

Geology Lecture Series

7 p.m. Wednesday, February 7, 2001

Spokane Community College
Lair-Student Center Auditorium

1810 N Greene Street, Spokane, Washington

The 1991 eruption of Mount Pinatubo, Philippines: Warning and Response

by

John Ewert

United States Geological Survey
Cascades Volcano Observatory

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Presentation

On April 2 1991, a tiny explosion at Mount Pinatubo, a little known volcano in the Philippines, began a cascade of events that would end in the second-largest eruption of the 20th century. Pinatubo's eruptions would ultimately displace tens of thousands of people, cost close to a billion dollars in losses and reconstruction expenses, and be a catalyst for ending nearly 100 years of US military presence in the Philippines.

In the 10 weeks of unrest leading up to the climactic eruption on June 15, a small group of US and Filipino scientists worked together to monitor and analyze the volcanic activity at Pinatubo and provide forecasts and warnings of what would happen. Prior to the eruption, over a million people lived within 30 miles of the volcano, including about 20,000 American military personnel and their dependents. Because forecasts of this powerful eruption allowed for timely evacuations, fewer than 300 people were killed and close to half a billion dollars in property damage was averted.

The Pinatubo eruption is discussed in the context of other volcano crises before and after Pinatubo, as well as the origin and role of the USGS' Volcano Disaster Assistance Program in volcano crisis response.

Speaker

John Ewert began working in volcanology at Mount St. Helens with the USGS in 1981. From 1981 to 1986 he worked on various projects monitoring and studying volcanic gas emissions, deformation, and geomorphic change at Mount St. Helens and at other Cascade Range volcanoes. Since 1986, Ewert has worked with the Volcano Disaster Assistance Program (VDAP), which is a joint US Office of Foreign Disaster Assistance-USGS program. The primary goal of the VDAP is to reduce the loss of life and economic damage in countries that experience volcanic eruptions. The VDAP is the only group in the world that can respond on short notice to volcanic unrest anywhere in the world with what amounts to a portable volcano observatory. During responses to volcanic unrest Ewert and his colleagues work to assess volcanic hazards, gather and interpret monitoring data, and communicate volcano-hazards information to public officials. Over the course of the last 14 years, VDAP has responded to 17 volcano crises in 13 countries, as well as carried out technology-transfer and training programs in a number of countries.

Over the course of his career, Ewert has worked on active volcanoes in Alaska, Mexico, Central and South America, the Philippines, New Zealand and Papua New Guinea.



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