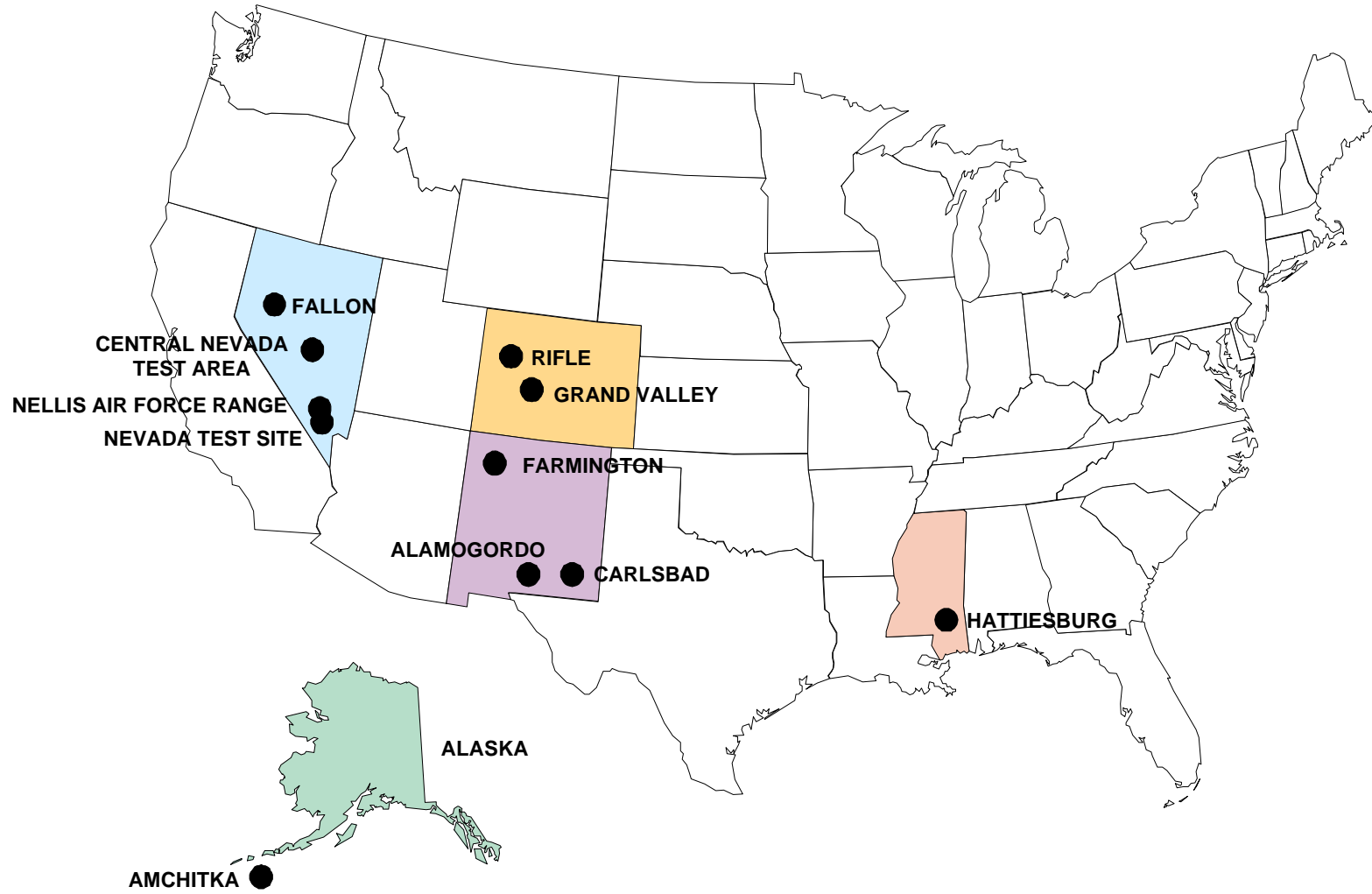


Figure 1. United States Nuclear Test Locations – Nevada Test Site and Other

## United States Nuclear Tests/Detonations – Total – By Location

A **test** is defined in the Threshold Test Ban Treaty as either a *single underground nuclear explosion* (detonation) conducted at a test site, or *two or more underground nuclear explosions* (detonations) conducted within an area delineated by a circle having a diameter of two kilometers and conducted within a total period of time not to exceed 0.1 second. Sixty-three of the 1,054 nuclear tests conducted by the United States consisted of more than one underground nuclear explosion (detonation).

Nevada Test Site - 62 tests had simultaneous detonations  
Rifle, Colorado - 1 test had a simultaneous detonation

Location	Number of Tests	Number of Detonations
----------	-----------------	-----------------------

<b>Total South Atlantic</b>	<b>3</b>	<b>3</b>
-----------------------------	----------	----------

Bikini	23	23
Christmas Island	24	24
Enewetak	43	43
Johnston Island	12	12
Pacific	4	4
<b>Total Pacific</b>	<b>106</b>	<b>106</b>

Alamogordo, New Mexico	1	1
Amchitka, Alaska	3	3
Carlsbad, New Mexico	1	1
Central Nevada	1	1
Fallon, Nevada	1	1
Farmington, New Mexico	1	1
Grand Valley, Colorado	1	1
Hattiesburg, Mississippi	2	2
Nellis Air Force Range	5	5
Rifle, Colorado	1	3
<b>Total Other</b>	<b>17</b>	<b>19</b>

Atmospheric	100	100
Underground	828	921
<b>Total NTS</b>	<b>928</b>	<b>1,021</b>

<b>TOTAL</b>	<b>1,054</b>	<b>1,149</b>
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## United States Nuclear Detonations – Total – By Purpose

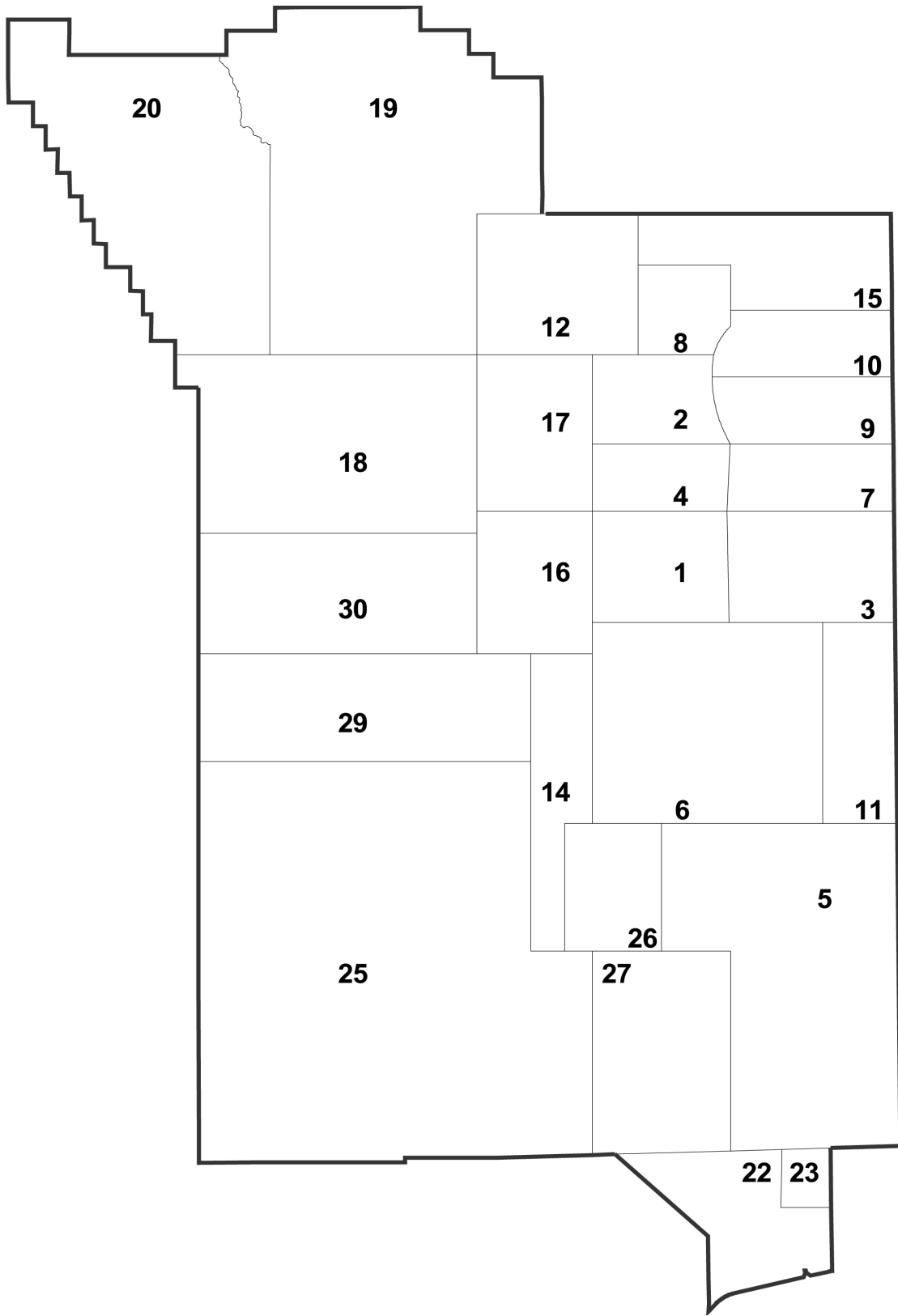
Purpose	Detonations
Joint US-UK	24
Plowshare	35
Safety Experiment	88
Storage-Transportation	4
Vela Uniform	7
Weapons Effects	100
Weapons Related	891
<b>TOTAL DETONATIONS</b>	<b>1,149</b>



*Priscilla* was detonated on June 24, 1957 at the Nevada Test Site. It was a balloon, weapons related test that produced a yield of 37 kilotons.



*Grable* was fired from a 280mm gun on May 25, 1953 at the Nevada Test Site. It was an airburst, weapons related test that produced a yield of 15 kilotons.



**Figure 2. United States Nuclear Test Locations – Areas on the Nevada Test Site**

## United States Nuclear Tests/Detonations Conducted on the Nevada Test Site – By Area

Area on the Nevada Test Site	Number of Tests	Number of Detonations
1	8	9
2	144	169
3	266	288
4	40	44
5	19	19
6	4	6
7	92	92
8	13	15
9	115	133
10	57	71
11	9	9
12	61	62
15	3	3
16	6	6
18	5	5
19	36	36
20	49	49
30	1	5
<b>TOTAL</b>	<b>928</b>	<b>1,021</b>

<b>Major Test Regions on the Nevada Test Site</b>	
Region	Area(s) on the Nevada Test Site
Frenchman Flat	5, 11
Pahute Mesa	19, 20
Rainier Mesa	12
Yucca Flat	1, 2, 3, 4, 6, 7, 8, 9, 10



# **United States Nuclear Tests -- By Date**

# United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	
1	Trinity First test of a nuclear weapon ("Fat Man") Plutonium as sole fissile material	07/16/1945	LANL	Alamogordo, New Mexico	----
<b>Operation Crossroads</b>					
2	Able Plutonium as sole fissile material Mark 3 device identical to "Fat Man"	06/30/1946	LANL/DoD	Bikini Island	----
3	Baker Plutonium as sole fissile material Mark 3 device identical to "Fat Man"	07/24/1946	LANL/DoD	Bikini Island	----
<b>Operation Sandstone</b>					
4	X-Ray	04/14/1948	LANL	Enewetak	----
5	Yoke	04/30/1948	LANL	Enewetak	----
6	Zebra	05/14/1948	LANL	Enewetak	----
<b>Operation Ranger</b>					
7	Able	01/27/1951	LANL	NTS	Area 5
8	Baker	01/28/1951	LANL	NTS	Area 5
9	Easy	02/01/1951	LANL	NTS	Area 5
10	Baker-2	02/02/1951	LANL	NTS	Area 5
11	Fox	02/06/1951	LANL	NTS	Area 5
<b>Operation Greenhouse</b>					
12	Dog	04/07/1951	LANL	Enewetak	----
13	Easy	04/20/1951	LANL	Enewetak	----
14	George First thermonuclear test explosion	05/08/1951	LANL	Enewetak	----
15	Item First test of the boosting principle	05/24/1951	LANL	Enewetak	----
<b>Operation Buster</b>					
16	Able Radioactivity not detected offsite	10/22/1951	LANL	NTS	Area 7
17	Baker	10/28/1951	LANL	NTS	Area 7
18	Charlie	10/30/1951	LANL	NTS	Area 7
19	Dog	11/01/1951	LANL	NTS	Area 7
20	Easy	11/05/1951	LANL	NTS	Area 7
<b>Operation Jangle</b>					
21	Sugar	11/19/1951	LANL/DoD	NTS	Area 9
22	Uncle First underground test at the Nevada Test Site	11/29/1951	LANL/DoD	NTS	Area 10



## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
				Tower	Weapons Related	21 kt	1
<b>Operation Crossroads</b>							
				Airdrop	Weapons Effects	21 kt	2
				Underwater	Weapons Effects	21 kt	3
<b>Operation Sandstone</b>							
				Tower	Weapons Related	37 kt	4
				Tower	Weapons Related	49 kt	5
				Tower	Weapons Related	18 kt	6
<b>Operation Ranger</b>							
				Airdrop	Weapons Related	1 kt	7
				Airdrop	Weapons Related	8 kt	8
				Airdrop	Weapons Related	1 kt	9
				Airdrop	Weapons Related	8 kt	10
				Airdrop	Weapons Related	22 kt	11
<b>Operation Greenhouse</b>							
				Tower	Weapons Related	81 kt	12
				Tower	Weapons Related	47 kt	13
				Tower	Weapons Related	225 kt	14
				Tower	Weapons Related	45.5 kt	15
<b>Operation Buster</b>							
				Tower	Weapons Related	Less than 0.1 kt	16
				Airdrop	Weapons Related	3.5 kt	17
				Airdrop	Weapons Related	14 kt	18
				Airdrop	Weapons Related	21 kt	19
				Airdrop	Weapons Related	31 kt	20
<b>Operation Jangle</b>							
				Surface	Weapons Effects	1.2 kt	21
20:00:00.00	37.168	-116.043	1283	Crater	Weapons Effects	1.2 kt	22

# United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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## Operation Tumbler-Snapper

23	Able	04/01/1952	LANL/DoD	NTS	Area 5
24	Baker	04/15/1952	LANL/DoD	NTS	Area 7
25	Charlie	04/22/1952	LANL/DoD	NTS	Area 7
26	Dog	05/01/1952	LANL	NTS	Area 7
27	Easy	05/07/1952	LANL	NTS	Area 1
28	Fox	05/25/1952	LANL	NTS	Area 4
29	George	06/01/1952	LANL	NTS	Area 3
30	How	06/05/1952	LANL	NTS	Area 2

## Operation Ivy

31	Mike Experimental thermonuclear device	10/31/1952	LANL	Enewetak	----
32	King Largest fission device	11/15/1952	LANL	Enewetak	----

## Operation Upshot-Knothole

33	Annie	03/17/1953	LANL	NTS	Area 3
34	Nancy	03/24/1953	LANL	NTS	Area 4
35	Ruth	03/31/1953	LLNL	NTS	Area 7
36	Dixie	04/06/1953	LANL	NTS	Area 7
37	Ray	04/11/1953	LLNL	NTS	Area 4
38	Badger	04/18/1953	LANL	NTS	Area 2
39	Simon	04/25/1953	LLNL	NTS	Area 1
40	Encore	05/08/1953	LANL/DoD	NTS	Area 5
41	Harry	05/19/1953	LANL	NTS	Area 3
42	Grable Fired from 280mm gun	05/25/1953	LANL	NTS	Area 5
43	Climax	06/04/1953	LANL	NTS	Area 7

## Operation Castle

44	Bravo Experimental thermonuclear device Highest yield nuclear test	02/28/1954	LANL	Bikini Island	----
45	Romeo	03/26/1954	LANL	Bikini Island	----
46	Koon	04/06/1954	LLNL	Bikini Island	----
47	Union	04/25/1954	LANL	Bikini Island	----
48	Yankee	05/04/1954	LANL	Bikini Island	----
49	Nectar	05/13/1954	LANL	Enewetak	----

## Operation Teapot

50	Wasp	02/18/1955	LANL	NTS	Area 7
51	Moth	02/22/1955	LANL	NTS	Area 3
52	Tesla	03/01/1955	LLNL	NTS	Area 9

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range
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### Operation Tumbler-Snapper

				Airdrop	Weapons Effects	1 kt	23
				Airdrop	Weapons Effects	1 kt	24
				Airdrop	Weapons Related	31 kt	25
				Airdrop	Weapons Related	19 kt	26
				Tower	Weapons Related	12 kt	27
				Tower	Weapons Related	11 kt	28
				Tower	Weapons Related	15 kt	29
				Tower	Weapons Related	14 kt	30

### Operation Ivy

				Surface	Weapons Related	10.4 Mt	31
				Airdrop	Weapons Related	500 kt	32

### Operation Upshot-Knothole

				Tower	Weapons Related	16 kt	33
				Tower	Weapons Related	24 kt	34
				Tower	Weapons Related	200 tons	35
				Airdrop	Weapons Related	11 kt	36
				Tower	Weapons Related	200 tons	37
				Tower	Weapons Related	23 kt	38
				Tower	Weapons Related	43 kt	39
				Airdrop	Weapons Effects	27 kt	40
				Tower	Weapons Related	32 kt	41
				Airburst	Weapons Related	15 kt	42
				Airdrop	Weapons Related	61 kt	43

### Operation Castle

				Surface	Weapons Related	15 Mt	44
				Barge	Weapons Related	11 Mt	45
				Surface	Weapons Related	110 kt	46
				Barge	Weapons Related	6.9 Mt	47
				Barge	Weapons Related	13.5 Mt	48
				Barge	Weapons Related	1.69 Mt	49

### Operation Teapot

				Airdrop	Weapons Effects	1 kt	50
				Tower	Weapons Related	2 kt	51
				Tower	Weapons Related	7 kt	52

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Teapot -- Continued

53	Turk	03/07/1955	LLNL	NTS	Area 2
54	Hornet	03/12/1955	LANL	NTS	Area 3
55	Bee	03/22/1955	LANL	NTS	Area 7
56	Ess	03/23/1955	LANL	NTS	Area 10
57	Apple-1	03/29/1955	LANL	NTS	Area 4
58	Wasp Prime	03/29/1955	LANL	NTS	Area 7
59	HA (High Altitude) Named "HA" for "high altitude" in reference to its intended detonation at an altitude of 40,000 feet	04/06/1955	LANL	NTS	Area 1
60	Post	04/09/1955	LLNL	NTS	Area 9
61	MET (Military Effects Test)	04/15/1955	LANL/DoD	NTS	Area 5
62	Apple-2	05/05/1955	LANL	NTS	Area 1
63	Zucchini	05/15/1955	LANL	NTS	Area 7

### Operation Wigwam

64	Wigwam North 29 degrees, West 126 degrees	05/14/1955	LANL/DoD	Pacific	----
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### Operation Project 56

65	Project 56 No. 1	11/01/1955	LANL	NTS	Area 11a
66	Project 56 No. 2 Plutonium dispersal	11/03/1955	LANL	NTS	Area 11b
67	Project 56 No. 3 Plutonium dispersal	11/05/1955	LANL	NTS	Area 11c
68	Project 56 No. 4 Plutonium dispersal	01/18/1956	LANL	NTS	Area 11d

### Operation Redwing

69	Lacrosse	05/04/1956	LANL	Enewetak	----
70	Cherokee First airdrop by U.S. of a thermonuclear weapon	05/20/1956	LANL	Bikini Island	----
71	Zuni	05/27/1956	LLNL	Bikini Island	----
72	Yuma	05/27/1956	LLNL	Enewetak	----
73	Erie	05/30/1956	LANL	Enewetak	----
74	Seminole	06/06/1956	LANL	Enewetak	----
75	Flathead	06/11/1956	LANL	Bikini Island	----
76	Blackfoot	06/11/1956	LANL	Enewetak	----
77	Kickapoo	06/13/1956	LLNL	Enewetak	----
78	Osage	06/16/1956	LANL	Enewetak	----
79	Inca	06/21/1956	LLNL	Enewetak	----
80	Dakota	06/25/1956	LANL	Bikini Island	----

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range
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### Operation Teapot -- Continued

				Tower	Weapons Related	43 kt	53
				Tower	Weapons Related	4 kt	54
				Tower	Weapons Related	8 kt	55
20:30:00.00	37.170	-116.045	1280	Crater	Weapons Effects	1 kt	56
				Tower	Weapons Related	14 kt	57
				Airdrop	Weapons Related	3 kt	58
				Airdrop	Weapons Effects	3 kt	59
				Tower	Weapons Related	2 kt	60
				Tower	Weapons Effects	22 kt	61
				Tower	Weapons Related	29 kt	62
				Tower	Weapons Related	28 kt	63

### Operation Wigwam

				Underwater	Weapons Effects	30 kt	64
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### Operation Project 56

				Surface	Safety Experiment	Zero	65
				Surface	Safety Experiment	Zero	66
				Surface	Safety Experiment	No yield	67
				Surface	Safety Experiment	Very slight	68

### Operation Redwing

				Surface	Weapons Related	40 kt	69
				Airdrop	Weapons Related	3.8 Mt	70
				Surface	Weapons Related	3.5 Mt	71
				Tower	Weapons Related	190 tons	72
				Tower	Weapons Related	14.9 kt	73
				Surface	Weapons Related	13.7 kt	74
				Barge	Weapons Related	365 kt	75
				Tower	Weapons Related	8 kt	76
				Tower	Weapons Related	1.49 kt	77
				Airdrop	Weapons Related	1.7 kt	78
				Tower	Weapons Related	15.2 kt	79
				Barge	Weapons Related	1.1 Mt	80

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Redwing -- Continued

81	Mohawk	07/02/1956	LLNL	Enewetak	----
82	Apache	07/08/1956	LLNL	Enewetak	----
83	Navajo	07/10/1956	LANL	Bikini Island	----
84	Tewa	07/20/1956	LLNL	Bikini island	----
85	Huron	07/21/1956	LANL	Enewetak	----

### Operation Project 57

86	Project 57 No. 1 Plutonium dispersal	04/24/1957	LANL/DoD	NAFR	----
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### Operation Plumbbob

87	Boltzmann	05/28/1957	LANL	NTS	Area 7
88	Franklin	06/02/1957	LANL	NTS	Area 3
89	Lassen Radioactivity not detected offsite	06/05/1957	LLNL	NTS	Area 9
90	Wilson	06/18/1957	LLNL	NTS	Area 9
91	Priscilla	06/24/1957	LANL/DoD	NTS	Area 5
92	Coulomb-A Radioactivity not detected offsite	07/01/1957	LANL	NTS	Area 3
93	Hood Highest yield Nevada Test Site atmospheric test	07/05/1957	LLNL	NTS	Area 9
94	Diablo	07/15/1957	LLNL	NTS	Area 2
95	John Air-to-air missile	07/19/1957	LANL/DoD	NTS	Area 10
96	Kepler	07/24/1957	LANL	NTS	Area 4
97	Owens	07/25/1957	LLNL	NTS	Area 9
98	Pascal-A Unstemmed hole	07/26/1957	LANL	NTS	U3j
99	Stokes	08/07/1957	LANL	NTS	Area 7
100	Saturn No radioactive release detected	08/10/1957	LLNL	NTS	U12c.02
101	Shasta	08/18/1957	LLNL	NTS	Area 2
102	Doppler	08/23/1957	LANL	NTS	Area 7
103	Pascal-B Unstemmed hole No radioactive release detected	08/27/1957	LANL	NTS	U3d
104	Franklin Prime	08/30/1957	LANL	NTS	Area 7
105	Smoky	08/31/1957	LLNL	NTS	Area 2
106	Galileo	09/02/1957	LANL	NTS	Area 1
107	Wheeler	09/06/1957	LLNL	NTS	Area 9
108	Coulomb-B	09/06/1957	LANL	NTS	S3g
109	Laplace	09/08/1957	LANL	NTS	Area 7

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range
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### Operation Redwing -- Continued

				Tower	Weapons Related	360 kt	81
				Barge	Weapons Related	1.85 Mt	82
				Barge	Weapons Related	4.5 Mt	83
				Barge	Weapons Related	5 Mt	84
				Barge	Weapons Related	250 kt	85

### Operation Project 57

				Surface	Safety Experiment	Zero	86
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### Operation Plumbbob

				Tower	Weapons Related	12 kt	87
				Tower	Weapons Related	140 tons	88
				Balloon	Weapons Related	0.5 tons	89
				Balloon	Weapons Related	10 kt	90
				Balloon	Weapons Related	37 kt	91
				Surface	Safety Experiment	Zero	92
				Balloon	Weapons Related	74 kt	93
				Tower	Weapons Related	17 kt	94
				Rocket	Weapons Effects	About 2 kt	95
				Tower	Weapons Related	10 kt	96
				Balloon	Weapons Related	9.7 kt	97
08:00:00.00	37.052	-116.034	1202	Shaft	Safety Experiment	Slight	98
				Balloon	Weapons Related	19 kt	99
00:59:55.10	37.194	-116.034	- - - -	Tunnel	Safety Experiment	Zero	100
				Tower	Weapons Related	17 kt	101
				Balloon	Weapons Related	11 kt	102
22:35:00.00	37.049	-116.035	1201	Shaft	Safety Experiment	Slight	103
				Balloon	Weapons Related	4.7 kt	104
				Tower	Weapons Related	44 kt	105
				Tower	Weapons Related	11 kt	106
				Balloon	Weapons Related	197 tons	107
				Surface	Safety Experiment	300 tons	108
				Balloon	Weapons Related	1 kt	109

# United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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## Operation Plumbbob -- Continued

110	Fizeau	09/14/1957	LANL	NTS	Area 3
111	Newton	09/16/1957	LANL	NTS	Area 7
112	Rainier First detonation contained underground No radioactive release detected	09/19/1957	LLNL	NTS	U12b
113	Whitney	09/23/1957	LLNL	NTS	Area 2
114	Charleston	09/28/1957	LLNL	NTS	Area 9
115	Morgan	10/07/1957	LLNL	NTS	Area 9

## Operation Project 58

116	Pascal-C Unstemmed hole Radioactivity not detected offsite	12/06/1957	LANL	NTS	U3e
117	Coulomb-C	12/09/1957	LANL	NTS	S3i

## Operation Project 58 A

118	Venus No radioactive release detected	02/22/1958	LLNL	NTS	U12d.01
119	Uranus No radioactive release detected	03/14/1958	LLNL	NTS	U12c.01

## Operation Hardtack I

**Note: Three DoD high-altitude tests were conducted in the Pacific during Operation Hardtack I.**

120	Yucca Operation Newsreel North 12 degrees 37 minutes, East 163 degrees 01 minute High altitude -- 86,000 feet	04/28/1958	LANL/DoD	Pacific	----
121	Cactus	05/05/1958	LANL	Enewetak	----
122	Fir	05/11/1958	LLNL	Bikini Island	----
123	Butternut	05/11/1958	LANL	Enewetak	----
124	Koa	05/12/1958	LANL	Enewetak	----
125	Wahoo	05/16/1958	LANL/DoD	Enewetak	----
126	Holly	05/20/1958	LANL	Enewetak	----
127	Nutmeg	05/21/1958	LLNL	Bikini Island	----
128	Yellowwood	05/26/1958	LANL	Enewetak	----
129	Magnolia	05/26/1958	LANL	Enewetak	----
130	Tobacco	05/30/1958	LANL	Enewetak	----
131	Sycamore	05/31/1958	LLNL	Bikini Island	----
132	Rose	06/02/1958	LANL	Enewetak	----
133	Umbrella	06/08/1958	LANL/DoD	Enewetak	----
134	Maple	06/10/1958	LLNL	Bikini Island	----
135	Aspen	06/14/1958	LLNL	Bikini Island	----
136	Walnut	06/14/1958	LANL	Enewetak	----



## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Plumbbob -- Continued

				Tower	Weapons Related	11 kt	110
				Balloon	Weapons Related	12 kt	111
16:59:59.45	37.196	-116.204	----	Tunnel	Weapons Related	1.7 kt	112
				Tower	Weapons Related	19 kt	113
				Balloon	Weapons Related	12 kt	114
				Balloon	Weapons Related	8 kt	115

### Operation Project 58

22:15:00.00	37.050	-116.032	1202	Shaft	Safety Experiment	Slight	116
				Surface	Safety Experiment	500 tons	117

### Operation Project 58 A

01:00:00.00	37.113	-116.115	----	Tunnel	Safety Experiment	Less than 1 ton	118
22:00:00.00	37.113	-116.115	----	Tunnel	Safety Experiment	Less than 1 ton	119

### Operation Hardtack I

These tests were conducted as Operation Newsreel.

				Balloon	Weapons Effects	1.7 kt	120
				Surface	Weapons Related	18 kt	121
				Barge	Weapons Related	1.36 Mt	122
				Barge	Weapons Related	81 kt	123
				Surface	Weapons Related	1.37 Mt	124
				Underwater	Weapons Effects	9 kt	125
				Barge	Weapons Related	5.9 kt	126
				Barge	Weapons Related	25.1 kt	127
				Barge	Weapons Related	330 kt	128
				Barge	Weapons Related	57 kt	129
				Barge	Weapons Related	11.6 kt	130
				Barge	Weapons Related	92 kt	131
				Barge	Weapons Related	15 kt	132
				Underwater	Weapons Effects	8 kt	133
				Barge	Weapons Related	213 kt	134
				Barge	Weapons Related	319 kt	135
				Barge	Weapons Related	1.45 Mt	136

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Hardtack I -- Continued

137	Linden	06/18/1958	LANL	Enewetak	----
138	Redwood	06/27/1958	LLNL	Bikini Island	----
139	Elder	06/27/1958	LANL	Enewetak	----
140	Oak	06/28/1958	LANL	Enewetak	----
141	Hickory	06/29/1958	LLNL	Bikini Island	----
142	Sequoia	07/01/1958	LANL	Enewetak	----
143	Cedar	07/02/1958	LLNL	Bikini Island	----
144	Dogwood	07/05/1958	LLNL	Enewetak	----
145	Poplar	07/12/1958	LLNL	Bikini Island	----
146	Scaevola	07/14/1958	LANL	Enewetak	----
147	Pisonia	07/17/1958	LANL	Enewetak	----
148	Juniper	07/22/1958	LLNL	Bikini Island	----
149	Olive	07/22/1958	LLNL	Enewetak	----
150	Pine	07/26/1958	LLNL	Enewetak	----
151	Teak Operation Newsreel High altitude -- 77 kilometers	08/01/1958	LANL/DoD	Johnston Island area	----
152	Quince	08/06/1958	LLNL/DoD	Enewetak	----
153	Orange Operation Newsreel High altitude -- 43 kilometers	08/12/1958	LANL/DoD	Johnston Island area	----
154	Fig	08/18/1958	LLNL/DoD	Enewetak	----

### Operation Argus

155	Argus I About 300 miles altitude South 38.5 degrees, West 11.5 degrees	08/27/1958	LANL/DoD	South Atlantic	----
156	Argus II About 300 miles altitude South 49.5 degrees, West 8.2 degrees	08/30/1958	LANL/DoD	South Atlantic	----
157	Argus III About 300 miles altitude South 48.5 degrees, West 9.7 degrees	09/06/1958	LANL/DoD	South Atlantic	----

### Operation Hardtack II

158	Otero Unstemmed hole	09/12/1958	LANL	NTS	U3q
159	Bernalillo Unstemmed hole Radioactivity not detected offsite	09/17/1958	LANL	NTS	U3n
160	Eddy	09/19/1958	LANL	NTS	Area 7

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Hardtack I -- Continued

				Barge	Weapons Related	11 kt	137
				Barge	Weapons Related	412 kt	138
				Barge	Weapons Related	880 kt	139
				Barge	Weapons Related	8.9 Mt	140
				Barge	Weapons Related	14 kt	141
				Barge	Weapons Related	5.2 kt	142
				Barge	Weapons Related	220 kt	143
				Barge	Weapons Related	397 kt	144
				Barge	Weapons Related	9.3 Mt	145
				Barge	Safety Experiment	Zero	146
				Barge	Weapons Related	255 kt	147
				Barge	Weapons Related	65 kt	148
				Barge	Weapons Related	202 kt	149
				Barge	Weapons Related	2 Mt	150
				Rocket	Weapons Effects	3.8 Mt	151
				Surface	Weapons Related	Zero	152
				Rocket	Weapons Effects	3.8 Mt	153
				Surface	Weapons Related	20 tons	154

### Operation Argus

				Rocket	Weapons Effects	1-2 kt	155
				Rocket	Weapons Effects	1-2 kt	156
				Rocket	Weapons Effects	1-2 kt	157

### Operation Hardtack II

20:00:00.00	37.050	-116.033	1202	Shaft	Safety Experiment	38 tons	158
19:30:00.00	37.050	-116.034	1201	Shaft	Safety Experiment	15 tons	159
				Balloon	Weapons Related	83 tons	160

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Hardtack II -- Continued

161	Luna Unstemmed hole Radioactivity not detected offsite	09/21/1958	LANL	NTS	U3m
162	Mercury No radioactive release detected	09/23/1958	LLNL	NTS	U12f.01
163	Valencia Unstemmed hole Radioactivity not detected offsite	09/26/1958	LANL	NTS	U3r
164	Mars Slight venting Radioactivity not detected offsite	09/28/1958	LLNL	NTS	U12f.02
165	Mora	09/29/1958	LANL	NTS	Area 7
166	Colfax Unstemmed hole Radioactivity not detected offsite	10/05/1958	LANL	NTS	U3k
167	Hidalgo	10/05/1958	LANL	NTS	Area 7
168	Tamalpais Slight venting Radioactivity not detected offsite	10/08/1958	LLNL	NTS	U12b.02
169	Quay	10/10/1958	LANL	NTS	Area 7
170	Lea	10/13/1958	LANL	NTS	Area 7
171	Neptune Slight venting Radioactivity not detected offsite First underground test to form a subsidence crater	10/14/1958	LLNL	NTS	U12c.03
172	Hamilton	10/15/1958	LLNL/DoD	NTS	Area 5
173	Logan No radioactive release detected	10/16/1958	LLNL	NTS	U12e.02
174	Dona Ana	10/16/1958	LANL	NTS	Area 7
175	Vesta Fired in surface structure	10/17/1958	LLNL	NTS	S9e
176	Rio Arriba	10/18/1958	LANL	NTS	Area 3
177	San Juan Unstemmed hole No radioactive release detected	10/20/1958	LANL	NTS	U3p
178	Socorro	10/22/1958	LANL	NTS	Area 7
179	Wrangell	10/22/1958	LLNL	NTS	Area 5
180	Rushmore	10/22/1958	LLNL	NTS	Area 9
181	Oberon No radioactive release detected	10/22/1958	LANL	NTS	Area 8
182	Catron	10/24/1958	LANL	NTS	Area 3
183	Juno Fired in surface structure Radioactivity not detected offsite	10/24/1958	LLNL	NTS	S9f

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Hardtack II -- Continued

19:00:00.00	37.049	-116.035	1201	Shaft	Safety Experiment	1.5 tons	161
22:00:00.00	37.113	-116.121	2021	Tunnel	Safety Experiment	Slight	162
20:00:00.00	37.050	-116.031	1201	Shaft	Safety Experiment	2 tons	163
00:00:00.00	37.193	-116.201	2021	Tunnel	Safety Experiment	13 tons	164
				Balloon	Weapons Related	2 kt	165
16:15:00.00	37.049	-116.035	1201	Shaft	Safety Experiment	5.5 tons	166
				Balloon	Safety Experiment	77 tons	167
22:00:00.13	37.195	-116.201	2000	Tunnel	Weapons Related	72 tons	168
				Tower	Weapons Related	79 tons	169
				Balloon	Weapons Related	1.4 kt	170
18:00:00.00	37.194	-116.201	2045	Tunnel	Safety Experiment	115 tons	171
				Tower	Weapons Related	1.2 tons	172
06:00:00.14	37.184	-116.202	----	Tunnel	Weapons Related	5 kt	173
				Balloon	Weapons Related	37 tons	174
				Surface	Safety Experiment	24 tons	175
				Tower	Weapons Related	90 tons	176
14:30:00.00	37.050	-116.033	1201	Shaft	Safety Experiment	Zero	177
				Balloon	Weapons Related	6 kt	178
				Balloon	Weapons Related	115 tons	179
				Balloon	Weapons Related	188 tons	180
				Tower	Safety Experiment	Zero	181
				Tower	Safety Experiment	21 tons	182
				Surface	Safety Experiment	1.7 tons	183

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Hardtack II -- Continued

184	Ceres Radioactivity not detected offsite	10/26/1958	LLNL	NTS	Area 8
185	Sanford	10/26/1958	LLNL	NTS	Area 5
186	De Baca	10/26/1958	LANL	NTS	Area 7
187	Chaves (Chavez)	10/27/1958	LANL	NTS	Area 3
188	Evans Venting Radioactivity not detected offsite	10/29/1958	LLNL	NTS	U12b.04
189	Humboldt	10/29/1958	LLNL/DoD	NTS	Area 3
190	Mazama No radioactive release detected	10/29/1958	LLNL	NTS	Area 9
191	Santa Fe	10/30/1958	LANL	NTS	Area 7
192	Blanca Slight venting	10/30/1958	LLNL	NTS	U12e.05
193	Ganymede Contained in surface structure No radioactive release detected	10/30/1958	LLNL	NTS	S9g
194	Titania	10/30/1958	LLNL	NTS	Area 8

### Operation Nougat

195	Antler Accidental release of radioactivity detected offsite	09/15/1961	LLNL	NTS	U12e.03a
196	Shrew Accidental release of radioactivity detected onsite only	09/16/1961	LANL	NTS	U3ac
197	Boomer Accidental release of radioactivity detected onsite only	10/01/1961	LANL	NTS	U3aa
198	Chena Accidental release of radioactivity detected onsite only	10/10/1961	LLNL	NTS	U12b.09
199	Mink Accidental release of radioactivity detected onsite only	10/29/1961	LANL	NTS	U3ae
200	Fisher Accidental release of radioactivity detected onsite only	12/03/1961	LANL	NTS	U3ah
201	<b>Gnome</b> Multiple-purpose experiment in salt Formed cavity 160-170 feet diameter, 60-80 feet high Accidental release of radioactivity detected offsite	12/10/1961	LLNL	Carlsbad, New Mexico	----
202	Mad Accidental release of radioactivity detected onsite only	12/13/1961	LLNL	NTS	U9a

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range
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### Operation Hardtack II -- Continued

				Tower	Safety Experiment	0.7 tons	184
				Balloon	Weapons Related	4.9 kt	185
				Balloon	Weapons Related	2.2 kt	186
				Tower	Safety Experiment	0.6 tons	187
00:00:00.15	37.195	-116.206	2000	Tunnel	Weapons Related	55 tons	188
				Tower	Weapons Related	7.8 tons	189
				Tower	Weapons Related	Zero	190
				Balloon	Weapons Related	1.3 kt	191
15:00:00.15	37.186	-116.203	2145	Tunnel	Weapons Related	22 kt	192
				Surface	Safety Experiment	Zero	193
				Tower	Safety Experiment	0.2 tons	194

### Operation Nougat

17:00:00.12	37.188	-116.209	2254	Tunnel	Weapons Related	2.6 kt	195
19:45:00.12	37.048	-116.034	1200	Shaft	Weapons Related	Low	196
21:30:00.12	37.048	-116.035	1200	Shaft	Weapons Related	Low	197
18:00:00.13	37.194	-116.208	2250	Tunnel	Weapons Related	Low	198
18:30:00.13	37.049	-116.032	1201	Shaft	Weapons Related	Low	199
23:04:59.63	37.046	-116.029	1198	Shaft	Weapons Related	13.4 kt	200
19:00:00.00	32.264	-103.866	1013	Shaft	Plowshare	3 kt	201
18:00:00.16	37.127	-116.050	1254	Shaft	Weapons Related	500 tons	202

# United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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## Operation Nougat -- Continued

203	Ringtail Accidental release of radioactivity detected onsite only	12/17/1961	LANL	NTS	U3ak
204	Feather Accidental release of radioactivity detected offsite	12/22/1961	LLNL	NTS	U12b.08
205	Stoat Accidental release of radioactivity detected onsite only	01/09/1962	LANL	NTS	U3ap
206	Agouti	01/18/1962	LANL	NTS	U3ao
207	Dormouse	01/30/1962	LANL	NTS	U3aq
208	Stillwater	02/08/1962	LLNL	NTS	U9c
209	Armadillo Accidental release of radioactivity detected onsite only	02/09/1962	LANL	NTS	U3ar
210	Hard Hat Accidental release of radioactivity detected onsite only	02/15/1962	LANL/DoD/ SNL	NTS	U15a
211	Chinchilla Accidental release of radioactivity detected onsite only	02/19/1962	LANL	NTS	U3ag
212	Codsaw Accidental release of radioactivity detected onsite only	02/19/1962	LLNL	NTS	U9g
213	Cimarron	02/23/1962	LLNL	NTS	U9h
214	Platypus Accidental release of radioactivity detected onsite only	02/24/1962	LANL	NTS	U3ad
215	Pampas Accidental release of radioactivity detected offsite	03/01/1962	LANL/UK	NTS	U3al
216	Danny Boy Crater diameter 265 feet, depth 84 feet in basalt Release of radioactivity detected offsite	03/05/1962	LLNL/DoD	NTS	U18a
217	Ermine	03/06/1962	LANL	NTS	U3ab
218	Brazos Accidental release of radioactivity detected onsite only	03/08/1962	LLNL	NTS	U9d
219	Hognose	03/15/1962	LANL	NTS	U3ai
220	Hoosic	03/28/1962	LLNL	NTS	U9j
221	Chinchilla II Accidental release of radioactivity detected onsite only	03/31/1962	LANL	NTS	U3as
222	Dormouse Prime	04/05/1962	LANL	NTS	U3az
223	Passaic	04/06/1962	LLNL	NTS	U9l



## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Nougat -- Continued

16:35:00.13	37.043	-116.026	1196	Shaft	Weapons Related	Low	203
16:30:00.13	37.195	-116.209	2242	Tunnel	Weapons Related	150 tons	204
16:30:00.14	37.045	-116.036	1198	Shaft	Weapons Related	5.1 kt	205
18:00:00.13	37.047	-116.035	1200	Shaft	Weapons Related	6.4 kt	206
18:00:00.13	37.047	-116.040	1200	Shaft	Weapons Related	Low	207
18:00:00.16	37.127	-116.054	1259	Shaft	Weapons Related	3.07 kt	208
16:30:00.13	37.044	-116.040	1198	Shaft	Weapons Related	7.1 kt	209
18:00:00.10	37.226	-116.060	1532	Shaft	Weapons Effects	5.7 kt	210
16:30:00.13	37.049	-116.030	1201	Shaft	Weapons Related	1.9 kt	211
17:50:00.16	37.127	-116.038	1258	Shaft	Weapons Related	Low	212
18:00:00.16	37.129	-116.049	1256	Shaft	Weapons Related	11.9 kt	213
16:30:00.13	37.048	-116.033	1200	Shaft	Weapons Related	Low	214
19:10:00.09	37.041	-116.030	1196	Shaft	Joint US-UK	9.5 kt	215
18:15:00.12	37.111	-116.366	1641	Crater	Weapons Effects	430 tons	216
16:30:00.13	37.048	-116.035	1201	Shaft	Safety Experiment	Low	217
18:00:00.21	37.122	-116.050	1254	Shaft	Weapons Related	8.4 kt	218
16:30:00.13	37.044	-116.032	1198	Shaft	Weapons Related	Low	219
18:00:00.16	37.124	-116.035	1264	Shaft	Weapons Related	3.4 kt	220
18:00:00.13	37.047	-116.038	1200	Shaft	Weapons Related	Low	221
18:00:00.13	37.044	-116.024	1197	Shaft	Weapons Related	10.6 kt	222
18:00:00.16	37.118	-116.045	1248	Shaft	Weapons Related	Low	223

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Nougat -- Continued

224	Hudson	04/12/1962	LLNL	NTS	U9n
225	Platte Accidental release of radioactivity detected offsite	04/14/1962	LLNL	NTS	U12k.01
226	Dead	04/21/1962	LLNL	NTS	U9k
<b>Note: Tests that were conducted during 1962 in Christmas and Johnson Island areas,</b>					
227	Adobe Operation Dominic	04/25/1962	LANL	Christmas Island area	----
228	Aztec Operation Dominic	04/27/1962	LANL	Christmas Island area	----
229	Black	04/27/1962	LLNL	NTS	U9p
230	Arkansas Operation Dominic	05/02/1962	LLNL	Christmas Island area	----
231	Questa Operation Dominic	05/04/1962	LANL	Christmas Island area	----
232	Frigate Bird Operation Dominic North 4 degrees 50 minutes, West 149 degrees 25 minutes 11,000 ft. altitude Warhead in missile launched from Polaris submarine	05/06/1962	LLNL/DoD	Pacific	----
233	Paca Accidental release of radioactivity detected onsite only	05/07/1962	LANL	NTS	U3ax
234	Yukon Operation Dominic	05/08/1962	LLNL	Christmas Island area	----
235	Mesilla Operation Dominic	05/09/1962	LANL	Christmas Island area	----
236	Arikaree	05/10/1962	LLNL	NTS	U9r
237	Muskegon Operation Dominic	05/11/1962	LLNL	Christmas Island area	----
238	Swordfish Operation Dominic North 31 degrees 14 minutes, West 124 degrees 13 minutes Antisubmarine rocket (ASROC) system proof test	05/11/1962	LANL/DoD	Pacific	----
239	Encino Operation Dominic	05/12/1962	LANL	Christmas Island area	----
240	Aardvark Accidental release of radioactivity detected onsite only	05/12/1962	LANL	NTS	U3am(s)
241	Swanee Operation Dominic	05/14/1962	LLNL	Christmas Island area	----
242	Eel Accidental release of radioactivity detected offsite	05/19/1962	LLNL	NTS	U9m

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Nougat -- Continued

18:00:00.16	37.127	-116.046	1253	Shaft	Weapons Related	Low	224
18:00:00.13	37.222	-116.158	1695	Tunnel	Weapons Related	1.85 kt	225
18:40:00.16	37.119	-116.032	1272	Shaft	Weapons Related	Low	226

and elsewhere in the Pacific, were conducted as part of Operation Dominic.

				Airdrop	Weapons Related	190 kt	227
				Airdrop	Weapons Related	410 kt	228
18:00:00.16	37.118	-116.039	1259	Shaft	Weapons Related	Low	229
				Airdrop	Weapons Related	1.09 Mt	230
				Airdrop	Weapons Related	670 kt	231
				Rocket	Weapons Related	200 to 1000 kt	232
19:33:00.14	37.047	-116.026	1199	Shaft	Weapons Related	Low	233
				Airdrop	Weapons Related	100 kt	234
				Airdrop	Weapons Related	100 kt	235
15:00:00.16	37.128	-116.049	1254	Shaft	Weapons Related	Low	236
				Airdrop	Weapons Related	50 kt	237
				Underwater	Weapons Effects	Low	238
				Airdrop	Weapons Related	500 kt	239
19:00:00.10	37.065	-116.031	1214	Shaft	Weapons Related	40 kt	240
				Airdrop	Weapons Related	97 kt	241
15:00:00.16	37.123	-116.048	1253	Shaft	Weapons Related	4.5 kt	242

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Nougat -- Continued

243	Chetco Operation Dominic	05/19/1962	LLNL	Christmas Island area	----
244	White	05/25/1962	LLNL	NTS	U9b
245	Tanana Operation Dominic	05/25/1962	LLNL	Christmas Island area	----
246	Nambe Operation Dominic	05/27/1962	LANL	Christmas Island area	----
247	Raccoon	06/01/1962	LANL	NTS	U3ajs
248	Packrat	06/06/1962	LANL	NTS	U3aw
249	Alma Operation Dominic	06/08/1962	LANL	Christmas Island area	----
250	Truckee Operation Dominic	06/09/1962	LLNL	Christmas Island area	----
251	Yeso Operation Dominic	06/10/1962	LANL	Christmas Island area	----
252	Harlem Operation Dominic	06/12/1962	LLNL	Christmas Island area	----
253	Des Moines Accidental release of radioactivity detected offsite	06/13/1962	LLNL	NTS	U12j.01
254	Rinconada Operation Dominic	06/15/1962	LANL	Christmas Island area	----
255	Dulce Operation Dominic	06/17/1962	LANL	Christmas Island area	----
256	Petit Operation Dominic	06/19/1962	LLNL	Christmas Island area	----
257	Daman I	06/21/1962	LANL	NTS	U3be
258	Otowi Operation Dominic	06/22/1962	LANL	Christmas Island area	----
259	Bighorn Operation Dominic	06/27/1962	LLNL	Christmas Island area	----
260	Haymaker Accidental release of radioactivity detected onsite only	06/27/1962	LANL	NTS	U3au(s)
261	Marshmallow Accidental release of radioactivity detected onsite only	06/28/1962	LLNL/DoD	NTS	U16a
262	Bluestone Operation Dominic	06/30/1962	LLNL	Christmas Island area	----
263	Sacramento	06/30/1962	LLNL	NTS	U9v

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range
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### Operation Nougat -- Continued

				Airdrop	Weapons Related	73 kt	243
15:00:00.15	37.125	-116.053	1253	Shaft	Weapons Related	Low	244
				Airdrop	Weapons Related	2.6 kt	245
				Airdrop	Weapons Related	43 kt	246
17:00:00.14	37.046	-116.035	1199	Shaft	Weapons Related	Low	247
17:00:00.12	37.046	-116.040	1199	Shaft	Weapons Related	Low	248
				Airdrop	Weapons Related	782 kt	249
				Airdrop	Weapons Related	210 kt	250
				Airdrop	Weapons Related	3 Mt	251
				Airdrop	Weapons Related	1.2 Mt	252
21:00:00.12	37.222	-116.163	1696	Tunnel	Weapons Related	2.9 kt	253
				Airdrop	Weapons Related	800 kt	254
				Airdrop	Weapons Related	52 kt	255
				Airdrop	Weapons Related	2.2 kt	256
17:00:00.13	37.043	-116.031	1197	Shaft	Weapons Related	Low	257
				Airdrop	Weapons Related	81.5 kt	258
				Airdrop	Weapons Related	7.65 Mt	259
18:00:00.12	37.042	-116.036	1196	Shaft	Weapons Related	67 kt	260
17:00:00.11	37.009	-116.202	2241	Tunnel	Weapons Effects	Low	261
				Airdrop	Weapons Related	1.27 Mt	262
21:30:00.16	37.117	-116.048	1246	Shaft	Weapons Related	Low	263

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	
<b>Operation Storax</b>					
264	Sedan Excavation experiment Crater 1280 feet diameter, 320 feet deep Thermonuclear device with fission yield less than 30% Release of radioactivity detected offsite	07/06/1962	LLNL	NTS	U10h
<b>Note: Four DoD weapons effects tests were conducted at the Nevada Test Site in July of 1962.</b>					
265	Little Feller II Operation Sunbeam Slightly above ground Test of Davy Crockett Radioactivity not detected offsite	07/07/1962	SNL/DoD	NTS	Area 18
<b>Note: Five DoD high-altitude weapons effects tests were conducted during Operation Dominic.</b>					
266	Starfish Prime Operation Fishbowl High altitude -- 400 kilometers	07/09/1962	LANL/DoD	Johnston Island area	----
267	Sunset Operation Dominic	07/10/1962	LANL	Christmas Island area	----
268	Pamlico Operation Dominic	07/11/1962	LLNL	Christmas Island area	----
269	Johnnie Boy Operation Sunbeam Slightly below ground Release of radioactivity detected offsite	07/11/1962	LLNL/DoD	NTS	Area 18
270	Merrimac Accidental release of radioactivity detected onsite only	07/13/1962	LLNL	NTS	U3bd
271	Small Boy Operation Sunbeam Slightly above ground Release of radioactivity detected offsite	07/14/1962	LANL/DoD	NTS	Area 5
272	Little Feller I Operation Sunbeam Slightly above ground Test of Davy Crockett Last atmospheric test conducted at the Nevada Test Site Release of radioactivity detected offsite	07/17/1962	SNL/DoD	NTS	Area 18
273	Wichita Accidental release of radioactivity detected onsite only	07/27/1962	LLNL	NTS	U9y
274	York	08/24/1962	LLNL	NTS	U9z
275	Bobac	08/24/1962	LANL	NTS	U3bl
276	Raritan	09/06/1962	LLNL	NTS	U9u
277	Hyrax	09/14/1962	LANL	NTS	U3bh
278	Peba	09/20/1962	LANL	NTS	U3bb

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range
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### Operation Storax

17:00:00.15	37.177	-116.046	1289	Crater	Plowshare	104 kt	264
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These tests were conducted as Operation Sunbeam.

