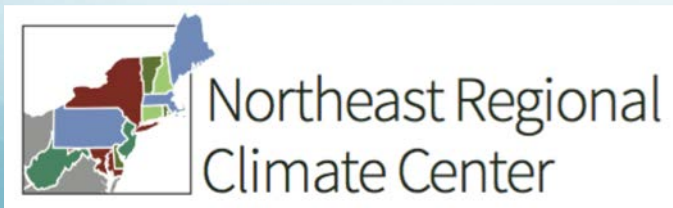


October Recap & Northeast DEWS Discussion

By: Samantha Borisoff, Climatologist
Northeast Regional Climate Center



October 2 Tornado Outbreak

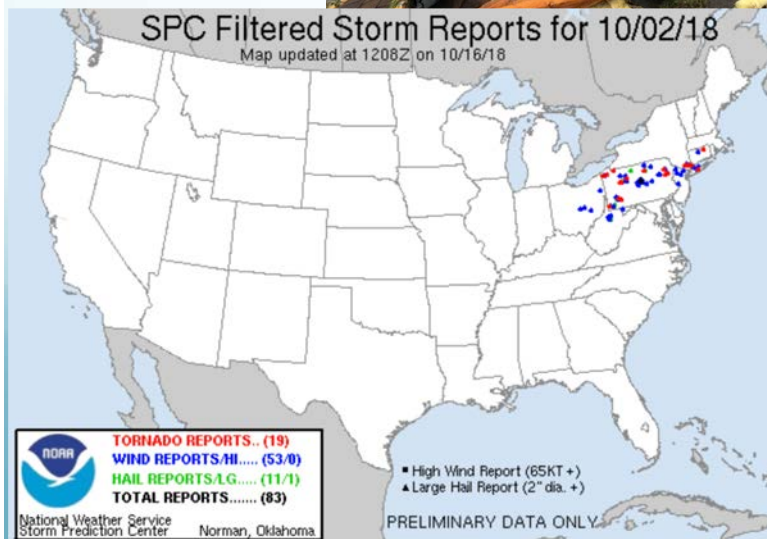


13 tornadoes in Pennsylvania

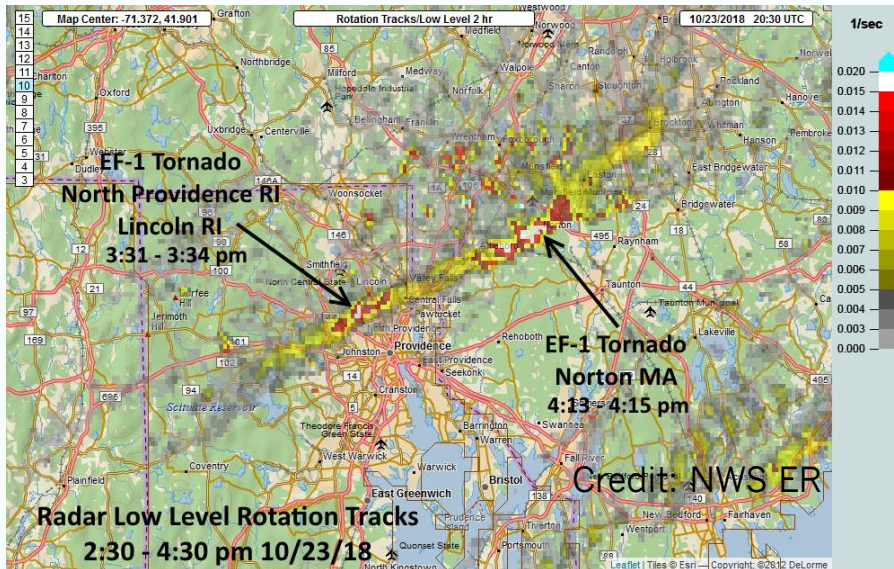
- four EF-0s, six EF-1s, and three EF-2s
- largest single-day tornado outbreak since June 2, 1998 (20+ tornadoes)
- PA averages 15 tornadoes per year
- PA averages 0 tornadoes for Oct.
 - only 13 Oct. tornadoes from 1950-2017
 - Last EF-2 tornado in Oct. was 25+ years ago

