

February Recap & Northeast DEWS Discussion

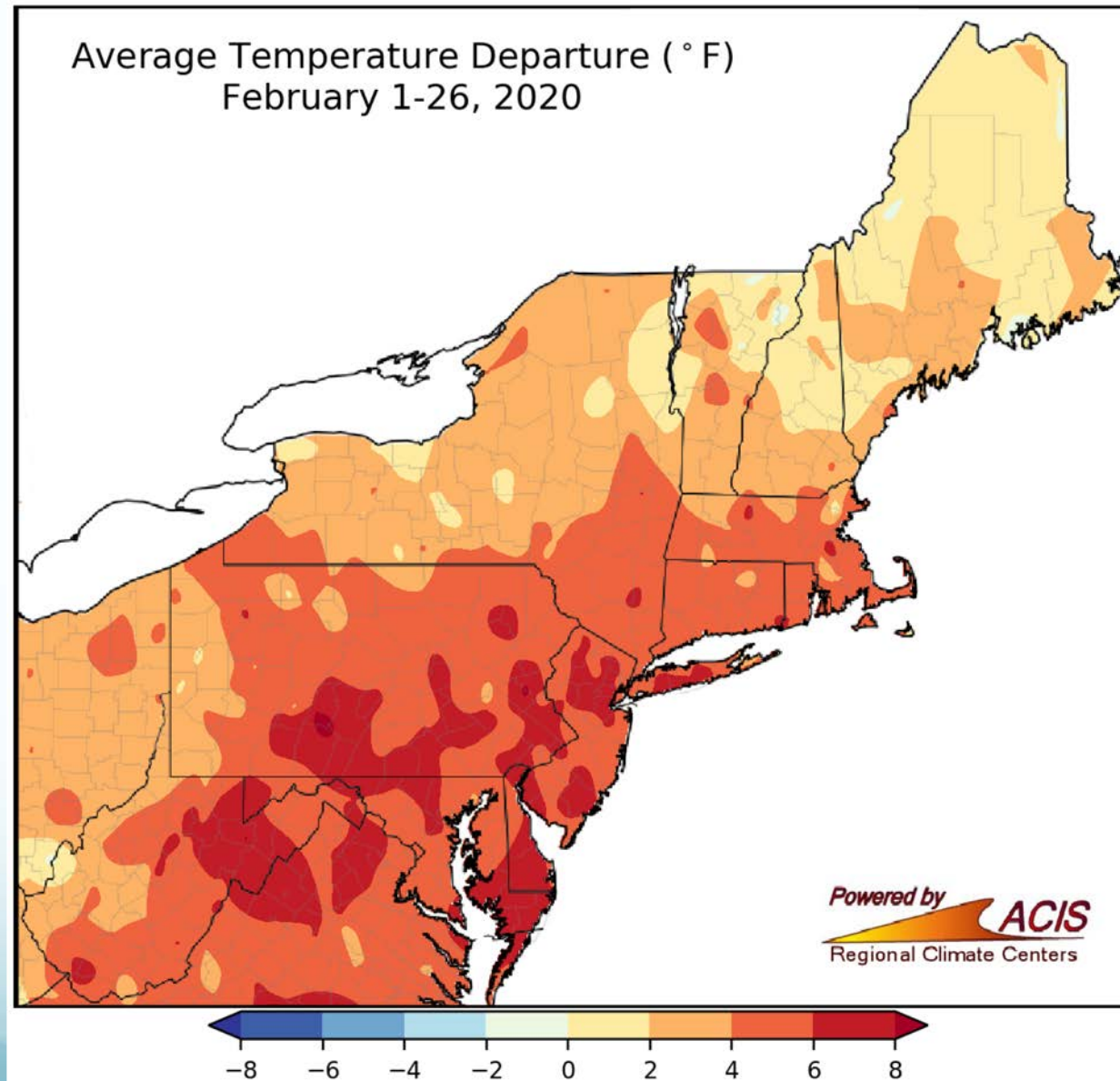
By: Samantha Borisoff, Climatologist
Northeast Regional Climate Center



Northeast Regional
Climate Center



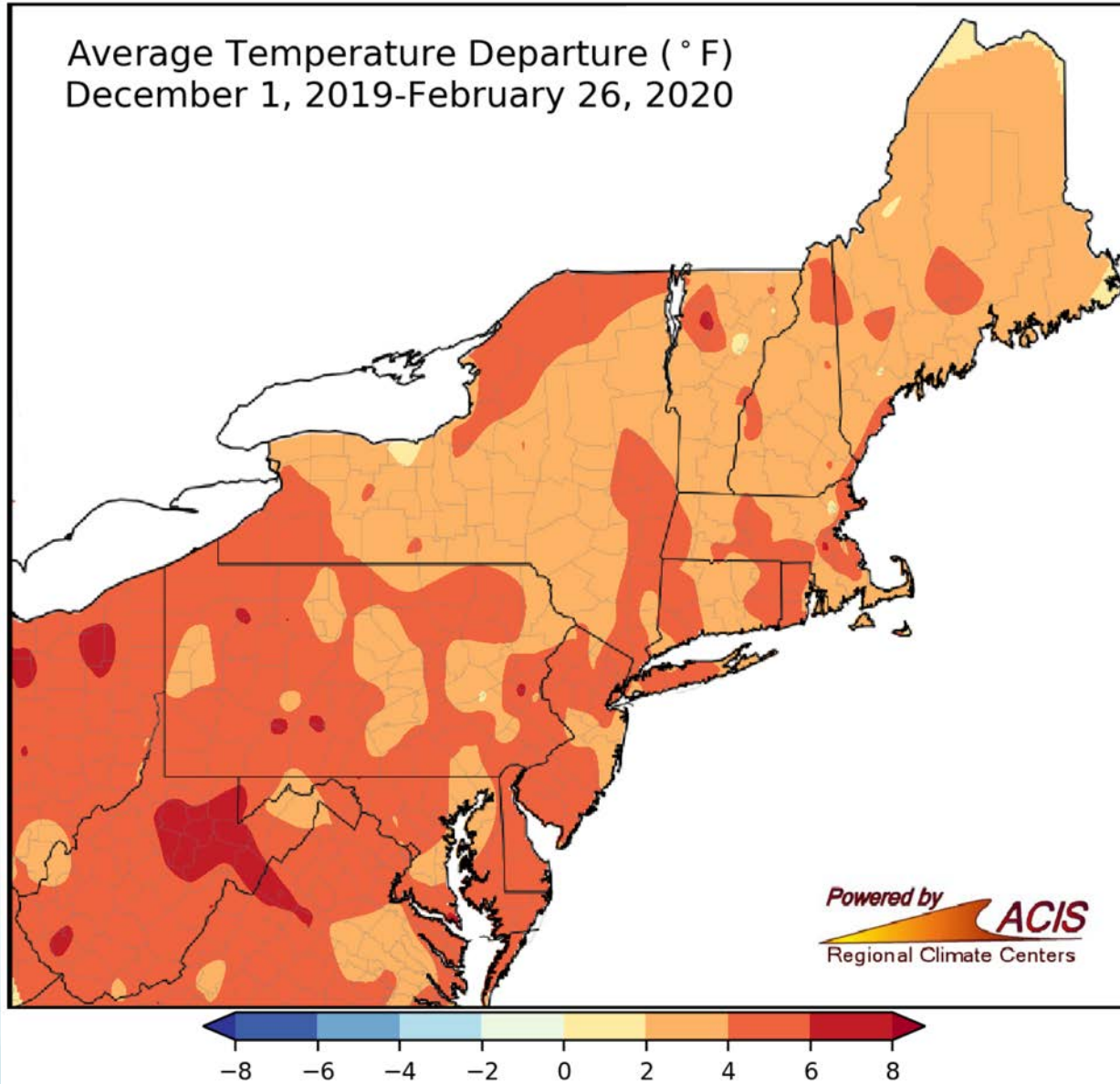
February Temperatures



From near normal to 8°F above normal

Winter Temperatures

Average Temperature Departure (° F)
December 1, 2019-February 26, 2020



From 2°F to 8°F above normal



First Single Digit Temperature Buffalo N.Y.

Friday, February 14th, the air temperature dropped below 10°F at the Buffalo airport.

This is the first occurrence of a single digit temperature this winter season.

Last occurrence of a single digit temperature: March 8th 2019 (6°F) which is a span of 342 days and ties for 4th longest stretch.

Latest first occurrence of a single digit temperature Buffalo N.Y.

<i>Date</i>	<i>Value (°F)</i>
March 9, 1932	7°
February 14, 2020	
February 5, 2002	6°
February 5, 1913	5°
January 29, 1908	2°
January 22, 2013	5°

Winter Temperatures



Credit: NWS DC/Baltimore

Time Series Summary for Washington Area, DC (ThreadEx) - Dec through Feb

Click column heading to sort ascending, click again to sort descending.

Rank	Season	Lowest Min Temperature	Missing Count
1	2019-2020	22	4
-	1931-1932	22	0
3	2001-2002	20	0

