

Precipitation Record

Precipitation records for Death Valley have been made through the period of record by use of a Standard Rain Gauge. The components of this gauge include a large outer container called the overflow can, which today is 8 inches in diameter and almost 24 inches tall, a brass or clear plastic measure tube, which is 2.5 inches in diameter and 20 inches deep and a copper or white plastic collector (funnel), which is 8 inches in diameter. A measuring stick is then used by the observer to read how much precipitation fell in the gauge and is marked in inches once a day at the designated time of observation.

As was the case with temperatures, precipitation values are not for a calendar day but rather the observation day since precipitation is measured at the same time temperature observations are taken. From 1911 through May 31, 1981 (except for a few months in 1955, 1956 and 1957), daily observations always took place at 1600 or 1700 LST. From June 1, 1981 through November 1, 2015, observations were taken at 0800 LST/LDT. No attempt was made to adjust precipitation to a calendar day since the records are for a twenty four hour period and supplemental observations of how much fell each hour are not made. Therefore the extreme amounts listed by day are the highest value ever on that observation day and the monthly totals and extremes are computed off the sum of the observational day values for that month. On November 2, 2015, precipitation records switched to be taken at 2359 LST and from this point out, records reflect calendar day precipitation. On November 2, 2015, precipitation totals are primarily recorded using an automated tipping bucket rain gauge. However, an eight inch standard rain gauge remains on-site for use as a back-up and to account for any low bias that may be reflected in the tipping bucket record with calculations made to fit standard rain gauge totals to the calendar day.

Precipitation that falls but does not accumulate enough to be measured, known as a trace amount, must be manually noted in the records by the observer. Trace and zero amounts of precipitation in the records should be taken with precaution due to observing practices. It is possible the observer on duty was not around or did not witness a light amount of precipitation in the observation period. Additionally, the increase in trace amounts in more recent years in the datasets compared to earlier years is likely due to the fact that a team of park rangers for the National Park Service now take the observations instead of a single observer. Therefore the person tasked with recording the weather is able to ask other rangers on duty if they witnessed any precipitation at the station.

Records of precipitation in Death Valley started on June 8, 1911. All precipitation data is given in inches.

Below is the monthly normal precipitation for Death Valley. Normals are from 1991-2020 and provided by NOAA's National Centers for Environmental Information (NCEI).

Month	Normal Precipitation
January	0.37 inch
February	0.52 inch
March	0.25 inch
April	0.10 inch
May	0.03 inch
June	0.05 inch
July	0.10 inch
August	0.10 inch
September	0.20 inch
October	0.12 inch
November	0.10 inch
December	0.26 inch
Annual	2.20 inches