

2024-25 Winter Outlook and NWS Tools



*National Weather Service
Baltimore/Washington*



Advancements

- ❑ Snow accumulation maps available on national GIS map (Pan & Zoom)
 - Starting mid-November
- ❑ End-Time of Wintry Precipitation graphic
- ❑ NWSChat powered by Slack
 - Chatroom to chat with our forecast team 24/7 (government partners)
 - Contact christopher.strong@noaa.gov to sign up



Outline



- ❑ What is normal, and recent winters
- ❑ This winter's outlook
- ❑ Tools to help you





What is a “Normal” Winter (1991-2020 average)

DCA	Nov	Dec	Jan	Feb	Mar
Temperature (High/Low)	58°/42°	49°/35°	45°/30°	48°/32°	57°/39°
Snowfall 13.7” total	0.1”	1.7”	4.9”	5.0”	2.0”

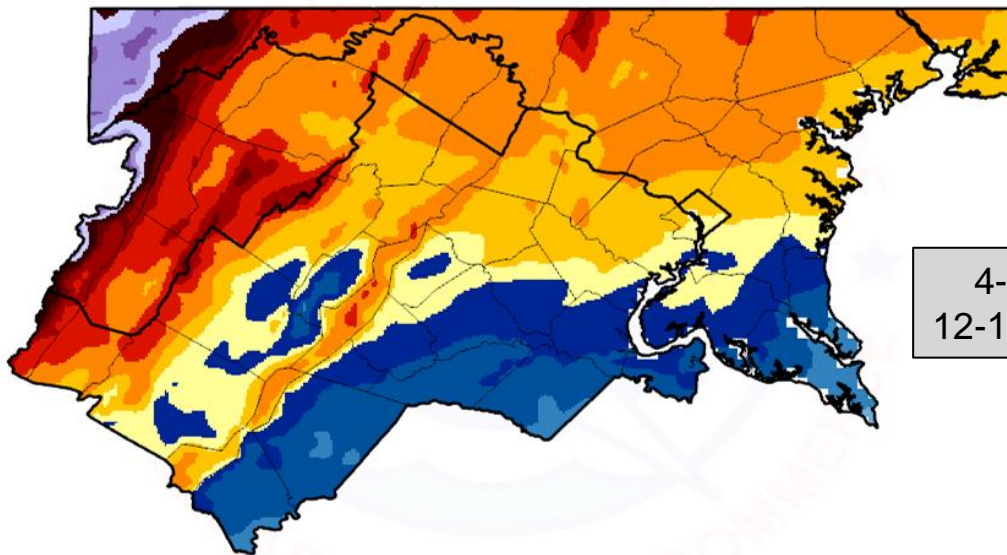
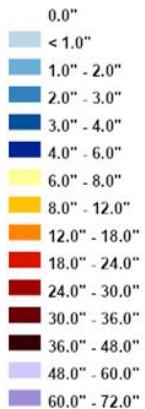


Snowfall: Last Winter (2023-24)



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10/15/2024 03:41PM

Snowfall (in)



4-6" south NCR
12-18" north NCR



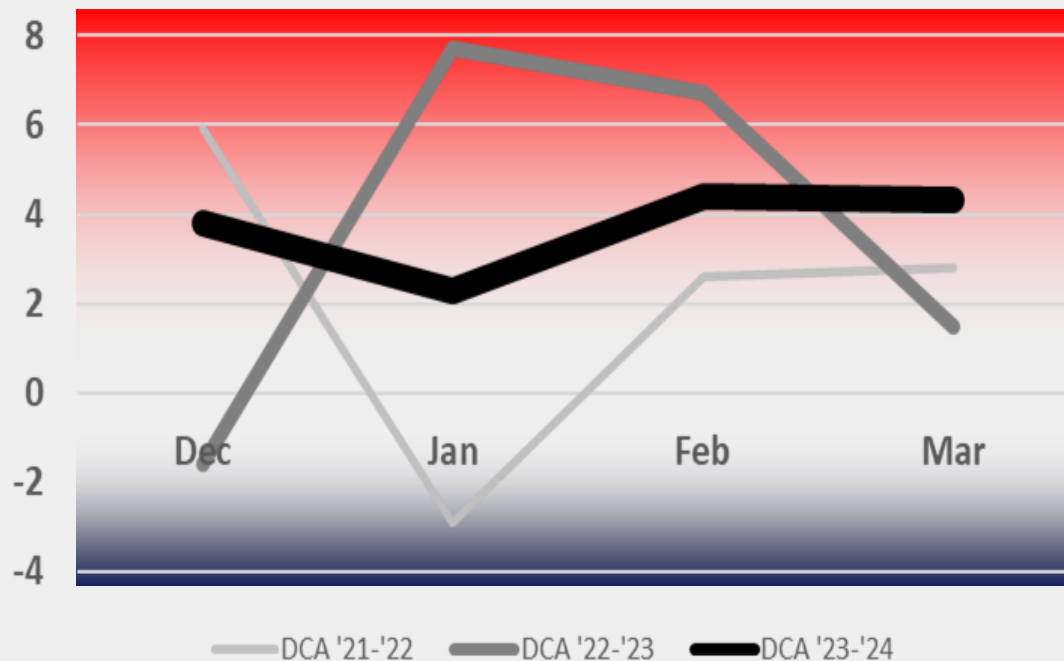
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Temperature the Past 3 Winters at Reagan National Airport



