



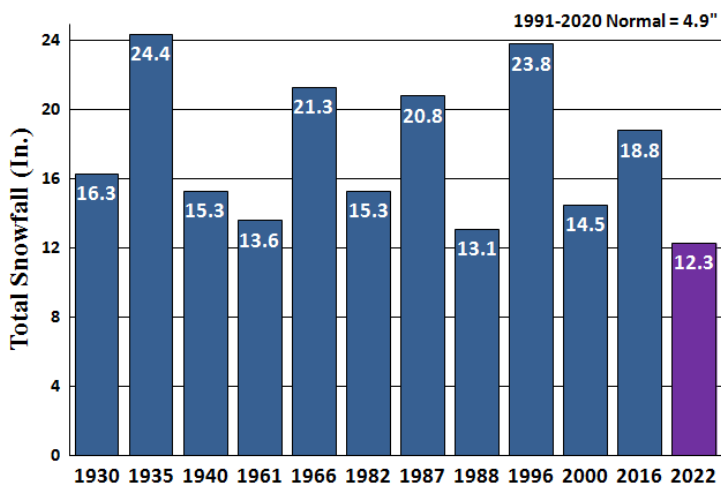
PRESTO

PRECipitation Summary and Temperature Observations
For the Washington, DC and Baltimore, MD Area

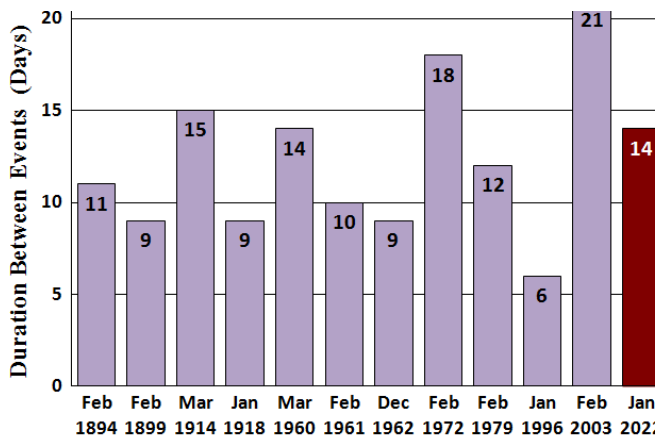


JANUARY 2022: Finally a Cold & Snowy Winter Month! Consistently Cold; Ample Precipitation; Several Snowfalls

Washington's Last 12 Januarys With 12"+ Snow



Short Durations for at Least 3 Snowfall Events
of 2.6"+ During a Month in Washington



January Highlights

- Consistently below normal **temperatures**: DCA 34.6°F (-2.9); BWI 32.3°F (-2.0); IAD 31.4°F (-2.5)
- 1st – **Record high** minimums set at both DCA (53°F) and IAD (56°F)
- Polar air prevailed after initial warmth: DCA's **26** days falling to/below freezing was the most in any month **since January 2011**
- Several very cold mornings N&W of metros: 15th Millers (Carroll Co.), MD dropped to **6°F**; 22nd saw **-6°F** near Winchester, VA and **1°F** at Martinsburg, WV; on the 26th Oakland (Garrett Co.), MD had the region's lowest reading at **-22°F**.
- Near to above normal **precipitation**: DCA 3.68" (+0.82"); BWI 4.27" (+1.19"); IAD 3.90" (+0.96"); IAD daily record **1.10"** on 16th
- 1st – A soaking rain for most locations, especially southern MD, with as much as **2.35"** in Leonardtown (St. Mary's Co.)
- 3rd – Rain to heavy snow brings 5-12" snow to most of DC metro & points south/east; jackknifed tractor-trailers across northern & Central VA shut down I-95, stranding motorists for up to 27 hours; **15.0"** in Spotsylvania Co., VA and **14.3"** near Waldorf, MD
- 7th – More snow with typical gradient: 3" and less DC & south, 3" and more BWI & north/west: **6.0"** in Rockville, (Montgomery Co.), MD, **8.0"** near Thurmont (Frederick Co.), MD; and generally 4-6" Blue Ridge and west, with up to **9.0"** in Rig (Hardy Co.), WV
- 16th – Strong Nor'Easter brings snow, ice, rain, and marginally severe winds. 4-8" snow across mountains, 1-4" common elsewhere, with **7.0"** near Front Royal (Frederick Co.), VA and several **8.5"** reports in/near Staunton and Waynesboro, VA; ice near 0.1-0.2" for many locations, with **0.25-0.30"** across Frederick Co., MD; downed trees in Calvert County, MD & gusts measured to **63** mph
- 29th-30th – Another Nor'Easter deepened off the Delmarva coast, bringing snow yet again, with greatest totals to south/east of metros, with generally 2-5" along MD Coastal Plain, and as much as **7.0"** in St. Mary's Co.; 2" and less along and west of I-95.
- Above normal **snowfall**: DCA 12.3" (+7.4); BWI 13.3" (+5.8); IAD 11.4" (+4.4); Other noteworthy totals (departures from normal) range from slightly below normal in the mountains: Frostburg (Allegany Co.), MD 16.1" (-2.0) ... to several copious reports: near Charlottesville, VA 20.5" (+16.3), Staunton, VA 20.3" (+16.2), and near Mechanicsville (St. Mary's Co.), MD 15.5" (+10.4).

