



## Nevada Site Office News

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### **Krakatau Subcritical Experiment Conducted**

**Krakatau**, a joint United States/United Kingdom subcritical experiment, was successfully conducted at 12:00 p.m. on February 23, 2006, at the Nevada Test Site. The experiment was conducted in the U1a complex. The Atomic Weapons Establishment of the United Kingdom and Los Alamos National Laboratory conducted the experiment to gather scientific data that provides crucial information to maintain the safety and reliability of each nation's nuclear weapons without having to conduct underground nuclear tests.

Krakatau was the 22<sup>nd</sup> subcritical experiment to date. The previous subcritical experiment, **Armando**, was conducted on May 25, 2004. The last joint US/UK subcritical experiment was **Vito**, conducted on February 14, 2002. **Krakatau** was a follow-on to the **Vito** experiment.

Subcritical experiments examine the behavior of plutonium as it is strongly shocked by forces produced by chemical high explosives. Subcritical experiments produce essential scientific data and technical information used to help maintain the safety and reliability of the nuclear weapons stockpile. The experiments are subcritical; that is, no critical mass is formed and no self-sustaining nuclear chain reaction can occur; thus, there is no nuclear explosion.

The Nevada Test Site's U1a Complex is located 85 miles northwest of Las Vegas. The U1a Complex is designed to contain these experiments in a safe and secure environment in an underground laboratory of horizontal tunnels with small excavated experimental alcoves mined at the base of a vertical shaft, approximately 960 feet beneath the surface.