**From *The Weather Observer’s Handbook* by Stephen Burt
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Table 16.2 Example site metadata *(Chapter 16, pages 356ff)*

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| Site metadata for **Cypress City, Idaho, USA**Compiled on <date> |
| *Station name, location and geographical co-ordinates* | Cypress City (Washington Avenue)The site is located at 1600 Pennsylvania Avenue, Cypress City, Idaho 83205Observer – John DoeLatitude 42.87°N, Longitude 112.34°WAltitude 1925 m (6316 ft) above MSLLatitude, Longitude and altitude have been obtained from USGS 1:24 000 map |
| *Geographical context* | Suburban site, located in medium-density housing area towards western edge of the city. Edge of urban area lies about 400 m west and south of site. Cypress City (population 15,000) is located in a valley: western suburbs are higher than the town centre, on gentle well-drained southeast-facing slope. Underlying soil is sandy loam, drains freely to the McKay river, approx 1500 metres SSW at closest point. |
| *Site description* | Suburban backyard, approx 28 m x 39 m, longer axis running roughly ENE-WSW. Reasonably well-exposed between south-east and west, rather sheltered by buildings and trees especially to north and north-east. Nearest buildings are the observer’s house, 10 m tall at apex and approximately 22 m N of raingauge, and deciduous tree 9 m tall 18 m NE of raingauge. Plot is bordered by open fence 1.8 m tall to south and on all other sides by conifer hedging 1.2–1.5 metres high.Plan of site centered on the standard eight-inch rain gauge is given at (*location or hard copy) and* photographs from cardinal points also centered on the rain gauge at (*location of images*).The sheltered nature of the plot, together with southeast-facing valley aspect and light sandy soil, results in maximum temperatures on sunny days with light winds being a little higher than other sites in the area. |
| *Date records began at this site* | Barometric pressure - 6 August 2009Rainfall - 1 October 2012Air temperature - 10 March 2014Wind speed and direction - 14 May 2016Solar radiation - 4 March 2020. For instrumental details, see below. |
| *Date records ended* | Records continue at the date of writing. |
| *Observing hours* | Raingauge is read manually once daily at the morning observation, normally at 8 a.m. clock time throughout the year. The AWS, installed May 2016, maintains continuous records (5 minute resolution) of air temperature, relative humidity, wind speed (mean and gust) and wind direction, rainfall and barometric pressure. AWS and all records are maintained on Mountain Time throughout the year. For instrumental details, see below. |
| ***Instruments in use*** *Rainfall* | A 1 mm (0.04 inch) wireless tipping-bucket raingauge was installed on 1 October 2012. Records from this instrument continued until July 2016.A standard eight-inch NWS raingauge was installed on 17 August 2015. Daily rainfall totals have been taken from this instrument since that date (a 12 month overlap with the wireless unit showed the latter to read approximately 18% low). The gauge is mounted above short grass with its rim approx 1.07 m (3 ft 6 in) above ground, and is read once daily (using standard measuring tube) at 8 a.m. Daily rainfall totals adjusted to 8 a.m. manual observation using AWS data during absence from home. Units: inches. Resolution: 0.04 in to August 2015, thence 0.01 in.A Davis Instruments Vantage Pro2 AWS was installed on 14 May 2016, and is located 3 m east of the raingauge: 5 minute rainfall totals are available from the AWS 0.2 mm tipping-bucket raingauge (TBR). TBR calibration checked and adjusted annually (last checked on 11 August 2023). Standard daily rainfall totals taken from the eight-inch gauge, AWS sub-daily totals being adjusted to agree with daily gauge totals as required. |
| *Air temperature* | Temperature records commenced from a digital wireless max-min sensor/display unit on 10 March 2014, and continued until September 2016. The unit was mounted on a north-facing wall.An NWS standard Max-Min Temperature Sensor (MMTS) was installed on 20 April 2019, and is located 5 m east of the rain gauge. This uses a thermistor contained within a baffled shelter (‘bee-hive’ type) mounted 1.5 m / 5 feet above short grass. This transmits a resistance value, via buried cable, to an electronic NIMBUS readout within the observer’s residence. The readout displays current ambient temperature and stores the 24 hour maximum and minimum temperature values for up to 35 days. Units: °F. Resolution: 0.1 degF.Since its installation on 14 May 2006, temperature records have also been taken from the Davis Instruments Vantage Pro2 AWS, located 4 m west of the rain gauge. The temperature and humidity sensor is mounted within the AWS passive radiation shield at 5 ft (1.5 m) above short grass, logged at 5 minute resolution. Maximum and minimum temperatures from AWS are logged by default over 00–00 Mountain Time. Calibration of temperature sensor checked and adjusted over 6 week period March-April 2022 using a portable calibrated reference logger (see [*location*](#c16_sau2) for calibration test results). Calibration adjustments included in real time by means of software offset. Units: °F. Resolution: 0.1 degF. |
