SEPTEMBER 1996: The first month of the meteorological Autumn was highlighted by frequent cloudiness (only 50% of possible sunshine) and heavy rainfall (between 5 and 10 inches) across most of the Washington/Baltimore area. All five airports recorded above normal precipitation, with monthly departures exceeding +4" at both DCA and IAD and topping +7" inches at DAA. There were numerous days with significant precipitation (7 days with  $\geq 0.50$ " at DCA), with the most significant event occurring on the 6th as the remnants of Hurricane Fran passed through the area. The month opened on a wet note with heavy showers yielding up to 2 inches of rain at DCA on the 2nd-3rd. A few days later (Sept. 5th), Hurricane Fran made landfall between Wilmington and Cape Fear, NC, packing wind gusts up to 120 mph. A very large if not exceptionally powerful hurricane. Fran affected a broad area during it's trek through the mid-Atlantic. Hurricane-force wind gusts were observed as far from the landfall site as southeastern Virginia and north-central North Carolina. The hurricane caused severe damage to North Carolina coastal communities near the landfall site, with numerous boats and debris from widespread wind damage pushed up to a mile inland by an 8- to 12-foot storm surge. The remnants of Fran pushed northwestward toward the central Appalachians while dissipating, resulting in inundating rains along the eastern Appalachians and Piedmont sections of the mid-Atlantic. Up to 14 inches of rain soaked portions of the Virginia mountains while about 3 inches were reported locally, mainly in the northern and western suburbs of Washington. Strong winds accompanied the storm, resulting in numerous downed trees and power lines and widespread power outages across North Carolina, Virginia, Maryland and D.C. The heavy rains associated with Fran's remnants forced many rivers and streams out of their banks, causing severe flooding from west-central Virginia and extreme eastern West Virginia to portions of the local area. According to press reports, flooding closed more than 600 roads in Virginia and forced thousands of people from their homes. Locally, flooding along the Potomac left portions of Georgetown (Washington, D.C.) and Old Town Alexandria, VA under water. This was the second major flood of the calendar year to affect the Shenandoah Valley as well as the local area, the other occurring in January from heavy rain and snowmelt. With Fran's heavy rains (on the 6th) and precipitation earlier in the month (2nd-3rd), some locations in west-central Virginia observed as much as 20 inches of rain (nearly 5 inches locally at IAD) during the first week of September (see cover graphic). With additional rainfall during the month, monthly totals reached nearly 8 inches at DCA, making it the wettest September since 1975 (second wettest ever at the airport). Almost 11 inches fell at DAA.

Near to slightly below normal temperatures were observed across most of the local area. DCA recorded its seventh consecutive September with cooler than normal conditions. The month commenced with abnormally warm weather as the first ten days averaged about 3.5°F above normal, but cooler than normal conditions dominated during the last two-thirds of the month, and September ended nearly a degree below normal at DCA. There was only one day when the high hit 90°F (8th) at DCA, pushing the 1996 total to 21, the fewest such days since 1979.

## SEPTEMBER 1996 WEATHER STATISTICS FOR THE WASHINGTON BALTIMORE AREA:

Station	Temperatures (°F)				Extreme/Day			Precipitation (In)		
Location	<u>AvMx</u>	<u>AvMn</u>	AvgT	NmiT	<u>DepNm</u>	MaxT	MinT	<u>Total</u>	Norm	DepNm
National (DCA)	78.2	62.9	70.5	71.3	-0.8	90/8	52/30	7.79	3.31	+4.48
Baltimore (BWI)	77.3	58.3	67.8	68.5	-0.7	89/8	46/26	5.65	3.41	+2.24
Dulles (IAD)	76.3	57.9	67.1	67.1	0	90/8	46/20	7.72	3.36	+4.36
Ft. Belvoir (DAA)	80.1	60.4	70.2	M	M	91/8	50/26*	10.75	3.6	+7.2
Andrew AFB (ADW)	77.2	59.4	68.3	M	M	88/7#	46/24 <b>©</b>	5.35	3.6	+1.8

Other occurrences: \* September 30th; # September 8th and 10th; @ September 26th.

## **LOOKING AHEAD TO OCTOBER:** The first frost and/or freeze.

October is usually the month when we think about the first frost or freeze to affect the Washington/Baltimore area, especially away from the cities. Below is a list of the dates of the first 32°F or lower reading during the last ten years at DCA and IAD, along with the earliest and latest freezes on record in Washington.

<u>Year</u>	First 32°F (or lo	ower) reading	<u>Year</u>	First 32°F (or lower) reading		
	<u>DCA</u>	<u>IAD</u>		<u>DCA</u>	IAD	
1995	November 5	October 17	1990	November 19	October 20	
1994	November 24	October 11	1989	November 18	October 23	
1993	November 2	October 1	1988	November 25	October 6	
1992	October 20	October 7	1987	November 11	October 9	
1991	November 4	October 8	1986	November 13	October 7	

Washington Earliest Freeze: October 10, 1895 Washington Latest Freeze: December 14, 1980