

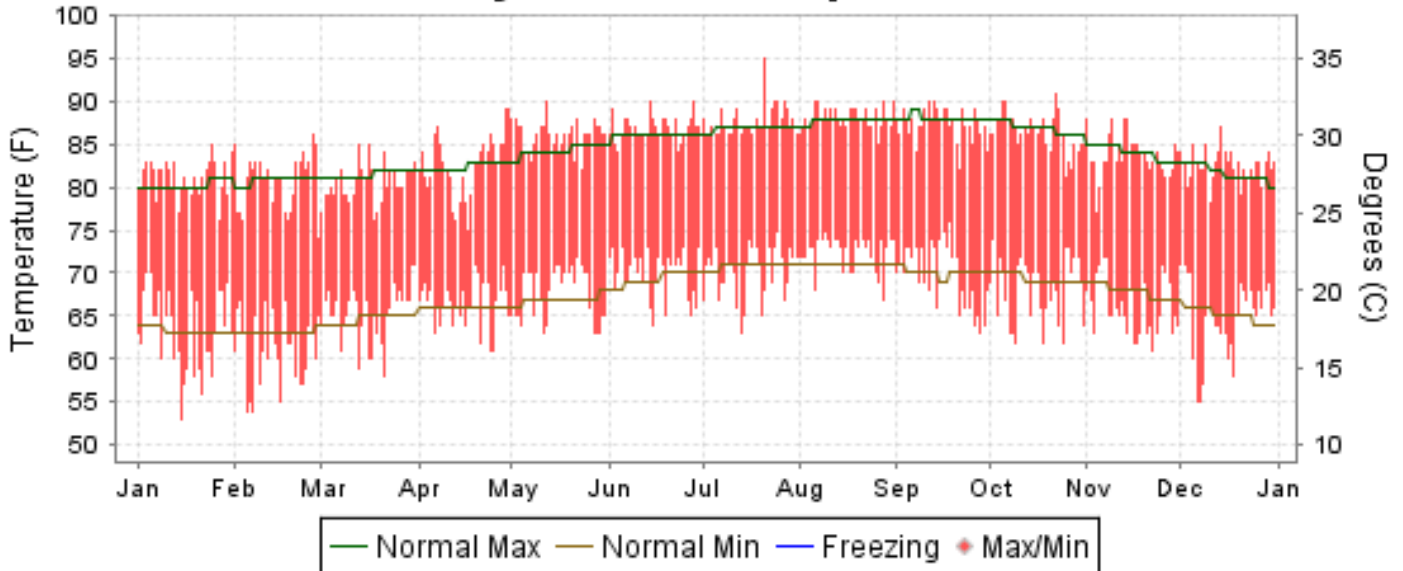


# 2010 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

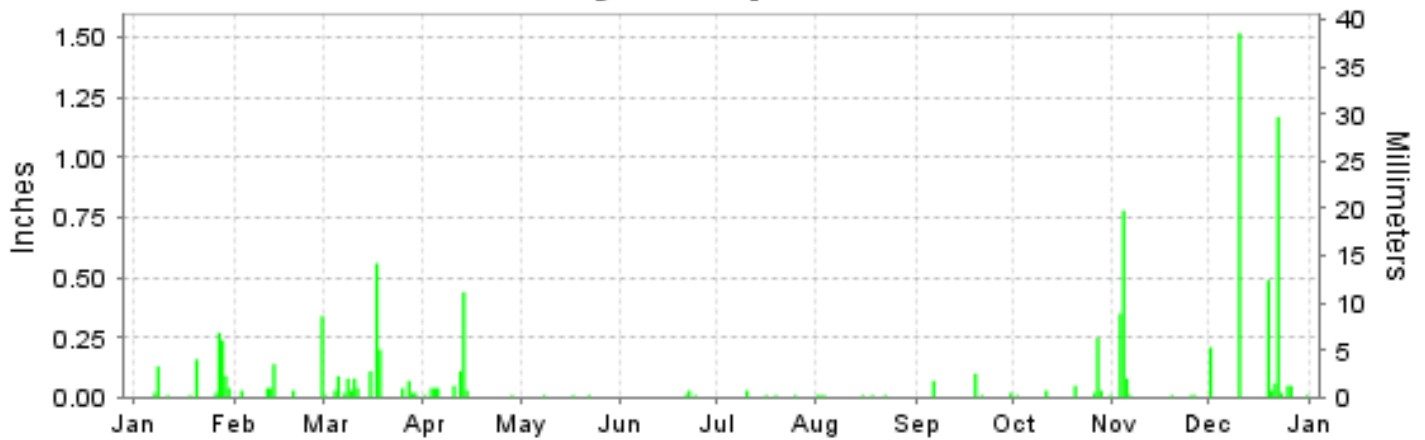
ISSN 0198-1722

## KAHULUI, HAWAII (PHOG)

### Daily Max/Min Temperature



### Daily Precipitation



### Daily Station Pressure



I CERTIFY THAT THIS IS AN OFFICIAL PUBLICATION OF THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, AND IS COMPILED FROM RECORDS ON FILE AT THE NATIONAL CLIMATIC DATA CENTER.

NATIONAL  
OCEANIC AND  
ATMOSPHERIC ADMINISTRATION

NATIONAL  
ENVIRONMENTAL SATELLITE, DATA  
AND INFORMATION SERVICE

NATIONAL  
CLIMATIC DATA CENTER  
ASHEVILLE, NORTH CAROLINA

*Thomas R. Karl*  
DIRECTOR  
NATIONAL CLIMATIC DATA CENTER

# METEOROLOGICAL DATA FOR 2010

## KAHULUI (PHOG)

LATITUDE: 20° 54'N      LONGITUDE: -156° 25'W      ELEVATION (FT): GRND: 51      BARO: 44      TIME ZONE: HAWAII (UTC -10)      WBAN: 22516

