

# 2005 WEATHER SUMMARY

## Annandale Virginia - Barcroft Hills Weather Center

### MOST UNUSUAL RECORDS

The 71 °F maximum temperature on March 7<sup>th</sup> fell to the minimum of 16 °F (the lowest of the month) on March 9<sup>th</sup> which was spring back to winter in 40 hours and 50 minutes. (See temperature ranges for more on page 2.)

September with 0.27 inches rain, -3.95 inch departure, was the driest September on record in the last 25 years and the third driest month on record. Only April 1985 with 0.17 inches and October 2000 with 0.06 inches were drier. (Records since 1980)

Washington DC recorded 0.11 inches rain making it the driest September in recorded history. Previous record was 0.14 inches in 1884. (Records since 1871)

October with 9.55 inches of rain, +4.06 inch departure, was the wettest October on record and the second wettest month on record; only September 1999 was wetter with 11.33 inches. (Records since 1980)

Washington DC recorded 9.41 inches rain making it the wettest October in recorded history. Previous record was 8.81 inches in 1936. (Records since 1871)

The storm total of October 6<sup>th</sup> , 7<sup>th</sup> , 8<sup>th</sup> was 7.09 inches the most precipitation ever recorded here in a storm in the last 25 years; the old record was November 27<sup>th</sup>-28<sup>th</sup> of 1993 when 4.95 inches occurred.

The maximum rain in any one calendar day is now 3.86 inches set on October 8<sup>th</sup>. The old record was 3.65 inches in Hurricane Floyd on September 16, 1999.

The maximum rain record for any 24-hour period is now 5.66 inches set on October 7<sup>th</sup> and 8<sup>th</sup>; the old record was only 4.95 inches set on November 27<sup>th</sup> and 28<sup>th</sup> of 1993.

The most rain in a 5 minute period was 0.53 inches on June 29<sup>th</sup> 2005 the most since June 15, 1998 when 0.56 inches of rain fell. A total of 1.50 inches was recorded in one hour in this same storm. This sets a new record for the most rain to occur in one hour's time in the month of June since rainfall intensity records were started in 1991. The old record was 1.41 inches on June 8, 1992.

### THUNDER – LIGHTNING

On May 14<sup>th</sup> a lightning strike hit a tree just 2 houses down the street to our west giving a popping sound and slitting the bark of the tree.

Only 27 days with thunder in 2005; only 1997 had fewer days with thunder. (Records since 1995)

## TEMPERATURE

### Year

The average mean temperature for 2005 was 56.43 °F which was +0.47 °F above average for the yearly mean temperature and the warmest since 2002.

Highest annual maximum temperature of 98 °F was recorded on July 27<sup>th</sup>.

Lowest annual minimum temperature was 7 °F on January 24<sup>th</sup>. There were 37 days that were equal to or greater than 90 °F for the maximum temperature in 2005, which was 8 days more than the annual average.

There were 89 days that were less than or equal to 32 °F for the minimum temperature, which was 5 days more than the annual average.

### Month

January, with a mean temperature of 34.7 °F, was the coldest month of the year but was the warmest January since 2002.

May had the greatest negative average monthly mean temperature departure of -3.6 °F for 2005 and March ran a close second for the greatest departure. March's mean monthly temperature, the fourth coldest in the last twenty-five years, with a -3.5 °F departure was the coldest March since 1996, which is the twenty-five year record.

The 58 °F on December the 24<sup>th</sup> was a -7.2 °F departure for the lowest daily maximum for the month; only December 1989 had a lower daily maximum for December in the last 25 years.

The lowest daily mean temperature for July was 73.5 °F on the 8<sup>th</sup> which was the highest ever recorded here in July in the last 25 years; the previous record was 71.5 °F in July 1994.

September, with a mean temperature of 71.6 °F, had the greatest positive average monthly mean temperature departure of only +3.9 °F for 2005 and was the third warmest in the last 25 years; only 1980 and 1998 were warmer.

December had the greatest number of days (25 days) with the minimum temperature equal to or less than 32 °F in 2005.

