
Summary

This document presents the climatological data measured at the U.S. Department of Energy's Hanford Site for calendar year 2002. Pacific Northwest National Laboratory¹ operates the Hanford Meteorology Station and the Hanford Meteorological Monitoring Network from which these data were collected. This report contains updated historical information for temperature, precipitation, normal and extreme values of temperature and precipitation, and other miscellaneous meteorological parameters. Further, the data are adjunct to and update Hoitink et al. (1999, 2000, 2001, 2002) and Hoitink and Burk (1994, 1995, 1996, 1997, 1998); however, data from Appendix B – Wind Climatology (Hoitink and Burk 1994) are excluded.

Calendar year 2002 was slightly warmer than normal² at the Hanford Meteorology Station with an average temperature of 54.4°F, 0.8°F above normal (53.6°F). The hottest temperature was 113°F on July 13, while the coldest was 7°F on October 31. For the 12-month period, 8 months were warmer than normal, and 4 months were cooler than normal.

Precipitation for 2002 totaled 5.41 inches, 78% of normal (6.98 inches); calendar year snowfall totaled 2.8 inches (compared to the normal of 15.4 inches). December 2002 established a new record for any month for days with measurable precipitation. There were 21 days with ≥ 0.01 inch; the previous record was 18 days in November 1983 and December 1973. December 2002 also established a new December record for days with ≥ 0.25 inch of precipitation (5), and tied the record for any month (November 1966 also recorded 5 days). However, a notable dry period occurred for 130 days between June 30 and November 6, 2002, when precipitation measured 0.29 inch.

Calendar year 2002 had an average wind speed of 7.8 mph, 0.2 mph above normal (7.6 mph). There were 32 days with peak gusts ≥ 40 mph, compared to a yearly average of 27 days. The peak gust during the year was 63 mph on December 27.

November 2002 established new November records for persistence of both fog and dense fog (visibility $\leq 1/4$ mile). There were 99.2 consecutive hours of fog during the period November 26-30, 2002, and 44.0 consecutive hours of dense fog during the period of November 27-29, 2002. The previous records were 65.4 hours and 20.6 hours, respectively, in November 1963.

The barometric pressure (corrected to sea-level) on December 16 fell to a low of 28.91 inches of mercury (979.1 millibars). This was the third lowest pressure ever recorded at the Hanford Meteorology Station. The lowest ever was 28.86 inches of mercury on December 4, 1951.

The heating-degree days for 2001-2002 were 4,863 (6% below the 5,160 normal). Cooling-degree days for 2002 were 1,131 (12% above the 1,014 normal).

¹ Pacific Northwest National Laboratory is operated by Battelle for the U.S. Department of Energy.

² Normals for the 2002 summary are 30-year averages based on the period 1971-2000.

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