

[Seismic Hazards Assessment](#)
[Volcanic Hazards Assessments](#)
[Home](#)
[Newsroom](#)
[About INL](#)
[INL Distinctive Signatures](#)
[Research Programs](#)
[Energy and Environment](#)
[National and Homeland Security](#)
[Nuclear Energy](#)
[Other Programs ▶](#)
[Facilities](#)
[Research Library](#)
[Education](#)
[Community Outreach](#)
[Visitor Information](#)
[Technology Transfer](#)
[Working with INL](#)
[Careers](#)
[Environment, Safety & Health](#)
[ATR National Scientific User Facility](#)
[Center for Advanced Energy Studies](#)
[Next Generation Nuclear Plant](#)
[Contact US](#)
[You Tube](#) [Flickr](#) [Facebook](#)

Nuclear Energy

 Idaho National Laboratory
 2525 Fremont Avenue
 Idaho Falls, ID 83415
 866-495-7440

Seismic and Volcanic Hazards

The INL, covering an area of 2,305 square km (890 square miles), resides within the eastern Snake River Plain of Idaho near its juncture with the northern Basin and Range Province. The eastern Snake River Plain is a 400-km (250-miles) long, 100-km (65-miles) wide, low relief volcanic province flanked by mountain ranges of the Basin and Range Province and the northern Rocky Mountains. It was formed by crustal subsidence, basaltic volcanism, and sedimentation after passage of the Yellowstone Hotspot beneath southern Idaho.

The Yellowstone Hotspot now resides beneath Yellowstone National Park, where it caused explosive caldera-forming eruptions 2 to 0.6 million years ago and currently energizes the existing geothermal features there. At about 10 to 4.3 million years ago, it passed beneath the eastern Snake River Plain and produced caldera eruptions similar to those at Yellowstone. Since then, volcanism on the eastern Snake River Plain has been characterized by effusive basaltic volcanism similar to that in Hawaii. The most recent basalt lava flows erupted about 2,100 years ago at Craters of the Moon National Monument in the Great Rift volcanic rift zone.

Because of the potential for future earthquakes and volcanism, the INL has conducted geological investigations since the 1960s and continues to incorporate these results into its seismic and volcanic hazards assessments. High-quality assessments of geologic hazards are attained through cooperative investigations and peer review by numerous knowledgeable scientists from the U.S. Geological Survey, the Nuclear Regulatory Commission, major universities, other national laboratories, seismic hazard consultants, earthquake engineering firms, and seismic experts coordinated by the State of Idaho. The results of these investigations are incorporated into the design criteria so that INL facilities can be built to withstand earthquakes and can be located in areas to minimize the effects from volcanism.

Page Contact Information:

 Suzette Payne 526-4293 [Email Contact](#)