November 2004: The final month of meteorological autumn (Sept- Nov) featured above normal precipitation and temperatures across the Washington/Baltimore area. Monthly temperature departures were $+2.3^{\circ} \mathrm{F}$ at $\mathrm{DCA},+3.0^{\circ} \mathrm{F}$ at BWI, and $+3.2^{\circ} \mathrm{F}$ at IAD, marking the fourth consecutive autumn with above normal temperatures at the three major airports. There were no significant intrusions of Arctic air; readings were at or above normal on 19 days at DCA. For the first time since 2001 and only the $8^{\text {th }}$ time since 1871 , there were no lows of $32^{\circ} \mathrm{F}$ or less observed in Washington. Although suburban locations frequently dipped below freezing ( 9 days at IAD, 8 at BWI), the monthly minimum dropped to only $26^{\circ} \mathrm{F}$ at BWI and $23^{\circ} \mathrm{F}$ at IAD. Additionally, many areas did not record their first freezing temperature of the season until the $8^{\text {th }}$ or $9^{\text {th }}$. Pleasantly warm weather with readings of $70^{\circ} \mathrm{F}$ or higher prevailed the first three days across the local area. The remainder of the month brought highs mostly in the 50 's and 60 's at DCA. In fact, DCA observed only 2 days ( $13^{\text {th }} \& 26^{\text {th }}$ ) with highs in the 40 's, while BWI and IAD recorded three such days ( $9^{\text {th }}, 13^{\text {th }}, 26^{\text {th }}$ ).

Monthly precipitation totals were generally between 4" and 6" across the Washington/Baltimore area. The majority of the month's rainfall occurred on the $4^{\text {th }}$ and $12^{\text {th. }}$. The first storm system brought a soaking rain of $1 "-2^{" 1}$ across most of the local area, including BWI (1.82") and DCA (1.71"). The second major storm system on the $12^{\text {th }}$ produced $2.06^{\prime \prime}$ of rain at DCA and $1.92^{\prime \prime}$ at IAD, setting daily rainfall records at both locations, while just to the north 1.74 " of rain fell at BWI. In the early morning hours on the $28^{\text {th }}$, heavy showers yielded as much as 0.62 " of precipitation at BWI, although amounts were less at most other locations ( 0.17 " at DCA). While the majority of the month brought only light winds, strong wind gusts, exceeding 50 mph at some locations, buffeted the local area on the $5^{\text {th }}$ and on Thanksgiving day $\left(25^{\text {th }}\right)$. The storm and frontal systems downed trees and power lines, resulting in scattered power outages across portions of Northern Virginia, Maryland, and the District of Columbia, according to press reports.

NOVEMBER 2004 WEATHER STATISTICS FOR THE WASHINGTON/BALTIMORE AREA:

| Location | Station Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  | Extreme/Day |  | Precipitation (In.) |  |  | Yr to Date |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | AvMx | AvMn | AvgT | NmIT | DepNml | MaxT | MinT | Total | Norm | Dep NmI |  |
| National (DCA) | 58.8 | 43.2 | 51.0 | 48.7 | +2.3 | 71/2* | 33/14 ${ }^{+}$ | 4.50 | 3.03 | +1.47 | 37.70 |
| Baltimore BWI) | 58.2 | 38.8 | 48.5 | 45.5 | +3.0 | 71/7 | 26/10 | 5.02 | 3.12 | +1.90 | 38.18 |
| Dulles (IAD) | 58.6 | 38.1 | 48.4 | 45.2 | +3.2 | 74/2 | 23/15 | 4.11 | 3.31 | +0.80 | 36.14 |
| Andrews (ADW) | 59.0 | 39.0 | 49.0 | N/A | N/A | 79/17 | 25/10 | 5.40 | 3.30 | +2.10 | 35.09 |

Other Occurrences: *November 3, ${ }^{+}$November 26
Autumn (September-November) 2004: Above normal temperatures and near normal precipitation highlighted weather conditions across the local area during autumn. There were 59 days (64\%) with at or above normal temperatures at DCA with the majority of the warmer than normal conditions occurring during September and November. Despite the warmer than normal weather, there were no $90^{\circ} \mathrm{F}$ days recorded. September started slightly hotter than usual marking the first warmer than normal month since May. October also began with mild weather then shift to more typical fall days. October closed with an exceptionally balmy Halloween, in the 70's and 80's at many locations. The first freeze hit the northern suburbs on October 18. November was highlighted by warmer than normal conditions with the area enjoying $70^{\circ} \mathrm{F}+$ days from the 1 st to the 3 rd.

Seasonal precipitation was near normal at DCA and BWI. A wet September was followed by a drier than normal October and a return to frequent rainy days in November, especially in the last half of the month. IAD and many areas just to the west of Washington recorded wetter than normal conditions during autumn due primarily to above normal rainfall from three tropical systems in September: Remnants of Hurricanes Frances (8th) brought severe weather and up to 8" of rain in the nearby mountains. Hurricane Ivan (18th) brought more rain (2.39" at IAD) and severe weather with dozens of tornadoes, including a reported F2 event. The remnants of Hurricane Jeanne dumped 2" -5 " of rain to the already drenched and damaged area. October offered a chance to dry out with only 1 "-2" of rain but was followed by a wet November pushing the seasonal precipitation totals to slightly above normal.

## AUTUMN 2004 WEATHER STATISTICS FOR THE WASHINGTON/BALTIMORE AREA:

|  | Station Temperatures ( ${ }^{\circ}$ F) |  |  |  | Extreme/Day |  |  | Precipitation (In.) |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Location | AvMx | AvMn | AvgT | NmIT | DepNmI | MaxT | MinT | Total | Norm | Dep NmI |
| National (DCA) | 67.8 | 52.7 | 60.3 | 59.4 | +0.9 | $87 / 9-23$ | $33 / 11-14^{*}$ | 10.23 | 10.04 | +0.19 |
| Baltimore BWI) | 67.1 | 48.3 | 57.7 | 56.1 | +1.6 | $86 / 9-23$ | $26 / 11-10$ | 10.40 | 10.26 | +0.14 |
| Dulles (IAD) | 67.6 | 47.6 | 57.5 | 55.9 | +1.6 | $86 / 9-23$ | $23 / 11-15$ | 10.96 | 10.50 | +0.46 |
| Andrews (ADW) | 66.6 | 48.6 | 57.6 | N/A | N/A | $84 / 9-22$ | $25 / 11-10$ | 11.09 | 10.20 | +0.89 |

Other Occurrence: *November 26

## Looking Ahead to December: December Snowfall

The last two meteorological winters (Dec-Feb) began with a major snowfall during the first week of December. How much snow will December 2004 bring? Listed below are the 10 most recent December snowfall totals at DCA. Normal DCA December snowfall: 1.5".

| Year | 2003 | 2002 | 2001 | 2000 | 1999 | 1998 | 1997 | 1996 | 1995 | 1994 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| December Snowfall | $6.2^{\prime \prime}$ | $7.1^{\prime \prime}$ | $0.0^{\prime \prime}$ | $2.0^{\prime \prime}$ | Trace | $0.5^{\prime \prime}$ | $0.1^{\prime \prime}$ | $0.2^{\prime \prime}$ | $1.3^{\prime \prime}$ | $0.0^{\prime \prime}$ |

