



FEMA

Best practices

Disaster Mitigation Working in Alaska

Alaska



Coastal Communities, Alaska - The portion of Alaska bordering the North Pacific Ocean can be hit by tsunamis generated by landslides, underwater landslides, crustal plate movement, or volcanic activity. The most serious threat is from local tsunamis – those generated in Alaska Pacific waters. These waves have reached 100 feet and more in height in parts of Alaska. Because they are generated immediately offshore, they may strike the coast with far less warning than tsunamis that are generated in the western Pacific.

In 1883, a debris flow from the Saint Augustine volcano triggered a tsunami that inundated Port Graham with waves 30 feet high. The 1964 Great Alaska Earthquake triggered several tsunamis, one major tectonic tsunami and about 20 local submarine and subaerial landslide tsunamis. The major tsunami hit between 20 and 45 minutes after the earthquake. The locally generated tsunamis struck between two and five minutes after being created and caused most of the deaths and damage. Tsunamis caused more than 90% of the deaths that resulted from the earthquake.

Tsunami Operations Workshops Enhance Safety



March, 1964 — Most of downtown Kodiak was destroyed as tsunami waves turned boats in the harbor into large projectiles

Historically, most seismically generated local tsunamis have occurred along the Aleutian Arc. Other locations include the back arc area in the Bering Sea and the eastern boundary of the Aleutian Arc plate. They generally reach land 20 to 45 minutes after starting. Landslide generated tsunamis are responsible for most of the tsunami deaths in Alaska because they allow virtually no warning time.

The most effective mitigation for tsunami hazards is extensive pre-planning of warning systems, evacuation routes, evacuation procedures and public education and awareness of these systems and routes.

Recognizing that over seventy coastal communities are at-risk, the Alaska Division of Homeland Security and Emergency Management (DHS&EM) has held a series of **Tsunami Operations Workshops** taught by experts from DHS&EM, the West Coast/Alaska Tsunami Warning Center, the National Weather Service, and others. The target audience has been local officials who are primarily responsible for tsunami alert, warning, evacuation, harbors, sheltering, response, recovery and emergency decisions in each community. Many additional tsunami education outreach events have been held at schools and community centers.

The goal of these workshops, events and related activities is to create safe and resilient Tsunami Ready Communities.