Departure from Normal (in degrees)



'23-'24 7th warmest on record
(one cold/snowy week in Jan)

'22-'23 4th warmest of record
(very cold Dec 24-26)

'21-'22 One month of below normal

*Need to go back a decade for a cold winter
(2013-14 and 2014-15)*

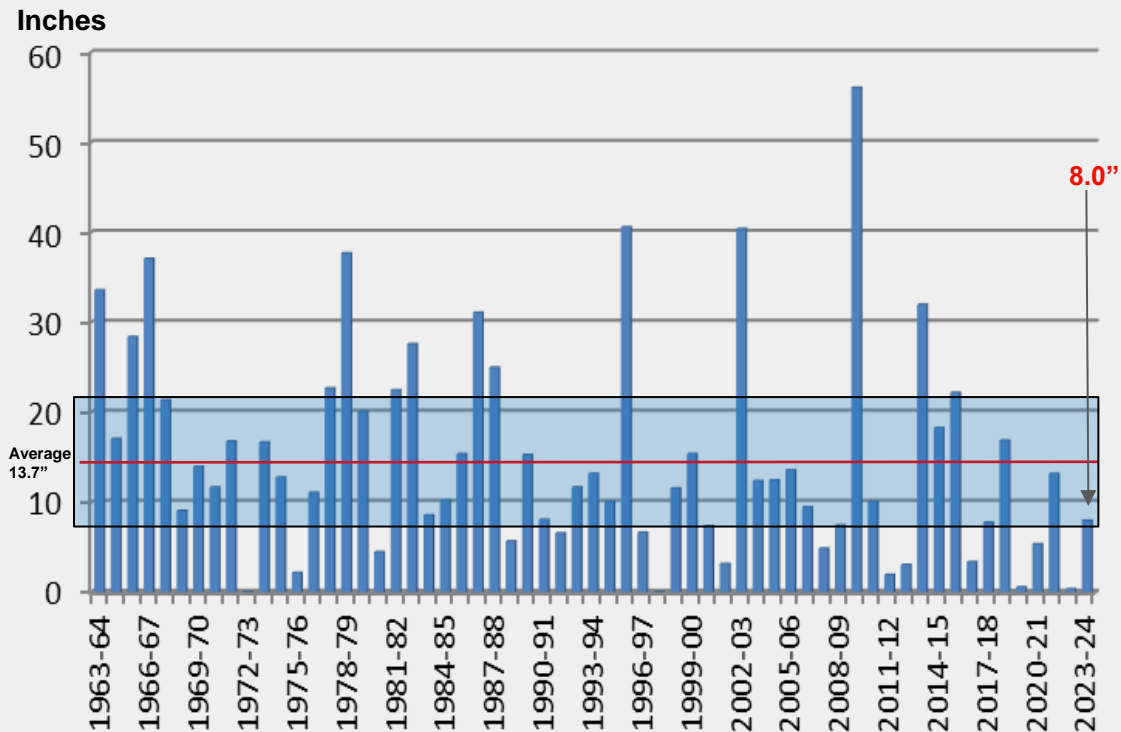


