Geophysical Research Abstracts
Vol. 12, EGU2010-14116, 2010
EGU General Assembly 2010

Earthquake Processing System at the Alaska Earthquake Information Center

Roger Hansen and AEIC Staff
University of Alaska, Geophysical Instuitute, Fairbanks, United States (roger@giseis.alaska.edu)

The Alaska Earthquake Information Center (AEIC) has the responsibility to record, locate, catalog, and alert Government entities and the public about the occurrence of earthquakes originating within the State of Alaska. Currently, we catalog about 25,000 events per year in and around the State of Alaska, utilizing a network of over 550 seismic stations.
In order to handle this many stations recording such a large number of events, we have had to choose operating procedures that are both efficient and robust to be able to function with our staff of 12 people. After much evaluation of competing systems, we chose Antelope as the architecture that would allow us to best grow our capabilities in the proper directions.
In this presentation we will illustrate many of our unique implementations of the Antelope tools, and the many additional modules constructed with the Antelope toolbox that have been developed to fit particular needs of AEIC. In addition to simply cataloging the many events in Alaska, we are responsible for rapid notification, ShakeMaps, several local, regional and teleseismic magnitudes (including regional moment tensors), early warning of critical structures such as the Trans-Alaska Oil Pipeline, and assistance with tsunami mitigation and warnings.