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January 2022

January Temperatures: Average monthly temperatures were below to well below normal for the entire area: DCA 34.6°F (-2.9°); BWI 32.3°F (-2.0°); IAD 31.4°F (-2.5°); with other 1st-order airports trending colder (-3.8 to -4.3). Despite **record warmth** on the 1st and unseasonably mild conditions lasting through the 2nd, the remainder of the month was predominantly cold. The corresponding synoptic pattern featured classic mid-winter chill as an upper low near Hudson Bay promoted numerous Canadian surface highs infiltrating the Mid-Atlantic, with any 1-2 day respites in between these cold blasts generally only near or slightly above seasonable levels. Daily maximums were typically in the 30s-40s, with minimums commonly in the 15-30F range, as DCA's daily minimums dropped to/below freezing on 26 of the month's last 29 days.

The 19th was the mildest day following the early-month warmth, with the 3 airports (DCA, BWI, IAD) peaking at 55°F, 55°F, and 53°F. Otherwise the prevailing cold periods were most pronounced on the 4th, 8th, 11th, 15th, 21st-22nd, and 29th-30th. DCA posted below normal readings on 10 of the month's last 11 days, with daily minimums in the teens on the 21st, 22nd, and 30th and maximums held to 27°F (21st) and 32°F (30th). IAD also did not surpass freezing on these two days, nor on the 4th, 11th, 22nd, and 29th. The mid-month chill was the first time DCA dropped below 22°F and did not rise above 31°F in nearly 3 years (February 2019).

January Precipitation: The month's weather stayed active as the numerous troughs crossing the eastern US often developed winter storms along the eastern seaboard: DCA 3.68" (+0.82"); BWI 4.27" (+1.19); IAD 3.90" (+0.96), with near normal precipitation reported in most other locations. While locations in the northern mountains and along the Pennsylvania border saw near or slightly below normal precipitation and snowfall, areas impacted by heavy snow(s) recorded as much as 3 to 5 times their normal snowfall (see last highlight, above).

On the 1st, a nearly-stationary front ahead of the initial invasion of polar air focused a warm, soaking rain over most of the region. In addition to greatest totals over southern MD (see highlight above), totals were up to **2.11"** in Fredericksburg, VA area, and many reports over 1.00" in central MD, with **1.45"** in Highland (Howard Co.). Late on the 2nd and into the 3rd, a deepening and departing coastal low brought a rain to snow event with greatest totals again over the MD Coastal Plain: **2.00"** in Charlotte Hall (St. Mary's Co.), MD and **1.99"** in Riva (Anne Arundel Co.), MD, with **1.65"**+ also observed across VA from Franconia (Fairfax Co.) and Arlington to the Fredericksburg area. A tight snowfall gradient was found from **12.0"**+ south/east of I-95 to flurries in Frederick Co., MD. The three airports recorded **6.9"**, **6.8"**, and **3.9"**; this was the first 6"+ snowfall at DCA that exceeded BWI and IAD's totals since 1/30/2010 (6.4", 5.0", 4.5"). On the 7th a system passing to the south produced a quick and fluffy pre-dawn snowfall (see greatest totals above); the three airports observed **2.6"**, **3.0"**, and **4.0"**.