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DCA Winter Snowfalls



Single Digit Snowfall Years

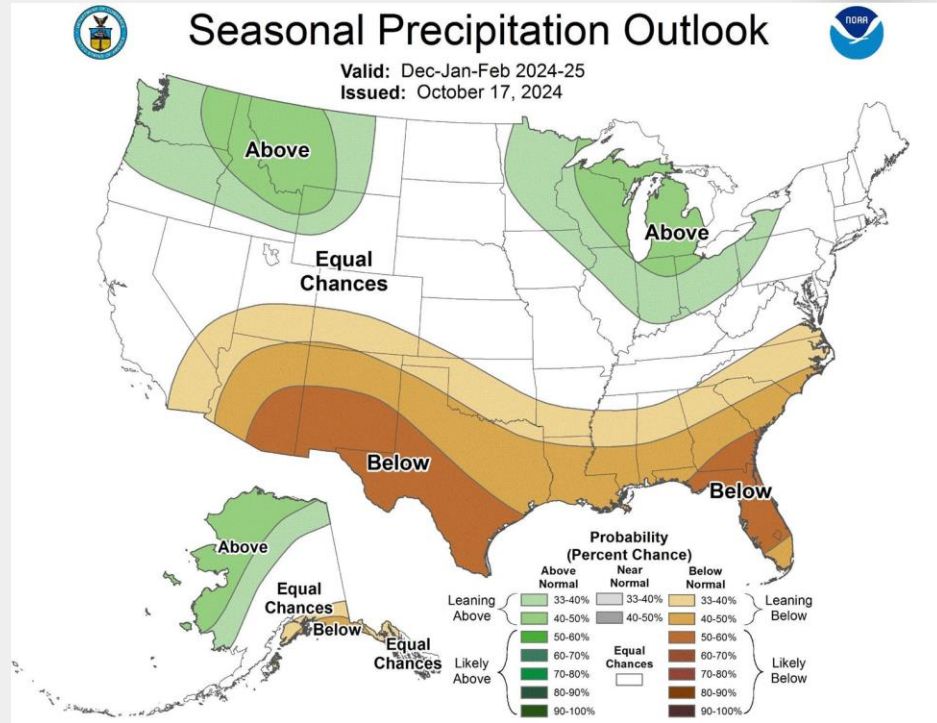
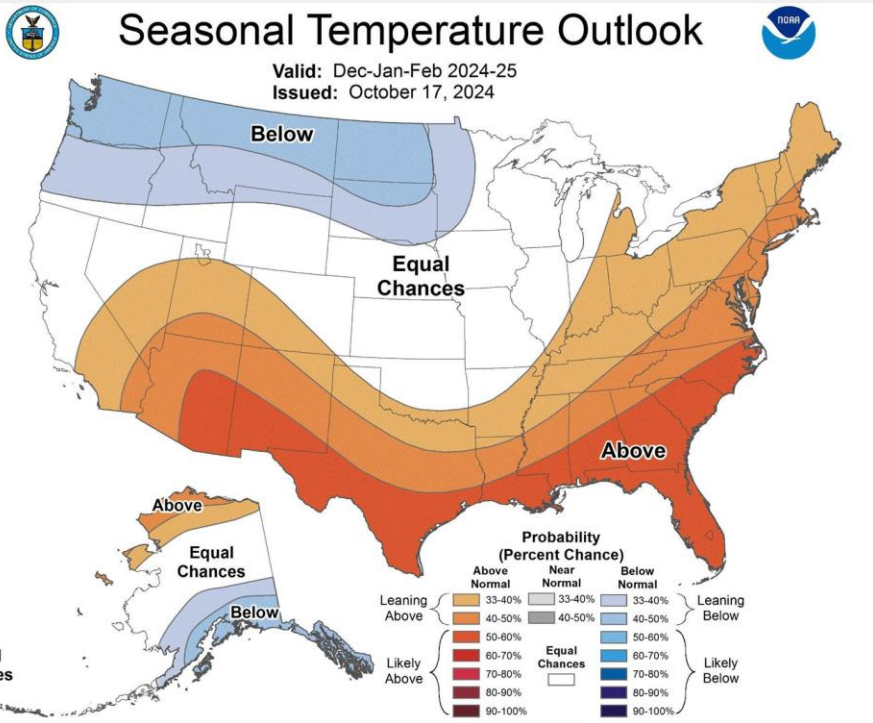
- 1900 – 1950** 25% of winters
- 1950 – 2000** 25% of winters
- 2000 – 2020** 50% of winters

