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COVER: "Give me a place to stand, and I will move the world" — Archimedes. The original proponents of the Multiple Mirror Telescope certainly hoped, and its users seem to hope, to move the world of astronomy. A bit of the peak of Mt. Hopkins had to be sheared off to give them a place to stand. See p. 106. (Photo: Multiple Mirror Telescope Observatory)

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LETTERS

Volcanic reactions

We thoroughly enjoyed Susan West's articles (See SN: 7/26/80). Having been involved with Dr. Hopson's [of the University of California, Santa Barbara] and Dr. Melson's [of the Smithsonian Institution] failure to fly over the crater we appreciated Susan's article "The Right to Research" (p. 61). Clark feels now almost anyone can fly over the crater (restricted area). Journalists or photographers seem to have an easy time now.

The July 22nd eruption was fantastic! Clear skies and little ash enabled people from 250 miles away to see it. It was super!

*Clark and Mary Dechant
 Fort Vancouver Airlines
 Vancouver, Wash.*

I want to compliment you on your 26 July issue—the editorial, the volcano story and the "Right to Research" story were all superb! I particularly liked the last—you managed to get your point across in a reasonable way (although I hear that there were some hot words in Vancouver when it came out!). It is high time someone got onto this aspect of the story, and so far as I know you are the first. A great scoop!

Partly as a result of this, the USGS has appointed a senior officer who will act as "executive secretary" for SHCC [the Mount St. Helens Research and Education Coordinating Committee] in Vancouver, and take most of the busy work off my hands, but more important, eliminate the necessity of a trip to [Portland State University] for my signature. A one-stop visit will cut much of the discontent, hopefully.

*John Eliot Allen
 Co-chairman SHCC
 Portland, Ore.*

As a University of Puget Sound scientist who has worked in the restricted zone around Mount St. Helens on numerous occasions since March 27, 1980, my experience in interacting with the U.S. Geological Survey in Vancouver has been quite different from that of the other scientists described in Susan West's article.

West's article contends the U.S. Geological Survey has effectively halted the free flow of scientific information about the volcano, and is responsible for the lack of access by members of the U.S. scientific community to restricted areas around the volcano.

Since March 27, 1980, I have frequently requested specific information concerning Mount St. Helens from USGS scientists. Although at times identifying and contacting the USGS scientist with the needed information was difficult, in every case I was able to obtain the desired data within a few hours at the maximum. Information I requested and obtained included dry and platform tilt data from D. Swanson and D. Miller, geodimeter data from J. Moore, comparison spectrometer SO₂ data from D. Johnston, gravity data from R. Jachens and R. Spydell, data on ash thickness and volumes of pyroclastic flows from R. Decker, data on the debris dam at the west end of Spirit Lake from R. Crandell, side-looking radar data on the crater dimensions from R. Christiansen, and data on eruptive and seismic activity from R. Christiansen.

The problem of access to the restricted zone is not, in my experience, caused by the U.S. Geological Survey. In fact, the U.S. Geological

Survey has assisted me in obtaining access to the restricted zone.

Access to the restricted zone is controlled by the U.S. Forest Service and the Allen Committee through a permit system. The method of obtaining permits and the restrictions of the permits are impeding scientific studies on St. Helens for two reasons.

First, a worker on the ground in the restricted zone cannot be more than 15 minutes from a vehicle. In effect, this rule requires that most work in the restricted zone be done from helicopters. Few university scientists have the financial resources to fund helicopter supported field work.

Second, scientists studying short-lived, intermittent volcanic phenomena are seriously hampered in their research by the method of obtaining permits and the nature of the permit. To obtain a permit one must first obtain authorization from the Allen Committee in Portland, and then obtain authorization from the U.S. Forest Service for access to a particular place in the restricted zone for a specific time.

How the permit system hampers scientific studies is illustrated by the problem of ash sampling. The most recent eruptions of St. Helens produced thin deposits of volcanic ash which are easily disturbed by the wind and rain. Samples should be collected, and ash accumulations should be measured as soon as possible, within hours of deposition, if possible. A scientist residing outside of the Portland/Vancouver area, needing such samples, must first spend a day obtaining a permit before beginning field work.

A simpler and more responsive system allowing access to the restricted zone for scientific studies is needed. A waiver releasing the U.S. Forest Service from responsibility and the restriction that field parties carry radios should be the only requirements for access by scientists to the restricted zone.

*Dr. Albert A. Eggers
 Tacoma, Wash.*

I was surprised to read in the article "The Right to Research" that geologists from the academic community have had difficulty gaining access to Mt. St. Helens volcano. The U.S. Geological Survey, together with the U.S. Forest Service, are responsible for this difficulty, according to the article.

The National Science Foundation advertised a program for funding of research on Mt. St. Helens on May 30, 1980. In the field of earth sciences, proposals were received and 14 were funded to a total of \$157,575. The proposals were specifically to deal with time-critical scientific problems. Funding had to be fast and most proposers heard the verdict on their proposal within 1½ weeks after it arrived at NSF. Of the 14 proposals funded, 10 required access. Of these, access was granted in every case but two which are still under consideration by the Forest Service due to their specialized nature. Thus, although problems on access may exist that I have not heard about, they have certainly not affected to any great degree proposals that NSF funded in the area of earth sciences.

*Robin Brett
 National Science Foundation
 Washington, D. C.*

(NSF grantees were among the scientists who told SCIENCE NEWS of their difficulties gaining access to the restricted zone and of other problems with the USGS—Ed.)

Correction: José Benitz Sanchez was the artist for the cover of the August 2, 1980 issue. Patrick Lloyd Baker was the photographer.