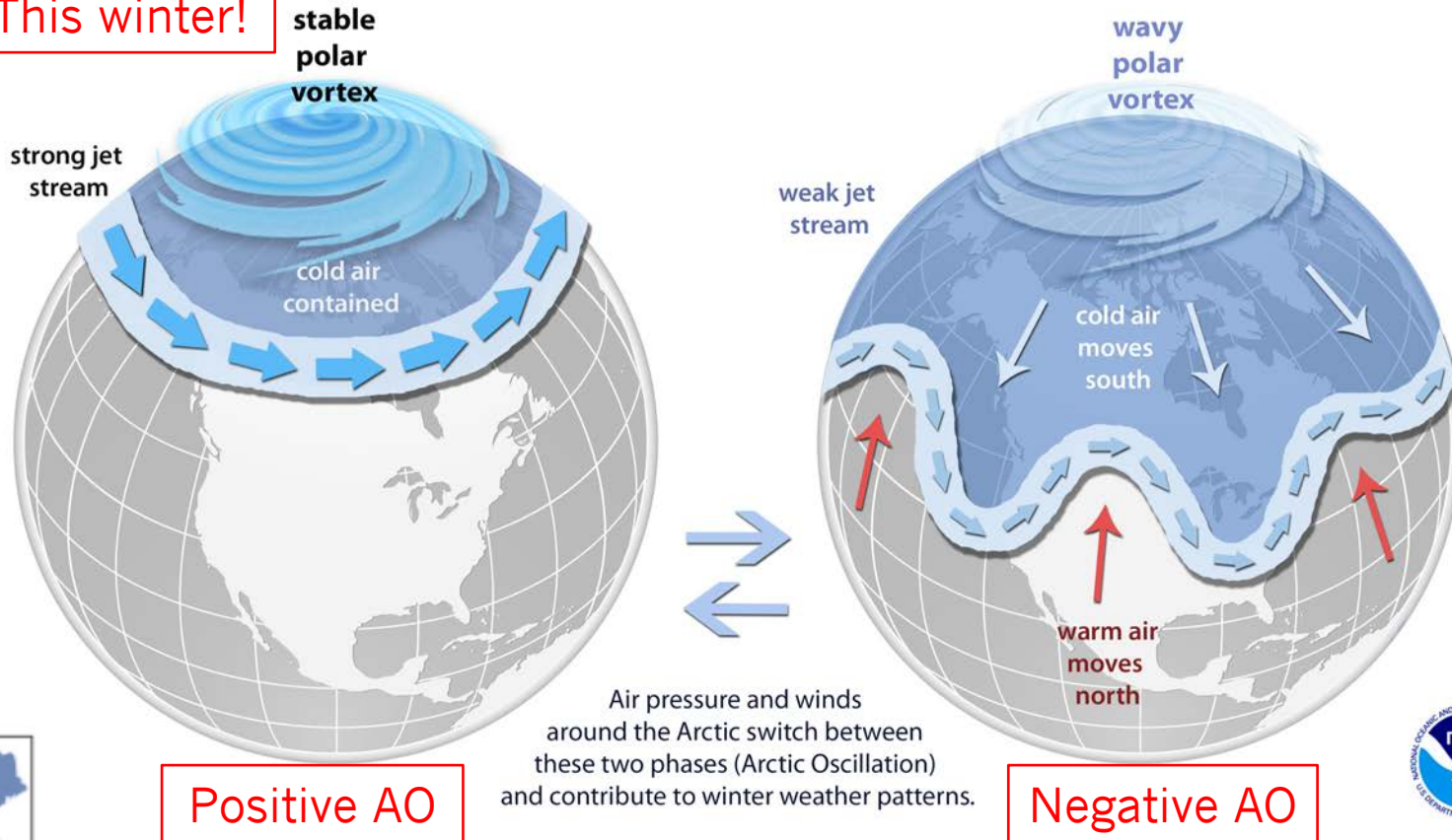


Winter Temperatures

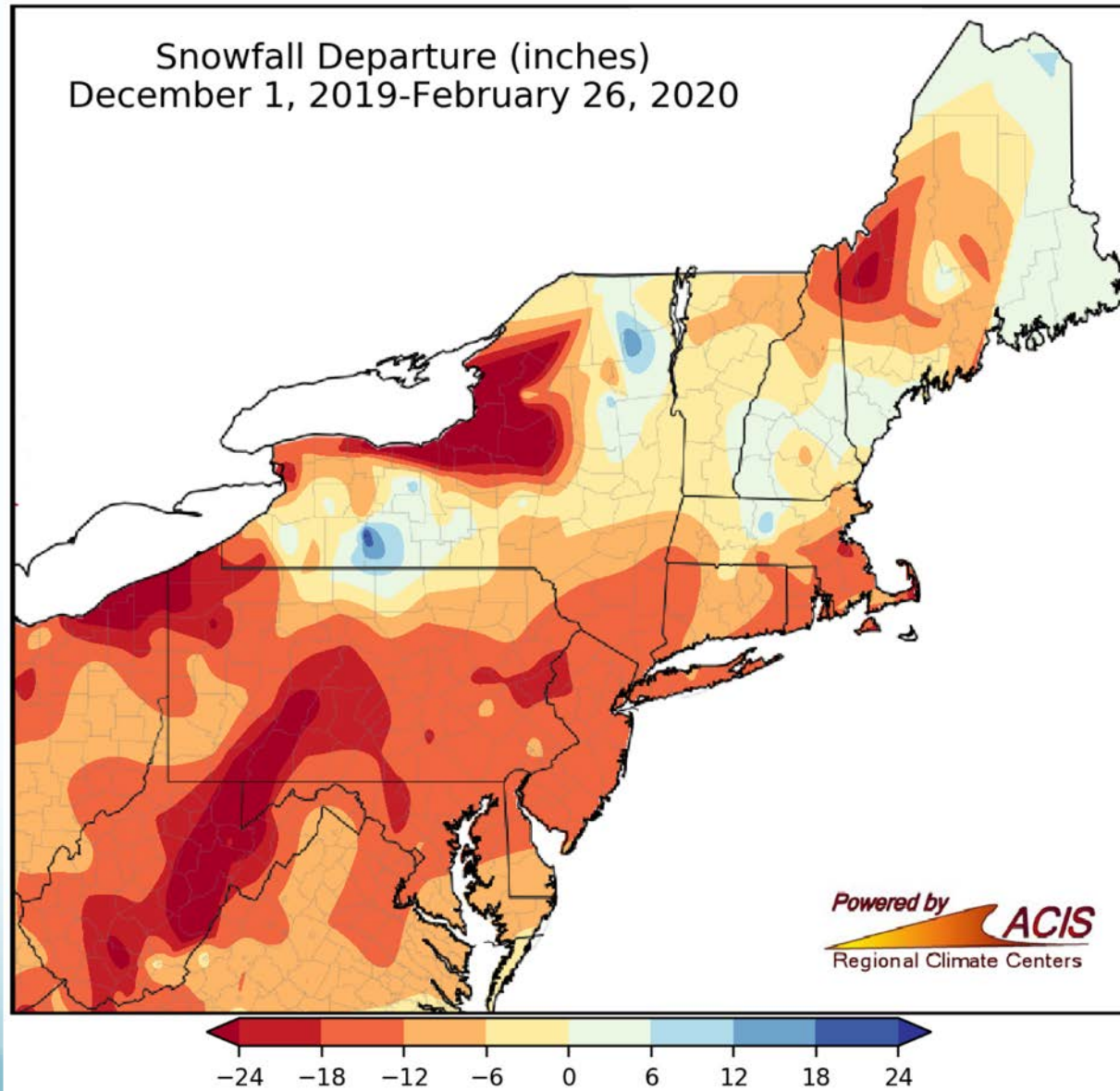
The Science Behind the Polar Vortex

The polar vortex is a large area of low pressure and cold air surrounding the Earth's North and South poles. The term vortex refers to the counterclockwise flow of air that helps keep the colder air close to the poles (left globe). Often during winter in the Northern Hemisphere, the polar vortex will become less stable and expand, sending cold Arctic air southward over the United States with the jet stream (right globe). The polar vortex is nothing new — in fact, it's thought that the term first appeared in an 1853 issue of E. Littell's *Living Age*.

This winter!



Winter Snowfall



From more than 24" below normal to 18" above normal

Winter Snowfall

Time Series Summary for Philadelphia Area, PA (ThreadEx) - Month of Feb

Click column heading to sort ascending, click again to sort descending.

Rank	Year	Total Snowfall	Missing Count
1	2020	0.0	3
2	2002	T	0
-	1998	T	0
-	1984	T	0
-	1981	T	0
-	1973	T	0
-	1959	T	0
-	1952	T	0
-	1892	T	0

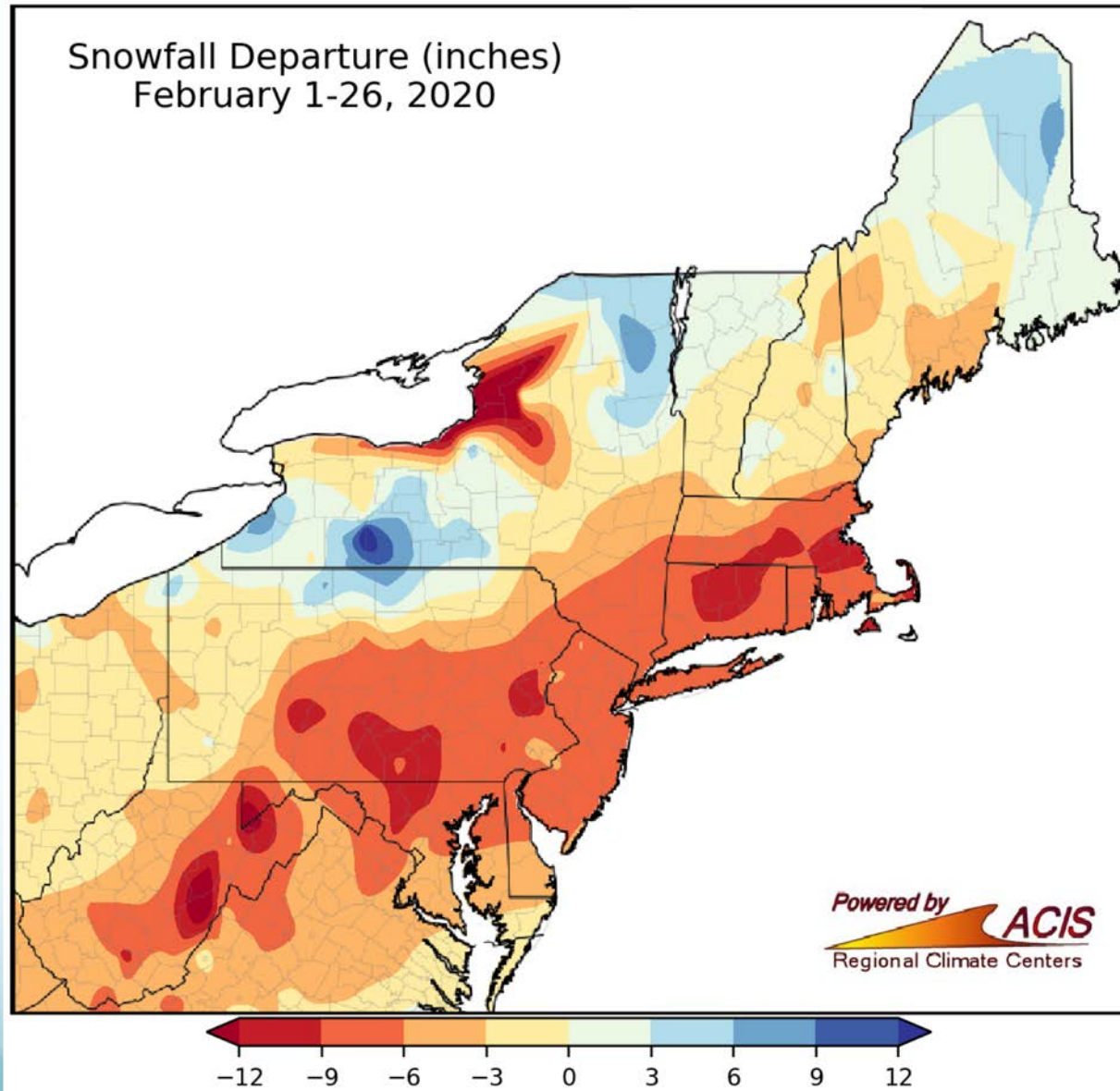
Time Series Summary for Philadelphia Area, PA (ThreadEx) - Dec through Feb

Click column heading to sort ascending, click again to sort descending.