However, the “big snowfall” winters also persist





Winter Outlook - Temperature & Precipitation





Winter Outlook - Mid Atlantic Region

■ El Niño/La Niña Cycle

■ La Niña

- Back to La Niña after 1 El Niño winter
- Lesser chances for a big coastal snowstorm
- Greater chances for mixed precip, freezing rain

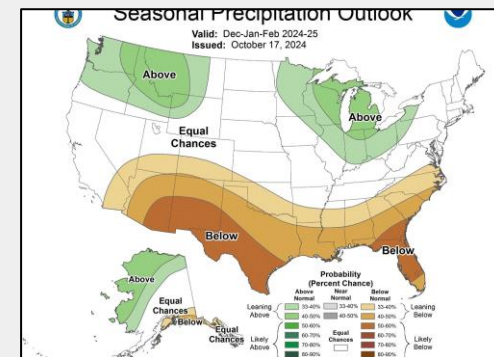
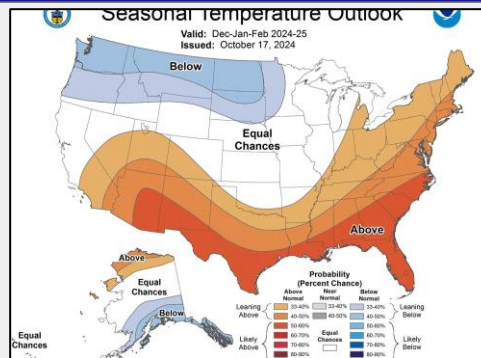
■ Mid-Atlantic Outlook:

■ Temperature

- Higher odds of warmer than average (as a whole)
- More of the same

■ Precipitation

- Near normal
- Sandwiched between wet Midwest and dry Southeast



NWS Winter Tools - weather.gov/lwx/wintermaps



Still can be snow in the forecast.
Check webpage, and monitor our partner emails for notifications.



Winter Storm **Watch**

- Possibility of 5+” snow
- ~1-3 days in advance



Winter Storm **Warning** (Blizzard, Ice Storm)

Winter Weather **Advisory**

- Expectation (5”+ Warning; 1-4” Advisory)
- ~12-24 hours in advance

WINTER WEATHER HEADLINES 1 PM UPDATE
Visit weather.gov/lwx/winter for latest information

UPDATE:
Winter Weather Advisories have been canceled aside from portions of northern VA and Jefferson County, WV. Ice Storm Warnings remain in effect.
Sleet and freezing rain is ongoing or expected across the warned/advised areas
In the mountains, gusty winds of 25-40 mph combined with significant icing could cause tree damage & power outages

Storm Timing	Expected Impacts	Actions to Take
Through this evening	Difficult/Icy Travel Power Outages Possible Tree Damage Possible	Delay or Cancel Travel Plans Be Prepared for Loss of Power



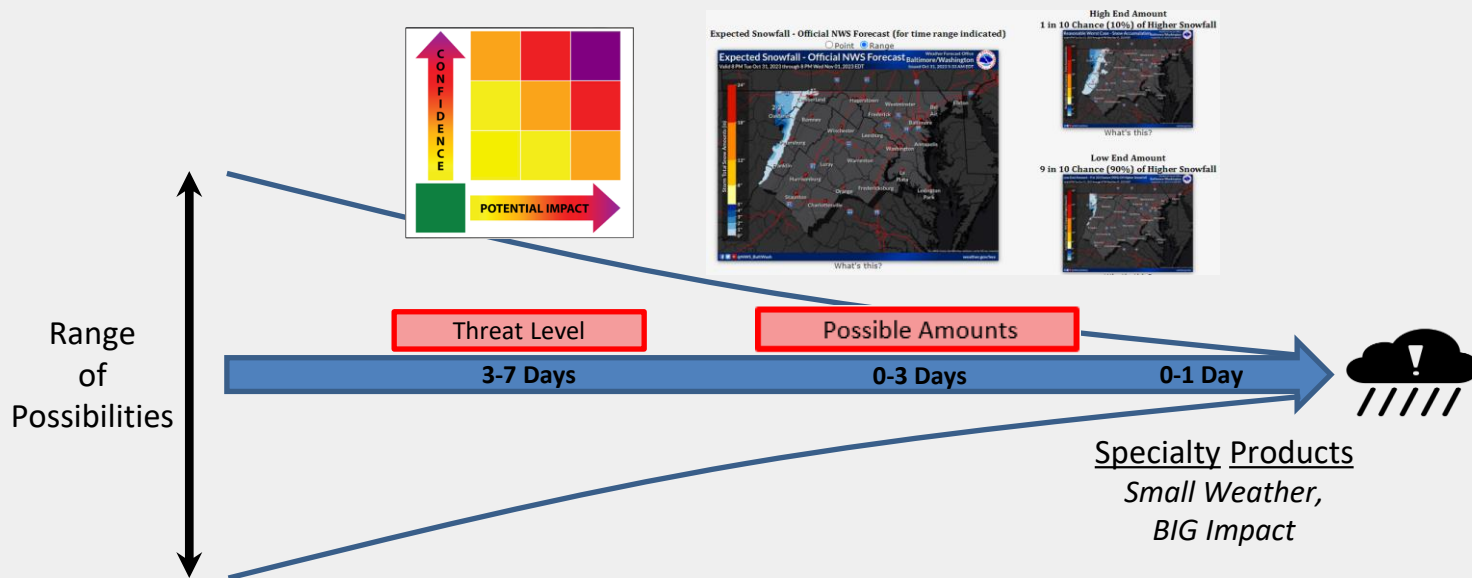
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As event nears, “Range of Possibilities” shrinks & forecast detail increases.