				Surface	Weapons Effects	Low	265
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These tests were conducted as Operation Fishbowl.

				Rocket	Weapons Effects	1.4 Mt	266
				Airdrop	Weapons Related	1 Mt	267
				Airdrop	Weapons Related	3.88 Mt	268
16:45:00.09	37.122	-116.334	1544	Crater	Weapons Effects	500 tons	269
16:00:00.15	37.055	-116.034	1205	Shaft	Weapons Related	Intermediate	270
				Tower	Weapons Effects	Low	271
				Surface	Weapons Effects	Low	272
21:00:00.16	37.130	-116.057	1265	Shaft	Weapons Related	Low	273
15:00:00.15	37.119	-116.040	1256	Shaft	Weapons Related	Low	274
17:00:00.13	37.046	-116.025	1199	Shaft	Weapons Related	Low	275
17:00:00.20	37.130	-116.046	1254	Shaft	Weapons Related	Low	276
17:10:00.12	37.044	-116.022	1197	Shaft	Weapons Related	Low	277
17:00:00.12	37.055	-116.030	1205	Shaft	Weapons Related	Low	278

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Storax -- Continued

279	Allegheny Accidental release of radioactivity detected onsite only	09/29/1962	LLNL	NTS	U9x
280	Androscoggin Operation Dominic	10/02/1962	LLNL	Johnston Island area	-----
281	Mississippi	10/05/1962	LLNL	NTS	U9ad
282	Bumping Operation Dominic	10/06/1962	LLNL	Johnston Island area	-----
283	Roanoke Accidental release of radioactivity detected onsite only	10/12/1962	LLNL	NTS	U9q
284	Wolverine Accidental release of radioactivity detected onsite only	10/12/1962	LANL	NTS	U3av
285	Chama Operation Dominic	10/18/1962	LANL	Johnston Island area	-----
286	Tioga	10/18/1962	LLNL	NTS	U9f
287	Bandicoot Accidental release of radioactivity detected offsite	10/19/1962	LANL	NTS	U3bj
288	Checkmate Operation Fishbowl High altitude -- tens of kilometers	10/20/1962	LANL/DoD	Johnston Island area	-----
289	Bluegill 3 Prime Operation Fishbowl High altitude -- tens of kilometers	10/26/1962	LANL/DoD	Johnston Island area	-----
290	Santee	10/27/1962	LLNL	NTS	U10f
291	Calamity Operation Dominic	10/27/1962	LLNL	Johnston Island area	-----
292	Housatonic Operation Dominic	10/30/1962	LLNL	Johnston Island area	-----
293	Kingfish Operation Fishbowl High altitude -- tens of kilometers	11/01/1962	LANL/DoD	Johnston Island area	-----
294	Tightrope Operation Fishbowl High altitude -- tens of kilometers	11/04/1962	LANL/DoD	Johnston Island area	-----
295	St. Lawrence Accidental release of radioactivity detected onsite only	11/09/1962	LLNL	NTS	U2b
296	Gundi	11/15/1962	LANL	NTS	U3bm
297	Anacostia Device development Accidental release of radioactivity detected onsite only	11/27/1962	LLNL	NTS	U9i
298	Taunton	12/04/1962	LLNL	NTS	U9aa
299	Tendrac	12/07/1962	LANL/UK	NTS	U3ba



## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range
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### Operation Storax -- Continued

17:00:00.15	37.117	-116.034	1271	Shaft	Weapons Related	Low	279
				Airdrop	Weapons Related	75 kt	280
17:00:00.16	37.139	-116.051	1264	Shaft	Weapons Related	115 kt	281
				Airdrop	Weapons Related	11.3 kt	282
15:00:00.16	37.123	-116.052	1252	Shaft	Weapons Related	Low	283
17:00:00.12	37.049	-116.033	1200	Shaft	Weapons Related	Low	284
				Airdrop	Weapons Related	1.59 Mt	285
15:00:00.15	37.129	-116.041	1254	Shaft	Weapons Related	Low	286
18:00:00.08	37.039	-116.022	1195	Shaft	Weapons Related	12.5 kt	287
				Rocket	Weapons Effects	Low	288
				Rocket	Weapons Effects	Submegaton	289
15:00:00.15	37.149	-116.054	1270	Shaft	Weapons Related	Low	290
				Airdrop	Weapons Related	800 kt	291
				Airdrop	Weapons Related	8.3 Mt	292
				Rocket	Weapons Effects	Submegaton	293
				Rocket	Weapons Effects	Low	294
18:00:00.16	37.164	-116.074	1309	Shaft	Weapons Related	Low	295
16:30:00.08	37.042	-116.025	1195	Shaft	Weapons Related	Low	296
18:00:00.14	37.123	-116.030	1274	Shaft	Plowshare	5.2 kt	297
16:00:00.15	37.128	-116.051	1256	Shaft	Weapons Related	Low	298
19:00:00.10	37.052	-116.030	1202	Shaft	Joint US-UK	Low	299

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Storax -- Continued

300	Madison	12/12/1962	LLNL	NTS	U12g.01
301	Numbat	12/12/1962	LANL	NTS	U3bu
302	Manatee	12/14/1962	LLNL	NTS	U9af
303	Casselman	02/08/1963	LLNL	NTS	U10g
304	Acushi	02/08/1963	LANL	NTS	U3bg
305	Ferret	02/08/1963	LANL	NTS	U3bf
306	Hatchie	02/08/1963	LLNL	NTS	U9e
307	Chipmunk	02/15/1963	LANL	NTS	U3ay
308	Kaweah Device development	02/21/1963	LLNL	NTS	U9ab
309	Carmel	02/21/1963	LLNL	NTS	U2h
310	Jerboa	03/01/1963	LANL	NTS	U3at
311	Toyah	03/15/1963	LLNL	NTS	U9ac
312	Gerbil	03/29/1963	LANL	NTS	U3bp
313	Ferret Prime	04/05/1963	LANL	NTS	U3by
314	Coypu	04/10/1963	LANL	NTS	U3af
315	Cumberland	04/11/1963	LLNL	NTS	U2e
316	Kootanai Accidental release of radioactivity detected onsite only	04/24/1963	LLNL	NTS	U9w
317	Paisano Accidental release of radioactivity detected onsite only	04/24/1963	LLNL	NTS	U9w1
318	Gundi Prime	05/09/1963	LANL	NTS	U3db
<b>Note: Four storage-transportation tests were conducted on the Nellis Air Force Range.</b>					
319	Double Tracks Operation Roller Coaster Plutonium dispersal Radioactivity detected offsite	05/15/1963	LANL/DoD/UK	NAFR	----
320	Harkee	05/17/1963	LANL	NTS	U3bv
321	Tejon	05/17/1963	LANL	NTS	U3cg
322	Stones	05/22/1963	LANL	NTS	U9ae
323	Clean Slate I Operation Roller Coaster Plutonium dispersal Radioactivity detected offsite	05/25/1963	LANL/DoD/UK	NAFR	----
324	Pleasant Accidental release of radioactivity detected onsite only	05/29/1963	LLNL	NTS	U9ah
325	Clean Slate II Operation Roller Coaster Plutonium dispersal Radioactivity not detected offsite	05/31/1963	LANL/DoD/UK	NAFR	----

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range
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### Operation Storax -- Continued

17:25:00.12	37.172	-116.203	2252	Tunnel	Weapons Related	Low	300
18:45:00.12	37.046	-116.016	1201	Shaft	Weapons Related	Low	301
18:00:00.16	37.124	-116.041	1254	Shaft	Weapons Related	Low	302
16:00:00.16	37.149	-116.053	1268	Shaft	Weapons Related	Low	303
18:30:00.14	37.046	-116.022	1199	Shaft	Weapons Related	Low	304
18:30:00.13	37.058	-116.030	1208	Shaft	Weapons Related	Low	305
16:00:01.15	37.126	-116.040	1256	Shaft	Weapons Related	Low	306
17:00:00.13	37.049	-116.033	1201	Shaft	Safety Experiment	Low	307
19:47:00.14	37.120	-116.047	1249	Shaft	Plowshare	3 kt	308
19:47:08.63	37.155	-116.081	1311	Shaft	Weapons Related	Low	309
19:00:00.12	37.044	-116.027	1197	Shaft	Weapons Related	Low	310
16:22:53.14	37.126	-116.046	1252	Shaft	Weapons Related	Low	311
15:49:00.12	37.042	-116.019	1196	Shaft	Weapons Related	Low	312
17:52:00.13	37.037	-116.025	1193	Shaft	Weapons Related	Low	313
16:01:30.12	37.049	-116.031	1201	Shaft	Safety Experiment	Low	314
16:03:00.16	37.157	-116.072	1299	Shaft	Weapons Related	Low	315
16:09:30.14	37.121	-116.037	1261	Shaft	Weapons Related	Low	316
16:09:30.14	37.120	-116.037	1261	Shaft	Weapons Related	Low	317
18:19:00.00	37.049	-116.016	1205	Shaft	Weapons Related	Low	318
<b>These tests were conducted during May and June 1963 as the joint US-UK Operation Roller Coaster.</b>							
				Surface	Storage- Transportation	Zero	319
14:55:00.00	37.048	-116.033	1200	Shaft	Weapons Related	Low	320
14:55:00.00	37.044	-116.017	1199	Shaft	Safety Experiment	Low	321
15:40:00.14	37.111	-116.040	1257	Shaft	Weapons Related	Intermediate	322
				Surface	Storage- Transportation	Zero	323
15:03:30.16	37.128	-116.043	1253	Shaft	Weapons Related	Low	324
	37.154	-116.077	1306	Surface	Storage- Transportation	Zero	325

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	
<b>Operation Storax -- Continued</b>					
326	Yuba Accidental release of radioactivity detected onsite only Operational release of radioactivity detected offsite	06/05/1963	LLNL	NTS	U12b.10
327	Hutia	06/06/1963	LANL	NTS	U3bc
328	Apshapa Accidental release of radioactivity detected onsite only	06/06/1963	LLNL	NTS	U9ai
329	Clean Slate III Operation Roller Coaster Plutonium dispersal Radioactivity detected offsite	06/09/1963	LANL/DoD/UK	NAFR	----
330	Mataco	06/14/1963	LANL	NTS	U3bk
331	Kennebec Accidental release of radioactivity detected onsite only	06/25/1963	LLNL	NTS	U2af
<b>Operation Niblick</b>					
332	Pekan	08/12/1963	LANL	NTS	U3bw
333	Satsop	08/15/1963	LLNL	NTS	U2g
334	Kohocton	08/23/1963	LLNL	NTS	U9ak
	Natches Simultaneous, separate holes	08/23/1963	LLNL	NTS	U9ak1
335	Ahtanum	09/13/1963	LLNL	NTS	U2l
336	Bilby First underground test reported felt in Las Vegas, Nevada	09/13/1963	LANL	NTS	U3cn
337	Carp Accidental release of radioactivity detected onsite only	09/27/1963	LANL	NTS	U3cb
338	Narraguagus	09/27/1963	LLNL	NTS	U2f
339	Grunion	10/11/1963	LANL	NTS	U3bz
340	Tornillo Device development	10/11/1963	LLNL	NTS	U9aq
341	Clearwater	10/16/1963	LLNL	NTS	U12q
342	Mullet	10/17/1963	LLNL	NTS	U2ag
343	Shoal Nuclear test detection-research experiment	10/26/1963	LANL/DoD	Fallon, Nevada	----
344	Anchovy Accidental release of radioactivity detected onsite only	11/14/1963	LANL	NTS	U3bq
345	Mustang	11/15/1963	LLNL	NTS	U9at
346	Greys	11/22/1963	LLNL	NTS	U9ax

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Storax -- Continued

17:00:00.12	37.197	-116.210	2240	Tunnel	Weapons Related	3.1 kt	326
14:00:00.13	37.044	-116.037	1198	Shaft	Weapons Related	Low	327
16:58:00.15	37.125	-116.041	1254	Shaft	Weapons Related	Low	328
				Surface	Storage- Transportation	Zero	329
14:10:00.13	37.046	-116.019	1200	Shaft	Weapons Related	Low	330
23:00:00.15	37.131	-116.069	1276	Shaft	Weapons Related	Low	331

### Operation Niblick

23:45:00.13	37.042	-116.017	1197	Shaft	Weapons Related	Low	332
13:00:00.15	37.154	-116.077	1306	Shaft	Weapons Related	Low	333
13:20:00.15	37.125	-116.036	- - - -	Shaft	Weapons Related	Low	334
13:30:00.14	37.125	-116.036	1261	Shaft	Weapons Related	Low	
13:53:00.15	37.163	-116.082	1320	Shaft	Weapons Related	Low	335
17:00:00.13	37.060	-116.023	1215	Shaft	Weapons Related	249 kt	336
14:20:00.13	37.037	-116.017	1193	Shaft	Weapons Related	Low	337
17:30:00.15	37.155	-116.074	1302	Shaft	Weapons Related	Low	338
14:00:00.11	37.037	-116.022	1193	Shaft	Weapons Related	Low	339
21:00:00.16	37.119	-116.035	1267	Shaft	Plowshare	380 tons	340
17:00:00.14	37.198	-116.230	2233	Shaft	Weapons Related	Intermediate	341
15:00:00.15	37.131	-116.068	1275	Shaft	Safety Experiment	Low	342
17:00:00.10	39.200	-118.381	1574	Shaft	Vela Uniform	12 kt	343
16:00:00.12	37.039	-116.019	1194	Shaft	Weapons Related	Low	344
15:00:00.15	37.132	-116.048	1257	Shaft	Weapons Related	Low	345
17:30:00.15	37.119	-116.046	1248	Shaft	Weapons Related	Intermediate	346

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Niblick -- Continued

347	Barracuda	12/04/1963	LANL	NTS	U3cr
	Sardine Simultaneous, separate holes Accidental release of radioactivity detected onsite only	12/04/1963	LANL	NTS	U3ch
348	Eagle Accidental release of radioactivity detected offsite	12/12/1963	LLNL	NTS	U9av
349	Tuna Accidental release of radioactivity detected onsite only	12/20/1963	LANL	NTS	U3de
350	Fore	01/16/1964	LLNL	NTS	U9ao
351	Oconto Operational release of radioactivity detected offsite	01/23/1964	LLNL	NTS	U9ay
352	Club Accidental release of radioactivity detected onsite only	01/30/1964	LLNL	NTS	U2aa
353	Solendon Accidental release of radioactivity detected onsite only	02/12/1964	LANL	NTS	U3cz
354	Bunker Accidental release of radioactivity detected onsite only	02/13/1964	LLNL	NTS	U9bb
355	Bonefish	02/18/1964	LANL	NTS	U3bt
356	Mackerel	02/18/1964	LANL	NTS	U4b
357	Klickitat Device development	02/20/1964	LLNL	NTS	U10e
358	Handicap Accidental release of radioactivity detected onsite only	03/12/1964	LLNL	NTS	U9ba
359	Pike Accidental release of radioactivity detected offsite	3/13/1964	LANL	NTS	U3cy
360	Hook Accidental release of radioactivity detected onsite only	04/14/1964	LLNL	NTS	U9bc
361	Sturgeon	04/15/1964	LANL	NTS	U3bo
362	Bogey Accidental release of radioactivity detected onsite only	04/17/1964	LLNL	NTS	U9au
363	Turf	04/24/1964	LLNL	NTS	U10c
364	Pipefish Accidental release of radioactivity detected onsite only	04/29/1964	LANL	NTS	U3co

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Niblick -- Continued

16:38:30.13	37.044	-116.013	1202	Shaft	Weapons Related	Low	347
16:38:30.13	37.040	-116.030	1194	Shaft	Weapons Related	Low	
16:02:00.15	37.131	-116.045	1254	Shaft	Weapons Related	5.3 kt	348
15:24:00.13	37.053	-116.034	1203	Shaft	Weapons Related	Low	349
16:00:00.15	37.142	-116.050	1263	Shaft	Weapons Related	20 to 200 kt	350
16:00:00.15	37.126	-116.037	1260	Shaft	Weapons Related	10.5 kt	351
16:00:00.15	37.136	-116.072	1283	Shaft	Weapons Related	Less than 20 kt	352
15:38:00.12	37.057	-116.030	1206	Shaft	Weapons Related	Less than 20 kt	353
15:30:00.15	37.132	-116.033	1270	Shaft	Weapons Related	Less than 20 kt	354
15:37:19.12	37.059	-116.034	1207	Shaft	Weapons Related	Less than 20 kt	355
15:37:37.12	37.096	-116.052	1236	Shaft	Weapons Related	Less than 20 kt	356
15:30:00.15	37.151	-116.041	1273	Shaft	Plowshare	70 kt	357
15:00:00.01	37.130	-116.037	1261	Shaft	Weapons Related	Less than 20 kt	358
16:02:00.12	37.050	-116.012	1211	Shaft	Weapons Related	Less than 20 kt	359
14:40:00.15	37.129	-116.031	1276	Shaft	Weapons Related	Less than 20 kt	360
14:30:00.12	37.044	-116.019	1198	Shaft	Weapons Related	Less than 20 kt	361
15:29:52.28	37.119	-116.035	1265	Shaft	Weapons Related	Less than 20 kt	362
20:10:00.15	37.150	-116.056	1272	Shaft	Weapons Related	20 to 200 kt	363
20:47:00.12	37.040	-116.028	1194	Shaft	Weapons Related	Less than 20 kt	364

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Niblick -- Continued

365	Driver Accidental release of radioactivity detected onsite only	05/07/1964	LLNL	NTS	U9ar
366	Backswing Accidental release of radioactivity detected onsite only	05/14/1964	LLNL	NTS	U9aw
367	Minnow	05/15/1964	LANL	NTS	U3cv
368	Ace Device development Accidental release of radioactivity detected onsite only	06/11/1964	LLNL	NTS	U2n
369	Bitterling	06/12/1964	LANL	NTS	U3cu
370	Duffer	06/18/1964	LLNL	NTS	U10ds
371	Fade Accidental release of radioactivity detected onsite only	06/25/1964	LLNL	NTS	U9be
372	Dub Device development Accidental release of radioactivity detected onsite only	06/30/1964	LLNL	NTS	U10a

### Operation Whetstone

373	Bye	07/16/1964	LLNL	NTS	U10i
374	Cormorant Accidental release of radioactivity detected onsite only	07/17/1964	LANL/UK	NTS	U3df
375	Links Accidental release of radioactivity detected onsite only	07/23/1964	LLNL	NTS	U9bf
376	Trogon	07/24/1964	LANL	NTS	U3dj
377	Alva Accidental release of radioactivity detected offsite by aircraft only	08/19/1964	LLNL	NTS	U2j
378	Canvasback	08/22/1964	LANL	NTS	U3cp
379	Player	08/27/1964	LLNL	NTS	U9cc
380	Haddock	08/28/1964	LANL	NTS	U3dl
381	Guanay	09/04/1964	LANL	NTS	U3di
382	Spoon	09/11/1964	LLNL	NTS	U9bd
383	Courser	09/25/1964	LANL/UK	NTS	U3do
384	Auk	10/02/1964	LANL	NTS	U7b
385	Par Isotope production and explosive development	10/09/1964	LLNL	NTS	U2p
386	Barbel Turnstone Simultaneous, separate holes	10/16/1964	LANL	NTS	U3bx
		10/16/1964	LANL	NTS	U3dt



## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Niblick -- Continued

13:00:00.15	37.120	-116.041	1253	Shaft	Weapons Related	Less than 20 kt	365
14:40:00.15	37.117	-116.040	1257	Shaft	Weapons Related	Less than 20 kt	366
16:15:00.12	37.042	-116.013	1199	Shaft	Weapons Related	Less than 20 kt	367
16:45:00.15	37.149	-116.077	1300	Shaft	Plowshare	3 kt	368
14:01:00.10	37.039	-116.013	1196	Shaft	Weapons Related	Less than 20 kt	369
13:30:00.20	37.166	-116.039	1288	Shaft	Weapons Related	Less than 20 kt	370
13:30:00.14	37.111	-116.030	1280	Shaft	Weapons Related	Less than 20 kt	371
13:33:00.14	37.174	-116.057	1282	Shaft	Plowshare	11.7 kt	372

### Operation Whetstone

13:15:00.15	37.182	-116.046	1295	Shaft	Weapons Related	20 to 200 kt	373
17:18:30.03	37.018	-116.030	1184	Shaft	Joint US-UK	Less than 20 kt	374
13:30:00.15	37.114	-116.033	1273	Shaft	Weapons Related	Less than 20 kt	375
18:30:00.04	37.046	-116.013	1204	Shaft	Weapons Related	Less than 20 kt	376
16:00:00.14	37.159	-116.084	1320	Shaft	Weapons Related	4.4 kt	377
22:17:00.06	37.065	-116.016	1226	Shaft	Weapons Related	Less than 20 kt	378
14:30:00.15	37.117	-116.042	1254	Shaft	Safety Experiment	Less than 20 kt	379
17:06:00.04	37.067	-116.023	1222	Shaft	Weapons Related	Less than 20 kt	380
18:15:00.08	37.018	-116.024	1184	Shaft	Weapons Related	Less than 20 kt	381
14:00:00.10	37.114	-116.026	1289	Shaft	Weapons Related	Less than 20 kt	382
17:02:00.03	37.072	-116.016	1237	Shaft	Joint US-UK	Zero	383
20:03:00.04	37.078	-116.009	1254	Shaft	Weapons Related	Less than 20 kt	384
14:00:00.12	37.151	-116.078	1304	Shaft	Plowshare	38 kt	385
15:59:30.04	37.039	-116.017	1194	Shaft	Weapons Related	Less than 20 kt	386
15:59:30.03	37.033	-116.026	1191	Shaft	Weapons Related	Less than 20 kt	

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	
<b>Operation Whetstone -- Continued</b>					
387	<b>Salmon</b> Nuclear test detection research experiment	10/22/1964	LLNL/DoD	Hattiesburg, Mississippi	-----
388	Garden	10/23/1964	LLNL	NTS	U9aj
389	Forest	10/31/1964	LLNL	NTS	U7a
390	Handcar Effects of contained explosion in carbonate rock Accidental release of radioactivity detected onsite only	11/05/1964	LLNL	NTS	U10b
391	Crepe	12/05/1964	LLNL	NTS	U2q
392	Drill (Source-Lower)	12/05/1964	LLNL	NTS	U2ai
	Drill (Target-Upper) Simultaneous, same hole Accidental release of radioactivity detected offsite	12/05/1964	LLNL	NTS	U2ai
393	Parrot Accidental release of radioactivity detected offsite	12/16/1964	LANL	NTS	U3dk
394	Mudpack	12/16/1964	LLNL/DoD	NTS	U10n
395	Cassowary	12/16/1964	LANL	NTS	U3bn
	Hoopoe Simultaneous, separate holes	12/16/1964	LANL	NTS	U3cf
396	Sulky Excavation test of explosive buried at greater depth in relation to yield Produced mound of broken rock Release of radioactivity detected offsite	12/18/1964	LLNL	NTS	U18d
397	Wool	01/14/1965	LLNL	NTS	U9bh
398	Tern Accidental release of radioactivity detected onsite only	01/29/1965	LANL	NTS	U3dw
399	Cashmere	02/04/1965	LLNL	NTS	U2ad
400	Alpaca Accidental release of radioactivity detected offsite	02/12/1965	LLNL	NTS	U2a
401	Merlin Accidental release of radioactivity detected onsite only	02/16/1965	LANL	NTS	U3ct
402	Wishbone Accidental release of radioactivity detected onsite only	02/18/1965	LLNL/DoD	NTS	U5a
403	Seersucker Accidental release of radioactivity detected onsite only	02/19/1965	LLNL	NTS	U9bm

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Whetstone -- Continued

16:00:00.00	31.142	-89.570	46	Shaft	Vela Uniform	5.3 kt	387
15:00:00.94	37.117	-116.032	1274	Shaft	Weapons Related	Less than 20 kt	388
17:04:58.61	37.107	-116.033	1270	Shaft	Weapons Related	Less than 20 kt	389
15:00:00.11	37.174	-116.068	1307	Shaft	Plowshare	12 kt	390
21:15:00.10	37.114	-116.054	1252	Shaft	Weapons Related	20 to 200 kt	391
21:15:00.16	37.134	-116.071	1280	Shaft	Weapons Related	3.4 kt	392
21:15:00.16	37.134	-116.071	1280	Shaft	Weapons Related	Less than 20 kt	
20:00:00.04	37.035	-116.013	1192	Shaft	Weapons Related	1.3 kt	393
20:10:00.10	37.178	-116.068	1310	Shaft	Weapons Effects	2.7 kt	394
20:00:00.07	37.040	-116.025	1194	Shaft	Weapons Related	Less than 20 kt	395
20:00:00.07	37.048	-116.034	1200	Shaft	Safety Experiment	Less than 20 kt	
19:35:00.09	37.083	-116.343	1597	Shaft	Plowshare	92 tons	396
16:00:00.14	37.119	-116.026	1287	Shaft	Weapons Related	Less than 20 kt	397
18:22:00.03	37.045	-116.014	1202	Shaft	Weapons Related	Less than 20 kt	398
15:30:00.11	37.131	-116.062	1270	Shaft	Weapons Related	Less than 20 kt	399
15:10:29.49	37.164	-116.077	1315	Shaft	Weapons Related	330 tons	400
17:30:00.04	37.052	-116.025	1203	Shaft	Weapons Related	10.1 kt	401
16:18:47.15	36.818	-115.950	913	Shaft	Weapons Effects	Less than 20 kt	402
15:28:54.11	37.117	-116.032	1274	Shaft	Weapons Related	Less than 20 kt	403

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Whetstone -- Continued

404	Wagtail	03/03/1965	LANL	NTS	U3an
405	Suede	03/20/1965	LLNL	NTS	U9bk
406	Cup	03/26/1965	LLNL	NTS	U9cb
407	Kestrel	04/05/1965	LANL	NTS	U3dd
408	Palanquin Release of radioactivity detected offsite	04/14/1965	LLNL	NTS	U20k
409	Gum Drop	04/21/1965	LLNL/DoD	NTS	U16a.02
410	Chenille Accidental release of radioactivity detected onsite only	04/22/1965	LLNL	NTS	U9bg
411	Muscovy	04/23/1965	LANL	NTS	U3dx
412	Tee Accidental release of radioactivity detected offsite	05/07/1965	LLNL	NTS	U2ab
413	Buteo	05/12/1965	LANL	NTS	U20a
414	Scaup	05/14/1965	LANL	NTS	U3da(s)
415	Cambric	05/14/1965	LLNL	NTS	U5e
416	Tweed	05/21/1965	LLNL	NTS	U9bn
417	Petrel	06/11/1965	LANL	NTS	U3dy
418	Organdy	06/11/1965	LLNL	NTS	U9bo
419	Diluted Waters Accidental release of radioactivity detected offsite	06/16/1965	LLNL/DoD	NTS	U5b
420	Tiny Tot Accidental release of radioactivity detected onsite only	06/17/1965	LLNL/DoD	NTS	U15e

### Operation Flintlock

421	Izzer	07/16/1965	LLNL	NTS	U9bp
422	Pongee Accidental release of radioactivity detected onsite only	07/22/1965	LLNL	NTS	U2ah
423	Bronze	07/23/1965	LANL	NTS	U7f
424	Mauve	08/06/1965	LANL	NTS	U3dp
425	Ticking	08/21/1965	LLNL	NTS	U9bj
426	Centaur Accidental release of radioactivity detected onsite only	08/27/1965	LLNL	NTS	U2ak
427	Moa	09/01/1965	LANL	NTS	U3ed
	Screamer Simultaneous, separate holes Accidental release of radioactivity detected onsite only	09/01/1965	LANL	NTS	U3dg

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Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Whetstone -- Continued

19:13:00.03	37.064	-116.038	1210	Shaft	Weapons Related	20 to 200 kt	404
15:30:49.10	37.115	-116.027	1286	Shaft	Weapons Related	Less than 20 kt	405
15:34:08.16	37.148	-116.044	1267	Shaft	Weapons Related	20 to 200 kt	406
21:00:00.04	37.026	-116.024	1187	Shaft	Weapons Related	Less than 20 kt	407
13:14:00.10	37.280	-116.524	1861	Crater	Plowshare	4.3 kt	408
22:00:00.03	37.007	-116.203	1931	Tunnel	Weapons Effects	Less than 20 kt	409
13:39:00.10	37.111	-116.031	1276	Shaft	Weapons Related	Less than 20 kt	410
21:44:00.04	37.017	-115.996	1189	Shaft	Weapons Related	Less than 20 kt	411
15:47:11.15	37.140	-116.068	1283	Shaft	Weapons Effects	7 kt	412
18:15:00.10	37.243	-116.432	1960	Shaft	Weapons Related	Less than 20 kt	413
17:32:36.23	37.059	-116.011	1222	Shaft	Weapons Related	Less than 20 kt	414
14:57:52.15	36.823	-115.968	929	Shaft	Weapons Related	750 tons	415
13:08:52.11	37.119	-116.029	1281	Shaft	Weapons Related	Less than 20 kt	416
19:45:00.04	37.043	-116.018	1197	Shaft	Weapons Related	1.3 kt	417
20:28:37.11	37.116	-116.024	1294	Shaft	Weapons Related	Less than 20 kt	418
16:30:00.15	36.818	-115.957	916	Shaft	Weapons Effects	Less than 20 kt	419
17:00:00.09	37.223	-116.058	----	Tunnel	Weapons Effects	Less than 20 kt	420

### Operation Flintlock

13:04:24.10	37.115	-116.033	1273	Shaft	Weapons Related	Less than 20 kt	421
13:21:08.11	37.132	-116.068	1274	Shaft	Weapons Related	Less than 20 kt	422
17:00:00.04	37.098	-116.034	1257	Shaft	Weapons Related	20 to 200 kt	423
17:23:30.04	37.018	-116.041	1185	Shaft	Weapons Related	Less than 20 kt	424
13:43:08.15	37.113	-116.027	1288	Shaft	Weapons Related	Less than 20 kt	425
13:51:13.11	37.137	-116.071	1283	Shaft	Weapons Related	Less than 20 kt	426
20:08:00.04	37.037	-116.015	1194	Shaft	Weapons Related	Less than 20 kt	
20:08:00.04	37.023	-116.010	1184	Shaft	Weapons Effects	Less than 20 kt	427

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Flintlock -- Continued

428	Charcoal	09/10/1965	LANL/UK	NTS	U7g
429	Elkhart	09/17/1965	LLNL	NTS	U9bs
430	<b>Long Shot</b> Nuclear test detection experiment	10/29/1965	LANL/DoD	Amchitka, Alaska	----
431	Sepia	11/12/1965	LANL	NTS	U3en
432	Kermet Accidental release of radioactivity detected onsite only	11/23/1965	LLNL	NTS	U2c
433	Corduroy	12/03/1965	LLNL	NTS	U10k
434	Emerson Accidental release of radioactivity detected onsite only	12/16/1965	LLNL	NTS	U2al
435	Buff	12/16/1965	LANL	NTS	U3dh
436	Maxwell	01/13/1966	LLNL	NTS	U9br
437	Lampblack	01/18/1966	LANL	NTS	U7i
438	Sienna	01/18/1966	LANL	NTS	U3cj
439	Dovekie	01/21/1966	LANL	NTS	U3cd
440	Reo Accidental release of radioactivity detected onsite only	01/22/1966	LLNL	NTS	U10m
441	Plaid II Accidental release of radioactivity detected onsite only	02/03/1966	LLNL	NTS	U2r
442	Rex	02/24/1966	LLNL	NTS	U20h(e)
443	Red Hot Accidental release of radioactivity detected offsite	03/05/1966	LANL/DoD	NTS	U12g.06
444	Finfoot	03/07/1966	LLNL	NTS	U3du
	Cinnamon Simultaneous, separate holes Accidental release of radioactivity detected onsite only	03/07/1966	LANL	NTS	U3dm
445	Clymer	03/12/1966	LLNL	NTS	U9ce
446	Purple	03/18/1966	LANL	NTS	U3ds
447	Templar Excavation device development	03/24/1966	LLNL	NTS	U9bt
448	Lime	04/01/1966	LANL	NTS	U7j
449	Stutz	04/06/1966	LLNL	NTS	U2ca
450	Tomato	04/07/1966	LANL	NTS	U3ek
451	Duryea	04/14/1966	LLNL	NTS	U20a1
452	Fenton Accidental release of radioactivity detected offsite by aircraft only	04/23/1966	LLNL	NTS	U2m1

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Flintlock -- Continued

17:12:00.03	37.078	-116.018	1245	Shaft	Joint US-UK	20 to 200 kt	428
15:08:23.10	37.111	-116.035	1267	Shaft	Weapons Related	Less than 20 kt	429
21:00:00.08	51.424	179.179	42	Shaft	Vela Uniform	80 kt	430
18:00:00.05	37.050	-116.023	1202	Shaft	Weapons Related	Less than 20 kt	431
18:17:32.10	37.162	-116.072	1304	Shaft	Weapons Related	Less than 20 kt	432
15:13:02.10	37.165	-116.053	1275	Shaft	Weapons Related	20 to 200 kt	433
15:39:18.15	37.141	-116.064	1280	Shaft	Weapons Related	Less than 20 kt	434
19:15:00.04	37.073	-116.030	1223	Shaft	Weapons Related	20 to 200 kt	435
15:37:43.10	37.116	-116.028	1283	Shaft	Weapons Related	Less than 20 kt	436
18:35:00.04	37.092	-116.020	1267	Shaft	Weapons Related	20 to 200 kt	437
18:35:00.04	37.037	-116.019	1193	Shaft	Weapons Related	Less than 20 kt	438
18:28:00.04	37.032	-116.017	1189	Shaft	Weapons Related	Less than 20 kt	439
15:17:19.10	37.157	-116.040	1283	Shaft	Weapons Related	Less than 20 kt	440
18:17:37.10	37.126	-116.070	1272	Shaft	Weapons Related	Less than 20 kt	441
15:55:07.04	37.272	-116.435	1971	Shaft	Weapons Related	19 kt	442
18:15:00.10	37.174	-116.209	2299	Tunnel	Weapons Effects	Less than 20 kt	443
18:41:00.07	37.037	-116.030	1193	Shaft	Weapons Related	Less than 20 kt	444
18:41:00.04	37.035	-116.032	1192	Shaft	Safety Experiment	Less than 20 kt	
18:04:13.11	37.144	-116.053	1266	Shaft	Weapons Related	Less than 20 kt	445
19:00:00.04	37.009	-116.010	1180	Shaft	Weapons Related	Less than 20 kt	446
14:55:28.14	37.113	-116.032	1275	Shaft	Plowshare	370 tons	447
18:40:00.04	37.103	-116.021	1291	Shaft	Weapons Related	Less than 20 kt	448
13:57:17.10	37.139	-116.142	1458	Shaft	Weapons Related	Less than 20 kt	449
22:27:30.04	37.017	-115.993	1195	Shaft	Weapons Related	Less than 20 kt	450
14:13:43.10	37.243	-116.432	1960	Shaft	Weapons Related	70 kt	451
14:55:26.14	37.160	-116.084	1321	Shaft	Weapons Related	1.4 kt	452

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	
<b>Operation Flintlock -- Continued</b>					
453	Pin Stripe Accidental release of radioactivity detected offsite	04/25/1966	LANL/DoD	NTS	U11b
454	Ochre	04/29/1966	LANL	NTS	U3ec
455	Traveler	05/04/1966	LLNL	NTS	U2cd
456	Cyclamen Included heavy element experiment	05/05/1966	LANL	NTS	U3cx
457	Chartreuse	05/06/1966	LANL	NTS	U19d
458	Tapestry Accidental release of radioactivity detected onsite only	05/12/1966	LLNL	NTS	U2an
459	Piranha	05/13/1966	LANL	NTS	U7e
460	Dumont	05/19/1966	LLNL	NTS	U2t
461	Discus Thrower	05/27/1966	LANL/DoD	NTS	U8a
462	Pile Driver Accidental release of radioactivity detected onsite only	06/02/1966	LANL/DoD	NTS	U15a.01
463	Tan	06/03/1966	LANL	NTS	U7k
464	Puce	06/10/1966	LANL	NTS	U3bs
465	Double Play Accidental release of radioactivity detected offsite	06/15/1966	LLNL/DoD	NTS	U16a.03
466	Kankakee	06/15/1966	LLNL	NTS	U10p
467	Vulcan Device development Heavy element production	06/25/1966	LLNL	NTS	U2bd
468	Halfbeak	06/30/1966	LANL	NTS	U19b
<b>Operation Latchkey</b>					
469	Saxon Excavation device development	07/28/1966	LLNL	NTS	U2cc
470	Rovena	08/10/1966	LLNL	NTS	U10s
471	Tangerine	08/12/1966	LANL	NTS	U3eb
472	Derringer Accidental release of radioactivity detected offsite	09/12/1966	LANL/SNL/DoD	NTS	U5i
473	Daiquiri	09/23/1966	LANL	NTS	U7o
474	Newark	09/29/1966	LLNL	NTS	U10u
475	Khaki	10/15/1966	LANL	NTS	U3et
476	Simms Excavation device development	11/05/1966	LLNL	NTS	U10w
477	Ajax Accidental release of radioactivity detected onsite only	11/11/1966	LLNL	NTS	U9al



## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Flintlock -- Continued

18:38:00.14	36.887	-115.942	1066	Shaft	Weapons Effects	Less than 20 kt	453
13:33:00.04	37.044	-116.023	1196	Shaft	Safety Experiment	Less than 20 kt	454
13:32:17.09	37.137	-116.138	1430	Shaft	Weapons Related	Less than 20 kt	455
14:00:00.04	37.051	-116.039	1203	Shaft	Weapons Related	12 kt	456
15:00:00.08	37.348	-116.323	2064	Shaft	Weapons Related	73 kt	457
19:37:26.20	37.134	-116.072	1281	Shaft	Weapons Related	Less than 20 kt	458
13:30:00.04	37.087	-116.034	1237	Shaft	Weapons Related	20 to 200 kt	459
13:56:28.14	37.111	-116.059	1252	Shaft	Weapons Related	20 to 200 kt	460
20:00:00.04	37.178	-116.099	1380	Shaft	Weapons Effects	22 kt	461
15:30:00.09	37.227	-116.056	1525	Tunnel	Weapons Effects	62 kt	462
14:00:00.04	37.068	-116.036	1213	Shaft	Weapons Related	20 to 200 kt	463
14:30:00.04	37.059	-116.040	1208	Shaft	Weapons Related	Less than 20 kt	464
17:00:00.04	37.010	-116.204	1954	Tunnel	Weapons Effects	Less than 20 kt	465
18:02:47.13	37.171	-116.050	1281	Shaft	Weapons Related	20 to 200 kt	466
17:13:00.07	37.155	-116.073	1300	Shaft	Plowshare	25 kt	467
22:15:00.07	37.316	-116.300	2043	Shaft	Weapons Related	365 kt	468

### Operation Latchkey

15:33:30.13	37.140	-116.134	1411	Shaft	Plowshare	1.2 kt	469
13:16:00.07	37.169	-116.049	1278	Shaft	Weapons Related	Less than 20 kt	470
15:36:00.05	37.046	-116.030	1199	Shaft	Safety Experiment	Less than 20 kt	471
15:30:00.05	36.877	-115.951	1013	Shaft	Weapons Effects	7.8 kt	472
18:00:00.04	37.103	-116.037	1260	Shaft	Weapons Related	Less than 20 kt	473
14:45:30.09	37.169	-116.047	1279	Shaft	Weapons Related	Less than 20 kt	474
19:00:00.05	37.047	-116.018	1202	Shaft	Weapons Related	Less than 20 kt	475
14:45:00.00	37.170	-116.048	1279	Shaft	Plowshare	2.3 kt	476
12:00:00.14	37.134	-116.051	1254	Shaft	Weapons Related	Less than 20 kt	477

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Latchkey -- Continued

478	Cerise Accidental release of radioactivity detected onsite only	11/18/1966	LANL	NTS	U3eu
479	Vigil Accidental release of radioactivity detected onsite only	11/22/1966	LLNL	NTS	U10ad
480	Sterling Nuclear test detection experiment	12/03/1966	LLNL/DoD	Hattiesburg, Mississippi	- - - -
481	New Point Accidental release of radioactivity detected onsite only	12/13/1966	LLNL/DoD	NTS	U11c
482	Sidecar Accidental release of radioactivity detected onsite only	12/13/1966	LANL	NTS	U3ez
483	Greeley	12/20/1966	LLNL	NTS	U20g
484	Rivet I	01/18/1967	LLNL	NTS	U10aa
485	Nash Accidental release of radioactivity detected offsite	01/19/1967	LLNL	NTS	U2ce
486	Bourbon	01/20/1967	LANL	NTS	U7n
487	Rivet II Accidental release of radioactivity detected onsite only	01/26/1967	LLNL	NTS	U10z
488	Ward	02/08/1967	LLNL	NTS	U10x
489	Persimmon	02/23/1967	LANL	NTS	U3dn
490	Agile	02/23/1967	LLNL	NTS	U2v
491	Rivet III	03/02/1967	LLNL	NTS	U10y
492	Mushroom Accidental release of radioactivity detected onsite only	03/03/1967	LANL	NTS	U3ef
493	Fizz	03/10/1967	LANL	NTS	U3fr
494	Oakland	04/04/1967	LLNL	NTS	U2bi
495	Heilman Accidental release of radioactivity detected onsite only	04/06/1967	LLNL	NTS	U2cg
496	Fawn	04/07/1967	LANL	NTS	U3eo
497	Chocolate	04/21/1967	LANL	NTS	U3es
498	Effendi	04/27/1967	LLNL	NTS	U2ap
499	Mickey	05/10/1967	LANL	NTS	U7m
500	Commodore	05/20/1967	LLNL	NTS	U2am
501	Scotch	05/23/1967	LANL	NTS	U19as
502	Knickerbocker	05/26/1967	LLNL	NTS	U20d
503	Absinthe	05/26/1967	LANL	NTS	U3ep
504	Switch Excavation device development	06/22/1967	LLNL	NTS	U9bv

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Latchkey -- Continued

15:02:00.04	37.043	-116.011	1202	Shaft	Weapons Related	Less than 20 kt	478
15:00:00.13	37.169	-116.049	1278	Shaft	Safety Experiment	Less than 20 kt	479
12:15:00.05	31.142	-89.570	46	Shaft	Vela Uniform	380 tons	480
21:00:00.08	36.877	-115.939	1003	Shaft	Weapons Effects	Less than 20 kt	481
17:50:00.04	37.035	-116.008	1195	Shaft	Weapons Related	Less than 20 kt	482
15:30:00.08	37.302	-116.409	1945	Shaft	Weapons Related	870 kt	483
14:55:00.00	37.165	-116.047	1276	Shaft	Weapons Related	Less than 20 kt	484
16:45:00.14	37.144	-116.136	1425	Shaft	Weapons Related	39 kt	485
17:40:03.41	37.100	-116.005	1306	Shaft	Weapons Related	20 to 200 kt	486
16:30:00.00	37.165	-116.049	1274	Shaft	Weapons Related	Less than 20 kt	487
15:15:00.13	37.167	-116.048	1277	Shaft	Weapons Related	Less than 20 kt	488
18:34:00.04	37.017	-116.017	1184	Shaft	Weapons Related	Less than 20 kt	489
18:50:00.13	37.127	-116.067	1270	Shaft	Weapons Related	20 to 200 kt	490
15:00:00.00	37.166	-116.050	1275	Shaft	Weapons Related	Less than 20 kt	491
15:19:00.04	37.039	-116.011	1198	Shaft	Weapons Related	Less than 20 kt	492
15:00:00.04	37.046	-116.031	1199	Shaft	Safety Experiment	Less than 20 kt	493
14:20:00.15	37.162	-116.083	1321	Shaft	Weapons Related	Less than 20 kt	494
15:00:00.12	37.137	-116.134	1405	Shaft	Weapons Related	Less than 20 kt	495
15:00:00.04	37.054	-116.023	1206	Shaft	Weapons Related	Less than 20 kt	496
15:09:00.04	37.019	-116.038	1186	Shaft	Weapons Related	Less than 20 kt	497
14:45:00.00	37.139	-116.064	1279	Shaft	Weapons Related	Less than 20 kt	498
13:40:00.04	37.078	-115.996	1278	Shaft	Weapons Related	20 to 200 kt	499
15:00:00.20	37.130	-116.065	1271	Shaft	Weapons Related	250 kt	500
14:00:00.04	37.275	-116.371	2034	Shaft	Weapons Related	155 kt	501
15:00:01.50	37.248	-116.481	1878	Shaft	Weapons Related	76 kt	502
12:30:00.03	37.045	-116.020	1199	Shaft	Safety Experiment	Less than 20 kt	503
13:10:00.00	37.126	-116.030	1277	Shaft	Plowshare	3.1 kt	504

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Latchkey -- Continued

505	Midi Mist Controlled release of radioactivity detected offsite	06/26/1967	LLNL/DoD	NTS	U12n.02
506	Umber Accidental release of radioactivity detected offsite	06/29/1967	LANL	NTS	U3em

### Operation Crosstie

507	Vito	07/14/1967	LLNL	NTS	U10ab
508	Stanley	07/27/1967	LLNL	NTS	U10q
509	Gibson	08/04/1967	LANL	NTS	U3ew
510	Washer	08/10/1967	LLNL	NTS	U10r
511	Bordeaux	08/18/1967	LANL	NTS	U3dr
512	Lexington	08/24/1967	LLNL	NTS	U2bm
513	Door Mist Accidental release of radioactivity detected offsite	08/31/1967	LANL/DoD	NTS	U12g.07
514	Yard	09/07/1967	LLNL	NTS	U10af
515	Gilroy	09/15/1967	LANL	NTS	U3ex
516	Marvel Emplacement technique experiment Accidental release of radioactivity detected onsite only	09/21/1967	LLNL	NTS	U10ds1
517	Zaza	09/27/1967	LANL	NTS	U4c
518	Lanpher	10/18/1967	LLNL	NTS	U2x
519	Sazerac	10/25/1967	LANL	NTS	U3fa
520	Cognac Accidental release of radioactivity detected onsite only	10/25/1967	LANL	NTS	U3fm
521	Worth	10/25/1967	LLNL	NTS	U10ag
522	Cobbler	11/08/1967	LANL	NTS	U7u
523	Polka	12/06/1967	LLNL	NTS	U10ai
524	<b>Gasbuggy</b> Joint Government/industry gas stimulation experiment	12/10/1967	LLNL	Farmington, New Mexico	- - - -
525	Stilt	12/15/1967	LANL	NTS	U3fh
526	Hupmobile Accidental release of radioactivity detected offsite	01/18/1968	LLNL	NTS	U2y
527	Staccato	01/19/1968	LLNL	NTS	U10ah
528	Faultless Seismic calibration	01/19/1968	LLNL	Central Nevada	- - - -
529	Brush Accidental release of radioactivity detected onsite only	01/24/1968	LANL	NTS	U3eq

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Latchkey -- Continued

16:00:00.08	37.202	-116.209	2200	Tunnel	Weapons Effects	Less than 20 kt	505
11:25:00.04	37.029	-116.023	1188	Shaft	Weapons Effects	10 kt	506

### Operation Crosstie

13:30:00.08	37.165	-116.046	1278	Shaft	Safety Experiment	Less than 20 kt	507
13:00:00.12	37.149	-116.049	1265	Shaft	Weapons Related	20 to 200 kt	508
14:00:00.04	37.024	-116.013	1186	Shaft	Weapons Related	Less than 20 kt	509
14:10:00.00	37.157	-116.048	1271	Shaft	Weapons Related	Less than 20 kt	510
20:12:30.04	37.012	-116.037	1183	Shaft	Weapons Related	Less than 20 kt	511
13:30:00.00	37.163	-116.075	1310	Shaft	Weapons Related	Less than 20 kt	512
16:30:00.04	37.178	-116.210	2295	Tunnel	Weapons Effects	Less than 20 kt	513
13:45:00.00	37.153	-116.054	1270	Shaft	Weapons Related	20 to 200 kt	514
17:30:00.04	37.035	-116.022	1191	Shaft	Weapons Related	Less than 20 kt	515
20:45:00.00	37.166	-116.039	1288	Shaft	Plowshare	2.2 kt	516
17:00:00.04	37.099	-116.054	1240	Shaft	Weapons Related	20 to 200 kt	517
14:30:00.08	37.116	-116.059	1255	Shaft	Weapons Related	20 to 200 kt	518
14:30:00.06	37.032	-116.027	1191	Shaft	Weapons Related	Less than 20 kt	519
14:30:00.14	37.050	-116.040	1202	Shaft	Weapons Related	Less than 20 kt	520
14:45:00.08	37.156	-116.049	1269	Shaft	Weapons Related	Less than 20 kt	521
15:00:00.04	37.092	-116.037	1242	Shaft	Weapons Related	Less than 20 kt	522
13:00:00.00	37.159	-116.054	1273	Shaft	Weapons Related	Less than 20 kt	523
19:30:00.14	36.678	-107.209	2179	Shaft	Plowshare	29 kt	524
15:00:00.04	37.037	-116.003	1204	Shaft	Weapons Related	Less than 20 kt	525
16:30:00.13	37.146	-116.067	1287	Shaft	Weapons Effects	7.4 kt	526
15:00:00.00	37.156	-116.055	1272	Shaft	Weapons Related	20 to 200 kt	527
18:15:00.08	38.634	-118.133	1834	Shaft	Weapons Related	200 to 1000 kt	528
15:00:00.04	37.043	-116.015	1199	Shaft	Weapons Related	Less than 20 kt	529

