



## *Nevada Operations Office News*

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### **National Nuclear Security Administration Scientists Conduct Successful Subcritical Experiment at Nevada Test Site**

The National Nuclear Security Administration's Los Alamos National Laboratory successfully conducted *Vito*, at **1:30 p.m.** (PST) today, at the Nevada Test Site.

Data from monitoring instruments confirmed that, as expected, the experiment remained subcritical. No critical mass was formed, and therefore no self-sustaining nuclear chain reaction occurred.

*Vito* was the 16th subcritical experiment conducted at the Nevada Test Site. The United Kingdom participated in the experiment under the terms of the 1958 Mutual Defense Agreement.

The experiment was designed to answer questions about ejecta and spall associated with the physical properties of plutonium. Ejecta is a violent spray of particles that are propelled from a material's surface when it is compressed by a powerful shock wave. Spall is the breakup of material from the explosive shock wave reflected back from the surface.

Scientists conduct subcritical experiments in order to obtain technical information in support of the National Nuclear Security Administration's program to maintain the safety and reliability of the nation's nuclear weapons stockpile without underground nuclear testing.