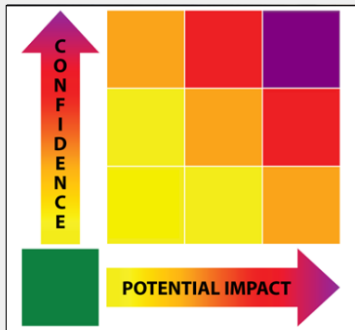
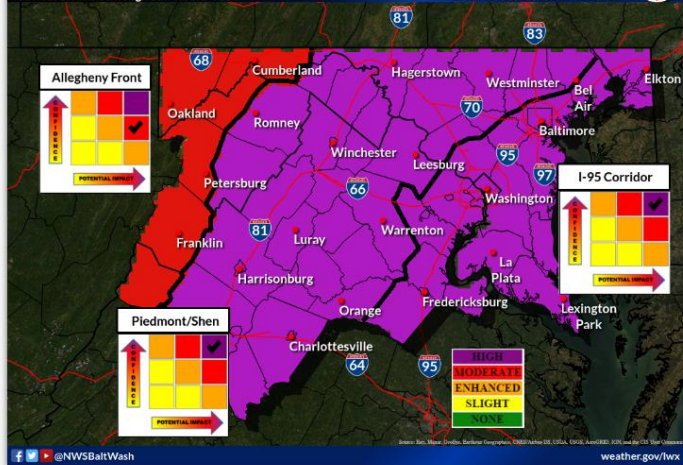




NWS Winter Tools - weather.gov/lwx/wintermaps



Day 5 Winter Storm Threat Weather Forecast Office Baltimore MD/Washington, DC
Valid Sat 8:00AM through Sun 8:00AM EDT
Issued Tue Oct 19, 2021 9:50 AM EDT



3-7 Days Out

Winter Storm Threat

High	High threat of high impact winter storm. Potential impacts include significant travel delays, closures, and threats to life and property. Plan ahead to minimize impact on you and your family.
Moderate	Moderate winter storm threat. Potential impacts include significant travel delays and closures. Plan ahead to minimize impact on you and your family.
Enhanced	Enhanced winter storm threat. Primary threat is disruption to travel.
Slight	Slight winter storm threat. If threat materializes, may cause travel disruptions.
None	No significant winter storm threat is currently expected. However, light wintry precipitation may still be possible.



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0-3 Days Out Range of Possible Accumulations

Expected Snowfall - Official NWS Forecast (for time range indicated)



What's this?

High End Amount
1 in 10 Chance (10%) of Higher
Snowfall



What's this?

Low End Amount
9 in 10 Chance (90%) of Higher
Snowfall



What's this?

High-End
Potential

How much/little
could it be, given
what some models
still show

Low-End
Potential

Current Snowfall
Expectation

What our forecasters
expect now.

Based on the latest,
constantly - evolving
models



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0-3 Days Out Range of Possible Accumulations

Expected Snowfall - Official NWS Forecast (for time range indicated)

○ Point ● Range



What's this?

High End Amount
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What's this?

Low End Amount
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Snowfall



What's this?

Now in GIS!

