The 1 April 1946 Aleutian Tsunami -
One of the most destructive Pacific-wide tsunamis of the 20th Century occurred on April 1, 1946. It was generated by a major earthquake with a Moment Magnitude (Mw) of 8.6 near Unimak in the Aleutian chain of islands of Alaska. Near the generating area in Alaska, huge tsunami waves reached 35.0 m (more than 100 feet) above sea level and destroyed completely the newly built, U.S. Coast Guard’s Scotch Cap lighthouse at Unimak Island. All 5 men of its crew were killed. The lighthouse was a steel-reinforced concrete structure and its base was at about 30 meters above sea level.

Travel Time of the 1946 tsunami (each contour represents one hour of travel time. (Modified ATWC graphic)

The tsunami waves reached the Hawaiian islands 4.5 hours later. There was no warning since no Tsunami Warning System existed at that time. The tsunami was extremely damaging in all the islands, but it was particularly devastating on the Island of Hawaii where maximum waves of over 12.0 m struck. The waves completely obliterated Hilo’s waterfront, killing 159 people there. A total of 159 people lost their lives there. Damage to property was estimated to be over $26 million (1946 dollars).

The April 1, 1946 Eastern Aleutian Is. tsunami caused considerable damage along the Alaska, British Columbia, Washington, Oregon, and California coasts. Elsewhere in Alaska, the tsunami waves ranged in height up to 12.2 meters and extensively damaged or washed away docks, boats and houses. Also, there was considerable damage to boats and dock facilities in British Columbia, Canada and at the U.S. States of Washington, Oregon and California. One person drowned in Santa Cruz, California. Altogether a total 165 people lost their lives in Hawaii and elsewhere from this tsunami.

In 1948, and as a result of this tsunami, the Pacific Tsunami Warning Center was established in Hawaii to serve as the headquarters for a U.S national tsunami warning system. In 1965 the U. S. system was integrated with other national warning systems to become the International Pacific Tsunami Warning System.
Tsunami waves striking the beach front area at the Puumaile Tuberculosis Hospital area, east of Hilo. Waves of up to 6.1 m high overtopped the breakwater in this area and flooded the lower level of the hospital (ITIC archives; Photograph source Mrs. Harry A. Simms, Sr.)

Tsunami waves advancing across Coconut Island, at the Hilo Bay waterfront. (ITIC Archives; Photograph by Ted Lusdy).

A bore advances past the railroad bridge at the mouth of the Wailuku River, Hilo Bay, Hawaii. (ITIC archives; Honolulu Advertiser photograph)
Downtown Hilo after the 1946 tsunami struck (Honolulu Advertiser photo)