The 16th's Nor'Easter took an interior track over the region, which brought snow to ice to rain to most of the region. Greatest snowfall totals were reported in the mountains, while light to moderate amounts were common for most other areas, with the 3 airports picking up **2.6"**, **2.0"**, and **2.5"**. More impactful was **0.10"**+ **ice** reported in several counties of the Piedmont and Appalachians, with **0.20"** or greater between Culpepper and Warren counties in VA and Frederick County, MD. Total liquid precipitation for this potent event reached 1.00-1.50" across almost the entire region, with reports of **1.75"**+ in St. Mary's County, MD, several reports of **1.60"**+ between the Staunton and Waynesboro areas in VA, and two other observations of **1.55"**+ in Baltimore County, MD.

The month's active weather pattern transitioned to drier conditions through the end of the month as generally cold northwest flow predominated over the region. A more modest precipitation event on the 19th-20th saw 0.25"-0.65" reports for many counties, and only a light coating of frozen precipitation across the far northern MD Piedmont. Accumulating snow returned for the 28th-29th, with generally light amounts along I-95 and north/west as exhibited by the three airports: **0.2"**, **1.5"**, **1.0"**. However, significant snow fell once again across the Coastal Plain, with several **4.0"** reports in MD from Anne Arundel to Calvert County, and **7.0"** recorded in Ancient Oaks (St. Mary's Co.). January 2022 ended with several total precipitation reports of 6-7" from near Fredericksburg, VA to St. Mary's County, MD, and there was even a noticeable gradient in snowfall departure from normal within Montgomery County, MD: Damascus, MD observed 11.0" (+1.6), while 13 miles to the south, Rockville recorded 13.8" (+6.5).

January 2022 Weather Statistics for the Washington/Baltimore Area

| Location | Station Temperatures (°F) | | | | | Extreme/Day | | Precipitation (inches) | | | |
|-----------------|---------------------------|--------|-------|-------|------|-------------|-------|------------------------|-------|-------|------|
| | Av Max | Av Min | Avg T | Nml T | ΔNml | Max | Min | Total | Nml P | ΔNml | Snow |
| National (DCA) | 42.0 | 27.2 | 34.6 | 37.5 | -2.9 | 66/1 | 16/22 | 3.68 | 2.86 | +0.82 | 12.3 |
| Baltimore (BWI) | 40.9 | 23.7 | 32.3 | 34.3 | -2.0 | 65/2 | 13/27 | 4.27 | 3.08 | +1.19 | 13.3 |
| Dulles (IAD) | 40.1 | 22.8 | 31.4 | 33.9 | -2.5 | 64/2 | 9/30 | 3.90 | 2.94 | +0.96 | 11.4 |

Looking Ahead: Does a cold and snowy January often lead to similar patterns in February? Since 2000, eight Januarys have exhibited such conditions, with four of the following Februarys being either colder or snowier than normal.

| DCA | 2000 | | 2004 | | 2005 | | 2010 | | 2011 | | 2014 | | 2016 | | 2019 | | 2022 | |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| | JAN | FEB | JAN | FEB | JAN | FEB | JAN | FEB | JAN | FEB | JAN | FEB | JAN | FEB | JAN | FEB | JAN | FEB |
| AV TEMP | 35.8° | 42.4° | 30.5° | 38.1° | 36.0° | 39.6° | 35.3° | 34.2° | 33.6° | 41.7° | 32.2° | 37.8° | 34.9° | 39.9° | 37.2° | 42.2° | 34.6° | ?? |
| SNOW | 14.5" | 0.9" | 6.2" | T | 6.4" | 5.2" | 7.4" | 32.1 | 7.3" | 0.5" | 6.6" | 11.2" | 18.8" | 3.1" | 11.5" | 3.7" | 12.3" | ?? |

DCA 1991 - 2000 Normal Monthly Temperatures (°F), Snowfall (In.): JAN (37.5°, 4.9") ... FEB (40.0°, 5.0")