

## Area, Geography, and Climate

This section relates to area, climatologic, topographic, hydrologic, and other geographic measurements of Hawaii.

The State consists of eight major islands and 124 minor islands with a total land area of 6,425 square miles and a coastline of 750 miles.

Honolulu is 214 miles from Hilo, 1,367 miles from Kure Atoll (the westernmost end of the State), and 2,397 miles from San Francisco. The highest peak in the State is Mauna Kea, 13,796 feet above sea level; the longest stream is Kaukonahua Stream, 33 miles in length; the biggest lake is Halalii, 841 acres; and the highest named waterfall is Kahiwa, a 1,750-foot cascade.

Various measures of air pollution, such as suspended particulate matter and radioactivity, indicate that Honolulu is one of the cleanest cities in the nation. There is also very little water pollution: out of nine major Oahu beaches, eight were rated "A" in 1968 (coliform not exceeding 50 per 100 ml) and none was rated "C" (501 or more).

Climatically, Hawaii has remarkably balmy temperatures and wide variations in rainfall. The all-time temperature range in downtown Honolulu, for example, is from 57° to 88°F. Normal precipitation, however, ranges from 5.7 inches near Kawaihae to 486.1 inches atop Waialeale. The longest volcanic eruption in Island history lasted 547 days, and the highest tsunami wave reached 20 meters.

Important sources of data include the U.S. Geological Survey, U.S. Coast and Geodetic Survey, U.S. Weather Bureau, U.S. Bureau of the Census Geography Division, the Division of Water and Land Development of the State Department of Land and Natural Resources, the State Department of Health, and the University of Hawaii Institute of Geophysics. Detailed information is given in *Geographic Statistics of Hawaii*, published by the Department of Planning and Economic Development. National data are reported in *Statistical Abstract of the United States: 1969*, Section 6.

Table 29. -- GREAT CIRCLE DISTANCES IN STATUTE MILES BETWEEN HONOLULU  
INTERNATIONAL AIRPORT AND SPECIFIED PLACES

Place	Miles from Honolulu	Place	Miles from Honolulu
Hawaiian Islands:		Other Pacific locations:	
Cape Kumukahi, Hawaii <sup>1</sup> .....	236	Apra Harbor, Guam .....	3,806
Hilo, Hawaii .....	214	Auckland, N. Z. ....	4,393
Ka Lae (South Cape), Hawaii .....	221	Hong Kong .....	5,541
Kailua, Kona, Hawaii .....	168	Johnston Island .....	820
Kahului, Maui .....	98	Kingman Reef .....	1,073
Lanai Airport .....	72	Manila, Philippines .....	5,293
Molokai Airport .....	54	Pago Pago, American Samoa .....	2,606
Lihue, Kauai .....	103	Palmyra Islands .....	1,101
Puuwai, Niihau .....	152	Papeete, Tahiti .....	2,741
Nihoa .....	283	Suva, Fiji .....	3,159
Necker Island .....	520	Sydney (Port Jackson), Australia .	5,070
French Frigate Shoals .....	556	Tokyo, Japan .....	3,847
Gardner Pinnacles .....	688	Wake Island .....	2,294
Maro Reef .....	851		
Laysan Island .....	936	North America:	
Lisianski Island .....	1,065	Anchorage, Alaska .....	2,781
Pearl and Hermes Atoll .....	1,208	Chicago, Illinois .....	4,179
Midway Islands .....	1,309	Cristobal, Canal Zone .....	5,214
Kure Atoll <sup>1</sup> .....	1,367	Los Angeles, California .....	2,557
Trust Territory of Pacific Islands:		Miami, Florida .....	4,856
Majuro, Marshall Islands.....	2,271	New York, New York .....	4,959
Kwajalein, Marshall Islands .....	2,443	Portland, Oregon .....	2,595
Kolonia, Ponape, E.C.I. ....	3,087	San Diego, California .....	2,610
Saipan, Mariana Islands .....	3,704	San Francisco, California .....	2,397
Koror, Palau, W. C. I. ....	4,593	Seattle, Washington .....	2,679
		Vancouver, B. C. ....	2,709
		Victoria, B. C. ....	2,668
		Tijuana, Mexico .....	2,616
		Washington, D. C. ....	4,829

1. The great circle distance from Kure Atoll to Cape Kumukahi, Hawaii, is 1,523 statute miles. This distance represents the total length of the Hawaiian Archipelago.

Source: U. S. Geological Survey measurements cited in the Hawaii State Department of Planning and Economic Development, Geographic Statistics of Hawaii (Statistical Report 67, July 1, 1969), p. 5.