Rank	Season	Total Snowfall	Missing Count
1	1972-1973	T	0
2	2019-2020	0.3	3
3	1997-1998	0.7	0



February Snowfall

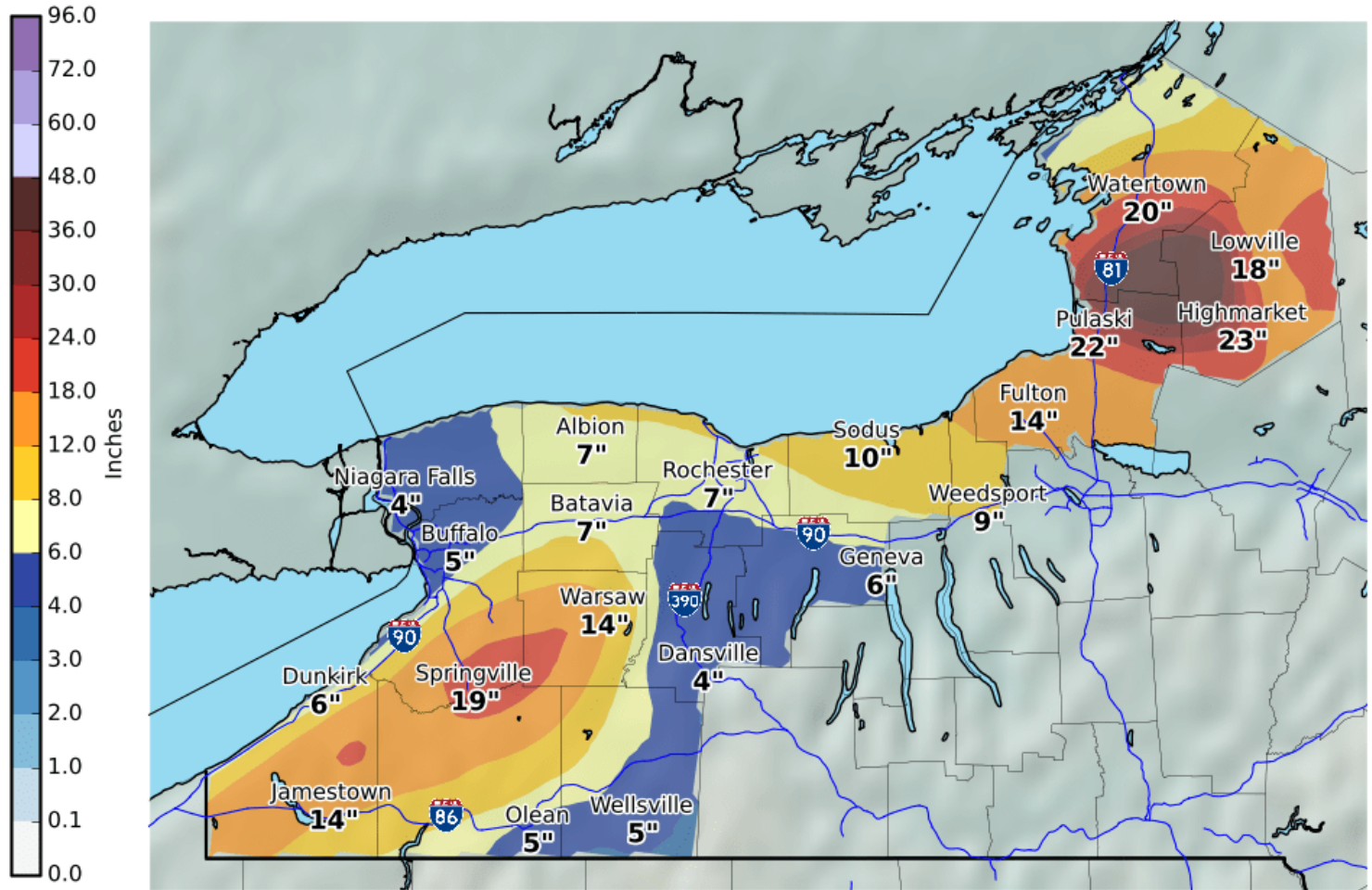


From more than 12" below normal to more than 12" above normal

February Snowfall

Event Total Snowfall

Valid: 02/27/2020 07:00 AM - 02/29/2020 07:00 PM



National Weather Service
Buffalo New York

02/27/2020 06:49 AM EST

Follow Us:   

weather.gov/BUF/winter

February Storms

Up to 22" of snow in NY and northern New England

Up to 0.50" of ice accumulation

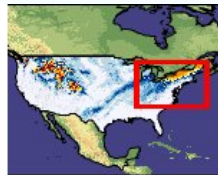
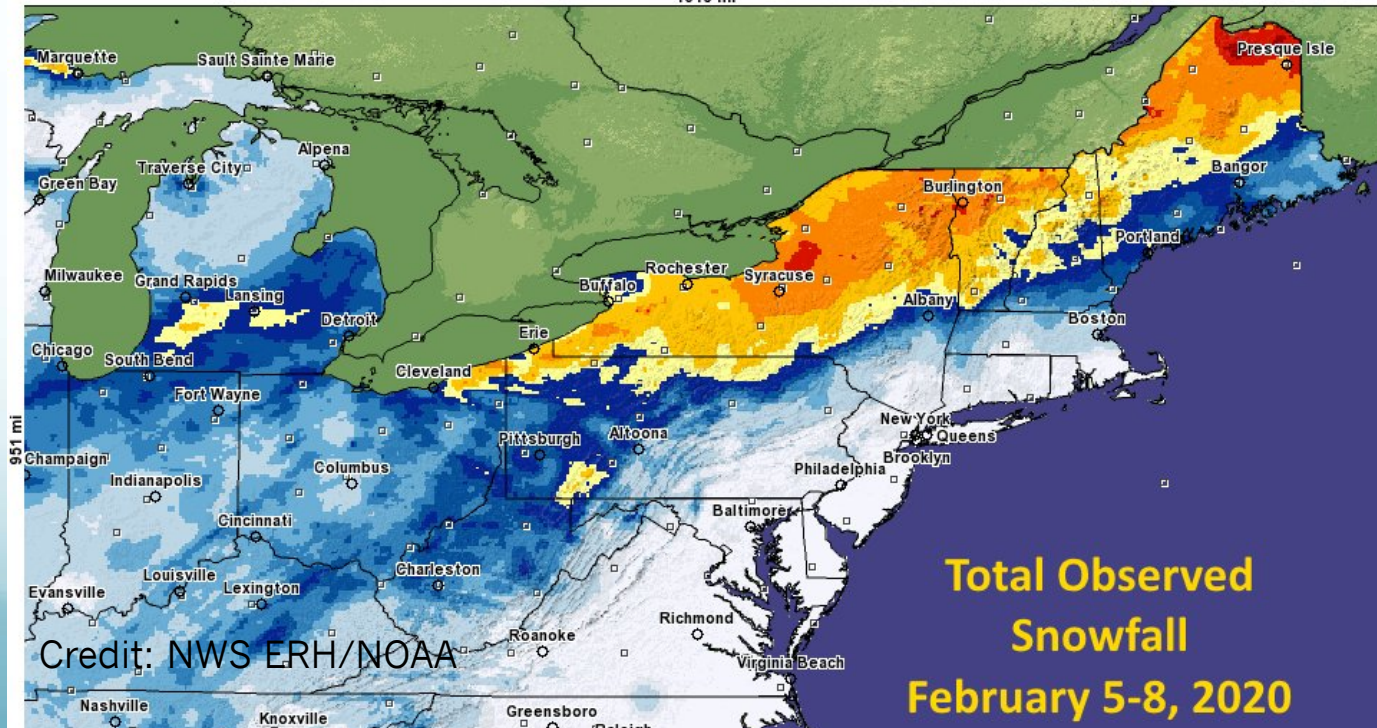
Thunderstorm and snowfall rates of 2-3 inches per hour

