

2007 WEATHER SUMMARY

Annandale Virginia - Barcroft Hills Weather Center

Most Unusual Event of the Year

The Drought of 2007-- This year was the driest year in the past 27 years at the Annandale Weather Center with 32.96 inches of precipitation and 112 days with measurable precipitation. Nine months had monthly precipitation totals below the average. This was the driest year in the past 27 years and had a -11.79 inch deficit. Last year was the fourth wettest year in the past 27 years.

September with only 0.48 inches of rain, a -3.59 inch departure, was the driest month and May was the second driest month of 2007. The summer season was the second driest in the past 27 years.

THUNDER – LIGHTNING

On May 27th, the strongest thunderstorm of the year gave winds of 44 mph and 0.81 inches of rain. This storm caused a power outage from 1833 to 2340 hours. This thunderstorm also had about a half a minute in which a discernible amount of very soft hail became slush on impact. The intense rainfall of this thunderstorm gave 0.38 inches of rain in five minutes. This was the most intense rainfall in May since 1995 when 0.38 inches fell, which is the record for a five minute period. Annandale had 31 days with thunder in 2007. The average is 34 per year. (Records since 1995)

TEMPERATURE

Year

The average mean temperature for 2007 was 57.39 °F which was 1.4°F above average for the yearly mean temperature and the six warmest on record. The warmest was 1998.

The **highest** annual maximum temperature of 99 °F was recorded on August 8th. Only five times in the past 27 years has the maximum temperature been higher than it was on the 8th. It was also the highest temperature recorded here since July 6, 1999 when it was 100 °F and the highest in August since August 15, 1988 when it was also 100 °F. There were **43** days that were equal to or greater than 90 °F for the maximum temperature in 2007, which was 14 days more than the annual average.

The **lowest** annual minimum temperature was 7 °F on February 6th which was the lowest temperature here since 1-24-2005 and the coldest in February since 1996 and the seventh lowest minimum temperature in February in the last 27 years. The lowest annual maximum temperature was 19 °F on February 5th, which was the third lowest ever recorded in February with the other two occurring in February 1996.

There were **86** days that were less than or equal to 32 °F for the minimum temperature, which was 2 days more than the annual average.

Month

The **highest** monthly mean temperature was 78.1 °F for the month of August. But October's mean monthly temperature had the greatest positive departure of + 7.6 °F. The mean temperature for October was 63.7 °F. The highest maximum temperature for October was 90° F on the 9th, a 10.7 °F departure from the average highest October temperature on record ; the previous record was only 86 °F set in 1985. There were 17 daily records set during the month of which 14 were for heat!!

The **lowest** monthly mean temperature was 29.5 °F for the month of February. February had the greatest number of days (25 days) with the minimum temperature equal to or less than 32 °F in 2007 and 26 days being the 27-year February record. It was the coldest February in the past 27 years by 1.8 °F. February had the greatest negative average monthly mean temperature departure of -8.0 °F for 2007. February broke twelve 27-year daily records of which eight were for low temperatures.

Day

February 5th was the **coldest day** of the year with a daily mean temperature of 15.5 °F. The lowest daily maximum temperature for 2007 also occurred on February 5th and was only 19 °F. February 5th also had the lowest wind chill for 2007 of -9.3 °F at 1009 hours and the lowest wind chill for February since wind chill records were started in 2003. The lowest dew point for 2007 was -15.7 °F on the 5th at 0932; the lowest recorded here for any month since dew point records were started in 2003.

August 8th was the **hottest day** of the year with a daily mean temperature of 88.5 °F and was the warmest day ever recorded in August in the past 27 years. The highest daily maximum temperature for 2007 also occurred on August 8th and was 99 °F. The minimum temperature of 78 °F on the 8th also tied for the highest minimum temperature ever recorded in August in the past 27 years.

Daily Range

The **highest** daily temperature range was 41°F on March 15th which tied the 27-year record for March set in 1981 and 1994.

The **lowest** daily temperature range was 3 °F on February 25th which was the 27-year record for February.

Monthly Range

The highest average monthly temperature range was 22.7 °F set in May 2007. The lowest average monthly temperature range was 12.9 °F set in December.