| ELEMENT                  |                             | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | OCT   | NOV   | DEC    | YEAR   |    |
|--------------------------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|----|
| TEMPERATURE °F           | MEAN DAILY MAXIMUM          | 81.1  | 80.8  | 80.5  | 82.6  | 86.0  | 86.9  | 87.7  | 88.1  | 87.3  | 86.4  | 83.7  | 82.5   | 84.5   |    |
|                          | HIGHEST DAILY MAXIMUM       | 85    | 86    | 85    | 89    | 90    | 90    | 95    | 90    | 90    | 91    | 88    | 87     | 95     |    |
|                          | DATE OF OCCURRENCE          | 25    | 26    | 16+   | 30+   | 12    | 28+   | 21    | 31+   | 13+   | 22    | 14+   | 14     | JUL 21 |    |
|                          | MEAN DAILY MINIMUM          | 63.3  | 61.1  | 65.3  | 66.5  | 67.6  | 69.9  | 70.2  | 72.4  | 69.8  | 68.1  | 66.0  | 64.8   | 67.1   |    |
|                          | LOWEST DAILY MINIMUM        | 53    | 54    | 58    | 61    | 63    | 64    | 63    | 67    | 63    | 62    | 61    | 55     | 53     |    |
|                          | DATE OF OCCURRENCE          | 15    | 07+   | 21    | 25+   | 29+   | 15    | 13    | 28    | 28    | 24+   | 22    | 07+    | JAN 15 |    |
|                          | AVERAGE DRY BULB            | 72.2  | 71.0  | 72.9  | 74.6  | 76.8  | 78.4  | 79.0  | 80.3  | 78.6  | 77.3  | 74.9  | 73.7   | 75.8   |    |
|                          | MEAN WET BULB               | 66.1  | 63.9  | 65.4  | 67.5  | 68.5  | 69.2  | 69.5  | 69.5  | 69.3  | 68.3  | 67.3  | 67.3   | 67.3   |    |
|                          | MEAN DEW POINT              | 62.2  | 59.3  | 60.9  | 62.2  | 63.3  | 64.0  | 64.1  | 64.1  | 65.2  | 64.8  | 63.8  | 63.8   | 63.8   |    |
|                          | NUMBER OF DAYS WITH:        |       |       |       |       |       |       |       |       |       |       |       |        |        |    |
|                          | MAXIMUM >= 90°              | 0     | 0     | 0     | 0     | 1     | 2     | 4     | 4     | 2     | 3     | 0     | 0      | 0      | 16 |
| MAXIMUM <= 32°           | 0                           | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0      | 0      |    |
| MINIMUM <= 32°           | 0                           | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0      | 0      |    |
| MINIMUM <= 0°            | 0                           | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0      | 0      |    |
| H/C                      | HEATING DEGREE DAYS         | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0      | 0      |    |
|                          | COOLING DEGREE DAYS         | 231   | 172   | 253   | 294   | 371   | 409   | 439   | 480   | 415   | 388   | 305   | 275    | 4032   |    |
| RH                       | MEAN (PERCENT)              | 73    | 68    | 69    | 66    | 63    | 62    | 62    | 61    | 64    | 69    | 73    | 74     | 67     |    |
|                          | HOUR 02 LST                 | 83    | 78    | 79    | 76    | 75    | 73    | 73    | 69    | 72    | 76    | 80    | 82     | 76     |    |
|                          | HOUR 08 LST                 | 72    | 65    | 67    | 64    | 58    | 57    | 57    | 56    | 60    | 65    | 68    | 72     | 63     |    |
|                          | HOUR 14 LST                 | 58    | 54    | 55    | 54    | 48    | 49    | 51    | 49    | 55    | 58    | 63    | 61     | 55     |    |
|                          | HOUR 20 LST                 | 77    | 73    | 74    | 71    | 69    | 68    | 68    | 68    | 69    | 73    | 77    | 79     | 72     |    |
| S                        | PERCENT POSSIBLE SUNSHINE   |       |       |       |       |       |       |       |       |       |       |       |        |        |    |
| W/O                      | NUMBER OF DAYS WITH:        |       |       |       |       |       |       |       |       |       |       |       |        |        |    |
|                          | HEAVY FOG(VISBY <= 1/4 MI)  | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0      | 0      |    |
|                          | THUNDERSTORMS               | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0      | 0      |    |
| CLOUDNESS                | SUNRISE-SUNSET: (OKTAS)     |       |       |       |       |       |       |       |       |       |       |       |        |        |    |
|                          | CEILOMETER (<= 12,000 FT.)  |       |       |       |       |       |       |       |       |       |       |       |        |        |    |
|                          | SATELLITE (> 12,000 FT.)    |       |       |       |       |       |       |       |       |       |       |       |        |        |    |
|                          | MIDNIGHT-MIDNIGHT: (OKTAS)  |       |       |       |       |       |       |       |       |       |       |       |        |        |    |
|                          | CEILOMETER (<= 12,000 FT.)  |       |       |       |       |       |       |       |       |       |       |       |        |        |    |
| SATELLITE (> 12,000 FT.) |                             |       |       |       |       |       |       |       |       |       |       |       |        |        |    |
| NUMBER OF DAYS WITH:     |                             |       |       |       |       |       |       |       |       |       |       |       |        |        |    |
| CLEAR                    |                             |       |       |       |       |       |       |       |       |       |       |       |        |        |    |
| PARTLY CLOUDY            |                             |       |       |       |       |       |       |       |       |       |       |       |        |        |    |
| CLOUDY                   |                             |       |       |       |       |       |       |       |       |       |       |       |        |        |    |
| PR                       | MEAN STATION PRESS. (IN.)   | 29.91 | 30.00 | 30.05 | 30.03 | 30.00 | 30.02 | 29.99 | 29.99 | 29.96 | 29.98 | 29.96 | 29.91  | 29.98  |    |
|                          | MEAN SEA-LEVEL PRESS. (IN.) | 29.97 | 30.07 | 30.12 | 30.11 | 30.07 | 30.09 | 30.06 | 30.06 | 30.03 | 30.05 | 30.04 | 29.98  | 30.05  |    |
| WINDS                    | RESULTANT SPEED (MPH)       | 2.1   | 8.0   | 13.0  | 13.5  | 12.8  | 15.3  | 14.1  | 15.4  | 12.1  | 11.9  | 8.3   | 3.8    | 10.8   |    |
|                          | RES. DIR. (TENS OF DEGS.)   | 09    | 04    | 05    | 05    | 06    | 05    | 05    | 05    | 05    | 05    | 06    | 07     | 06     |    |
|                          | MEAN SPEED (MPH)            | 9.4   | 10.2  | 14.2  | 14.3  | 13.9  | 16.0  | 14.7  | 15.8  | 12.9  | 12.8  | 10.1  | 7.8    | 12.7   |    |
|                          | PREVAIL.DIR.(TENS OF DEGS.) | 04    | 04    | 05    | 05    | 05    | 05    | 04    | 04    | 04    | 05    | 06    | 06     | 05     |    |
|                          | MAXIMUM 2-MINUTE WIND       |       |       |       |       |       |       |       |       |       |       |       |        |        |    |
|                          | SPEED (MPH)                 | 33    | 29    | 41    | 33    | 35    | 37    | 35    | 32    | 32    | 30    | 30    | 31     | 41     |    |
|                          | DIR. (TENS OF DEGS.)        | 20    | 03    | 04    | 04    | 05    | 07    | 04    | 04    | 04    | 08    | 05    | 35     | 04     |    |
|                          | DATE OF OCCURRENCE          | 04    | 28    | 31    | 20    | 21    | 09    | 01    | 28    | 12    | 26    | 26    | 10     | MAR 31 |    |
|                          | MAXIMUM 3-SECOND WIND:      |       |       |       |       |       |       |       |       |       |       |       |        |        |    |
|                          | SPEED (MPH)                 | 41    | 36    | 55    | 44    | 44    | 49    | 43    | 41    | 41    | 43    | 40    | 41     | 55     |    |
| DIR. (TENS OF DEGS.)     | 20                          | 03    | 04    | 05    | 06    | 07    | 07    | 07    | 08    | 07    | 06    | 05    | 04     |        |    |
| DATE OF OCCURRENCE       | 04                          | 28    | 31    | 01    | 23    | 09    | 30    | 10    | 15    | 04    | 07    | 02    | MAR 31 |        |    |
| PRECIPITATION            | WATER EQUIVALENT:           |       |       |       |       |       |       |       |       |       |       |       |        |        |    |
|                          | TOTAL (IN.)                 | 0.99  | 0.62  | 1.40  | 0.77  | 0.03  | 0.05  | 0.06  | 0.06  | 0.20  | 0.40  | 1.25  | 3.61   | 9.44   |    |
|                          | GREATEST 24-HOUR (IN.)      | 0.49  | 0.34  | 0.76  | 0.48  | 0.01  | 0.03  | 0.03  | 0.02  | 0.10  | 0.27  | 0.93  | 1.52   | 1.52   |    |
|                          | DATE OF OCCURRENCE          | 27-28 | 28    | 17-18 | 12-13 | 22+   | 22    | 10    | 02-03 | 19    | 27-28 | 03-04 | 10     | DEC 10 |    |
|                          | NUMBER OF DAYS WITH:        |       |       |       |       |       |       |       |       |       |       |       |        |        |    |
| PRECIPITATION 0.01       | 10                          | 6     | 15    | 9     | 3     | 3     | 4     | 6     | 4     | 7     | 7     | 10    | 84     |        |    |
| PRECIPITATION 0.10       | 4                           | 2     | 3     | 2     | 0     | 0     | 0     | 0     | 1     | 1     | 2     | 4     | 19     |        |    |
| PRECIPITATION 1.00       | 0                           | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 2     | 2      |        |    |
| SNOWFALL                 | SNOW,ICE PELLETS,HAIL       |       |       |       |       |       |       |       |       |       |       |       |        |        |    |
|                          | TOTAL (IN.)                 |       |       |       |       |       |       |       |       |       |       |       |        |        |    |
|                          | GREATEST 24-HOUR (IN.)      |       |       |       |       |       |       |       |       |       |       |       |        |        |    |
|                          | DATE OF OCCURRENCE          |       |       |       |       |       |       |       |       |       |       |       |        |        |    |
|                          | NUMBER OF DAYS WITH:        |       |       |       |       |       |       |       |       |       |       |       |        |        |    |
| SNOWFALL >= 1.0          |                             |       |       |       |       |       |       |       |       |       |       |       |        |        |    |

