



National Weather Service

Storm Data and Unusual Weather Phenomena



July 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
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HAWAII

HIZ003>004-007>008

Kauai Leeward - Kauai Mountains - Oahu North Shore - Oahu Koolau

01	0000HST		0	0	
31	2359HST				Drought

Trade winds once again continued unabated throughout July at mainly moderate to fresh intensities. A brief period of strong trades occurred during 26-27 July, though this did not appear to have a significant impact on rainfall statewide. July largely turned out to be a repeat of June's rainfall pattern of persistent trade wind showers over the islands of Kauai and Oahu, and drier conditions over the islands of Hawaii and Maui. The remnants of Hurricane Beatriz managed to pass over the island chain late on 19 July. However, most of the enhanced shower activity passed to the north of the state, with the islands of Hawaii and Maui getting mainly unpleasant humidity but little drought relief from the moist tropical airmass

Maui

Drought-stricken areas in Upcountry Maui continued to have dry conditions throughout July. Gages at Pukalani and Kula saw less than 20 percent of average rainfall for the month. The Ulupalakua area did see some drought relief during the passage of the remnants of Hurricane Beatriz, with a gage recording 0.21 of an inch on 19 July. This rainfall helped bring the Ulupalakua total to 0.60 of an inch, or 37 percent of average. The Kihei gage reported no rainfall for the second consecutive month, and the gage at Waikapu Country Club has recorded only 0.01 of an inch in the last two months. Windward areas experienced the most rainfall as a result of their exposure to the persistent trade wind showers. Amounts received at Hana and Haiku on the slopes of Haleakala volcano were 64 and 86 percent of average, respectively. The gage at Kahakuloa recorded 2.34 inches, which was 156 percent of average.

Island of Hawaii

Another dry month of the island of Hawaii, with 15 out of 19 sites reporting less than 50 percent of average rainfall. The Kau and Waikoloa areas have been especially dry this summer. Three-month (May-July) totals at Pahala, Kapapala Ranch, and Kamakoa were only 10, 12, and 16 percent of average, respectively. The Kamakoa gage in leeward Kohala has received only 1.60 inches all year to date (15 percent of average) within an area characterized as being under extreme wildfire risk. For the Hamakua and Hilo districts, 1999 started out with very wet trades. However, conditions reversed in mid-April, and these areas have been relatively dry since. The five gages in both districts show three-month totals for the period from May through July to be in the 20 to 40 percent of average range. As a result, year-to-date totals have now dropped below average. The three gages covering the Puna area have also seen less rainfall recently, but year-to-date totals remain at or above average. The gage at Kamuela Upper stands out as the lone positive anomaly with 5.49 inches during July, or 125 percent of average

The following list contains rainfall statistics for selected locations in Maui and on the island of Hawaii. The first column is the observed rainfall for July. The second column is the 30-year average for that location, while the third column lists the percent of average rainfall for the month of July. The fourth and fifth columns are the year-to-date totals and the percent of average, respectively.

	July	Avg.	% Avg.	YTD	YTD Avg.
Maui					
Kahului Airport	0.03	0.4	8	6.58	51
Hana	3.61	5.6	64	N/A	N/ A
Haiku	4.23	4.9	86	N/A	N/A
Kihei	0.00	0.1	0	2.13	21
Lahainaluna	0.01	0.3	3	4.12	3 3
Wailuku	0.26	0.6	43	7.39	42
Island of Hawaii					
Hilo Airport	3.53	9.7	36	72.03	9 6
Pahala	0.04	2.1	2	12.38	3 7
Honaunau	2.41	7.3	33	13.71	3 5
Kamuela (Upper)	5.49	4.4	125	36.63	101
Glenwood	5.84	9.9	59	128.03	12 9
Laupahoehoe	2.52	10.0	25	64.63	69

The Maui Board of Water Supply declared a drought emergency for Upcountry Maui and ordered residential customers to cut water use by 25 percent. Farmers, however, were exempted from the cutback for 60 days to give them time to harvest their crops. Governor Cayetano signed an emergency declaration for Upcountry Maui--to last for 60 days--because of the prolonged drought. By signing the declaration, the governor waived environmental and procurement regulations to allow the Board of Water Supply to tap two wells at Hamakuapoko that have pesticide contamination. The emergency water supplies from the wells will have to be passed



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HAWAII

through activated charcoal to remove the pesticides.

Farmers in Upcountry Maui, though exempt from water restrictions for the time being, are taking losses from the drought nonetheless. Some are planting certain crops only every other week, instead of planting every week on different land. Others are concentrating on more valuable plants and not planting ones less valuable, such as short-term flower crops like sunflowers and gladiolus.

The summer drought continued to affect the island of Hawaii, especially five rural communities. People in Kapulena and Kukuihaele in Hamakua were under a 25 percent water reduction order, while those in Keokea, Makapala, and Niulii were under a 10 percent restriction. Also, six locations on the Big Island were facing extreme fire risk--Waikoloa, Waimea, the South Kohala Coast, North Kohala, Hawaiian Ocean Estates, and Pahala.

Farmers on the island of Hawaii were suffering as well. For example, MacFarms of Hawaii, a 4000-acre South Kona macadamia nut farm, has had 50 percent less rainfall in the last two years; the company had a 15 percent smaller crop this year and predicts a 30 percent loss next year, President Rick Vigden said.

HIZ001>003-005>008

Niihau - Kauai Windward - Kauai Leeward - Oahu South Shore - Waianae Coast - Oahu North Shore - Oahu Koolau
04 2200HST 0 0 High Surf
05 2300HST

Storm low east of New Zealand generated surf of 4 to 7 feet along south shores of all Hawaiian islands.

HIZ001>008

Niihau - Kauai Windward - Kauai Leeward - Kauai Mountains - Oahu South Shore - Waianae Coast - Oahu North Shore - Oahu Koolau
26 2130HST 0 0 Wind Advisory
27 1500HST

Winds gusted to over 50 mph as a high pressure cell north of the Hawaiian islands strengthened over the two-day period. The strong winds knocked down trees and cut out power to 2000 homes and businesses in Mililani on Oahu and also caused smaller power outages in Manoa, St. Louis Heights, Round Top and Kaimuki. The winds caused dust storms in drought-stricken parts of the island of Hawaii as well, creating hazardous driving conditions for motorists

HIZ003

Kauai Leeward
26 2200HST 0 0 High Wind (63)
2215HST

Winds gusted to over 70 mph for a short time in the Maalaea area of Maui. A strengthening high pressure cell to the north of the Hawaiian islands caused the high winds.