Table 30. -- AREA AND COASTLINE OF COUNTIES, ISLANDS, AND CITIES

County, island or city	Area in square statute miles			Coastline in statute miles	
	Total	Land	Inland water	General coastline <sup>1</sup>	Tidal shoreline
The State .....	6,450	6,425	25	750	1,052
Counties:					
Hawaii .....	4,038.0	4,037.0	1.0	266	313
Maui .....	1,161.1	1,160.3	0.8	210	343
Kalawao .....	13.3	13.3	--		
Honolulu .....	610.9	595.7	15.2	137	234
Kauai .....	627.1	619.1	8.0	137	162
Islands:					
Hawaii .....	4,038.0	4,037.0	1.0	266	313
Maui .....	728.8	728.2	0.6	120	149
Kahoolawe .....	45.0	45.0	--	29	36
Molokini .....	0.01	0.01	--	--	--
Lanai .....	139.5	139.5	--	47	52
Molokai .....	261.1	260.9	0.2	88	106
Oahu .....	607.7	592.7	15.0	112	209
Kauai .....	553.3	548.7	4.6	90	110
Niihau .....	73.0	69.6	3.4	45	50
Lehua .....	0.4	0.4	--	--	--
Kaula .....	0.4	0.4	--	2	2
Northwestern Hawaiian Islands	3.2	3.0	0.2	25	25
Cities:					
Hilo .....	298.9	298.9	--	--	--
Honolulu .....	88.7	83.6	2.1	--	--
On Oahu .....	85.5	86.6	1.9	--	--
On NW Hawaiian Islands..	3.2	3.0	0.2	25	25

1. Figures for the four islands of Maui County are not consistent with the published County total.

Source: Hawaii State Department of Planning and Economic Development, Geographic Statistics of Hawaii (Statistical Report 67, July 1, 1969).

Table 31. -- ELEVATIONS OF MAJOR MOUNTAINS, BY ISLAND

Island and mountain <sup>1</sup>	Elevation (feet)	Island and mountain <sup>1</sup>	Elevation (feet)
Hawaii:		Oahu:	
Mauna Kea .....	13,796	Kaala .....	4,040
Mauna Loa .....	13,677	Puu Konahuanui .....	3,150
Hualalai .....	8,271	Tantalus .....	2,013
Kohala .....	5,480	Olomana Peak .....	1,643
Kilauea (Uwekahuna) .....	4,090	Diamond Head .....	760
Kahoolawe:		Punchbowl .....	500
Lua Makika .....	1,477	Koko Head .....	642
Maui:		Kauai:	
Haleakala (Red Hill).....	10,023	Kawaikini .....	5,243
Puu Kukui .....	5,788	Waialeale .....	5,148
Iao Needle .....	2,250	Niihau:	
Lanai:		Paniau .....	1,281
Lanaihale .....	3,370	Kaula .....	550
Molokai:		Nihoa <sup>2</sup> .....	910
Kamakou .....	4,970		
Puu Nana .....	1,381		

1. Highest elevation on each island and other important peaks.

2. Highest elevation in the Northwestern Hawaiian Islands.

Source: U. S. Geological Survey data cited in the Hawaii Department of Planning and Economic Development, Elevations of Major Mountains in Hawaii (Statistical Report 52, November 7, 1967).

Table 32. -- MAJOR STREAMS, LAKES, AND WATERFALLS

Subject	Name	Island	Magnitude
Streams:			
Longest water feature (miles).....	Kaukonahua Stream	Oahu	33.0
Second longest water feature (miles).....	Wailuku River	Hawaii	32.0
Greatest ave. discharge (million gal./day) ..	Wailuku River	Hawaii	303.5
Lakes:			
Greatest area (natural) (acres) <sup>1</sup> .....	Halulu	Niihau	182
Greatest area (man-made) (acres) .....	Koloa Res.	Kauai	422
Longest shoreline (miles) .....	Wahiawa Res.	Oahu	11
Highest (feet above sea level) .....	Lake Waiau	Hawaii	13,020
Named waterfalls:			
Greatest sheer drop (feet) .....	Akaka	Hawaii	442
Highest cascade (feet) .....	Kahiwa	Molokai	1,750

1. Excludes fishponds and intermittent lakes. The largest intermittent lake is Halalii Lake, Niihau (840.7 acres).

Source: Hawaii State Department of Planning and Economic Development. Geographic Statistics of Hawaii (Statistical Report 67, July 1, 1969), as corrected.