3 tornadoes in southeastern New York (an EF-0 and two EF-2s) and 2 in Connecticut (an EF-0 and an EF-1)

- Both states average 0 tornadoes in Oct.
- NY: only 10 Oct. tornadoes from 1950-2017
- CT: only 4 Oct. tornadoes from 1950-2017
 - Last Oct. tornado was in 1979

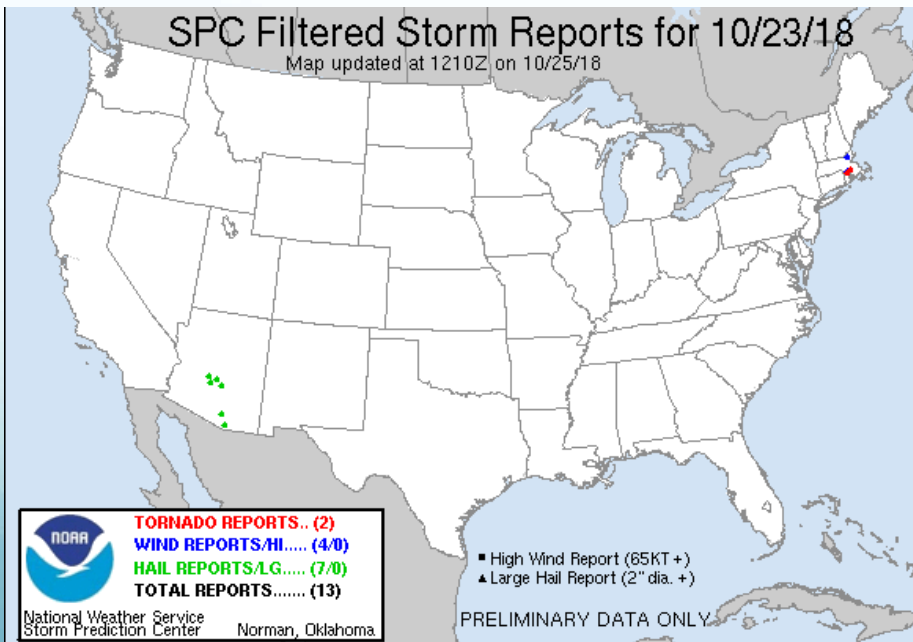


October 23 Tornadoes



EF-1 in RI

- RI averages zero tornadoes during October and annually
- Only 11 other tornadoes reported in RI since 1950
- Only 1 other October tornado in RI
- Latest tornado in the calendar year for RI