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	
<b>Operation Crosstie -- Continued</b>					
530	Cabriolet Release of radioactivity detected offsite	01/26/1968	LLNL	NTS	U20l
531	Mallet	01/31/1968	LANL	NTS	U3fv
532	Knox	02/21/1968	LLNL	NTS	U2at
533	Torch	02/21/1968	LANL	NTS	U3fj
534	Dorsal Fin	02/29/1968	LANL/DoD	NTS	U12e.10
535	Russet Accidental release of radioactivity detected onsite only	03/05/1968	LANL/DoD	NTS	U6a
536	Buggy-A Buggy-B Buggy-C Buggy-D Buggy-E Simultaneous, separate holes Row charge experiment -- five simultaneous detonations Release of radioactivity detected offsite	03/12/1968 03/12/1968 03/12/1968 03/12/1968 03/12/1968	LLNL LLNL LLNL LLNL LLNL	NTS NTS NTS NTS NTS	U30a U30b U30c U30d U30e
537	Pommard	03/14/1968	LANL	NTS	U3ee
538	Stinger	03/22/1968	LANL	NTS	U19l
539	Milk Shake Accidental release of radioactivity detected onsite only	03/25/1968	LLNL/DoD	NTS	U5k
540	Bevel	04/04/1968	LANL	NTS	U3fu
541	Noor Throw Simultaneous, separate holes	04/10/1968 04/10/1968	LLNL LLNL	NTS NTS	U2be U2bg
542	Shuffle	04/18/1968	LLNL	NTS	U10t
543	Scroll Nuclear test detection experiment Accidental release of radioactivity detected onsite only	04/23/1968	LLNL/DoD	NTS	U19n
544	Boxcar	04/26/1968	LLNL	NTS	U20i
545	Hatchet	05/03/1968	LANL	NTS	U3fz
546	Crock	05/08/1968	LLNL	NTS	U10ak
547	Clarksmobile	05/17/1968	LLNL	NTS	U2as
548	Adze Accidental release of radioactivity detected onsite only	05/28/1968	LANL	NTS	U3fw
549	Wembley	06/05/1968	LANL	NTS	U3ey

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Crosstie -- Continued

16:00:00.11	37.281	-116.515	1862	Crater	Plowshare	2.3 kt	530
15:30:00.04	37.001	-116.010	1177	Shaft	Weapons Related	Less than 20 kt	531
15:30:00.00	37.117	-116.055	1253	Shaft	Weapons Related	20 to 200 kt	532
15:00:00.04	37.042	-116.003	1210	Shaft	Weapons Related	Less than 20 kt	533
17:08:30.04	37.185	-116.212	2260	Tunnel	Weapons Effects	Less than 20 kt	534
15:30:00.04	36.970	-116.057	1170	Shaft	Weapons Related	Less than 20 kt	535
17:04:00.11	37.007	-116.371	1560	Crater	Plowshare	1.08 kt	536
17:04:00.11	37.008	-116.371	1560	Crater	Plowshare	1.08 kt	
17:04:00.11	37.008	-116.372	1561	Crater	Plowshare	1.08 kt	
17:04:00.11	37.008	-116.372	1560	Crater	Plowshare	1.08 kt	
17:04:00.11	37.008	-116.373	1560	Crater	Plowshare	1.08 kt	
15:19:00.06	37.048	-116.012	1208	Shaft	Weapons Related	1.5 kt	537
15:00:00.04	37.333	-116.312	2035	Shaft	Weapons Related	20 to 200 kt	538
18:44:27.04	36.872	-115.932	993	Shaft	Weapons Effects	Less than 20 kt	539
15:02:00.04	37.052	-116.022	1205	Shaft	Weapons Related	Less than 20 kt	540
14:00:00.00	37.154	-116.080	1310	Shaft	Weapons Related	20 to 200 kt	541
14:00:00.00	37.157	-116.083	1316	Shaft	Weapons Related	Less than 20 kt	
14:05:00.00	37.152	-116.038	1279	Shaft	Weapons Related	20 to 200 kt	542
17:01:30.08	37.338	-116.376	2032	Shaft	Vela Uniform	Less than 20 kt	543
15:00:00.07	37.295	-116.457	1914	Shaft	Weapons Related	1.3 Mt	544
16:00:00.04	37.029	-116.021	1188	Shaft	Weapons Related	Less than 20 kt	545
14:10:00.00	37.157	-116.036	1289	Shaft	Weapons Related	Less than 20 kt	546
13:00:00.00	37.120	-116.060	1259	Shaft	Weapons Related	20 to 200 kt	547
14:45:00.04	37.009	-115.996	1188	Shaft	Weapons Related	Less than 20 kt	548
14:21:30.04	37.035	-116.017	1191	Shaft	Weapons Related	Less than 20 kt	549

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Crosstie -- Continued

550	Tub-A Tub-B Tub-C Tub-D Tub-F Simultaneous, separate holes	06/06/1968 06/06/1968 06/06/1968 06/06/1968 06/06/1968	LLNL LLNL LLNL LLNL LLNL	NTS NTS NTS NTS NTS	U10ajc U10ajb U10ajf U10ajd U10aja
551	Rickey	06/15/1968	LANL	NTS	U19c
552	Funnel Accidental release of radioactivity detected onsite only	06/25/1968	LANL	NTS	U3ga
553	Sevilla Accidental release of radioactivity detected onsite only	06/25/1968	LANL	NTS	U3fk
554	Chateaugay	06/28/1968	LLNL	NTS	U20t

### Operation Bowline

555	Spud	07/17/1968	LANL	NTS	U3fy
556	Tanya	07/30/1968	LLNL	NTS	U2dt
557	Imp Accidental release of radioactivity detected onsite only	08/09/1968	LLNL	NTS	U2bj
558	Rack	08/15/1968	LLNL	NTS	U9ap
559	Diana Moon Accidental release of radioactivity detected onsite only	08/27/1968	LLNL/DoD	NTS	U11e
560	Sled	08/29/1968	LANL	NTS	U19i
561	Noggin	09/06/1968	LLNL	NTS	U9bx
562	Knife A	09/12/1968	LANL	NTS	U3fb
563	Stoddard Excavation device development	09/17/1968	LLNL	NTS	U2cms
564	Hudson Seal	09/24/1968	LLNL/DoD	NTS	U12n.04
565	Knife C	10/03/1968	LANL	NTS	U3er
566	Welder	10/03/1968	LANL	NTS	U3fs
567	Vat	10/10/1968	LLNL	NTS	U9cf
568	Hula Accidental release of radioactivity detected onsite only	10/29/1968	LLNL	NTS	U9bu
569	Bit-A Bit-B Simultaneous, same hole	10/31/1968 10/31/1968	LANL LANL	NTS NTS	U3gt U3gt
570	File	10/31/1968	LANL	NTS	U3gb
571	Crew	11/04/1968	LLNL	NTS	U2db
572	Crew-2nd Crew-3rd Simultaneous, same hole	11/04/1968 11/04/1968	LLNL LLNL	NTS NTS	U2db U2db



## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Crosstie -- Continued

21:30:00.00	37.167	-116.043	1282	Shaft	Weapons Related	Less than 20 kt	550
21:30:00.00	37.165	-116.044	1279	Shaft	Weapons Related	Less than 20 kt	
21:30:00.00	37.165	-116.042	1283	Shaft	Weapons Related	Less than 20 kt	
21:30:00.00	37.167	-116.046	1278	Shaft	Weapons Related	Less than 20 kt	
21:30:00.00	37.167	-116.043	1282	Shaft	Weapons Related	Less than 20 kt	
13:59:59.97	37.265	-116.316	2116	Shaft	Weapons Related	20 to 200 kt	551
15:30:00.04	37.046	-116.031	1199	Shaft	Weapons Related	Less than 20 kt	552
15:30:00.04	37.042	-115.993	1226	Shaft	Weapons Related	Less than 20 kt	553
12:22:00.08	37.245	-116.484	1876	Shaft	Weapons Related	20 to 200 kt	554

### Operation Bowline

14:00:00.04	37.001	-116.000	1178	Shaft	Weapons Related	Less than 20 kt	555
13:00:00.00	37.117	-116.083	1271	Shaft	Weapons Related	20 to 200 kt	556
13:00:00.00	37.162	-116.078	1314	Shaft	Weapons Related	Less than 20 kt	557
17:00:00.00	37.124	-116.049	1254	Shaft	Weapons Related	Less than 20 kt	558
16:30:00.04	36.877	-115.932	1004	Shaft	Weapons Effects	Less than 20 kt	559
22:45:00.04	37.250	-116.348	2057	Shaft	Weapons Related	20 to 200 kt	560
14:00:00.13	37.136	-116.048	1259	Shaft	Weapons Related	20 to 200 kt	561
14:00:00.04	37.032	-116.012	1190	Shaft	Weapons Related	Less than 20 kt	562
14:00:00.04	37.120	-116.128	1370	Shaft	Plowshare	31 kt	563
17:05:01.09	37.205	-116.207	2168	Tunnel	Weapons Effects	Less than 20 kt	564
14:29:00.04	37.026	-115.994	1201	Shaft	Weapons Related	Less than 20 kt	565
14:00:00.04	37.046	-116.031	1199	Shaft	Safety Experiment	Less than 20 kt	566
14:30:00.00	37.133	-116.043	1256	Shaft	Weapons Related	Less than 20 kt	567
15:36:00.09	37.113	-116.042	1254	Shaft	Weapons Related	Less than 20 kt	568
18:30:00.04	37.047	-116.030	1199	Shaft	Safety Experiment	Less than 20 kt	569
18:30:00.04	37.047	-116.030	1199	Shaft	Safety Experiment	Less than 20 kt	
18:30:00.04	37.017	-116.037	1185	Shaft	Weapons Related	Less than 20 kt	570
15:15:00.09	37.130	-116.087	1287	Shaft	Weapons Related	20 to 200 kt	571
15:16:00.09	37.130	-116.087	1287	Shaft	Weapons Related	Less than 20 kt	572
15:16:00.09	37.130	-116.087	1287	Shaft	Weapons Related	Less than 20 kt	

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Bowline -- Continued

573	Knife B	11/15/1968	LANL	NTS	U3dz
574	Auger	11/15/1968	LANL	NTS	U3fx
575	Ming Vase	11/20/1968	LANL/DoD	NTS	U16a.04
576	Tinderbox	11/22/1968	LLNL	NTS	U9az
577	Schooner Release of radioactivity detected offsite	12/08/1968	LLNL	NTS	U20u
578	Tyg-A	12/12/1968	LLNL	NTS	U2dc1e
	Tyg-B	12/12/1968	LLNL	NTS	U2dc2d
	Tyg-C	12/12/1968	LLNL	NTS	U2dc3c
	Tyg-D	12/12/1968	LLNL	NTS	U2dc4a
	Tyg-E	12/12/1968	LLNL	NTS	U2dc5b
	Tyg-F	12/12/1968	LLNL	NTS	U2dc6f
	Simultaneous, separate holes Accidental release of radioactivity detected onsite only				
579	Bay Leaf	12/12/1968	LANL	NTS	U3gq
580	Scissors Accidental release of radioactivity detected onsite only	12/12/1968	LANL	NTS	U3gh
581	Benham	12/19/1968	LLNL	NTS	U20c
582	Packard Accidental release of radioactivity detected onsite only	01/15/1969	LLNL	NTS	U2u
583	Wineskin	01/15/1969	LLNL	NTS	U12r
584	Shave	01/22/1969	LANL	NTS	U3gk
585	Vise	01/30/1969	LANL	NTS	U3ej
586	Biggin	01/30/1969	LLNL	NTS	U9bz
587	Nipper	02/04/1969	LANL	NTS	U3gl
588	Winch	02/04/1969	LANL	NTS	U3gf
589	Cypress	02/12/1969	LLNL/SNL/DoD	NTS	U12g.09
590	Valise	03/18/1969	LLNL	NTS	U9by
591	Chatty	03/18/1969	LLNL	NTS	U2bn
592	Barsac Accidental release of radioactivity detected onsite only	03/20/1969	LANL	NTS	U3gc
593	Coffer	03/21/1969	LLNL	NTS	U2de
594	Gourd-Amber	04/24/1969	LLNL	NTS	U2bf
	Gourd-Brown Simultaneous, separate holes	04/24/1969	LLNL	NTS	U2bl
595	Thistle	04/30/1969	LANL	NTS	U7t
596	Blenton Accidental release of radioactivity detected onsite only	04/30/1969	LANL	NTS	U7p

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Bowline -- Continued

15:45:00.04	37.026	-116.034	1188	Shaft	Weapons Related	Less than 20 kt	573
15:30:00.04	37.048	-116.001	1222	Shaft	Weapons Related	Less than 20 kt	574
18:00:00.03	37.010	-116.207	1931	Tunnel	Weapons Effects	Less than 20 kt	575
16:19:00.04	37.140	-116.043	1261	Shaft	Weapons Related	Less than 20 kt	576
16:00:00.14	37.343	-116.567	1668	Crater	Plowshare	30 kt	577
15:10:00.08	37.121	-116.081	1273	Shaft	Weapons Related	Less than 20 kt	578
15:10:00.08	37.118	-116.080	1270	Shaft	Weapons Related	Less than 20 kt	
15:10:00.08	37.118	-116.078	1268	Shaft	Weapons Related	Less than 20 kt	
15:10:00.08	37.121	-116.079	1272	Shaft	Weapons Related	Less than 20 kt	
15:10:00.08	37.120	-116.077	1270	Shaft	Weapons Related	Less than 20 kt	
15:10:00.08	37.119	-116.083	1273	Shaft	Weapons Related	Less than 20 kt	
15:00:00.04	37.047	-116.031	1199	Shaft	Safety Experiment	Less than 20 kt	579
15:20:00.04	37.004	-116.040	1181	Shaft	Weapons Related	Less than 20 kt	580
16:30:00.04	37.231	-116.474	1887	Shaft	Weapons Related	1.15 Mt	581
19:00:00.07	37.148	-116.067	1288	Shaft	Weapons Effects	10 kt	582
19:30:00.04	37.209	-116.226	2263	Shaft	Weapons Related	20 to 200 kt	583
15:00:00.04	37.015	-115.995	1191	Shaft	Weapons Related	Less than 20 kt	584
15:00:00.04	37.053	-116.030	1204	Shaft	Weapons Related	20 to 200 kt	585
15:17:00.12	37.133	-116.041	1257	Shaft	Weapons Related	Less than 20 kt	586
15:00:00.04	37.003	-116.010	1178	Shaft	Weapons Related	Less than 20 kt	587
15:00:00.04	37.009	-116.043	1185	Shaft	Weapons Related	Less than 20 kt	588
16:18:20.88	37.169	-116.212	2265	Tunnel	Weapons Effects	Less than 20 kt	589
14:30:00.12	37.139	-116.042	1261	Shaft	Safety Experiment	Less than 20 kt	590
14:40:00.43	37.162	-116.077	1312	Shaft	Weapons Related	Less than 20 kt	591
18:12:00.04	37.022	-116.031	1187	Shaft	Weapons Related	Less than 20 kt	592
14:30:00.41	37.133	-116.088	1291	Shaft	Weapons Related	Less than 100 kt	593
13:04:00.14	37.164	-116.081	1320	Shaft	Weapons Related	Less than 20 kt	594
13:04:00.14	37.160	-116.082	1317	Shaft	Weapons Related	Less than 20 kt	
17:00:00.04	37.090	-116.007	1281	Shaft	Weapons Related	20 to 200 kt	595
17:00:00.04	37.081	-116.015	1255	Shaft	Weapons Related	20 to 200 kt	596

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Bowline -- Continued

597	Purse	05/07/1969	LLNL	NTS	U20v
598	Aliment	05/15/1969	LANL	NTS	U3gj
599	Torrido	05/27/1969	LANL	NTS	U7w
600	Ipecac-A	05/27/1969	LANL	NTS	U3hka
	Ipecac-B Simultaneous, separate holes Accidental release of radioactivity detected onsite (trace)	05/27/1969	LANL	NTS	U3hkb
601	Tapper Accidental release of radioactivity detected onsite only	06/12/1969	LANL	NTS	U3go
602	Bowl-1	06/26/1969	LLNL	NTS	U2bo1
	Bowl-2 Simultaneous, separate holes	06/26/1969	LLNL	NTS	U2bo2

### Operation Mandrel

603	Ildrim	07/16/1969	LLNL	NTS	U2au
604	Hutch	07/16/1969	LLNL	NTS	U2df
605	Spider-A	08/14/1969	LLNL	NTS	U2bp1
	Spider-B Simultaneous, separate holes	08/14/1969	LLNL	NTS	U2bp2
606	Pliers Accidental release of radioactivity detected onsite only	08/27/1969	LANL	NTS	U3gn
607	Horehound	08/27/1969	LANL	NTS	U3gm
608	<b>Rulison</b> Joint Government/industry gas stimulation experiment Operational release of radioactivity detected offsite	09/10/1969	LANL	Grand Valley, Colorado	- - - -
609	Minute Steak Accidental release of radioactivity detected onsite only	09/12/1969	LLNL/DoD	NTS	U11f
610	Jorum	09/16/1969	LLNL	NTS	U20e
611	Kyack-A	09/20/1969	LLNL	NTS	U2bq1
	Kyack-B Simultaneous, separate holes Accidental release of radioactivity detected onsite only	09/20/1969	LLNL	NTS	U2bq2
612	Seaweed-C	10/01/1969	LANL	NTS	U3hke
	Seaweed-D	10/01/1969	LANL	NTS	U3hkf
	Seaweed-E Simultaneous, separate holes Accidental release of radioactivity detected onsite only	10/01/1969	LANL	NTS	U3hkc

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Bowline -- Continued

13:45:00.04	37.283	-116.502	1828	Shaft	Weapons Related	20 to 200 kt	597
18:00:00.04	37.012	-115.986	1207	Shaft	Weapons Related	Less than 20 kt	598
14:15:00.04	37.075	-115.996	1270	Shaft	Weapons Related	20 to 200 kt	599
14:00:00.04	37.015	-116.003	1181	Shaft	Safety Experiment	Less than 20 kt	600
14:00:00.04	37.015	-116.001	1182	Shaft	Safety Experiment	Less than 20 kt	
14:00:00.04	37.009	-116.031	1181	Shaft	Weapons Related	Less than 20 kt	601
16:00:00.13	37.162	-116.079	1316	Shaft	Weapons Related	Less than 20 kt	602
16:00:00.13	37.161	-116.080	1315	Shaft	Weapons Related	Less than 20 kt	

### Operation Mandrel

13:02:30.04	37.119	-116.056	1256	Shaft	Weapons Related	20 to 200 kt	603
14:55:00.04	37.139	-116.088	1300	Shaft	Weapons Related	20 to 200 kt	604
14:30:00.04	37.160	-116.064	1292	Shaft	Weapons Related	Less than 20 kt	605
14:30:00.04	37.158	-116.065	1291	Shaft	Weapons Related	Less than 20 kt	
13:45:00.04	37.021	-116.039	1187	Shaft	Weapons Related	Less than 20 kt	606
13:45:00.04	36.993	-115.996	1174	Shaft	Weapons Related	Less than 20 kt	607
21:00:00.01	39.356	-107.949	2469	Shaft	Plowshare	40 kt	608
18:02:20.42	36.877	-115.929	1007	Shaft	Weapons Effects	Less than 20 kt	609
14:30:00.04	37.314	-116.462	1898	Shaft	Weapons Related	Less than 1 Mt	610
14:30:00.04	37.159	-116.069	1296	Shaft	Weapons Related	Less than 20 kt	611
14:30:00.04	37.157	-116.067	1293	Shaft	Weapons Related	Less than 20 kt	
14:30:00.04	37.011	-115.999	1184	Shaft	Safety Experiment	Less than 20 kt	612
14:30:00.04	37.010	-116.000	1183	Shaft	Safety Experiment	Less than 20 kt	
14:30:00.04	37.014	-115.999	1184	Shaft	Safety Experiment	Less than 20 kt	

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	
<b>Operation Mandrel -- Continued</b>					
613	<b>Milrow</b> Seismic calibration	10/02/1969	LANL	Amchitka, Alaska	----
614	Pipkin	10/08/1969	LLNL	NTS	U20b
615	Seaweed B Accidental release of radioactivity detected onsite only	10/16/1969	LANL	NTS	U3hkd
616	Cruet	10/29/1969	LLNL	NTS	U2cn
617	Pod-A	10/29/1969	LLNL	NTS	U2ch
	Pod-B	10/29/1969	LLNL	NTS	U2ci
	Pod-C	10/29/1969	LLNL	NTS	U2cj
	Pod-D Simultaneous, separate holes Accidental release of radioactivity detected offsite only	10/29/1969	LLNL	NTS	U2ck
618	Calabash	10/29/1969	LLNL	NTS	U2av
619	Scuttle Accidental release of radioactivity detected offsite by aircraft only	11/13/1969	LLNL	NTS	U2bh
620	Piccalilli	11/21/1969	LANL	NTS	U3fc
621	Planer	11/21/1969	LANL	NTS	U3el
622	Diesel Train	12/05/1969	LANL/DoD	NTS	U12e.11
623	Culantro-A	12/10/1969	LANL	NTS	U3hia
	Culantro-B Simultaneous, separate holes	12/10/1969	LANL	NTS	U3hib
624	Tun-A	12/10/1969	LLNL	NTS	U10am1
	Tun-B	12/10/1969	LLNL	NTS	U10am2
	Tun-C	12/10/1969	LLNL	NTS	U10am3
	Tun-D Simultaneous, separate holes Accidental release of radioactivity detected onsite only	12/10/1969	LLNL	NTS	U10am4
625	Grape A	12/17/1969	LANL	NTS	U7s
626	Lovage	12/17/1969	LANL	NTS	U3fe
627	Terrine-White	12/18/1969	LLNL	NTS	U9bi1
	Terrine-Yellow Simultaneous, separate holes	12/18/1969	LLNL	NTS	U9bi2
628	Fob-Green	01/23/1970	LLNL	NTS	U9iv27
	Fob-Red	01/23/1970	LLNL	NTS	U9iv24
	Fob-Blue Simultaneous, separate holes	01/23/1970	LLNL	NTS	U9iy27

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Mandrel -- Continued

22:06:00.04	51.403	179.179	40	Shaft	Weapons Related	About 1 Mt	613
14:30:00.14	37.257	-116.442	1965	Shaft	Weapons Related	200 to 1000 kt	614
14:00:00.04	37.013	-115.999	1185	Shaft	Safety Experiment	Less than 20 kt	615
19:30:00.04	37.121	-116.129	1372	Shaft	Weapons Related	11 kt	616
20:00:00.04	37.140	-116.131	1397	Shaft	Weapons Related	16.7 kt (Total)	617
20:00:00.04	37.140	-116.143	1464	Shaft	Weapons Related		
20:00:00.04	37.136	-116.141	1448	Shaft	Weapons Related		
20:00:00.04	37.135	-116.137	1424	Shaft	Weapons Related		
22:01:51.04	37.143	-116.065	1283	Shaft	Weapons Related	110 kt	618
15:15:00.13	37.165	-116.076	1312	Shaft	Weapons Related	1.7 kt	619
14:52:00.04	37.031	-116.003	1195	Shaft	Weapons Related	20 to 200 kt	620
14:52:00.08	37.015	-116.024	1183	Shaft	Weapons Related	Less than 20 kt	621
17:00:00.04	37.180	-116.212	2207	Tunnel	Weapons Effects	Less than 20 kt	622
15:00:00.04	37.015	-116.004	1181	Shaft	Weapons Related	Less than 20 kt	623
15:00:00.04	37.015	-116.002	1182	Shaft	Weapons Related	Less than 20 kt	
15:30:00.07	37.168	-116.080	1323	Shaft	Weapons Related	Less than 20 kt	624
15:30:00.07	37.169	-116.080	1324	Shaft	Weapons Related	Less than 20 kt	
15:30:00.07	37.168	-116.078	1319	Shaft	Weapons Related	Less than 20 kt	
15:30:00.07	37.169	-116.078	1320	Shaft	Weapons Related	Less than 20 kt	
15:00:00.04	37.083	-116.002	1274	Shaft	Weapons Related	20 to 200 kt	625
15:15:00.04	37.007	-116.024	1181	Shaft	Weapons Related	Less than 20 kt	626
19:00:00.04	37.120	-116.036	1264	Shaft	Weapons Related	20 to 200 kt	627
19:00:00.04	37.121	-116.029	1277	Shaft	Weapons Related	20 to 200 kt	
16:30:00.21	37.141	-116.038	1266	Shaft	Weapons Related	Less than 20 kt	628
16:30:00.21	37.137	-116.038	1263	Shaft	Weapons Related	Less than 20 kt	
16:30:00.21	37.141	-116.034	1273	Shaft	Weapons Related	Less than 20 kt	

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	
<b>Operation Mandrel -- Continued</b>					
629	Ajo In mined shaft	01/30/1970	LANL	NTS	U3gd
630	Grape B	02/04/1970	LANL	NTS	U7v
631	Belen	02/04/1970	LANL	NTS	U3br
632	Labis	02/05/1970	LLNL	NTS	U10an
633	Diana Mist	02/11/1970	LANL/DoD	NTS	U12n.06
634	Cumarin	02/25/1970	LANL	NTS	U3gz
635	Yannigan-Red	02/26/1970	LLNL	NTS	U2ay1
	Yannigan-Blue	02/26/1970	LLNL	NTS	U2ay3
	Yannigan-White Simultaneous, separate holes	02/26/1970	LLNL	NTS	U2ay2
636	Cyathus	03/06/1970	LLNL	NTS	U8b
637	Arabis-Red	03/06/1970	LLNL	NTS	U9itsv26
	Arabis-Green	03/06/1970	LLNL	NTS	U9itsx28
	Arabis-Blue Simultaneous, separate holes	03/06/1970	LLNL	NTS	U9itsz26
638	Jal	03/19/1970	LANL	NTS	U3hh
639	Shaper	03/23/1970	LANL	NTS	U7r
640	Handley	03/26/1970	LLNL	NTS	U20m
641	Snubber Accidental release of radioactivity detected offsite	04/21/1970	LANL	NTS	U3ev2s
642	Can-Green	04/21/1970	LLNL	NTS	U2dd1
	Can-Red Simultaneous, separate holes	04/21/1970	LLNL	NTS	U2dd4
643	Beebalm	05/01/1970	LANL	NTS	U3fn
644	Hod-A (Green)	05/01/1970	LLNL	NTS	U9itsx23
	Hod-B (Red) Simultaneous, separate holes Accidental release of radioactivity detected onsite only	05/01/1970	LLNL	NTS	U9itsx20
645	Hod-C (Blue)	05/01/1970	LLNL	NTS	U9iz25
646	Mint Leaf Controlled release of radioactivity detected offsite	05/05/1970	LLNL/DoD	NTS	U12t.01
647	Diamond Dust Nuclear test detection experiment	05/12/1970	LANL/DoD	NTS	U16a.05
648	Cornice-Yellow	05/15/1970	LLNL	NTS	U10ap1
	Cornice-Green Simultaneous, separate holes	05/15/1970	LLNL	NTS	U10ap3



## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Mandrel -- Continued

17:00:00.04	37.031	-116.036	1191	Shaft	Weapons Related	Less than 20 kt	629
17:00:00.04	37.098	-116.027	1269	Shaft	Weapons Related	20 to 200 kt	630
17:00:00.07	37.055	-116.040	1206	Shaft	Weapons Related	20 to 200 kt	631
15:00:00.04	37.164	-116.040	1286	Shaft	Weapons Related	25 kt	632
19:15:00.04	37.201	-116.206	2229	Tunnel	Weapons Effects	Less than 20 kt	633
14:28:38.04	37.037	-115.999	1206	Shaft	Weapons Related	20 to 200 kt	634
15:30:00.04	37.116	-116.062	1258	Shaft	Weapons Related	20 to 200 kt	635
15:30:00.04	37.114	-116.067	1258	Shaft	Weapons Related	20 to 200 kt	
15:30:00.04	37.118	-116.067	1261	Shaft	Weapons Related	20 to 200 kt	
14:24:00.94	37.173	-116.093	1353	Shaft	Weapons Related	8.7 kt	636
15:00:00.21	37.140	-116.032	1276	Shaft	Weapons Related	Less than 20 kt	637
15:00:00.21	37.142	-116.035	1270	Shaft	Weapons Related	Less than 20 kt	
15:00:00.21	37.140	-116.038	1265	Shaft	Safety Experiment	Less than 20 kt	
14:03:30.04	37.001	-116.024	1178	Shaft	Weapons Related	Less than 20 kt	638
23:05:00.04	37.086	-116.022	1252	Shaft	Weapons Related	20 to 200 kt	639
19:00:00.20	37.300	-116.535	1772	Shaft	Weapons Related	More than 1 Mt	640
14:30:00.04	37.055	-115.989	1253	Shaft	Weapons Effects	12.7 kt	641
15:00:00.04	37.112	-116.083	1266	Shaft	Weapons Related	20 to 200 kt	642
15:00:00.04	37.116	-116.081	1268	Shaft	Weapons Related	20 to 200 kt	
14:13:00.04	37.059	-116.029	1209	Shaft	Weapons Related	Less than 20 kt	643
14:40:00.17	37.136	-116.035	1268	Shaft	Weapons Related	Less than 20 kt	644
14:40:00.17	37.133	-116.035	1266	Shaft	Weapons Related	Less than 20 kt	
14:25:00.00	37.138	-116.032	1276	Shaft	Safety Experiment	Less than 20 kt	645
15:30:00.17	37.216	-116.185	2094	Tunnel	Weapons Effects	Less than 20 kt	646
14:00:00.04	37.010	-116.203	1899	Tunnel	Vela Uniform	Less than 20 kt	647
13:30:00.17	37.166	-116.036	1293	Shaft	Weapons Related	20 to 200 kt	648
13:30:00.17	37.162	-116.040	1286	Shaft	Weapons Related	20 to 200 kt	

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	
<b>Operation Mandrel -- Continued</b>					
649	Manzanas Accidental release of radioactivity detected onsite only	05/21/1970	LANL	NTS	U3gr
650	Morrone	05/21/1970	LANL	NTS	U3ei
651	Hudson Moon Accidental release of radioactivity detected onsite only	05/26/1970	LLNL/DoD	NTS	U12e.12
652	Flask-Green	05/26/1970	LLNL	NTS	U2az1
	Flask-Yellow	05/26/1970	LLNL	NTS	U2az2
	Flask-Red Simultaneous, separate holes Accidental release of radioactivity detected onsite only	05/26/1970	LLNL	NTS	U2az3
653	Piton-C Accidental release of radioactivity detected onsite only	05/28/1970	LLNL	NTS	U9itsaa25
654	Piton-A	05/28/1970	LLNL	NTS	U9itsy30
	Piton-B Simultaneous, separate holes Accidental release of radioactivity detected onsite only	05/28/1970	LLNL	NTS	U9itsx27
655	Arnica-Yellow	06/26/1970	LLNL	NTS	U2dd2
	Arnica-Violet Simultaneous, separate holes	06/26/1970	LLNL	NTS	U2dd3
<b>Operation Emery</b>					
656	Scree-Acajou	10/13/1970	LLNL	NTS	U9itsx24
	Scree-Alhambra	10/13/1970	LLNL	NTS	U9itsz21
	Scree-Chamois Simultaneous, separate holes Accidental release of radioactivity detected onsite only	10/13/1970	LLNL	NTS	U9itsz24
657	Tijeras	10/14/1970	LANL	NTS	U7y
658	Truchas-Chacon	10/28/1970	LANL	NTS	U3hn
	Truchas-Chamisal	10/28/1970	LANL	NTS	U3ho
	Truchas-Rodarte Simultaneous, separate holes Accidental release of radioactivity detected onsite only	10/28/1970	LANL	NTS	U3hm
659	Abeytas	11/05/1970	LANL	NTS	U3gx
660	Penasco	11/19/1970	LANL	NTS	U3hl

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Mandrel -- Continued

14:00:00.04	37.012	-115.993	1194	Shaft	Weapons Related	Less than 20 kt	649
14:15:00.03	37.071	-116.014	1237	Shaft	Weapons Related	20 to 200 kt	650
14:16:00.17	37.183	-116.214	2274	Tunnel	Weapons Effects	Less than 20 kt	651
15:00:00.05	37.113	-116.063	1251	Shaft	Plowshare	105 kt	652
15:00:00.05	37.118	-116.064	1259	Shaft	Plowshare	90 tons	
15:00:00.05	37.116	-116.068	1259	Shaft	Plowshare	35 tons	
11:45:00.20	37.138	-116.031	1279	Shaft	Weapons Related	Less than 20 kt	653
12:00:00.16	37.144	-116.033	1274	Shaft	Weapons Related	Less than 20 kt	654
12:00:00.16	37.141	-116.035	1270	Shaft	Weapons Related	Less than 20 kt	
13:00:00.04	37.114	-116.087	1270	Shaft	Weapons Related	Less than 20 kt	655
13:00:00.04	37.117	-116.085	1272	Shaft	Weapons Related	Less than 20 kt	

### Operation Emery

15:05:00.02	37.137	-116.035	1269	Shaft	Weapons Related	Less than 20 kt	656
15:05:00.02	37.134	-116.032	1273	Shaft	Weapons Related	Less than 20 kt	
15:05:00.02	37.137	-116.032	1275	Shaft	Safety Experiment	Less than 20 kt	
14:30:00.04	37.071	-116.006	1249	Shaft	Weapons Related	20 to 200 kt	657
14:30:00.03	37.014	-116.019	1182	Shaft	Safety Experiment	Less than 20 kt	658
14:30:00.04	37.014	-116.018	1182	Shaft	Safety Experiment	Less than 20 kt	
14:30:00.04	37.015	-116.020	1183	Shaft	Weapons Related	Less than 20 kt	
15:00:00.04	37.029	-116.013	1188	Shaft	Weapons Related	20 to 200 kt	659
15:00:00.04	37.015	-116.017	1183	Shaft	Weapons Related	Less than 20 kt	660

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Emery -- Continued

661	Carrizozo	12/03/1970	LANL	NTS	U3hr
	Corazon Simultaneous, separate holes	12/03/1970	LANL	NTS	U3ha
662	Artesia	12/16/1970	LANL	NTS	U7x
663	Avens-Andorre	12/16/1970	LLNL	NTS	U9itst28
	Avens-Alkermes	12/16/1970	LLNL	NTS	U9itsu24
	Avens-Asamlte	12/16/1970	LLNL	NTS	U9itsw21
	Avens-Cream Simultaneous, separate holes Accidental release of radioactivity detected onsite only	12/16/1970	LLNL	NTS	U9itsx29
664	Canjilon	12/16/1970	LANL	NTS	U3fq
665	Carpetbag	12/17/1970	LLNL	NTS	U2dg
666	Baneberry Accidental release of radioactivity detected offsite	12/18/1970	LLNL	NTS	U8d
667	Embudo	06/16/1971	LANL	NTS	U3hd
668	Laguna	06/23/1971	LANL	NTS	U3fd
669	Dexter	06/23/1971	LANL	NTS	U3hs
670	Harebell	06/24/1971	LLNL	NTS	U2br
671	Camphor Accidental release of radioactivity detected onsite only	06/29/1971	LLNL/SNL/DoD	NTS	U12g.10

### Operation Grommet

672	Diamond Mine Nuclear test detection experiment	07/01/1971	LANL/DoD	NTS	U16a.06
673	Miniata Device development experiment	07/08/1971	LLNL	NTS	U2bu
674	Bracken	07/09/1971	LLNL	NTS	U10aq
675	Apodaca	07/21/1971	LANL	NTS	U3gs
676	Barranca	08/04/1971	LANL	NTS	U3he
677	Nama-Amarylis	08/05/1971	LLNL	NTS	U9itsxy31
	Nama-Mephisto Simultaneous, separate holes	08/05/1971	LLNL	NTS	U9itsz27
678	Baltic	08/06/1971	LLNL	NTS	U9itss25
679	Algodones	08/18/1971	LANL	NTS	U3jn

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Emery -- Continued

15:07:00.00	37.006	-116.041	1183	Shaft	Weapons Related	Less than 20 kt	661
15:07:00.04	37.002	-116.039	1180	Shaft	Weapons Related	Less than 20 kt	
16:00:00.09	37.100	-116.009	1302	Shaft	Weapons Related	20 to 200 kt	662
16:00:00.17	37.142	-116.040	1264	Shaft	Weapons Related	Less than 20 kt	663
16:00:00.17	37.137	-116.039	1262	Shaft	Weapons Related	Less than 20 kt	
16:00:00.17	37.134	-116.036	1264	Shaft	Weapons Related	Less than 20 kt	
16:00:00.17	37.143	-116.035	1271	Shaft	Weapons Related	Less than 20 kt	
16:00:00.05	37.072	-116.026	1227	Shaft	Weapons Related	Less than 20 kt	664
16:05:00.16	37.129	-116.084	1284	Shaft	Weapons Related	220 kt	665
15:30:00.20	37.173	-116.100	1367	Shaft	Weapons Related	10 kt	666
14:50:00.04	37.033	-116.015	1191	Shaft	Weapons Related	Less than 20 kt	667
15:30:00.04	37.022	-116.024	1186	Shaft	Weapons Related	20 to 200 kt	668
14:00:00.04	37.013	-116.017	1182	Shaft	Safety Experiment	Less than 20 kt	669
14:00:00.16	37.147	-116.068	1287	Shaft	Weapons Related	20 to 200 kt	670
18:30:00.16	37.177	-116.212	2289	Tunnel	Weapons Effects	Less than 20 kt	671

### Operation Grommet

14:00:00.04	37.011	-116.204	1896	Tunnel	Vela Uniform	Less than 20 kt	672
14:00:00.08	37.110	-116.052	1247	Shaft	Plowshare	83 kt	673
14:00:00.16	37.164	-116.034	1297	Shaft	Weapons Related	Less than 20 kt	674
13:33:00.05	37.014	-115.993	1195	Shaft	Weapons Related	Less than 20 kt	675
13:30:00.04	37.026	-116.020	1187	Shaft	Weapons Related	Less than 20 kt	676
18:07:45.20	37.145	-116.034	1273	Shaft	Weapons Related	Less than 20 kt	677
18:07:45.20	37.141	-116.032	1276	Shaft	Weapons Related	Less than 20 kt	
14:31:00.16	37.138	-116.042	1260	Shaft	Weapons Related	Less than 20 kt	678
14:00:00.03	37.057	-116.037	1206	Shaft	Weapons Related	20 to 200 kt	679

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	
<b>Operation Grommet -- Continued</b>					
680	Frijoles-Deming	09/22/1971	LANL	NTS	U3jw
	Frijoles-Espuela	09/22/1971	LANL	NTS	U3ju
	Frijoles-Guaje	09/22/1971	LANL	NTS	U3hf
	Frijoles-Petaca Simultaneous, separate holes	09/22/1971	LANL	NTS	U3hz
681	Pederal	09/29/1971	LANL	NTS	U3hg
682	Chantilly	09/29/1971	LLNL	NTS	U2di
683	Cathay	10/08/1971	LLNL	NTS	U9ch
684	Lagoon	10/14/1971	LLNL	NTS	U10ar
685	<b>Cannikin</b> Test of warhead for Spartan missile	11/06/1971	LLNL	Amchitka, Alaska	----
686	Diagonal Line Accidental release of radioactivity detected offsite by aircraft only	11/24/1971	LLNL/DoD	NTS	U11g
687	Parnassia	11/30/1971	LLNL	NTS	U2bc
688	Chaenactis	12/14/1971	LLNL	NTS	U2dl
689	Hospah	12/14/1971	LANL	NTS	U3je
690	Yerba	12/14/1971	LANL	NTS	U1c
691	Mescalero	01/05/1972	LANL	NTS	U3gu
692	Cowles	02/03/1972	LANL	NTS	U3hx
693	Dianthus	02/17/1972	LLNL	NTS	U10at
694	Sappho	03/23/1972	LLNL	NTS	U2dh2
695	Ocate	03/30/1972	LANL	NTS	U3jp
	Onaja Simultaneous, separate holes	03/30/1972	LANL	NTS	U3js
696	Longchamps	04/19/1972	LLNL	NTS	U2dm
697	Jicarilla	04/19/1972	LANL	NTS	U3jm
698	Misty North	05/02/1972	LANL/DoD	NTS	U12n.05
699	Kara	05/11/1972	LLNL	NTS	U2dh3
700	Zinnia	05/17/1972	LLNL	NTS	U2dk
701	Monero	05/19/1972	LANL	NTS	U3jq
702	Merida	06/07/1972	LLNL	NTS	U2dn
703	Capitan	06/28/1972	LANL	NTS	U3jj
704	Haplopappus	06/28/1972	LLNL	NTS	U9itsw22
705	Tajique	06/28/1972	LANL	NTS	U7aa
<b>Operation Toggle</b>					
706	Diamond Sculls	07/20/1972	LLNL/DoD	NTS	U12t.02
707	Atarque	07/25/1972	LANL	NTS	U3ht

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Grommet -- Continued

14:00:00.04	37.022	-116.020	1186	Shaft	Safety Experiment	Less than 20 kt	680
14:00:00.04	37.023	-116.017	1186	Shaft	Safety Experiment	Less than 20 kt	
14:00:00.04	37.024	-116.016	1186	Shaft	Weapons Related	Less than 20 kt	
14:00:00.04	37.022	-116.017	1185	Shaft	Weapons Related	Less than 20 kt	
14:00:00.04	37.011	-116.008	1180	Shaft	Weapons Related	Less than 20 kt	681
14:30:00.14	37.124	-116.088	1280	Shaft	Weapons Related	Less than 20 kt	682
14:30:00.15	37.114	-116.038	1261	Shaft	Weapons Related	Less than 20 kt	683
14:30:00.16	37.180	-116.054	1286	Shaft	Weapons Related	Less than 20 kt	684
22:00:00.06	51.456	179.102	63	Shaft	Weapons Related	Less than 5 Mt	685
20:15:00.17	36.879	-115.936	1010	Shaft	Weapons Effects	Less than 20 kt	686
15:45:00.15	37.160	-116.071	1302	Shaft	Weapons Related	Less than 20 kt	687
21:09:59.16	37.124	-116.090	1281	Shaft	Weapons Related	20 to 200 kt	688
21:10:01.04	37.026	-116.030	1188	Shaft	Weapons Related	Less than 20 kt	689
21:10:01.04	37.023	-116.060	1202	Shaft	Weapons Related	Less than 20 kt	690
15:10:00.04	37.046	-116.030	1198	Shaft	Weapons Related	Less than 20 kt	691
21:45:00.04	37.001	-116.020	1178	Shaft	Weapons Related	Less than 20 kt	692
19:02:00.16	37.166	-116.057	1279	Shaft	Weapons Related	Less than 20 kt	693
18:50:00.16	37.113	-116.082	1266	Shaft	Weapons Related	Less than 20 kt	694
21:00:00.08	37.004	-116.016	1179	Shaft	Weapons Related	Less than 20 kt	695
21:00:00.04	37.005	-116.021	1180	Shaft	Weapons Related	Less than 20 kt	
16:32:00.16	37.122	-116.085	1276	Shaft	Weapons Related	Less than 20 kt	696
16:42:00.05	37.007	-116.017	1180	Shaft	Weapons Related	Less than 20 kt	697
19:15:00.04	37.208	-116.210	2199	Tunnel	Weapons Effects	Less than 20 kt	698
14:00:00.16	37.112	-116.085	1267	Shaft	Weapons Related	Less than 20 kt	699
14:10:00.16	37.121	-116.089	1277	Shaft	Weapons Related	Less than 20 kt	700
17:00:00.05	37.065	-116.003	1245	Shaft	Weapons Related	Less than 20 kt	701
15:20:00.16	37.116	-116.086	1271	Shaft	Weapons Related	Less than 20 kt	702
14:41:00.19	36.993	-116.023	1175	Shaft	Weapons Related	Less than 20 kt	703
16:30:03.16	37.135	-116.036	1264	Shaft	Weapons Related	Less than 20 kt	704
16:30:00.07	37.070	-115.993	1274	Shaft	Weapons Related	Less than 20 kt	705
<b>Operation Toggle</b>							
17:16:00.16	37.214	-116.184	2113	Tunnel	Weapons Effects	Less than 20 kt	706
13:30:00.06	37.012	-116.016	1182	Shaft	Weapons Related	Less than 20 kt	707

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Toggle -- Continued

708	Cebolla	08/09/1972	LANL	NTS	U3jc
	Cuchillo	08/09/1972	LANL	NTS	U3jt
	Solano Simultaneous, separate holes	08/09/1972	LANL	NTS	U3jx
709	Oscuro	09/21/1972	LANL	NTS	U7z
710	Delphinium	09/26/1972	LLNL	NTS	U2dp
711	Akbar	11/09/1972	LLNL	NTS	U10ax
712	Arsenate	11/09/1972	LLNL	NTS	U9ci
713	Canna-Umbrinus	11/17/1972	LLNL	NTS	U9itsyz26
	Canna-Limoges Simultaneous, same hole	11/17/1972	LLNL	NTS	U9itsyz26
714	Tuloso	12/12/1972	LANL	NTS	U3gi
715	Solanum	12/14/1972	LLNL	NTS	U9itsw24.5
716	Flax-Source	12/21/1972	LLNL	NTS	U2dj
717	Flax-Test	12/21/1972	LLNL	NTS	U2dj
	Flax-Backup Simultaneous, same hole	12/21/1972	LLNL	NTS	U2dj
718	Alumroot	02/14/1973	LLNL	NTS	U9cj
719	Miera	03/08/1973	LANL	NTS	U7ad
720	Gazook	03/23/1973	LLNL	NTS	U2do
721	Natoma	04/05/1973	LLNL	NTS	U10aw
722	Angus	04/25/1973	LANL	NTS	U3jg
	Velarde Simultaneous, separate holes	04/25/1973	LANL	NTS	U3jk
723	Starwort	04/26/1973	LLNL	NTS	U2bs
724	Colmor	04/26/1973	LANL	NTS	U3hv
725	Mesita	05/09/1973	LANL	NTS	U3jd
726	<b>Rio Blanco-1</b>	05/17/1973	LLNL	Rifle, Colorado	----
	<b>Rio Blanco-2</b>	05/17/1973	LLNL	Rifle, Colorado	----
	<b>Rio Blanco-3</b> Simultaneous, same hole Joint Government/industry gas stimulation experiment	05/17/1973	LLNL	Rifle, Colorado	----
727	Cabresto	05/24/1973	LANL	NTS	U7h
728	Kashan	05/24/1973	LLNL	NTS	U10av
729	Dido Queen	06/05/1973	LLNL/DoD	NTS	U12e.14
730	Almendro	06/06/1973	LANL	NTS	U19v
731	Potrillo	06/21/1973	LANL	NTS	U7af
732	Portulaca	06/28/1973	LLNL	NTS	U2bv
733	Silene	06/28/1973	LLNL	NTS	U9ck



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Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Toggle -- Continued

13:31:10.04	37.007	-116.020	1180	Shaft	Weapons Related	Less than 20 kt	708
13:31:10.04	37.004	-116.020	1179	Shaft	Weapons Related	Less than 20 kt	
13:31:10.04	37.003	-116.018	1179	Shaft	Safety Experiment	Less than 20 kt	
15:30:00.19	37.082	-116.037	1225	Shaft	Weapons Related	20 to 200 kt	709
14:30:00.16	37.121	-116.087	1276	Shaft	Weapons Related	15 kt	710
15:15:00.16	37.162	-116.034	1295	Shaft	Weapons Related	Less than 20 kt	711
18:15:00.16	37.121	-116.033	1268	Shaft	Weapons Related	Less than 20 kt	712
18:00:00.16	37.140	-116.033	1273	Shaft	Weapons Related	Less than 20 kt	713
18:00:00.16	37.140	-116.033	1273	Shaft	Safety Experiment	Less than 20 kt	
16:30:00.04	37.031	-116.022	1189	Shaft	Weapons Related	Less than 20 kt	714
15:30:00.16	37.138	-116.036	1267	Shaft	Weapons Related	Less than 20 kt	715
20:15:00.24	37.140	-116.084	1296	Shaft	Weapons Related	Less than 20 kt	716
20:15:24.35	37.140	-116.084	1296	Shaft	Weapons Effects	20 to 200 kt	717
20:15:24.35	37.140	-116.084	1296	Shaft	Weapons Effects	Less than 20 kt	
15:30:00.16	37.147	-116.051	1264	Shaft	Weapons Related	Less than 20 kt	718
16:10:00.19	37.104	-116.028	1279	Shaft	Weapons Related	20 to 200 kt	719
20:15:00.17	37.117	-116.088	1274	Shaft	Weapons Related	Less than 20 kt	720
14:50:00.16	37.178	-116.055	1283	Shaft	Weapons Related	Less than 20 kt	721
22:25:00.03	37.005	-116.029	1180	Shaft	Weapons Related	Less than 20 kt	722
22:25:00.07	36.994	-116.022	1176	Shaft	Weapons Related	Less than 20 kt	
17:15:00.17	37.123	-116.059	1261	Shaft	Weapons Related	90 kt	723
15:15:00.04	37.012	-116.021	1182	Shaft	Weapons Related	Less than 20 kt	724
13:30:00.04	37.006	-116.017	1180	Shaft	Weapons Related	Less than 20 kt	725
16:00:00.12	39.793	-108.368	2005	Shaft	Plowshare	33 kt	726
16:00:00.12	39.793	-108.367	2005	Shaft	Plowshare	33 kt	
16:00:00.12	39.793	-108.368	2005	Shaft	Plowshare	33 kt	
13:30:00.04	37.078	-116.032	1228	Shaft	Weapons Related	Less than 20 kt	727
13:30:00.16	37.162	-116.057	1277	Shaft	Weapons Related	Less than 20 kt	728
17:00:00.17	37.185	-116.216	2247	Tunnel	Weapons Effects	Less than 20 kt	729
13:00:00.08	37.245	-116.347	2069	Shaft	Weapons Related	200 to 1000 kt	730
14:45:00.08	37.092	-116.028	1255	Shaft	Weapons Related	20 to 200 kt	731
19:15:12.40	37.148	-116.087	1311	Shaft	Weapons Related	20 to 200 kt	732
19:45:00.16	37.115	-116.042	1254	Shaft	Weapons Related	Less than 20 kt	733

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	
<b>Operation Arbor</b>					
734	Polygonum	10/02/1973	LLNL	NTS	U2by
735	Waller	10/02/1973	LLNL	NTS	U2bz
736	Husky Ace	10/12/1973	LANL/DoD	NTS	U12n.07
737	Bernal	11/28/1973	LANL	NTS	U3jy
738	Pajara	12/12/1973	LANL	NTS	U3ji
739	Seafoam	12/13/1973	LLNL	NTS	U2ea
740	Elida	12/19/1973	LANL	NTS	U3hy
741	Spar	12/19/1973	LANL	NTS	U3jr
742	Pinedrops-Sloat	01/10/1974	LLNL	NTS	U10as
	Pinedrops-Tawny	01/10/1974	LLNL	NTS	U10as
	Pinedrops-Bayou	01/10/1974	LLNL	NTS	U10as
	Simultaneous, same hole				
743	Latir	02/27/1974	LANL	NTS	U4d
744	Hulsea	03/14/1974	LLNL	NTS	U2bx
745	Sapello	04/12/1974	LANL	NTS	U3ge
746	Potrero	04/23/1974	LLNL	NTS	U2eb
747	Plomo	05/01/1974	LANL	NTS	U3ff
748	Jib	05/08/1974	LANL	NTS	U3hb
749	Grove	05/22/1974	LLNL	NTS	U2ds
750	Fallon	05/23/1974	LLNL/UK	NTS	U2dv
751	Jara	06/06/1974	LANL	NTS	U3hp
752	Ming Blade	06/19/1974	LANL/DoD	NTS	U12n.08
<b>Operation Bedrock</b>					
753	Escabosa	07/10/1974	LANL	NTS	U7ac
754	Crestlake-Tansan	07/18/1974	LLNL	NTS	U2dw
	Crestlake-Briar Simultaneous, same hole	07/18/1974	LLNL	NTS	U2dw
755	Puye	08/14/1974	LANL	NTS	U3jl
756	Portmanteau	08/30/1974	LLNL	NTS	U2ax
757	Pratt	09/25/1974	LANL	NTS	U3hq
758	Stanyan	09/26/1974	LLNL	NTS	U2aw
759	Trumbull	09/26/1974	LLNL	NTS	U4aa
760	Estaca	10/17/1974	LANL	NTS	U3ja
761	Hybla Fair	10/28/1974	LLNL/DoD	NTS	U12n.09
762	Temescal	11/02/1974	LLNL	NTS	U4ab
763	Puddle	11/26/1974	LANL	NTS	U3kg
764	Keel	12/16/1974	LANL	NTS	U3hu
765	Portola	02/06/1975	LLNL	NTS	U10bb
	Portola-Larkin Simultaneous, same hole	02/06/1975	LLNL	NTS	U10bb

