

Sterling Reporter

Newsletter of NOAA's National Weather Service Baltimore/Washington Forecast Office

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Spring 2003

In Remembrance of Dewey Walston

by Andy Woodcock, Senior Meteorologist

Dewey Walston and I both arrived at NWS Sterling in July 1994. He was a spiky-haired 27 year old who I quickly learned had an absolute passion for weather. At one time his picture on our office web page was as a boy, probably about 12 years old, wearing a suit, standing in front of a big weather map - arm extended toward a cold front, making his imaginary television debut.

A major tornado struck just north of Washington DC only a few weeks after our arrival. The next night I was surprised to see him on TV talking about surviving an F4 tornado that had destroyed his house when he was 16. He had found safety in a bathtub.

After graduating from UNC Asheville Dewey had assignments with the NWS in Norfolk, followed by Pittsburgh. Shortly after his arrival at Sterling we became good friends. It's funny - just six months ago our office staff took the Myers-Briggs test, which gives an indication of a person's strengths and their personality. Dew and I looked at our results, and we were almost complete opposites! I think that may have played into why we worked so well together - we complemented each other's strengths. Together we worked a lot of complicated weather



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Water Predictions for Live Decisions

by Melody Paschetag, Hydrologist

Did you ever want to know...

Where and when will the flooding occur?
How high will the Potomac River rise?
When will the Shenandoah River reach its peak?
How long will the Rappahannock River flood last?

A picture is worth a thousand words...

We've always had this information available in our text products but with the new Advanced Hydrologic Prediction Services (AHPS) you now have access to the information graphically. With the touch of a button,

you can now see the latest river stage, what forecast points are at flood, forecast to flood, and how long they will be at flood. During non-flood situations, you can still obtain the latest river level information for all sites and forecast river information for select points.

In the future, AHPS will be enhanced to include probabilistic forecasts which will provide the likelihood that the river will reach a specific level. It will also include real-time flood forecast maps depicting the aerial coverage of a flood in certain areas.

Everyone who makes decisions based on water, including farmers, emergency managers, municipal water supply officials, recreational boaters, and dam operators can benefit from AHPS. With AHPS, users will have the information they need to make more informed risk-based decisions.

According to Eastern Region Director Dean Gulezian, "If you can click a mouse, you will now have instant access to a wealth of water information".

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September 1996, Pt of Rocks MD. (Photo by Barbara Watson)



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events...thunderstorms, snowstorms, floods, and always went away feeling we'd given it our all. Everybody looked forward to working with Dewey, both as a meteorologist and as a person.

Dewey made people laugh. He could say incredibly funny things. When I come home I always look to see if anyone has called. About half the time when the red light was flashing the message was **A**Woody, this is Dewey, give me call...@We spent a lot of time on the phone laughing - his personality made me want to be funny. Just like in the song **A**it is the laughter, we will remember...@But now the red light won't be flashing nearly as often.

I like to give people nicknames. Because we arrived here at the same time I gave him the nickname **A**brother.@At work I would introduce him to visitors **A**this is my brother.@His early response was **A**Am NOT his brother.@But over the years I wore him down and he acquiesced to that moniker, which was shortened to **A**bro.@He was truly a friend.

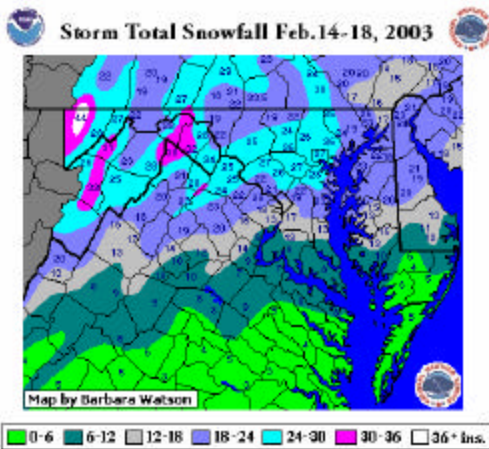
On the evening of his death I went outside to find it snowing very lightly - crystalline flakes gently floating from the sky. I am taking that as Dewey Walston's way of saying goodbye. I shall miss you bro. Farewell.