### Day

January 23<sup>rd</sup> was the coldest day of the year with a daily mean temperature of 16 °F. The lowest daily maximum temperature for 2005 occurred on January 23<sup>rd</sup> and was 21 °F and had a 37 mph wind gust, which was the lowest wind chill for 2005 of -9.7 °F at 0701 hours.

### Range

The 37 °F temperature range, on March 8<sup>th</sup> and April 17<sup>th</sup>, was the greatest daily temperature

range for the year and the highest temperature range in March since 1997. The temperature change from the 71 °F maximum of March 7<sup>th</sup> to the 22 °F minimum of the 8<sup>th</sup> at midnight was 49 °F.

Only three cold fronts in the last 25 years have topped this change in temperature.

The 25 year record is a 52 °F drop from 62 °F Feb. 11, 1981 to a min. of 10 °F on the 12<sup>th</sup>.

The other two were: 50 °F drop from 45 °F Jan. 19, 1985 to a min. of -5 °F on the 20<sup>th</sup>.

50 °F drop from 81 °F Mar. 18, 1989 to a min. of 31 °F on the 19<sup>th</sup>.

The 3 °F temperature range on October 11<sup>th</sup> was the lowest daily temperature range for the year. It was a rare record for October as low temperature ranges generally occur during the winter months.

## **PRECIPITATION**

### **Year**

The total number of days this year with measurable precipitation was 109 days; the least for a year since 1987, which is the 25-year record of 107 days. Total precipitation for 2005 measured 46.88 inches, a departure of +2.58 inches. It is interesting that 2005 was above average in precipitation but had a near record low number of days with measurable precipitation.

### **Month**

October had thirteen days with measurable rain; only 1993 had more days with measurable precipitation (14 days) in the past 25 years. The 25-year record for any month is 23 days set in May 2003. October had the greatest monthly total rainfall of 9.55 inches, a +6.25 inch departure. September had the least monthly total rainfall of 0.27 inches a -2.95 inch departure and only had three days with measurable rain, which was the least in September in the last 25 years. Only two months in the last 312 months has the precipitation total for the month been less than this September's total. The 2.37 inches in 24 hours on January 13<sup>th</sup> - 14<sup>th</sup> sets a new 25-year twenty-four hour precipitation amount for January.

### **Calendar Day**

The greatest calendar day rainfall for the year was 3.86 inches, which occurred on October 8<sup>th</sup> and set a new 25-year maximum calendar day rainfall record.

### **24 hour period**

The 5.66 inches of rain which occurred on October 7<sup>th</sup> - 8<sup>th</sup> set a new 25-year maximum 24-hour period rainfall record.

### **Storm**

The storm total of October 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup> was 7.09 inches, the most precipitation ever recorded here in a storm in the last 25 years; the old record was November 27<sup>th</sup>-28<sup>th</sup> of 1993 when 4.95 inches occurred.

### **Hour**

The greatest one-hour rainfall of 1.50 inches recorded on June 29<sup>th</sup> was the most intense one-hour rainfall for 2005 and the 5<sup>th</sup> greatest one-hour intensity since records were started in 1991.

### **Five-minute**

The greatest five-minute rainfall was 0.53 inches, which fell on June 29<sup>th</sup>; this was the third most intense five-minute rainfall since records were started in 1991. Only the rainfall intensities on June 16, 1998 with 0.56 inches in five minutes and July 23, 1992 with 0.58 inches were more intense.

### **Drought**

September only had three days with measurable rain, which was the least in September in the last 25 years. The 0.27 inches of rain for September was a -3.95 inch departure. Only two months in the last 312 months has the precipitation total for the month been less. From August 29<sup>th</sup> through September 13<sup>th</sup>, there were 16 consecutive days with no measurable rain. There were also four other periods of more than ten days without measurable rain in 2005. The driest period on record is a 34-day period from October 17<sup>th</sup> - November 19, 2001.

## **SNOW**

### **Year**

The 2005 total snowfall was 29.2 inches, which was a departure of +6.6 inches. This was the most snowfall for a year since 2003 when 49.9 inches was recorded.

### **Month**

The 10.7 inches of snow in February was the greatest monthly snowfall total for the year. That made February the sixth snowiest February in the last 26 Februarys and the 5.0 inches of snow on the 24<sup>th</sup> was the tenth largest snow in February in the last 25 years.