Non-thunderstorm wind gusts to 80 mph

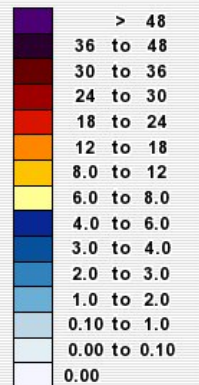
Credit: NWS Gray



is during 72h preceding 2020 February 8, 12:00 UTC
1016 mi



Inches of depth



Not Estimated

Elevation in feet

Credit: NWS ERH/NOAA



February Storms

Rare tornado outbreak in Maryland on Feb 7

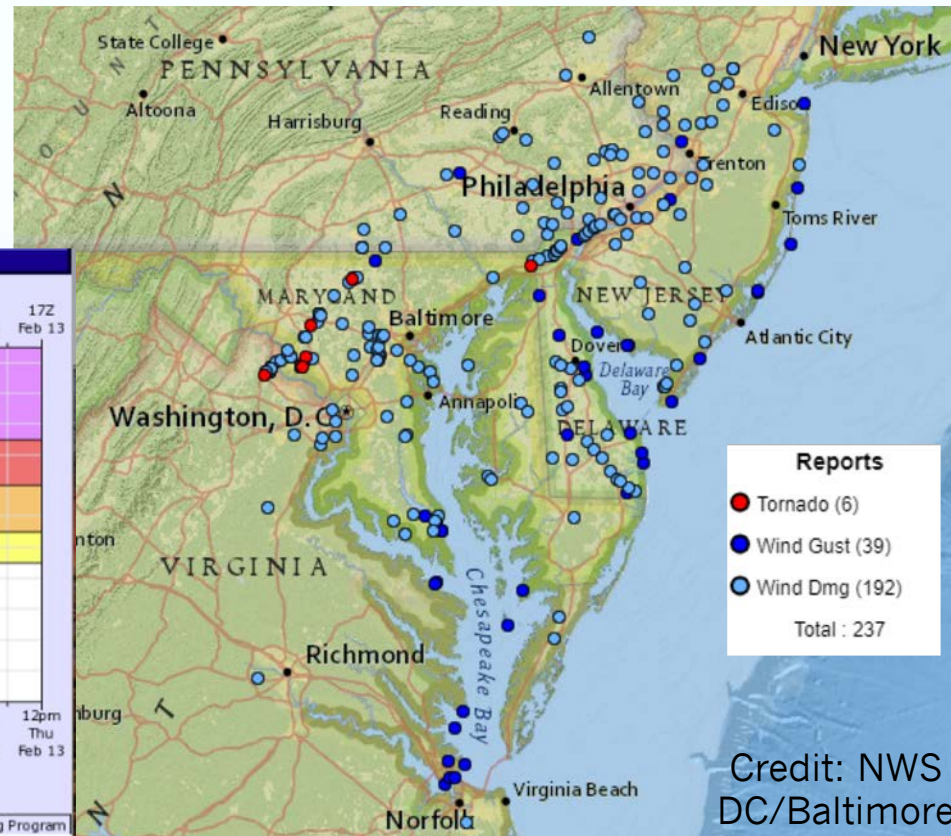
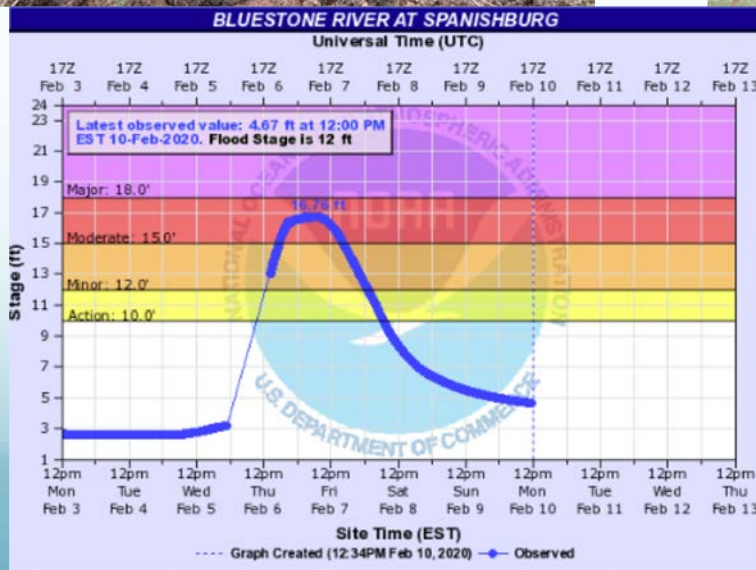
- Five tornadoes (an EF-0 and four EF-1s)
- Largest winter tornado outbreak for state
- First Feb. tornadoes for three counties

Damaging t-storms in PA, DE, and NJ too

Up to 4" rain and flooding in WV



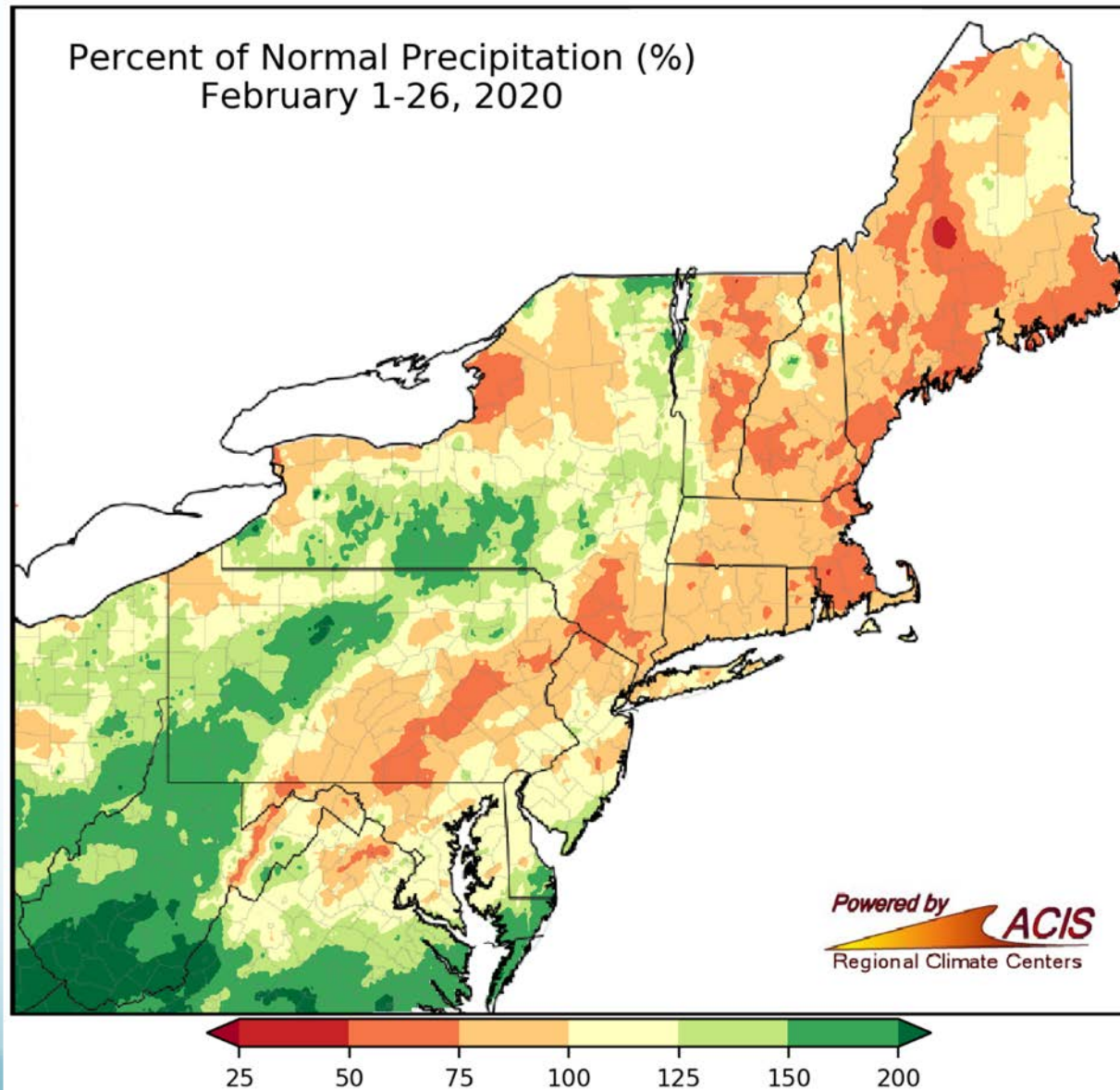
ISSUED: 7:31 PM - Friday, February 7, 2020
National Weather Service - Philadelphia/Mount Holly



Credit: NWS DC/Baltimore

SPNW2(plotting HGIRZ) "Gage 0" Datum: 2051 Observations courtesy of WV-DHSEM Flood Warning Program