The President's Weekend Snowstorm of February 2003

by Michelle Margraf, Storm Data Focal Point

A major winter storm pounded the region between Friday February 14th and Tuesday February 18th. Many locations saw record breaking snowfall. The first batch of precipitation fell Friday night through Saturday evening in the form of snow and rain. The second batch of precipitation fell early Sunday morning through midday Monday in the form of snow and sleet. The third batch of precipitation on the back side of the storm fell between Monday night and midday Tuesday in the form of snow showers.

Snow and sleet accumulations ranged from 7 to 30 inches region wide. The lowest accumulations occurred south of a line from Charlottesville to Fredericksburg where sleet was the primary type of precipitation. The highest accumulations occurred across the eastern panhandle of West Virginia, the

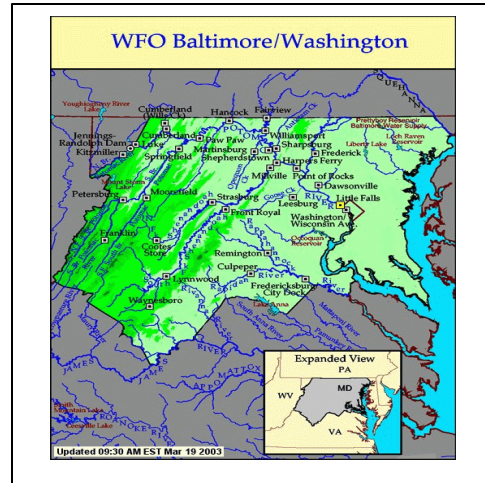


Snowstorm continues in right column...

Water prediction: from page 1

Take a look on our web page at:

<http://www.erh.noaa.gov/er/lwx> and click on "Rivers & Lakes AHPS". See the text products and new graphical information.



Snowstorm continued from left column...

northern Shenandoah Valley, northern Virginia, in addition to western and central Maryland where the precipitation fell mainly as snow. At Baltimore, this storm ranked as the biggest snowstorm of all time, dropping a total of 28.2 inches at BWI airport. At Washington, this storm ranks as the number 5 snowstorm on record. A total of 16.7 inches was recorded at Washington Reagan National Airport. Here is a list of the top 10 snow storms, updated to include the President's Weekend snowstorm of 2003:

The top 10 snow storms for Baltimore...

| Rank | Date | Total Snowfall (Inches) |
|------|---------------------|-------------------------|
| 1ST | FEBRUARY 15-18 2003 | 28.2 INCHES |
| 2ND | JANUARY 27-29 1922 | 26.5 INCHES |
| 3RD | FEBRUARY 11-12 1983 | 22.8 INCHES |
| 4TH | JANUARY 7-8 1996 | 22.5 INCHES |
| 5TH | MARCH 29-30 1942 | 22.0 INCHES |
| 6TH | FEBRUARY 11-14 1899 | 21.4 INCHES |
| 7TH | FEBRUARY 18-19 1979 | 20.0 INCHES |
| 8TH | MARCH 15-18 1892 | 16.0 INCHES |
| 9TH | FEBRUARY 15-16 1958 | 15.5 INCHES |
| 10TH | JANUARY 25 2000 | 14.9 INCHES |

The top 10 snow storms for Washington D.C...

| Rank | Date | Total Snowfall (Inches) |
|------|---------------------|-------------------------|
| 1ST | JANUARY 27-28 1922 | 28.0 INCHES |
| 2ND | FEBRUARY 11-13 1899 | 20.5 INCHES |
| 3RD | FEBRUARY 18-19 1979 | 18.7 INCHES |
| 4TH | JANUARY 6-8 1996 | 17.1 INCHES |
| 5TH | FEBRUARY 15-18 2003 | 16.7 INCHES |
| 6TH | FEBRUARY 11-12 1983 | 16.6 INCHES |
| 7TH | FEBRUARY 15-16 1958 | 14.4 INCHES |
| 8TH | FEBRUARY 7 1936 | 14.4 INCHES |
| 9TH | FEBRUARY 16-18 1900 | 14.3 INCHES |
| 10TH | JANUARY 29-30 1966 | 13.8 INCHES |

The Winter of 2002/2003

by Chris Strong, Climate Focal Point

The winter of 2002-03 was a solid shot from old man winter. It was cold and snowy and weather related problems seemed commonplace through much of the season. To see how this winter related to other winters in our past, a trip through our weather records is necessary. Official daily weather records for Washington and Baltimore date back to shortly after the civil war in the 1870s.