The snowfall total for December was 7.4 inches, the most for December since 2003, and a departure of +4.7 inches for the month. This was the fourth greatest amount of snow recorded in December in the last 25 years. December also had five days with measurable amounts of frozen precipitation, which tied the 25-year record with 1989. December 2005 had 19 days with measurable snow cover on the ground, which was the most since 1989 when the record of 24 days was set in the coldest December on record in the last 25 years.

### **Storm**

The largest snowstorm of the year was 5.1 inches on February 24<sup>th</sup> - 25<sup>th</sup>. The greatest calendar day snowfall was 4.1 inches observed on February 24<sup>th</sup>. The greatest snow cover on the ground was 5.1 inches on February 25, 2005 at 0220 hours.

## **WIND**

### **Year**

The highest wind recorded in 2005 was on March 8<sup>th</sup> with a gust to 45 mph from the west at 1751 hours. These winds were associated with a deep low pressure and its associated cold front. This was the highest wind recorded here in March since 1999.

**Month**

The windiest month was March with a total wind run of 2,118.8 miles wind run.

**Day**

March 2<sup>nd</sup> was the windiest day of 2005 with a wind run of 220 miles; that was also the highest wind run for any day since wind run records were started in May 2002.

**BAROMETRIC PRESSURE****Year**

January 28<sup>th</sup> had the year's highest barometric pressure reading of 30.85 inches. This was the highest pressure recorded since 3-10-1996 when 30.91 inches was recorded and also the highest pressure for January since 1984 when 30.87 inches was recorded.

The barometer also fell to 29.16 inches on March 8<sup>th</sup>, which was the lowest reading since 2-23-2003 when the pressure fell to 29.09 inches. The pressure of 29.16 inches was also the lowest in March since 1996 and the seventh lowest pressure recorded in March in the last 25 years.

The lowest barometer reading for April was 29.21 inches on the 2<sup>nd</sup>, which was the lowest barometer reading in April since 1982 when a reading of 29.17 inches was recorded. The lowest pressure for November was 29.21 inches on the 22<sup>nd</sup> and it was the lowest reading in November since 1972.

**RELATIVE HUMIDITY**

The lowest relative humidity for 2005 was recorded on April 17<sup>th</sup> at 16% and was the lowest recorded in April since 2003.

Also the clear skies and little rain in September gave a low relative humidity of 19%, which was the lowest recorded in September on record. (Records since 1980)

**SKY COVER****Month**

It is also interesting that January was the cloudiest month of 2005 and the cloudiest January since 1996 and the second cloudiest January in the last 25 years, yet the atmospheric pressure averaged the highest for January since 1991.

July 2005 was also the cloudiest July on record but the wet July of 2003 was nearly as cloudy. September's average sky cover was the clearest month of the year and the clearest September since 1985 and the third clearest September in the last 25 years

October with 13 days of measurable rain also had an average cloud cover that was the second cloudiest October in the last 25 years, with only October 2002 being cloudier.

**SEASON RECORDS**

**Winter Season** – December 2004 to February 2005

The mean temperature was 37.0 °F, a departure of + 0.6 °F, and was the tenth warmest of the past 25 winters. Total precipitation was 8.91 inches, a departure of negative 0.39 inches.

**Spring Season** –

The mean spring temperature was 53.0 °F, which was the lowest since 1996 and ranked fourth place from the coolest in the last 25 years. The total precipitation was 14.05 inches, which was the wettest since 2003 and ranked eighth place from being the wettest in the last 25 years.

**Summer Season** –

The mean summer temperature was 77.6 °F, a departure of +2.1°F. This was the second warmest summer on record in the last 25 years; only the summer of 2002 was hotter with an average mean temperature of 78.0 °F. But the summer was +0.58 inches above average in rainfall with a total of 11.65 inches for the season.

**Fall Season** –

This was the third warmest fall season on record in the last 25 years. The fall seasonal mean temperature was 59.3 °F, a departure of +2.4 °F. The total fall seasonal precipitation was 11.88 inches, which was a departure of +0.30 inches.