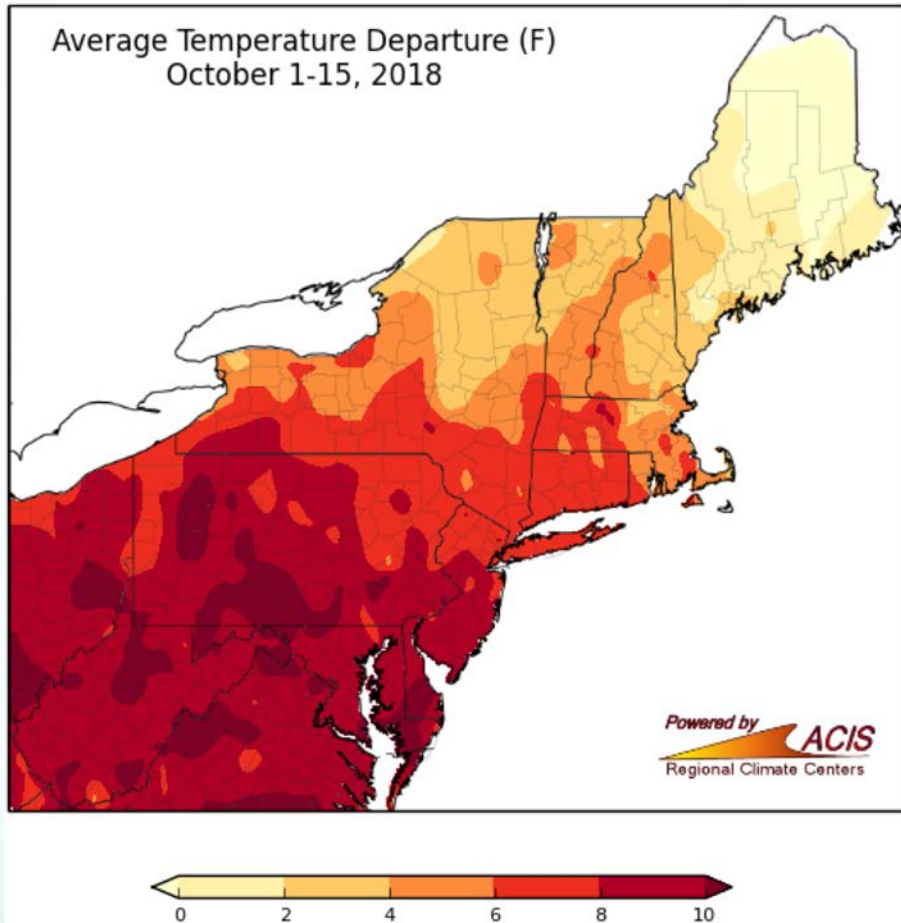


3 tornadoes in MA (an EF-0 and two EF-1s)

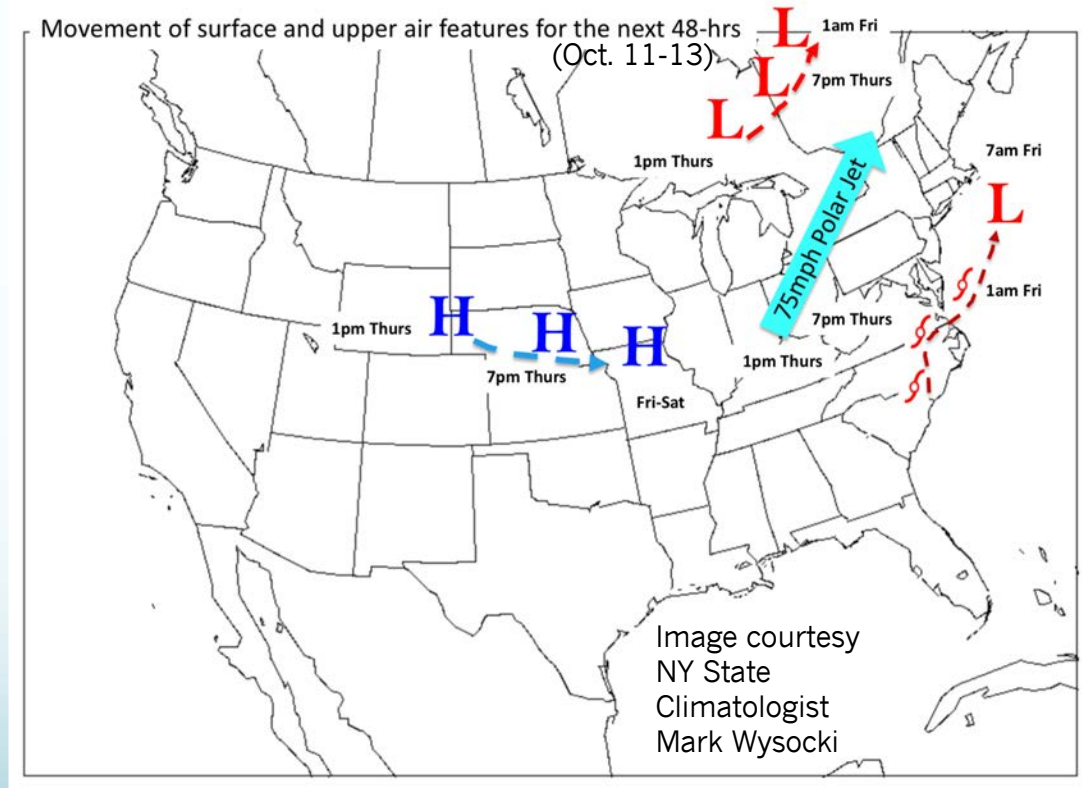
- MA average zero tornadoes during October and 1 annually
- Only 7 other tornadoes in Oct in MA
- First October tornadoes in MA since 1970

