

**Table 5.22-- TSUNAMIS WITH RUN-UP OF 2 METERS (6.6 FEET)
OR MORE: 1812 TO 2016**

Date	Place of observation	Source	Maximum height in Hawaii		Deaths in Hawaii	Damage in Hawaii
			Meters	Feet		
1812: Dec. 21 1/	Hookena, Hawaii	California	2.5	8	-	Hut flooded
1819: April 12	W. Hawaii	Chile	2.0	7	-	Houses destroyed
1837: Nov. 7	Hilo, Hawaii	Chile	6.0	20	16	100 houses destroyed
1841: May 17	Hilo, Hawaii	Kamchatka	4.6	15	-	Unknown
1860: Dec. 1	Maliko Bay, Maui	N. Pacific 2/	3.6	12	-	Houses, wharf destroyed
1868: April 2	Keauhou Landing, Hawaii	Ka'u	13.7	45	47	Severe in Puna and Ka'u
1868: Aug. 13	Hilo, Hawaii	Chile	4.6	15	-	Houses, bridges destroyed
1869: Aug. 24	S.E. Puna	S. Pacific 2/	8.2	27	-	Houses destroyed, roads washed out
1877: May 10	Hilo, Hawaii	Chile	4.8	16	5	Severe in Hilo
1878: Jan. 10	Maliko Bay, Maui	N. Molokai 2/	3.6	12	-	Scattered flooding, N. Maui, N. Oahu
1896: June 15	Keauhou, Hawaii	Japan	5.5	18	-	Houses, wharfs, stores destroyed
1903: Nov. 29	Pelekunu, Molokai	N. Molokai	4.5	15	-	Houses destroyed on Maui, railroad washed out on Oahu
1906: Aug. 17	Maalaea, Maui	Chile	3.6	12	-	Piers damaged
1919: Oct. 2	Hoopuloa, Hawaii	S. Kona	4.3	14	-	Wharf damaged, car swept away
1922: Nov. 11	Hilo, Hawaii	Chile	2.1	7	-	Fishing boats swept away
1923: Feb. 3	Hilo, Hawaii	Kamchatka	6.1	20	1	\$1,500,000
1933: March 2	Keauhou, Hawaii	Japan	3.2	10	-	Boathouses, walls destroyed in Kona
1946: April 1	Waikolu Valley, Molokai	Aleutian Islands	16.4	54	159	\$26,000,000
1952: Nov. 4	Kaena, Oahu	Kamchatka	9.1	30	-	\$1,000,000
1957: March 9	Haena, Kauai	Aleutian Islands	16.1	53	-	\$5,000,000
1960: May 22	Hilo, Hawaii	Chile	10.5	34	61	\$23,000,000
1964: March 27	Waimea Bay, Oahu	Alaska	4.9	16	-	\$68,000

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**Table 5.22-- TSUNAMIS WITH RUN-UP OF 2 METERS (6.6 FEET)
OR MORE: 1812 TO 2016--Con.**

Date	Place of observation	Source	Maximum height in Hawaii		Deaths in Hawaii	Damage in Hawaii
			Meters	Feet		
1975: Nov. 29 2011: March 11	Keauhou Landing, Hawaii Kealakekua Bay, Hawaii	S. Puna Japan	14.3 5.4	47 18	2 -	\$1,500,000 (NA)

NA Not available.

1/ Earliest tsunami for which definite information exists.

2/ Probable source.

Source: George Pararas-Carayannis, *Catalog of Tsunamis in the Hawaiian Islands* (U.S. Coast and 'Geodetic Survey, May 1969); Harold G. Loomis, *The Tsunami of November 29, 1975 in Hawaii* (Hawaii Institute of Geophysics, December 1975), pp. 1 and 10; D.C. Cox and J. Morgan, *Local Tsunamis and Possible Local Tsunamis in Hawaii* (Hawaii Institute of Geophysics, Report HIG 77-14, November 1977); Doak C. Cox, *Tsunami Casualties and Mortality in Hawaii* (University of Hawaii, Environment Center, June 1987), p. 39; James F. Lander and Patricia A. Lockridge, *United States Tsunamis (Including United States Possessions) 1690-1988*, Publication 41-2, National Geophysical Data Center, August 1989, pp.17-77; U.S. Geological Survey, Hawaiian Volcano Observatory, records; Pacific Tsunami Warning Center, records; and National Oceanic and Atmospheric Administration, National Geophysical Data Center, Tsunami Runup database <<http://www.ngdc.noaa.gov/nndc/struts/form?t=101650&s=167&d=166>> accessed June 21, 2017.