| *Relative humidity and dew point* | Humidity measurements made at 5 min resolution using the Davis AWS.Manufacturer’s sensor calibration used without adjustment (not checked). Humidity units: % RH. Resolution: 1%. Dew point calculated by AWS software from observed temperature and relative humidity. Units: °F. Resolution: 1 degF. |
| *Barometric pressure* | Once-daily pressure observations, usually about 8 a.m. clock time, commenced in August 1999 using a small household aneroid barometer, ‘set’ to mean sea level. This was read to 1 millibar, although accuracy likely ± 2–3 mbar.Aneroid barograph installed 24 April 2011, recording on weekly charts: sea level pressure at 8 a.m. daily read off charts. Records from this instrument continue.Since its installation on 14 May 2016, pressure records have been taken from Davis Instruments Vantage Pro2 AWS. Pressure sensor mounted within the AWS display unit located in a second-storey room of observer’s residence, logged at 5 minute resolution, ‘set’ to mean sea level. Calibration checked and adjusted twice-annually by comparison with hourly pressure readings from Norze Brighton airport (22 km west) and Flag City USAF (12 km south of the site); most recent check in April 2022. Units: hPa. Resolution: 0.1 hPa. |
| *Wind speed and direction* | Wind speed and direction records commenced with installation of the Davis AWS on 14 May 2016. When first installed, anemometer and wind vane were mounted on 4 m mast located in south-west corner of the plot. The location was sheltered by buildings and trees, particularly to the north and north-east. Instruments re-located on 22 August 2018 to a 2 m mast affixed to a chimneystack located 2 m above the building roofline, at 12 m above ground level, to improve exposure. Post-move wind speeds are about twice those before the move, with reduced frequency of calms (< 1 knot).Both wind speed (mean speeds and highest gust) and wind direction (16 point compass) logged at 5 minute resolution. Manufacturer’s calibration of anemometer sensor has been used. Wind direction is in degrees true: units of wind speed are knots (miles per hour before 22 August 2018), resolution 1 knot. |
| *Sunshine and solar radiation* | Solar radiation records are made using a Davis Instruments solar radiation sensor, mounted on anemometer mast 12 m above ground level. Records commenced on 4 March 2010. Exposure is partially obstructed to south-east by deciduous trees (exposure diagram is available at servicing Weather Forecast Office *location)*. Instrument is a silicon photodiode, logged at 5 min intervals by Vantage Pro2 AWS. Units: W/m2.No sunshine records are available for this site. |
| *Site photographs* | A selection of site photographs taken on various dates between 2012 and 2021 are available at *location*. The most recent set of photographs, taken on 20 June 2023, show the site from each of the four cardinal points. A Google Earth aerial photograph of the immediate area is also available at the servicing Weather Forecast Office *location*. |
| *Station records* | Records from this site are held by the observer, John Doe, at 1600 Pennsylvania Avenue, Cypress City, Idaho 83205. Official temperature, rainfall, snowfall, and snow depth records for National Weather Service are retained on Weather Service (WS) Form B-91. This station uses the Weather Coder (WxCoder) web page to enter daily readings.The recorded Davis AWS data consist of spreadsheets of once-daily observations of maximum and minimum temperature, rainfall, mean wind speed and highest gust, together with counts of days with thunder heard, snow or sleet observed to fall, and (where relevant) snow depth at the morning observation. All temperature, wind, solar radiation and ‘days with’ observations refer to the period midnight to midnight Mountain Time daily (no adjustments made for summer time); all rainfall observations refer to 8 a.m. to 8 a.m. Mountain Time daily.Records from the AWS at 5 minute resolution, covering all major elements, are also available in annual Excel spreadsheets and Davis Instruments WeatherLink software native AWS file format. Copies of both the daily and AWS records, as Microsoft Excel spreadsheets, are sent on CDs annually in January to the Idaho Archives Office in Idaho Falls. |
| *Averages and extremes* | A daily rainfall record is available for Cypress Heights Farm, located 2.2 km south-east of the site at a slightly lower altitude (6195 ft). Records here commenced in 1974. Over the 5 year period 2016–2020 this site recorded on average 2.6% less rainfall than the current location. The estimated 1991–2020 average annual rainfall for this site, 526 mm, has been derived by applying this factor to the observed monthly averages for 1991–2020 from the Cypress Heights Farm rainfall record. |