In Washington D.C. this season was colder than average. The last winter seasons that were this cold were during the back to back winters of 1976-77 and 1977-78, a quarter century ago. There were only five days that were 55 degrees or warmer which was only one day shy of the record set during the winter of 1904-05. There were thirteen nights that fell into the teens at Reagan Washington National Airport this winter. Compare that with zero nights last winter. Statistically the winter of 2002-03 was tied for the twenty-fifth coldest on record.

Precipitation was where this winter really made its mark. After a prolonged drought, El Nino helped to produce a whopping 12.31 inches of precipitation at Reagan Washington National Airport, the 16th wettest winter on record. This amount was four times greater than the precipitation from last winter and double what we had two years ago. Snowfall was recorded on 19 days, the greatest number of snow days in almost seventy years. There were 28 days with snow cover, the most in more than forty years.

The biggest snowstorm of the season occurred in February. Snow began on the 15th and continued off and on until the 18th. The 16.7 inches that accumulated ranked as the fifth greatest snowstorm on record. Interestingly, it happened on the twenty fourth anniversary of the third greatest snowfall, the massive President's Day storm of 1979. In addition, a major rainfall event occurred right after the snowstorm. Between February 21st and 23rd, two and one half inches of rain was recorded in just 24 hours. That was National Airport's greatest 24 hour precipitation amount in three and a half years.

In Baltimore, this was not the coldest winter ever but it seemed like it at times because it was so much colder than the winters of our recent past. This winter was the eighth coldest, while last winter was the ninth warmest. There were only four days the entire winter that were 55 degrees or warmer, the least amount since the winter of 1935-36. Compare that with the twenty-seven that occurred last winter. There were thirty nights that fell into the teens at BWI Airport this winter and three in the single digits. Compare that with six and zero respectively last winter.

Several precipitation records were broken this winter. After a prolonged drought, El Nino helped to produce an incredible 14.25 inches of precipitation, the 10th wettest winter on record. This was more than triple the precipitation from last winter and double what fell two years ago. There were 17 days with snow this winter, the highest number since the winter of 1935-36.
Continued on top of right column...

Winter continued from left column...

In February, the snow machine went into overdrive. A major snowstorm pounded the city between the 15th and the 18th. The 28.2 inches that accumulated made it the greatest snowstorm ever recorded in Baltimore. February ended up being the snowiest month ever with just over forty inches falling in only twenty-eight days. Snow covered the ground for 31 days this winter, the most since 1960. In addition, a major rainfall event followed right after the record snowstorm. Rain fell from February 21st through the 23rd and dumped more than two and a half inches of rain in just 24 hours.



Snow Covered Parking Lot in Martinsburg, WV on Feb 20th

Meteorologists Promote Weather Safety at the Washington Boat Show

by Dave Manning, Meteorologist

The 42nd Annual Washington Boat Show was held 13-17 February at the old convention center in downtown Washington, D.C. Forecasters from the National Weather Service in Sterling had an opportunity to participate in the boat show this year. A boat show such as this gives forecasters a chance to get out of the office and interact directly with the people whom we proudly serve.

The National Weather Service had a display set up at the boat show with an abundance of educational materials to help educate people about weather safety, a critical aspect of safe boating. Local forecasters from the National Weather Service in Sterling were also assisted by other meteorologists from the National Weather Service Ocean Prediction Center in Camp Spring, and also from the Office of Climate, Water and Weather Services at National Weather Service Headquarters. We even had help from some of our retired forecasters from our local forecast office!

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Boat show continued from page 3...

Many of the people in attendance were happy to see the National Weather Service at the boat show. Events such as this give people the chance to interact with the people that provide them with the critical information they need to plan their activities and stay safe from the hazards that Mother Nature can bring. The people who visited with us at the boat show ranged from recreational boaters to commercial fishermen, with a wide variety of questions and comments being posed to us about all aspects of our operations and mission. Overall, a good time was had by all who participated, and we look forward to participating in such activities again. So, the next time you're at a boat show, or perhaps even an air show, be sure to look for your National Weather Service, and stop by and say hi!

Regional Weather Review September through December 2002

by Michelle Margraf, Storm Data Focal Point

Sept. 27th: Scattered thunderstorms with high winds moved through Northern and Central Maryland, Northern Virginia, and the Eastern Panhandle of West Virginia during the afternoon. Trees were downed in Allegany, Frederick (MD), Carroll, Fauquier, Clarke, and Berkeley counties. Power lines were downed in Jefferson County. A funnel cloud was spotted in Manassas.

