



# National Weather Service

## Storm Data and Unusual Weather Phenomena



October 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

HIZ007>008

**Oahu North Shore - Oahu Koolau**

**01 0000HST 0 0 Drought**  
**31 2359HST**

Although the 1999-2000 cool season for the Hawaiian Islands kicked off dramatically during October with the development of a large Kona storm to the northwest of the island chain, sections of the southern and western parts of the island of Hawaii remained drought-stricken. The storm itself brought periods of heavy rainfall and varying degrees of flooding across the state from 18 through 21 October. Flash flood warnings were issued for portions of Kauai (18 and 19 October) and Oahu (19 October), where two to five inches of rain fell within a 24-hour period.

Conditions prior to and after the Kona storm mainly involved moderate trade winds over the state. Shower areas embedded within this trade flow brought intermittent light to moderate rains to all the islands with daily totals mostly under one inch.

Island of Hawaii

Despite the presence of the Kona storm, October rainfall totals for the island of Hawaii were relatively modest. Only two sites, Kamakoa and Waiaha, reported above average rainfall for the month. The two sites in the Kau District, Kapapala Ranch and Pahala, were close to average at 90 and 92 percent, respectively. The highest four-day total from the Kona storm was 3.73 inches at Kapapala Ranch, most of which fell on 20 October (3.57 inches). The second highest total was 3.67 inches at Waiaha. Most of the remaining sites reported less than two-inch storm totals.

An overall drying trend that started in mid-April 1999 continues for the windward side of the island. Back in April, seven out of eight sites had year-to-date totals above average. Now, only two windward sites (Mt. View and Glenwood) have year-to-date totals above average. Conversely, sites in the Kona and Kau Districts have been showing improvement, albeit slowly.

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

	Oct 99	Avg.	%Avg.	YTD	YT D %Avg.
Island of Hawaii					
Hilo Airport	3.61	9.6	38	91.43	89
Pahala	3.88	4.2	92	17.46	4 0
Honaunau	4.41	5.2	85	26.03	45
Kamuela (Upper)	3.25	3.7	88	48.13	10 3
Glenwood	8.82	10.2	86	157.63	12 1
Laupahoehoe	3.04	9.3	33	79.37	65

At the beginning of October, the state Department of Land and Natural Resources went ahead and closed portions of the Mauna Kea Forest Reserve, all of the Kaohe Game Management Area, and all roads at Pu'u La'au and Skyline on the Big Island of Hawaii. This had been planned at the end of September. Drought conditions had created such dry vegetation that state officials decided to close the affected areas to lessen the chance of brush fires.



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### HAWAII

**HIZ001>003-005>008** Niihau - Kauai Windward - Kauai Leeward - Oahu South Shore - Waianae Coast - Oahu North Shore - Oahu Koolau

05	1300HST				0	0			
07	1700HST								<b>High Surf</b>

Storm low southeast of New Zealand produced surf of 4 to 8 feet along the south shores of all the Hawaiian Islands. However, a few rogue waves, in combination with high tide, generated surf as high as 12 feet that washed inland and affected Kihei, Maui, in the afternoon of October 5th. Surf washed over roads and parking lots. Ocean water also flooded three ground-floor units and the lobby of the Kihei Beach Resort. No estimates of damage were available.

**Hawaii County**

<b>13 NNE Kailua Kona</b>	07	1500HST			0	0			
	10	2100HST							<b>Wild/Forest Fire</b>

A brush fire of three-foot high fountain grass burned 3000 acres over a three-day period in a remote area of the Big Island. No injuries were reported, and no structures were damaged.

**Kauai County**

<b>Anahola to Kapaa</b>	18	1800HST			0	0			
		2100HST							<b>Urban/Sml Stream Fld</b>

**Kauai County**

<b>Hanapepe to Lihue</b>	19	0030HST			0	0			
		0330HST							<b>Urban/Sml Stream Fld</b>

**Honolulu County**

<b>Waianae to Pearl City</b>	19	0200HST			0	0			
		0500HST							<b>Urban/Sml Stream Fld</b>

**Honolulu County**

<b>Waianae to Hawaii Kai</b>	19	0445HST			0	0			
		0800HST							<b>Urban/Sml Stream Fld</b>

**Honolulu County**

<b>Makaha to Nanakuli</b>	19	1225HST			0	0			
		1525HST							<b>Urban/Sml Stream Fld</b>

**Honolulu County**

<b>Haleiwa to Nanakuli</b>	19	1530HST			0	0			
		1830HST							<b>Urban/Sml Stream Fld</b>

**HIZ001>007**

Niihau - Kauai Windward - Kauai Leeward - Kauai Mountains - Oahu South Shore - Waianae Coast - Oahu North Shore

19	1600HST				0	0			
21	0700HST								<b>High Surf</b>

Gale low northwest of Kauai produced surf of 6 to 12 feet along the north and west shores of all the Hawaiian Islands

**Hawaii County**

<b>Pahoa to Kailua Kona</b>	20	0945HST			0	0			
		1845HST							<b>Flood</b>

**Kauai County**

<b>Kilauea to Kalaheo</b>	20	1025HST			0	0			
		1230HST							<b>Urban/Sml Stream Fld</b>

Police reported flooding along Route 51 north of the Lihue Airport at 10:25 AM, 45 minutes after the Lihue weather office had issued an urban and small stream flood advisory.

**Maui County**

<b>Kaunakakai to Kahului</b>	20	1120HST			0	0			
		1740HST							<b>Urban/Sml Stream Fld</b>

To sum up this event and the preceding events of 18 to 20 October, flash flood watches and warnings, and urban and small stream flood advisories had been up for all or portions of Kauai, Oahu, Maui County, and the island of Hawaii for the two-day period as a Kona low to the northwest of Kauai kept the weather unstable. Two to five inches of rain fell on parts of the state in a 24-hour period over the two days. There were reports of ponding and flooding of roadways, minor rock and land slides, and occasional power outages around the island chain. However, there were no reports of serious injuries or significant property damage.



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					Killed	Injured	Property	Crops	

### HAWAII

#### Maui County

1 NE Kipahulu	20	1400HST 1630HST			0	0			<b>Flash Flood</b>
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A drenching rainfall in Haleakala National Park in the afternoon of 20 October caused the usually placid Palikea Stream to rise by an estimated 15 to 20 feet within a minute. Twelve tourists who had been swimming in the lower pools of the Palikea escaped injury by clinging to the sides of the cliffs on each side of the raging stream. The US Coast Guard, a Maui County rescue team, police, and members of the public helped get the visitors to safety.

On the island of Maui, Makena Road near Makena Landing became washed out in the early morning hours of 20 October. Besides this event and the stranding of the twelve tourists, Piilani Highway near Kaupo became intermittently washed out by heavy rains. Rock and land slides occurred near Boy Scout, Camp Maluhia, and Kahakuloa. Rock slides and road flooding affected Piilani Highway near Kanaio, while minor street flooding became a nuisance in Kahului.