# Nevada National Security Site

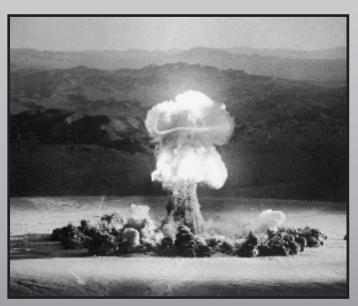
# How Nuclear Tests Got Their Names

#### Introduction

What do Ruth, Dixie, Shasta, Butternut, Seersucker, and Mink all have in common? They were all names of nuclear tests conducted at the Nevada Test Site (NTS), now known at



Badger, part of the Upshot-Knothole series, was a 23-kiloton weapons effects tower test conducted at the Nevada Test Site on April 18, 1953.



Priscilla, part of the Plumbbob series, was a 37-kiloton weapons effects balloon drop test conducted at the Nevada Test Site on June 24, 1957.

the Nevada National Security Site (NNSS), between 1951 and 1962. A total of 928 atmospheric and underground nuclear tests was conducted at the NTS, and each of those tests was christened with a name.

### **Background**

Beginning with Trinity, the first atomic test in 1945, nuclear tests were all assigned code names as a security measure during wartime operations. All information associated with a nuclear device was classified, so scientists and test planners assigned innocuous code names or inventive nicknames to each test.

## Approving the names

Although test names may seem somewhat whimsical, there was a formal procedure by which test names were approved. A list of possible names was submitted for internal review, where inappropriate or previously used names were removed from the list. The names remaining on the list were sent to U.S. Department of Energy Headquarters in Washington, DC, where the final approvals were made in coordination with other government agencies. The approved lists of names were returned to the NTS for future use.

While most names proposed for tests met with approval, there was one notable instance of a test name rejection. In 1969, Los Alamos National Laboratory conducted Operation Mandrel, a series containing tests named for grasses such as Seaweed, Jorum, Mint Leaf, and Cumarin. A proposed name for a test to be conducted in October of that year was "Ganja." Ganja is another name for marijuana and also the Indian word for cannabis. Officials decided that calling a nuclear test "Ganja" or marijuana was not a good idea and changed the name of the test to "Milrow," a seismic calibration test conducted in Amchitka, Alaska.

### **Test names**

Early tests used names directly from the military phonetic alphabet, such as Able, Baker, Charlie and Dog. After these names were used for Operation Ranger, Operation Buster, and Operation Tumbler-Snapper, test planners and scientists became a bit more creative with test names. Everything from women's names (Annie, Priscilla, Nancy), to insects (Wasp, Hornet, Bee), to famous scientists' names (Tesla, Galileo, Pascal) were used in the early days of testing.

#### Series names

Nuclear tests were often conducted as part of a test series, a large scale operation where devices were detonated over a period of time - commonly a fiscal year. Test series were also issued a code name. For example, Operation Ranger was the first test series conducted at the Nevada Test Site and included the individual tests: Able, Baker, Easy, Baker-2, and Fox.



Boltzmann, the first test in the Plumbbob series, was a 12-kiloton weapons effects tower test conducted at the Nevada Test Site on May 28, 1957.

In certain circumstances, the U.S. conducted two sequences of tests jointly as a single series. Each sequence was usually conducted to obtain different sets of data. In the cases of joint sequences, the name for each sequence was combined to form the name of the entire series, as in the case of the Upshot-Knothole series in 1953.

Like the earlier Buster-Jangle and Tumbler-Snapper series, Upshot-Knothole was initially envisioned as two separate weapons testing series. In 1951, the Department of Defense (DoD) began planning a large military effects test called Operation Knothole at the same time the Atomic Energy Commission (AEC, predecessor to the U.S. Department of Energy) was planning Operation Upshot. The DoD coordinated Operation Knothole with the AEC's Operation Upshot and conducted Operation Upshot-Knothole from March through June of 1953.

Many times, a test series contained test names that were categorically related. As testing continued over the years, names reflecting rivers, mountains, trees, cheeses, wines, fabric, animals, and Indian tribes were used to identify nuclear tests within a series.

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