Oct. 29th-30th: Up to 2 inches of rain fell across the region. In the Potomac Highlands above 2500 feet, temperatures were below freezing. This caused the rain to freeze on impact on trees, power lines, roads, and bridges. Numerous trees were downed onto roads and power lines after being weighed down by ice up to 2 inches thick. Communications towers on Dan's Mountain and Pinnacle Mountain were damaged by the weight of the ice. The hardest hit areas were in Allegany, Grant, Hampshire, Hardy, and Mineral counties.

Nov. 11th: Scattered thunderstorms with high winds moved through the Washington D.C. metro area and Northern Virginia between 5 and 9 AM. Trees and/or power lines were downed in Montgomery, Culpeper, Arlington, and King George counties, in addition to Washington D.C. and Alexandria.

Nov. 30th: A strong cold front pushed through during the afternoon, ushering in cold air and moisture from the Great Lakes Region. Lake effect snow showers resulted across the higher elevations of the Appalachian Mountains during the evening. Between 1 to 6 inches of snow accumulated across the western portions of Allegany, Grant, and Mineral counties.

Dec. 5th: Low pressure moved from North Carolina to the Delmarva Peninsula between midnight and 3 pm. The storm produced accumulating snowfall across the entire region.
Continued on top of right column...

Review continued from left column...

Across Southern Maryland and the Fredericksburg area, freezing rain and sleet was mixed in with the snow. Snowfall accumulations ranged from 3 to 6 inches south of a line from Charles County to Pendleton County. North of this line, accumulations of 6 to 9 inches were reported.

Dec. 7th: Long standing low temperature records were set as a fresh snow pack, calm winds, and clear skies allowed temperatures to plummet around 20 to 30 degrees below normal. An 82-year-old man with Alzheimer's disease who wandered away from his Calvert County home died from exposure to the cold.

Dec. 11th: An area of low pressure that tracked across the region produced between 1 and 2 inches of rainfall. Unfortunately while the rain was falling, ground temperatures were below freezing in most locations. This caused the rain to freeze on contact with the ground and ice accumulations between ¼ and ½ inch occurred. Several slip and fall injuries were reported. In some locations, trees and power lines were downed by the weight of the ice. A total of 157,000 customers lost power for a time as a direct result of the storm.

Dec. 24th-25th: Low pressure brought wintry precipitation to the region just in time for Christmas. Across the Northern Shenandoah Valley, Western Maryland, the Eastern Panhandle of West Virginia, and Northern Virginia, mainly snow fell. Two to eight inches of snow accumulated, with the highest amounts occurring in the higher terrain. Across the rest of the area, a mix of snow, sleet, rain, and freezing drizzle was reported. Snowfall accumulations were an inch or less. After the precipitation ended, winds gusted to 45 MPH as a strong low pressure system passed by. Isolated power outages and downed trees were reported.

Cooperative Observers and SKYWARN Volunteers

Mark your calendars for an upcoming social event...

What: Cooperative Observers and SKYWARN Open House, Picnic, and Awards Ceremony

Where: National Weather Service Forecast Office in Sterling, Virginia

When: Saturday afternoon, August 9th, 2003

Check our web page and the summer edition of the *Sterling Reporter* for more information!



Web Page Introduction, Part III

by Jim DeCarufel, Webmaster

In earlier issues, we covered the Sterling web pages. Our final look into what we offer is the extensive text links on the left side menu. The top item is "[Local forecast by "City, St" or zip code](#)". In the window provided, you can enter any location in the country and the complete 7 day forecast for that location will open. Immediately below that are the [Current Hazards](#). Those links will bring up any active Watches or Warnings for the state selected. The [Hazardous Outlook](#) is a product we issue daily indicating the likelihood of significant weather for the next 7 days. [Current Conditions](#) is the next main section. The [Observations](#) link will bring current conditions across the region. [Satellite Images](#) will bring up links to a variety of different images available from the National Weather Service (NWS). The [Hydrology](#) link includes information such as the latest river levels, stage forecasts, flood and flash flood, as well as links to the USGS gauges and much more. The newest link is the [Rivers & Lakes AHPS](#). It is an interactive map that allows you to click on any river gauge and see the levels for the past 48 hours in a graphical format as well as all of the historical information we have on that gauge. This is extremely informative, especially for those folks living near the rivers. The [River Levels](#) link goes to the NWS Hydrologic main page with river information nationwide. The [Air Quality Index](#) is a link to a site with air quality information. [Road Conditions](#) links to the Department of Transportation's Federal Highway Administration where nationwide road conditions can be found. The [Radar Imagery](#) has links to the local and national radar data.