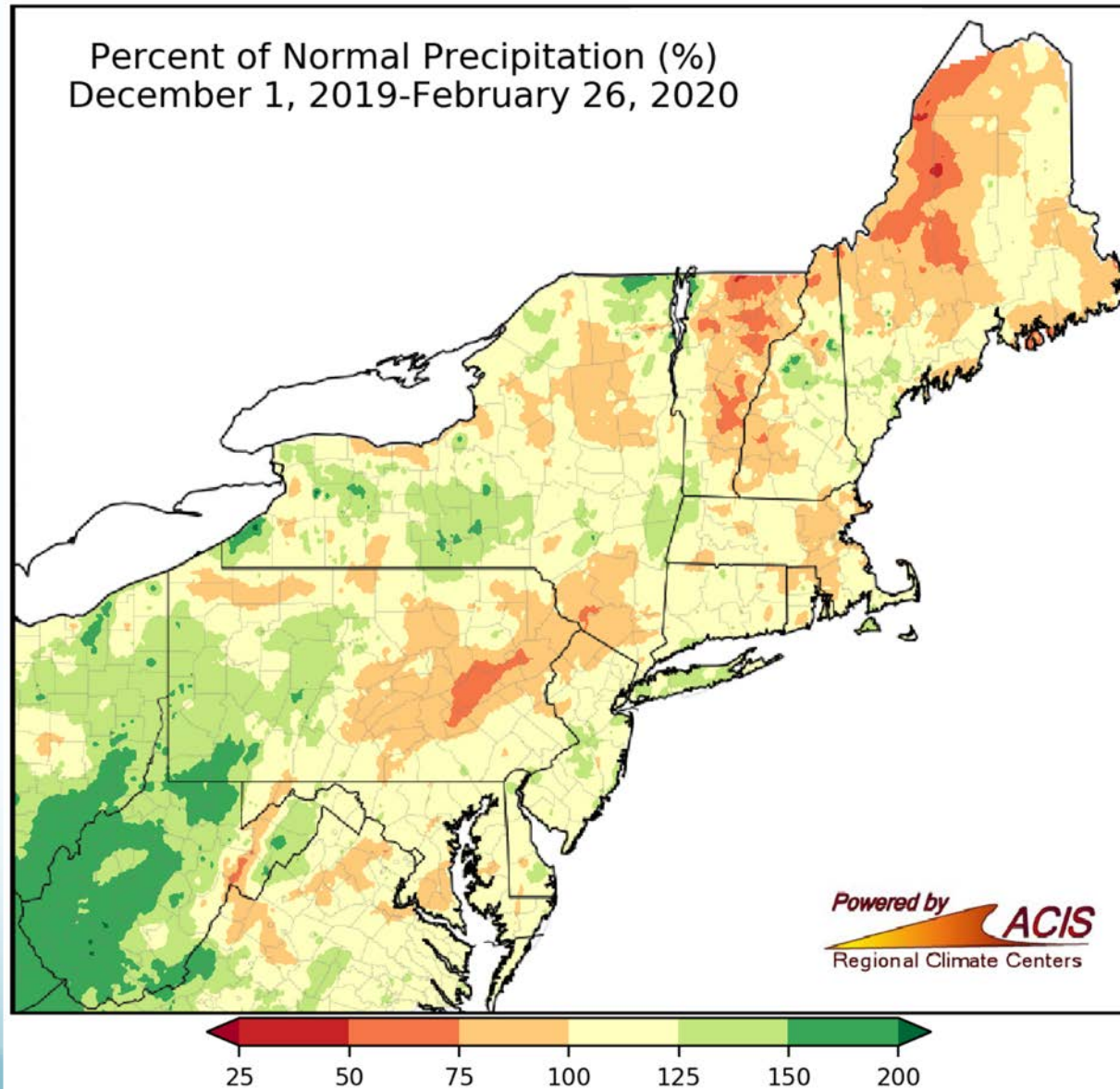
February Precipitation



From 50% of normal to more than 200% of normal

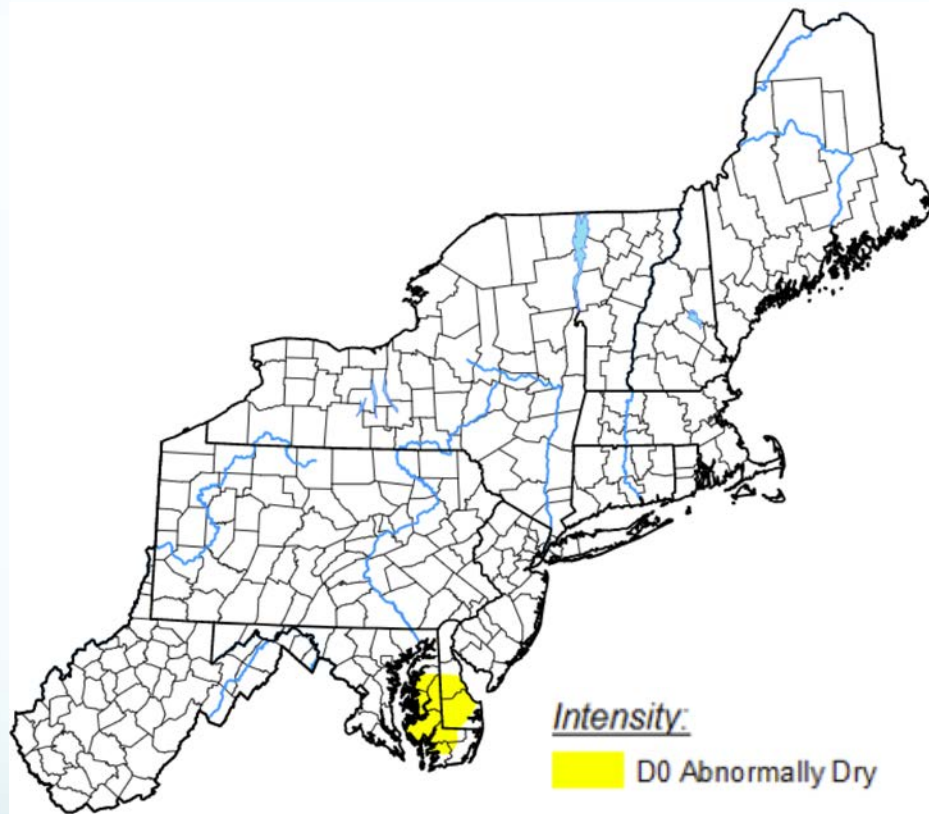


Winter Precipitation

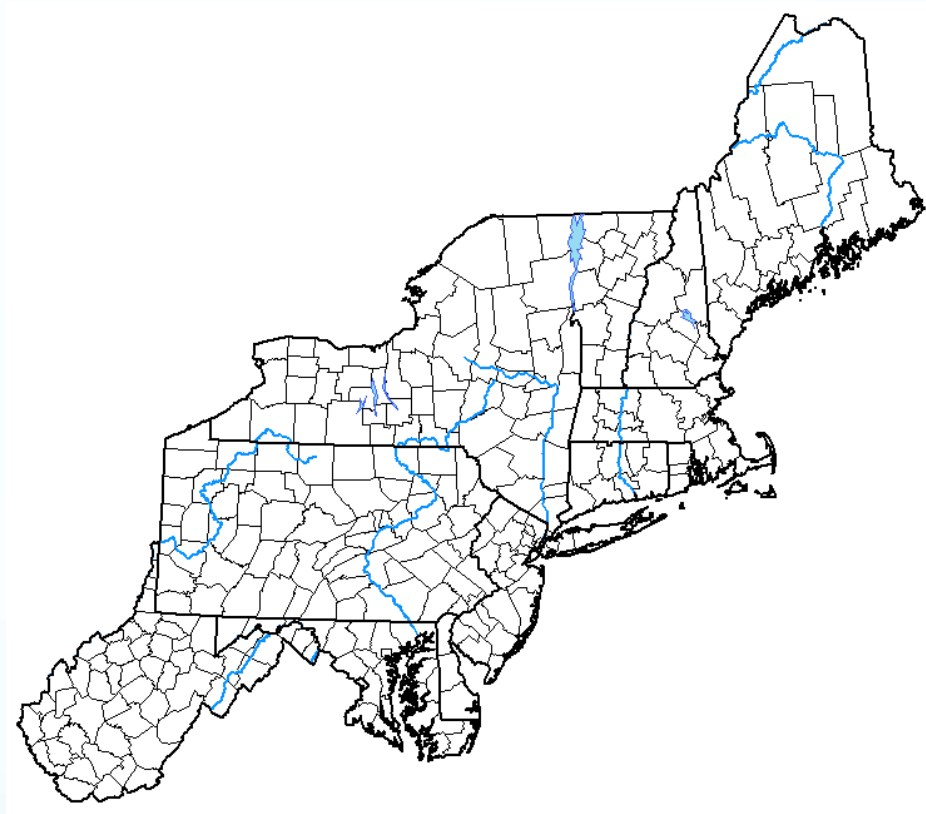


From 50% of normal to 200% of normal

Drought Monitor



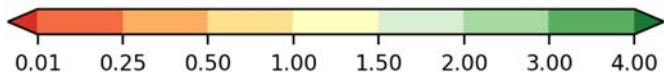
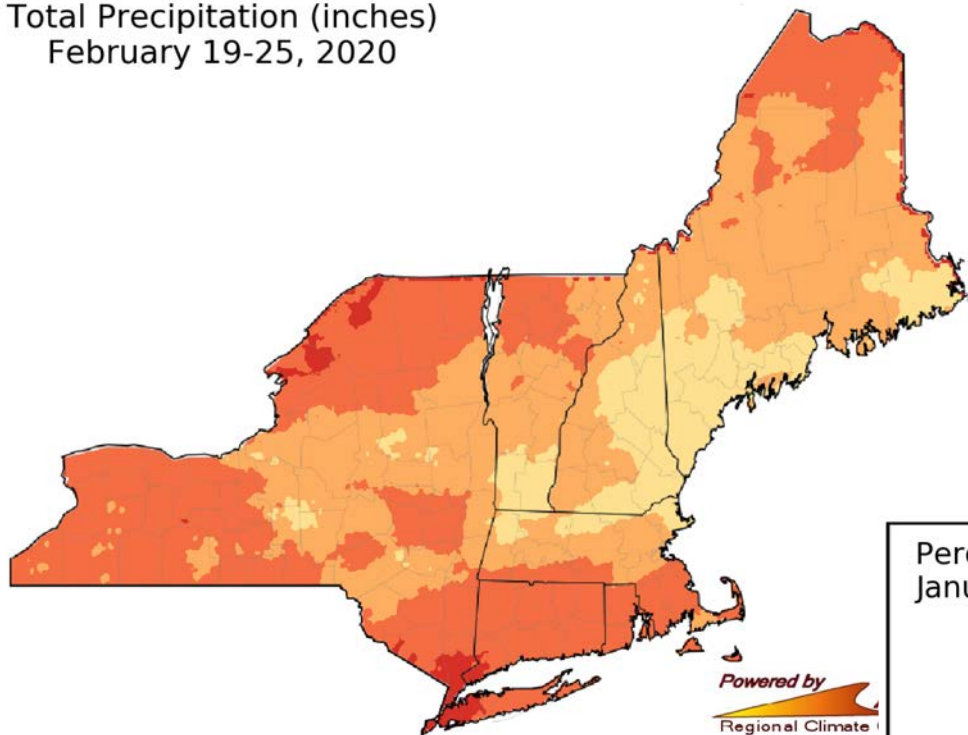
As of January 30:
2% of the region was
abnormally dry



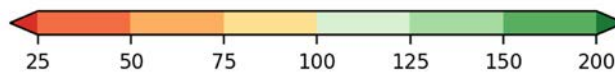
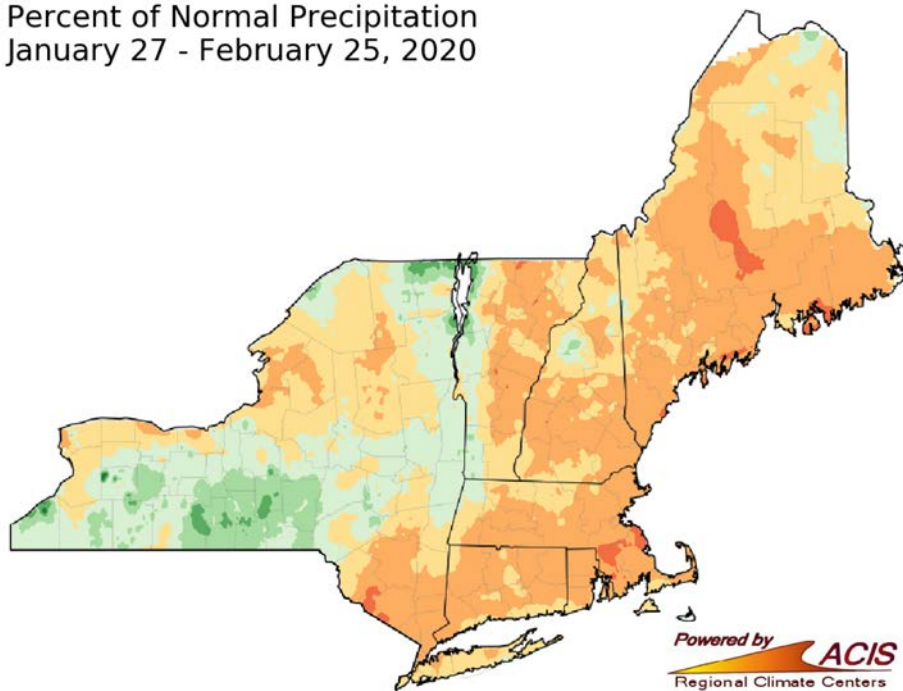
As of February 27:
Region was free of
abnormal dryness and
drought