October 29: two (EF-0) tornadoes - one in NY and one in CT

October Temperatures



First half of Oct: hot!



Example of typical weather pattern during
first half of October

October Temperatures

Maximum 1-Day Mean Max Temperature for Erie Area, PA (ThreadEx)

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

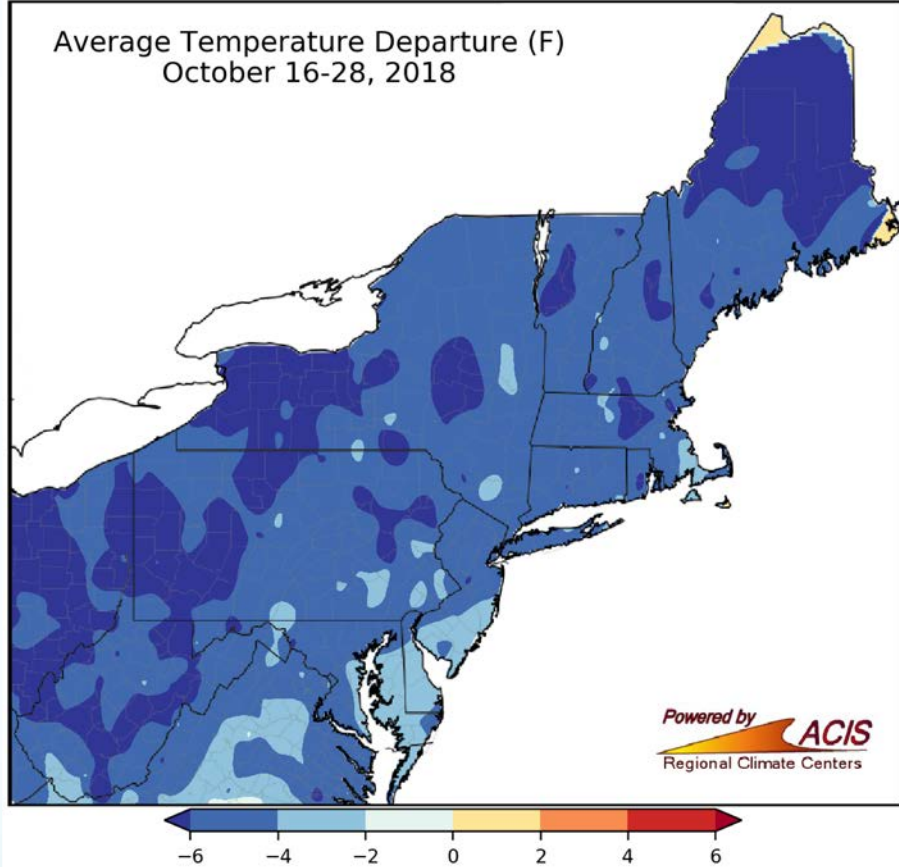
Rank	Value	Ending Date
1	89.0	2018-10-08
-	89.0	1951-10-04
3	88.0	1963-10-07
-	88.0	1949-10-10
-	88.0	1941-10-07
6	87.0	2018-10-09
-	87.0	2007-10-05
-	87.0	1951-10-03
-	87.0	1927-10-02
-	87.0	1900-10-06
Period of record: 1873-05-25 to 2018-10-24		