Under the [Forecasts](#) area is a lot of information. The [Text](#) link brings up a page where you can see the forecasts for Washington and Baltimore, get the Sun Rise/Set from the Naval Observatory, get the forecast for Selected Cities around the country, the Mountain/Skyline drive forecast, the 6-10 day outlook, monthly and seasonal outlooks, the forecast discussion and a list of all the acronyms and abbreviations that we use in our products. The [Aviation](#) link goes to the NWS Aviation Center which has information critical to pilots. The [Marine](#) link brings up information needed by boaters/mariners from Maine to Florida. The [NWS Marine Page](#) has information for nationwide boaters/mariners. The [Discussion](#) link is the people who can't get enough of the weather and want to read our thoughts on the latest forecast. Our [Fire Weather](#) page relates to forestry management and prescribed burns. The [UV Index](#) points to the forecast index for tomorrow for major cities across the country. [Tropical](#) goes to the National Hurricane Center for hurricane and tropical storm information. The [Models](#) page points to the NWS and US Navy pages for all types of model data. [Maps](#) points to the NWS map section that has a wide variety of current and forecast maps.

[Climate](#) is an area that contains a wealth of information. The [Past Weather Data](#) link is to our climate page that has

weather data for 7 locations, by day, for the last 3 years. The [NWS Climate Links](#) goes to the NWS climate page. [Storm Reports](#) offers a descriptive narrative of significant/severe weather that affected any portion of our forecast area by month from 1996 on. [Climate Prediction](#) points to the Climate Prediction Center which talks about El Nino, monthly and seasonal outlooks and much more. The [Drought](#) link is to our drought information page. And finally, the [Sun Rise/Set](#) tables for major cities around the area. I also have a link to the US Naval Observatory where one can get solar and lunar data for anywhere.

[National Centers](#): These links point to the NWS Central offices for the links shown. [Weather Safety](#): Is your community STORMREADY? Find out what it all means here. [Winter Safety](#) and [Heat Safety](#) deal with precautions you should take or be aware of during the winter and summer. [Safety & Preparedness](#): [SKYWARN](#) lists information about our spotter program and upcoming classes. [Weather Radio](#) contains information about NOAA weather radio and why you should have one on your home or business. [Lightning Safety](#) has information about lightning strikes and safety precautions. [Wind Chill Chart](#) shows how fast your body can be affected by wind and temperature. [Education/Outreach](#): If you'd like to set up a tour of our office, you'll need to visit this section. [NOAA Site](#) goes to the NOAA education page with tons of useful information. The [Virtual Tour](#) is an online tour of our office. [Definitions](#) explains what a Watch or Warning is and what they mean. Our [Classroom](#) link is geared toward students, teachers, and weather enthusiasts. [S.W.E.P.](#) is the Severe Weather Emergency Plan and is geared toward preparing schools for severe weather events.

[Archives](#): The Archives link shows some maps and reports done by this office for significant weather events. [Historic Events](#) is more comprehensive, covering tornado outbreaks, major snowstorms, and weather during presidential inaugurations. [Snow event maps](#) has accumulation maps for our area from past snowstorms. [Inaugurations](#) details some of the weather conditions that have happened during presidential inaugurations. [Sept 24 tornado](#) - information about the tornado outbreak which affected much of the area in 2001.

[Miscellaneous](#): [Weather Pictures](#) is a page we set up to show some of the weather pictures that people have sent us. If you have an interesting picture and would like us to include it, read the Submit Pictures link to understand our requirements. [More New Links](#) cover a wide range of topics including what it takes to become a meteorologist.

[Contact Us](#): Links on how to communicate with members of this office.

I realize that some of the links were glossed over but space is limited in the newsletter. By all means, please check out our web page links because it's likely everything you ever wanted to know about weather can be found on our website. We have worked hard to add interesting and valuable information to our site and hope that you are able to find what you need easily.

Upcoming SKYWARN Classes

Classes are added regularly so check web site often.