# NORMALS, MEANS, AND EXTREMES KAHULUI (PHOG)

**LATITUDE:**  
20 ° 54'N

**LONGITUDE:**  
-156 ° 25'W

**ELEVATION (FT):**  
GRND: 51 BARO: 44

**TIME ZONE:**  
HAWAII (UTC -10)

**WBAN: 22516**

|  | ELEMENT   | POR  | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | OCT   | NOV   | DEC   | YEAR     |          |
|--|---|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|----------|
| TEMPERATURE °F                           | NORMAL DAILY MAXIMUM                              | 30   | 80.3  | 80.8  | 81.5  | 82.5  | 84.3  | 86.0  | 86.9  | 87.9  | 88.1  | 86.9  | 84.1  | 81.7  | 84.3     |          |
|  | MEAN DAILY MAXIMUM                                | 56   | 80.1  | 79.6  | 81.0  | 81.9  | 84.0  | 85.4  | 86.3  | 87.2  | 86.3  | 83.6  | 81.2  | 81.2  | 83.7     |          |
|  | HIGHEST DAILY MAXIMUM                             | 46   | 90    | 89    | 90    | 91    | 92    | 94    | 95    | 97    | 96    | 96    | 93    | 90    | 97       |          |
|  | YEAR OF OCCURRENCE                                |      | 2006  | 2001  | 1984  | 1981  | 1996  | 1996  | 2010  | 1994  | 1997  | 1973  | 1990  | 1995  | 1995     | AUG 1994 |
|  | MEAN OF EXTREME MAXS.                             | 56   | 84.9  | 85.0  | 86.2  | 86.8  | 88.8  | 89.8  | 90.8  | 91.6  | 91.7  | 91.2  | 88.8  | 86.3  | 88.5     |          |
|  | NORMAL DAILY MINIMUM                              | 30   | 63.3  | 63.1  | 64.6  | 66.0  | 67.0  | 69.3  | 70.8  | 71.0  | 70.0  | 69.4  | 67.9  | 65.1  | 67.3     |          |
|  | MEAN DAILY MINIMUM                                | 56   | 63.6  | 63.0  | 64.5  | 65.7  | 67.1  | 68.9  | 70.5  | 71.1  | 70.0  | 69.4  | 67.6  | 65.3  | 67.2     |          |
|  | LOWEST DAILY MINIMUM                              | 46   | 22    | 50    | 51    | 54    | 57    | 58    | 58    | 61    | 59    | 58    | 55    | 52    | 22       |          |
|  | YEAR OF OCCURRENCE                                |      | 2004  | 2009  | 2005  | 1985  | 1985  | 1985  | 1965  | 2009  | 2009  | 1964  | 1985  | 1983  | 1983     | JAN 2004 |
|  | MEAN OF EXTREME MINS.                             | 56   | 55.8  | 55.4  | 57.3  | 59.2  | 60.8  | 62.8  | 63.8  | 64.6  | 64.0  | 62.4  | 61.5  | 57.6  | 60.4     |          |
|  | NORMAL DRY BULB                                   | 30   | 71.8  | 71.9  | 73.1  | 74.2  | 75.7  | 77.6  | 78.8  | 79.5  | 79.1  | 78.1  | 76.0  | 73.4  | 75.8     |          |
|  | MEAN DRY BULB                                     | 56   | 71.9  | 71.3  | 72.8  | 73.9  | 75.6  | 77.3  | 78.7  | 79.3  | 78.7  | 77.9  | 75.6  | 73.3  | 75.5     |          |
|  | MEAN WET BULB                                     | 27   | 66.4  | 66.1  | 66.5  | 67.3  | 68.3  | 69.5  | 70.7  | 71.2  | 71.1  | 70.7  | 69.5  | 67.5  | 68.7     |          |
|  | MEAN DEW POINT                                    | 27   | 64.1  | 63.4  | 64.0  | 64.2  | 65.7  | 66.9  | 68.2  | 68.8  | 68.3  | 68.1  | 67.2  | 65.1  | 66.2     |          |
|  | NORMAL NO. DAYS WITH:<br>MAXIMUM >= 90            | 30   | 0.0   | 0.0   | 0.1   | 0.1   | 0.9   | 1.8   | 3.2   | 6.1   | 7.6   | 4.8   | 1.2   | 0.1   | 25.9     |          |
|  | MAXIMUM <= 32                                     | 30   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0      |          |
|  | MINIMUM <= 32                                     | 30   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0      |          |
| MINIMUM <= 0                             | 30  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |          |          |
| H/C                                      | NORMAL HEATING DEG. DAYS                          | 30   | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0        |          |
|  | NORMAL COOLING DEG. DAYS                          | 30   | 210   | 195   | 250   | 277   | 330   | 379   | 429   | 448   | 422   | 407   | 329   | 260   | 3936     |          |
| RH                                       | NORMAL (PERCENT)                                  | 30   |       |       |       |       |       |       |       |       |       |       |       |       |          |          |
|  | HOUR 02 LST                                       | 30   |       |       |       |       |       |       |       |       |       |       |       |       |          |          |
|  | HOUR 08 LST                                       | 30   | 82    | 80    | 77    | 74    | 71    | 69    | 70    | 71    | 70    | 73    | 76    | 79    | 74       |          |
|  | HOUR 14 LST                                       | 30   | 62    | 59    | 59    | 58    | 56    | 55    | 56    | 56    | 55    | 57    | 60    | 61    | 58       |          |
|  | HOUR 20 LST                                       | 30   | 77    | 75    | 74    | 73    | 71    | 71    | 72    | 72    | 72    | 73    | 75    | 76    | 73       |          |
| S  | PERCENT POSSIBLE SUNSHINE                         | 36   | 64    | 64    | 64    | 63    | 68    | 72    | 70    | 71    | 73    | 67    | 62    | 63    | 67       |          |
| W/O                                      | MEAN NO. DAYS WITH:<br>HEAVY FOG(VISBY <= 1/4 MI) | 47   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0      |          |
|  | THUNDERSTORMS                                     | 52   | 0.6   | 0.4   | 0.3   | 0.3   | 0.2   | 0.0   | 0.1   | 0.1   | 0.1   | 0.2   | 0.3   | 0.4   | 3.0      |          |
| CLOUDNESS                                | MEAN:<br>SUNRISE-SUNSET (OKTAS)                   | 37   | 3.8   | 3.9   | 4.3   | 4.7   | 4.3   | 3.9   | 3.7   | 3.7   | 3.7   | 4.0   | 4.0   | 3.8   | 4.0      |          |