Link to national GIS map
(Pan & Zoom)



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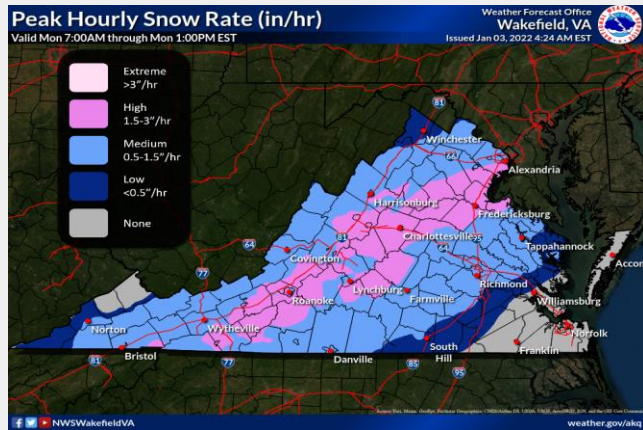
Advancements for this Winter



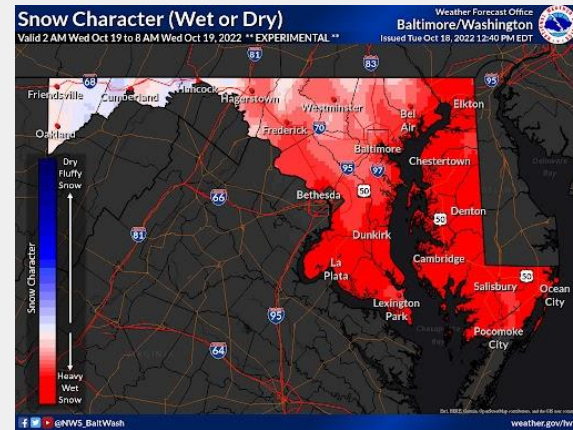
on: weather.gov/lwx/wintermaps

- Forecast Peak Rate & Character
 - Shows where more potential for impact
 - 6-hour periods through the event

Peak Snow Rates



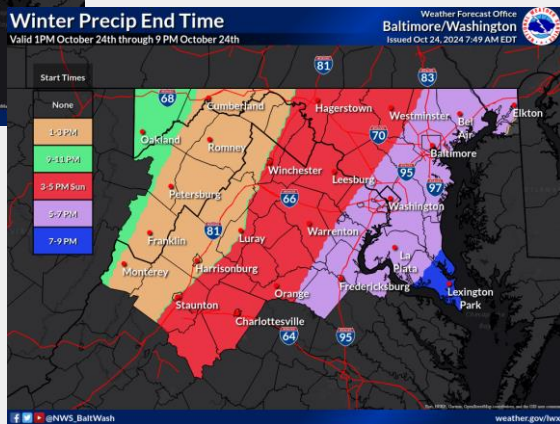
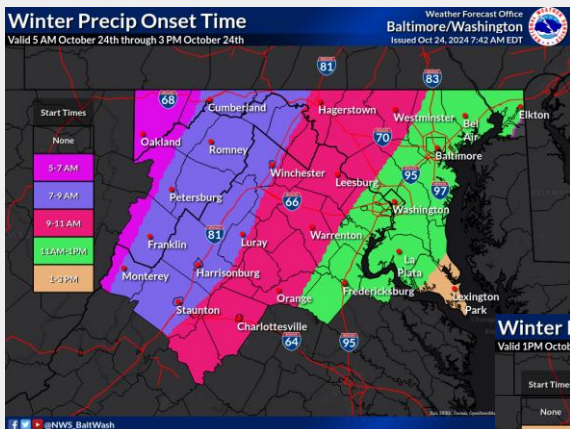
Wet / Dry Snow



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Winter Onset/Ending Times



- Trigger: when a winter weather advisory or warning is in effect
 - Generally within 24 hours of event starting
- Will now be issued for an area forecast to receive more than 0.1” or snow or 0.01” of ice
 - No longer confined to headline area
- Will be available on weather.gov/lwx/wintermaps



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0-1 Day Out

Potential Winter Commuting Hazard Statement

Recipe for a Traffic Disaster

- 1" or less of snow
- During urban rush hour
- Sub-freezing road temperatures

Together, these often created gridlock.