BASICS I SKYWARN CLASS

This class is a pre-requisite for all other classes.

Monday, April 28 from 1:00-4:30PM in La Plata, MD.

Register with Don at 301-609-3402 or

www.charlescounty.org

Monday, April 28 from 7:00 to 10:00PM in Hughesville, MD.

Register with Tom at w3tom@arrl.org

Saturday, September 6 at the Howard County Fairgrounds.

Class details will be posted this summer.

NET CONTROL CLASS

Sunday, May 4th from 3:30-5:00PM in Sterling, VA. Register with melody.paschetag@noaa.gov or call 703-260-0107 ext 420

BASICS II SKYWARN CLASS

Wednesday, June 18th from 6:30-8:30PM at NASA Goddard Space Flight Center in Greenbelt, MD. The class is being hosted by the NASA Goddard Amateur Radio Club. To register and get directions go to

<http://www.patkilroy.com/skywarnRSVP/>

History of Tornadoes in Washington D.C.

Research by Barbara Watson, WCM

Here's a list of confirmed tornadoes that have moved through Washington, D.C. since the city was founded in 1791.

August 25, 1814 A strong tornado struck the same day British troops set several buildings in the city on fire during the War of 1812. More British soldiers were killed by the tornado than by the American resistance. Raging fires at the Capitol, the White House, and other public buildings were partially extinguished by heavy rain with the storm. The tornado blew off roofs, knocked down chimneys and fences, damaged numerous homes, and lifted cannons and deposited them several yards away. At least 30 Americans were killed or injured and an unknown number of British were killed or injured.

September 16, 1888 At 3:15 PM, an F2 tornado touched down between 9th and 10th streets and moved up Maryland Avenue. Two homes lost their roofs. The roof of the National Museum was damaged, as were the Botanical Gardens. The funnel lifted at the foot of Capitol Hill. The damage path was 2 miles long and 70 yards wide. No injuries or fatalities were reported.

April 5, 1923 At 2:30 PM, an F3 tornado touched down in Rock Creek Park and moved to just north of the Silver Spring train station. There were no fatalities, but 20 people were injured. The tornado demolished seven houses and damaged 12 more. Hundreds of trees were uprooted and snapped. The damage path was 11 miles long and 110 to 250 yards wide. Damage was estimated at \$100,000 (1923 dollars).

May 14, 1927 At 6:00 PM, an F0 tornado briefly touched down near Capitol Street and Rhode Island Avenue. There were no fatalities or injuries. Damage was estimated at \$1,000.

November 17, 1927 At 2:25 PM, an F2 tornado crossed the Potomac River from Arlington and swept across the Navy Yard near 8th and M streets SW. The tornado passed where RFK now stands and missed the Capitol by just 9 blocks. It dissipated near East Riverdale, MD in P.G. County. There were no fatalities, but 50 people were injured. A total of 439 buildings were damaged at a cost of \$200,000 (1927 dollars).

May 21, 1943 At an unknown time, a waterspout sighted over the Potomac River moved inland as a F0 tornado passing within a few yards of the Jefferson Memorial before dissipating. The path was 0.2 miles long and only 25 yards wide. No damage or injuries were reported.

May 21, 1943 At an unknown time, a funnel was sighted and thought to have briefly touched down near the Naval Hospital. The path was 0.1 miles long and only 10 yards wide. No damage or injuries were reported.

May 18, 1995 At 1:22 PM a small F1 tornado struck the National Arboretum. The path was 0.5 miles long and 50 yards wide. The tornado uprooted dozens of trees. Then it crossed the Anacostia River where it uprooted and snapped other trees. Damages were estimated at \$50,000.

September 24, 2001 A rope-like tornado crossed the 14th Street Bridge from Arlington into the District at 5:07 PM. The F0 tornado skipped along for 2 miles downing trees and branches before it dissipated just northeast of the Capitol. The weather observer at Ronald Reagan National Airport watched as the tornado passed the Jefferson Memorial and tracked over the Washington Monument. Next, the tornado passed the Smithsonian museums, along the Mall, and toward the Capitol. The tornado dissipated near the intersection of Rhode Island and New York avenues at 5:12 PM. However, a funnel cloud continued to hang from the storm as it tracked by McMillian Reservoir and Children's Hospital in the northeast portion of the city. The funnel touched down a few minutes later as a deadly F3 tornado in the suburb of College Park, Maryland.



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