|  | MIDNIGHT-MIDNIGHT (OKTAS)                         |      |       |       |       |       |       |       |       |       |       |       |       |       |          |          |
|  | MEAN NO. DAYS WITH:<br>CLEAR                      | 37   | 12.9  | 11.5  | 10.6  | 7.8   | 9.5   | 10.7  | 10.7  | 11.9  | 11.5  | 10.6  | 10.9  | 11.9  | 130.5    |          |
|  | PARTLY CLOUDY                                     | 37   | 9.9   | 9.4   | 11.3  | 11.8  | 13.6  | 13.5  | 14.9  | 13.6  | 12.6  | 12.5  | 10.8  | 11.3  | 145.2    |          |
|  | CLOUDY  | 37   | 8.2   | 7.4   | 9.1   | 10.5  | 7.9   | 5.8   | 5.3   | 5.5   | 5.8   | 7.9   | 8.3   | 7.8   | 89.5     |          |
| PR                                       | MEAN STATION PRESSURE(IN)                         | 27   | 29.93 | 29.94 | 29.81 | 29.98 | 29.97 | 29.96 | 29.94 | 29.93 | 29.91 | 29.91 | 29.92 | 29.94 | 29.93    |          |
|  | MEAN SEA-LEVEL PRES. (IN)                         | 27   | 30.00 | 30.01 | 30.06 | 30.06 | 30.04 | 30.03 | 30.01 | 30.00 | 29.98 | 29.98 | 29.99 | 30.01 | 30.01    |          |
| WINDS                                    | MEAN SPEED (MPH)                                  | 27   | 10.9  | 11.5  | 12.6  | 13.7  | 13.2  | 15.6  | 15.6  | 15.2  | 13.3  | 12.2  | 11.8  | 11.1  | 13.1     |          |
|  | PREVAIL.DIR(TENS OF DEGS)                         | 20   | 05    | 05    | 05    | 05    | 05    | 05    | 05    | 05    | 05    | 05    | 05    | 05    | 05       |          |
|  | MAXIMUM 2-MINUTE:<br>SPEED (MPH)                  | 12   | 48    | 40    | 41    | 35    | 35    | 38    | 38    | 36    | 37    | 35    | 41    | 44    | 48       |          |
|  | DIR. (TENS OF DEGS)                               |      | 20    | 20    | 04    | 06    | 05    | 04    | 06    | 04    | 04    | 04    | 22    | 19    | 20       |          |
|  | YEAR OF OCCURRENCE                                |      | 2004  | 2004  | 2010  | 2003  | 2010  | 1999  | 1999  | 2008  | 2006  | 2001  | 2001  | 2007  | JAN 2004 |          |
|  | MAXIMUM 3-SECOND<br>SPEED (MPH)                   | 12   | 64    | 47    | 55    | 44    | 44    | 49    | 46    | 43    | 45    | 43    | 52    | 58    | 64       |          |
|  | DIR. (TENS OF DEGS)                               |      | 19    | 20    | 04    | 05    | 06    | 07    | 06    | 04    | 04    | 07    | 22    | 02    | 19       |          |
| YEAR OF OCCURRENCE                       |   | 2004 | 2004  | 2010  | 2010  | 2010  | 2010  | 2010  | 1999  | 2003  | 2006  | 2010  | 2001  | 2009  | JAN 2004 |          |
| PRECIPITATION                            | NORMAL (IN)                                       | 30   | 3.74  | 2.36  | 2.35  | 1.75  | 0.66  | 0.23  | 0.49  | 0.53  | 0.39  | 1.05  | 2.17  | 3.08  | 18.80    |          |
|  | MAXIMUM MONTHLY (IN)                              | 56   | 14.46 | 8.31  | 10.90 | 14.29 | 4.36  | 2.50  | 1.65  | 1.54  | 1.43  | 5.66  | 9.27  | 10.21 | 14.46    |          |
|  | YEAR OF OCCURRENCE                                |      | 1980  | 1972  | 1967  | 1989  | 1987  | 1967  | 1989  | 1982  | 1987  | 1985  | 1965  | 1996  | JAN 1980 |          |
|  | MINIMUM MONTHLY (IN)                              | 56   | 0.02  | 0.06  | 0.01  | 0.01  | T     | 0.00  | 0.01  | 0.02  | 0.02  | T     | 0.14  | 0.01  | 0.00     |          |
|  | YEAR OF OCCURRENCE                                |      | 2001  | 2000  | 2008  | 2003  | 1972  | 1957  | 1999  | 2002  | 2002  | 1984  | 2004  | 1975  | JUN 1957 |          |
|  | MAXIMUM IN 24 HOURS (IN)                          | 56   | 7.01  | 4.98  | 5.42  | 4.83  | 2.41  | 2.36  | 1.04  | 1.21  | 1.16  | 4.85  | 5.48  | 5.82  | 7.01     |          |
|  | YEAR OF OCCURRENCE                                |      | 1980  | 1972  | 1967  | 1989  | 1987  | 1967  | 1989  | 1982  | 1965  | 1985  | 1965  | 1955  | JAN 1980 |          |
|  | NORMAL NO. DAYS WITH:<br>PRECIPITATION >= 0.01    | 30   | 10.2  | 8.8   | 10.7  | 10.2  | 6.7   | 5.7   | 6.9   | 6.5   | 5.0   | 7.1   | 10.1  | 10.8  | 98.7     |          |
| PRECIPITATION >= 1.00                    | 30  | 1.0  | 0.6   | 0.6   | 0.3   | *     | *     | *     | *     | 0.0   | 0.1   | 0.6   | 0.7   | 3.9   |          |          |
| SNOWFALL                                 | NORMAL (IN)                                       | 30   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0      |          |
|  | MAXIMUM MONTHLY (IN)                              | 2    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0      |          |
|  | YEAR OF OCCURRENCE                                |      |       |       |       |       |       |       |       |       |       |       |       |       |          |          |
|  | MAXIMUM IN 24 HOURS (IN)                          | 44   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0      |          |
|  | YEAR OF OCCURRENCE                                |      |       |       |       |       |       |       |       |       |       |       |       |       |          |          |
|  | MAXIMUM SNOW DEPTH (IN)                           | 39   | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0        |          |
| YEAR OF OCCURRENCE                       |   |      |       |       |       |       |       |       |       |       |       |       |       |       |          |          |
| NORMAL NO. DAYS WITH:<br>SNOWFALL >= 1.0 | 30  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |          |          |

