

# INL Intelligence

Volume 11, Issue 5 – May 25, 2011

**A high-level monthly briefing on operations and activities at the U.S. Department of Energy's Idaho National Laboratory**  
Work at the lab advances the Department's mission to ensure America's security and prosperity by addressing its energy, environmental and nuclear challenges through transformative science and technology solutions.

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## ■ INL Expands Supercomputing Capabilities

INL has installed a new supercomputer – known as “Fission” – that is six times more powerful than its predecessor, Icestorm, which came online in 2007. The acquisition of Fission enables INL researchers to build more complete scientific models and better predict outcomes for a variety of nuclear and energy-related issues. For example, Fission helped create a 3-D fuel rod model that simulates how heat, pressure and other conditions affect the metal cladding surrounding nuclear fuel during its first 18 months in a reactor – a first for the team. Fission has achieved a peak speed of 91 teraflops, which means it can perform 91 trillion floating point calculations per second. Fission's size and speed are equivalent to systems that were ranked in the top 100 fastest supercomputers in the world according to a November 2010 list issued by Top 500, an independent organization.

## ■ Fire Season Preparations Begin

Firefighters at INL are preparing for the 2011 wildland fire season. Every spring, the INL Fire Department reviews its fire preparation procedures and lessons learned from previous fires. This information is used to protect people, property and the environment at the desert Site from future range fires. “A normal fire potential is predicted for INL this summer in July and August and, as usual, much of our fire activity will be dependent on summer weather patterns, most notably our lightning experience,” said INL Fire Chief Eric Gosswiller. “We had a cool and wet April, and May is off to a similar start so we may experience a delay in reaching peak fire conditions. Regardless of the conditions, we'll be prepared to respond to fires.”

## ■ Idaho Schools, Teachers Awarded INL Grants

Idaho Falls High School and Mackay Elementary each have big plans for the Extreme Classroom Makeover grants they received this spring from INL. Idaho Falls High School will be using its \$9,300 to rebuild a chemistry lab that was demolished for asbestos abatement. Mackay Elementary School will apply its \$10,000 grant to establish a hands-on, problem-solving science and math program. In addition, INL awarded more than \$29,000 in grants to teachers across the state to improve science, technology, engineering and math (STEM) education in grades K-12. The INL Mini Grant program provides teachers up to \$2,000 per proposal for classroom equipment, materials and professional development projects. Twenty-two grants were awarded this year to support innovative STEM projects throughout Idaho.

## ■ EBR-I Atomic Museum Open for Season

The Experimental Breeder Reactor-I (EBR-I) Atomic Museum, one of only 10 national historic landmarks in Idaho, opens for the summer this Memorial Day weekend. New this year is a three-room addition featuring numerous interactive displays related to the even-more-capable Experimental Breeder Reactor-II. The EBR-I Atomic Museum is located 18 miles east of Arco on Highway 20/26. Admission is free and the facility is open from 9 a.m. to 5 p.m. seven days a week through Labor Day weekend. Guided or self-guided tours are available.

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