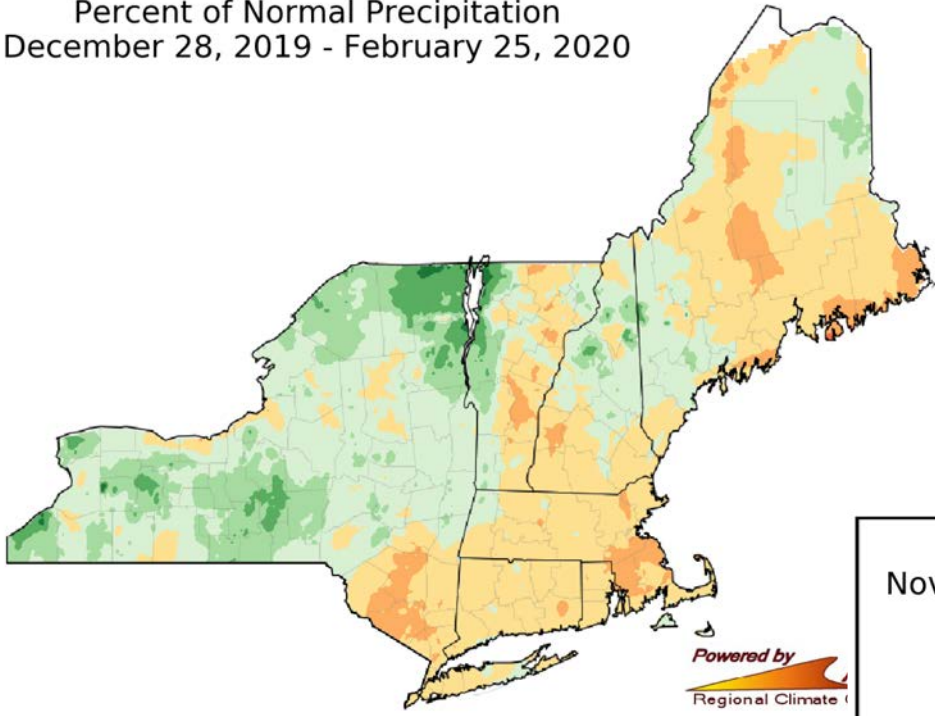
Total Precipitation (inches)
February 19-25, 2020



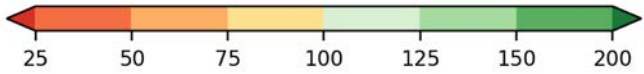
Percent of Normal Precipitation
January 27 - February 25, 2020



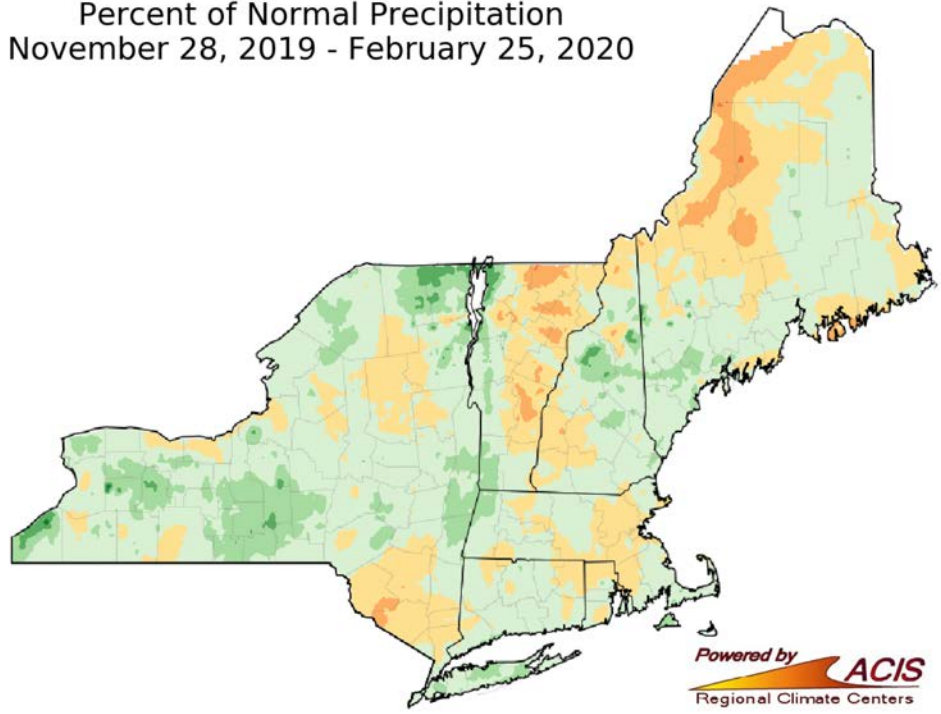
Percent of Normal Precipitation
December 28, 2019 - February 25, 2020