**PRECIPITATION (inches) 2010 KAHULUI (PHOG)**

| YEAR           | JAN  | FEB  | MAR  | APR   | MAY  | JUN  | JUL  | AUG  | SEP  | OCT  | NOV  | DEC   | ANNUAL |
|----------------|------|------|------|-------|------|------|------|------|------|------|------|-------|--------|
| 1981           | 0.46 | 1.94 | 0.73 | 0.89  | 0.84 | 0.06 | 0.06 | 0.67 | 0.85 | 1.48 | 2.26 | 2.61  | 12.85  |
| 1982           | 8.12 | 3.77 | 5.20 | 3.26  | 0.14 | 0.22 | 0.64 | 1.54 | 0.56 | 2.63 | 1.91 | 6.05  | 34.04  |
| 1983           | 0.58 | 0.07 | 1.12 | 0.24  | 0.94 | 0.17 | 0.53 | 0.67 | 0.50 | 1.38 | 0.98 | 5.87  | 13.05  |
| 1984           | 2.45 | 0.67 | 1.42 | 1.07  | 0.47 | 0.02 | 0.09 | 0.46 | 0.11 | T    | 1.16 | 0.64  | 8.56   |
| 1985           | 1.16 | 2.03 | 1.96 | 0.25  | 1.20 | 0.01 | 0.53 | 0.52 | 0.10 | 5.66 | 4.61 | 1.97  | 20.00  |
| 1986           | 1.30 | 1.36 | 3.93 | 3.95  | 1.02 | 0.77 | 0.25 | 0.45 | 0.05 | 0.96 | 1.49 | 2.86  | 18.39  |
| 1987           | 2.91 | 1.41 | 0.57 | 3.77  | 4.36 | 0.12 | 0.13 | 0.62 | 1.43 | 0.25 | 3.02 | 5.72  | 24.31  |
| 1988           | 7.72 | 0.93 | 0.89 | 1.37  | 0.17 | 0.02 | 0.21 | 0.46 | 0.23 | 0.84 | 3.76 | 10.19 | 26.79  |
| 1989           | 1.59 | 5.38 | 3.96 | 14.29 | 0.85 | 0.42 | 1.65 | 0.50 | 0.31 | 4.71 | 2.25 | 4.72  | 40.63  |
| 1990           | 6.32 | 7.94 | 2.98 | 0.06  | 1.50 | 0.90 | 0.39 | 0.50 | 0.50 | 0.60 | 6.44 | 7.07  | 35.20  |
| 1991           | 2.94 | 4.94 | 2.89 | 0.50  | 0.24 | 0.13 | 0.37 | 1.06 | 1.17 | 0.15 | 0.23 | 1.47  | 16.09  |
| 1992           | 2.40 | 1.02 | 0.34 | 0.90  | 1.58 | 0.30 | 1.09 | 0.16 | 1.32 | 1.47 | 3.55 | 2.85  | 16.98  |
| 1993           | 2.19 | 0.21 | 1.55 | 1.28  | 0.52 | 0.09 | 1.30 | 0.80 | 0.78 | 1.19 | 1.99 | 0.79  | 12.69  |
| 1994           | 1.12 | 1.64 | 4.23 | 0.99  | 0.05 | 0.72 | 1.30 | 0.50 | 1.11 | 0.10 | 1.26 | 0.91  | 13.93  |
| 1995           | 2.73 | 0.91 | 2.13 | 1.76  | 0.61 | 0.26 | 0.46 | 0.63 | 0.12 | 0.80 | 0.92 | 2.12  | 13.45  |
| 1996           | 2.47 | 3.02 | 6.75 | 0.50  | 0.46 | 0.18 | .52  | .18  | .18  | T    | 6.53 | 10.21 | 31.00  |
| 1997           | 9.23 | 1.11 | 3.06 | 1.34  | 0.83 | 0.71 | 1.22 | 0.14 | 0.09 | 0.50 | 3.10 | 1.75  | 23.08  |
| 1998           | 0.36 | 0.49 | 0.18 | 1.27  | 0.44 | 0.04 | 0.18 | 0.21 | 0.41 | 0.08 | 1.93 | 1.17  | 6.76   |
| 1999           | 2.01 | 1.70 | 1.48 | 0.34  | 0.51 | 0.09 | 0.01 | 0.31 | 0.03 | 0.41 | 0.22 | 2.55  | 9.66   |
| 2000           | 1.00 | 0.06 | 0.34 | 1.26  | 0.04 | 0.09 | 0.78 | 1.20 | 0.54 | 0.79 | 3.44 | 0.18  | 9.72   |
| 2001           | 0.02 | 0.90 | 0.42 | 0.20  | 0.08 | 0.18 | 0.19 | 0.69 | 0.09 | 1.24 | 3.41 | 3.11  | 10.53  |
| 2002           | 3.75 | 0.99 | 1.80 | 0.64  | 1.83 | 0.01 | 0.66 | T    | T    | 4.42 | 0.42 | 0.55  | 15.07  |
| 2003           | 2.40 | 5.33 | 1.70 | 0.01  | T    | 0.02 | 0.07 | 0.21 | 0.17 | 0.15 | 1.05 | 2.72  | 13.83  |
| 2004           | 7.89 | 3.08 | 8.54 | 2.47  | 2.24 | 0.04 | 0.05 | 0.36 | 0.02 | T    | T    | 1.48  | 26.17  |
| 2005           | 4.91 | 1.99 | 4.24 | 0.30  | 0.21 | 0.05 | 1.23 | 0.62 |      |      | 1.76 | 0.14  |        |
| 2006           | 0.74 | 0.69 | 5.34 | 0.27  | 0.75 | T    | 0.14 | 0.04 | 0.23 | 4.16 | 3.04 | 3.25  | 18.65  |
| 2007           | 0.48 | 0.93 | 2.13 | 0.25  | 0.05 | T    | 0.11 | 0.13 | 0.03 | 0.48 | 1.59 | 6.88  | 13.06  |
| 2008           | 1.42 | 1.03 | 0.01 | 0.66  | 0.04 | 0.01 | 0.47 | 0.40 | 0.19 | 0.13 | 0.65 | 4.54  | 9.55   |
| 2009           | 4.43 | 0.38 | 2.22 | 1.42  | 0.01 | 0.13 | 0.08 | 0.90 | 0.12 | 0.30 | 1.55 | 2.55  | 14.09  |
| 2010           | 0.99 | 0.62 | 1.40 | 0.77  | 0.03 | 0.05 | 0.06 | 0.06 | 0.20 | 0.40 | 1.25 | 3.61  | 9.44   |
| POR=<br>56 YRS | 3.59 | 2.46 | 2.60 | 1.39  | 0.65 | 0.22 | 0.46 | 0.46 | 0.34 | 1.02 | 2.25 | 3.08  | 18.52  |