PRECIPITATION

Year

The total precipitation for 2007 measured 32.96 inches which was a departure of - 11.79 inches the driest in the past 27 years.

Month

The **highest** monthly precipitation total was October's with 5.66 inches a surplus of 2.05 inch departure and was the 5th wettest October on record. October was the wettest month since November 2006 and was only the second month of 2007 with above average precipitation. Only three months of 2007 were above average in precipitation.

The **lowest** monthly precipitation total was September with 0.48 inches, a deficit of -3.59 inch departure, the highest precipitation deficit of 2007. Only September of 2005 was drier in the past 27 years with only 0.27 inches of rain. Only four months in the last 324 months has the precipitation total for the month been less than this September's total. July was the driest July in the past 27 years with only 1.69 inches precipitation, a -2.59 inch departure. May was the second driest May in the past 27 years with only 1.38 inches precipitation, a deficit of -2.94 inch departure.

Calendar Day

The **highest** precipitation total in a calendar day for 2007 was 2.42 inches and was recorded on April 15th.

24-Hour Period

The **greatest** rain in a 24-hour period was 2.67 inches recorded on October 26th and 27th. The second greatest was 2.57 inches in 24 hours on April 15th and 16th that set a new record for April. (Records since June 1996)

Storm

The storm total from October 24th - 27th was 5.18 inches; the most precipitation recorded here in a storm since June 2006 when the 27-year record was set.

Hour

The **highest** one-hour rainfall intensity was only 0.82 inches on April 4th and August 21st. The record is 2.35 inches set in June 2006.

Five-minute

The greatest five-minute rainfall was 0.37 inches, which fell on May 27th. The five-minute rainfall intensity record of 0.58 inches was set on July 23, 1992.

Drought

No measurable precipitation occurred in Annandale for 10 days or more during the following periods:

Sep. 28 th -Oct. 18 th	21 day period	Apr. 17 th -Apr. 26 th	10 day period
Aug. 27 th -Sep. 9 th	14 day period	Nov. 16 th -Nov. 25 th	10 day period

BAROMETRIC PRESSURE

Year

The **highest** barometer reading of 30.76 inches on January 17th was the highest barometric reading recorded since January 28, 2005.

The **lowest** barometric reading was 29.17 inches on April 15th at 0229 hours and was the lowest barometric pressure here since March 8, 2005 when 29.16 inches was recorded.

RELATIVE HUMIDITY

The lowest relative humidity for 2007 was recorded on March 2nd at 13%. This was also the lowest recorded in March since March 18th and 19th of 1990 when 12 percent was recorded, which is the 27-year record for March.

SKY COVER

Month

April and November were the cloudiest months of 2007. April was also the cloudiest April since 2000. November was also the cloudiest November since 1992 and only three have been cloudier in the past 27 years. September's average sky cover made it the clearest month of the year and the clearest September in the past 27 years, although October of 2001 was almost as clear.

SEASON RECORDS

WINTER SEASON 2006-2007

- 6th **driest** winter in the past 27 years
- 7.03 inches total seasonal precip., a departure of -2.52 inches
- 11th warmest winter in the past 27 years
- 37.5 °F seasonal mean temperature, a departure of + 1.0 °F
- 8th least snowfall for the winter in the past 27 years
- Total snowfall was 11.2 inches, the least since 2001-02

SPRING SEASON

- 8th **driest** in the last 27 years
- 9.45 inches total seasonal precip., a departure of -2.74 inches
- 9th warmest in the past 27 years have been warmer.
- 56.0 °F seasonal mean temperature, a departure of + 1.0 °F

SUMMER SEASON

- 2nd **driest** summer in the past 27 years
- 7.05 inches total seasonal rainfall, a departure of -4.60 inches
- 6th hottest summer in the past 27 years
- 76.9 °F seasonal mean temperature, a departure of + 1.5 °F

FALL SEASON

- 7th **driest** fall season in the past 27 years
- 7.77 inches total seasonal rainfall, a departure of -4.03 inches
- 2nd warmest fall in the past 27 years
- 60.6 °F seasonal mean temperature, a departure of + 3.5 °F