Erie tied its warmest October temperature

<i>October High Minimum Temperature Records (°F)</i>			
Station	Date	New	Previous Oct. Record
Rochester, NY	9	72	68 on 10/3/1919
Erie, PA	9	72	72 on 10/3/1898
Syracuse, NY	9	70	69 on 10/12/1928

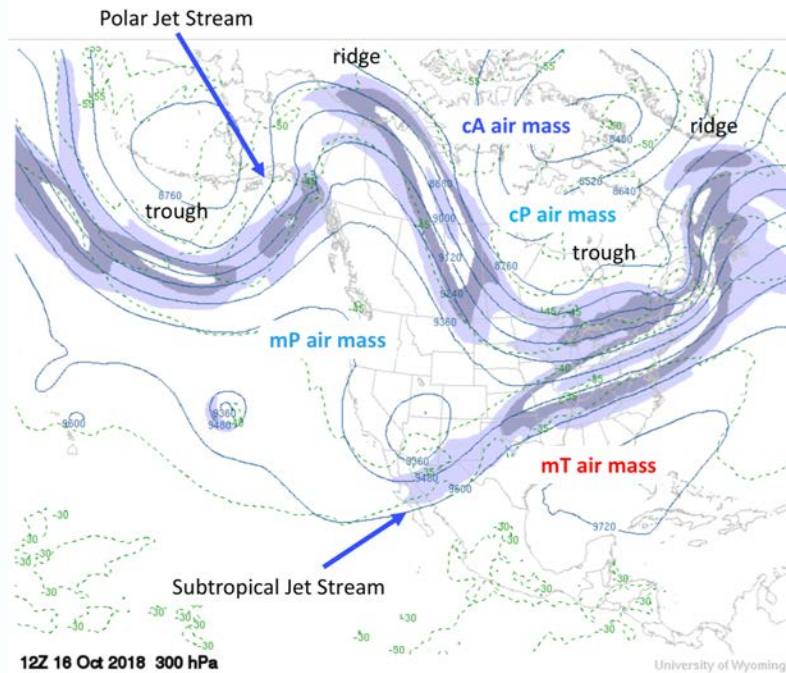
Three NY sites tied their warmest low temperatures for October

October Temperatures

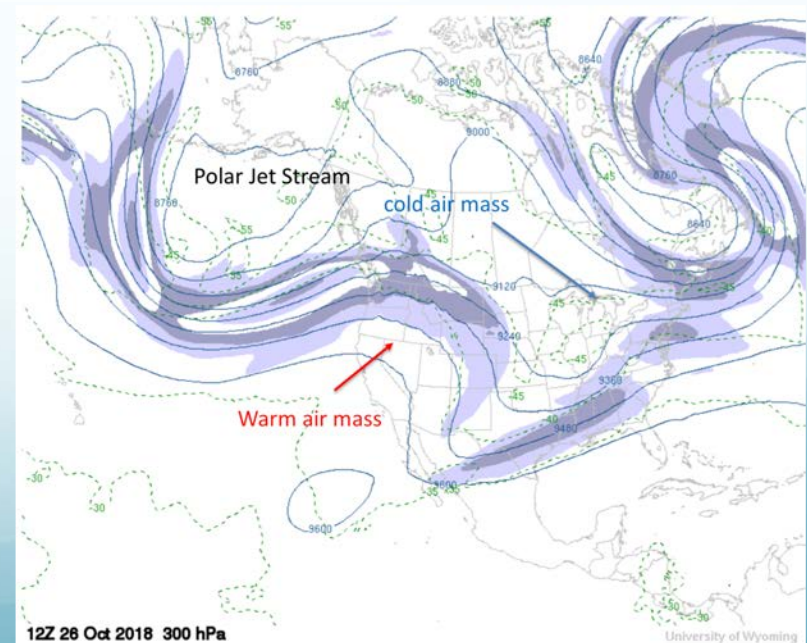


Second half of Oct: cold!

