

RESEARCH ABSTRACT

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Study Title: Mount St. Helens crater weather station

Key Words: physical terrestrial hydrology upland atmosphere
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archives

Abstract: A weather station was established in the crater of Mount St. Helens to continuously monitor precipitation (both rain and snow), temperature, and water equivalence of snowpack. The information is gathered to provide baseline data for hydrologic hazards analyses.

Type of Measurement(s): Precipitation (both rain and snow) in millimeters; water equivalence of snowpack in millimeters of head; temperature in degrees Celsius.

Frequency of Measurement(s): Data originally telemetered from the field site to Cascades Volcano Observatory every 15 minutes. However, because of hardware problems, much of the data retrieved was intermittent. Snow pillow and temperature data are approximately complete from time of installation (fall 1987) until mid-January 1989. Precipitation data was highly intermittent over that period. In mid-January 1989, a large snow avalanche in the crater destroyed the site.

Data Storage: Data was telemetered from the field site to Cascades Volcano Observatory and stored on the VAX mainframe computer. Archived data is stored on magnetic tape. Plot of data can be obtained from Bobbie Myers (Operations-CVO).

Long-term plans: Data available for collaborative efforts: A large snow avalanche in January 1989 destroyed the weather station. There are no plans to reestablish it. Data are available from Cascades Volcano Observatory.