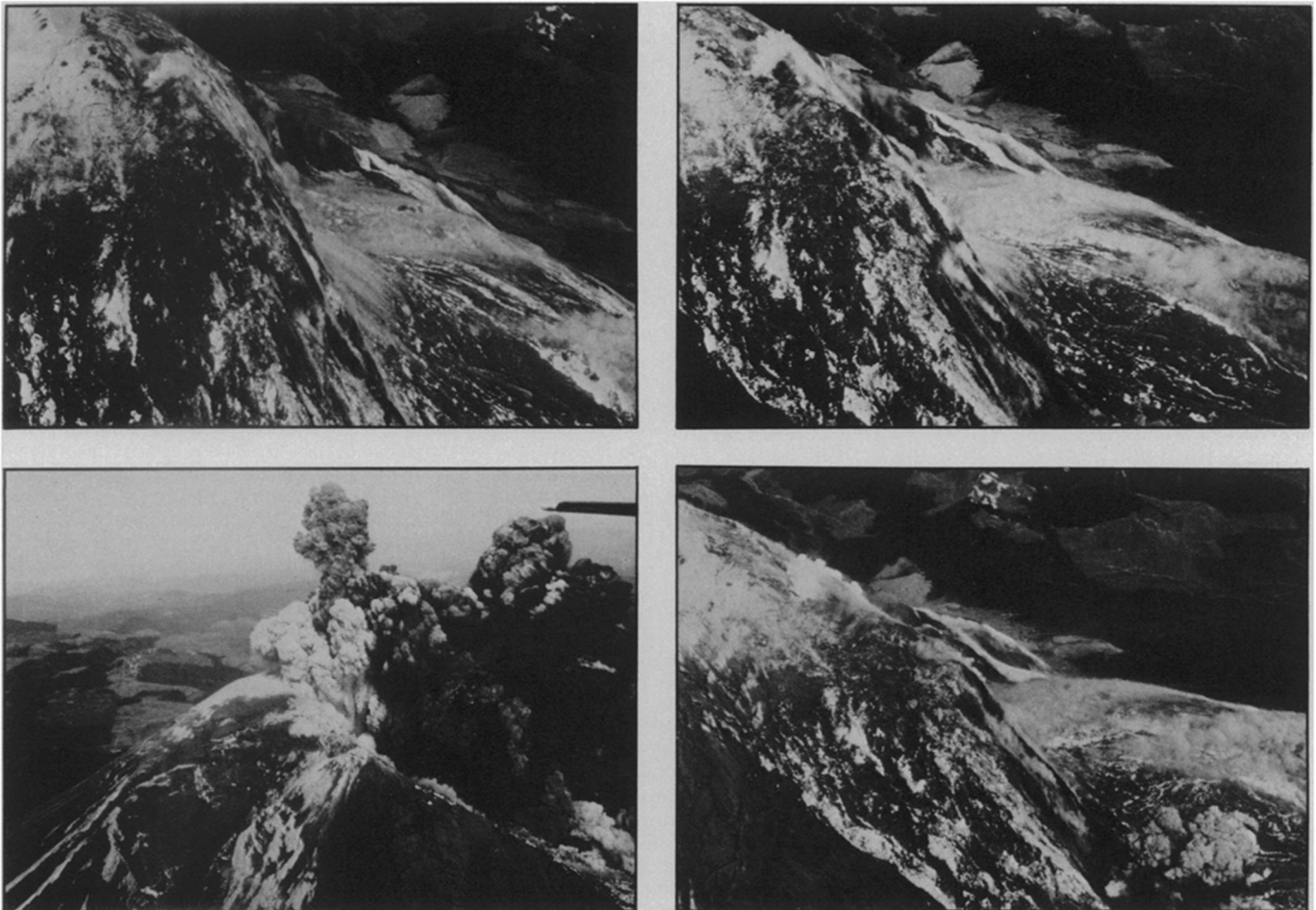


## SCIENCE NEWS OF THE WEEK

# Mt. St. Helens One Year Later



*Flying over Mt. St. Helens, geologists Keith Stoffel and Dorothy Stoffel took these pictures just as the May 18 blast started. Clockwise from the upper left, they show how the north side of the mountain began to slide and a small white plume, probably steam, began to rise just before the slope completely gave way.*

It has been a year since Mt. St. Helens loosed its fury. The early morning May 18 blast ripped 1,300 feet off the mountain's top, hurled soupy avalanches of rock, gas and melted glaciers into nearby lakes and rivers and sent a searing hurricane of pulverized rock and gas boiling across the countryside (SN: 5/24/80, p. 324). More than 60 persons were killed and 150 square miles of landscape left stark and barren. Since then, and just as inexorable as that cataclysmic blast, the slow recovery has begun. It is a familiar process for the volcano, repeated many times in its 30,000-year history. But this time it is different, for its every step is being watched and recorded.

Most noticeable is the regrowth of plants. Among the first signs of life, says Fred Swanson of the U.S. Forest Service's Pacific Northwest Experiment Station in Corvallis, Ore., were mats of fungi that covered large areas of mud and debris. Swanson suggests that the warmth from the blast may have activated the fungus spores. Last September, 20 to 25 percent of

the blast zone had some type of vegetation, according to a survey conducted by Jerry Franklin and co-workers from the Forest Service. In regions where trees had been completely cleared, "pioneer" species such as fireweed have grown back from roots. Where there was heavy snow before the eruption, some small trees and shrubs as well as herbs survived. Near some streams, erosion has scoured the smothering ash away from more fertile soil and provided water to new seeds. Franklin says that he expects to see much more growth in a survey to be conducted in June.

Lakes in the blast zone likewise are "cranking microbiologically," says Swanson. Spirit Lake, for example, contains so much organic matter that it "looks and smells very much like the effluent liquor from a pulp mill," according to a U.S. Geological Survey report. But the lake's biological boom is limited to bacteria, according to Forest Service researchers, and many are pathogens that usually exist at low levels but have flourished in the al-

tered waters. In other blast zone lakes, however, B.A. Crawford of the Washington Department of Game has found live fish.

Erosion, another major player in the mountain's recovery, is also the most closely watched process these days because of the threat of massive mudslides and flooding. In an effort to minimize erosion, the Soil Conservation Service of the U.S. Department of Agriculture was asked to seed about 20,000 acres of private and public lands. Although a spokesman for the Service says the success rate for coverage ranges from 10 to 85 percent, a Forest Service researcher claims the seeding did not reduce erosion during the winter.

In the meantime, the usgs is keeping an eye on the rain and the rivers. "There is still an incredible volume of highly erodible material and it has been a dry year," says usgs hydrologist David Rickert. "The potential exists for massive erosion for the whole Toutle [River] system for maybe a decade. It's a very unstable situation and very unpredictable scientifically." □