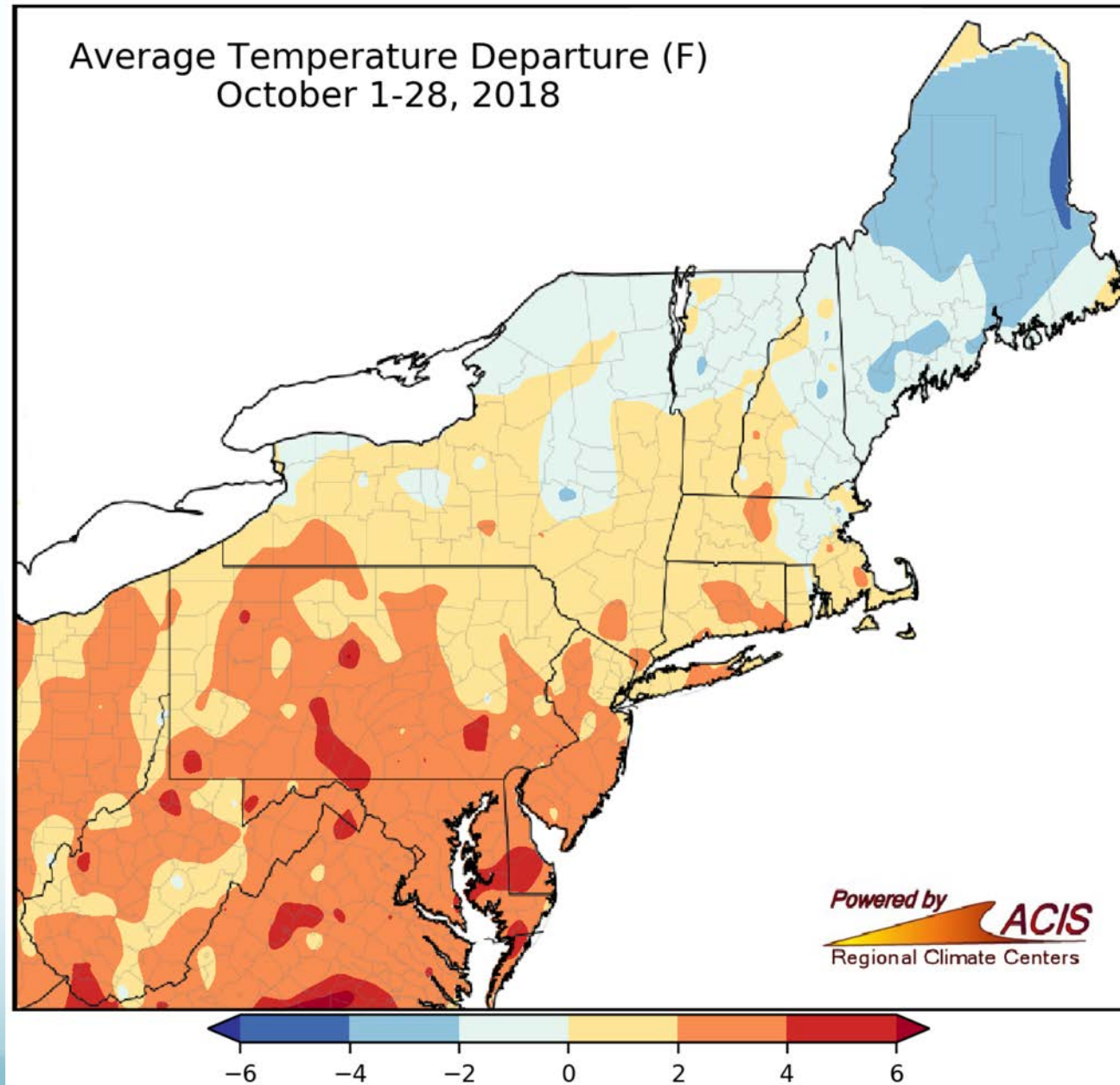
Examples of typical
weather pattern during
second half of October