WBAN : 22516

**AVERAGE TEMPERATURE (°F) 2010 KAHULUI (PHOG)**

| YEAR           | JAN  | FEB  | MAR  | APR  | MAY  | JUN  | JUL  | AUG  | SEP  | OCT  | NOV  | DEC  | ANNUAL |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|--------|
| 1981           | 74.7 | 74.6 | 75.0 | 76.1 | 78.0 | 80.7 | 80.5 | 81.3 | 80.4 | 78.3 | 76.9 | 74.5 | 77.6   |
| 1982           | 73.1 | 72.4 | 72.8 | 73.2 | 76.0 | 78.5 | 80.9 | 81.5 | 80.0 | 79.0 | 77.0 | 73.2 | 76.5   |
| 1983           | 71.4 | 71.5 | 72.5 | 74.1 | 74.9 | 77.6 | 78.1 | 79.1 | 78.0 | 77.3 | 75.8 | 73.5 | 75.3   |
| 1984           | 73.4 | 73.4 | 75.9 | 77.0 | 78.5 | 80.5 | 80.0 | 79.5 | 79.4 | 80.5 | 79.0 | 74.2 | 77.6   |
| 1985           | 72.0 | 73.0 | 70.7 | 70.8 | 73.1 | 75.1 | 77.6 | 77.8 | 77.1 | 76.7 | 73.0 | 71.2 | 74.0   |
| 1986           | 70.4 | 71.4 | 73.7 | 74.3 | 75.9 | 77.1 | 79.4 | 80.6 | 79.4 | 77.5 | 77.1 | 72.9 | 75.8   |
| 1987           | 72.0 | 69.3 | 72.0 | 72.8 | 72.4 | 76.5 | 78.6 | 78.9 | 79.5 | 78.3 | 75.6 | 73.8 | 75.0   |
| 1988           | 71.5 | 72.3 | 73.4 | 74.2 | 76.5 | 77.8 | 78.9 | 79.2 | 78.9 | 77.5 | 76.8 | 73.1 | 75.8   |
| 1989           | 72.3 | 72.6 | 73.2 | 72.0 | 75.5 | 77.3 | 79.0 | 78.0 | 78.6 | 77.6 | 74.8 | 71.7 | 75.2   |
| 1990           | 72.7 | 70.8 | 72.0 | 74.6 | 75.5 | 77.9 | 78.4 | 79.6 | 80.3 | 78.4 | 76.5 | 73.0 | 75.8   |
| 1991           | 71.7 | 72.6 | 72.1 | 74.4 | 75.8 | 76.6 | 78.3 | 79.6 | 79.0 | 78.3 | 77.3 | 74.8 | 75.9   |
| 1992           | 71.4 | 71.8 | 72.9 | 74.1 | 76.3 | 78.6 | 79.2 | 80.5 | 80.4 | 78.5 | 76.9 | 75.4 | 76.3   |
| 1993           | 71.2 | 69.6 | 71.9 | 75.3 | 76.0 | 78.7 | 79.5 | 80.3 | 80.0 | 78.2 | 75.9 | 73.8 | 75.9   |
| 1994           | 71.1 | 74.0 | 73.0 | 73.6 | 76.2 | 78.2 | 80.0 | 81.2 | 80.7 | 79.0 | 76.5 | 73.5 | 76.4   |
| 1995           | 71.6 | 72.7 | 74.4 | 74.7 | 76.0 | 79.0 | 80.3 | 80.6 | 79.9 | 79.8 | 77.9 | 75.9 | 76.9   |
| 1996           | 75.1 | 72.5 | 72.2 | 77.0 | 78.0 | 80.6 | 81.4 | 80.9 | 80.4 | 80.2 | 77.6 | 73.3 | 77.4   |
| 1997           | 72.4 | 73.4 | 74.6 | 74.8 | 75.6 | 79.5 | 80.0 | 80.2 | 81.3 | 79.6 | 75.6 | 73.2 | 76.7   |
| 1998           | 71.7 | 71.9 | 73.3 | 73.8 | 74.4 | 76.3 | 78.0 | 79.1 | 77.9 | 77.2 | 75.9 | 72.0 | 75.1   |
| 1999           | 71.3 | 71.0 | 72.9 | 73.7 | 75.7 | 77.0 | 77.5 | 78.3 | 78.6 | 76.5 | 75.2 | 72.9 | 75.1   |
| 2000           | 70.3 | 71.6 | 73.4 | 73.8 | 75.9 | 77.6 | 78.9 | 79.1 | 77.8 | 78.2 | 75.4 | 72.1 | 75.3   |
| 2001           | 72.5 | 72.0 | 72.9 | 74.3 | 75.4 | 77.3 | 78.8 | 79.5 | 79.2 | 77.0 | 75.7 | 73.7 | 75.7   |
| 2002           | 71.9 | 70.8 | 72.2 | 74.2 | 75.7 | 78.0 | 78.4 | 79.7 | 77.9 | 77.5 | 75.0 | 73.1 | 75.4   |
| 2003           | 71.9 | 71.7 | 73.9 | 74.9 | 76.2 | 78.6 | 80.2 | 80.6 | 79.6 | 79.0 | 76.5 | 73.2 | 76.4   |
| 2004           | 71.9 | 73.4 | 72.6 | 73.7 | 76.3 | 78.8 | 79.5 | 81.3 | 80.0 | 79.4 | 76.3 | 73.2 | 76.4   |
| 2005           | 73.0 | 72.2 | 71.3 | 74.2 | 77.0 | 78.3 | 79.2 | 78.6 | 79.9 | 77.5 | 75.5 | 73.5 | 75.9   |
| 2006           | 75.0 | 72.6 | 74.8 | 73.8 | 74.3 | 77.9 | 79.1 | 80.1 | 79.5 | 78.4 | 76.1 | 73.6 | 76.3   |
| 2007           | 73.3 | 72.0 | 73.7 | 74.2 | 76.5 | 78.1 | 79.9 | 79.5 | 79.4 | 77.6 | 74.9 | 73.4 | 76.0   |
| 2008           | 68.9 | 68.6 | 71.7 | 74.1 | 76.2 | 77.5 | 78.5 | 79.2 | 78.0 | 77.9 | 74.9 | 73.7 | 74.9   |
| 2009           | 70.9 | 70.7 | 70.7 | 71.4 | 74.9 | 77.5 | 78.7 | 79.2 | 78.8 | 78.7 | 75.7 | 71.9 | 74.9   |
| 2010           | 72.2 | 71.0 | 72.9 | 74.6 | 76.8 | 78.4 | 79.0 | 80.3 | 78.6 | 77.3 | 74.9 | 73.7 | 75.8   |
| POR=<br>56 YRS | 71.9 | 71.3 | 72.8 | 73.9 | 75.6 | 77.3 | 78.7 | 79.3 | 78.7 | 77.9 | 75.6 | 73.3 | 75.5   |