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Arbor

14:30:00.17	37.159	-116.074	1304	Shaft	Weapons Related	Less than 20 kt	734
15:15:00.16	37.154	-116.069	1294	Shaft	Weapons Related	Less than 20 kt	735
17:00:00.08	37.200	-116.204	2238	Tunnel	Weapons Effects	Less than 20 kt	736
15:30:00.08	37.011	-116.025	1183	Shaft	Weapons Related	Less than 20 kt	737
19:00:00.10	36.991	-116.025	1175	Shaft	Weapons Related	Less than 20 kt	738
15:17:00.17	37.161	-116.074	1306	Shaft	Weapons Related	Less than 20 kt	739
19:16:00.11	37.001	-116.032	1178	Shaft	Weapons Related	Less than 20 kt	740
17:30:00.04	37.006	-116.020	1180	Shaft	Safety Experiment	Less than 20 kt	741
15:38:00.17	37.174	-116.052	1283	Shaft	Weapons Related	Less than 20 kt	742
15:38:00.17	37.174	-116.052	1283	Shaft	Weapons Related	Less than 20 kt	
15:38:00.17	37.174	-116.052	1283	Shaft	Weapons Related	Less than 20 kt	
17:00:00.09	37.104	-116.054	1243	Shaft	Weapons Related	20 to 200 kt	743
17:00:00.17	37.155	-116.065	1289	Shaft	Weapons Related	Less than 20 kt	744
15:15:00.08	37.015	-116.045	1189	Shaft	Weapons Related	Less than 20 kt	745
15:13:00.16	37.160	-116.077	1310	Shaft	Weapons Related	Less than 20 kt	746
14:02:00.21	37.031	-115.986	1227	Shaft	Weapons Related	Less than 20 kt	747
16:55:00.09	37.001	-116.002	1177	Shaft	Weapons Related	Less than 20 kt	748
14:15:00.17	37.115	-116.076	1264	Shaft	Weapons Related	Less than 20 kt	749
13:38:30.16	37.124	-116.080	1276	Shaft	Joint US-UK	20 to 200 kt	750
14:40:00.08	37.004	-116.024	1180	Shaft	Weapons Related	Less than 20 kt	751
16:00:00.08	37.210	-116.208	2212	Tunnel	Weapons Effects	Less than 20 kt	752

### Operation Bedrock

16:00:00.09	37.075	-116.033	1223	Shaft	Weapons Related	20 to 200 kt	753
14:00:01.20	37.119	-116.086	1274	Shaft	Weapons Related	Less than 20 kt	754
14:00:01.20	37.119	-116.086	1274	Shaft	Weapons Related	Less than 20 kt	
14:00:00.11	37.023	-116.037	1188	Shaft	Weapons Related	Less than 20 kt	755
15:00:00.16	37.152	-116.084	1313	Shaft	Weapons Related	20 to 200 kt	756
14:00:00.08	37.012	-116.031	1183	Shaft	Weapons Related	Less than 20 kt	757
15:05:00.17	37.133	-116.069	1275	Shaft	Weapons Related	20 to 200 kt	758
14:30:00.16	37.093	-116.096	1269	Shaft	Weapons Related	Less than 20 kt	759
17:13:00.12	37.006	-116.016	1180	Shaft	Weapons Related	Less than 20 kt	760
15:00:00.17	37.201	-116.205	2227	Tunnel	Weapons Effects	Less than 20 kt	761
15:30:00.16	37.093	-116.093	1263	Shaft	Weapons Related	Less than 20 kt	762
15:00:00.90	37.001	-116.012	1169	Shaft	Safety Experiment	Less than 20 kt	763
17:30:00.09	37.011	-116.018	1182	Shaft	Weapons Related	Less than 20 kt	764
15:30:00.17	37.178	-116.052	1285	Shaft	Weapons Related	Less than 20 kt	765
15:30:00.16	37.178	-116.052	1285	Shaft	Weapons Related	Less than 20 kt	

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Bedrock -- Continued

766	Teleme	02/06/1975	LLNL	NTS	U9cl
767	Bilge	02/19/1975	LANL	NTS	U3kc
768	Topgallant	02/28/1975	LANL	NTS	U4e
769	Cabrillo	03/07/1975	LLNL	NTS	U2dr
770	Dining Car	04/05/1975	LLNL/DoD	NTS	U12e.18
771	Edam	04/24/1975	LLNL	NTS	U2dy
772	Obar	04/30/1975	LANL	NTS	U7ag
773	Tybo	05/14/1975	LLNL	NTS	U20y
774	Stilton	06/03/1975	LLNL/DoD	NTS	U20p
775	Mizzen	06/03/1975	LANL	NTS	U7ah
776	Alviso	06/11/1975	LLNL	NTS	U2du
777	Futtock	06/18/1975	LANL	NTS	U3eh
778	Mast	06/19/1975	LANL	NTS	U19u
779	Camembert	06/26/1975	LLNL	NTS	U19q

### Operation Anvil

780	Marsh	09/06/1975	LANL	NTS	U3kb
781	Husky Pup	10/24/1975	LLNL/DoD	NTS	U12t.03
782	Kasseri	10/28/1975	LLNL	NTS	U20z
783	Deck	11/18/1975	LANL	NTS	U3kd
784	Inlet	11/20/1975	LANL	NTS	U19f
785	Leyden	11/26/1975	LLNL	NTS	U9cm
786	Chiberta	12/20/1975	LLNL	NTS	U2ek
787	Muenster	01/03/1976	LLNL	NTS	U19e
788	Keelson	02/04/1976	LANL	NTS	U7ai
789	Esrom	02/04/1976	LLNL	NTS	U7ak
790	Fontina	02/12/1976	LLNL	NTS	U20f
791	Cheshire	02/14/1976	LLNL	NTS	U20n
792	Shallows	02/26/1976	LANL	NTS	U3jf
793	Estuary	03/09/1976	LANL	NTS	U19g
794	Colby	03/14/1976	LLNL	NTS	U20aa
795	Pool	03/17/1976	LANL	NTS	U19p
796	Strait	03/17/1976	LANL	NTS	U4a
797	Mighty Epic	05/12/1976	LLNL/DoD	NTS	U12n.10
798	Rivoli Accidental release of radioactivity detected onsite only	05/20/1976	LLNL	NTS	U2eg
799	Billet	07/27/1976	LANL	NTS	U7an
800	Banon	08/26/1976	LLNL/UK	NTS	U2dz

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Bedrock -- Continued

16:13:00.17	37.114	-116.022	1300	Shaft	Weapons Related	Less than 20 kt	766
20:10:00.22	37.002	-116.025	1179	Shaft	Weapons Related	Less than 20 kt	767
16:15:00.09	37.106	-116.057	1245	Shaft	Weapons Related	20 to 200 kt	768
16:00:00.17	37.134	-116.085	1288	Shaft	Weapons Related	20 to 200 kt	769
19:45:00.19	37.188	-116.215	2238	Tunnel	Weapons Effects	Less than 20 kt	770
14:10:00.17	37.116	-116.088	1272	Shaft	Weapons Related	20 to 200 kt	771
15:00:01.90	37.109	-116.030	1279	Shaft	Weapons Related	20 to 200 kt	772
14:00:00.16	37.221	-116.475	1880	Shaft	Weapons Related	200 to 1000 kt	773
14:20:00.17	37.340	-116.524	1667	Shaft	Weapons Related	20 to 200 kt	774
14:40:00.11	37.095	-116.037	1247	Shaft	Weapons Related	20 to 200 kt	775
13:00:00.17	37.112	-116.075	1261	Shaft	Safety Experiment	Less than 20 kt	776
11:49:00.09	37.066	-116.023	1221	Shaft	Safety Experiment	Less than 20 kt	777
13:00:00.09	37.350	-116.321	2068	Shaft	Weapons Related	200 to 1000 kt	778
12:30:00.16	37.279	-116.369	2033	Shaft	Weapons Related	200 to 1000 kt	779

### Operation Anvil

17:00:00.11	37.024	-116.029	1187	Shaft	Weapons Related	Less than 20 kt	780
17:11:26.09	37.222	-116.181	2036	Tunnel	Weapons Effects	Less than 20 kt	781
14:30:00.16	37.290	-116.412	1957	Shaft	Weapons Related	200 to 1000 kt	782
15:30:00.11	37.020	-116.022	1185	Shaft	Weapons Related	Less than 20 kt	783
15:00:00.09	37.225	-116.368	2025	Shaft	Weapons Related	200 to 1000 kt	784
15:30:00.16	37.117	-116.020	1303	Shaft	Weapons Related	Less than 20 kt	785
20:00:00.16	37.128	-116.062	1264	Shaft	Weapons Related	20 to 200 kt	786
19:15:00.16	37.297	-116.334	2082	Shaft	Weapons Related	200 to 1000 kt	787
14:20:00.11	37.069	-116.031	1218	Shaft	Weapons Related	20 to 200 kt	788
14:40:00.16	37.107	-116.038	1258	Shaft	Weapons Related	20 to 200 kt	789
14:45:00.16	37.271	-116.489	1837	Shaft	Weapons Related	200 to 1000 kt	790
11:30:00.16	37.243	-116.421	1947	Shaft	Weapons Related	200 to 500 kt	791
14:50:00.09	37.028	-116.017	1188	Shaft	Weapons Related	Less than 20 kt	792
14:00:00.09	37.310	-116.365	2025	Shaft	Weapons Related	200 to 500 kt	793
12:30:00.16	37.306	-116.472	1904	Shaft	Weapons Related	500 to 1000 kt	794
14:15:00.09	37.256	-116.329	2076	Shaft	Weapons Related	200 to 500 kt	795
14:45:00.09	37.107	-116.053	1243	Shaft	Weapons Related	200 to 500 kt	796
19:50:00.17	37.209	-116.213	2224	Tunnel	Weapons Effects	Less than 20 kt	797
17:30:00.16	37.137	-116.067	1279	Shaft	Weapons Related	Less than 20 kt	798
20:30:00.08	37.075	-116.045	1222	Shaft	Weapons Related	20 to 150 kt	799
14:30:00.17	37.125	-116.083	1275	Shaft	Joint US-UK	20 to 150 kt	800

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Fulcrum

801	Gouda	10/06/1976	LLNL	NTS	U2ef
802	Sprit	11/10/1976	LANL	NTS	U3hc
803	Chevre	11/23/1976	LLNL	NTS	U10ay
804	Redmud	12/08/1976	LANL	NTS	U7ab
805	Asiago	12/21/1976	LLNL	NTS	U2ar
806	Sutter	12/21/1976	LLNL	NTS	U2bw
807	Rudder	12/28/1976	LANL	NTS	U7aj(s)
808	Cove	02/16/1977	LANL	NTS	U3ki
	Oarlock Simultaneous, separate holes	02/16/1977	LANL	NTS	U3km
809	Dofino	03/08/1977	LLNL	NTS	U10ba
	Dofino-Lawton Simultaneous, same hole	03/08/1977	LLNL	NTS	U10ba
810	Marsilly	04/05/1977	LLNL	NTS	U2el
811	Bulkhead	04/27/1977	LANL	NTS	U7am
812	Crewline	05/25/1977	LANL	NTS	U7ap
813	Forefoot	06/02/1977	LANL	NTS	U3kf
814	Carnelian	07/28/1977	LLNL	NTS	U4af
815	Strake	08/04/1977	LANL	NTS	U7ae
816	Flotost	08/16/1977	LLNL	NTS	U2ao
817	Gruyere	08/16/1977	LLNL	NTS	U9cg
	Gruyere-Gradino Simultaneous, same hole	08/16/1977	LLNL	NTS	U9cg
818	Scantling	08/19/1977	LANL	NTS	U4h
819	Scupper	08/19/1977	LANL	NTS	U3hj
820	Ebbtide	09/15/1977	LANL	NTS	U3kt
821	Coulommiers	09/27/1977	LLNL	NTS	U2ei

### Operation Cresset

822	Bobstay	10/26/1977	LANL	NTS	U3jb
823	Hybla Gold	11/01/1977	LANL/DoD	NTS	U12e.20
824	Sandreef	11/09/1977	LANL	NTS	U7aq
825	Seamount	11/17/1977	LANL	NTS	U3kp
826	Farallones	12/14/1977	LLNL	NTS	U2fa
827	Rib	12/14/1977	LANL	NTS	U3jv
828	Campos	02/13/1978	LLNL	NTS	U9cp
829	Reblochon	02/23/1978	LLNL	NTS	U2en
830	Karab	03/16/1978	LLNL	NTS	U4ah
831	Iceberg	03/23/1978	LANL	NTS	U4g
832	Topmast	03/23/1978	LANL	NTS	U7ay

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Fulcrum

14:30:00.16	37.135	-116.063	1272	Shaft	Weapons Related	Less than 20 kt	801
14:58:00.08	37.036	-116.018	1192	Shaft	Weapons Related	Less than 20 kt	802
15:15:00.16	37.172	-116.054	1278	Shaft	Weapons Related	Less than 20 kt	803
14:49:30.08	37.079	-116.002	1269	Shaft	Weapons Related	Less than 20 kt	804
15:09:00.17	37.124	-116.068	1265	Shaft	Weapons Related	Less than 20 kt	805
15:58:00.16	37.152	-116.064	1287	Shaft	Weapons Related	Less than 20 kt	806
18:00:00.08	37.100	-116.037	1255	Shaft	Weapons Related	20 to 150 kt	807
17:53:00.16	37.007	-116.032	1181	Shaft	Weapons Related	Less than 20 kt	808
17:53:00.07	37.013	-116.029	1183	Shaft	Weapons Related	Less than 20 kt	
14:24:00.16	37.176	-116.054	1283	Shaft	Weapons Related	Less than 20 kt	809
14:24:00.16	37.176	-116.054	1283	Shaft	Weapons Related	Less than 20 kt	
15:00:00.17	37.120	-116.063	1259	Shaft	Weapons Related	20 to 150 kt	810
15:00:00.08	37.095	-116.029	1259	Shaft	Weapons Related	20 to 150 kt	811
17:00:00.08	37.094	-116.046	1237	Shaft	Weapons Related	20 to 150 kt	812
17:15:00.10	37.055	-116.026	1207	Shaft	Weapons Related	Less than 20 kt	813
14:07:00.16	37.098	-116.092	1265	Shaft	Weapons Related	Less than 20 kt	814
16:40:00.07	37.087	-116.008	1273	Shaft	Weapons Related	20 to 150 kt	815
15:49:00.17	37.147	-116.064	1284	Shaft	Weapons Related	Less than 20 kt	816
14:41:00.16	37.145	-116.050	1263	Shaft	Weapons Related	Less than 20 kt	817
14:41:00.16	37.145	-116.050	1263	Shaft	Weapons Related	Less than 20 kt	
17:55:00.10	37.110	-116.055	1246	Shaft	Weapons Related	20 to 150 kt	818
17:32:00.10	37.018	-116.032	1185	Shaft	Weapons Related	Less than 20 kt	819
14:36:30.08	37.033	-116.044	1194	Shaft	Weapons Related	Less than 20 kt	820
14:00:00.16	37.151	-116.068	1292	Shaft	Weapons Related	20 to 150 kt	821

### Operation Cresset

14:15:00.08	37.008	-116.018	1180	Shaft	Weapons Related	Less than 20 kt	822
18:06:00.07	37.188	-116.214	2239	Tunnel	Weapons Effects	Less than 20 kt	823
22:00:00.08	37.072	-116.051	1221	Shaft	Weapons Related	20 to 150 kt	824
19:30:00.08	37.021	-116.026	1186	Shaft	Weapons Related	Less than 20 kt	825
15:30:00.07	37.136	-116.087	1290	Shaft	Weapons Related	20 to 150 kt	826
15:00:00.17	37.018	-116.019	1184	Shaft	Weapons Related	Less than 20 kt	827
21:53:00.16	37.126	-116.033	1269	Shaft	Weapons Related	Less than 20 kt	828
17:00:00.16	37.124	-116.065	1261	Shaft	Weapons Related	20 to 150 kt	829
15:00:00.07	37.085	-116.082	1247	Shaft	Weapons Related	Less than 20 kt	830
16:30:00.20	37.102	-116.052	1239	Shaft	Weapons Related	20 to 150 kt	831
16:30:00.11	37.099	-116.020	1282	Shaft	Weapons Related	Less than 20 kt	832

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Cresset -- Continued

833	Backbeach	04/11/1978	LANL	NTS	U19x
834	Fondutta	04/11/1978	LLNL/UK	NTS	U19zs
835	Asco	04/25/1978	LLNL	NTS	U10bc
836	Transom No nuclear yield Device was destroyed by Hearts detonation on 09/06/1979	05/10/1978	LANL	NTS	U4f
837	Jackpots	06/01/1978	LANL	NTS	U3kj
838	Satz	07/07/1978	LLNL	NTS	U2dq
839	Lowball	07/12/1978	LANL	NTS	U7av
840	Panir	08/31/1978	LLNL	NTS	U19ys
841	Diablo Hawk	09/13/1978	LLNL/DoD	NTS	U12n.10a
842	Draughts	09/27/1978	LANL	NTS	U7al
843	Rummy	09/27/1978	LANL	NTS	U7au
844	Cremino	09/27/1978	LLNL	NTS	U8e
	Cremino-Caerphilly Simultaneous, same hole	09/27/1978	LLNL	NTS	U8e

### Operation Quicksilver

845	Emmenthal	11/02/1978	LLNL	NTS	U19t
846	Quargel	11/18/1978	LLNL/UK	NTS	U2fb
847	Concentration	12/01/1978	LANL	NTS	U3kn
848	Farm	12/16/1978	LLNL	NTS	U20ab
849	Baccarat	01/24/1979	LANL	NTS	U7ax
850	Quinella	02/08/1979	LANL	NTS	U4l
851	Kloster	02/15/1979	LLNL	NTS	U2eo
852	Memory	03/14/1979	LANL	NTS	U3kq
853	Freezeout	05/11/1979	LANL	NTS	U3kw
854	Pepato	06/11/1979	LLNL	NTS	U20ad
855	Chess	06/20/1979	LANL	NTS	U7at
856	Fajy	06/28/1979	LLNL	NTS	U2fc
857	Burzet	08/03/1979	LLNL	NTS	U4ai
858	Offshore	08/08/1979	LANL	NTS	U3ks
859	Nessel	08/29/1979	LLNL/UK	NTS	U2ep
860	<b>Hearts</b> Detonation destroyed undetonated Transom device from 05/10/1978	09/06/1979	LANL	NTS	U4n
861	Pera	09/08/1979	LLNL	NTS	U10bd
862	Sheepshead	09/26/1979	LANL	NTS	U19aa



## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Cresset -- Continued

17:45:00.07	37.233	-116.369	2040	Shaft	Weapons Related	20 to 150 kt	833
15:30:00.16	37.300	-116.328	2072	Shaft	Joint US-UK	20 to 150 kt	834
14:35:00.16	37.155	-116.036	1285	Shaft	Safety Experiment	Less than 20 kt	835
15:00:00.07	37.088	-116.053	1231	Shaft	Weapons Related	Zero	836
17:00:00.08	37.021	-116.033	1186	Shaft	Weapons Related	Less than 20 kt	837
14:00:00.17	37.112	-116.078	1263	Shaft	Weapons Related	Less than 20 kt	838
17:00:00.08	37.079	-116.045	1225	Shaft	Weapons Related	20 to 150 kt	839
14:00:00.16	37.276	-116.358	2013	Shaft	Weapons Related	20 to 150 kt	840
15:15:00.16	37.209	-116.212	2212	Tunnel	Weapons Effects	Less than 20 kt	841
17:00:00.07	37.074	-116.021	1234	Shaft	Weapons Related	20 to 150 kt	842
17:20:00.08	37.080	-116.052	1226	Shaft	Weapons Related	20 to 150 kt	843
16:30:00.17	37.171	-116.088	1341	Shaft	Weapons Related	Less than 20 kt	844
16:30:00.17	37.171	-116.088	1341	Shaft	Weapons Related	Less than 20 kt	

### Operation Quicksilver

15:25:00.17	37.288	-116.298	2104	Shaft	Weapons Related	Less than 20 kt	845
19:00:00.17	37.127	-116.085	1275	Shaft	Joint US-UK	20 to 150 kt	846
17:07:30.07	37.030	-116.025	1189	Shaft	Weapons Related	Less than 20 kt	847
15:30:00.16	37.273	-116.411	1979	Shaft	Weapons Related	20 to 150 kt	848
18:00:00.10	37.105	-116.013	1311	Shaft	Weapons Related	Less than 20 kt	849
20:00:00.09	37.102	-116.056	1241	Shaft	Weapons Related	20 to 150 kt	850
18:05:00.16	37.152	-116.073	1297	Shaft	Weapons Related	20 to 150 kt	851
18:30:00.10	37.028	-116.041	1190	Shaft	Weapons Related	Less than 20 kt	852
16:00:00.10	36.998	-116.019	1177	Shaft	Weapons Related	Less than 20 kt	853
14:00:00.17	37.290	-116.456	1913	Shaft	Weapons Related	20 to 150 kt	854
15:00:13.54	37.108	-116.016	1309	Shaft	Weapons Related	Less than 20 kt	855
14:44:00.17	37.143	-116.088	1303	Shaft	Weapons Related	20 to 150 kt	856
15:07:30.16	37.084	-116.071	1235	Shaft	Weapons Related	20 to 150 kt	857
15:00:00.11	37.015	-116.009	1182	Shaft	Weapons Related	20 to 150 kt	858
15:08:00.17	37.121	-116.067	1260	Shaft	Joint US-UK	20 to 150 kt	859
15:00:00.09	37.088	-116.054	1232	Shaft	Weapons Related	140 kt	860
17:02:00.09	37.155	-116.039	1280	Shaft	Weapons Related	Less than 20 kt	861
15:00:00.09	37.229	-116.365	2033	Shaft	Weapons Related	20 to 150 kt	862

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Tinderbox

863	Backgammon	11/29/1979	LANL	NTS	U3jh
864	Azul Detonation destroyed Peninsula device that was damaged during emplacement on 10/23/1975 Peninsula device was not tested	12/14/1979	LLNL	NTS	U2em
865	Tarko	02/28/1980	LLNL	NTS	U2fd
866	Norbo Accidental release of radioactivity detected onsite only	03/08/1980	LLNL	NTS	U8c
867	Liptauer	04/03/1980	LLNL	NTS	U2eh
868	Pyramid	04/16/1980	LANL	NTS	U7be
869	Colwick	04/26/1980	LLNL/UK	NTS	U20ac
870	Canfield	05/02/1980	LANL	NTS	U3kx
871	Flora	05/22/1980	LANL	NTS	U3lg
872	Kash	06/12/1980	LLNL	NTS	U20af
873	Huron King	06/24/1980	LANL/DoD	NTS	U3ky
874	Tafi	07/25/1980	LLNL	NTS	U20ae
875	Verdello	07/31/1980	LANL	NTS	U3ku
876	Bonarda	09/25/1980	LANL	NTS	U3gv
877	Riola Accidental release of radioactivity detected offsite	09/25/1980	LLNL	NTS	U2eq

### Operation Guardian

878	Dutchess	10/24/1980	LANL/UK	NTS	U7bm
879	Miners Iron	10/31/1980	LANL/DoD	NTS	U12n.11
880	Dauphin	11/14/1980	LLNL	NTS	U9cq
881	Serpa	12/17/1980	LLNL/UK	NTS	U19ai
882	Baseball	01/15/1981	LANL	NTS	U7ba
883	Clairette	02/05/1981	LANL	NTS	U3kr
884	Seco	02/25/1981	LLNL	NTS	U8l
885	Vide	04/30/1981	LLNL	NTS	U8k
886	Aligote	05/29/1981	LANL	NTS	U7bg
887	Harzer	06/06/1981	LLNL	NTS	U19aj
888	Niza	07/10/1981	LLNL	NTS	U9cr
889	Pineau	07/16/1981	LANL	NTS	U7ao
890	Havarti	08/05/1981	LLNL	NTS	U10bg
891	Islay	08/27/1981	LLNL	NTS	U2er
892	Trebbiano	09/04/1981	LANL	NTS	U3lj
893	Cernada	09/24/1981	LANL	NTS	U3kk

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Tinderbox

15:00:00.10	36.994	-116.025	1175	Shaft	Weapons Related	Less than 20 kt	863
18:00:00.09	37.137	-116.064	1275	Shaft	Weapons Related	Less than 20 kt	864
15:00:00.09	37.127	-116.089	1280	Shaft	Weapons Related	Less than 20 kt	865
15:35:00.09	37.180	-116.084	1349	Shaft	Weapons Related	Less than 20 kt	866
14:00:00.09	37.150	-116.083	1304	Shaft	Weapons Related	20 to 150 kt	867
20:00:00.09	37.101	-116.031	1266	Shaft	Weapons Related	20 to 150 kt	868
17:00:00.08	37.248	-116.423	1946	Shaft	Joint US-UK	20 to 150 kt	869
18:46:30.09	37.056	-116.020	1211	Shaft	Weapons Related	Less than 20 kt	870
13:00:00.09	37.003	-116.032	1179	Shaft	Weapons Related	Less than 20 kt	871
17:15:00.09	37.282	-116.455	1911	Shaft	Weapons Related	20 to 150 kt	872
15:10:00.07	37.023	-116.035	1187	Shaft	Weapons Effects	Less than 20 kt	873
19:05:00.08	37.256	-116.478	1859	Shaft	Weapons Related	20 to 150 kt	874
18:19:00.09	37.013	-116.024	1183	Shaft	Weapons Related	Less than 20 kt	875
14:45:00.09	37.056	-116.049	1209	Shaft	Weapons Related	20 to 150 kt	876
15:26:30.08	37.116	-116.065	1254	Shaft	Weapons Related	1.07 kt	877

### Operation Guardian

19:15:00.12	37.075	-116.000	1265	Shaft	Joint US-UK	Less than 20 kt	878
18:00:00.09	37.211	-116.206	2212	Tunnel	Weapons Effects	Less than 20 kt	879
16:50:00.08	37.111	-116.020	1306	Shaft	Weapons Related	Less than 20 kt	880
15:10:00.09	37.325	-116.316	2028	Shaft	Joint US-UK	20 to 150 kt	881
20:25:00.09	37.087	-116.046	1232	Shaft	Weapons Related	20 to 150 kt	882
18:00:00.12	37.011	-116.033	1182	Shaft	Weapons Related	Less than 20 kt	883
15:00:00.08	37.182	-116.085	1356	Shaft	Weapons Related	Less than 20 kt	884
14:35:00.08	37.177	-116.086	1346	Shaft	Weapons Related	Less than 20 kt	885
16:00:00.09	37.102	-116.005	1311	Shaft	Weapons Related	Less than 20 kt	886
18:00:00.08	37.303	-116.326	2073	Shaft	Weapons Related	20 to 150 kt	887
14:00:00.10	37.129	-116.035	1266	Shaft	Weapons Related	Less than 20 kt	888
15:00:00.10	37.089	-116.020	1259	Shaft	Weapons Related	Less than 20 kt	889
13:41:00.09	37.154	-116.036	1283	Shaft	Weapons Related	Less than 20 kt	890
14:31:00.09	37.160	-116.067	1297	Shaft	Weapons Related	Less than 20 kt	891
15:00:00.10	37.058	-116.049	1211	Shaft	Weapons Related	Less than 20 kt	892
15:00:00.09	37.008	-116.025	1181	Shaft	Weapons Related	Less than 20 kt	893

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Praetorian

894	Paliza	10/01/1981	LANL	NTS	U7bd
895	Tilci	11/11/1981	LANL	NTS	U4ak
896	Rousanne	11/12/1981	LANL/UK	NTS	U4p
897	Akavi	12/03/1981	LLNL	NTS	U2es
898	Caboc	12/16/1981	LLNL	NTS	U2cp
899	Jornada	01/28/1982	LANL	NTS	U4j
900	Molbo	02/12/1982	LLNL	NTS	U20ag
901	Hosta	02/12/1982	LANL	NTS	U19ak
902	Tenaja	04/17/1982	LANL	NTS	U3lh
903	Gibne	04/25/1982	LLNL/UK	NTS	U20ah
904	Kryddost	05/06/1982	LLNL	NTS	U2co
905	Bouschet	05/07/1982	LANL	NTS	U3la
906	Kesti	06/16/1982	LLNL	NTS	U9cn
907	Nebbiolo	06/24/1982	LANL	NTS	U19ae
908	Monterey	07/29/1982	LLNL	NTS	U4aj
909	Atrisco	08/05/1982	LANL	NTS	U7bp
910	Queso	08/11/1982	LLNL	NTS	U10bf
911	Cerro	09/02/1982	LANL	NTS	U3lf
912	Huron Landing Simultaneous with Diamond Ace	09/23/1982	LLNL/LANL/DoD	NTS	U12n.15
913	Diamond Ace Simultaneous with Huron Landing	09/23/1982	LLNL/LANL/DoD	NTS	U12n.15
914	Frisco	09/23/1982	LLNL	NTS	U8m
915	Borrego	09/29/1982	LANL	NTS	U7br

### Operation Phalanx

916	Seyval	11/12/1982	LANL	NTS	U3lm
917	Manteca	12/10/1982	LLNL	NTS	U4al
918	Coalora	02/11/1983	LANL	NTS	U3lo
919	Cheedam	02/17/1983	LLNL	NTS	U2et
920	Cabra	03/26/1983	LLNL	NTS	U20aj
921	Turquoise	04/14/1983	LANL	NTS	U7bu
922	Armada	04/22/1983	LLNL/UK	NTS	U9cs
923	Crowdie	05/05/1983	LLNL	NTS	U2fe
924	Mini Jade	05/26/1983	LANL/DoD	NTS	U12n.12
925	Fahada	05/26/1983	LANL	NTS	U7bh
926	Danablu	06/09/1983	LLNL	NTS	U2eu
927	Laban	08/03/1983	LLNL	NTS	U2ff
928	Sabado	08/11/1983	LANL	NTS	U3lc
929	Jarlsberg	08/27/1983	LLNL	NTS	U10ca

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Praetorian

19:00:00.10	37.082	-116.010	1260	Shaft	Weapons Related	20 to 150 kt	894
20:00:09.09	37.076	-116.069	1232	Shaft	Weapons Related	20 to 150 kt	895
15:00:00.10	37.108	-116.050	1243	Shaft	Joint US-UK	20 to 150 kt	896
15:00:00.10	37.148	-116.072	1293	Shaft	Weapons Related	20 to 150 kt	897
21:05:00.09	37.114	-116.124	1348	Shaft	Weapons Related	Less than 20 kt	898
16:00:00.10	37.091	-116.052	1233	Shaft	Weapons Related	139 kt	899
14:55:00.08	37.224	-116.464	1873	Shaft	Weapons Related	20 to 150 kt	900
15:25:00.09	37.348	-116.317	2076	Shaft	Weapons Related	20 to 150 kt	901
18:00:00.09	37.017	-116.011	1177	Shaft	Weapons Related	Less than 20 kt	902
18:05:00.09	37.256	-116.423	1937	Shaft	Joint US-UK	20 to 150 kt	903
20:00:00.08	37.117	-116.128	1363	Shaft	Weapons Related	Less than 20 kt	904
18:17:00.11	37.069	-116.046	1217	Shaft	Weapons Related	20 to 150 kt	905
14:00:00.08	37.114	-116.017	1312	Shaft	Weapons Related	Less than 20 kt	906
14:15:00.09	37.236	-116.371	2038	Shaft	Weapons Related	20 to 150 kt	907
20:05:00.08	37.102	-116.076	1253	Shaft	Weapons Related	20 to 150 kt	908
14:00:00.09	37.084	-116.007	1268	Shaft	Weapons Related	138 kt	909
15:00:00.00	37.190	-116.049	1310	Shaft	Weapons Related	Less than 20 kt	910
14:00:00.09	37.020	-116.017	1184	Shaft	Weapons Related	Less than 20 kt	911
16:00:00.09	37.212	-116.208	1824	Tunnel	Weapons Effects	Less than 20 kt	912
16:00:00.09	37.212	-116.208	1824	Tunnel	Weapons Effects	Less than 20 kt	913
17:00:00.09	37.175	-116.089	1347	Shaft	Weapons Related	20 to 150 kt	914
13:30:00.10	37.091	-116.046	1234	Shaft	Weapons Related	Less than 150 kt	915

### Operation Phalanx

19:17:00.10	37.024	-116.033	1187	Shaft	Weapons Related	Less than 20 kt	916
15:20:00.09	37.080	-116.073	1236	Shaft	Weapons Related	20 to 150 kt	917
16:00:00.10	37.056	-116.046	1210	Shaft	Weapons Related	Less than 20 kt	918
17:00:00.09	37.163	-116.064	1293	Shaft	Weapons Related	Less than 20 kt	919
20:20:00.09	37.301	-116.461	1907	Shaft	Weapons Related	20 to 150 kt	920
19:05:00.12	37.073	-116.047	1219	Shaft	Weapons Related	Less than 150 kt	921
13:53:00.08	37.111	-116.023	1296	Shaft	Joint US-UK	Less than 20 kt	922
15:20:00.08	37.146	-116.090	1309	Shaft	Weapons Related	Less than 20 kt	923
14:30:00.09	37.209	-116.206	1828	Tunnel	Weapons Effects	Less than 20 kt	924
15:00:00.09	37.103	-116.007	1312	Shaft	Weapons Related	Less than 20 kt	925
17:10:00.09	37.158	-116.090	1327	Shaft	Weapons Related	Less than 20 kt	926
13:33:00.10	37.119	-116.090	1276	Shaft	Weapons Related	Less than 20 kt	927
14:00:00.12	36.998	-116.004	1175	Shaft	Weapons Related	Less than 20 kt	928
14:00:00.09	37.193	-116.035	1318	Shaft	Weapons Related	Less than 20 kt	929

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Phalanx -- Continued

930	Chancellor	09/01/1983	LANL	NTS	U19ad
931	Tomme/Midnight Zephyr	09/21/1983	LLNL/DoD	NTS	U12n.18
932	Branco	09/21/1983	LLNL	NTS	U2ew
	Branco-Herkimer Simultaneous, same hole	09/21/1983	LLNL	NTS	U2ew
933	Techado	09/22/1983	LANL	NTS	U4o
934	Navata	09/29/1983	LANL	NTS	U3lb

### Operation Fusileer

935	Muggins	12/09/1983	LANL	NTS	U3ls
936	Romano	12/16/1983	LLNL	NTS	U2ex
937	Gorbea	01/31/1984	LLNL	NTS	U2cq
938	Midas Myth/Milagro	02/15/1984	LANL/DoD	NTS	U12t.04
939	Tortugas	03/01/1984	LANL	NTS	U3gg
940	Agrini Accidental release of radioactivity detected onsite only	03/31/1984	LLNL	NTS	U2ev
941	Mundo	05/01/1984	LANL/UK	NTS	U7bo
942	Orkney	05/02/1984	LLNL	NTS	U10be
943	Bellow	05/16/1984	LLNL	NTS	U4ac
944	Caprock	05/31/1984	LANL	NTS	U4q
945	Duoro	06/20/1984	LANL	NTS	U3lv
946	Normanna	07/12/1984	LLNL	NTS	U10cb
947	Kappeli	07/25/1984	LLNL	NTS	U20am
948	Correo	08/02/1984	LANL	NTS	U3lw
949	Dolcetto	08/30/1984	LANL	NTS	U7bi
950	Wexford	08/30/1984	LLNL	NTS	U2cr
951	Breton	09/13/1984	LLNL	NTS	U4ar

### Operation Grenadier

952	Vermejo	10/02/1984	LANL	NTS	U4r
953	Villita	11/10/1984	LANL	NTS	U3ld
954	Egmont	12/09/1984	LLNL/UK	NTS	U20al
955	Tierra	12/15/1984	LLNL	NTS	U19ac
956	Minero	12/20/1984	LANL	NTS	U3lt
957	Vaughn	03/15/1985	LANL	NTS	U3lr
958	Cottage	03/23/1985	LLNL	NTS	U8j
959	Hermosa	04/02/1985	LANL	NTS	U7bs
960	Misty Rain Controlled release of radioactivity detected offsite	04/06/1985	LLNL/DoD	NTS	U12n.17
961	Towanda	05/02/1985	LANL	NTS	U19ab

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Phalanx -- Continued

14:00:00.08	37.273	-116.356	2013	Shaft	Weapons Related	143 kt	930
15:00:00.09	37.210	-116.210	2230	Tunnel	Weapons Effects	Less than 20 kt	931
16:25:00.08	37.121	-116.056	1256	Shaft	Weapons Related	Less than 20 kt	932
16:25:00.08	37.121	-116.056	1256	Shaft	Weapons Related	Less than 20 kt	
15:00:00.12	37.106	-116.050	1241	Shaft	Weapons Related	Less than 150 kt	933
15:00:00.09	37.053	-116.021	1207	Shaft	Safety Experiment	Less than 20 kt	934

### Operation Fusileer

16:00:00.11	37.013	-116.047	1188	Shaft	Weapons Related	Less than 20 kt	935
18:30:00.09	37.140	-116.073	1287	Shaft	Weapons Related	20 to 150 kt	936
15:30:00.08	37.113	-116.123	1344	Shaft	Weapons Related	20 to 150 kt	937
17:00:00.11	37.221	-116.182	2044	Tunnel	Weapons Effects	Less than 20 kt	938
17:45:00.09	37.066	-116.047	1216	Shaft	Weapons Related	20 to 150 kt	939
14:30:00.08	37.146	-116.085	1304	Shaft	Weapons Related	Less than 20 kt	940
19:05:00.09	37.106	-116.023	1292	Shaft	Joint US-UK	20 to 150 kt	941
13:50:00.09	37.198	-116.055	1351	Shaft	Weapons Related	Less than 20 kt	942
16:00:00.08	37.092	-116.094	1266	Shaft	Weapons Related	Less than 20 kt	943
13:04:00.10	37.103	-116.049	1237	Shaft	Weapons Related	20 to 150 kt	944
15:15:00.09	37.000	-116.044	1180	Shaft	Weapons Related	20 to 150 kt	945
14:00:00.09	37.192	-116.035	1315	Shaft	Weapons Related	Less than 20 kt	946
15:30:00.08	37.268	-116.412	1982	Shaft	Weapons Related	20 to 150 kt	947
15:00:00.09	37.017	-116.009	1182	Shaft	Weapons Related	Less than 20 kt	948
14:45:00.10	37.090	-116.000	1291	Shaft	Weapons Related	Less than 20 kt	949
14:45:00.00	37.144	-116.126	1376	Shaft	Weapons Related	Less than 20 kt	950
14:00:00.00	37.087	-116.072	1238	Shaft	Weapons Related	20 to 150 kt	951

### Operation Grenadier

18:14:00.10	37.085	-116.054	1229	Shaft	Weapons Related	Less than 20 kt	952
16:40:00.09	37.000	-116.018	1177	Shaft	Weapons Related	Less than 20 kt	953
19:40:00.09	37.270	-116.498	1839	Shaft	Joint US-UK	20 to 150 kt	954
14:45:00.00	37.281	-116.306	2118	Shaft	Weapons Related	20 to 150 kt	955
16:20:00.11	37.012	-116.046	1187	Shaft	Weapons Related	Less than 20 kt	956
16:31:00.10	37.058	-116.046	1211	Shaft	Weapons Related	20 to 150 kt	957
18:30:00.08	37.180	-116.090	1362	Shaft	Weapons Related	20 to 150 kt	958
20:00:00.09	37.095	-116.033	1251	Shaft	Weapons Related	20 to 150 kt	959
23:15:00.09	37.201	-116.208	2212	Tunnel	Weapons Effects	Less than 20 kt	960
15:20:00.08	37.253	-116.326	2085	Shaft	Weapons Related	20 to 150 kt	961

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Grenadier -- Continued

962	Salut	06/12/1985	LLNL	NTS	U20ak
963	Ville	06/12/1985	LLNL	NTS	U4am
964	Maribo	06/26/1985	LLNL	NTS	U2cs
965	Serena	07/25/1985	LLNL	NTS	U20an
966	Cebrero	08/14/1985	LLNL	NTS	U9cw
967	Chamita	08/17/1985	LANL	NTS	U3lz
968	Ponil	09/27/1985	LANL	NTS	U7bv

### Operation Charioteer

969	Mill Yard	10/09/1985	LANL/DoD	NTS	U12n.20
970	Diamond Beech	10/09/1985	LLNL/DoD	NTS	U12n.19
971	Roquefort	10/16/1985	LLNL	NTS	U4as
972	Abo	10/30/1985	LANL	NTS	U3mc
973	Kinibito	12/05/1985	LANL/UK	NTS	U3me
974	Goldstone	12/28/1985	LLNL	NTS	U20ao
975	Glencoe Operational release of radioactivity detected offsite	03/22/1986	LANL	NTS	U4i
976	Mighty Oak Controlled release of radioactivity detected offsite	04/10/1986	LLNL/DoD	NTS	U12t.08
977	Mogollon	04/20/1986	LANL	NTS	U3li
978	Jefferson	04/22/1986	LLNL	NTS	U20ai
979	Panamint	05/21/1986	LLNL	NTS	U2gb
980	Tajo	06/05/1986	LANL	NTS	U7bl
981	Darwin	06/25/1986	LLNL/UK	NTS	U20aq
982	Cybar	07/17/1986	LANL	NTS	U19ar
983	Cornucopia	07/24/1986	LLNL	NTS	U2ga(s)
984	Galveston	09/04/1986	LANL	NTS	U19af
985	Aleman	09/11/1986	LANL	NTS	U3kz
986	Labquark	09/30/1986	LLNL	NTS	U19an

### Operation Musketeer

987	Belmont	10/16/1986	LLNL	NTS	U20as
988	Gascon	11/14/1986	LANL	NTS	U4t
989	Bodie	12/13/1986	LLNL	NTS	U20ap
990	Hazebrook-Emerald (Green)	02/03/1987	LLNL	NTS	U10bh
	Hazebrook-Checkerberry (Red)	02/03/1987	LLNL	NTS	U10bh
	Hazebrook-Apricot (Orange) Simultaneous, same hole	02/03/1987	LLNL	NTS	U10bh
991	Tornero	02/11/1987	LANL	NTS	U3ll
992	Middle Note	03/18/1987	LLNL/DoD	NTS	U12n.21



## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Grenadier -- Continued

15:15:00.08	37.248	-116.490	1873	Shaft	Weapons Related	20 to 150 kt	962
17:30:00.09	37.088	-116.085	1250	Shaft	Weapons Related	Less than 20 kt	963
18:03:00.08	37.124	-116.123	1352	Shaft	Weapons Related	Less than 20 kt	964
14:00:00.09	37.297	-116.439	1942	Shaft	Weapons Related	20 to 150 kt	965
13:00:00.08	37.111	-116.015	1316	Shaft	Weapons Related	Less than 20 kt	966
16:25:00.09	37.002	-116.044	1181	Shaft	Weapons Related	Less than 20 kt	967
14:15:00.08	37.090	-116.003	1284	Shaft	Weapons Related	Less than 20 kt	968

### Operation Charioteer

21:40:00.13	37.209	-116.206	2203	Tunnel	Weapons Effects	Less than 20 kt	969
23:20:00.09	37.210	-116.211	2230	Tunnel	Weapons Effects	Less than 20 kt	970
21:35:00.09	37.110	-116.122	1341	Shaft	Weapons Related	20 to 150 kt	971
16:00:00.09	37.051	-116.037	1202	Shaft	Weapons Related	Less than 20 kt	972
15:00:00.07	37.053	-116.046	1208	Shaft	Joint US-UK	20 to 150 kt	973
19:01:00.09	37.238	-116.474	1887	Shaft	Weapons Related	20 to 150 kt	974
16:15:00.08	37.083	-116.067	1233	Shaft	Weapons Related	29 kt	975
14:08:30.10	37.218	-116.184	2084	Tunnel	Weapons Effects	Less than 20 kt	976
15:12:30.07	37.012	-116.047	1187	Shaft	Weapons Related	Less than 20 kt	977
14:30:00.09	37.264	-116.441	1955	Shaft	Weapons Related	20 to 150 kt	978
13:59:00.08	37.125	-116.061	1259	Shaft	Weapons Related	Less than 20 kt	979
15:04:00.06	37.098	-116.016	1289	Shaft	Weapons Related	20 to 150 kt	980
20:27:45.09	37.265	-116.500	1849	Shaft	Joint US-UK	20 to 150 kt	981
21:00:00.06	37.279	-116.356	2017	Shaft	Weapons Related	119 kt	982
15:05:00.09	37.143	-116.072	1287	Shaft	Weapons Related	Less than 20 kt	983
16:09:00.06	37.240	-116.369	2018	Shaft	Weapons Related	Less than 20 kt	984
14:57:00.11	37.069	-116.051	1218	Shaft	Weapons Related	Less than 20 kt	985
22:30:00.10	37.300	-116.308	2100	Shaft	Weapons Related	20 to 150 kt	986

### Operation Musketeer

19:25:00.09	37.220	-116.463	1871	Shaft	Weapons Related	20 to 150 kt	987
16:00:00.07	37.100	-116.049	1236	Shaft	Weapons Related	20 to 150 kt	988
17:50:05.09	37.263	-116.413	1991	Shaft	Weapons Related	20 to 150 kt	989
15:20:00.08	37.181	-116.049	1291	Shaft	Weapons Related	Less than 20 kt	990
15:20:00.08	37.181	-116.049	1291	Shaft	Weapons Related	Less than 20 kt	
15:20:00.08	37.181	-116.049	1291	Shaft	Safety Experiment	Less than 20 kt	
16:45:00.07	37.011	-116.046	1186	Shaft	Weapons Related	Less than 20 kt	991
18:28:00.09	37.210	-116.209	2223	Tunnel	Weapons Effects	Less than 20 kt	992

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Musketeer -- Continued

993	Delamar	04/18/1987	LLNL	NTS	U20at
994	Presidio	04/22/1987	LANL	NTS	U6d
995	Hardin	04/30/1987	LLNL	NTS	U20av
996	Brie	06/18/1987	LLNL	NTS	U10cc
997	Mission Ghost	06/20/1987	LANL/DoD	NTS	U12t.09
998	Panchuela	06/30/1987	LANL	NTS	U3mg
999	<b>Midland</b>	07/16/1987	LANL/UK	NTS	U7by
1000	<b>Tahoka</b>	08/13/1987	LANL	NTS	U3mf
1001	Lockney	09/24/1987	LANL	NTS	U19aq

### Operation Touchstone

1002	<b>Borate</b>	10/23/1987	LLNL	NTS	U2ge
1003	Waco	12/01/1987	LANL	NTS	U3lu
1004	Mission Cyber	12/02/1987	LLNL/DoD	NTS	U12p.02
1005	<b>Kernville</b>	02/15/1988	LLNL	NTS	U20ar
1006	Abilene	04/07/1988	LANL	NTS	U3mn
1007	Schellbourne	05/13/1988	LLNL	NTS	U2gf
1008	<b>Laredo</b>	05/21/1988	LANL	NTS	U3mh
1009	Comstock	06/02/1988	LLNL	NTS	U20ay
1010	Rhyolite Simultaneous with Nightingale	06/22/1988	LLNL	NTS	U2ey
1011	Nightingale Simultaneous with Rhyolite	06/22/1988	LLNL	NTS	U2ey
1012	Alamo	07/07/1988	LANL	NTS	U19au
1013	<b>Kearsarge</b> Joint Verification Experiment	08/17/1988	LLNL	NTS	U19ax
1014	Harlingen-A	08/23/1988	LANL	NTS	U6g
	Harlingen-B Simultaneous, separate holes	08/23/1988	LANL	NTS	U6h
1015	Bullfrog	08/30/1988	LLNL	NTS	U4au

### Operation Cornerstone

1016	Dalhart	10/13/1988	LANL	NTS	U4u
1017	Monahans-A	11/09/1988	LANL	NTS	U3lk
	Monahans-B Simultaneous, separate holes	11/09/1988	LANL	NTS	U6i
1018	Kawich A-White	12/09/1988	LLNL	NTS	U8n
	Kawich A-Blue Simultaneous, same hole	12/09/1988	LLNL	NTS	U8n
1019	<b>Misty Echo</b>	12/10/1988	LANL/DoD	NTS	U12n.23
1020	Texarkana	02/10/1989	LANL	NTS	U7ca

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Musketeer -- Continued

13:40:00.00	37.248	-116.510	1875	Shaft	Weapons Related	20 to 150 kt	993
15:00:00.09	36.983	-116.005	1171	Shaft	Weapons Related	Less than 20 kt	994
13:30:00.09	37.233	-116.424	1943	Shaft	Weapons Related	20 to 150 kt	995
15:20:00.08	37.194	-116.036	1318	Shaft	Weapons Related	Less than 20 kt	996
16:00:00.18	37.220	-116.179	2017	Tunnel	Weapons Effects	Less than 20 kt	997
16:05:00.10	36.999	-116.044	1179	Shaft	Weapons Related	Less than 20 kt	998
19:00:00.08	37.104	-116.024	1284	Shaft	Joint US-UK	20 to 150 kt	999
14:00:00.09	37.061	-116.046	1212	Shaft	Weapons Related	20 to 150 kt	1000
15:00:00.06	37.228	-116.376	2045	Shaft	Weapons Related	20 to 150 kt	1001

### Operation Touchstone

16:00:00.09	37.142	-116.080	1294	Shaft	Weapons Related	20 to 150 kt	1002
16:30:00.09	36.996	-116.005	1176	Shaft	Weapons Related	Less than 20 kt	1003
16:30:00.08	37.235	-116.164	1926	Tunnel	Weapons Effects	Less than 20 kt	1004
18:10:00.09	37.314	-116.472	1899	Shaft	Weapons Related	20 to 150 kt	1005
17:15:00.08	37.013	-116.045	1187	Shaft	Weapons Related	Less than 20 kt	1006
15:35:00.11	37.124	-116.073	1268	Shaft	Weapons Related	Less than 150 kt	1007
22:30:00.14	37.032	-115.988	1220	Shaft	Weapons Related	Less than 150 kt	1008
13:00:00.09	37.260	-116.442	1960	Shaft	Weapons Related	Less than 150 kt	1009
14:00:00.08	37.166	-116.073	1309	Shaft	Weapons Related	Less than 150 kt	1010
14:00:00.08	37.166	-116.073	1309	Shaft	Safety Experiment	Less than 150 kt	1011
15:05:30.07	37.252	-116.378	1964	Shaft	Weapons Related	Less than 150 kt	1012
17:00:00.09	37.297	-116.307	2102	Shaft	Weapons Related	100 to 150 kt	1013
18:30:00.08	36.991	-116.019	1175	Shaft	Weapons Related	Less than 20 kt	1014
18:30:00.08	36.989	-116.019	1175	Shaft	Weapons Related	Less than 20 kt	
18:00:00.09	37.086	-116.069	1236	Shaft	Weapons Related	Less than 150 kt	1015

### Operation Cornerstone

14:00:00.08	37.089	-116.050	1229	Shaft	Weapons Related	Less than 150 kt	1016
20:15:00.08	36.991	-116.022	1175	Shaft	Weapons Related	Less than 20 kt	1017
20:15:00.08	36.989	-116.022	1174	Shaft	Weapons Related	Less than 20 kt	
15:15:00.08	37.175	-116.093	1357	Shaft	Safety Experiment	Less than 20 kt	1018
15:15:00.08	37.175	-116.093	1357	Shaft	Safety Experiment	Less than 20 kt	
20:30:00.06	37.199	-116.210	2232	Tunnel	Weapons Effects	Less than 150 kt	1019
20:06:00.06	37.077	-116.001	1267	Shaft	Weapons Related	20 to 150 kt	1020

