The Alaska Volcano Observatory Website – a Tool for Information Management and Dissemination

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The Alaska Volcano Observatory's (AVO's) website served as a primary information management tool during the 2006 eruption of Augustine Volcano. The AVO website is dynamically generated from a database back-end. This system enabled AVO to quickly and easily update the website, and provide content based on user-queries to the database. During the Augustine eruption, the new AVO website was heavily used by members of the public (up to 19 million hits per day), and this was largely because the AVO public pages were an excellent source of up-to-date information.

There are two different, yet fully integrated parts of the website. An external, public site (www.avo.alaska.edu) allows the general public to track eruptive activity by viewing the latest photographs, webcam images, webicorder graphs, and official information releases about activity at the volcano, as well as maps, previous eruption information, bibliographies, and rich information about other Alaska volcanoes.

The internal half of the website hosts diverse geophysical and geological data (as browse images) in a format equally accessible by AVO staff in different locations. In addition, an observation log allows users to enter information about anything from satellite passes to seismic activity to ash fall reports into a searchable database. The individual(s) on duty at the watch office use forms on the internal website to post a summary of the latest activity directly to the public website, ensuring that the public website is always up to date. The internal website also serves as a starting point for monitoring Alaska's volcanoes.

AVO's extensive image database allows AVO personnel to upload many photos, diagrams, and videos which are then available to be browsed by anyone in the AVO community. Selected images are viewable from the public page.

The primary webserver is housed at the University of Alaska Fairbanks, and holds a MySQL database with over 200 tables and several thousand lines of php code gluing the database and website together. The database currently holds 95 GB of data. Webcam images and webicorder graphs are pulled from servers in Anchorage every few minutes. Other servers in Fairbanks generate earthquake location plots and spectrograms.