**HEATING DEGREE DAYS (base 65°F) 2010 KAHULUI (PHOG)**

| YEAR    | JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | TOTAL |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 1983-84 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| 1984-85 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 2   | 0   | 2     |
| 1985-86 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| 1986-87 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 1   | 0   | 0   | 0   | 0   | 1     |
| 1987-88 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| 1988-89 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| 1989-90 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 1   | 0   | 0   | 0   | 0   | 1     |
| 1990-91 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| 1991-92 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| 1992-93 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| 1993-94 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| 1994-95 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| 1995-96 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| 1996-97 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| 1997-98 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| 1998-99 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| 1999-00 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| 2000-01 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| 2001-02 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| 2002-03 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| 2003-04 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| 2004-05 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| 2005-06 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| 2006-07 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| 2007-08 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| 2008-09 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 2   | 0   | 0   | 0   | 0   | 2     |
| 2009-10 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| 2010-   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |

WBAN : 22516

**COOLING DEGREE DAYS (base 65°F) 2010 KAHULUI (PHOG)**

| YEAR | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOTAL |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 1981 | 307 | 276 | 314 | 337 | 407 | 476 | 489 | 510 | 469 | 417 | 363 | 300 | 4665  |
| 1982 | 259 | 215 | 248 | 254 | 347 | 412 | 498 | 519 | 458 | 438 | 366 | 259 | 4273  |
| 1983 | 205 | 188 | 240 | 278 | 315 | 384 | 414 | 445 | 398 | 389 | 333 | 272 | 3861  |
| 1984 | 264 | 250 | 346 | 367 | 425 | 472 | 470 | 456 | 437 | 486 | 425 | 295 | 4693  |
| 1985 | 223 | 229 | 182 | 178 | 260 | 312 | 397 | 403 | 371 | 370 | 250 | 200 | 3375  |
| 1986 | 174 | 187 | 276 | 287 | 345 | 373 | 454 | 490 | 442 | 392 | 370 | 249 | 4039  |
| 1987 | 226 | 127 | 224 | 242 | 237 | 353 | 430 | 440 | 440 | 418 | 326 | 282 | 3745  |
| 1988 | 210 | 218 | 267 | 285 | 364 | 390 | 438 | 444 | 426 | 395 | 358 | 261 | 4056  |
| 1989 | 234 | 193 | 260 | 218 | 331 | 375 | 440 | 412 | 414 | 400 | 301 | 215 | 3793  |
| 1990 | 246 | 169 | 223 | 294 | 332 | 394 | 422 | 458 | 467 | 425 | 352 | 252 | 4034  |
| 1991 | 211 | 219 | 228 | 290 | 341 | 353 | 421 | 458 | 427 | 417 | 375 | 312 | 4052  |
| 1992 | 207 | 205 | 254 | 282 | 358 | 413 | 448 | 489 | 468 | 427 | 362 | 331 | 4244  |
| 1993 | 199 | 135 | 222 | 316 | 347 | 419 | 454 | 482 | 456 | 417 | 334 | 278 | 4059  |
| 1994 | 196 | 259 | 255 | 267 | 355 | 400 | 471 | 507 | 478 | 439 | 351 | 269 | 4247  |
| 1995 | 213 | 219 | 296 | 298 | 347 | 426 | 482 | 492 | 453 | 466 | 393 | 348 | 4433  |
| 1996 | 320 | 226 | 230 | 368 | 410 | 473 | 518 | 499 | 471 | 479 | 383 | 264 | 4641  |
| 1997 | 239 | 244 | 306 | 300 | 336 | 439 | 468 | 478 | 496 | 460 | 324 | 261 | 4351  |
| 1998 | 214 | 200 | 266 | 269 | 302 | 347 | 412 | 442 | 392 | 385 | 334 | 223 | 3786  |
| 1999 | 199 | 174 | 252 | 268 | 341 | 366 | 398 | 420 | 412 | 361 | 310 | 252 | 3753  |
| 2000 | 172 | 197 | 268 | 273 | 345 | 388 | 438 | 444 | 394 | 412 | 318 | 227 | 3876  |
| 2001 | 239 | 204 | 252 | 281 | 327 | 376 | 434 | 459 | 430 | 381 | 327 | 276 | 3986  |
| 2002 | 220 | 168 | 233 | 286 | 337 | 397 | 422 | 465 | 394 | 393 | 306 | 258 | 3879  |
| 2003 | 219 | 198 | 283 | 305 | 353 | 414 | 477 | 492 | 446 | 441 | 353 | 261 | 4242  |
| 2004 | 221 | 250 | 243 | 267 | 357 | 419 | 460 | 509 | 456 | 453 | 346 | 263 | 4244  |
| 2005 | 253 | 207 | 203 | 283 | 378 | 407 | 448 | 426 | 453 | 392 | 325 | 270 | 4045  |
| 2006 | 293 | 217 | 313 | 271 | 296 | 391 | 430 | 474 | 442 | 423 | 341 | 274 | 4165  |
| 2007 | 262 | 203 | 277 | 283 | 362 | 401 | 472 | 456 | 437 | 400 | 302 | 269 | 4124  |
| 2008 | 128 | 111 | 218 | 280 | 357 | 380 | 427 | 447 | 397 | 408 | 308 | 278 | 3739  |
| 2009 | 191 | 164 | 185 | 199 | 313 | 381 | 430 | 446 | 421 | 434 | 326 | 217 | 3707  |
| 2010 | 231 | 172 | 253 | 294 | 371 | 409 | 439 | 480 | 415 | 388 | 305 | 275 | 4032  |

## SNOWFALL (inches) 2010 KAHULUI (PHOG)

| YEAR           | JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | TOTAL |
|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 1976-77        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1977-78        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1978-79        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1979-80        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1980-81        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1981-82        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1982-83        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1983-84        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1984-85        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1985-86        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1986-87        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1987-88        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1988-89        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1989-90        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1990-91        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1991-92        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1992-93        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1993-94        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1994-95        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1995-96        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1996-97        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1997-98        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1998-99        |     |     |     |     |     |     |     |     |     |     |     |     |       |
| 1999-00        |     |     |     |     |     |     |     |     |     |     |     |     |       |
| 2000-01        |     |     |     |     |     |     |     |     |     |     |     |     |       |
| 2001-02        |     |     |     |     |     |     |     |     |     |     |     |     |       |
| 2002-03        |     |     |     |     |     |     |     |     |     |     |     |     |       |
| 2003-04        |     |     |     |     |     |     |     |     |     |     |     |     |       |
| 2004-05        |     |     |     |     |     |     |     |     |     |     |     |     |       |
| 2005-          |     |     |     |     |     |     |     |     |     |     |     |     |       |
| POR=<br>44 YRS | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |

