

July 2017

The Glen Allen Station

July had near average precipitation for the month but 74% of the month's precipitation occurred on the 5th and 29th. The 4.11 inches monthly precipitation was a departure of only -0.23 inches. But, there were 17 days with no measurable precipitation from the 6th to the 22nd, which ties the maximum number of consecutive days at this station with no measurable precipitation; the previous record was a 17 day April period a much cooler month. The mean temperature of 81.1°F was +1.2°F departure from the nine-year average and the 5th hottest July on record. The record is 82.7°F in 2012. This July had 21 days with temperatures of ≥90°F; the July record is 22 days. Glen Allen had only two days that the maximum temperature wasn't 86°F or higher for the month. It is interesting that Richmond has had six of the ten hottest Julys since 2005 in the past 120-years counting 2017 and uses a 30-year average. Thus, Glen Allen's average mean for July is +0.6°F higher than the Richmond International Airport as Glen Allen records have 2010-the hottest July, 2012-2nd hottest, 2011-4th hottest and 2017-10th hottest.

The high temperature range for July was 29°F on the 31st and the lowest monthly daily temperature range was 9°F on the 29th. The 9-year lowest daily temperature range record for July is 8°F in 2012 and 2016. The highest dew point of 77.5°F on the 24th was the second lowest in the past 9-years.

Rainfall amounts varied greatly over the area. Glen Allen had 4.11 inches and the Richmond International Airport had only 2.25 inches. Glen Allen had only 6 days with measurable precipitation in July which was the least ever recorded for the month. The maximum precipitation recorded in a calendar day and a 24-hour period was 1.76 inches on the 5th which was the second greatest on record for July.

The average relative humidity of 67.7 percent was the 4th lowest on record for July. The 17-day period with only a trace of precipitation left a deficit of moisture for evaporation & transpiration & reduced relative humidity for the month.

Richmond International Airport

The Richmond International Airport's average mean temperature was 81.3°F which made July tied with 1987 for the 10th warmest since 1880 with a departure of +2.0°F. This July had 22 days with temperatures of ≥90°F; the July record is 26 days in 1993. The maximum daily temperature range for the month was 28°F on the 31st and the minimum was 7°F on the 29th a record for the date and only 27 Julys have had a lower daily range. The highest monthly temperature was 101°F on the 13th; only 13 Julys have had a higher reading since 1897. It is also surprising that the maximum temperature was only 73°F on July 29th. There are also only 28 Julys since 1897 that have had a lower monthly temperature.

The Airport had only 2.25 inches of precipitation which was a departure of -2.26 inches with 8 days of measurable precipitation. Only 18 years in the past 130 years have been drier and the Airport had 1.86 inches less than the Glen Allen Station.

The Richmond International Airport had 4 daily records set in July.

Jul 12th 98°F tied the old record high daily maximum temperature set in 1986, 1937, 1936 and 1925.
Jul 13th 77°F new record high daily minimum temperature - the old record 76°F in 2006, 1992, 1909
Jul 13th 88.0°F new record daily high mean temperature - the old record 86.5°F set in 1986
Jul 29th 7°F tied the record lowest daily temperature range set in 1991 and 1960.