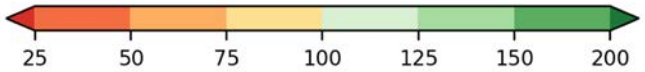
Powered by
Regional Climate Centers

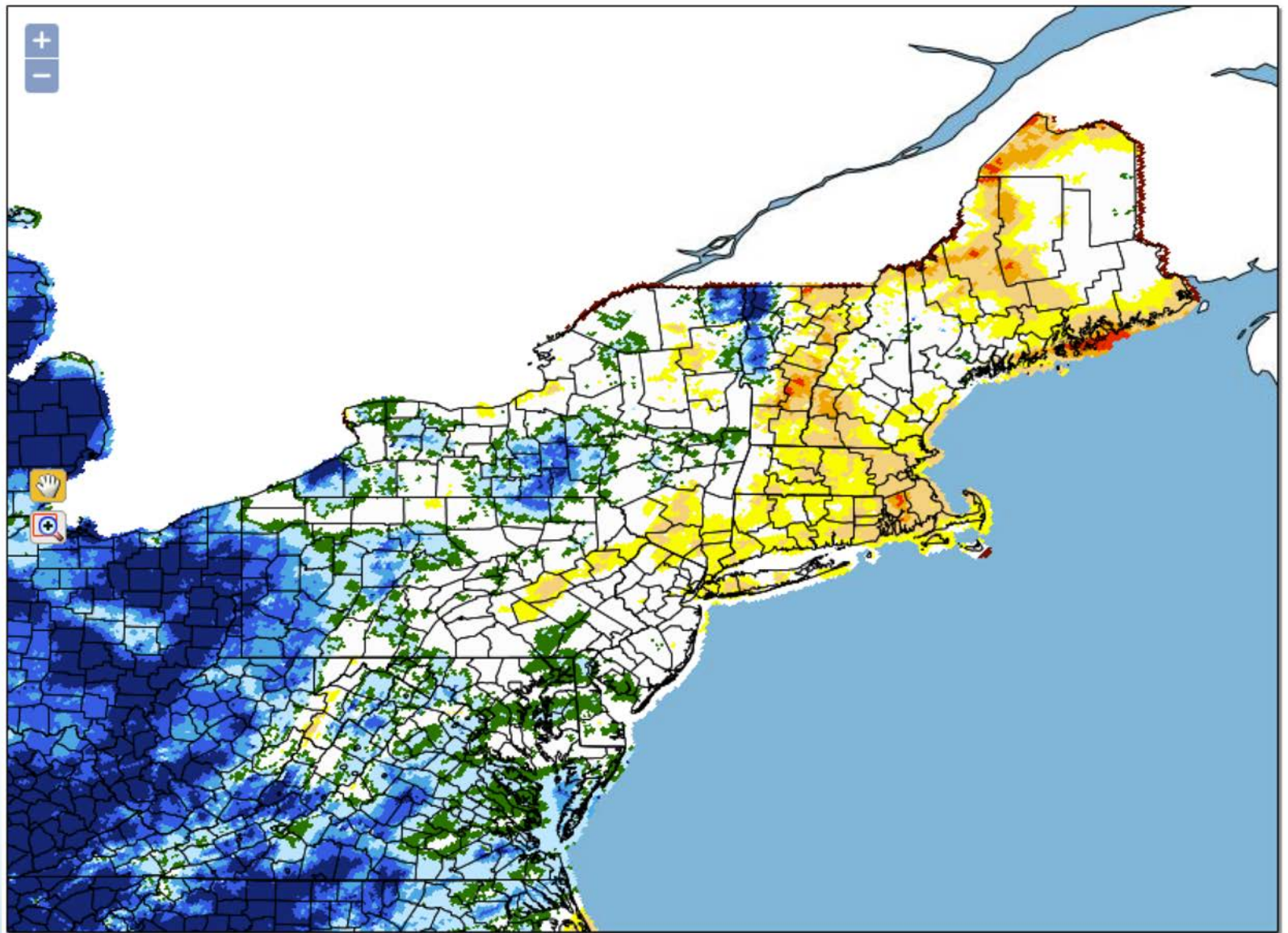


Percent of Normal Precipitation
November 28, 2019 - February 25, 2020

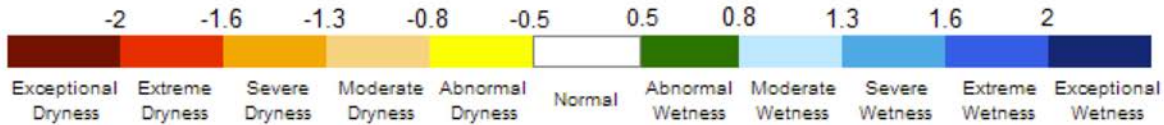


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Regional Climate Centers

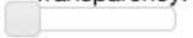




60 day SPI for February 26, 2020

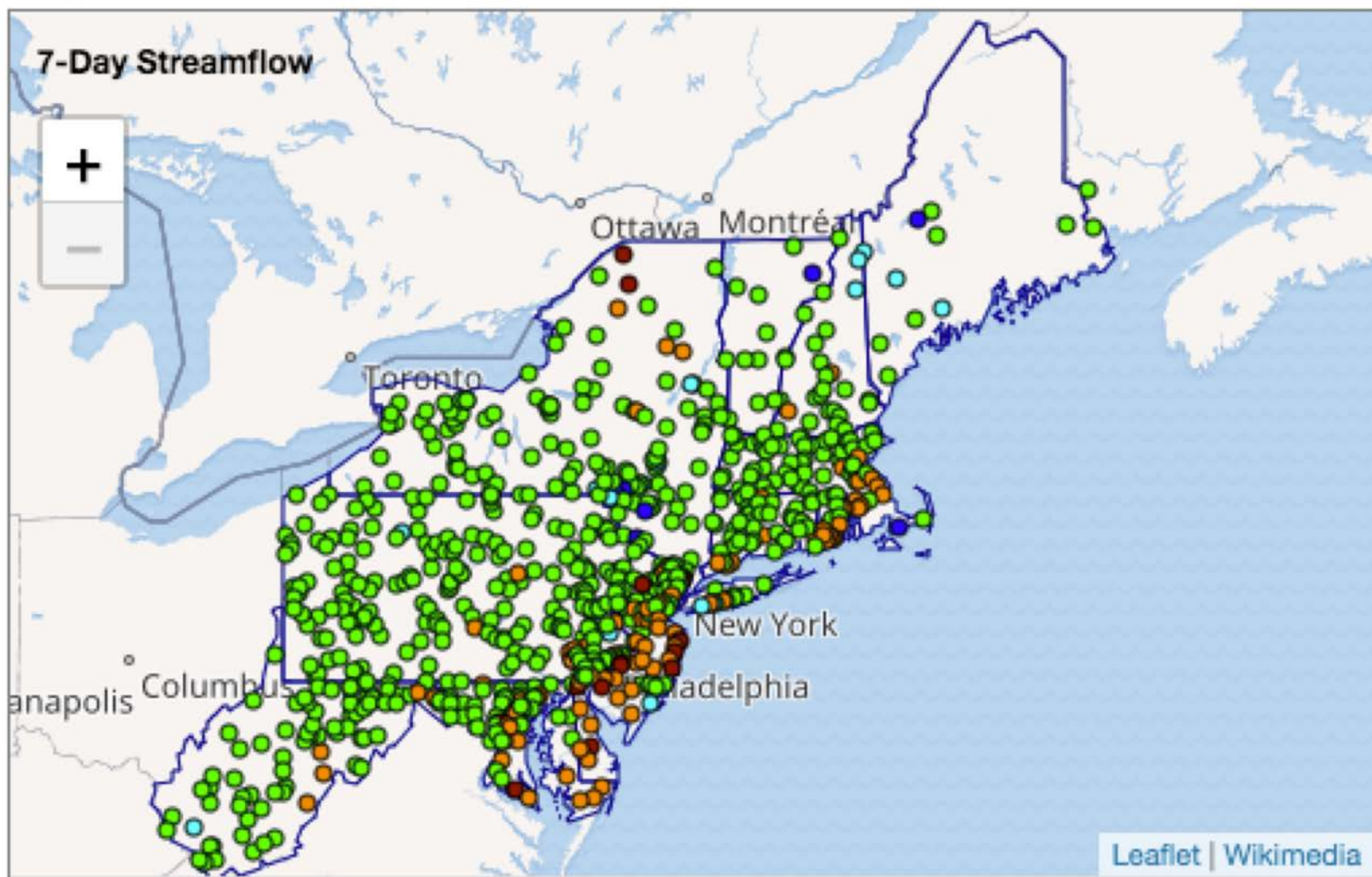


Transparency:



**DOWNLOAD
GEO TIFF**



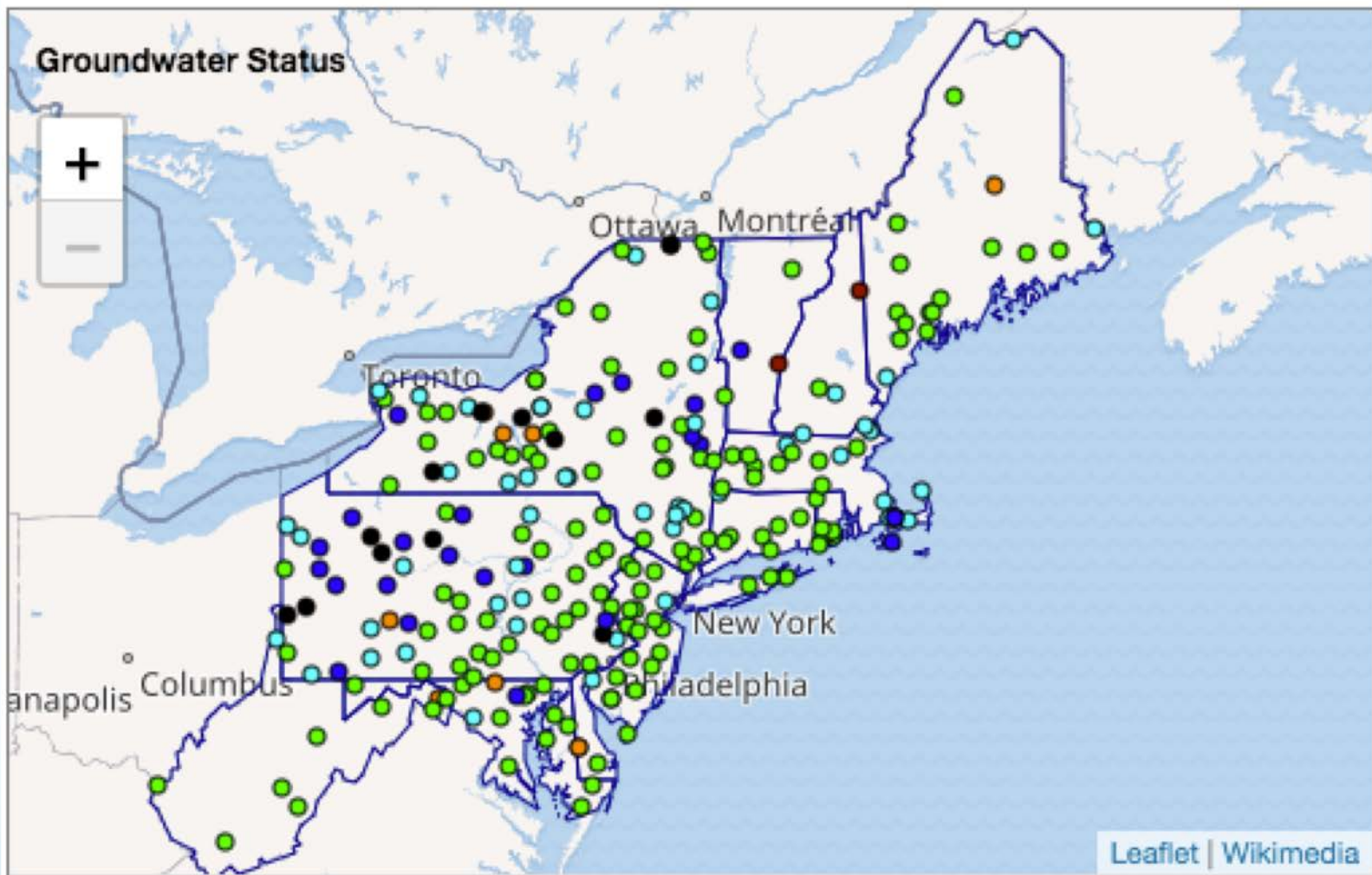


Explanation - Percentile Classes

Low	Much below normal	Below normal	Normal	Above normal	Much above normal	High	
	<10%	10-24%	25-75%	76-90%	>90%		

Data provided by [USGS WaterWatch - Streamflow](#).





Explanation - Percentile Classes

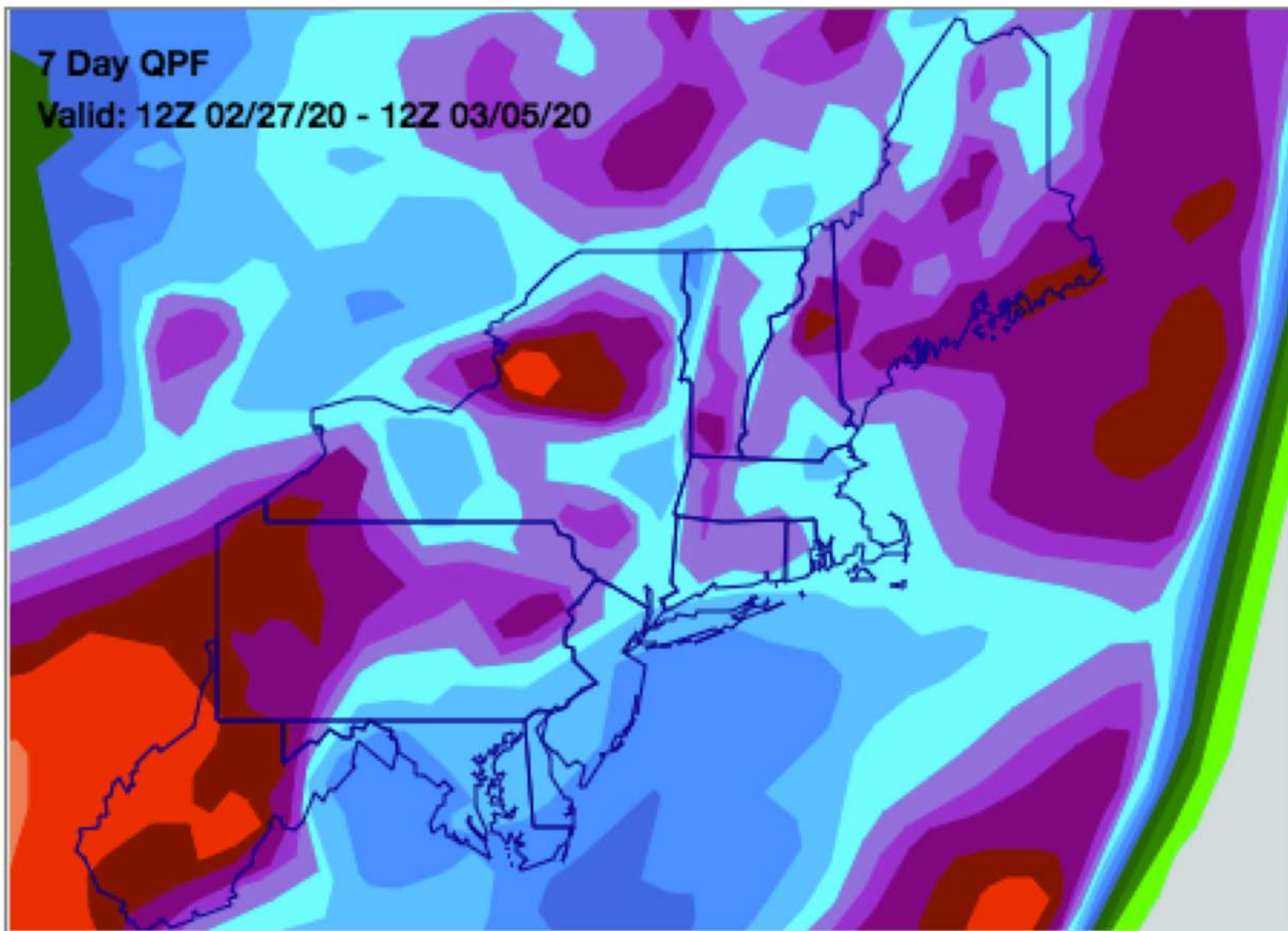
Low	Much below normal	Below normal	Normal	Above normal	Much above normal	High	
	<10%	10-24%	25-75%	76-90%	>90%		

Data provided by [USGS Groundwater Watch](#) - [Climate Response Network](#).