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	
<b>Operation Cornerstone -- Continued</b>					
1021	Kawich-Red	02/24/1989	LLNL	NTS	U2cu
	Kawich-Black Simultaneous, same hole	02/24/1989	LLNL	NTS	U2cu
1022	Ingot	03/09/1989	LLNL	NTS	U2gg
1023	Palisade-1	05/15/1989	LLNL	NTS	U4at
	Palisade-2	05/15/1989	LLNL	NTS	U4at
	Palisade-3 Simultaneous, same hole	05/15/1989	LLNL	NTS	U4at
1024	Tulia	05/26/1989	LANL	NTS	U4s
1025	Contact	06/22/1989	LLNL	NTS	U20aw
1026	Amarillo	06/27/1989	LANL	NTS	U19ay
1027	Disko Elm	09/14/1989	LLNL/DoD	NTS	U12p.03
<b>Operation Aqueduct</b>					
1028	Hornitos	10/31/1989	LLNL	NTS	U20bc
1029	Muleshoe	11/15/1989	LANL	NTS	U7bk
1030	Barnwell	12/08/1989	LLNL/UK	NTS	U20az
1031	Whiteface-A	12/20/1989	LANL	NTS	U3lp
	Whiteface-B Simultaneous, same hole	12/20/1989	LANL	NTS	U3lp
1032	Metropolis	03/10/1990	LLNL	NTS	U2gh
1033	Bowie	04/06/1990	LANL	NTS	U3mk
1034	<b>Bullion</b>	06/13/1990	LLNL	NTS	U20bd
1035	Austin	06/21/1990	LANL	NTS	U6e
1036	Mineral Quarry	07/25/1990	LANL/DoD	NTS	U12n.22
	Randsburg Simultaneous, separate drifts	07/25/1990	LLNL/DoD	NTS	U12n.22a
1037	Sundown-A	09/20/1990	LANL	NTS	U1d
	Sundown-B Simultaneous, same hole	09/20/1990	LANL	NTS	U1d
1038	Ledoux	09/27/1990	LANL	NTS	U1a.01
<b>Operation Sculpin</b>					
1039	<b>Tenabo</b>	10/12/1990	LLNL	NTS	U20bb
1040	Houston	11/14/1990	LANL/UK	NTS	U19az
1041	Coso-Bronze	03/08/1991	LLNL	NTS	U4an
	Coso-Gray	03/08/1991	LLNL	NTS	U4an
	Coso-Silver Simultaneous, same hole	03/08/1991	LLNL	NTS	U4an
1042	Bexar	04/04/1991	LANL	NTS	U19ba

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Cornerstone -- Continued

16:15:00.08	37.128	-116.123	1352	Shaft	Weapons Related	Less than 20 kt	1021
16:15:00.08	37.128	-116.123	1352	Shaft	Safety Experiment	Less than 20 kt	
14:05:00.09	37.143	-116.068	1280	Shaft	Weapons Related	20 to 150 kt	1022
13:10:00.09	37.108	-116.122	1338	Shaft	Weapons Related	Less than 20 kt	1023
13:10:00.09	37.108	-116.122	1338	Shaft	Safety Experiment	Less than 20 kt	
13:10:00.09	37.108	-116.122	1338	Shaft	Safety Experiment	Less than 20 kt	
18:07:00.02	37.086	-116.056	1230	Shaft	Weapons Related	Less than 20 kt	1024
21:15:00.08	37.283	-116.413	1980	Shaft	Weapons Related	20 to 150 kt	1025
15:30:00.02	37.275	-116.354	2019	Shaft	Weapons Related	20 to 150 kt	1026
15:00:00.10	37.236	-116.164	1917	Tunnel	Weapons Effects	Less than 20 kt	1027

### Operation Aqueduct

15:30:00.09	37.263	-116.492	1846	Shaft	Weapons Related	20 to 150 kt	1028
20:20:00.12	37.106	-116.014	1311	Shaft	Weapons Related	Less than 20 kt	1029
15:00:00.09	37.231	-116.410	2031	Shaft	Joint US-UK	20 to 150 kt	1030
22:00:00.06	37.026	-116.032	----	Shaft	Safety Experiment	Less than 20 kt	1031
22:00:00.06	37.026	-116.032	----	Shaft	Safety Experiment	Less than 20 kt	
16:00:00.08	37.112	-116.056	1246	Shaft	Weapons Related	20 to 150 kt	1032
17:00:00.04	37.068	-115.993	1271	Shaft	Weapons Related	Less than 20 kt	1033
16:00:00.09	37.262	-116.421	1950	Shaft	Weapons Related	20 to 150 kt	1034
18:15:00.00	36.993	-116.005	1174	Shaft	Weapons Related	Less than 20 kt	1035
15:00:00.06	37.207	-116.215	2216	Tunnel	Weapons Effects	Less than 20 kt	1036
15:00:00.00	37.207	-116.215	2216	Tunnel	Weapons Related	Less than 20 kt	
16:15:00.00	37.038	-116.058	1206	Shaft	Safety Experiment	Less than 20 kt	1037
16:15:00.00	37.038	-116.058	1206	Shaft	Safety Experiment	Less than 20 kt	
18:02:46.00	37.008	-116.059	1191	Shaft	Weapons Related	Less than 20 kt	1038

### Operation Sculpin

17:30:00.08	37.248	-116.495	1871	Shaft	Weapons Related	20 to 150 kt	1039
19:17:00.07	37.227	-116.372	2031	Shaft	Joint US-UK	20 to 150 kt	1040
21:02:45.08	37.104	-116.075	1254	Shaft	Weapons Related	Less than 20 kt	1041
21:02:45.08	37.104	-116.075	1254	Shaft	Weapons Related	Less than 20 kt	
21:02:45.08	37.104	-116.075	1254	Shaft	Safety Experiment	Less than 20 kt	
19:00:00.00	37.296	-116.314	2118	Shaft	Weapons Related	20 to 150 kt	1042

## United States Nuclear Tests – By Date

Test	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole
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### Operation Sculpin -- Continued

1043	Montello	04/16/1991	LLNL	NTS	U20bf
1044	Floydada	08/15/1991	LANL	NTS	U7cb
1045	<b>Hoya</b> Treaty verification test	09/14/1991	LLNL	NTS	U20be
1046	<b>Distant Zenith</b>	09/19/1991	LANL/DoD	NTS	U12p.04

### Operation Julin

1047	Lubbock	10/18/1991	LANL	NTS	U3mt
1048	Bristol	11/26/1991	LLNL/UK	NTS	U4av
1049	<b>Junction</b> Treaty verification test	03/26/1992	LANL	NTS	U19bg
1050	Diamond Fortune	04/30/1992	LANL/DoD	NTS	U12p.05
1051	Victoria	06/19/1992	LANL	NTS	U3kv
1052	Galena-Yellow	06/23/1992	LLNL	NTS	U9cv
	Galena-Orange	06/23/1992	LLNL	NTS	U9cv
	Galena-Green Simultaneous, same hole	06/23/1992	LLNL	NTS	U9cv
1053	Hunters Trophy Test to ensure reliability of U.S. deterrent forces	09/18/1992	LLNL/DoD	NTS	U12n.24
1054	Divider Test to ensure the safety of U.S. deterrent forces	09/23/1992	LANL	NTS	U3ml

## July 1945 through September 1992

Time (GMT)	Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	
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### Operation Sculpin -- Continued

15:30:00.07	37.245	-116.443	1961	Shaft	Weapons Related	20 to 150 kt	1043
16:00:00.00	37.087	-116.003	1280	Shaft	Weapons Related	Less than 20 kt	1044
19:00:00.08	37.226	-116.429	1951	Shaft	Weapons Related	20 to 150 kt	1045
16:30:00.07	37.236	-116.167	1921	Tunnel	Weapons Effects	Less than 20 kt	1046

### Operation Julin

19:12:00.00	37.063	-116.046	1213	Shaft	Weapons Related	20 to 150 kt	1047
18:35:00.07	37.096	-116.070	1246	Shaft	Joint US-UK	Less than 20 kt	1048
16:30:00.00	37.272	-116.361	2013	Shaft	Weapons Related	20 to 150 kt	1049
16:30:00.00	37.234	-116.158	1656	Tunnel	Weapons Effects	Less than 20 kt	1050
16:45:00.00	37.005	-116.011	1179	Shaft	Weapons Related	Less than 20 kt	1051
15:00:00.07	37.124	-116.032	1269	Shaft	Weapons Related	Less than 20 kt	1052
15:00:00.07	37.124	-116.032	1269	Shaft	Safety Experiment	Less than 20 kt	
15:00:00.07	37.124	-116.032	1269	Shaft	Safety Experiment	Less than 20 kt	
17:00:00.08	37.207	-116.211	1827	Tunnel	Weapons Effects	Less than 20 kt	1053
15:04:00.00	37.021	-115.989	1208	Shaft	Weapons Related	Less than 20 kt	1054

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# **United States Nuclear Detonations -- By Name**

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Aardvark	05/12/1962	LANL	NTS	U3am(s)	19:00:00.10
Abeytas	11/05/1970	LANL	NTS	U3gx	15:00:00.04
Abilene	04/07/1988	LANL	NTS	U3mn	17:15:00.08
Able	06/30/1946	LANL/DoD	Bikini Island	----	
Able	01/27/1951	LANL	NTS	Area 5	
Able	10/22/1951	LANL	NTS	Area 7	
Able	04/01/1952	LANL/DoD	NTS	Area 5	
Abo	10/30/1985	LANL	NTS	U3mc	16:00:00.09
Absinthe	05/26/1967	LANL	NTS	U3ep	12:30:00.03
Ace	06/11/1964	LLNL	NTS	U2n	16:45:00.15
Acushi	02/08/1963	LANL	NTS	U3bg	18:30:00.14
Adobe	04/25/1962	LANL	Christmas Island area	----	
Adze	05/28/1968	LANL	NTS	U3fw	14:45:00.04
Agile	02/23/1967	LLNL	NTS	U2v	18:50:00.13
Agouti	01/18/1962	LANL	NTS	U3ao	18:00:00.13
Agrini	03/31/1984	LLNL	NTS	U2ev	14:30:00.08
Ahtanum	09/13/1963	LLNL	NTS	U2l	13:53:00.15
Ajax	11/11/1966	LLNL	NTS	U9al	12:00:00.14
Ajo	01/30/1970	LANL	NTS	U3gd	17:00:00.04
Akavi	12/03/1981	LLNL	NTS	U2es	15:00:00.10
Akbar	11/09/1972	LLNL	NTS	U10ax	15:15:00.16
Alamo	07/07/1988	LANL	NTS	U19au	15:05:30.07
Aleman	09/11/1986	LANL	NTS	U3kz	14:57:00.11
Algodones	08/18/1971	LANL	NTS	U3jn	14:00:00.03
Aligote	05/29/1981	LANL	NTS	U7bg	16:00:00.09
Aliment	05/15/1969	LANL	NTS	U3gj	18:00:00.04
Allegheny	09/29/1962	LLNL	NTS	U9x	17:00:00.15
Alma	06/08/1962	LANL	Christmas Island area	----	
Almendro	06/06/1973	LANL	NTS	U19v	13:00:00.08
Alpaca	02/12/1965	LLNL	NTS	U2a	15:10:29.49
Alumroot	02/14/1973	LLNL	NTS	U9cj	15:30:00.16
Alva	08/19/1964	LLNL	NTS	U2j	16:00:00.14
Alviso	06/11/1975	LLNL	NTS	U2du	13:00:00.17
Amarillo	06/27/1989	LANL	NTS	U19ay	15:30:00.02
Anacostia	11/27/1962	LLNL	NTS	U9i	18:00:00.14
Anchovy	11/14/1963	LANL	NTS	U3bq	16:00:00.12
Androscoggin	10/02/1962	LLNL	Johnston Island area	----	
Angus	04/25/1973	LANL	NTS	U3jg	22:25:00.03
Annie	03/17/1953	LANL	NTS	Area 3	

## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
37.065	-116.031	1214	Shaft	Weapons Related	40 kt	Aardvark
37.029	-116.013	1188	Shaft	Weapons Related	20 to 200 kt	Abeytas
37.013	-116.045	1187	Shaft	Weapons Related	Less than 20 kt	Abilene
			Airdrop	Weapons Effects	21 kt	Able
			Airdrop	Weapons Related	1 kt	Able
			Tower	Weapons Related	Less than 0.1 kt	Able
			Airdrop	Weapons Effects	1 kt	Able
37.051	-116.037	1202	Shaft	Weapons Related	Less than 20 kt	Abo
37.045	-116.020	1199	Shaft	Safety Experiment	Less than 20 kt	Absinthe
37.149	-116.077	1300	Shaft	Plowshare	3 kt	Ace
37.046	-116.022	1199	Shaft	Weapons Related	Low	Acushi
			Airdrop	Weapons Related	190 kt	Adobe
37.009	-115.996	1188	Shaft	Weapons Related	Less than 20 kt	Adze
37.127	-116.067	1270	Shaft	Weapons Related	20 to 200 kt	Agile
37.047	-116.035	1200	Shaft	Weapons Related	6.4 kt	Agouti
37.146	-116.085	1304	Shaft	Weapons Related	Less than 20 kt	Agrini
37.163	-116.082	1320	Shaft	Weapons Related	Low	Ahtanum
37.134	-116.051	1254	Shaft	Weapons Related	Less than 20 kt	Ajax
37.031	-116.036	1191	Shaft	Weapons Related	Less than 20 kt	Ajo
37.148	-116.072	1293	Shaft	Weapons Related	20 to 150 kt	Akavi
37.162	-116.034	1295	Shaft	Weapons Related	Less than 20 kt	Akbar
37.252	-116.378	1964	Shaft	Weapons Related	Less than 150 kt	Alamo
37.069	-116.051	1218	Shaft	Weapons Related	Less than 20 kt	Aleman
37.057	-116.037	1206	Shaft	Weapons Related	20 to 200 kt	Algodones
37.102	-116.005	1311	Shaft	Weapons Related	Less than 20 kt	Aligote
37.012	-115.986	1207	Shaft	Weapons Related	Less than 20 kt	Aliment
37.117	-116.034	1271	Shaft	Weapons Related	Low	Allegheny
			Airdrop	Weapons Related	782 kt	Alma
37.245	-116.347	2069	Shaft	Weapons Related	200 to 1000 kt	Almendro
37.164	-116.077	1315	Shaft	Weapons Related	330 tons	Alpaca
37.147	-116.051	1264	Shaft	Weapons Related	Less than 20 kt	Alumroot
37.159	-116.084	1320	Shaft	Weapons Related	4.4 kt	Alva
37.112	-116.075	1261	Shaft	Safety Experiment	Less than 20 kt	Alviso
37.275	-116.354	2019	Shaft	Weapons Related	20 to 150 kt	Amarillo
37.123	-116.030	1274	Shaft	Plowshare	5.2 kt	Anacostia
37.039	-116.019	1194	Shaft	Weapons Related	Low	Anchovy
			Airdrop	Weapons Related	75 kt	Androscoggin
37.005	-116.029	1180	Shaft	Weapons Related	Less than 20 kt	Angus
			Tower	Weapons Related	16 kt	Annie

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Antler	09/15/1961	LLNL	NTS	U12e.03a	17:00:00.12
Apache	07/08/1956	LLNL	Enewetak	----	
Apodaca	07/21/1971	LANL	NTS	U3gs	13:33:00.05
Apple-1	03/29/1955	LANL	NTS	Area 4	
Apple-2	05/05/1955	LANL	NTS	Area 1	
Apshapa	06/06/1963	LLNL	NTS	U9ai	16:58:00.15
Arabis-Blue	03/06/1970	LLNL	NTS	U9itsz26	15:00:00.21
Arabis-Green	03/06/1970	LLNL	NTS	U9itsx28	15:00:00.21
Arabis-Red	03/06/1970	LLNL	NTS	U9itsv26	15:00:00.21
Argus I	08/27/1958	LANL/DoD	South Atlantic	----	
Argus II	08/30/1958	LANL/DoD	South Atlantic	----	
Argus III	09/06/1958	LANL/DoD	South Atlantic	----	
Arikaree	05/10/1962	LLNL	NTS	U9r	15:00:00.16
Arkansas	05/02/1962	LLNL	Christmas Island area	----	
Armada	04/22/1983	LLNL/UK	NTS	U9cs	13:53:00.08
Armadillo	02/09/1962	LANL	NTS	U3ar	16:30:00.13
Arnica-Violet	06/26/1970	LLNL	NTS	U2dd3	13:00:00.04
Arnica-Yellow	06/26/1970	LLNL	NTS	U2dd2	13:00:00.04
Arsenate	11/09/1972	LLNL	NTS	U9ci	18:15:00.16
Artesia	12/16/1970	LANL	NTS	U7x	16:00:00.09
Asco	04/25/1978	LLNL	NTS	U10bc	14:35:00.16
Asiago	12/21/1976	LLNL	NTS	U2ar	15:09:00.17
Aspen	06/14/1958	LLNL	Bikini Island	----	
Atarque	07/25/1972	LANL	NTS	U3ht	13:30:00.06
Atrisco	08/05/1982	LANL	NTS	U7bp	14:00:00.09
Auger	11/15/1968	LANL	NTS	U3fx	15:30:00.04
Auk	10/02/1964	LANL	NTS	U7b	20:03:00.04
Austin	06/21/1990	LANL	NTS	U6e	18:15:00.00
Avens-Alkermes	12/16/1970	LLNL	NTS	U9itsu24	16:00:00.17
Avens-Andorre	12/16/1970	LLNL	NTS	U9itst28	16:00:00.17
Avens-Asamlte	12/16/1970	LLNL	NTS	U9itsw21	16:00:00.17
Avens-Cream	12/16/1970	LLNL	NTS	U9itsx29	16:00:00.17
Aztec	04/27/1962	LANL	Christmas Island area	----	
Azul	12/14/1979	LLNL	NTS	U2em	18:00:00.09
Baccarat	01/24/1979	LANL	NTS	U7ax	18:00:00.10
Backbeach	04/11/1978	LANL	NTS	U19x	17:45:00.07
Backgammon	11/29/1979	LANL	NTS	U3jh	15:00:00.10
Backswing	05/14/1964	LLNL	NTS	U9aw	14:40:00.15
Badger	04/18/1953	LANL	NTS	Area 2	

## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
37.188	-116.209	2254	Tunnel	Weapons Related	2.6 kt	Antler
			Barge	Weapons Related	1.85 Mt	Apache
37.014	-115.993	1195	Shaft	Weapons Related	Less than 20 kt	Apodaca
			Tower	Weapons Related	14 kt	Apple-1
			Tower	Weapons Related	29 kt	Apple-2
37.125	-116.041	1254	Shaft	Weapons Related	Low	Apshapa
37.140	-116.038	1265	Shaft	Safety Experiment	Less than 20 kt	Arabis-Blue
37.142	-116.035	1270	Shaft	Weapons Related	Less than 20 kt	Arabis-Green
37.140	-116.032	1276	Shaft	Weapons Related	Less than 20 kt	Arabis-Red
			Rocket	Weapons Effects	1-2 kt	Argus I
			Rocket	Weapons Effects	1-2 kt	Argus II
			Rocket	Weapons Effects	1-2 kt	Argus III
37.128	-116.049	1254	Shaft	Weapons Related	Low	Arikaree
			Airdrop	Weapons Related	1.09 Mt	Arkansas
37.111	-116.023	1296	Shaft	Joint US-UK	Less than 20 kt	Armada
37.044	-116.040	1198	Shaft	Weapons Related	7.1 kt	Armadillo
37.117	-116.085	1272	Shaft	Weapons Related	Less than 20 kt	Arnica-Violet
37.114	-116.087	1270	Shaft	Weapons Related	Less than 20 kt	Arnica-Yellow
37.121	-116.033	1268	Shaft	Weapons Related	Less than 20 kt	Arsenate
37.100	-116.009	1302	Shaft	Weapons Related	20 to 200 kt	Artesia
37.155	-116.036	1285	Shaft	Safety Experiment	Less than 20 kt	Asco
37.124	-116.068	1265	Shaft	Weapons Related	Less than 20 kt	Asiago
			Barge	Weapons Related	319 kt	Aspen
37.012	-116.016	1182	Shaft	Weapons Related	Less than 20 kt	Atarque
37.084	-116.007	1268	Shaft	Weapons Related	138 kt	Atrisco
37.048	-116.001	1222	Shaft	Weapons Related	Less than 20 kt	Auger
37.078	-116.009	1254	Shaft	Weapons Related	Less than 20 kt	Auk
36.993	-116.005	1174	Shaft	Weapons Related	Less than 20 kt	Austin
37.137	-116.039	1262	Shaft	Weapons Related	Less than 20 kt	Avens-Alkermes
37.142	-116.040	1264	Shaft	Weapons Related	Less than 20 kt	Avens-Andorre
37.134	-116.036	1264	Shaft	Weapons Related	Less than 20 kt	Avens-Asamlte
37.143	-116.035	1271	Shaft	Weapons Related	Less than 20 kt	Avens-Cream
			Airdrop	Weapons Related	410 kt	Aztec
37.137	-116.064	1275	Shaft	Weapons Related	Less than 20 kt	Azul
37.105	-116.013	1311	Shaft	Weapons Related	Less than 20 kt	Baccarat
37.233	-116.369	2040	Shaft	Weapons Related	20 to 150 kt	Backbeach
36.994	-116.025	1175	Shaft	Weapons Related	Less than 20 kt	Backgammon
37.117	-116.040	1257	Shaft	Weapons Related	Less than 20 kt	Backswing
			Tower	Weapons Related	23 kt	Badger

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Baker	07/24/1946	LANL/DoD	Bikini Island	- - - -	
Baker	01/28/1951	LANL	NTS	Area 5	
Baker	10/28/1951	LANL	NTS	Area 7	
Baker	04/15/1952	LANL/DoD	NTS	Area 7	
Baker-2	02/02/1951	LANL	NTS	Area 5	
Baltic	08/06/1971	LLNL	NTS	U9itss25	14:31:00.16
Bandicoot	10/19/1962	LANL	NTS	U3bj	18:00:00.08
Baneberry	12/18/1970	LLNL	NTS	U8d	15:30:00.20
Banon	08/26/1976	LLNL/UK	NTS	U2dz	14:30:00.17
Barbel	10/16/1964	LANL	NTS	U3bx	15:59:30.04
Barnwell	12/08/1989	LLNL/UK	NTS	U20az	15:00:00.09
Barracuda	12/04/1963	LANL	NTS	U3cr	16:38:30.13
Barranca	08/04/1971	LANL	NTS	U3he	13:30:00.04
Barsac	03/20/1969	LANL	NTS	U3gc	18:12:00.04
Baseball	01/15/1981	LANL	NTS	U7ba	20:25:00.09
Bay Leaf	12/12/1968	LANL	NTS	U3gq	15:00:00.04
Bee	03/22/1955	LANL	NTS	Area 7	
Beebalm	05/01/1970	LANL	NTS	U3fn	14:13:00.04
Belen	02/04/1970	LANL	NTS	U3br	17:00:00.07
Bellow	05/16/1984	LLNL	NTS	U4ac	16:00:00.08
Belmont	10/16/1986	LLNL	NTS	U20as	19:25:00.09
Benham	12/19/1968	LLNL	NTS	U20c	16:30:00.04
Bernal	11/28/1973	LANL	NTS	U3jy	15:30:00.08
Bernalillo	09/17/1958	LANL	NTS	U3n	19:30:00.00
Bevel	04/04/1968	LANL	NTS	U3fu	15:02:00.04
Bexar	04/04/1991	LANL	NTS	U19ba	19:00:00.00
Biggin	01/30/1969	LLNL	NTS	U9bz	15:17:00.12
Bighorn	06/27/1962	LLNL	Christmas Island area	- - - -	
Bilby	09/13/1963	LANL	NTS	U3cn	17:00:00.13
Bilge	02/19/1975	LANL	NTS	U3kc	20:10:00.22
Billet	07/27/1976	LANL	NTS	U7an	20:30:00.08
Bit-A	10/31/1968	LANL	NTS	U3gt	18:30:00.04
Bit-B	10/31/1968	LANL	NTS	U3gt	18:30:00.04
Bitterling	06/12/1964	LANL	NTS	U3cu	14:01:00.10
Black	04/27/1962	LLNL	NTS	U9p	18:00:00.16
Blackfoot	06/11/1956	LANL	Enewetak	- - - -	
Blanca	10/30/1958	LLNL	NTS	U12e.05	15:00:00.15
Blenton	04/30/1969	LANL	NTS	U7p	17:00:00.04
Bluegill 3 Prime	10/26/1962	LANL/DoD	Johnston Island area	- - - -	

## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
			Underwater	Weapons Effects	21 kt	Baker
			Airdrop	Weapons Related	8 kt	Baker
			Airdrop	Weapons Related	3.5 kt	Baker
			Airdrop	Weapons Effects	1 kt	Baker
			Airdrop	Weapons Related	8 kt	Baker-2
37.138	-116.042	1260	Shaft	Weapons Related	Less than 20 kt	Baltic
37.039	-116.022	1195	Shaft	Weapons Related	12.5 kt	Bandicoot
37.173	-116.100	1367	Shaft	Weapons Related	10 kt	Baneberry
37.125	-116.083	1275	Shaft	Joint US-UK	20 to 150 kt	Banon
37.039	-116.017	1194	Shaft	Weapons Related	Less than 20 kt	Barbel
37.231	-116.410	2031	Shaft	Joint US-UK	20 to 150 kt	Barnwell
37.044	-116.013	1202	Shaft	Weapons Related	Low	Barracuda
37.026	-116.020	1187	Shaft	Weapons Related	Less than 20 kt	Barranca
37.022	-116.031	1187	Shaft	Weapons Related	Less than 20 kt	Barsac
37.087	-116.046	1232	Shaft	Weapons Related	20 to 150 kt	Baseball
37.047	-116.031	1199	Shaft	Safety Experiment	Less than 20 kt	Bay Leaf
			Tower	Weapons Related	8 kt	Bee
37.059	-116.029	1209	Shaft	Weapons Related	Less than 20 kt	Beebalm
37.055	-116.040	1206	Shaft	Weapons Related	20 to 200 kt	Belen
37.092	-116.094	1266	Shaft	Weapons Related	Less than 20 kt	Bellow
37.220	-116.463	1871	Shaft	Weapons Related	20 to 150 kt	Belmont
37.231	-116.474	1887	Shaft	Weapons Related	1.15 Mt	Benham
37.011	-116.025	1183	Shaft	Weapons Related	Less than 20 kt	Bernal
37.050	-116.034	1201	Shaft	Safety Experiment	15 tons	Bernalillo
37.052	-116.022	1205	Shaft	Weapons Related	Less than 20 kt	Bevel
37.296	-116.314	2118	Shaft	Weapons Related	20 to 150 kt	Bexar
37.133	-116.041	1257	Shaft	Weapons Related	Less than 20 kt	Biggin
			Airdrop	Weapons Related	7.65 Mt	Bighorn
37.060	-116.023	1215	Shaft	Weapons Related	249 kt	Bilby
37.002	-116.025	1179	Shaft	Weapons Related	Less than 20 kt	Bilge
37.075	-116.045	1222	Shaft	Weapons Related	20 to 150 kt	Billet
37.047	-116.030	1199	Shaft	Safety Experiment	Less than 20 kt	Bit-A
37.047	-116.030	1199	Shaft	Safety Experiment	Less than 20 kt	Bit-B
37.039	-116.013	1196	Shaft	Weapons Related	Less than 20 kt	Bitterling
37.118	-116.039	1259	Shaft	Weapons Related	Low	Black
			Tower	Weapons Related	8 kt	Blackfoot
37.186	-116.203	2145	Tunnel	Weapons Related	22 kt	Blanca
37.081	-116.015	1255	Shaft	Weapons Related	20 to 200 kt	Blenton
			Rocket	Weapons Effects	Submegaton	Bluegill 3 Prime

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Bluestone	06/30/1962	LLNL	Christmas Island area	- - - -	
Bobac	08/24/1962	LANL	NTS	U3bl	17:00:00.13
Bobstay	10/26/1977	LANL	NTS	U3jb	14:15:00.08
Bodie	12/13/1986	LLNL	NTS	U20ap	17:50:05.09
Bogey	04/17/1964	LLNL	NTS	U9au	15:29:52.28
Boltzmann	05/28/1957	LANL	NTS	Area 7	
Bonarda	09/25/1980	LANL	NTS	U3gv	14:45:00.09
Bonefish	02/18/1964	LANL	NTS	U3bt	15:37:19.12
Boomer	10/01/1961	LANL	NTS	U3aa	21:30:00.12
<b>Borate</b>	10/23/1987	LLNL	NTS	U2ge	16:00:00.09
Bordeaux	08/18/1967	LANL	NTS	U3dr	20:12:30.04
Borrego	09/29/1982	LANL	NTS	U7br	13:30:00.10
Bourbon	01/20/1967	LANL	NTS	U7n	17:40:03.41
Bouschet	05/07/1982	LANL	NTS	U3la	18:17:00.11
Bowie	04/06/1990	LANL	NTS	U3mk	17:00:00.04
Bowl-1	06/26/1969	LLNL	NTS	U2bo1	16:00:00.13
Bowl-2	06/26/1969	LLNL	NTS	U2bo2	16:00:00.13
Boxcar	04/26/1968	LLNL	NTS	U20i	15:00:00.07
Bracken	07/09/1971	LLNL	NTS	U10aq	14:00:00.16
Branco	09/21/1983	LLNL	NTS	U2ew	16:25:00.08
Branco-Herkimer	09/21/1983	LLNL	NTS	U2ew	16:25:00.08
Bravo	02/28/1954	LANL	Bikini Island	- - - -	
Brazos	03/08/1962	LLNL	NTS	U9d	18:00:00.21
Breton	09/13/1984	LLNL	NTS	U4ar	14:00:00.00
Brie	06/18/1987	LLNL	NTS	U10cc	15:20:00.08
Bristol	11/26/1991	LLNL/UK	NTS	U4av	18:35:00.07
Bronze	07/23/1965	LANL	NTS	U7f	17:00:00.04
Brush	01/24/1968	LANL	NTS	U3eq	15:00:00.04
Buff	12/16/1965	LANL	NTS	U3dh	19:15:00.04
Buggy-A	03/12/1968	LLNL	NTS	U30a	17:04:00.11
Buggy-B	03/12/1968	LLNL	NTS	U30b	17:04:00.11
Buggy-C	03/12/1968	LLNL	NTS	U30c	17:04:00.11
Buggy-D	03/12/1968	LLNL	NTS	U30d	17:04:00.11
Buggy-E	03/12/1968	LLNL	NTS	U30e	17:04:00.11
Bulkhead	04/27/1977	LANL	NTS	U7am	15:00:00.08
Bullfrog	08/30/1988	LLNL	NTS	U4au	18:00:00.09
<b>Bullion</b>	06/13/1990	LLNL	NTS	U20bd	16:00:00.09
Bumping	10/06/1962	LLNL	Johnston Island area	- - - -	
Bunker	02/13/1964	LLNL	NTS	U9bb	15:30:00.15



## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
			Airdrop	Weapons Related	1.27 Mt	Bluestone
37.046	-116.025	1199	Shaft	Weapons Related	Low	Bobac
37.008	-116.018	1180	Shaft	Weapons Related	Less than 20 kt	Bobstay
37.263	-116.413	1991	Shaft	Weapons Related	20 to 150 kt	Bodie
37.119	-116.035	1265	Shaft	Weapons Related	Less than 20 kt	Bogey
			Tower	Weapons Related	12 kt	Boltzmann
37.056	-116.049	1209	Shaft	Weapons Related	20 to 150 kt	Bonarda
37.059	-116.034	1207	Shaft	Weapons Related	Less than 20 kt	Bonefish
37.048	-116.035	1200	Shaft	Weapons Related	Low	Boomer
37.142	-116.080	1294	Shaft	Weapons Related	20 to 150 kt	<b>Borate</b>
37.012	-116.037	1183	Shaft	Weapons Related	Less than 20 kt	Bordeaux
37.091	-116.046	1234	Shaft	Weapons Related	Less than 150 kt	Borrego
37.100	-116.005	1306	Shaft	Weapons Related	20 to 200 kt	Bourbon
37.069	-116.046	1217	Shaft	Weapons Related	20 to 150 kt	Bouschet
37.068	-115.993	1271	Shaft	Weapons Related	Less than 20 kt	Bowie
37.162	-116.079	1316	Shaft	Weapons Related	Less than 20 kt	Bowl-1
37.161	-116.080	1315	Shaft	Weapons Related	Less than 20 kt	Bowl-2
37.295	-116.457	1914	Shaft	Weapons Related	1.3 Mt	Boxcar
37.164	-116.034	1297	Shaft	Weapons Related	Less than 20 kt	Bracken
37.121	-116.056	1256	Shaft	Weapons Related	Less than 20 kt	Branco
37.121	-116.056	1256	Shaft	Weapons Related	Less than 20 kt	Branco-Herkimer
			Surface	Weapons Related	15 Mt	Bravo
37.122	-116.050	1254	Shaft	Weapons Related	8.4 kt	Brazos
37.087	-116.072	1238	Shaft	Weapons Related	20 to 150 kt	Breton
37.194	-116.036	1318	Shaft	Weapons Related	Less than 20 kt	Brie
37.096	-116.070	1246	Shaft	Joint US-UK	Less than 20 kt	Bristol
37.098	-116.034	1257	Shaft	Weapons Related	20 to 200 kt	Bronze
37.043	-116.015	1199	Shaft	Weapons Related	Less than 20 kt	Brush
37.073	-116.030	1223	Shaft	Weapons Related	20 to 200 kt	Buff
37.007	-116.371	1560	Crater	Plowshare	1.08 kt	Buggy-A
37.008	-116.371	1560	Crater	Plowshare	1.08 kt	Buggy-B
37.008	-116.372	1561	Crater	Plowshare	1.08 kt	Buggy-C
37.008	-116.372	1560	Crater	Plowshare	1.08 kt	Buggy-D
37.008	-116.373	1560	Crater	Plowshare	1.08 kt	Buggy-E
37.095	-116.029	1259	Shaft	Weapons Related	20 to 150 kt	Bulkhead
37.086	-116.069	1236	Shaft	Weapons Related	Less than 150 kt	Bullfrog
37.262	-116.421	1950	Shaft	Weapons Related	20 to 150 kt	<b>Bullion</b>
			Airdrop	Weapons Related	11.3 kt	Bumping
37.132	-116.033	1270	Shaft	Weapons Related	Less than 20 kt	Bunker

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Burzet	08/03/1979	LLNL	NTS	U4ai	15:07:30.16
Buteo	05/12/1965	LANL	NTS	U20a	18:15:00.10
Butternut	05/11/1958	LANL	Enewetak	----	
Bye	07/16/1964	LLNL	NTS	U10i	13:15:00.15
Caboc	12/16/1981	LLNL	NTS	U2cp	21:05:00.09
Cabra	03/26/1983	LLNL	NTS	U20aj	20:20:00.09
Cabresto	05/24/1973	LANL	NTS	U7h	13:30:00.04
Cabrillo	03/07/1975	LLNL	NTS	U2dr	16:00:00.17
Cabriolet	01/26/1968	LLNL	NTS	U20l	16:00:00.11
Cactus	05/05/1958	LANL	Enewetak	----	
Calabash	10/29/1969	LLNL	NTS	U2av	22:01:51.04
Calamity	10/27/1962	LLNL	Johnston Island area	----	
Cambric	05/14/1965	LLNL	NTS	U5e	14:57:52.15
Camembert	06/26/1975	LLNL	NTS	U19q	12:30:00.16
Camphor	06/29/1971	LLNL/SNL/DoD	NTS	U12g.10	18:30:00.16
Campos	02/13/1978	LLNL	NTS	U9cp	21:53:00.16
Can-Green	04/21/1970	LLNL	NTS	U2dd1	15:00:00.04
Can-Red	04/21/1970	LLNL	NTS	U2dd4	15:00:00.04
Canfield	05/02/1980	LANL	NTS	U3kx	18:46:30.09
Canjilon	12/16/1970	LANL	NTS	U3fq	16:00:00.05
Canna-Limoges	11/17/1972	LLNL	NTS	U9itsyz26	18:00:00.16
Canna-Umbrinus	11/17/1972	LLNL	NTS	U9itsyz26	18:00:00.16
<b>Cannikin</b>	11/06/1971	LLNL	Amchitka, Alaska	----	22:00:00.06
Canvasback	08/22/1964	LANL	NTS	U3cp	22:17:00.06
Capitan	06/28/1972	LANL	NTS	U3jj	14:41:00.19
Caprock	05/31/1984	LANL	NTS	U4q	13:04:00.10
Carmel	02/21/1963	LLNL	NTS	U2h	19:47:08.63
Carnelian	07/28/1977	LLNL	NTS	U4af	14:07:00.16
Carp	09/27/1963	LANL	NTS	U3cb	14:20:00.13
Carpetbag	12/17/1970	LLNL	NTS	U2dg	16:05:00.16
Carrizozo	12/03/1970	LANL	NTS	U3hr	15:07:00.00
Cashmere	02/04/1965	LLNL	NTS	U2ad	15:30:00.11
Casselman	02/08/1963	LLNL	NTS	U10g	16:00:00.16
Cassowary	12/16/1964	LANL	NTS	U3bn	20:00:00.07
Cathay	10/08/1971	LLNL	NTS	U9ch	14:30:00.15
Catron	10/24/1958	LANL	NTS	Area 3	
Cebolla	08/09/1972	LANL	NTS	U3jc	13:31:10.04
Cebrero	08/14/1985	LLNL	NTS	U9cw	13:00:00.08
Cedar	07/02/1958	LLNL	Bikini Island	----	

## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
37.084	-116.071	1235	Shaft	Weapons Related	20 to 150 kt	Burzet
37.243	-116.432	1960	Shaft	Weapons Related	Less than 20 kt	Buteo
			Barge	Weapons Related	81 kt	Butternut
37.182	-116.046	1295	Shaft	Weapons Related	20 to 200 kt	Bye
37.114	-116.124	1348	Shaft	Weapons Related	Less than 20 kt	Caboc
37.301	-116.461	1907	Shaft	Weapons Related	20 to 150 kt	Cabra
37.078	-116.032	1228	Shaft	Weapons Related	Less than 20 kt	Cabresto
37.134	-116.085	1288	Shaft	Weapons Related	20 to 200 kt	Cabrillo
37.281	-116.515	1862	Crater	Plowshare	2.3 kt	Cabriolet
			Surface	Weapons Related	18 kt	Cactus
37.143	-116.065	1283	Shaft	Weapons Related	110 kt	Calabash
			Airdrop	Weapons Related	800 kt	Calamity
36.823	-115.968	929	Shaft	Weapons Related	750 tons	Cambric
37.279	-116.369	2033	Shaft	Weapons Related	200 to 1000 kt	Camembert
37.177	-116.212	2289	Tunnel	Weapons Effects	Less than 20 kt	Camphor
37.126	-116.033	1269	Shaft	Weapons Related	Less than 20 kt	Campos
37.112	-116.083	1266	Shaft	Weapons Related	20 to 200 kt	Can-Green
37.116	-116.081	1268	Shaft	Weapons Related	20 to 200 kt	Can-Red
37.056	-116.020	1211	Shaft	Weapons Related	Less than 20 kt	Canfield
37.072	-116.026	1227	Shaft	Weapons Related	Less than 20 kt	Canjilon
37.140	-116.033	1273	Shaft	Safety Experiment	Less than 20 kt	Canna-Limoges
37.140	-116.033	1273	Shaft	Weapons Related	Less than 20 kt	Canna-Umbrinus
51.456	179.102	63	Shaft	Weapons Related	Less than 5 Mt	<b>Cannikin</b>
37.065	-116.016	1226	Shaft	Weapons Related	Less than 20 kt	Canvasback
36.993	-116.023	1175	Shaft	Weapons Related	Less than 20 kt	Capitan
37.103	-116.049	1237	Shaft	Weapons Related	20 to 150 kt	Caprock
37.155	-116.081	1311	Shaft	Weapons Related	Low	Carmel
37.098	-116.092	1265	Shaft	Weapons Related	Less than 20 kt	Carnelian
37.037	-116.017	1193	Shaft	Weapons Related	Low	Carp
37.129	-116.084	1284	Shaft	Weapons Related	220 kt	Carpetbag
37.006	-116.041	1183	Shaft	Weapons Related	Less than 20 kt	Carrizozo
37.131	-116.062	1270	Shaft	Weapons Related	Less than 20 kt	Cashmere
37.149	-116.053	1268	Shaft	Weapons Related	Low	Casselman
37.040	-116.025	1194	Shaft	Weapons Related	Less than 20 kt	Cassowary
37.114	-116.038	1261	Shaft	Weapons Related	Less than 20 kt	Cathay
			Tower	Safety Experiment	21 tons	Catron
37.007	-116.020	1180	Shaft	Weapons Related	Less than 20 kt	Cebolla
37.111	-116.015	1316	Shaft	Weapons Related	Less than 20 kt	Cebrero
			Barge	Weapons Related	220 kt	Cedar

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Centaur	08/27/1965	LLNL	NTS	U2ak	13:51:13.11
Ceres	10/26/1958	LLNL	NTS	Area 8	
Cerise	11/18/1966	LANL	NTS	U3eu	15:02:00.04
Cernada	09/24/1981	LANL	NTS	U3kk	15:00:00.09
Cerro	09/02/1982	LANL	NTS	U3lf	14:00:00.09
Chaenactis	12/14/1971	LLNL	NTS	U2dl	21:09:59.16
Chama	10/18/1962	LANL	Johnston Island area	----	
Chamita	08/17/1985	LANL	NTS	U3lz	16:25:00.09
Chancellor	09/01/1983	LANL	NTS	U19ad	14:00:00.08
Chantilly	09/29/1971	LLNL	NTS	U2di	14:30:00.14
Charcoal	09/10/1965	LANL/UK	NTS	U7g	17:12:00.03
Charleston	09/28/1957	LLNL	NTS	Area 9	
Charlie	10/30/1951	LANL	NTS	Area 7	
Charlie	04/22/1952	LANL/DoD	NTS	Area 7	
Chartreuse	05/06/1966	LANL	NTS	U19d	15:00:00.08
Chateaugay	06/28/1968	LLNL	NTS	U20t	12:22:00.08
Chatty	03/18/1969	LLNL	NTS	U2bn	14:40:00.43
Chaves (Chavez)	10/27/1958	LANL	NTS	Area 3	
Checkmate	10/20/1962	LANL/DoD	Johnston Island area	----	
Cheedam	02/17/1983	LLNL	NTS	U2et	17:00:00.09
Chena	10/10/1961	LLNL	NTS	U12b.09	18:00:00.13
Chenille	04/22/1965	LLNL	NTS	U9bg	13:39:00.10
Cherokee	05/20/1956	LANL	Bikini Island	----	
Cheshire	02/14/1976	LLNL	NTS	U20n	11:30:00.16
Chess	06/20/1979	LANL	NTS	U7at	15:00:13.54
Chetco	05/19/1962	LLNL	Christmas Island area	----	
Chevre	11/23/1976	LLNL	NTS	U10ay	15:15:00.16
Chiberta	12/20/1975	LLNL	NTS	U2ek	20:00:00.16
Chinchilla	02/19/1962	LANL	NTS	U3ag	16:30:00.13
Chinchilla II	03/31/1962	LANL	NTS	U3as	18:00:00.13
Chipmunk	02/15/1963	LANL	NTS	U3ay	17:00:00.13
Chocolate	04/21/1967	LANL	NTS	U3es	15:09:00.04
Cimarron	02/23/1962	LLNL	NTS	U9h	18:00:00.16
Cinnamon	03/07/1966	LANL	NTS	U3dm	18:41:00.04
Clairette	02/05/1981	LANL	NTS	U3kr	18:00:00.12
Clarksmobile	05/17/1968	LLNL	NTS	U2as	13:00:00:00
Clean Slate I	05/25/1963	LANL/DoD/UK	NAFR	----	
Clean Slate II	05/31/1963	LANL/DoD/UK	NAFR	----	
Clean Slate III	06/09/1963	LANL/DoD/UK	NAFR	----	

## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
37.137	-116.071	1283	Shaft	Weapons Related	Less than 20 kt	Centaur
			Tower	Safety Experiment	0.7 tons	Ceres
37.043	-116.011	1202	Shaft	Weapons Related	Less than 20 kt	Cerise
37.008	-116.025	1181	Shaft	Weapons Related	Less than 20 kt	Cernada
37.020	-116.017	1184	Shaft	Weapons Related	Less than 20 kt	Cerro
37.124	-116.090	1281	Shaft	Weapons Related	20 to 200 kt	Chaenactis
			Airdrop	Weapons Related	1.59 Mt	Chama
37.002	-116.044	1181	Shaft	Weapons Related	Less than 20 kt	Chamita
37.273	-116.356	2013	Shaft	Weapons Related	143 kt	Chancellor
37.124	-116.088	1280	Shaft	Weapons Related	Less than 20 kt	Chantilly
37.078	-116.018	1245	Shaft	Joint US-UK	20 to 200 kt	Charcoal
			Balloon	Weapons Related	12 kt	Charleston
			Airdrop	Weapons Related	14 kt	Charlie
			Airdrop	Weapons Related	31 kt	Charlie
37.348	-116.323	2064	Shaft	Weapons Related	73 kt	Chartreuse
37.245	-116.484	1876	Shaft	Weapons Related	20 to 200 kt	Chateaugay
37.162	-116.077	1312	Shaft	Weapons Related	Less than 20 kt	Chatty
			Tower	Safety Experiment	0.6 tons	Chaves (Chavez)
			Rocket	Weapons Effects	Low	Checkmate
37.163	-116.064	1293	Shaft	Weapons Related	Less than 20 kt	Cheedam
37.194	-116.208	2250	Tunnel	Weapons Related	Low	Chena
37.111	-116.031	1276	Shaft	Weapons Related	Less than 20 kt	Chenille
			Airdrop	Weapons Related	3.8 Mt	Cherokee
37.243	-116.421	1947	Shaft	Weapons Related	200 to 500 kt	Cheshire
37.108	-116.016	1309	Shaft	Weapons Related	Less than 20 kt	Chess
			Airdrop	Weapons Related	73 kt	Chetco
37.172	-116.054	1278	Shaft	Weapons Related	Less than 20 kt	Chevre
37.128	-116.062	1264	Shaft	Weapons Related	20 to 200 kt	Chiberta
37.049	-116.030	1201	Shaft	Weapons Related	1.9 kt	Chinchilla
37.047	-116.038	1200	Shaft	Weapons Related	Low	Chinchilla II
37.049	-116.033	1201	Shaft	Safety Experiment	Low	Chipmunk
37.019	-116.038	1186	Shaft	Weapons Related	Less than 20 kt	Chocolate
37.129	-116.049	1256	Shaft	Weapons Related	11.9 kt	Cimarron
37.035	-116.032	1192	Shaft	Safety Experiment	Less than 20 kt	Cinnamon
37.011	-116.033	1182	Shaft	Weapons Related	Less than 20 kt	Clairette
37.120	-116.060	1259	Shaft	Weapons Related	20 to 200 kt	Clarksmobile
			Surface	Storage-Transportation	Zero	Clean Slate I
37.154	-116.077	1306	Surface	Storage-Transportation	Zero	Clean Slate II
			Surface	Storage-Transportation	Zero	Clean Slate III

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Clearwater	10/16/1963	LLNL	NTS	U12q	17:00:00.14
Climax	06/04/1953	LANL	NTS	Area 7	
Club	01/30/1964	LLNL	NTS	U2aa	16:00:00.15
Clymer	03/12/1966	LLNL	NTS	U9ce	18:04:13.11
Coalora	02/11/1983	LANL	NTS	U3lo	16:00:00.10
Cobbler	11/08/1967	LANL	NTS	U7u	15:00:00.04
Codsaw	02/19/1962	LLNL	NTS	U9g	17:50:00.16
Coffer	03/21/1969	LLNL	NTS	U2de	14:30:00.41
Cognac	10/25/1967	LANL	NTS	U3fm	14:30:00.14
Colby	03/14/1976	LLNL	NTS	U20aa	12:30:00.16
Colfax	10/05/1958	LANL	NTS	U3k	16:15:00.00
Colmor	04/26/1973	LANL	NTS	U3hv	15:15:00.04
Colwick	04/26/1980	LLNL/UK	NTS	U20ac	17:00:00.08
Commodore	05/20/1967	LLNL	NTS	U2am	15:00:00.20
Comstock	06/02/1988	LLNL	NTS	U20ay	13:00:00.09
Concentration	12/01/1978	LANL	NTS	U3kn	17:07:30.07
Contact	06/22/1989	LLNL	NTS	U20aw	21:15:00.08
Corazon	12/03/1970	LANL	NTS	U3ha	15:07:00.04
Corduroy	12/03/1965	LLNL	NTS	U10k	15:13:02.10
Cormorant	07/17/1964	LANL/UK	NTS	U3df	17:18:30.03
Cornice-Green	05/15/1970	LLNL	NTS	U10ap3	13:30:00.17
Cornice-Yellow	05/15/1970	LLNL	NTS	U10ap1	13:30:00.17
Cornucopia	07/24/1986	LLNL	NTS	U2ga(s)	15:05:00.09
Correo	08/02/1984	LANL	NTS	U3lw	15:00:00.09
Coso-Bronze	03/08/1991	LLNL	NTS	U4an	21:02:45.08
Coso-Gray	03/08/1991	LLNL	NTS	U4an	21:02:45.08
Coso-Silver	03/08/1991	LLNL	NTS	U4an	21:02:45.08
Cottage	03/23/1985	LLNL	NTS	U8j	18:30:00.08
Coulomb-A	07/01/1957	LANL	NTS	Area 3	
Coulomb-B	09/06/1957	LANL	NTS	S3g	
Coulomb-C	12/09/1957	LANL	NTS	S3i	
Coulommiers	09/27/1977	LLNL	NTS	U2ei	14:00:00.16
Courser	09/25/1964	LANL/UK	NTS	U3do	17:02:00.03
Cove	02/16/1977	LANL	NTS	U3ki	17:53:00.16
Cowles	02/03/1972	LANL	NTS	U3hx	21:45:00.04
Coypu	04/10/1963	LANL	NTS	U3af	16:01:30.12
Cremino	09/27/1978	LLNL	NTS	U8e	16:30:00.17
Cremino-Caerphilly	09/27/1978	LLNL	NTS	U8e	16:30:00.17
Crepe	12/05/1964	LLNL	NTS	U2q	21:15:00.10