Potential Winter Commuting Hazard Statement (~24hrs in advance)
if we see a chance of these coming together



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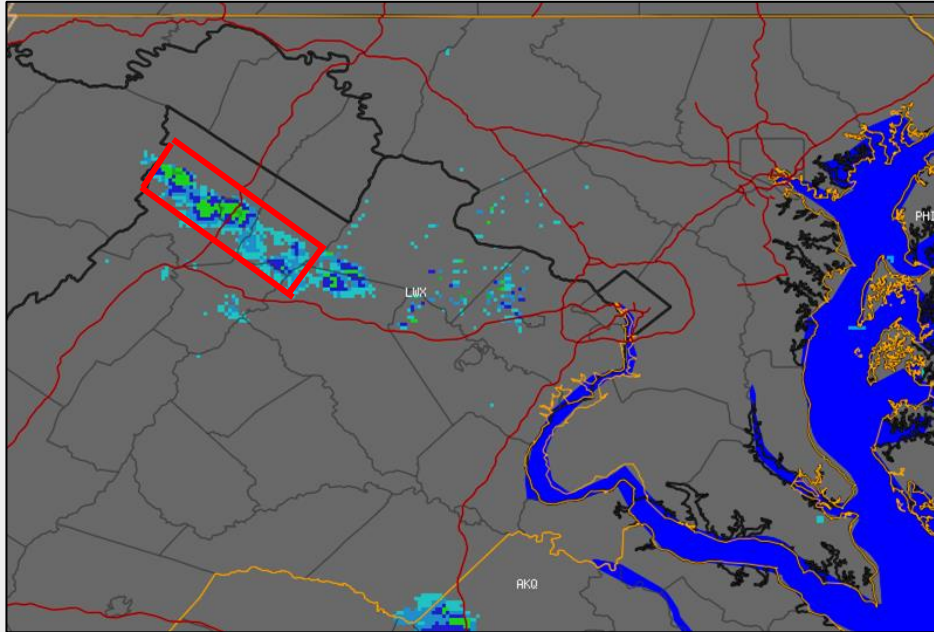
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Minutes to 1 hour Out

Snow Squall Warning



When they occur over highways,
they often cause multi-vehicle crashes





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Social Media

-  @NWS_BaltWash
-  @NWSBaltWash

NWS Baltimore-Washington
@NWS_BaltWash

Make use of today's quiet weather to prepare for Wednesday's winter storm. A Winter Storm Warning is in effect where we are most confident of heavier snow. A Watch remains in effect where heavy snow is possible but not yet certain. Keep up-to-date at weather.gov/lwx

First Widespread Winter Storm of the Season

National Weather Service Headlines
Wed: Wednesday, December 16, 2020

When: Wednesday & Wednesday night

What: Heavy snow, changing to Ice & Rain near and east of I-95

Expected Snowfall - Official NWS Forecast
Wed: 1.0/0.0/0.0/0.0/0.0 AM - 12/15/2020 07:00 AM EST

Issued at 12/15/2020 4:44 AM
Baltimore/Washington

<http://www.weather.gov/lwx>

National Weather Service Baltimore/Washington @NWS_BaltWash

- Message of the Moment
- Public-facing for easy sharing



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weather.gov/lwx



NWS Services for Government & Airport Partners

“Heads Up” Email

- Threats before Watches & Warnings
- Email addresses to christopher.strong@noaa.gov to be added

iNWS alerts

- For Watches & Warnings (text and/or email)
- Register at: inws.ncep.noaa.gov

Monday/Friday 10:30 A.M. 7 day Weather Threat Webinar

- 5 min look at threats for next 7 days
- Briefing time is 10:30 am
- Email addresses to christopher.strong@noaa.gov to be added



Constant Teamwork for Constant Improvement



- **COG's MATOC Group**
 - Monthly Meetings
- **Pre-winter visits & Exercises**
- **When threats arise -
Phone calls to government transportation sector**
- **Event-based conference calls**
- **Regional COG conference calls**





Summary: weather.gov/washington/wintermaps

- **The NWS – Transportation & EM partnerships have helped develop current ways to communicate snow forecasts:**
 - Days 3-7 Winter Storm Threat Level
 - Days 0-3 “Range of Possible” Snow Accumulations
 - Days 0-1 Potential Winter Commuting Hazard Statement
Snow Squall Warning
Peak Snow Rate & Wet/Dry Snow
Onset & Ending Times
- **Existing framework**
 - **Watch** / **Warning** or **Advisory**
- **NWS winter outlook 2024-25**
 - Higher odds of warmer than average (as a whole)
 - Near normal precipitation
 - Greater chances for mixed precip, freezing rain

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