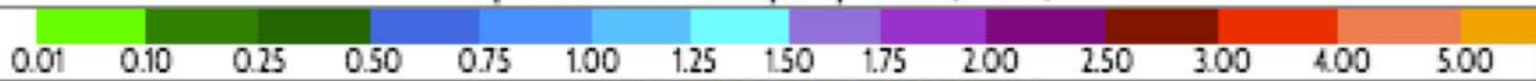


7 Day QPF

Valid: 12Z 02/27/20 - 12Z 03/05/20



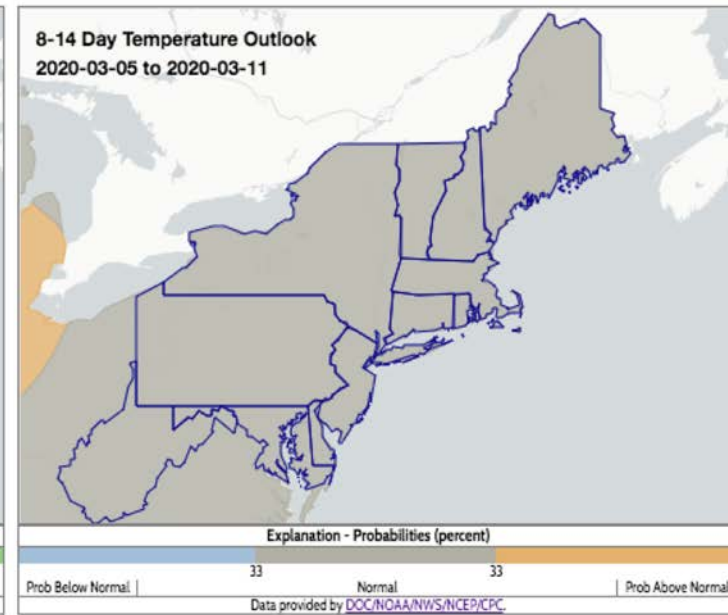
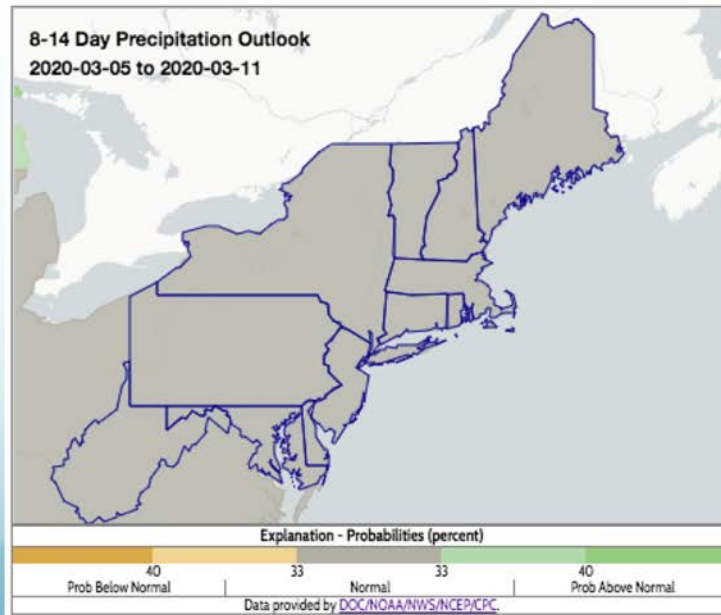
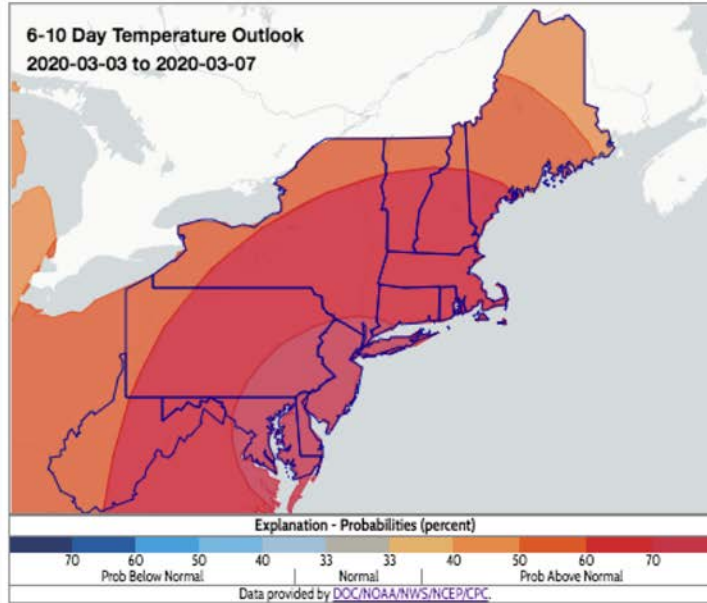
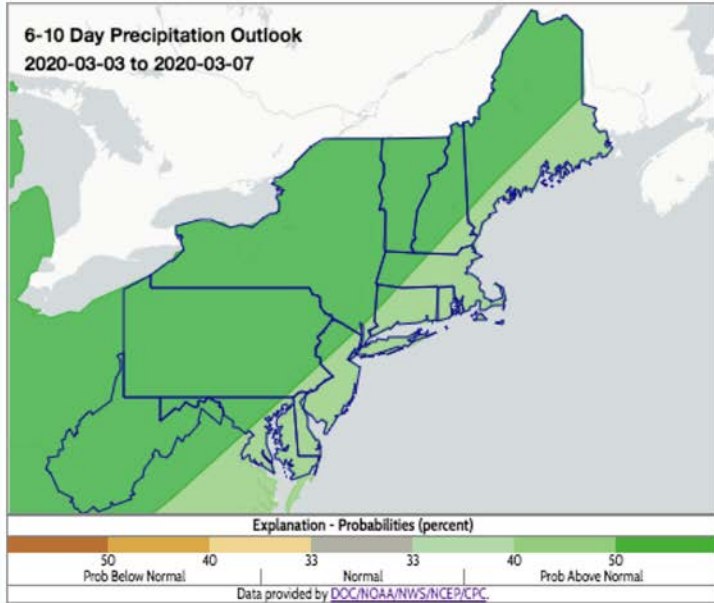
Explanation - Forecast precipitation (inches)



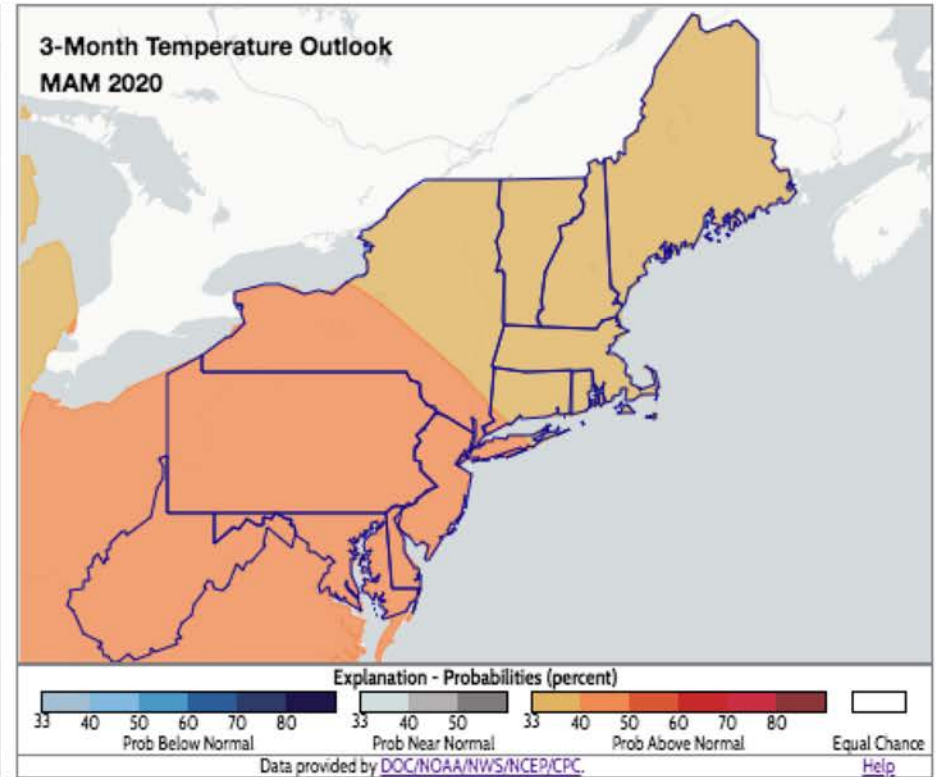
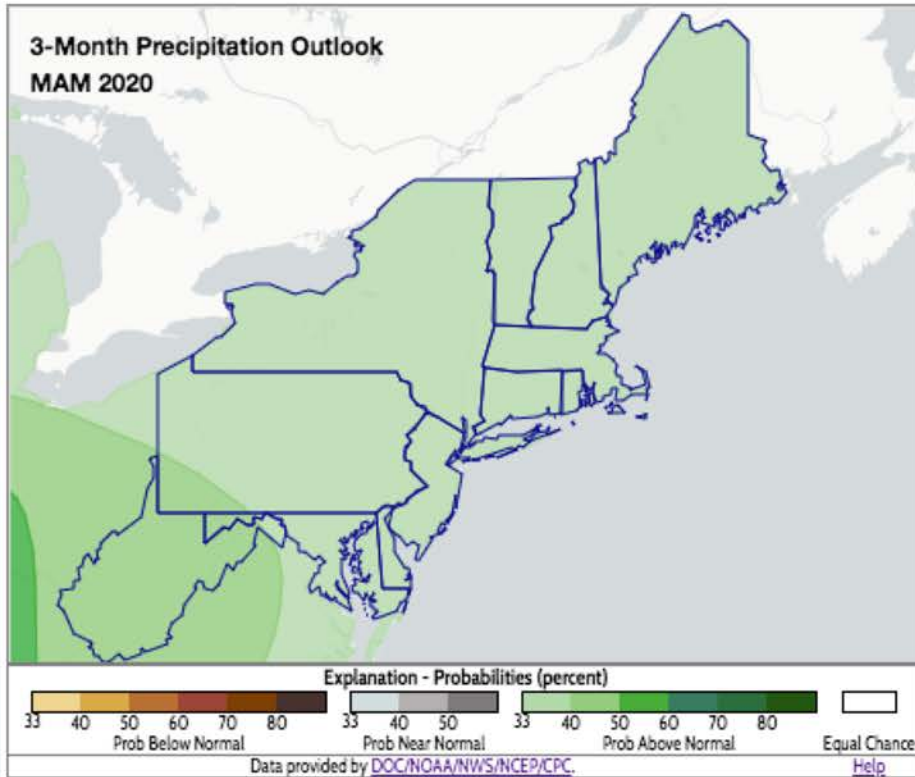
Data provided by [DOC/NOAA/NWS/NCEP/WPC](#)



Short-term Outlooks



Spring Outlook



Contact Information

- nrcc@cornell.edu
- 607-255-1751

Upcoming Webinars

- Tuesday, March 31 at 9:30am
 - Spring Flood Outlook
- Thursday, April 30 at 9:30am
 - Rutgers Global Snow Lab and Snow Season Recap

www.nrcc.cornell.edu