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Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
37.198	-116.230	2233	Shaft	Weapons Related	Intermediate	Clearwater
			Airdrop	Weapons Related	61 kt	Climax
37.136	-116.072	1283	Shaft	Weapons Related	Less than 20 kt	Club
37.144	-116.053	1266	Shaft	Weapons Related	Less than 20 kt	Clymer
37.056	-116.046	1210	Shaft	Weapons Related	Less than 20 kt	Coalora
37.092	-116.037	1242	Shaft	Weapons Related	Less than 20 kt	Cobbler
37.127	-116.038	1258	Shaft	Weapons Related	Low	Codsaw
37.133	-116.088	1291	Shaft	Weapons Related	Less than 100 kt	Coffer
37.050	-116.040	1202	Shaft	Weapons Related	Less than 20 kt	Cognac
37.306	-116.472	1904	Shaft	Weapons Related	500 to 1000 kt	Colby
37.049	-116.035	1201	Shaft	Safety Experiment	5.5 tons	Colfax
37.012	-116.021	1182	Shaft	Weapons Related	Less than 20 kt	Colmor
37.248	-116.423	1946	Shaft	Joint US-UK	20 to 150 kt	Colwick
37.130	-116.065	1271	Shaft	Weapons Related	250 kt	Commodore
37.260	-116.442	1960	Shaft	Weapons Related	Less than 150 kt	Comstock
37.030	-116.025	1189	Shaft	Weapons Related	Less than 20 kt	Concentration
37.283	-116.413	1980	Shaft	Weapons Related	20 to 150 kt	Contact
37.002	-116.039	1180	Shaft	Weapons Related	Less than 20 kt	Corazon
37.165	-116.053	1275	Shaft	Weapons Related	20 to 200 kt	Corduroy
37.018	-116.030	1184	Shaft	Joint US-UK	Less than 20 kt	Cormorant
37.162	-116.040	1286	Shaft	Weapons Related	20 to 200 kt	Cornice-Green
37.166	-116.036	1293	Shaft	Weapons Related	20 to 200 kt	Cornice-Yellow
37.143	-116.072	1287	Shaft	Weapons Related	Less than 20 kt	Cornucopia
37.017	-116.009	1182	Shaft	Weapons Related	Less than 20 kt	Correo
37.104	-116.075	1254	Shaft	Weapons Related	Less than 20 kt	Coso-Bronze
37.104	-116.075	1254	Shaft	Weapons Related	Less than 20 kt	Coso-Gray
37.104	-116.075	1254	Shaft	Safety Experiment	Less than 20 kt	Coso-Silver
37.180	-116.090	1362	Shaft	Weapons Related	20 to 150 kt	Cottage
			Surface	Safety Experiment	Zero	Coulomb-A
			Surface	Safety Experiment	300 tons	Coulomb-B
			Surface	Safety Experiment	500 tons	Coulomb-C
37.151	-116.068	1292	Shaft	Weapons Related	20 to 150 kt	Coulommiers
37.072	-116.016	1237	Shaft	Joint US-UK	Zero	Courser
37.007	-116.032	1181	Shaft	Weapons Related	Less than 20 kt	Cove
37.001	-116.020	1178	Shaft	Weapons Related	Less than 20 kt	Cowles
37.049	-116.031	1201	Shaft	Safety Experiment	Low	Coypu
37.171	-116.088	1341	Shaft	Weapons Related	Less than 20 kt	Cremino
37.171	-116.088	1341	Shaft	Weapons Related	Less than 20 kt	Cremino-Caerphilly
37.114	-116.054	1252	Shaft	Weapons Related	20 to 200 kt	Crepe

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Crestlake-Briar	07/18/1974	LLNL	NTS	U2dw	14:00:01.20
Crestlake-Tansan	07/18/1974	LLNL	NTS	U2dw	14:00:01.20
Crew	11/04/1968	LLNL	NTS	U2db	15:15:00.09
Crew-2nd	11/04/1968	LLNL	NTS	U2db	15:16:00.09
Crew-3rd	11/04/1968	LLNL	NTS	U2db	15:16:00.09
Crewline	05/25/1977	LANL	NTS	U7ap	17:00:00.08
Crock	05/08/1968	LLNL	NTS	U10ak	14:10:00.00
Crowdie	05/05/1983	LLNL	NTS	U2fe	15:20:00.08
Cruet	10/29/1969	LLNL	NTS	U2cn	19:30:00.04
Cuchillo	08/09/1972	LANL	NTS	U3jt	13:31:10.04
Culantro-A	12/10/1969	LANL	NTS	U3hia	15:00:00.04
Culantro-B	12/10/1969	LANL	NTS	U3hib	15:00:00.04
Cumarin	02/25/1970	LANL	NTS	U3gz	14:28:38.04
Cumberland	04/11/1963	LLNL	NTS	U2e	16:03:00.16
Cup	03/26/1965	LLNL	NTS	U9cb	15:34:08.16
Cyathus	03/06/1970	LLNL	NTS	U8b	14:24:00.94
Cybar	07/17/1986	LANL	NTS	U19ar	21:00:00.06
Cyclamen	05/05/1966	LANL	NTS	U3cx	14:00:00.04
Cypress	02/12/1969	LLNL/SNL/DoD	NTS	U12g.09	16:18:20.88
Daiquiri	09/23/1966	LANL	NTS	U7o	18:00:00.04
Dakota	06/25/1956	LANL	Bikini Island	----	
Dalhart	10/13/1988	LANL	NTS	U4u	14:00:00.08
Daman I	06/21/1962	LANL	NTS	U3be	17:00:00.13
Danablu	06/09/1983	LLNL	NTS	U2eu	17:10:00.09
Danny Boy	03/05/1962	LLNL/DoD	NTS	U18a	18:15:00.12
Darwin	06/25/1986	LLNL/UK	NTS	U20aq	20:27:45.09
Dauphin	11/14/1980	LLNL	NTS	U9cq	16:50:00.08
De Baca	10/26/1958	LANL	NTS	Area 7	
Dead	04/21/1962	LLNL	NTS	U9k	18:40:00.16
Deck	11/18/1975	LANL	NTS	U3kd	15:30:00.11
Delamar	04/18/1987	LLNL	NTS	U20at	13:40:00.00
Delphinium	09/26/1972	LLNL	NTS	U2dp	14:30:00.16
Derringer	09/12/1966	LANL/SNL/DoD	NTS	U5i	15:30:00.05
Des Moines	06/13/1962	LLNL	NTS	U12j.01	21:00:00.12
Dexter	06/23/1971	LANL	NTS	U3hs	14:00:00.04
Diablo Hawk	09/13/1978	LLNL/DoD	NTS	U12n.10a	15:15:00.16
Diablo	07/15/1957	LLNL	NTS	Area 2	
Diagonal Line	11/24/1971	LLNL/DoD	NTS	U11g	20:15:00.17
Diamond Ace	09/23/1982	LLNL/LANL/DoD	NTS	U12n.15	16:00:00.09



## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
37.119	-116.086	1274	Shaft	Weapons Related	Less than 20 kt	Crestlake-Briar
37.119	-116.086	1274	Shaft	Weapons Related	Less than 20 kt	Crestlake-Tansan
37.130	-116.087	1287	Shaft	Weapons Related	20 to 200 kt	Crew
37.130	-116.087	1287	Shaft	Weapons Related	Less than 20 kt	Crew-2nd
37.130	-116.087	1287	Shaft	Weapons Related	Less than 20 kt	Crew-3rd
37.094	-116.046	1237	Shaft	Weapons Related	20 to 150 kt	Crewline
37.157	-116.036	1289	Shaft	Weapons Related	Less than 20 kt	Crock
37.146	-116.090	1309	Shaft	Weapons Related	Less than 20 kt	Crowdie
37.121	-116.129	1372	Shaft	Weapons Related	11 kt	Cruet
37.004	-116.020	1179	Shaft	Weapons Related	Less than 20 kt	Cuchillo
37.015	-116.004	1181	Shaft	Weapons Related	Less than 20 kt	Culantro-A
37.015	-116.002	1182	Shaft	Weapons Related	Less than 20 kt	Culantro-B
37.037	-115.999	1206	Shaft	Weapons Related	20 to 200 kt	Cumarin
37.157	-116.072	1299	Shaft	Weapons Related	Low	Cumberland
37.148	-116.044	1267	Shaft	Weapons Related	20 to 200 kt	Cup
37.173	-116.093	1353	Shaft	Weapons Related	8.7 kt	Cyathus
37.279	-116.356	2017	Shaft	Weapons Related	119 kt	Cybar
37.051	-116.039	1203	Shaft	Weapons Related	12 kt	Cyclamen
37.169	-116.212	2265	Tunnel	Weapons Effects	Less than 20 kt	Cypress
37.103	-116.037	1260	Shaft	Weapons Related	Less than 20 kt	Daiquiri
			Barge	Weapons Related	1.1 Mt	Dakota
37.089	-116.050	1229	Shaft	Weapons Related	Less than 150 kt	Dalhart
37.043	-116.031	1197	Shaft	Weapons Related	Low	Daman I
37.158	-116.090	1327	Shaft	Weapons Related	Less than 20 kt	Danablu
37.111	-116.366	1641	Crater	Weapons Effects	430 tons	Danny Boy
37.265	-116.500	1849	Shaft	Joint US-UK	20 to 150 kt	Darwin
37.111	-116.020	1306	Shaft	Weapons Related	Less than 20 kt	Dauphin
			Balloon	Weapons Related	2.2 kt	De Baca
37.119	-116.032	1272	Shaft	Weapons Related	Low	Dead
37.020	-116.022	1185	Shaft	Weapons Related	Less than 20 kt	Deck
37.248	-116.510	1875	Shaft	Weapons Related	20 to 150 kt	Delamar
37.121	-116.087	1276	Shaft	Weapons Related	15 kt	Delphinium
36.877	-115.951	1013	Shaft	Weapons Effects	7.8 kt	Derringer
37.222	-116.163	1696	Tunnel	Weapons Related	2.9 kt	Des Moines
37.013	-116.017	1182	Shaft	Safety Experiment	Less than 20 kt	Dexter
37.209	-116.212	2212	Tunnel	Weapons Effects	Less than 20 kt	Diablo Hawk
			Tower	Weapons Related	17 kt	Diablo
36.879	-115.936	1010	Shaft	Weapons Effects	Less than 20 kt	Diagonal Line
37.212	-116.208	1824	Tunnel	Weapons Effects	Less than 20 kt	Diamond Ace

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Diamond Beech	10/09/1985	LLNL/DoD	NTS	U12n.19	23:20:00.09
Diamond Dust	05/12/1970	LANL/DoD	NTS	U16a.05	14:00:00.04
Diamond Fortune	04/30/1992	LANL/DoD	NTS	U12p.05	16:30:00.00
Diamond Mine	07/01/1971	LANL/DoD	NTS	U16a.06	14:00:00.04
Diamond Sculls	07/20/1972	LLNL/DoD	NTS	U12t.02	17:16:00.16
Diana Mist	02/11/1970	LANL/DoD	NTS	U12n.06	19:15:00.04
Diana Moon	08/27/1968	LLNL/DoD	NTS	U11e	16:30:00.04
Dianthus	02/17/1972	LLNL	NTS	U10at	19:02:00.16
Dido Queen	06/05/1973	LLNL/DoD	NTS	U12e.14	17:00:00.17
Diesel Train	12/05/1969	LANL/DoD	NTS	U12e.11	17:00:00.04
Diluted Waters	06/16/1965	LLNL/DoD	NTS	U5b	16:30:00.15
Dining Car	04/05/1975	LLNL/DoD	NTS	U12e.18	19:45:00.19
Discus Thrower	05/27/1966	LANL/DoD	NTS	U8a	20:00:00.04
Disko Elm	09/14/1989	LLNL/DoD	NTS	U12p.03	15:00:00.10
<b>Distant Zenith</b>	09/19/1991	LANL/DoD	NTS	U12p.04	16:30:00.07
Divider	09/23/1992	LANL	NTS	U3ml	15:04:00.00
Dixie	04/06/1953	LANL	NTS	Area 7	
Dofino	03/08/1977	LLNL	NTS	U10ba	14:24:00.16
Dofino-Lawton	03/08/1977	LLNL	NTS	U10ba	14:24:00.16
Dog	04/07/1951	LANL	Enewetak	----	
Dog	11/01/1951	LANL	NTS	Area 7	
Dog	05/01/1952	LANL	NTS	Area 7	
Dogwood	07/05/1958	LLNL	Enewetak	----	
Dolcetto	08/30/1984	LANL	NTS	U7bi	14:45:00.10
Dona Ana	10/16/1958	LANL	NTS	Area 7	
Door Mist	08/31/1967	LANL/DoD	NTS	U12g.07	16:30:00.04
Doppler	08/23/1957	LANL	NTS	Area 7	
Dormouse	01/30/1962	LANL	NTS	U3aq	18:00:00.13
Dormouse Prime	04/05/1962	LANL	NTS	U3az	18:00:00.13
Dorsal Fin	02/29/1968	LANL/DoD	NTS	U12e.10	17:08:30.04
Double Tracks	05/15/1963	LANL/DoD/UK	NAFR	----	
Double Play	06/15/1966	LLNL/DoD	NTS	U16a.03	17:00:00.04
Dovekie	01/21/1966	LANL	NTS	U3cd	18:28:00.04
Draughts	09/27/1978	LANL	NTS	U7al	17:00:00.07
Drill (Source-Lower)	12/05/1964	LLNL	NTS	U2ai	21:15:00.16
Drill (Target-Upper)	12/05/1964	LLNL	NTS	U2ai	21:15:00.16
Driver	05/07/1964	LLNL	NTS	U9ar	13:00:00.15
Dub	06/30/1964	LLNL	NTS	U10a	13:33:00.14
Duffer	06/18/1964	LLNL	NTS	U10ds	13:30:00.20

## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
37.210	-116.211	2230	Tunnel	Weapons Effects	Less than 20 kt	Diamond Beech
37.010	-116.203	1899	Tunnel	Vela Uniform	Less than 20 kt	Diamond Dust
37.234	-116.158	1656	Tunnel	Weapons Effects	Less than 20 kt	Diamond Fortune
37.011	-116.204	1896	Tunnel	Vela Uniform	Less than 20 kt	Diamond Mine
37.214	-116.184	2113	Tunnel	Weapons Effects	Less than 20 kt	Diamond Sculls
37.201	-116.206	2229	Tunnel	Weapons Effects	Less than 20 kt	Diana Mist
36.877	-115.932	1004	Shaft	Weapons Effects	Less than 20 kt	Diana Moon
37.166	-116.057	1279	Shaft	Weapons Related	Less than 20 kt	Dianthus
37.185	-116.216	2247	Tunnel	Weapons Effects	Less than 20 kt	Dido Queen
37.180	-116.212	2207	Tunnel	Weapons Effects	Less than 20 kt	Diesel Train
36.818	-115.957	916	Shaft	Weapons Effects	Less than 20 kt	Diluted Waters
37.188	-116.215	2238	Tunnel	Weapons Effects	Less than 20 kt	Dining Car
37.178	-116.099	1380	Shaft	Weapons Effects	22 kt	Discus Thrower
37.236	-116.164	1917	Tunnel	Weapons Effects	Less than 20 kt	Disko Elm
37.236	-116.167	1921	Tunnel	Weapons Effects	Less than 20 kt	<b>Distant Zenith</b>
37.021	-115.989	1208	Shaft	Weapons Related	Less than 20 kt	Divider
			Airdrop	Weapons Related	11 kt	Dixie
37.176	-116.054	1283	Shaft	Weapons Related	Less than 20 kt	Dofino
37.176	-116.054	1283	Shaft	Weapons Related	Less than 20 kt	Dofino-Lawton
			Tower	Weapons Related	81 kt	Dog
			Airdrop	Weapons Related	21 kt	Dog
			Airdrop	Weapons Related	19 kt	Dog
			Barge	Weapons Related	397 kt	Dogwood
37.090	-116.000	1291	Shaft	Weapons Related	Less than 20 kt	Dolcetto
			Balloon	Weapons Related	37 tons	Dona Ana
37.178	-116.210	2295	Tunnel	Weapons Effects	Less than 20 kt	Door Mist
			Balloon	Weapons Related	11 kt	Doppler
37.047	-116.040	1200	Shaft	Weapons Related	Low	Dormouse
37.044	-116.024	1197	Shaft	Weapons Related	10.6 kt	Dormouse Prime
37.185	-116.212	2260	Tunnel	Weapons Effects	Less than 20 kt	Dorsal Fin
			Surface	Storage-Transportation	Zero	Double Tracks
37.010	-116.204	1954	Tunnel	Weapons Effects	Less than 20 kt	Double Play
37.032	-116.017	1189	Shaft	Weapons Related	Less than 20 kt	Dovekie
37.074	-116.021	1234	Shaft	Weapons Related	20 to 150 kt	Draughts
37.134	-116.071	1280	Shaft	Weapons Related	3.4 kt	Drill (Source-Lower)
37.134	-116.071	1280	Shaft	Weapons Related	Less than 20 kt	Drill (Target-Upper)
37.120	-116.041	1253	Shaft	Weapons Related	Less than 20 kt	Driver
37.174	-116.057	1282	Shaft	Plowshare	11.7 kt	Dub
37.166	-116.039	1288	Shaft	Weapons Related	Less than 20 kt	Duffer

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Dulce	06/17/1962	LANL	Christmas Island area	- - - -	
Dumont	05/19/1966	LLNL	NTS	U2t	13:56:28.14
Duoro	06/20/1984	LANL	NTS	U3lv	15:15:00.09
Duryea	04/14/1966	LLNL	NTS	U20a1	14:13:43.10
Dutchess	10/24/1980	LANL/UK	NTS	U7bm	19:15:00.12
Eagle	12/12/1963	LLNL	NTS	U9av	16:02:00.15
Easy	02/01/1951	LANL	NTS	Area 5	
Easy	04/20/1951	LANL	Enewetak	- - - -	
Easy	11/05/1951	LANL	NTS	Area 7	
Easy	05/07/1952	LANL	NTS	Area 1	
Ebbtide	09/15/1977	LANL	NTS	U3kt	14:36:30.08
Edam	04/24/1975	LLNL	NTS	U2dy	14:10:00.17
Eddy	09/19/1958	LANL	NTS	Area 7	
Eel	05/19/1962	LLNL	NTS	U9m	15:00:00.16
Effendi	04/27/1967	LLNL	NTS	U2ap	14:45:00.00
Egmont	12/09/1984	LLNL/UK	NTS	U20al	19:40:00.09
Elder	06/27/1958	LANL	Enewetak	- - - -	
Elida	12/19/1973	LANL	NTS	U3hy	19:16:00.11
Elkhart	09/17/1965	LLNL	NTS	U9bs	15:08:23.10
Embudo	06/16/1971	LANL	NTS	U3hd	14:50:00.04
Emerson	12/16/1965	LLNL	NTS	U2al	15:39:18.15
Emmenthal	11/02/1978	LLNL	NTS	U19t	15:25:00.17
Encino	05/12/1962	LANL	Christmas Island area	- - - -	
Encore	05/08/1953	LANL/DoD	NTS	Area 5	
Erie	05/30/1956	LANL	Enewetak	- - - -	
Ermine	03/06/1962	LANL	NTS	U3ab	16:30:00.13
Escabosa	07/10/1974	LANL	NTS	U7ac	16:00:00.09
Esrom	02/04/1976	LLNL	NTS	U7ak	14:40:00.16
Ess	03/23/1955	LANL	NTS	Area 10	20:30:00.00
Estaca	10/17/1974	LANL	NTS	U3ja	17:13:00.12
Estuary	03/09/1976	LANL	NTS	U19g	14:00:00.09
Evans	10/29/1958	LLNL	NTS	U12b.04	00:00:00.15
Fade	06/25/1964	LLNL	NTS	U9be	13:30:00.14
Fahada	05/26/1983	LANL	NTS	U7bh	15:00:00.09
Fajy	06/28/1979	LLNL	NTS	U2fc	14:44:00.17
Fallon	05/23/1974	LLNL/UK	NTS	U2dv	13:38:30.16
Farallones	12/14/1977	LLNL	NTS	U2fa	15:30:00.07
Farm	12/16/1978	LLNL	NTS	U20ab	15:30:00.16
Faultless	01/19/1968	LLNL	Central Nevada	- - - -	18:15:00.08

## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
			Airdrop	Weapons Related	52 kt	Dulce
37.111	-116.059	1252	Shaft	Weapons Related	20 to 200 kt	Dumont
37.000	-116.044	1180	Shaft	Weapons Related	20 to 150 kt	Duoro
37.243	-116.432	1960	Shaft	Weapons Related	70 kt	Duryea
37.075	-116.000	1265	Shaft	Joint US-UK	Less than 20 kt	Dutchess
37.131	-116.045	1254	Shaft	Weapons Related	5.3 kt	Eagle
			Airdrop	Weapons Related	1 kt	Easy
			Tower	Weapons Related	47 kt	Easy
			Airdrop	Weapons Related	31 kt	Easy
			Tower	Weapons Related	12 kt	Easy
37.033	-116.044	1194	Shaft	Weapons Related	Less than 20 kt	Ebbtide
37.116	-116.088	1272	Shaft	Weapons Related	20 to 200 kt	Edam
			Balloon	Weapons Related	83 tons	Eddy
37.123	-116.048	1253	Shaft	Weapons Related	4.5 kt	Eel
37.139	-116.064	1279	Shaft	Weapons Related	Less than 20 kt	Effendi
37.270	-116.498	1839	Shaft	Joint US-UK	20 to 150 kt	Egmont
			Barge	Weapons Related	880 kt	Elder
37.001	-116.032	1178	Shaft	Weapons Related	Less than 20 kt	Elida
37.111	-116.035	1267	Shaft	Weapons Related	Less than 20 kt	Elkhart
37.033	-116.015	1191	Shaft	Weapons Related	Less than 20 kt	Embudo
37.141	-116.064	1280	Shaft	Weapons Related	Less than 20 kt	Emerson
37.288	-116.298	2104	Shaft	Weapons Related	Less than 20 kt	Emmenthal
			Airdrop	Weapons Related	500 kt	Encino
			Airdrop	Weapons Effects	27 kt	Encore
			Tower	Weapons Related	14.9 kt	Erie
37.048	-116.035	1201	Shaft	Safety Experiment	Low	Ermine
37.075	-116.033	1223	Shaft	Weapons Related	20 to 200 kt	Escabosa
37.107	-116.038	1258	Shaft	Weapons Related	20 to 200 kt	Esrom
37.170	-116.045	1280	Crater	Weapons Effects	1 kt	Ess
37.006	-116.016	1180	Shaft	Weapons Related	Less than 20 kt	Estaca
37.310	-116.365	2025	Shaft	Weapons Related	200 to 500 kt	Estuary
37.195	-116.206	2000	Tunnel	Weapons Related	55 tons	Evans
37.111	-116.030	1280	Shaft	Weapons Related	Less than 20 kt	Fade
37.103	-116.007	1312	Shaft	Weapons Related	Less than 20 kt	Fahada
37.143	-116.088	1303	Shaft	Weapons Related	20 to 150 kt	Fajy
37.124	-116.080	1276	Shaft	Joint US-UK	20 to 200 kt	Fallon
37.136	-116.087	1290	Shaft	Weapons Related	20 to 150 kt	Farallones
37.273	-116.411	1979	Shaft	Weapons Related	20 to 150 kt	Farm
38.634	-118.133	1834	Shaft	Weapons Related	200 to 1000 kt	Faultless

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Fawn	04/07/1967	LANL	NTS	U3eo	15:00:00.04
Feather	12/22/1961	LLNL	NTS	U12b.08	16:30:00.13
Fenton	04/23/1966	LLNL	NTS	U2m1	14:55:26.14
Ferret	02/08/1963	LANL	NTS	U3bf	18:30:00.13
Ferret Prime	04/05/1963	LANL	NTS	U3by	17:52:00.13
Fig	08/18/1958	LLNL/DoD	Enewetak	----	
File	10/31/1968	LANL	NTS	U3gb	18:30:00.04
Finfoot	03/07/1966	LLNL	NTS	U3du	18:41:00.07
Fir	05/11/1958	LLNL	Bikini Island	----	
Fisher	12/03/1961	LANL	NTS	U3ah	23:04:59.63
Fizeau	09/14/1957	LANL	NTS	Area 3	
Fizz	03/10/1967	LANL	NTS	U3fr	15:00:00.04
Flask-Green	05/26/1970	LLNL	NTS	U2az1	15:00:00.05
Flask-Red	05/26/1970	LLNL	NTS	U2az3	15:00:00.05
Flask-Yellow	05/26/1970	LLNL	NTS	U2az2	15:00:00.05
Flathead	06/11/1956	LANL	Bikini Island	----	
Flax-Backup	12/21/1972	LLNL	NTS	U2dj	20:15:24.35
Flax-Source	12/21/1972	LLNL	NTS	U2dj	20:15:00.24
Flax-Test	12/21/1972	LLNL	NTS	U2dj	20:15:24.35
Flora	05/22/1980	LANL	NTS	U3lg	13:00:00.09
Flotost	08/16/1977	LLNL	NTS	U2ao	15:49:00.17
Floydada	08/15/1991	LANL	NTS	U7cb	16:00:00.00
Fob-Blue	01/23/1970	LLNL	NTS	U9iy27	16:30:00.21
Fob-Green	01/23/1970	LLNL	NTS	U9iv27	16:30:00.21
Fob-Red	01/23/1970	LLNL	NTS	U9iv24	16:30:00.21
Fondutta	04/11/1978	LLNL/UK	NTS	U19zs	15:30:00.16
Fontina	02/12/1976	LLNL	NTS	U20f	14:45:00.16
Fore	01/16/1964	LLNL	NTS	U9ao	16:00:00.15
Forefoot	06/02/1977	LANL	NTS	U3kf	17:15:00.10
Forest	10/31/1964	LLNL	NTS	U7a	17:04:58.61
Fox	02/06/1951	LANL	NTS	Area 5	
Fox	05/25/1952	LANL	NTS	Area 4	
Franklin	06/02/1957	LANL	NTS	Area 3	
Franklin Prime	08/30/1957	LANL	NTS	Area 7	
Freezeout	05/11/1979	LANL	NTS	U3kw	16:00:00.10
Frigate Bird	05/06/1962	LLNL/DoD	Pacific	----	
Frijoles-Deming	09/22/1971	LANL	NTS	U3jw	14:00:00.04
Frijoles-Espuela	09/22/1971	LANL	NTS	U3ju	14:00:00.04

## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
37.054	-116.023	1206	Shaft	Weapons Related	Less than 20 kt	Fawn
37.195	-116.209	2242	Tunnel	Weapons Related	150 tons	Feather
37.160	-116.084	1321	Shaft	Weapons Related	1.4 kt	Fenton
37.058	-116.030	1208	Shaft	Weapons Related	Low	Ferret
37.037	-116.025	1193	Shaft	Weapons Related	Low	Ferret Prime
			Surface	Weapons Related	20 tons	Fig
37.017	-116.037	1185	Shaft	Weapons Related	Less than 20 kt	File
37.037	-116.030	1193	Shaft	Weapons Related	Less than 20 kt	Finfoot
			Barge	Weapons Related	1.36 Mt	Fir
37.046	-116.029	1198	Shaft	Weapons Related	13.4 kt	Fisher
			Tower	Weapons Related	11 kt	Fizeau
37.046	-116.031	1199	Shaft	Safety Experiment	Less than 20 kt	Fizz
37.113	-116.063	1251	Shaft	Plowshare	105 kt	Flask-Green
37.116	-116.068	1259	Shaft	Plowshare	35 tons	Flask-Red
37.118	-116.064	1259	Shaft	Plowshare	90 tons	Flask-Yellow
			Barge	Weapons Related	365 kt	Flathead
37.140	-116.084	1296	Shaft	Weapons Effects	Less than 20 kt	Flax-Backup
37.140	-116.084	1296	Shaft	Weapons Related	Less than 20 kt	Flax-Source
37.140	-116.084	1296	Shaft	Weapons Effects	20 to 200 kt	Flax-Test
37.003	-116.032	1179	Shaft	Weapons Related	Less than 20 kt	Flora
37.147	-116.064	1284	Shaft	Weapons Related	Less than 20 kt	Flotost
37.087	-116.003	1280	Shaft	Weapons Related	Less than 20 kt	Floydada
37.141	-116.034	1273	Shaft	Weapons Related	Less than 20 kt	Fob-Blue
37.141	-116.038	1266	Shaft	Weapons Related	Less than 20 kt	Fob-Green
37.137	-116.038	1263	Shaft	Weapons Related	Less than 20 kt	Fob-Red
37.300	-116.328	2072	Shaft	Joint US-UK	20 to 150 kt	Fondutta
37.271	-116.489	1837	Shaft	Weapons Related	200 to 1000 kt	Fontina
37.142	-116.050	1263	Shaft	Weapons Related	20 to 200 kt	Fore
37.055	-116.026	1207	Shaft	Weapons Related	Less than 20 kt	Forefoot
37.107	-116.033	1270	Shaft	Weapons Related	Less than 20 kt	Forest
			Airdrop	Weapons Related	22 kt	Fox
			Tower	Weapons Related	11 kt	Fox
			Tower	Weapons Related	140 tons	Franklin
			Balloon	Weapons Related	4.7 kt	Franklin Prime
36.998	-116.019	1177	Shaft	Weapons Related	Less than 20 kt	Freezeout
			Rocket	Weapons Related	200 to 1000 kt	Frigate Bird
37.022	-116.020	1186	Shaft	Safety Experiment	Less than 20 kt	Frijoles-Deming
37.023	-116.017	1186	Shaft	Safety Experiment	Less than 20 kt	Frijoles-Espuela

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Frijoles-Guaje	09/22/1971	LANL	NTS	U3hf	14:00:00.04
Frijoles-Petaca	09/22/1971	LANL	NTS	U3hz	14:00:00.04
Frisco	09/23/1982	LLNL	NTS	U8m	17:00:00.09
Funnel	06/25/1968	LANL	NTS	U3ga	15:30:00.04
Futtock	06/18/1975	LANL	NTS	U3eh	11:49:00.09
Galena-Green	06/23/1992	LLNL	NTS	U9cv	15:00:00.07
Galena-Orange	06/23/1992	LLNL	NTS	U9cv	15:00:00.07
Galena-Yellow	06/23/1992	LLNL	NTS	U9cv	15:00:00.07
Galileo	09/02/1957	LANL	NTS	Area 1	
Galveston	09/04/1986	LANL	NTS	U19af	16:09:00.06
Ganymede	10/30/1958	LLNL	NTS	S9g	
Garden	10/23/1964	LLNL	NTS	U9aj	15:00:00.94
<b>Gasbuggy</b>	12/10/1967	LLNL	Farmington, New Mexico	----	19:30:00.14
Gascon	11/14/1986	LANL	NTS	U4t	16:00:00.07
Gazook	03/23/1973	LLNL	NTS	U2do	20:15:00.17
George	05/08/1951	LANL	Enewetak	----	
George	06/01/1952	LANL	NTS	Area 3	
Gerbil	03/29/1963	LANL	NTS	U3bp	15:49:00.12
Gibne	04/25/1982	LLNL/UK	NTS	U20ah	18:05:00.09
Gibson	08/04/1967	LANL	NTS	U3ew	14:00:00.04
Gilroy	09/15/1967	LANL	NTS	U3ex	17:30:00.04
Glencoe	03/22/1986	LANL	NTS	U4i	16:15:00.08
<b>Gnome</b>	12/10/1961	LLNL	Carlsbad, New Mexico	----	19:00:00.00
Goldstone	12/28/1985	LLNL	NTS	U20ao	19:01:00.09
Gorbea	01/31/1984	LLNL	NTS	U2cq	15:30:00.08
Gouda	10/06/1976	LLNL	NTS	U2ef	14:30:00.16
Gourd-Amber	04/24/1969	LLNL	NTS	U2bf	13:04:00.14
Gourd-Brown	04/24/1969	LLNL	NTS	U2bl	13:04:00.14
Grable	05/25/1953	LANL	NTS	Area 5	
Grape A	12/17/1969	LANL	NTS	U7s	15:00:00.04
Grape B	02/04/1970	LANL	NTS	U7v	17:00:00.04
Greeley	12/20/1966	LLNL	NTS	U20g	15:30:00.08
Greys	11/22/1963	LLNL	NTS	U9ax	17:30:00.15
Grove	05/22/1974	LLNL	NTS	U2ds	14:15:00.17
Grunion	10/11/1963	LANL	NTS	U3bz	14:00:00.11
Gruyere	08/16/1977	LLNL	NTS	U9cg	14:41:00.16
Gruyere-Gradino	08/16/1977	LLNL	NTS	U9cg	14:41:00.16
Guanay	09/04/1964	LANL	NTS	U3di	18:15:00.08
Gum Drop	04/21/1965	LLNL/DoD	NTS	U16a.02	22:00:00.03



## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
37.024	-116.016	1186	Shaft	Weapons Related	Less than 20 kt	Frijoles-Guaje
37.022	-116.017	1185	Shaft	Weapons Related	Less than 20 kt	Frijoles-Petaca
37.175	-116.089	1347	Shaft	Weapons Related	20 to 150 kt	Frisco
37.046	-116.031	1199	Shaft	Weapons Related	Less than 20 kt	Funnel
37.066	-116.023	1221	Shaft	Safety Experiment	Less than 20 kt	Futtock
37.124	-116.032	1269	Shaft	Safety Experiment	Less than 20 kt	Galena-Green
37.124	-116.032	1269	Shaft	Safety Experiment	Less than 20 kt	Galena-Orange
37.124	-116.032	1269	Shaft	Weapons Related	Less than 20 kt	Galena-Yellow
			Tower	Weapons Related	11 kt	Galileo
37.240	-116.369	2018	Shaft	Weapons Related	Less than 20 kt	Galveston
			Surface	Safety Experiment	Zero	Ganymede
37.117	-116.032	1274	Shaft	Weapons Related	Less than 20 kt	Garden
36.678	-107.209	2179	Shaft	Plowshare	29 kt	<b>Gasbuggy</b>
37.100	-116.049	1236	Shaft	Weapons Related	20 to 150 kt	Gascon
37.117	-116.088	1274	Shaft	Weapons Related	Less than 20 kt	Gazook
			Tower	Weapons Related	225 kt	George
			Tower	Weapons Related	15 kt	George
37.042	-116.019	1196	Shaft	Weapons Related	Low	Gerbil
37.256	-116.423	1937	Shaft	Joint US-UK	20 to 150 kt	Gibne
37.024	-116.013	1186	Shaft	Weapons Related	Less than 20 kt	Gibson
37.035	-116.022	1191	Shaft	Weapons Related	Less than 20 kt	Gilroy
37.083	-116.067	1233	Shaft	Weapons Related	29 kt	Glencoe
32.264	-103.866	1013	Shaft	Plowshare	3 kt	<b>Gnome</b>
37.238	-116.474	1887	Shaft	Weapons Related	20 to 150 kt	Goldstone
37.113	-116.123	1344	Shaft	Weapons Related	20 to 150 kt	Gorbea
37.135	-116.063	1272	Shaft	Weapons Related	Less than 20 kt	Gouda
37.164	-116.081	1320	Shaft	Weapons Related	Less than 20 kt	Gourd-Amber
37.160	-116.082	1317	Shaft	Weapons Related	Less than 20 kt	Gourd-Brown
			Airburst	Weapons Related	15 kt	Grable
37.083	-116.002	1274	Shaft	Weapons Related	20 to 200 kt	Grape A
37.098	-116.027	1269	Shaft	Weapons Related	20 to 200 kt	Grape B
37.302	-116.409	1945	Shaft	Weapons Related	870 kt	Greeley
37.119	-116.046	1248	Shaft	Weapons Related	Intermediate	Greys
37.115	-116.076	1264	Shaft	Weapons Related	Less than 20 kt	Grove
37.037	-116.022	1193	Shaft	Weapons Related	Low	Grunion
37.145	-116.050	1263	Shaft	Weapons Related	Less than 20 kt	Gruyere
37.145	-116.050	1263	Shaft	Weapons Related	Less than 20 kt	Gruyere-Gradino
37.018	-116.024	1184	Shaft	Weapons Related	Less than 20 kt	Guanay
37.007	-116.203	1931	Tunnel	Weapons Effects	Less than 20 kt	Gum Drop

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Gundi Prime	05/09/1963	LANL	NTS	U3db	18:19:00.00
Gundi	11/15/1962	LANL	NTS	U3bm	16:30:00.08
HA (High Altitude)	04/06/1955	LANL	NTS	Area 1	
Haddock	08/28/1964	LANL	NTS	U3dl	17:06:00.04
Halfbeak	06/30/1966	LANL	NTS	U19b	22:15:00.07
Hamilton	10/15/1958	LLNL/DoD	NTS	Area 5	
Handcar	11/05/1964	LLNL	NTS	U10b	15:00:00.11
Handicap	03/12/1964	LLNL	NTS	U9ba	15:00:00.01
Handley	03/26/1970	LLNL	NTS	U20m	19:00:00.20
Haplopappus	06/28/1972	LLNL	NTS	U9itsw22	16:30:03.16
Hard Hat	02/15/1962	LANL/DoD/SNL	NTS	U15a	18:00:00.10
Hardin	04/30/1987	LLNL	NTS	U20av	13:30:00.09
Harebell	06/24/1971	LLNL	NTS	U2br	14:00:00.16
Harkee	05/17/1963	LANL	NTS	U3bv	14:55:00.00
Harlem	06/12/1962	LLNL	Christmas Island area	----	
Harlingen-A	08/23/1988	LANL	NTS	U6g	18:30:00.08
Harlingen-B	08/23/1988	LANL	NTS	U6h	18:30:00.08
Harry	05/19/1953	LANL	NTS	Area 3	
Harzer	06/06/1981	LLNL	NTS	U19aj	18:00:00.08
Hatchet	05/03/1968	LANL	NTS	U3fz	16:00:00.04
Hatchie	02/08/1963	LLNL	NTS	U9e	16:00:01.15
Havarti	08/05/1981	LLNL	NTS	U10bg	13:41:00.09
Haymaker	06/27/1962	LANL	NTS	U3au(s)	18:00:00.12
Hazebrook-Apricot (Orange)	02/03/1987	LLNL	NTS	U10bh	15:20:00.08
Hazebrook-Checkerberry (Red)	02/03/1987	LLNL	NTS	U10bh	15:20:00.08
Hazebrook-Emerald (Green)	02/03/1987	LLNL	NTS	U10bh	15:20:00.08
<b>Hearts</b>	09/06/1979	LANL	NTS	U4n	15:00:00.09
Heilman	04/06/1967	LLNL	NTS	U2cg	15:00:00.12
Hermosa	04/02/1985	LANL	NTS	U7bs	20:00:00.09
Hickory	06/29/1958	LLNL	Bikini Island	----	
Hidalgo	10/05/1958	LANL	NTS	Area 7	
Hod-A (Green)	05/01/1970	LLNL	NTS	U9itsx23	14:40:00.17
Hod-B (Red)	05/01/1970	LLNL	NTS	U9itsx20	14:40:00.17
Hod-C (Blue)	05/01/1970	LLNL	NTS	U9iz25	14:25:00.00
Hognose	03/15/1962	LANL	NTS	U3ai	16:30:00.13
Holly	05/20/1958	LANL	Enewetak	----	
Hood	07/05/1957	LLNL	NTS	Area 9	
Hook	04/14/1964	LLNL	NTS	U9bc	14:40:00.15
Hoopoe	12/16/1964	LANL	NTS	U3cf	20:00:00.07

## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
37.049	-116.016	1205	Shaft	Weapons Related	Low	Gundi Prime
37.042	-116.025	1195	Shaft	Weapons Related	Low	Gundi
			Airdrop	Weapons Effects	3 kt	HA (High Altitude)
37.067	-116.023	1222	Shaft	Weapons Related	Less than 20 kt	Haddock
37.316	-116.300	2043	Shaft	Weapons Related	365 kt	Halfbeak
			Tower	Weapons Related	1.2 tons	Hamilton
37.174	-116.068	1307	Shaft	Plowshare	12 kt	Handcar
37.130	-116.037	1261	Shaft	Weapons Related	Less than 20 kt	Handicap
37.300	-116.535	1772	Shaft	Weapons Related	More than 1 Mt	Handley
37.135	-116.036	1264	Shaft	Weapons Related	Less than 20 kt	Haplopappus
37.226	-116.060	1532	Shaft	Weapons Effects	5.7 kt	Hard Hat
37.233	-116.424	1943	Shaft	Weapons Related	20 to 150 kt	Hardin
37.147	-116.068	1287	Shaft	Weapons Related	20 to 200 kt	Harebell
37.048	-116.033	1200	Shaft	Weapons Related	Low	Harkee
			Airdrop	Weapons Related	1.2 Mt	Harlem
36.991	-116.019	1175	Shaft	Weapons Related	Less than 20 kt	Harlingen-A
36.989	-116.019	1175	Shaft	Weapons Related	Less than 20 kt	Harlingen-B
			Tower	Weapons Related	32 kt	Harry
37.303	-116.326	2073	Shaft	Weapons Related	20 to 150 kt	Harzer
37.029	-116.021	1188	Shaft	Weapons Related	Less than 20 kt	Hatchet
37.126	-116.040	1256	Shaft	Weapons Related	Low	Hatchie
37.154	-116.036	1283	Shaft	Weapons Related	Less than 20 kt	Havarti
37.042	-116.036	1196	Shaft	Weapons Related	67 kt	Haymaker
37.181	-116.049	1291	Shaft	Safety Experiment	Less than 20 kt	Hazebrook-Apricot (Orange)
37.181	-116.049	1291	Shaft	Weapons Related	Less than 20 kt	Hazebrook-Checkerberry (Red)
37.181	-116.049	1291	Shaft	Weapons Related	Less than 20 kt	Hazebrook-Emerald (Green)
37.088	-116.054	1232	Shaft	Weapons Related	140 kt	<b>Hearts</b>
37.137	-116.134	1405	Shaft	Weapons Related	Less than 20 kt	Heilman
37.095	-116.033	1251	Shaft	Weapons Related	20 to 150 kt	Hermosa
			Barge	Weapons Related	14 kt	Hickory
			Balloon	Safety Experiment	77 tons	Hidalgo
37.136	-116.035	1268	Shaft	Weapons Related	Less than 20 kt	Hod-A (Green)
37.133	-116.035	1266	Shaft	Weapons Related	Less than 20 kt	Hod-B (Red)
37.138	-116.032	1276	Shaft	Safety Experiment	Less than 20 kt	Hod-C (Blue)
37.044	-116.032	1198	Shaft	Weapons Related	Low	Hognose
			Barge	Weapons Related	5.9 kt	Holly
			Balloon	Weapons Related	74 kt	Hood
37.129	-116.031	1276	Shaft	Weapons Related	Less than 20 kt	Hook
37.048	-116.034	1200	Shaft	Safety Experiment	Less than 20 kt	Hoopoe

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Hoosic	03/28/1962	LLNL	NTS	U9j	18:00:00.16
Horehound	08/27/1969	LANL	NTS	U3gm	13:45:00.04
Hornet	03/12/1955	LANL	NTS	Area 3	
Hornitos	10/31/1989	LLNL	NTS	U20bc	15:30:00.09
Hospah	12/14/1971	LANL	NTS	U3je	21:10:01.04
Hosta	02/12/1982	LANL	NTS	U19ak	15:25:00.09
Housatonic	10/30/1962	LLNL	Johnston Island area	----	
Houston	11/14/1990	LANL/UK	NTS	U19az	19:17:00.07
How	06/05/1952	LANL	NTS	Area 2	
<b>Hoya</b>	09/14/1991	LLNL	NTS	U20be	19:00:00.08
Hudson Moon	05/26/1970	LLNL/DoD	NTS	U12e.12	14:16:00.17
Hudson Seal	09/24/1968	LLNL/DoD	NTS	U12n.04	17:05:01.09
Hudson	04/12/1962	LLNL	NTS	U9n	18:00:00.16
Hula	10/29/1968	LLNL	NTS	U9bu	15:36:00.09
Hulsea	03/14/1974	LLNL	NTS	U2bx	17:00:00.17
Humboldt	10/29/1958	LLNL/DoD	NTS	Area 3	
Hunters Trophy	09/18/1992	LLNL/DoD	NTS	U12n.24	17:00:00.08
Hupmobile	01/18/1968	LLNL	NTS	U2y	16:30:00.13
Huron	07/21/1956	LANL	Enewetak	----	
Huron Landing	09/23/1982	LLNL/LANL/DoD	NTS	U12n.15	16:00:00.09
Huron King	06/24/1980	LANL/DoD	NTS	U3ky	15:10:00.07
Husky Pup	10/24/1975	LLNL/DoD	NTS	U12t.03	17:11:26.09
Husky Ace	10/12/1973	LANL/DoD	NTS	U12n.07	17:00:00.08
Hutch	07/16/1969	LLNL	NTS	U2df	14:55:00.04
Hutia	06/06/1963	LANL	NTS	U3bc	14:00:00.13
Hybla Fair	10/28/1974	LLNL/DoD	NTS	U12n.09	15:00:00.17
Hybla Gold	11/01/1977	LANL/DoD	NTS	U12e.20	18:06:00.07
Hyrax	09/14/1962	LANL	NTS	U3bh	17:10:00.12
Iceberg	03/23/1978	LANL	NTS	U4g	16:30:00.20
Ildrim	07/16/1969	LLNL	NTS	U2au	13:02:30.04
Imp	08/09/1968	LLNL	NTS	U2bj	13:00:00.00
Inca	06/21/1956	LLNL	Enewetak	----	
Ingot	03/09/1989	LLNL	NTS	U2gg	14:05:00.09
Inlet	11/20/1975	LANL	NTS	U19f	15:00:00.09
Ipecac-A	05/27/1969	LANL	NTS	U3hka	14:00:00.04
Ipecac-B	05/27/1969	LANL	NTS	U3hkb	14:00:00.04
Islay	08/27/1981	LLNL	NTS	U2er	14:31:00.09
Item	05/24/1951	LANL	Enewetak	----	
Izzer	07/16/1965	LLNL	NTS	U9bp	13:04:24.10

## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
37.124	-116.035	1264	Shaft	Weapons Related	3.4 kt	Hoosic
36.993	-115.996	1174	Shaft	Weapons Related	Less than 20 kt	Horehound
			Tower	Weapons Related	4 kt	Hornet
37.263	-116.492	1846	Shaft	Weapons Related	20 to 150 kt	Hornitos
37.026	-116.030	1188	Shaft	Weapons Related	Less than 20 kt	Hospah
37.348	-116.317	2076	Shaft	Weapons Related	20 to 150 kt	Hosta
			Airdrop	Weapons Related	8.3 Mt	Housatonic
37.227	-116.372	2031	Shaft	Joint US-UK	20 to 150 kt	Houston
			Tower	Weapons Related	14 kt	How
37.226	-116.429	1951	Shaft	Weapons Related	20 to 150 kt	<b>Hoya</b>
37.183	-116.214	2274	Tunnel	Weapons Effects	Less than 20 kt	Hudson Moon
37.205	-116.207	2168	Tunnel	Weapons Effects	Less than 20 kt	Hudson Seal
37.127	-116.046	1253	Shaft	Weapons Related	Low	Hudson
37.113	-116.042	1254	Shaft	Weapons Related	Less than 20 kt	Hula
37.155	-116.065	1289	Shaft	Weapons Related	Less than 20 kt	Hulsea
			Tower	Weapons Related	7.8 tons	Humboldt
37.207	-116.211	1827	Tunnel	Weapons Effects	Less than 20 kt	Hunters Trophy
37.146	-116.067	1287	Shaft	Weapons Effects	7.4 kt	Hupmobile
			Barge	Weapons Related	250 kt	Huron
37.212	-116.208	1824	Tunnel	Weapons Effects	Less than 20 kt	Huron Landing
37.023	-116.035	1187	Shaft	Weapons Effects	Less than 20 kt	Huron King
37.222	-116.181	2036	Tunnel	Weapons Effects	Less than 20 kt	Husky Pup
37.200	-116.204	2238	Tunnel	Weapons Effects	Less than 20 kt	Husky Ace
37.139	-116.088	1300	Shaft	Weapons Related	20 to 200 kt	Hutch
37.044	-116.037	1198	Shaft	Weapons Related	Low	Hutia
37.201	-116.205	2227	Tunnel	Weapons Effects	Less than 20 kt	Hybla Fair
37.188	-116.214	2239	Tunnel	Weapons Effects	Less than 20 kt	Hybla Gold
37.044	-116.022	1197	Shaft	Weapons Related	Low	Hyrax
37.102	-116.052	1239	Shaft	Weapons Related	20 to 150 kt	Iceberg
37.119	-116.056	1256	Shaft	Weapons Related	20 to 200 kt	Ildrim
37.162	-116.078	1314	Shaft	Weapons Related	Less than 20 kt	Imp
			Tower	Weapons Related	15.2 kt	Inca
37.143	-116.068	1280	Shaft	Weapons Related	20 to 150 kt	Ingot
37.225	-116.368	2025	Shaft	Weapons Related	200 to 1000 kt	Inlet
37.015	-116.003	1181	Shaft	Safety Experiment	Less than 20 kt	Ipecac-A
37.015	-116.001	1182	Shaft	Safety Experiment	Less than 20 kt	Ipecac-B
37.160	-116.067	1297	Shaft	Weapons Related	Less than 20 kt	Islay
			Tower	Weapons Related	45.5 kt	Item
37.115	-116.033	1273	Shaft	Weapons Related	Less than 20 kt	Izzer

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Jackpots	06/01/1978	LANL	NTS	U3kj	17:00:00.08
Jal	03/19/1970	LANL	NTS	U3hh	14:03:30.04
Jara	06/06/1974	LANL	NTS	U3hp	14:40:00.08
Jarlsberg	08/27/1983	LLNL	NTS	U10ca	14:00:00.09
Jefferson	04/22/1986	LLNL	NTS	U20ai	14:30:00.09
Jerboa	03/01/1963	LANL	NTS	U3at	19:00:00.12
Jib	05/08/1974	LANL	NTS	U3hb	16:55:00.09
Jicarilla	04/19/1972	LANL	NTS	U3jm	16:42:00.05
John	07/19/1957	LANL/DoD	NTS	Area 10	
Johnnie Boy	07/11/1962	LLNL/DoD	NTS	Area 18	16:45:00.09
Jornada	01/28/1982	LANL	NTS	U4j	16:00:00.10
Jorum	09/16/1969	LLNL	NTS	U20e	14:30:00.04
<b>Junction</b>	03/26/1992	LANL	NTS	U19bg	16:30:00.00
Juniper	07/22/1958	LLNL	Bikini Island	----	
Juno	10/24/1958	LLNL	NTS	S9f	
Kankakee	06/15/1966	LLNL	NTS	U10p	18:02:47.13
Kappeli	07/25/1984	LLNL	NTS	U20am	15:30:00.08
Kara	05/11/1972	LLNL	NTS	U2dh3	14:00:00.16
Karab	03/16/1978	LLNL	NTS	U4ah	15:00:00.07
Kash	06/12/1980	LLNL	NTS	U20af	17:15:00.09
Kashan	05/24/1973	LLNL	NTS	U10av	13:30:00.16
Kasseri	10/28/1975	LLNL	NTS	U20z	14:30:00.16
Kaweah	02/21/1963	LLNL	NTS	U9ab	19:47:00.14
Kawich A-Blue	12/09/1988	LLNL	NTS	U8n	15:15:00.08
Kawich A-White	12/09/1988	LLNL	NTS	U8n	15:15:00.08
Kawich-Black	02/24/1989	LLNL	NTS	U2cu	16:15:00.08
Kawich-Red	02/24/1989	LLNL	NTS	U2cu	16:15:00.08
<b>Kearsarge</b>	08/17/1988	LLNL	NTS	U19ax	17:00:00.09
Keel	12/16/1974	LANL	NTS	U3hu	17:30:00.09
Keelson	02/04/1976	LANL	NTS	U7ai	14:20:00.11
Kennebec	06/25/1963	LLNL	NTS	U2af	23:00:00.15
Kepler	07/24/1957	LANL	NTS	Area 4	
Kermet	11/23/1965	LLNL	NTS	U2c	18:17.32.10
<b>Kernville</b>	02/15/1988	LLNL	NTS	U20ar	18:10:00.09
Kesti	06/16/1982	LLNL	NTS	U9cn	14:00:00.08
Kestrel	04/05/1965	LANL	NTS	U3dd	21:00:00.04
Khaki	10/15/1966	LANL	NTS	U3et	19:00:00.05
Kickapoo	06/13/1956	LLNL	Enewetak	----	
King	11/15/1952	LANL	Enewetak	----	

## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
37.021	-116.033	1186	Shaft	Weapons Related	Less than 20 kt	Jackpots
37.001	-116.024	1178	Shaft	Weapons Related	Less than 20 kt	Jal
37.004	-116.024	1180	Shaft	Weapons Related	Less than 20 kt	Jara
37.193	-116.035	1318	Shaft	Weapons Related	Less than 20 kt	Jarlsberg
37.264	-116.441	1955	Shaft	Weapons Related	20 to 150 kt	Jefferson
37.044	-116.027	1197	Shaft	Weapons Related	Low	Jerboa
37.001	-116.002	1177	Shaft	Weapons Related	Less than 20 kt	Jib
37.007	-116.017	1180	Shaft	Weapons Related	Less than 20 kt	Jicarilla
			Rocket	Weapons Effects	About 2 kt	John
37.122	-116.334	1544	Crater	Weapons Effects	500 tons	Johnnie Boy
37.091	-116.052	1233	Shaft	Weapons Related	139 kt	Jornada
37.314	-116.462	1898	Shaft	Weapons Related	Less than 1 Mt	Jorum
37.272	-116.361	2013	Shaft	Weapons Related	20 to 150 kt	<b>Junction</b>
			Barge	Weapons Related	65 kt	Juniper
			Surface	Safety Experiment	1.7 tons	Juno
37.171	-116.050	1281	Shaft	Weapons Related	20 to 200 kt	Kankakee
37.268	-116.412	1982	Shaft	Weapons Related	20 to 150 kt	Kappeli
37.112	-116.085	1267	Shaft	Weapons Related	Less than 20 kt	Kara
37.085	-116.082	1247	Shaft	Weapons Related	Less than 20 kt	Karab
37.282	-116.455	1911	Shaft	Weapons Related	20 to 150 kt	Kash
37.162	-116.057	1277	Shaft	Weapons Related	Less than 20 kt	Kashan
37.290	-116.412	1957	Shaft	Weapons Related	200 to 1000 kt	Kasseri
37.120	-116.047	1249	Shaft	Plowshare	3 kt	Kaweah
37.175	-116.093	1357	Shaft	Safety Experiment	Less than 20 kt	Kawich A-Blue
37.175	-116.093	1357	Shaft	Safety Experiment	Less than 20 kt	Kawich A-White
37.128	-116.123	1352	Shaft	Safety Experiment	Less than 20 kt	Kawich-Black
37.128	-116.123	1352	Shaft	Weapons Related	Less than 20 kt	Kawich-Red
37.297	-116.307	2102	Shaft	Weapons Related	100 to 150 kt	<b>Kearsarge</b>
37.011	-116.018	1182	Shaft	Weapons Related	Less than 20 kt	Keel
37.069	-116.031	1218	Shaft	Weapons Related	20 to 200 kt	Keelson
37.131	-116.069	1276	Shaft	Weapons Related	Low	Kennebec
			Tower	Weapons Related	10 kt	Kepler
37.162	-116.072	1304	Shaft	Weapons Related	Less than 20 kt	Kermet
37.314	-116.472	1899	Shaft	Weapons Related	20 to 150 kt	<b>Kernville</b>
37.114	-116.017	1312	Shaft	Weapons Related	Less than 20 kt	Kesti
37.026	-116.024	1187	Shaft	Weapons Related	Less than 20 kt	Kestrel
37.047	-116.018	1202	Shaft	Weapons Related	Less than 20 kt	Khaki
			Tower	Weapons Related	1.49 kt	Kickapoo
			Airdrop	Weapons Related	500 kt	King

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Kingfish	11/01/1962	LANL/DoD	Johnston Island area	- - - -	
Kinibito	12/05/1985	LANL/UK	NTS	U3me	15:00:00.07
Klickitat	02/20/1964	LLNL	NTS	U10e	15:30:00.15
Kloster	02/15/1979	LLNL	NTS	U2eo	18:05:00.16
Knickerbocker	05/26/1967	LLNL	NTS	U20d	15:00:01.50
Knife A	09/12/1968	LANL	NTS	U3fb	14:00:00.04
Knife B	11/15/1968	LANL	NTS	U3dz	15:45:00.04
Knife C	10/03/1968	LANL	NTS	U3er	14:29:00.04
Knox	02/21/1968	LLNL	NTS	U2at	15:30:00.00
Koa	05/12/1958	LANL	Enewetak	- - - -	
Kohocton	08/23/1963	LLNL	NTS	U9ak	13:20:00.15
Koon	04/06/1954	LLNL	Bikini Island	- - - -	
Kootanai	04/24/1963	LLNL	NTS	U9w	16:09:30.14
Kryddost	05/06/1982	LLNL	NTS	U2co	20:00:00.08
Kyack-A	09/20/1969	LLNL	NTS	U2bq1	14:30:00.04
Kyack-B	09/20/1969	LLNL	NTS	U2bq2	14:30:00.04
Laban	08/03/1983	LLNL	NTS	U2ff	13:33:00.10
Labis	02/05/1970	LLNL	NTS	U10an	15:00:00.04
Labquark	09/30/1986	LLNL	NTS	U19an	22:30:00.10
Lacrosse	05/04/1956	LANL	Enewetak	- - - -	
Lagoon	10/14/1971	LLNL	NTS	U10ar	14:30:00.16
Laguna	06/23/1971	LANL	NTS	U3fd	15:30:00.04
Lampblack	01/18/1966	LANL	NTS	U7i	18:35:00.04
Lanpher	10/18/1967	LLNL	NTS	U2x	14:30:00.08
Laplace	09/08/1957	LANL	NTS	Area 7	
<b>Laredo</b>	05/21/1988	LANL	NTS	U3mh	22:30:00.14
Lassen	06/05/1957	LLNL	NTS	Area 9	
Latir	02/27/1974	LANL	NTS	U4d	17:00:00.09
Lea	10/13/1958	LANL	NTS	Area 7	
Ledoux	09/27/1990	LANL	NTS	U1a.01	18:02:46.00
Lexington	08/24/1967	LLNL	NTS	U2bm	13:30:00.00
Leyden	11/26/1975	LLNL	NTS	U9cm	15:30:00.16
Lime	04/01/1966	LANL	NTS	U7j	18:40:00.04
Linden	06/18/1958	LANL	Enewetak	- - - -	
Links	07/23/1964	LLNL	NTS	U9bf	13:30:00.15
Liptauer	04/03/1980	LLNL	NTS	U2eh	14:00:00.09
Little Feller I	07/17/1962	SNL/DoD	NTS	Area 18	
Little Feller II	07/07/1962	SNL/DoD	NTS	Area 18	
Lockney	09/24/1987	LANL	NTS	U19aq	15:00:00.06



## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
			Rocket	Weapons Effects	Submegaton	Kingfish
37.053	-116.046	1208	Shaft	Joint US-UK	20 to 150 kt	Kinibito
37.151	-116.041	1273	Shaft	Plowshare	70 kt	Klickitat
37.152	-116.073	1297	Shaft	Weapons Related	20 to 150 kt	Kloster
37.248	-116.481	1878	Shaft	Weapons Related	76 kt	Knickerbocker
37.032	-116.012	1190	Shaft	Weapons Related	Less than 20 kt	Knife A
37.026	-116.034	1188	Shaft	Weapons Related	Less than 20 kt	Knife B
37.026	-115.994	1201	Shaft	Weapons Related	Less than 20 kt	Knife C
37.117	-116.055	1253	Shaft	Weapons Related	20 to 200 kt	Knox
			Surface	Weapons Related	1.37 Mt	Koa
37.125	-116.036	- - - -	Shaft	Weapons Related	Low	Kohocton
			Surface	Weapons Related	110 kt	Koon
37.121	-116.037	1261	Shaft	Weapons Related	Low	Kootanai
37.117	-116.128	1363	Shaft	Weapons Related	Less than 20 kt	Kryddost
37.159	-116.069	1296	Shaft	Weapons Related	Less than 20 kt	Kyack-A
37.157	-116.067	1293	Shaft	Weapons Related	Less than 20 kt	Kyack-B
37.119	-116.090	1276	Shaft	Weapons Related	Less than 20 kt	Laban
37.164	-116.040	1286	Shaft	Weapons Related	25 kt	Labis
37.300	-116.308	2100	Shaft	Weapons Related	20 to 150 kt	Labquark
			Surface	Weapons Related	40 kt	Lacrosse
37.180	-116.054	1286	Shaft	Weapons Related	Less than 20 kt	Lagoon
37.022	-116.024	1186	Shaft	Weapons Related	20 to 200 kt	Laguna
37.092	-116.020	1267	Shaft	Weapons Related	20 to 200 kt	Lampblack
37.116	-116.059	1255	Shaft	Weapons Related	20 to 200 kt	Lanpher
			Balloon	Weapons Related	1 kt	Laplace
37.032	-115.988	1220	Shaft	Weapons Related	Less than 150 kt	<b>Laredo</b>
			Balloon	Weapons Related	0.5 tons	Lassen
37.104	-116.054	1243	Shaft	Weapons Related	20 to 200 kt	Latir
			Balloon	Weapons Related	1.4 kt	Lea
37.008	-116.059	1191	Shaft	Weapons Related	Less than 20 kt	Ledoux
37.163	-116.075	1310	Shaft	Weapons Related	Less than 20 kt	Lexington
37.117	-116.020	1303	Shaft	Weapons Related	Less than 20 kt	Leyden
37.103	-116.021	1291	Shaft	Weapons Related	Less than 20 kt	Lime
			Barge	Weapons Related	11 kt	Linden
37.114	-116.033	1273	Shaft	Weapons Related	Less than 20 kt	Links
37.150	-116.083	1304	Shaft	Weapons Related	20 to 150 kt	Liptauer
			Surface	Weapons Effects	Low	Little Feller I
			Surface	Weapons Effects	Low	Little Feller II
37.228	-116.376	2045	Shaft	Weapons Related	20 to 150 kt	Lockney

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Logan	10/16/1958	LLNL	NTS	U12e.02	06:00:00.14
<b>Long Shot</b>	10/29/1965	LANL/DoD	Amchitka, Alaska	----	21:00:00.08
Longchamps	04/19/1972	LLNL	NTS	U2dm	16:32:00.16
Lovage	12/17/1969	LANL	NTS	U3fe	15:15:00.04
Lowball	07/12/1978	LANL	NTS	U7av	17:00:00.08
Lubbock	10/18/1991	LANL	NTS	U3mt	19:12:00.00
Luna	09/21/1958	LANL	NTS	U3m	19:00:00.00
Mackerel	02/18/1964	LANL	NTS	U4b	15:37:37.12
Mad	12/13/1961	LLNL	NTS	U9a	18:00:00.16
Madison	12/12/1962	LLNL	NTS	U12g.01	17:25:00.12
Magnolia	05/26/1958	LANL	Enewetak	----	
Mallet	01/31/1968	LANL	NTS	U3fv	15:30:00.04
Manatee	12/14/1962	LLNL	NTS	U9af	18:00:00.16
Manteca	12/10/1982	LLNL	NTS	U4al	15:20:00.09
Manzanas	05/21/1970	LANL	NTS	U3gr	14:00:00.04
Maple	06/10/1958	LLNL	Bikini Island	----	
Maribo	06/26/1985	LLNL	NTS	U2cs	18:03:00.08
Mars	09/28/1958	LLNL	NTS	U12f.02	00:00:00.00
Marsh	09/06/1975	LANL	NTS	U3kb	17:00:00.11
Marshmallow	06/28/1962	LLNL/DoD	NTS	U16a	17:00:00.11
Marsilly	04/05/1977	LLNL	NTS	U2el	15:00:00.17
Marvel	09/21/1967	LLNL	NTS	U10ds1	20:45:00.00
Mast	06/19/1975	LANL	NTS	U19u	13:00:00.09
Mataco	06/14/1963	LANL	NTS	U3bk	14:10:00.13
Mauve	08/06/1965	LANL	NTS	U3dp	17:23:30.04
Maxwell	01/13/1966	LLNL	NTS	U9br	15:37:43.10
Mazama	10/29/1958	LLNL	NTS	Area 9	
Memory	03/14/1979	LANL	NTS	U3kq	18:30:00.10
Mercury	09/23/1958	LLNL	NTS	U12f.01	22:00:00.00
Merida	06/07/1972	LLNL	NTS	U2dn	15:20:00.16
Merlin	02/16/1965	LANL	NTS	U3ct	17:30:00.04
Merrimac	07/13/1962	LLNL	NTS	U3bd	16:00:00.15
Mescalero	01/05/1972	LANL	NTS	U3gu	15:10:00.04
Mesilla	05/09/1962	LANL	Christmas Island area	----	
Mesita	05/09/1973	LANL	NTS	U3jd	13:30:00.04
MET (Military Effects Test)	04/15/1955	LANL/DoD	NTS	Area 5	
Metropolis	03/10/1990	LLNL	NTS	U2gh	16:00:00.08
Mickey	05/10/1967	LANL	NTS	U7m	13:40:00.04
Midas Myth/Milagro	02/15/1984	LANL/DoD	NTS	U12t.04	17:00:00.11

## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
37.184	-116.202	- - -	Tunnel	Weapons Related	5 kt	Logan
51.424	179.179	42	Shaft	Vela Uniform	80 kt	<b>Long Shot</b>
37.122	-116.085	1276	Shaft	Weapons Related	Less than 20 kt	Longchamps
37.007	-116.024	1181	Shaft	Weapons Related	Less than 20 kt	Lovage
37.079	-116.045	1225	Shaft	Weapons Related	20 to 150 kt	Lowball
37.063	-116.046	1213	Shaft	Weapons Related	20 to 150 kt	Lubbock
37.049	-116.035	1201	Shaft	Safety Experiment	1.5 tons	Luna
37.096	-116.052	1236	Shaft	Weapons Related	Less than 20 kt	Mackerel
37.127	-116.050	1254	Shaft	Weapons Related	500 tons	Mad
37.172	-116.203	2252	Tunnel	Weapons Related	Low	Madison
			Barge	Weapons Related	57 kt	Magnolia
37.001	-116.010	1177	Shaft	Weapons Related	Less than 20 kt	Mallet
37.124	-116.041	1254	Shaft	Weapons Related	Low	Manatee
37.080	-116.073	1236	Shaft	Weapons Related	20 to 150 kt	Manteca
37.012	-115.993	1194	Shaft	Weapons Related	Less than 20 kt	Manzanas
			Barge	Weapons Related	213 kt	Maple
37.124	-116.123	1352	Shaft	Weapons Related	Less than 20 kt	Maribo
37.193	-116.201	2021	Tunnel	Safety Experiment	13 tons	Mars
37.024	-116.029	1187	Shaft	Weapons Related	Less than 20 kt	Marsh
37.009	-116.202	2241	Tunnel	Weapons Effects	Low	Marshmallow
37.120	-116.063	1259	Shaft	Weapons Related	20 to 150 kt	Marsilly
37.166	-116.039	1288	Shaft	Plowshare	2.2 kt	Marvel
37.350	-116.321	2068	Shaft	Weapons Related	200 to 1000 kt	Mast
37.046	-116.019	1200	Shaft	Weapons Related	Low	Mataco
37.018	-116.041	1185	Shaft	Weapons Related	Less than 20 kt	Mauve
37.116	-116.028	1283	Shaft	Weapons Related	Less than 20 kt	Maxwell
			Tower	Weapons Related	Zero	Mazama
37.028	-116.041	1190	Shaft	Weapons Related	Less than 20 kt	Memory
37.113	-116.121	2021	Tunnel	Safety Experiment	Slight	Mercury
37.116	-116.086	1271	Shaft	Weapons Related	Less than 20 kt	Merida
37.052	-116.025	1203	Shaft	Weapons Related	10.1 kt	Merlin
37.055	-116.034	1205	Shaft	Weapons Related	Intermediate	Merrimac
37.046	-116.030	1198	Shaft	Weapons Related	Less than 20 kt	Mescalero
			Airdrop	Weapons Related	100 kt	Mesilla
37.006	-116.017	1180	Shaft	Weapons Related	Less than 20 kt	Mesita
			Tower	Weapons Effects	22 kt	MET (Military Effects Test)
37.112	-116.056	1246	Shaft	Weapons Related	20 to 150 kt	Metropolis
37.078	-115.996	1278	Shaft	Weapons Related	20 to 200 kt	Mickey
37.221	-116.182	2044	Tunnel	Weapons Effects	Less than 20 kt	Midas Myth/Milagro

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Middle Note	03/18/1987	LLNL/DoD	NTS	U12n.21	18:28:00.09
Midi Mist	06/26/1967	LLNL/DoD	NTS	U12n.02	16:00:00.08
<b>Midland</b>	07/16/1987	LANL/UK	NTS	U7by	19:00:00.08
Miera	03/08/1973	LANL	NTS	U7ad	16:10:00.19
Mighty Oak	04/10/1986	LLNL/DoD	NTS	U12t.08	14:08:30.10
Mighty Epic	05/12/1976	LLNL/DoD	NTS	U12n.10	19:50:00.17
Mike	10/31/1952	LANL	Enewetak	----	
Milk Shake	03/25/1968	LLNL/DoD	NTS	U5k	18:44:27.04
Mill Yard	10/09/1985	LANL/DoD	NTS	U12n.20	21:40:00.13
<b>Milrow</b>	10/02/1969	LANL	Amchitka, Alaska	----	22:06:00.04
Mineral Quarry	07/25/1990	LANL/DoD	NTS	U12n.22	15:00:00.06
Minero	12/20/1984	LANL	NTS	U3lt	16:20:00.11
Miners Iron	10/31/1980	LANL/DoD	NTS	U12n.11	18:00:00.09
Ming Vase	11/20/1968	LANL/DoD	NTS	U16a.04	18:00:00.03
Ming Blade	06/19/1974	LANL/DoD	NTS	U12n.08	16:00:00.08
Mini Jade	05/26/1983	LANL/DoD	NTS	U12n.12	14:30:00.09
Miniata	07/08/1971	LLNL	NTS	U2bu	14:00:00.08
Mink	10/29/1961	LANL	NTS	U3ae	18:30:00.13
Minnow	05/15/1964	LANL	NTS	U3cv	16:15:00.12
Mint Leaf	05/05/1970	LLNL/DoD	NTS	U12t.01	15:30:00.17
Minute Steak	09/12/1969	LLNL/DoD	NTS	U11f	18:02:20.42
Mission Ghost	06/20/1987	LANL/DoD	NTS	U12t.09	16:00:00.18
Mission Cyber	12/02/1987	LLNL/DoD	NTS	U12p.02	16:30:00.08
Mississippi	10/05/1962	LLNL	NTS	U9ad	17:00:00.16
<b>Misty Echo</b>	12/10/1988	LANL/DoD	NTS	U12n.23	20:30:00.06
Misty North	05/02/1972	LANL/DoD	NTS	U12n.05	19:15:00.04
Misty Rain	04/06/1985	LLNL/DoD	NTS	U12n.17	23:15:00.09
Mizzen	06/03/1975	LANL	NTS	U7ah	14:40:00.11
Moa	09/01/1965	LANL	NTS	U3ed	20:08:00.04
Mogollon	04/20/1986	LANL	NTS	U3li	15:12:30.07
Mohawk	07/02/1956	LLNL	Enewetak	----	
Molbo	02/12/1982	LLNL	NTS	U20ag	14:55:00.08
Monahans-A	11/09/1988	LANL	NTS	U3lk	20:15:00.08
Monahans-B	11/09/1988	LANL	NTS	U6i	20:15:00.08
Monero	05/19/1972	LANL	NTS	U3jq	17:00:00.05
Montello	04/16/1991	LLNL	NTS	U20bf	15:30:00.07
Monterey	07/29/1982	LLNL	NTS	U4aj	20:05:00.08
Mora	09/29/1958	LANL	NTS	Area 7	
Morgan	10/07/1957	LLNL	NTS	Area 9	

## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
37.210	-116.209	2223	Tunnel	Weapons Effects	Less than 20 kt	Middle Note
37.202	-116.209	2200	Tunnel	Weapons Effects	Less than 20 kt	Midi Mist
37.104	-116.024	1284	Shaft	Joint US-UK	20 to 150 kt	<b>Midland</b>
37.104	-116.028	1279	Shaft	Weapons Related	20 to 200 kt	Miera
37.218	-116.184	2084	Tunnel	Weapons Effects	Less than 20 kt	Mighty Oak
37.209	-116.213	2224	Tunnel	Weapons Effects	Less than 20 kt	Mighty Epic
			Surface	Weapons Related	10.4 Mt	Mike
36.872	-115.932	993	Shaft	Weapons Effects	Less than 20 kt	Milk Shake
37.209	-116.206	2203	Tunnel	Weapons Effects	Less than 20 kt	Mill Yard
51.403	179.179	40	Shaft	Weapons Related	About 1 Mt	<b>Milrow</b>
37.207	-116.215	2216	Tunnel	Weapons Effects	Less than 20 kt	Mineral Quarry
37.012	-116.046	1187	Shaft	Weapons Related	Less than 20 kt	Minero
37.211	-116.206	2212	Tunnel	Weapons Effects	Less than 20 kt	Miners Iron
37.010	-116.207	1931	Tunnel	Weapons Effects	Less than 20 kt	Ming Vase
37.210	-116.208	2212	Tunnel	Weapons Effects	Less than 20 kt	Ming Blade
37.209	-116.206	1828	Tunnel	Weapons Effects	Less than 20 kt	Mini Jade
37.110	-116.052	1247	Shaft	Plowshare	83 kt	Miniata
37.049	-116.032	1201	Shaft	Weapons Related	Low	Mink
37.042	-116.013	1199	Shaft	Weapons Related	Less than 20 kt	Minnow
37.216	-116.185	2094	Tunnel	Weapons Effects	Less than 20 kt	Mint Leaf
36.877	-115.929	1007	Shaft	Weapons Effects	Less than 20 kt	Minute Steak
37.220	-116.179	2017	Tunnel	Weapons Effects	Less than 20 kt	Mission Ghost
37.235	-116.164	1926	Tunnel	Weapons Effects	Less than 20 kt	Mission Cyber
37.139	-116.051	1264	Shaft	Weapons Related	115 kt	Mississippi
37.199	-116.210	2232	Tunnel	Weapons Effects	Less than 150 kt	<b>Misty Echo</b>
37.208	-116.210	2199	Tunnel	Weapons Effects	Less than 20 kt	Misty North
37.201	-116.208	2212	Tunnel	Weapons Effects	Less than 20 kt	Misty Rain
37.095	-116.037	1247	Shaft	Weapons Related	20 to 200 kt	Mizzen
37.037	-116.015	1194	Shaft	Weapons Related	Less than 20 kt	Moa
37.012	-116.047	1187	Shaft	Weapons Related	Less than 20 kt	Mogollon
			Tower	Weapons Related	360 kt	Mohawk
37.224	-116.464	1873	Shaft	Weapons Related	20 to 150 kt	Molbo
36.991	-116.022	1175	Shaft	Weapons Related	Less than 20 kt	Monahans-A
36.989	-116.022	1174	Shaft	Weapons Related	Less than 20 kt	Monahans-B
37.065	-116.003	1245	Shaft	Weapons Related	Less than 20 kt	Monero
37.245	-116.443	1961	Shaft	Weapons Related	20 to 150 kt	Montello
37.102	-116.076	1253	Shaft	Weapons Related	20 to 150 kt	Monterey
			Balloon	Weapons Related	2 kt	Mora
			Balloon	Weapons Related	8 kt	Morgan

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Morrone	05/21/1970	LANL	NTS	U3ei	14:15:00.03
Moth	02/22/1955	LANL	NTS	Area 3	
Mudpack	12/16/1964	LLNL/DoD	NTS	U10n	20:10:00.10
Muenster	01/03/1976	LLNL	NTS	U19e	19:15:00.16
Muggins	12/09/1983	LANL	NTS	U3ls	16:00:00.11
Muleshoe	11/15/1989	LANL	NTS	U7bk	20:20:00.12
Mullet	10/17/1963	LLNL	NTS	U2ag	15:00:00.15
Mundo	05/01/1984	LANL/UK	NTS	U7bo	19:05:00.09
Muscovy	04/23/1965	LANL	NTS	U3dx	21:44:00.04
Mushroom	03/03/1967	LANL	NTS	U3ef	15:19:00.04
Muskegon	05/11/1962	LLNL	Christmas Island area	----	
Mustang	11/15/1963	LLNL	NTS	U9at	15:00:00.15
Nama-Amarylis	08/05/1971	LLNL	NTS	U9itsxy31	18:07:45.20
Nama-Mephisto	08/05/1971	LLNL	NTS	U9itsz27	18:07:45.20
Nambe	05/27/1962	LANL	Christmas Island area	----	
Nancy	03/24/1953	LANL	NTS	Area 4	
Narraguagus	09/27/1963	LLNL	NTS	U2f	17:30:00.15
Nash	01/19/1967	LLNL	NTS	U2ce	16:45:00.14
Natches	08/23/1963	LLNL	NTS	U9ak1	13:30:00.14
Natoma	04/05/1973	LLNL	NTS	U10aw	14:50:00.16
Navajo	07/10/1956	LANL	Bikini Island	----	
Navata	09/29/1983	LANL	NTS	U3lb	15:00:00.09
Nebbiolo	06/24/1982	LANL	NTS	U19ae	14:15:00.09
Nectar	05/13/1954	LANL	Enewetak	----	
Neptune	10/14/1958	LLNL	NTS	U12c.03	18:00:00.00
Nessel	08/29/1979	LLNL/UK	NTS	U2ep	15:08:00.17
New Point	12/13/1966	LLNL/DoD	NTS	U11c	21:00:00.08
Newark	09/29/1966	LLNL	NTS	U10u	14:45:30.09
Newton	09/16/1957	LANL	NTS	Area 7	
Nightingale	06/22/1988	LLNL	NTS	U2ey	14:00:00.08
Nipper	02/04/1969	LANL	NTS	U3gl	15:00:00.04
Niza	07/10/1981	LLNL	NTS	U9cr	14:00:00.10
Noggin	09/06/1968	LLNL	NTS	U9bx	14:00:00.13
Noor	04/10/1968	LLNL	NTS	U2be	14:00:00.00
Norbo	03/08/1980	LLNL	NTS	U8c	15:35:00.09
Normanna	07/12/1984	LLNL	NTS	U10cb	14:00:00.09
Numbat	12/12/1962	LANL	NTS	U3bu	18:45:00.12
Nutmeg	05/21/1958	LLNL	Bikini Island	----	
Oak	06/28/1958	LANL	Enewetak	----	

## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
37.071	-116.014	1237	Shaft	Weapons Related	20 to 200 kt	Morrone
			Tower	Weapons Related	2 kt	Moth
37.178	-116.068	1310	Shaft	Weapons Effects	2.7 kt	Mudpack
37.297	-116.334	2082	Shaft	Weapons Related	200 to 1000 kt	Muenster
37.013	-116.047	1188	Shaft	Weapons Related	Less than 20 kt	Muggins
37.106	-116.014	1311	Shaft	Weapons Related	Less than 20 kt	Muleshoe
37.131	-116.068	1275	Shaft	Safety Experiment	Low	Mullet
37.106	-116.023	1292	Shaft	Joint US-UK	20 to 150 kt	Mundo
37.017	-115.996	1189	Shaft	Weapons Related	Less than 20 kt	Muscovy
37.039	-116.011	1198	Shaft	Weapons Related	Less than 20 kt	Mushroom
			Airdrop	Weapons Related	50 kt	Muskegon
37.132	-116.048	1257	Shaft	Weapons Related	Low	Mustang
37.145	-116.034	1273	Shaft	Weapons Related	Less than 20 kt	Nama-Amaryllis
37.141	-116.032	1276	Shaft	Weapons Related	Less than 20 kt	Nama-Mephisto
			Airdrop	Weapons Related	43 kt	Nambe
			Tower	Weapons Related	24 kt	Nancy
37.155	-116.074	1302	Shaft	Weapons Related	Low	Narraguagus
37.144	-116.136	1425	Shaft	Weapons Related	39 kt	Nash
37.125	-116.036	1261	Shaft	Weapons Related	Low	Natches
37.178	-116.055	1283	Shaft	Weapons Related	Less than 20 kt	Natoma
			Barge	Weapons Related	4.5 Mt	Navajo
37.053	-116.021	1207	Shaft	Safety Experiment	Less than 20 kt	Navata
37.236	-116.371	2038	Shaft	Weapons Related	20 to 150 kt	Nebbiolo
			Barge	Weapons Related	1.69 Mt	Nectar
37.194	-116.201	2045	Tunnel	Safety Experiment	115 tons	Neptune
37.121	-116.067	1260	Shaft	Joint US-UK	20 to 150 kt	Nessel
36.877	-115.939	1003	Shaft	Weapons Effects	Less than 20 kt	New Point
37.169	-116.047	1279	Shaft	Weapons Related	Less than 20 kt	Newark
			Balloon	Weapons Related	12 kt	Newton
37.166	-116.073	1309	Shaft	Safety Experiment	Less than 150 kt	Nightingale
37.003	-116.010	1178	Shaft	Weapons Related	Less than 20 kt	Nipper
37.129	-116.035	1266	Shaft	Weapons Related	Less than 20 kt	Niza
37.136	-116.048	1259	Shaft	Weapons Related	20 to 200 kt	Noggin
37.154	-116.080	1310	Shaft	Weapons Related	20 to 200 kt	Noor
37.180	-116.084	1349	Shaft	Weapons Related	Less than 20 kt	Norbo
37.192	-116.035	1315	Shaft	Weapons Related	Less than 20 kt	Normanna
37.046	-116.016	1201	Shaft	Weapons Related	Low	Numbat
			Barge	Weapons Related	25.1 kt	Nutmeg
			Barge	Weapons Related	8.9 Mt	Oak

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Oakland	04/04/1967	LLNL	NTS	U2bi	14:20:00.15
Oarlock	02/16/1977	LANL	NTS	U3km	17:53:00.07
Obar	04/30/1975	LANL	NTS	U7ag	15:00:01.90
Oberon	10/22/1958	LANL	NTS	Area 8	
Ocate	03/30/1972	LANL	NTS	U3jp	21:00:00.08
Ochre	04/29/1966	LANL	NTS	U3ec	13:33:00.04
Oconto	01/23/1964	LLNL	NTS	U9ay	16:00:00.15
Offshore	08/08/1979	LANL	NTS	U3ks	15:00:00.11
Olive	07/22/1958	LLNL	Enewetak	----	
Onaja	03/30/1972	LANL	NTS	U3js	21:00:00.04
Orange	08/12/1958	LANL/DoD	Johnston Island area	----	
Organdy	06/11/1965	LLNL	NTS	U9bo	20:28:37.11
Orkney	05/02/1984	LLNL	NTS	U10be	13:50:00.09
Osage	06/16/1956	LANL	Enewetak	----	
Oscuro	09/21/1972	LANL	NTS	U7z	15:30:00.19
Otero	09/12/1958	LANL	NTS	U3q	20:00:00.00
Otowi	06/22/1962	LANL	Christmas Island area	----	
Owens	07/25/1957	LLNL	NTS	Area 9	
Paca	05/07/1962	LANL	NTS	U3ax	19:33:00.14
Packard	01/15/1969	LLNL	NTS	U2u	19:00:00.07
Packrat	06/06/1962	LANL	NTS	U3aw	17:00:00.12
Paisano	04/24/1963	LLNL	NTS	U9w1	16:09:30.14
Pajara	12/12/1973	LANL	NTS	U3ji	19:00:00.10
Palanquin	04/14/1965	LLNL	NTS	U20k	13:14:00.10
Palisade-1	05/15/1989	LLNL	NTS	U4at	13:10:00.09
Palisade-2	05/15/1989	LLNL	NTS	U4at	13:10:00.09
Palisade-3	05/15/1989	LLNL	NTS	U4at	13:10:00.09
Paliza	10/01/1981	LANL	NTS	U7bd	19:00:00.10
Pamlico	07/11/1962	LLNL	Christmas Island area	----	
Pampas	03/01/1962	LANL/UK	NTS	U3al	19:10:00.09
Panamint	05/21/1986	LLNL	NTS	U2gb	13:59:00.08
Panchuela	06/30/1987	LANL	NTS	U3mg	16:05:00.10
Panir	08/31/1978	LLNL	NTS	U19ys	14:00:00.16
Par	10/09/1964	LLNL	NTS	U2p	14:00:00.12
Parnassia	11/30/1971	LLNL	NTS	U2bc	15:45:00.15
Parrot	12/16/1964	LANL	NTS	U3dk	20:00:00.04
Pascal-A	07/26/1957	LANL	NTS	U3j	08:00:00.00
Pascal-B	08/27/1957	LANL	NTS	U3d	22:35:00.00
Pascal-C	12/06/1957	LANL	NTS	U3e	22:15:00.00



## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
37.162	-116.083	1321	Shaft	Weapons Related	Less than 20 kt	Oakland
37.013	-116.029	1183	Shaft	Weapons Related	Less than 20 kt	Oarlock
37.109	-116.030	1279	Shaft	Weapons Related	20 to 200 kt	Obar
			Tower	Safety Experiment	Zero	Oberon
37.004	-116.016	1179	Shaft	Weapons Related	Less than 20 kt	Ocate
37.044	-116.023	1196	Shaft	Safety Experiment	Less than 20 kt	Ochre
37.126	-116.037	1260	Shaft	Weapons Related	10.5 kt	Oconto
37.015	-116.009	1182	Shaft	Weapons Related	20 to 150 kt	Offshore
			Barge	Weapons Related	202 kt	Olive
37.005	-116.021	1180	Shaft	Weapons Related	Less than 20 kt	Onaja
			Rocket	Weapons Effects	3.8 Mt	Orange
37.116	-116.024	1294	Shaft	Weapons Related	Less than 20 kt	Organdy
37.198	-116.055	1351	Shaft	Weapons Related	Less than 20 kt	Orkney
			Airdrop	Weapons Related	1.7 kt	Osage
37.082	-116.037	1225	Shaft	Weapons Related	20 to 200 kt	Oscuro
37.050	-116.033	1202	Shaft	Safety Experiment	38 tons	Otero
			Airdrop	Weapons Related	81.5 kt	Otowi
			Balloon	Weapons Related	9.7 kt	Owens
37.047	-116.026	1199	Shaft	Weapons Related	Low	Paca
37.148	-116.067	1288	Shaft	Weapons Effects	10 kt	Packard
37.046	-116.040	1199	Shaft	Weapons Related	Low	Packrat
37.120	-116.037	1261	Shaft	Weapons Related	Low	Paisano
36.991	-116.025	1175	Shaft	Weapons Related	Less than 20 kt	Pajara
37.280	-116.524	1861	Crater	Plowshare	4.3 kt	Palanquin
37.108	-116.122	1338	Shaft	Weapons Related	Less than 20 kt	Palisade-1
37.108	-116.122	1338	Shaft	Safety Experiment	Less than 20 kt	Palisade-2
37.108	-116.122	1338	Shaft	Safety Experiment	Less than 20 kt	Palisade-3
37.082	-116.010	1260	Shaft	Weapons Related	20 to 150 kt	Paliza
			Airdrop	Weapons Related	3.88 Mt	Pamlico
37.041	-116.030	1196	Shaft	Joint US-UK	9.5 kt	Pampas
37.125	-116.061	1259	Shaft	Weapons Related	Less than 20 kt	Panamint
36.999	-116.044	1179	Shaft	Weapons Related	Less than 20 kt	Panchuela
37.276	-116.358	2013	Shaft	Weapons Related	20 to 150 kt	Panir
37.151	-116.078	1304	Shaft	Plowshare	38 kt	Par
37.160	-116.071	1302	Shaft	Weapons Related	Less than 20 kt	Parnassia
37.035	-116.013	1192	Shaft	Weapons Related	1.3 kt	Parrot
37.052	-116.034	1202	Shaft	Safety Experiment	Slight	Pascal-A
37.049	-116.035	1201	Shaft	Safety Experiment	Slight	Pascal-B
37.050	-116.032	1202	Shaft	Safety Experiment	Slight	Pascal-C

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Passaic	04/06/1962	LLNL	NTS	U9l	18:00:00.16
Peba	09/20/1962	LANL	NTS	U3bb	17:00:00.12
Pederal	09/29/1971	LANL	NTS	U3hg	14:00:00.04
Pekan	08/12/1963	LANL	NTS	U3bw	23:45:00.13
Penasco	11/19/1970	LANL	NTS	U3hl	15:00:00.04
Pepato	06/11/1979	LLNL	NTS	U20ad	14:00:00.17
Pera	09/08/1979	LLNL	NTS	U10bd	17:02:00.09
Persimmon	02/23/1967	LANL	NTS	U3dn	18:34:00.04
Petit	06/19/1962	LLNL	Christmas Island area	----	
Petrel	06/11/1965	LANL	NTS	U3dy	19:45:00.04
Piccalilli	11/21/1969	LANL	NTS	U3fc	14:52:00.04
Pike	3/13/1964	LANL	NTS	U3cy	16:02:00.12
Pile Driver	06/02/1966	LANL/DoD	NTS	U15a.01	15:30:00.09
Pin Stripe	04/25/1966	LANL/DoD	NTS	U11b	18:38:00.14
Pine	07/26/1958	LLNL	Enewetak	----	
Pineau	07/16/1981	LANL	NTS	U7ao	15:00:00.10
Pinedrops-Bayou	01/10/1974	LLNL	NTS	U10as	15:38:00.17
Pinedrops-Sloat	01/10/1974	LLNL	NTS	U10as	15:38:00.17
Pinedrops-Tawny	01/10/1974	LLNL	NTS	U10as	15:38:00.17
Pipefish	04/29/1964	LANL	NTS	U3co	20:47:00.12
Pipkin	10/08/1969	LLNL	NTS	U20b	14:30:00.14
Piranha	05/13/1966	LANL	NTS	U7e	13:30:00.04
Pisonia	07/17/1958	LANL	Enewetak	----	
Piton-A	05/28/1970	LLNL	NTS	U9itsy30	12:00:00.16
Piton-B	05/28/1970	LLNL	NTS	U9itsx27	12:00:00.16
Piton-C	05/28/1970	LLNL	NTS	U9itsaa25	11:45:00.20
Plaid II	02/03/1966	LLNL	NTS	U2r	18:17:37.10
Planer	11/21/1969	LANL	NTS	U3el	14:52:00.08
Platte	04/14/1962	LLNL	NTS	U12k.01	18:00:00.13
Platypus	02/24/1962	LANL	NTS	U3ad	16:30:00.13
Player	08/27/1964	LLNL	NTS	U9cc	14:30:00.15
Pleasant	05/29/1963	LLNL	NTS	U9ah	15:03:30.16
Pliers	08/27/1969	LANL	NTS	U3gn	13:45:00.04
Plomo	05/01/1974	LANL	NTS	U3ff	14:02:00.21
Pod-A	10/29/1969	LLNL	NTS	U2ch	20:00:00.04
Pod-B	10/29/1969	LLNL	NTS	U2ci	20:00:00.04
Pod-C	10/29/1969	LLNL	NTS	U2cj	20:00:00.04
Pod-D	10/29/1969	LLNL	NTS	U2ck	20:00:00.04
Polka	12/06/1967	LLNL	NTS	U10ai	13:00:00.00

## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
37.118	-116.045	1248	Shaft	Weapons Related	Low	Passaic
37.055	-116.030	1205	Shaft	Weapons Related	Low	Peba
37.011	-116.008	1180	Shaft	Weapons Related	Less than 20 kt	Pederal
37.042	-116.017	1197	Shaft	Weapons Related	Low	Pekan
37.015	-116.017	1183	Shaft	Weapons Related	Less than 20 kt	Penasco
37.290	-116.456	1913	Shaft	Weapons Related	20 to 150 kt	Pepato
37.155	-116.039	1280	Shaft	Weapons Related	Less than 20 kt	Pera
37.017	-116.017	1184	Shaft	Weapons Related	Less than 20 kt	Persimmon
			Airdrop	Weapons Related	2.2 kt	Petit
37.043	-116.018	1197	Shaft	Weapons Related	1.3 kt	Petrel
37.031	-116.003	1195	Shaft	Weapons Related	20 to 200 kt	Piccalilli
37.050	-116.012	1211	Shaft	Weapons Related	Less than 20 kt	Pike
37.227	-116.056	1525	Tunnel	Weapons Effects	62 kt	Pile Driver
36.887	-115.942	1066	Shaft	Weapons Effects	Less than 20 kt	Pin Stripe
			Barge	Weapons Related	2 Mt	Pine
37.089	-116.020	1259	Shaft	Weapons Related	Less than 20 kt	Pineau
37.174	-116.052	1283	Shaft	Weapons Related	Less than 20 kt	Pinedrops-Bayou
37.174	-116.052	1283	Shaft	Weapons Related	Less than 20 kt	Pinedrops-Sloat
37.174	-116.052	1283	Shaft	Weapons Related	Less than 20 kt	Pinedrops-Tawny
37.040	-116.028	1194	Shaft	Weapons Related	Less than 20 kt	Pipefish
37.257	-116.442	1965	Shaft	Weapons Related	200 to 1000 kt	Pipkin
37.087	-116.034	1237	Shaft	Weapons Related	20 to 200 kt	Piranha
			Barge	Weapons Related	255 kt	Pisonia
37.144	-116.033	1274	Shaft	Weapons Related	Less than 20 kt	Piton-A
37.141	-116.035	1270	Shaft	Weapons Related	Less than 20 kt	Piton-B
37.138	-116.031	1279	Shaft	Weapons Related	Less than 20 kt	Piton-C
37.126	-116.070	1272	Shaft	Weapons Related	Less than 20 kt	Plaid II
37.015	-116.024	1183	Shaft	Weapons Related	Less than 20 kt	Planer
37.222	-116.158	1695	Tunnel	Weapons Related	1.85 kt	Platte
37.048	-116.033	1200	Shaft	Weapons Related	Low	Platypus
37.117	-116.042	1254	Shaft	Safety Experiment	Less than 20 kt	Player
37.128	-116.043	1253	Shaft	Weapons Related	Low	Pleasant
37.021	-116.039	1187	Shaft	Weapons Related	Less than 20 kt	Pliers
37.031	-115.986	1227	Shaft	Weapons Related	Less than 20 kt	Plomo
37.140	-116.131	1397	Shaft	Weapons Related	16.7 kt (Total)	Pod-A
37.140	-116.143	1464	Shaft	Weapons Related		Pod-B
37.136	-116.141	1448	Shaft	Weapons Related		Pod-C
37.135	-116.137	1424	Shaft	Weapons Related		Pod-D
37.159	-116.054	1273	Shaft	Weapons Related	Less than 20 kt	Polka

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Polygonum	10/02/1973	LLNL	NTS	U2by	14:30:00.17
Pommard	03/14/1968	LANL	NTS	U3ee	15:19:00.06
Pongee	07/22/1965	LLNL	NTS	U2ah	13:21:08.11
Ponil	09/27/1985	LANL	NTS	U7bv	14:15:00.08
Pool	03/17/1976	LANL	NTS	U19p	14:15:00.09
Poplar	07/12/1958	LLNL	Bikini Island	----	
Portmanteau	08/30/1974	LLNL	NTS	U2ax	15:00:00.16
Portola	02/06/1975	LLNL	NTS	U10bb	15:30:00.17
Portola-Larkin	02/06/1975	LLNL	NTS	U10bb	15:30:00.16
Portulaca	06/28/1973	LLNL	NTS	U2bv	19:15:12.40
Post	04/09/1955	LLNL	NTS	Area 9	
Potrero	04/23/1974	LLNL	NTS	U2eb	15:13:00.16
Potrillo	06/21/1973	LANL	NTS	U7af	14:45:00.08
Pratt	09/25/1974	LANL	NTS	U3hq	14:00:00.08
Presidio	04/22/1987	LANL	NTS	U6d	15:00:00.09
Priscilla	06/24/1957	LANL/DoD	NTS	Area 5	
Project 56 No. 1	11/01/1955	LANL	NTS	Area 11a	
Project 56 No. 2	11/03/1955	LANL	NTS	Area 11b	
Project 56 No. 3	11/05/1955	LANL	NTS	Area 11c	
Project 56 No. 4	01/18/1956	LANL	NTS	Area 11d	
Project 57 No. 1	04/24/1957	LANL/DoD	NAFR	----	
Puce	06/10/1966	LANL	NTS	U3bs	14:30:00.04
Puddle	11/26/1974	LANL	NTS	U3kg	15:00:00.90
Purple	03/18/1966	LANL	NTS	U3ds	19:00:00.04
Purse	05/07/1969	LLNL	NTS	U20v	13:45:00.04
Puye	08/14/1974	LANL	NTS	U3jl	14:00:00.11
Pyramid	04/16/1980	LANL	NTS	U7be	20:00:00.09
Quargel	11/18/1978	LLNL/UK	NTS	U2fb	19:00:00.17
Quay	10/10/1958	LANL	NTS	Area 7	
Queso	08/11/1982	LLNL	NTS	U10bf	15:00:00.00
Questa	05/04/1962	LANL	Christmas Island area	----	
Quince	08/06/1958	LLNL/DoD	Enewetak	----	
Quinella	02/08/1979	LANL	NTS	U4l	20:00:00.09
Raccoon	06/01/1962	LANL	NTS	U3ajs	17:00:00.14
Rack	08/15/1968	LLNL	NTS	U9ap	17:00:00.00
Rainier	09/19/1957	LLNL	NTS	U12b	16:59:59.45
Randsburg	07/25/1990	LLNL/DoD	NTS	U12n.22a	15:00:00.00
Raritan	09/06/1962	LLNL	NTS	U9u	17:00:00.20
Ray	04/11/1953	LLNL	NTS	Area 4	

## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
37.159	-116.074	1304	Shaft	Weapons Related	Less than 20 kt	Polygonum
37.048	-116.012	1208	Shaft	Weapons Related	1.5 kt	Pommard
37.132	-116.068	1274	Shaft	Weapons Related	Less than 20 kt	Pongee
37.090	-116.003	1284	Shaft	Weapons Related	Less than 20 kt	Ponil
37.256	-116.329	2076	Shaft	Weapons Related	200 to 500 kt	Pool
			Barge	Weapons Related	9.3 Mt	Poplar
37.152	-116.084	1313	Shaft	Weapons Related	20 to 200 kt	Portmanteau
37.178	-116.052	1285	Shaft	Weapons Related	Less than 20 kt	Portola
37.178	-116.052	1285	Shaft	Weapons Related	Less than 20 kt	Portola-Larkin
37.148	-116.087	1311	Shaft	Weapons Related	20 to 200 kt	Portulaca
			Tower	Weapons Related	2 kt	Post
37.160	-116.077	1310	Shaft	Weapons Related	Less than 20 kt	Potrero
37.092	-116.028	1255	Shaft	Weapons Related	20 to 200 kt	Potrillo
37.012	-116.031	1183	Shaft	Weapons Related	Less than 20 kt	Pratt
36.983	-116.005	1171	Shaft	Weapons Related	Less than 20 kt	Presidio
			Balloon	Weapons Related	37 kt	Priscilla
			Surface	Safety Experiment	Zero	Project 56 No. 1
			Surface	Safety Experiment	Zero	Project 56 No. 2
			Surface	Safety Experiment	No yield	Project 56 No. 3
			Surface	Safety Experiment	Very slight	Project 56 No. 4
			Surface	Safety Experiment	Zero	Project 57 No. 1
37.059	-116.040	1208	Shaft	Weapons Related	Less than 20 kt	Puce
37.001	-116.012	1169	Shaft	Safety Experiment	Less than 20 kt	Puddle
37.009	-116.010	1180	Shaft	Weapons Related	Less than 20 kt	Purple
37.283	-116.502	1828	Shaft	Weapons Related	20 to 200 kt	Purse
37.023	-116.037	1188	Shaft	Weapons Related	Less than 20 kt	Puye
37.101	-116.031	1266	Shaft	Weapons Related	20 to 150 kt	Pyramid
37.127	-116.085	1275	Shaft	Joint US-UK	20 to 150 kt	Quargel
			Tower	Weapons Related	79 tons	Quay
37.190	-116.049	1310	Shaft	Weapons Related	Less than 20 kt	Queso
			Airdrop	Weapons Related	670 kt	Questa
			Surface	Weapons Related	Zero	Quince
37.102	-116.056	1241	Shaft	Weapons Related	20 to 150 kt	Quinella
37.046	-116.035	1199	Shaft	Weapons Related	Low	Raccoon
37.124	-116.049	1254	Shaft	Weapons Related	Less than 20 kt	Rack
37.196	-116.204	- - - -	Tunnel	Weapons Related	1.7 kt	Rainier
37.207	-116.215	2216	Tunnel	Weapons Related	Less than 20 kt	Randsburg
37.130	-116.046	1254	Shaft	Weapons Related	Low	Raritan
			Tower	Weapons Related	200 tons	Ray

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Reblochon	02/23/1978	LLNL	NTS	U2en	17:00:00.16
Red Hot	03/05/1966	LANL/DoD	NTS	U12g.06	18:15:00.10
Redmud	12/08/1976	LANL	NTS	U7ab	14:49:30.08
Redwood	06/27/1958	LLNL	Bikini Island	----	
Reo	01/22/1966	LLNL	NTS	U10m	15:17:19.10
Rex	02/24/1966	LLNL	NTS	U20h(e)	15:55:07.04
Rhyolite	06/22/1988	LLNL	NTS	U2ey	14:00:00.08
Rib	12/14/1977	LANL	NTS	U3jv	15:00:00.17
Rickey	06/15/1968	LANL	NTS	U19c	13:59:59.97
Rinconada	06/15/1962	LANL	Christmas Island area	----	
Ringtail	12/17/1961	LANL	NTS	U3ak	16:35:00.13
Rio Arriba	10/18/1958	LANL	NTS	Area 3	
<b>Rio Blanco-1</b>	05/17/1973	LLNL	Rifle, Colorado	----	16:00:00.12
<b>Rio Blanco-2</b>	05/17/1973	LLNL	Rifle, Colorado	----	16:00:00.12
<b>Rio Blanco-3</b>	05/17/1973	LLNL	Rifle, Colorado	----	16:00:00.12
Riola	09/25/1980	LLNL	NTS	U2eq	15:26:30.08
Rivet I	01/18/1967	LLNL	NTS	U10aa	14:55:00.00
Rivet II	01/26/1967	LLNL	NTS	U10z	16:30:00.00
Rivet III	03/02/1967	LLNL	NTS	U10y	15:00:00.00
Rivoli	05/20/1976	LLNL	NTS	U2eg	17:30:00.16
Roanoke	10/12/1962	LLNL	NTS	U9q	15:00:00.16
Romano	12/16/1983	LLNL	NTS	U2ex	18:30:00.09
Romeo	03/26/1954	LANL	Bikini Island	----	
Roquefort	10/16/1985	LLNL	NTS	U4as	21:35:00.09
Rose	06/02/1958	LANL	Enewetak	----	
Rousanne	11/12/1981	LANL/UK	NTS	U4p	15:00:00.10
Rovena	08/10/1966	LLNL	NTS	U10s	13:16:00.07
Rudder	12/28/1976	LANL	NTS	U7aj(s)	18:00:00.08
<b>Rulison</b>	09/10/1969	LANL	Grand Valley, Colorado	----	21:00:00.01
Rummy	09/27/1978	LANL	NTS	U7au	17:20:00.08
Rushmore	10/22/1958	LLNL	NTS	Area 9	
Russet	03/05/1968	LANL/DoD	NTS	U6a	15:30:00.04
Ruth	03/31/1953	LLNL	NTS	Area 7	
Sabado	08/11/1983	LANL	NTS	U3lc	14:00:00.12
Sacramento	06/30/1962	LLNL	NTS	U9v	21:30:00.16
<b>Salmon</b>	10/22/1964	LLNL/DoD	Hattiesburg, Mississippi	----	16:00:00.00
Salut	06/12/1985	LLNL	NTS	U20ak	15:15:00.08
San Juan	10/20/1958	LANL	NTS	U3p	14:30:00.00
Sandreef	11/09/1977	LANL	NTS	U7aq	22:00:00.08

## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
37.124	-116.065	1261	Shaft	Weapons Related	20 to 150 kt	Reblochon
37.174	-116.209	2299	Tunnel	Weapons Effects	Less than 20 kt	Red Hot
37.079	-116.002	1269	Shaft	Weapons Related	Less than 20 kt	Redmud
			Barge	Weapons Related	412 kt	Redwood
37.157	-116.040	1283	Shaft	Weapons Related	Less than 20 kt	Reo
37.272	-116.435	1971	Shaft	Weapons Related	19 kt	Rex
37.166	-116.073	1309	Shaft	Weapons Related	Less than 150 kt	Rhyolite
37.018	-116.019	1184	Shaft	Weapons Related	Less than 20 kt	Rib
37.265	-116.316	2116	Shaft	Weapons Related	20 to 200 kt	Rickey
			Airdrop	Weapons Related	800 kt	Rinconada
37.043	-116.026	1196	Shaft	Weapons Related	Low	Ringtail
			Tower	Weapons Related	90 tons	Rio Arriba
39.793	-108.368	2005	Shaft	Plowshare	33 kt	<b>Rio Blanco-1</b>
39.793	-108.367	2005	Shaft	Plowshare	33 kt	<b>Rio Blanco-2</b>
39.793	-108.368	2005	Shaft	Plowshare	33 kt	<b>Rio Blanco-3</b>
37.116	-116.065	1254	Shaft	Weapons Related	1.07 kt	Riola
37.165	-116.047	1276	Shaft	Weapons Related	Less than 20 kt	Rivet I
37.165	-116.049	1274	Shaft	Weapons Related	Less than 20 kt	Rivet II
37.166	-116.050	1275	Shaft	Weapons Related	Less than 20 kt	Rivet III
37.137	-116.067	1279	Shaft	Weapons Related	Less than 20 kt	Rivoli
37.123	-116.052	1252	Shaft	Weapons Related	Low	Roanoke
37.140	-116.073	1287	Shaft	Weapons Related	20 to 150 kt	Romano
			Barge	Weapons Related	11 Mt	Romeo
37.110	-116.122	1341	Shaft	Weapons Related	20 to 150 kt	Roquefort
			Barge	Weapons Related	15 kt	Rose
37.108	-116.050	1243	Shaft	Joint US-UK	20 to 150 kt	Rousanne
37.169	-116.049	1278	Shaft	Weapons Related	Less than 20 kt	Rovena
37.100	-116.037	1255	Shaft	Weapons Related	20 to 150 kt	Rudder
39.356	-107.949	2469	Shaft	Plowshare	40 kt	<b>Rulison</b>
37.080	-116.052	1226	Shaft	Weapons Related	20 to 150 kt	Rummy
			Balloon	Weapons Related	188 tons	Rushmore
36.970	-116.057	1170	Shaft	Weapons Related	Less than 20 kt	Russet
			Tower	Weapons Related	200 tons	Ruth
36.998	-116.004	1175	Shaft	Weapons Related	Less than 20 kt	Sabado
37.117	-116.048	1246	Shaft	Weapons Related	Low	Sacramento
31.142	-89.570	46	Shaft	Vela Uniform	5.3 kt	<b>Salmon</b>
37.248	-116.490	1873	Shaft	Weapons Related	20 to 150 kt	Salut
37.050	-116.033	1201	Shaft	Safety Experiment	Zero	San Juan
37.072	-116.051	1221	Shaft	Weapons Related	20 to 150 kt	Sandreef

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Sanford	10/26/1958	LLNL	NTS	Area 5	
Santa Fe	10/30/1958	LANL	NTS	Area 7	
Santee	10/27/1962	LLNL	NTS	U10f	15:00:00.15
Sapello	04/12/1974	LANL	NTS	U3ge	15:15:00.08
Sappho	03/23/1972	LLNL	NTS	U2dh2	18:50:00.16
Sardine	12/04/1963	LANL	NTS	U3ch	16:38:30.13
Satsop	08/15/1963	LLNL	NTS	U2g	13:00:00.15
Saturn	08/10/1957	LLNL	NTS	U12c.02	00:59:55.10
Satz	07/07/1978	LLNL	NTS	U2dq	14:00:00.17
Saxon	07/28/1966	LLNL	NTS	U2cc	15:33:30.13
Sazerac	10/25/1967	LANL	NTS	U3fa	14:30:00.06
Scaevola	07/14/1958	LANL	Enewetak	-----	
Scantling	08/19/1977	LANL	NTS	U4h	17:55:00.10
Scaup	05/14/1965	LANL	NTS	U3da(s)	17:32.36.23
Schellbourne	05/13/1988	LLNL	NTS	U2gf	15:35:00.11
Schooner	12/08/1968	LLNL	NTS	U20u	16:00:00.14
Scissors	12/12/1968	LANL	NTS	U3gh	15:20:00.04
Scotch	05/23/1967	LANL	NTS	U19as	14:00:00.04
Screamer	09/01/1965	LANL	NTS	U3dg	20:08:00.04
Scree-Acajou	10/13/1970	LLNL	NTS	U9itsx24	15:05:00.02
Scree-Alhambra	10/13/1970	LLNL	NTS	U9itsz21	15:05:00.02
Scree-Chamois	10/13/1970	LLNL	NTS	U9itsz24	15:05:00.02
Scroll	04/23/1968	LLNL/DoD	NTS	U19n	17:01:30.08
Scupper	08/19/1977	LANL	NTS	U3hj	17:32:00.10
Scuttle	11/13/1969	LLNL	NTS	U2bh	15:15:00.13
Seafoam	12/13/1973	LLNL	NTS	U2ea	15:17:00.17
Seamount	11/17/1977	LANL	NTS	U3kp	19:30:00.08
Seaweed B	10/16/1969	LANL	NTS	U3hkd	14:00:00.04
Seaweed-C	10/01/1969	LANL	NTS	U3hke	14:30:00.04
Seaweed-D	10/01/1969	LANL	NTS	U3hkf	14:30:00.04
Seaweed-E	10/01/1969	LANL	NTS	U3hkc	14:30:00.04
Seco	02/25/1981	LLNL	NTS	U8l	15:00:00.08
Sedan	07/06/1962	LLNL	NTS	U10h	17:00:00.15
Seersucker	02/19/1965	LLNL	NTS	U9bm	15:28:54.11
Seminole	06/06/1956	LANL	Enewetak	-----	
Sepia	11/12/1965	LANL	NTS	U3en	18:00:00.05
Sequoia	07/01/1958	LANL	Enewetak	-----	
Serena	07/25/1985	LLNL	NTS	U20an	14:00:00.09
Serpa	12/17/1980	LLNL/UK	NTS	U19ai	15:10:00.09



## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
			Balloon	Weapons Related	4.9 kt	Sanford
			Balloon	Weapons Related	1.3 kt	Santa Fe
37.149	-116.054	1270	Shaft	Weapons Related	Low	Santee
37.015	-116.045	1189	Shaft	Weapons Related	Less than 20 kt	Sapello
37.113	-116.082	1266	Shaft	Weapons Related	Less than 20 kt	Sappho
37.040	-116.030	1194	Shaft	Weapons Related	Low	Sardine
37.154	-116.077	1306	Shaft	Weapons Related	Low	Satsop
37.194	-116.034	- - - -	Tunnel	Safety Experiment	Zero	Saturn
37.112	-116.078	1263	Shaft	Weapons Related	Less than 20 kt	Satz
37.140	-116.134	1411	Shaft	Plowshare	1.2 kt	Saxon
37.032	-116.027	1191	Shaft	Weapons Related	Less than 20 kt	Sazerac
			Barge	Safety Experiment	Zero	Scaevola
37.110	-116.055	1246	Shaft	Weapons Related	20 to 150 kt	Scantling
37.059	-116.011	1222	Shaft	Weapons Related	Less than 20 kt	Scaup
37.124	-116.073	1268	Shaft	Weapons Related	Less than 150 kt	Schellbourne
37.343	-116.567	1668	Crater	Plowshare	30 kt	Schooner
37.004	-116.040	1181	Shaft	Weapons Related	Less than 20 kt	Scissors
37.275	-116.371	2034	Shaft	Weapons Related	155 kt	Scotch
37.023	-116.010	1184	Shaft	Weapons Effects	Less than 20 kt	Screamer
37.137	-116.035	1269	Shaft	Weapons Related	Less than 20 kt	Scree-Acajou
37.134	-116.032	1273	Shaft	Weapons Related	Less than 20 kt	Scree-Alhambra
37.137	-116.032	1275	Shaft	Safety Experiment	Less than 20 kt	Scree-Chamois
37.338	-116.376	2032	Shaft	Vela Uniform	Less than 20 kt	Scroll
37.018	-116.032	1185	Shaft	Weapons Related	Less than 20 kt	Scupper
37.165	-116.076	1312	Shaft	Weapons Related	1.7 kt	Scuttle
37.161	-116.074	1306	Shaft	Weapons Related	Less than 20 kt	Seafoam
37.021	-116.026	1186	Shaft	Weapons Related	Less than 20 kt	Seamount
37.013	-115.999	1185	Shaft	Safety Experiment	Less than 20 kt	Seaweed B
37.011	-115.999	1184	Shaft	Safety Experiment	Less than 20 kt	Seaweed-C
37.010	-116.000	1183	Shaft	Safety Experiment	Less than 20 kt	Seaweed-D
37.014	-115.999	1184	Shaft	Safety Experiment	Less than 20 kt	Seaweed-E
37.182	-116.085	1356	Shaft	Weapons Related	Less than 20 kt	Seco
37.177	-116.046	1289	Crater	Plowshare	104 kt	Sedan
37.117	-116.032	1274	Shaft	Weapons Related	Less than 20 kt	Seersucker
			Surface	Weapons Related	13.7 kt	Seminole
37.050	-116.023	1202	Shaft	Weapons Related	Less than 20 kt	Sepia
			Barge	Weapons Related	5.2 kt	Sequoia
37.297	-116.439	1942	Shaft	Weapons Related	20 to 150 kt	Serena
37.325	-116.316	2028	Shaft	Joint US-UK	20 to 150 kt	Serpa

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Sevilla	06/25/1968	LANL	NTS	U3fk	15:30:00.04
Seyval	11/12/1982	LANL	NTS	U3lm	19:17:00.10
Shallows	02/26/1976	LANL	NTS	U3jf	14:50:00.09
Shaper	03/23/1970	LANL	NTS	U7r	23:05:00.04
Shasta	08/18/1957	LLNL	NTS	Area 2	
Shave	01/22/1969	LANL	NTS	U3gk	15:00:00.04
Sheepshead	09/26/1979	LANL	NTS	U19aa	15:00:00.09
Shoal	10/26/1963	LANL/DoD	Fallon, Nevada	----	17:00:00.10
Shrew	09/16/1961	LANL	NTS	U3ac	19:45:00.12
Shuffle	04/18/1968	LLNL	NTS	U10t	14:05:00.00
Sidecar	12/13/1966	LANL	NTS	U3ez	17:50:00.04
Sienna	01/18/1966	LANL	NTS	U3cj	18:35:00.04
Silene	06/28/1973	LLNL	NTS	U9ck	19:45:00.16
Simms	11/05/1966	LLNL	NTS	U10w	14:45:00.00
Simon	04/25/1953	LLNL	NTS	Area 1	
Sled	08/29/1968	LANL	NTS	U19i	22:45:00.04
Small Boy	07/14/1962	LANL/DoD	NTS	Area 5	
Smoky	08/31/1957	LLNL	NTS	Area 2	
Snubber	04/21/1970	LANL	NTS	U3ev2s	14:30:00.04
Socorro	10/22/1958	LANL	NTS	Area 7	
Solano	08/09/1972	LANL	NTS	U3jx	13:31:10.04
Solanum	12/14/1972	LLNL	NTS	U9itsw24.5	15:30:00.16
Solendon	02/12/1964	LANL	NTS	U3cz	15:38:00.12
Spar	12/19/1973	LANL	NTS	U3jr	17:30:00.04
Spider-A	08/14/1969	LLNL	NTS	U2bp1	14:30:00.04
Spider-B	08/14/1969	LLNL	NTS	U2bp2	14:30:00.04
Spoon	09/11/1964	LLNL	NTS	U9bd	14:00:00.10
Sprit	11/10/1976	LANL	NTS	U3hc	14:58:00.08
Spud	07/17/1968	LANL	NTS	U3fy	14:00:00.04
St. Lawrence	11/09/1962	LLNL	NTS	U2b	18:00:00.16
Staccato	01/19/1968	LLNL	NTS	U10ah	15:00:00.00
Stanley	07/27/1967	LLNL	NTS	U10q	13:00:00.12
Stanyan	09/26/1974	LLNL	NTS	U2aw	15:05:00.17
Starfish Prime	07/09/1962	LANL/DoD	Johnston Island area	----	
Starwort	04/26/1973	LLNL	NTS	U2bs	17:15:00.17
Sterling	12/03/1966	LLNL/DoD	Hattiesburg, Mississippi	----	12:15:00.05
Stillwater	02/08/1962	LLNL	NTS	U9c	18:00:00.16
Stilt	12/15/1967	LANL	NTS	U3fh	15:00:00.04
Stilton	06/03/1975	LLNL/DoD	NTS	U20p	14:20:00.17

## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
37.042	-115.993	1226	Shaft	Weapons Related	Less than 20 kt	Sevilla
37.024	-116.033	1187	Shaft	Weapons Related	Less than 20 kt	Seyval
37.028	-116.017	1188	Shaft	Weapons Related	Less than 20 kt	Shallows
37.086	-116.022	1252	Shaft	Weapons Related	20 to 200 kt	Shaper
			Tower	Weapons Related	17 kt	Shasta
37.015	-115.995	1191	Shaft	Weapons Related	Less than 20 kt	Shave
37.229	-116.365	2033	Shaft	Weapons Related	20 to 150 kt	Sheepshead
39.200	-118.381	1574	Shaft	Vela Uniform	12 kt	Shoal
37.048	-116.034	1200	Shaft	Weapons Related	Low	Shrew
37.152	-116.038	1279	Shaft	Weapons Related	20 to 200 kt	Shuffle
37.035	-116.008	1195	Shaft	Weapons Related	Less than 20 kt	Sidecar
37.037	-116.019	1193	Shaft	Weapons Related	Less than 20 kt	Sienna
37.115	-116.042	1254	Shaft	Weapons Related	Less than 20 kt	Silene
37.170	-116.048	1279	Shaft	Plowshare	2.3 kt	Simms
			Tower	Weapons Related	43 kt	Simon
37.250	-116.348	2057	Shaft	Weapons Related	20 to 200 kt	Sled
			Tower	Weapons Effects	Low	Small Boy
			Tower	Weapons Related	44 kt	Smoky
37.055	-115.989	1253	Shaft	Weapons Effects	12.7 kt	Snubber
			Balloon	Weapons Related	6 kt	Socorro
37.003	-116.018	1179	Shaft	Safety Experiment	Less than 20 kt	Solano
37.138	-116.036	1267	Shaft	Weapons Related	Less than 20 kt	Solanum
37.057	-116.030	1206	Shaft	Weapons Related	Less than 20 kt	Solendon
37.006	-116.020	1180	Shaft	Safety Experiment	Less than 20 kt	Spar
37.160	-116.064	1292	Shaft	Weapons Related	Less than 20 kt	Spider-A
37.158	-116.065	1291	Shaft	Weapons Related	Less than 20 kt	Spider-B
37.114	-116.026	1289	Shaft	Weapons Related	Less than 20 kt	Spoon
37.036	-116.018	1192	Shaft	Weapons Related	Less than 20 kt	Sprit
37.001	-116.000	1178	Shaft	Weapons Related	Less than 20 kt	Spud
37.164	-116.074	1309	Shaft	Weapons Related	Low	St. Lawrence
37.156	-116.055	1272	Shaft	Weapons Related	20 to 200 kt	Staccato
37.149	-116.049	1265	Shaft	Weapons Related	20 to 200 kt	Stanley
37.133	-116.069	1275	Shaft	Weapons Related	20 to 200 kt	Stanyan
			Rocket	Weapons Effects	1.4 Mt	Starfish Prime
37.123	-116.059	1261	Shaft	Weapons Related	90 kt	Starwort
31.142	-89.570	46	Shaft	Vela Uniform	380 tons	Sterling
37.127	-116.054	1259	Shaft	Weapons Related	3.07 kt	Stillwater
37.037	-116.003	1204	Shaft	Weapons Related	Less than 20 kt	Stilt
37.340	-116.524	1667	Shaft	Weapons Related	20 to 200 kt	Stilton

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Stinger	03/22/1968	LANL	NTS	U19l	15:00:00.04
Stoat	01/09/1962	LANL	NTS	U3ap	16:30:00.14
Stoddard	09/17/1968	LLNL	NTS	U2cms	14:00:00.04
Stokes	08/07/1957	LANL	NTS	Area 7	
Stones	05/22/1963	LANL	NTS	U9ae	15:40:00.14
Strait	03/17/1976	LANL	NTS	U4a	14:45:00.09
Strake	08/04/1977	LANL	NTS	U7ae	16:40:00.07
Sturgeon	04/15/1964	LANL	NTS	U3bo	14:30:00.12
Stutz	04/06/1966	LLNL	NTS	U2ca	13:57:17.10
Suede	03/20/1965	LLNL	NTS	U9bk	15:30:49.10
Sugar	11/19/1951	LANL/DoD	NTS	Area 9	
Sulky	12/18/1964	LLNL	NTS	U18d	19:35:00.09
Sundown-A	09/20/1990	LANL	NTS	U1d	16:15:00.00
Sundown-B	09/20/1990	LANL	NTS	U1d	16:15:00.00
Sunset	07/10/1962	LANL	Christmas Island area	----	
Sutter	12/21/1976	LLNL	NTS	U2bw	15:58:00.16
Swanee	05/14/1962	LLNL	Christmas Island area	----	
Switch	06/22/1967	LLNL	NTS	U9bv	13:10:00.00
Swordfish	05/11/1962	LANL/DoD	Pacific	----	
Sycamore	05/31/1958	LLNL	Bikini Island	----	
Tafi	07/25/1980	LLNL	NTS	U20ae	19:05:00.08
<b>Tahoka</b>	08/13/1987	LANL	NTS	U3mf	14:00:00.09
Tajique	06/28/1972	LANL	NTS	U7aa	16:30:00.07
Tajo	06/05/1986	LANL	NTS	U7bl	15:04:00.06
Tamalpais	10/08/1958	LLNL	NTS	U12b.02	22:00:00.13
Tan	06/03/1966	LANL	NTS	U7k	14:00:00.04
Tanana	05/25/1962	LLNL	Christmas Island area	----	
Tangerine	08/12/1966	LANL	NTS	U3eb	15:36:00.05
Tanya	07/30/1968	LLNL	NTS	U2dt	13:00:00.00
Tapestry	05/12/1966	LLNL	NTS	U2an	19:37:26.20
Tapper	06/12/1969	LANL	NTS	U3go	14:00:00.04
Tarko	02/28/1980	LLNL	NTS	U2fd	15:00:00.09
Taunton	12/04/1962	LLNL	NTS	U9aa	16:00:00.15
Teak	08/01/1958	LANL/DoD	Johnston Island area	----	
Techado	09/22/1983	LANL	NTS	U4o	15:00:00.12
Tee	05/07/1965	LLNL	NTS	U2ab	15:47:11.15
Tejon	05/17/1963	LANL	NTS	U3cg	14:55:00.00
Teleme	02/06/1975	LLNL	NTS	U9cl	16:13:00.17
Temescal	11/02/1974	LLNL	NTS	U4ab	15:30:00.16

## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
37.333	-116.312	2035	Shaft	Weapons Related	20 to 200 kt	Stinger
37.045	-116.036	1198	Shaft	Weapons Related	5.1 kt	Stoat
37.120	-116.128	1370	Shaft	Plowshare	31 kt	Stoddard
			Balloon	Weapons Related	19 kt	Stokes
37.111	-116.040	1257	Shaft	Weapons Related	Intermediate	Stones
37.107	-116.053	1243	Shaft	Weapons Related	200 to 500 kt	Strait
37.087	-116.008	1273	Shaft	Weapons Related	20 to 150 kt	Strake
37.044	-116.019	1198	Shaft	Weapons Related	Less than 20 kt	Sturgeon
37.139	-116.142	1458	Shaft	Weapons Related	Less than 20 kt	Stutz
37.115	-116.027	1286	Shaft	Weapons Related	Less than 20 kt	Suede
			Surface	Weapons Effects	1.2 kt	Sugar
37.083	-116.343	1597	Shaft	Plowshare	92 tons	Sulky
37.038	-116.058	1206	Shaft	Safety Experiment	Less than 20 kt	Sundown-A
37.038	-116.058	1206	Shaft	Safety Experiment	Less than 20 kt	Sundown-B
			Airdrop	Weapons Related	1 Mt	Sunset
37.152	-116.064	1287	Shaft	Weapons Related	Less than 20 kt	Sutter
			Airdrop	Weapons Related	97 kt	Swanee
37.126	-116.030	1277	Shaft	Plowshare	3.1 kt	Switch
			Underwater	Weapons Effects	Low	Swordfish
			Barge	Weapons Related	92 kt	Sycamore
37.256	-116.478	1859	Shaft	Weapons Related	20 to 150 kt	Tafi
37.061	-116.046	1212	Shaft	Weapons Related	20 to 150 kt	<b>Tahoka</b>
37.070	-115.993	1274	Shaft	Weapons Related	Less than 20 kt	Tajique
37.098	-116.016	1289	Shaft	Weapons Related	20 to 150 kt	Tajo
37.195	-116.201	2000	Tunnel	Weapons Related	72 tons	Tamalpais
37.068	-116.036	1213	Shaft	Weapons Related	20 to 200 kt	Tan
			Airdrop	Weapons Related	2.6 kt	Tanana
37.046	-116.030	1199	Shaft	Safety Experiment	Less than 20 kt	Tangerine
37.117	-116.083	1271	Shaft	Weapons Related	20 to 200 kt	Tanya
37.134	-116.072	1281	Shaft	Weapons Related	Less than 20 kt	Tapestry
37.009	-116.031	1181	Shaft	Weapons Related	Less than 20 kt	Tapper
37.127	-116.089	1280	Shaft	Weapons Related	Less than 20 kt	Tarko
37.128	-116.051	1256	Shaft	Weapons Related	Low	Taunton
			Rocket	Weapons Effects	3.8 Mt	Teak
37.106	-116.050	1241	Shaft	Weapons Related	Less than 150 kt	Techado
37.140	-116.068	1283	Shaft	Weapons Effects	7 kt	Tee
37.044	-116.017	1199	Shaft	Safety Experiment	Low	Tejon
37.114	-116.022	1300	Shaft	Weapons Related	Less than 20 kt	Teleme
37.093	-116.093	1263	Shaft	Weapons Related	Less than 20 kt	Temescal

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Templar	03/24/1966	LLNL	NTS	U9bt	14:55:28.14
<b>Tenabo</b>	10/12/1990	LLNL	NTS	U20bb	17:30:00.08
Tenaja	04/17/1982	LANL	NTS	U3lh	18:00:00.09
Tendrac	12/07/1962	LANL/UK	NTS	U3ba	19:00:00.10
Tern	01/29/1965	LANL	NTS	U3dw	18:22:00.03
Terrine-White	12/18/1969	LLNL	NTS	U9bi1	19:00:00.04
Terrine-Yellow	12/18/1969	LLNL	NTS	U9bi2	19:00:00.04
Tesla	03/01/1955	LLNL	NTS	Area 9	
Tewa	07/20/1956	LLNL	Bikini island	----	
Texarkana	02/10/1989	LANL	NTS	U7ca	20:06:00.06
Thistle	04/30/1969	LANL	NTS	U7t	17:00:00.04
Throw	04/10/1968	LLNL	NTS	U2bg	14:00:00.00
Ticking	08/21/1965	LLNL	NTS	U9bj	13:43:08.15
Tierra	12/15/1984	LLNL	NTS	U19ac	14:45:00.00
Tightrope	11/04/1962	LANL/DoD	Johnston Island area	----	
Tijeras	10/14/1970	LANL	NTS	U7y	14:30:00.04
Tilci	11/11/1981	LANL	NTS	U4ak	20:00:09.09
Tinderbox	11/22/1968	LLNL	NTS	U9az	16:19:00.04
Tiny Tot	06/17/1965	LLNL/DoD	NTS	U15e	17:00:00.09
Tioga	10/18/1962	LLNL	NTS	U9f	15:00:00.15
Titania	10/30/1958	LLNL	NTS	Area 8	
Tobacco	05/30/1958	LANL	Enewetak	----	
Tomato	04/07/1966	LANL	NTS	U3ek	22:27:30.04
Tomme/Midnight Zephyr	09/21/1983	LLNL/DoD	NTS	U12n.18	15:00:00.09
Topgallant	02/28/1975	LANL	NTS	U4e	16:15:00.09
Topmast	03/23/1978	LANL	NTS	U7ay	16:30:00.11
Torch	02/21/1968	LANL	NTS	U3fj	15:00:00.04
Tornero	02/11/1987	LANL	NTS	U3ll	16:45:00.07
Tornillo	10/11/1963	LLNL	NTS	U9aq	21:00:00.16
Torrido	05/27/1969	LANL	NTS	U7w	14:15:00.04
Tortugas	03/01/1984	LANL	NTS	U3gg	17:45:00.09
Towanda	05/02/1985	LANL	NTS	U19ab	15:20:00.08
Toyah	03/15/1963	LLNL	NTS	U9ac	16:22:53.14
Transom	05/10/1978	LANL	NTS	U4f	15:00:00.07
Traveler	05/04/1966	LLNL	NTS	U2cd	13:32:17.09
Trebbiano	09/04/1981	LANL	NTS	U3lj	15:00:00.10
Trinity	07/16/1945	LANL	Alamogordo, New Mexico	----	
Trogon	07/24/1964	LANL	NTS	U3dj	18:30:00.04
Truchas-Chacon	10/28/1970	LANL	NTS	U3hn	14:30:00.03

## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
37.113	-116.032	1275	Shaft	Plowshare	370 tons	Templar
37.248	-116.495	1871	Shaft	Weapons Related	20 to 150 kt	<b>Tenabo</b>
37.017	-116.011	1177	Shaft	Weapons Related	Less than 20 kt	Tenaja
37.052	-116.030	1202	Shaft	Joint US-UK	Low	Tendrac
37.045	-116.014	1202	Shaft	Weapons Related	Less than 20 kt	Tern
37.120	-116.036	1264	Shaft	Weapons Related	20 to 200 kt	Terrine-White
37.121	-116.029	1277	Shaft	Weapons Related	20 to 200 kt	Terrine-Yellow
			Tower	Weapons Related	7 kt	Tesla
			Barge	Weapons Related	5 Mt	Tewa
37.077	-116.001	1267	Shaft	Weapons Related	20 to 150 kt	Texarkana
37.090	-116.007	1281	Shaft	Weapons Related	20 to 200 kt	Thistle
37.157	-116.083	1316	Shaft	Weapons Related	Less than 20 kt	Throw
37.113	-116.027	1288	Shaft	Weapons Related	Less than 20 kt	Ticking
37.281	-116.306	2118	Shaft	Weapons Related	20 to 150 kt	Tierra
			Rocket	Weapons Effects	Low	Tightrope
37.071	-116.006	1249	Shaft	Weapons Related	20 to 200 kt	Tijeras
37.076	-116.069	1232	Shaft	Weapons Related	20 to 150 kt	Tilci
37.140	-116.043	1261	Shaft	Weapons Related	Less than 20 kt	Tinderbox
37.223	-116.058	- - - -	Tunnel	Weapons Effects	Less than 20 kt	Tiny Tot
37.129	-116.041	1254	Shaft	Weapons Related	Low	Tioga
			Tower	Safety Experiment	0.2 tons	Titania
			Barge	Weapons Related	11.6 kt	Tobacco
37.017	-115.993	1195	Shaft	Weapons Related	Less than 20 kt	Tomato
37.210	-116.210	2230	Tunnel	Weapons Effects	Less than 20 kt	Tomme/Midnight Zephyr
37.106	-116.057	1245	Shaft	Weapons Related	20 to 200 kt	Topgallant
37.099	-116.020	1282	Shaft	Weapons Related	Less than 20 kt	Topmast
37.042	-116.003	1210	Shaft	Weapons Related	Less than 20 kt	Torch
37.011	-116.046	1186	Shaft	Weapons Related	Less than 20 kt	Tornero
37.119	-116.035	1267	Shaft	Plowshare	380 tons	Tornillo
37.075	-115.996	1270	Shaft	Weapons Related	20 to 200 kt	Torrido
37.066	-116.047	1216	Shaft	Weapons Related	20 to 150 kt	Tortugas
37.253	-116.326	2085	Shaft	Weapons Related	20 to 150 kt	Towanda
37.126	-116.046	1252	Shaft	Weapons Related	Low	Toyah
37.088	-116.053	1231	Shaft	Weapons Related	Zero	Transom
37.137	-116.138	1430	Shaft	Weapons Related	Less than 20 kt	Traveler
37.058	-116.049	1211	Shaft	Weapons Related	Less than 20 kt	Trebbiano
			Tower	Weapons Related	21 kt	Trinity
37.046	-116.013	1204	Shaft	Weapons Related	Less than 20 kt	Trogon
37.014	-116.019	1182	Shaft	Safety Experiment	Less than 20 kt	Truchas-Chacon

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Truchas-Chamisal	10/28/1970	LANL	NTS	U3ho	14:30:00.04
Truchas-Rodarte	10/28/1970	LANL	NTS	U3hm	14:30:00.04
Truckee	06/09/1962	LLNL	Christmas Island area	- - - -	
Trumbull	09/26/1974	LLNL	NTS	U4aa	14:30:00.16
Tub-A	06/06/1968	LLNL	NTS	U10ajc	21:30:00.00
Tub-B	06/06/1968	LLNL	NTS	U10ajb	21:30:00.00
Tub-C	06/06/1968	LLNL	NTS	U10ajf	21:30:00.00
Tub-D	06/06/1968	LLNL	NTS	U10ajd	21:30:00.00
Tub-F	06/06/1968	LLNL	NTS	U10aja	21:30:00.00
Tulia	05/26/1989	LANL	NTS	U4s	18:07:00.02
Tuloso	12/12/1972	LANL	NTS	U3gi	16:30:00.04
Tun-A	12/10/1969	LLNL	NTS	U10am1	15:30:00.07
Tun-B	12/10/1969	LLNL	NTS	U10am2	15:30:00.07
Tun-C	12/10/1969	LLNL	NTS	U10am3	15:30:00.07
Tun-D	12/10/1969	LLNL	NTS	U10am4	15:30:00.07
Tuna	12/20/1963	LANL	NTS	U3de	15:24:00.13
Turf	04/24/1964	LLNL	NTS	U10c	20:10:00.15
Turk	03/07/1955	LLNL	NTS	Area 2	
Turnstone	10/16/1964	LANL	NTS	U3dt	15:59:30.03
Turquoise	04/14/1983	LANL	NTS	U7bu	19:05:00.12
Tweed	05/21/1965	LLNL	NTS	U9bn	13:08:52.11
Tybo	05/14/1975	LLNL	NTS	U20y	14:00:00.16
Tyg-A	12/12/1968	LLNL	NTS	U2dc1e	15:10:00.08
Tyg-B	12/12/1968	LLNL	NTS	U2dc2d	15:10:00.08
Tyg-C	12/12/1968	LLNL	NTS	U2dc3c	15:10:00.08
Tyg-D	12/12/1968	LLNL	NTS	U2dc4a	15:10:00.08
Tyg-E	12/12/1968	LLNL	NTS	U2dc5b	15:10:00.08
Tyg-F	12/12/1968	LLNL	NTS	U2dc6f	15:10:00.08
Umber	06/29/1967	LANL	NTS	U3em	11:25:00.04
Umbrella	06/08/1958	LANL/DoD	Enewetak	- - - -	
Uncle	11/29/1951	LANL/DoD	NTS	Area 10	20:00:00.00
Union	04/25/1954	LANL	Bikini Island	- - - -	
Uranus	03/14/1958	LLNL	NTS	U12c.01	22:00:00.00
Valencia	09/26/1958	LANL	NTS	U3r	20:00:00.00
Valise	03/18/1969	LLNL	NTS	U9by	14:30:00.12
Vat	10/10/1968	LLNL	NTS	U9cf	14:30:00.00
Vaughn	03/15/1985	LANL	NTS	U3lr	16:31:00.10
Velarde	04/25/1973	LANL	NTS	U3jk	22:25:00.07
Venus	02/22/1958	LLNL	NTS	U12d.01	01:00:00.00



## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
37.014	-116.018	1182	Shaft	Safety Experiment	Less than 20 kt	Truchas-Chamisal
37.015	-116.020	1183	Shaft	Weapons Related	Less than 20 kt	Truchas-Rodarte
			Airdrop	Weapons Related	210 kt	Truckee
37.093	-116.096	1269	Shaft	Weapons Related	Less than 20 kt	Trumbull
37.167	-116.043	1282	Shaft	Weapons Related	Less than 20 kt	Tub-A
37.165	-116.044	1279	Shaft	Weapons Related	Less than 20 kt	Tub-B
37.165	-116.042	1283	Shaft	Weapons Related	Less than 20 kt	Tub-C
37.167	-116.046	1278	Shaft	Weapons Related	Less than 20 kt	Tub-D
37.167	-116.043	1282	Shaft	Weapons Related	Less than 20 kt	Tub-F
37.086	-116.056	1230	Shaft	Weapons Related	Less than 20 kt	Tulia
37.031	-116.022	1189	Shaft	Weapons Related	Less than 20 kt	Tuloso
37.168	-116.080	1323	Shaft	Weapons Related	Less than 20 kt	Tun-A
37.169	-116.080	1324	Shaft	Weapons Related	Less than 20 kt	Tun-B
37.168	-116.078	1319	Shaft	Weapons Related	Less than 20 kt	Tun-C
37.169	-116.078	1320	Shaft	Weapons Related	Less than 20 kt	Tun-D
37.053	-116.034	1203	Shaft	Weapons Related	Low	Tuna
37.150	-116.056	1272	Shaft	Weapons Related	20 to 200 kt	Turf
			Tower	Weapons Related	43 kt	Turk
37.033	-116.026	1191	Shaft	Weapons Related	Less than 20 kt	Turnstone
37.073	-116.047	1219	Shaft	Weapons Related	Less than 150 kt	Turquoise
37.119	-116.029	1281	Shaft	Weapons Related	Less than 20 kt	Tweed
37.221	-116.475	1880	Shaft	Weapons Related	200 to 1000 kt	Tybo
37.121	-116.081	1273	Shaft	Weapons Related	Less than 20 kt	Tyg-A
37.118	-116.080	1270	Shaft	Weapons Related	Less than 20 kt	Tyg-B
37.118	-116.078	1268	Shaft	Weapons Related	Less than 20 kt	Tyg-C
37.121	-116.079	1272	Shaft	Weapons Related	Less than 20 kt	Tyg-D
37.120	-116.077	1270	Shaft	Weapons Related	Less than 20 kt	Tyg-E
37.119	-116.083	1273	Shaft	Weapons Related	Less than 20 kt	Tyg-F
37.029	-116.023	1188	Shaft	Weapons Effects	10 kt	Umber
			Underwater	Weapons Effects	8 kt	Umbrella
37.168	-116.043	1283	Crater	Weapons Effects	1.2 kt	Uncle
			Barge	Weapons Related	6.9 Mt	Union
37.113	-116.115	- - - -	Tunnel	Safety Experiment	Less than 1 ton	Uranus
37.050	-116.031	1201	Shaft	Safety Experiment	2 tons	Valencia
37.139	-116.042	1261	Shaft	Safety Experiment	Less than 20 kt	Valise
37.133	-116.043	1256	Shaft	Weapons Related	Less than 20 kt	Vat
37.058	-116.046	1211	Shaft	Weapons Related	20 to 150 kt	Vaughn
36.994	-116.022	1176	Shaft	Weapons Related	Less than 20 kt	Velarde
37.113	-116.115	- - - -	Tunnel	Safety Experiment	Less than 1 ton	Venus

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Verdello	07/31/1980	LANL	NTS	U3ku	18:19:00.09
Vermejo	10/02/1984	LANL	NTS	U4r	18:14:00.10
Vesta	10/17/1958	LLNL	NTS	S9e	
Victoria	06/19/1992	LANL	NTS	U3kv	16:45:00.00
Vide	04/30/1981	LLNL	NTS	U8k	14:35:00.08
Vigil	11/22/1966	LLNL	NTS	U10ad	15:00:00.13
Ville	06/12/1985	LLNL	NTS	U4am	17:30:00.09
Villita	11/10/1984	LANL	NTS	U3ld	16:40:00.09
Vise	01/30/1969	LANL	NTS	U3ej	15:00:00.04
Vito	07/14/1967	LLNL	NTS	U10ab	13:30:00.08
Vulcan	06/25/1966	LLNL	NTS	U2bd	17:13:00.07
Waco	12/01/1987	LANL	NTS	U3lu	16:30:00.09
Wagtail	03/03/1965	LANL	NTS	U3an	19:13:00.03
Wahoo	05/16/1958	LANL/DoD	Enewetak	----	
Waller	10/02/1973	LLNL	NTS	U2bz	15:15:00.16
Walnut	06/14/1958	LANL	Enewetak	----	
Ward	02/08/1967	LLNL	NTS	U10x	15:15:00.13
Washer	08/10/1967	LLNL	NTS	U10r	14:10:00.00
Wasp	02/18/1955	LANL	NTS	Area 7	
Wasp Prime	03/29/1955	LANL	NTS	Area 7	
Welder	10/03/1968	LANL	NTS	U3fs	14:00:00.04
Wembley	06/05/1968	LANL	NTS	U3ey	14:21:30.04
Wexford	08/30/1984	LLNL	NTS	U2cr	14:45:00.00
Wheeler	09/06/1957	LLNL	NTS	Area 9	
White	05/25/1962	LLNL	NTS	U9b	15:00:00.15
Whiteface-A	12/20/1989	LANL	NTS	U3lp	22:00:00.06
Whiteface-B	12/20/1989	LANL	NTS	U3lp	22:00:00.06
Whitney	09/23/1957	LLNL	NTS	Area 2	
Wichita	07/27/1962	LLNL	NTS	U9y	21:00:00.16
Wigwam	05/14/1955	LANL/DoD	Pacific	----	
Wilson	06/18/1957	LLNL	NTS	Area 9	
Winch	02/04/1969	LANL	NTS	U3gf	15:00:00.04
Wineskin	01/15/1969	LLNL	NTS	U12r	19:30:00.04
Wishbone	02/18/1965	LLNL/DoD	NTS	U5a	16:18:47.15
Wolverine	10/12/1962	LANL	NTS	U3av	17:00:00.12
Wool	01/14/1965	LLNL	NTS	U9bh	16:00:00.14
Worth	10/25/1967	LLNL	NTS	U10ag	14:45:00.08
Wrangell	10/22/1958	LLNL	NTS	Area 5	
X-Ray	04/14/1948	LANL	Enewetak	----	

## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
37.013	-116.024	1183	Shaft	Weapons Related	Less than 20 kt	Verdello
37.085	-116.054	1229	Shaft	Weapons Related	Less than 20 kt	Vermejo
			Surface	Safety Experiment	24 tons	Vesta
37.005	-116.011	1179	Shaft	Weapons Related	Less than 20 kt	Victoria
37.177	-116.086	1346	Shaft	Weapons Related	Less than 20 kt	Vide
37.169	-116.049	1278	Shaft	Safety Experiment	Less than 20 kt	Vigil
37.088	-116.085	1250	Shaft	Weapons Related	Less than 20 kt	Ville
37.000	-116.018	1177	Shaft	Weapons Related	Less than 20 kt	Villita
37.053	-116.030	1204	Shaft	Weapons Related	20 to 200 kt	Vise
37.165	-116.046	1278	Shaft	Safety Experiment	Less than 20 kt	Vito
37.155	-116.073	1300	Shaft	Plowshare	25 kt	Vulcan
36.996	-116.005	1176	Shaft	Weapons Related	Less than 20 kt	Waco
37.064	-116.038	1210	Shaft	Weapons Related	20 to 200 kt	Wagtail
			Underwater	Weapons Effects	9 kt	Wahoo
37.154	-116.069	1294	Shaft	Weapons Related	Less than 20 kt	Waller
			Barge	Weapons Related	1.45 Mt	Walnut
37.167	-116.048	1277	Shaft	Weapons Related	Less than 20 kt	Ward
37.157	-116.048	1271	Shaft	Weapons Related	Less than 20 kt	Washer
			Airdrop	Weapons Effects	1 kt	Wasp
			Airdrop	Weapons Related	3 kt	Wasp Prime
37.046	-116.031	1199	Shaft	Safety Experiment	Less than 20 kt	Welder
37.035	-116.017	1191	Shaft	Weapons Related	Less than 20 kt	Wembley
37.144	-116.126	1376	Shaft	Weapons Related	Less than 20 kt	Wexford
			Balloon	Weapons Related	197 tons	Wheeler
37.125	-116.053	1253	Shaft	Weapons Related	Low	White
37.026	-116.032	- - - -	Shaft	Safety Experiment	Less than 20 kt	Whiteface-A
37.026	-116.032	- - - -	Shaft	Safety Experiment	Less than 20 kt	Whiteface-B
			Tower	Weapons Related	19 kt	Whitney
37.130	-116.057	1265	Shaft	Weapons Related	Low	Wichita
			Underwater	Weapons Effects	30 kt	Wigwam
			Balloon	Weapons Related	10 kt	Wilson
37.009	-116.043	1185	Shaft	Weapons Related	Less than 20 kt	Winch
37.209	-116.226	2263	Shaft	Weapons Related	20 to 200 kt	Wineskin
36.818	-115.950	913	Shaft	Weapons Effects	Less than 20 kt	Wishbone
37.049	-116.033	1200	Shaft	Weapons Related	Low	Wolverine
37.119	-116.026	1287	Shaft	Weapons Related	Less than 20 kt	Wool
37.156	-116.049	1269	Shaft	Weapons Related	Less than 20 kt	Worth
			Balloon	Weapons Related	115 tons	Wrangell
			Tower	Weapons Related	37 kt	X-Ray

## United States Nuclear Detonations – By Name

Detonation	Date (mm/dd/yyyy) (GMT)	Sponsor	Location	Hole	Time (GMT)
Yankee	05/04/1954	LANL	Bikini Island	----	
Yannigan-Blue	02/26/1970	LLNL	NTS	U2ay3	15:30:00.04
Yannigan-Red	02/26/1970	LLNL	NTS	U2ay1	15:30:00.04
Yannigan-White	02/26/1970	LLNL	NTS	U2ay2	15:30:00.04
Yard	09/07/1967	LLNL	NTS	U10af	13:45:00.00
Yellowwood	05/26/1958	LANL	Enewetak	----	
Yerba	12/14/1971	LANL	NTS	U1c	21:10:01.04
Yeso	06/10/1962	LANL	Christmas Island area	----	
Yoke	04/30/1948	LANL	Enewetak	----	
York	08/24/1962	LLNL	NTS	U9z	15:00:00.15
Yuba	06/05/1963	LLNL	NTS	U12b.10	17:00:00.12
Yucca	04/28/1958	LANL/DoD	Pacific	----	
Yukon	05/08/1962	LLNL	Christmas Island area	----	
Yuma	05/27/1956	LLNL	Enewetak	----	
Zaza	09/27/1967	LANL	NTS	U4c	17:00:00.04
Zebra	05/14/1948	LANL	Enewetak	----	
Zinnia	05/17/1972	LLNL	NTS	U2dk	14:10:00.16
Zucchini	05/15/1955	LANL	NTS	Area 7	
Zuni	05/27/1956	LLNL	Bikini Island	----	

## July 1945 through September 1992

Latitude (degrees)	Longitude (degrees)	Surface Elevation (meters)	Type	Purpose	Yield Range	Detonation
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			Barge	Weapons Related	13.5 Mt	Yankee
37.114	-116.067	1258	Shaft	Weapons Related	20 to 200 kt	Yannigan-Blue
37.116	-116.062	1258	Shaft	Weapons Related	20 to 200 kt	Yannigan-Red
37.118	-116.067	1261	Shaft	Weapons Related	20 to 200 kt	Yannigan-White
37.153	-116.054	1270	Shaft	Weapons Related	20 to 200 kt	Yard
			Barge	Weapons Related	330 kt	Yellowwood
37.023	-116.060	1202	Shaft	Weapons Related	Less than 20 kt	Yerba
			Airdrop	Weapons Related	3 Mt	Yeso
			Tower	Weapons Related	49 kt	Yoke
37.119	-116.040	1256	Shaft	Weapons Related	Low	York
37.197	-116.210	2240	Tunnel	Weapons Related	3.1 kt	Yuba
			Balloon	Weapons Effects	1.7 kt	Yucca
			Airdrop	Weapons Related	100 kt	Yukon
			Tower	Weapons Related	190 tons	Yuma
37.099	-116.054	1240	Shaft	Weapons Related	20 to 200 kt	Zaza
			Tower	Weapons Related	18 kt	Zebra
37.121	-116.089	1277	Shaft	Weapons Related	Less than 20 kt	Zinnia
			Tower	Weapons Related	28 kt	Zucchini
			Surface	Weapons Related	3.5 Mt	Zuni

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## Abbreviations/Acronyms

AEC	U.S. Atomic Energy Commission
ASROC	Antisubmarine Rocket
CY	Calendar Year
DoD	U.S. Department of Defense
DOE	U.S. Department of Energy
DOE/NV	U.S. Department of Energy, Nevada Operations Office
ERDA	U.S. Energy Research and Development Administration
GMT	Greenwich Mean Time
HA	High Altitude
JVE	Joint Verification Experiment
kt	kiloton
LANL	Los Alamos National Laboratory
LLNL	Lawrence Livermore National Laboratory
MET	Military Effects Tests
mm	millimeter
Mt	megaton
NAFR	Nellis Air Force Range
NTS	Nevada Test Site
TNT	trinitrotoluene
UK	United Kingdom
US	United States

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## Glossary

Airburst	The explosion of a nuclear weapon at such a height that the expanding fireball does not touch the earth's surface prior to the time the fireball reaches its maximum luminosity. The airburst reported in this document resulted from the detonation of a device fired from a 280mm cannon.
Airdrop	A nuclear device dropped from an aircraft and exploded in the atmosphere.
Atmospheric	A test conducted aboveground or above water; i.e., in the open air.
Balloon	A nuclear device suspended from a balloon and exploded in the atmosphere.
Barge	A nuclear device exploded from a barge moored in the lagoon at Enewetak or Bikini.
Crater	A nuclear device placed shallow enough underground to produce a throw-out of earth when exploded.
Detonation	A single nuclear device explosion; one or more comprise a test.
Hole	The alpha-numeric designation is given to the nuclear weapon test/detonation conducted at the Nevada Test Site. The uppercase alpha designator refers to the type of location, i.e., S = surface, U = underground. The numeric designator refers to the geographical area of the Nevada Test Site. The remaining letters refer to the sequential ordering of the test/detonation. In the case of most atmospheric tests, only the geographical area of the Nevada Test Site is given.
Joint US-UK	A nuclear test conducted jointly by the United States and the United Kingdom under a cooperative agreement in effect between the two countries since August 4, 1958.
kt	A kiloton. The energy of a nuclear explosion that is equivalent the explosive power of 1,000 tons of TNT.
Mt	A megaton. The energy of a nuclear explosion that is equivalent to the explosive power of one million tons of TNT.
NTS	The Nevada Test Site is located in southern Nevada in Nye County. It is 65 miles northwest of Las Vegas, Nevada and covers an area of approximately 1,375 square miles.
Offsite	Offsite is any place outside the Test Range Complex.

Onsite	A notation that <i>radioactivity was detected on site only</i> is made for any test from which there was an unplanned release of radioactivity into the atmosphere that was not detectable beyond the boundaries of the Test Range Complex.
Plowshare	Application of nuclear explosives to develop peaceful uses for atomic energy.
Rocket	A nuclear device launched by rocket and exploded in the atmosphere.
Roman Candle	Test conducted underground in an unstemmed hole to minimize, but not eliminate, the release of radioactivity to the atmosphere. Because incandescent gases were released, this was sometimes referred to as a "Roman candle" effect.
Safety Experiment	Experiment designed to confirm a nuclear explosion will not occur in case of an accidental detonation of the explosive associated with the device.
Seismic Calibration	A nuclear test to evaluate seismic effects of an underground explosion.
Shaft	A nuclear device exploded at the bottom of a drilled or mined vertical hole. Some safety tests were set off at the bottom of unstemmed drilled holes, producing a "Roman candle" effect.
Sponsor	The organization(s), i.e., national weapons laboratory or laboratories, the U.S. Department of Defense and/or the United Kingdom, that is/are responsible for conducting a particular nuclear weapon test/detonation.
Storage-Transportation	Detonations of combinations of high explosives and nuclear materials designed to study distribution of nuclear materials during accidents in several transportation and storage configurations.
Surface	A nuclear device placed on or close to the earth's surface.
Surface Elevation	The vertical distance from mean sea level to a point on the earth's surface, generally refers to the surface ground zero of a nuclear weapon test/detonation.
Test	A test is defined in the Threshold Test Ban Treaty as either a single underground nuclear explosion conducted at a test site, or two or more underground nuclear explosions conducted within an area delineated by a circle having a diameter of two kilometers and conducted within a total period of time not to exceed 0.1 second.
Test Range Complex	An area that includes both the Nevada Test Site and the adjacent Government-controlled Nellis Air Force Range.

Ton	The yield of a nuclear device is a measure of the amount of energy released when it explodes. It is stated in terms of the quantity of TNT that would produce the same amount of explosive energy. A ton is equivalent to one ton of TNT.
Thermonuclear Device	Commonly referred to as a "hydrogen bomb;" part of the explosion energy results from the fusion of light nuclei such as those of hydrogen isotopes.
Tower	A nuclear device mounted at the top of a steel or wooden tower and exploded in the atmosphere.
Tunnel	A nuclear device exploded at the end of a long horizontal drift mined into a mountain or mesa in a way that places the burst point deep within the earth.
Underground	Underground nuclear test conducted in a tunnel or at the bottom of a drilled hole or shaft. Some underground nuclear tests were not designed to contain all radioactivity; e.g., cratering tests or safety experiments.
Underwater	A nuclear test conducted underwater.
Vela Uniform	U.S. Department of Defense (DoD) program designed to improve the capability to detect, identify, and locate underground nuclear explosions.
Verification Experiment	A test on which the Russian government exercised its right to verify under the terms of the Threshold Test Ban Treaty.
Weapons Effects	A nuclear test to evaluate the civil or military effects of a nuclear detonation on various targets, such as military hardware.
Weapons Related	A nuclear detonation conducted for the purpose of testing a nuclear device intended for a specific type of weapon system.
Yield	The total effective energy released in a nuclear explosion. It is usually expressed in terms of equivalent tonnage of TNT required to produce the same energy release in an explosion.

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