

**Table 5.22-- TSUNAMIS WITH RUN-UP OF 2 METERS (6.6 FEET) OR MORE: 1812 TO 2020**

[Two dates were removed from the previous *Data Book* due to updated classification]

Date	Place of observation	Source	Maximum height in Hawaii		Deaths in Hawaii	Damage in Hawaii
			Meters	Feet		
1812: Dec. 21 1/	Hookena, Hawaii	California	3.0	10	-	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
1854: Jan. 27	Hilo, Hawaii	Alaska	2.4	8	-	(NA)
1868: April 2	Keauhou Landing, Hawaii	Ka'u	13.7	45	47	Severe in Puna and Ka'u
1868: Aug. 13	Hilo, Hawaii	Chile	4.5	15	-	Houses, bridges destroyed
1869: Aug. 24 2/	S.E. Puna	S. Pacific	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	Alaska	3.6	12	-	Scattered flooding, N. Maui, N. Oahu
1896: June 15	Keauhou, Hawaii	Japan	5.5	18	-	Houses, wharfs, stores destroyed
1906: Aug. 17	Maalaea, Maui	Chile	3.5	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	3.3	11	-	Boathouses, walls destroyed in Kona
1946: April 4 3/	Waikolu Valley, Molokai	Aleutian Islands	16.5	54	158	\$26,000,000
1952: March 17	Kalapana, Hawaii	Hawaii	3.0	10	-	no damage
1952: Nov. 4	Kaena, Oahu	Kamchatka	10.4	34	-	\$1,000,000
1957: March 9	Wainiha Bay, Kauai	Aleutian Islands	16.2	53	-	\$5,000,000
1960: May 22	Hilo, Hawaii	Chile	10.7	35	61	\$23,000,000
1964: March 27	Waimea Bay, Oahu	Alaska	4.9	16	-	\$68,000
1975: Nov. 29	Keauhou Landing, Hawaii	S. Puna	14.3	47	2	\$1,500,000
2011: March 11	Kealakekua Bay, Hawaii	Japan	5.4	18	-	(NA)

Continued on next page.

**Table 5.22-- TSUNAMIS WITH RUN-UP OF 2 METERS (6.6 FEET) OR MORE: 1812 TO 2020-- Con.**

NA Not available.

1/ Earliest tsunami for which definite information exists.

2/ Probable source.

3/ Revised from previous *Data Book*.

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 <<https://www.ngdc.noaa.gov/hazel/view/hazards/tsunami/runup-search>> accessed February 26, 2020.