WBAN : 22516

### REFERENCE NOTES :

|  |  |
|--|--|
| <p>PAGE 1:<br/>THE TEMPERATURE GRAPH SHOWS NORMAL MAXIMUM AND NORMAL MINIMUM DAILY TEMPERATURES (SOLID CURVES) AND THE ACTUAL DAILY HIGH AND LOW TEMPERATURES (VERTICAL BARS).</p> <p>PAGE 2 AND 3:<br/>H/C INDICATES HEATING AND COOLING DEGREE DAYS.<br/>RH INDICATES RELATIVE HUMIDITY<br/>W/O INDICATES WEATHER AND OBSTRUCTIONS<br/>S INDICATES SUNSHINE.<br/>PR INDICATES PRESSURE.<br/>CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).</p> <p>GENERAL:<br/>T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE.<br/>+ INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES.<br/>BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA.<br/>NORMALS ARE 30-YEAR AVERAGES (1971 - 2000).<br/>ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM.<br/>PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH.<br/>POR (PERIOD OF RECORD) BEGINS WITH THE JANUARY DATA MONTH AND IS THE NUMBER OF YEARS USED TO COMPUTE THE MEAN. INDIVIDUAL MONTHS WITHIN THE POR MAY BE MISSING.<br/>WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED.<br/>0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05.<br/>CLOUDINESS FOR ASOS STATIONS DIFFERS FROM THE NON-ASOS OBSERVATION TAKEN BY A HUMAN OBSERVER. ASOS STATION CLOUDINESS IS BASED ON TIME-AVERAGED CEILOMETER DATA FOR CLOUDS AT OR BELOW 12,000 FEET AND ON SATELLITE DATA FOR CLOUDS ABOVE 12,000 FEET.<br/>THE NUMBER OF DAYS WITH CLEAR, PARTLY CLOUDY, AND CLOUDY CONDITIONS FOR ASOS STATIONS IS THE SUM OF THE CEILOMETER AND SATELLITE DATA FOR THE SUNRISE TO SUNSET PERIOD.<br/>CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS.<br/>WHEN AT LEAST ONE OF THE ELEMENTS (CEILOMETER OR SATELLITE) IS MISSING, THE DAILY CLOUDINESS IS NOT COMPUTED.</p> | <p>GENERAL CONTINUED:<br/>WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH.<br/>RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION.<br/>AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2.<br/>SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN PRECIPITATION, INCLUDING HAIL.<br/>A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65 F.<br/>DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR.<br/>DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY.<br/>WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY.<br/>ON JULY 1, 1996, THE NATIONAL WEATHER SERVICE BEGAN USING THE "METAR" OBSERVATION CODE THAT WAS ALREADY EMPLOYED BY MOST OTHER NATIONS OF THE WORLD. THE MOST NOTICEABLE DIFFERENCE IN THIS ANNUAL PUBLICATION WILL BE THE CHANGE IN UNITS FROM TENTHS TO EIGHTS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.<br/>STATION HISTORY STOPPED WITH THE 2009 ANNUAL. IF YOU NEED HISTORY GO TO "MULTI-NETWORK MEDADATA SYSTEM", URL IS: <a href="https://mi3.ncdc.noaa.gov/mi3qry/login.cfm">https://mi3.ncdc.noaa.gov/mi3qry/login.cfm</a><br/>SNOWFALL STOPPED MONTH &amp; YEAR INDICATED ABOVE. NO FURTHER YEARS INCLUDED UNLESS RESTARTED.</p> <p><b>NOTE:</b><br/>The "Period of Record:(POR) for all "averages" is based on the "Summary of the Day First Order Station" and "Cooperative Summary of the Day" archives.</p> |
|--|--|

# 2010 KAHULUI HAWAII (PHOG)

Kahului Airport is located in the relatively broad central valley of Maui near the northern coast of the island. Five miles to the west, the mountains of west Maui rise abruptly, reaching an elevation of 5,788 feet above sea level at the crest of Puu Kukui 10 miles west of the station. To the southeast the terrain rises gradually to the summit of Haleakala at 10,023 feet, located 17 miles from the airport.

The outstanding features of the climate are the equable temperature regime, the marked seasonal variation in rainfall, the persistent surface winds from the northeast quadrant, and the rarity of severe storms.

The extremely equable temperatures at Kahului are associated with the tempering effect of the Pacific Ocean and the small seasonal variation in the amount of energy received from the sun. The range in normal temperature between the warmest month, August, and the coldest month, February, is 7.2 degrees.

Rainfall is relatively light. The contrast between the dry season, which extends from May through October, and the wet season, November through April, is quite pronounced. Major widespread rainstorms, which account for the bulk of the precipitation in the area, usually occur several times during each wet season, but are infrequent in the dry season. Approximately 50 percent of the normal annual rainfall occurs in the three months of December through February, and over 80 percent in the six months of the wet season. June is the driest month, receiving about 1 percent of the annual total. Occasionally, an entire dry season month will go by with no measurable precipitation whatever. At the other extreme, a single wet season storm sometimes contributes more than one-half the total rainfall in an individual year.

Showers constitute the greatest number of rainfall occurrences and although most of these are light and short-lived, very heavy showers do occur at times. Thunderstorms, which are reported rather infrequently, are usually associated with major storms in the wet season.

Violent, damaging, windstorms are rare, but sometimes occur in connection with major storms moving through the region.

Hurricanes, with winds of 75 mph, or more, rarely affect the Kahului area. However, tropical storms, which are similar to hurricanes, except that the wind speed is less than 75 mph, may pass close enough to produce heavy rain and strong wind at Kahului once every several years.

The large Pacific semipermanent high pressure cell, which is usually centered north of the Hawaiian Islands, is one of the important climatic controls affecting the circulation of air in the region. Over the central North Pacific, this cell produces a rather persistent flow of air from the northeast known as the Northeast Trades. Thus, surface wind at Kahului is predominantly from the northeast quadrant. The trade-wind flow is most prevalent during the dry season. Wind is more variable during the wet season although, on the average, the trades still blow more than 50 percent of the time during this period.

The normal trade winds, accentuated by the funneling effect between Haleakala and the west Maui mountains, as well as by the daytime thermally induced low pressure in the valley, often attain a speed of 40 to 45 mph at the airport, but serve to make living conditions in the nearby Kahului-Wailuku community pleasant and comfortable. Air conditioning is used in only a few business establishments and residences.

Humidity at Kahului is usually moderate to high, with wet season humidities averaging slightly higher than those in the dry season. However, due to the system of natural ventilation provided by the prevailing winds, the weather is seldom oppressive even during the warmer months of the year.

**Non-Subscription Request:**

NCDC Customer Services;

Phone: 828-271-4800

Fax: 828-271-4876

Email: [ncdc.orders@noaa.gov](mailto:ncdc.orders@noaa.gov)

OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE \$300

CHANGE SERVICE REQUESTED

FIRST CLASS  
POSTAGE & FEES PAID  
United States Department of Commerce  
NOAA Permit No. G - 19

INQUIRES/COMMENTS CALL: Toll Free (866) 742-3322

Visit our Web Site for other weather data: [www.ncdc.noa.gov](http://www.ncdc.noa.gov)

**For Hard Copy Subscription:**

Price and ordering information: NCDC Subscribing Service Center, 310 State Route 956, Building 300, Rocket Center, WV 26726.