Images courtesy
NY State
Climatologist
Mark Wysocki



October Temperatures



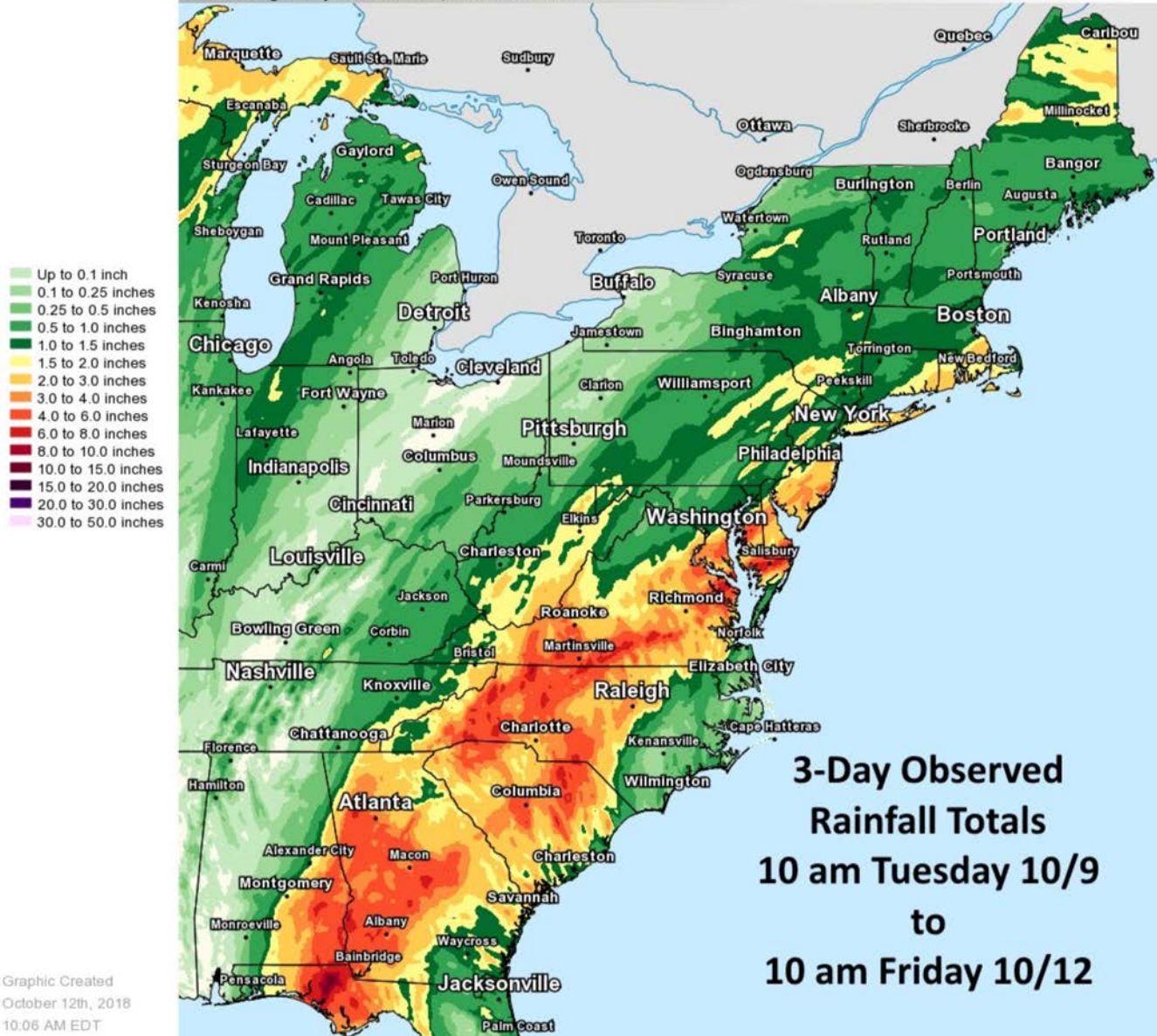
From 4°F below normal to 6°F above normal

Michael Rainfall

Observed Precipitation

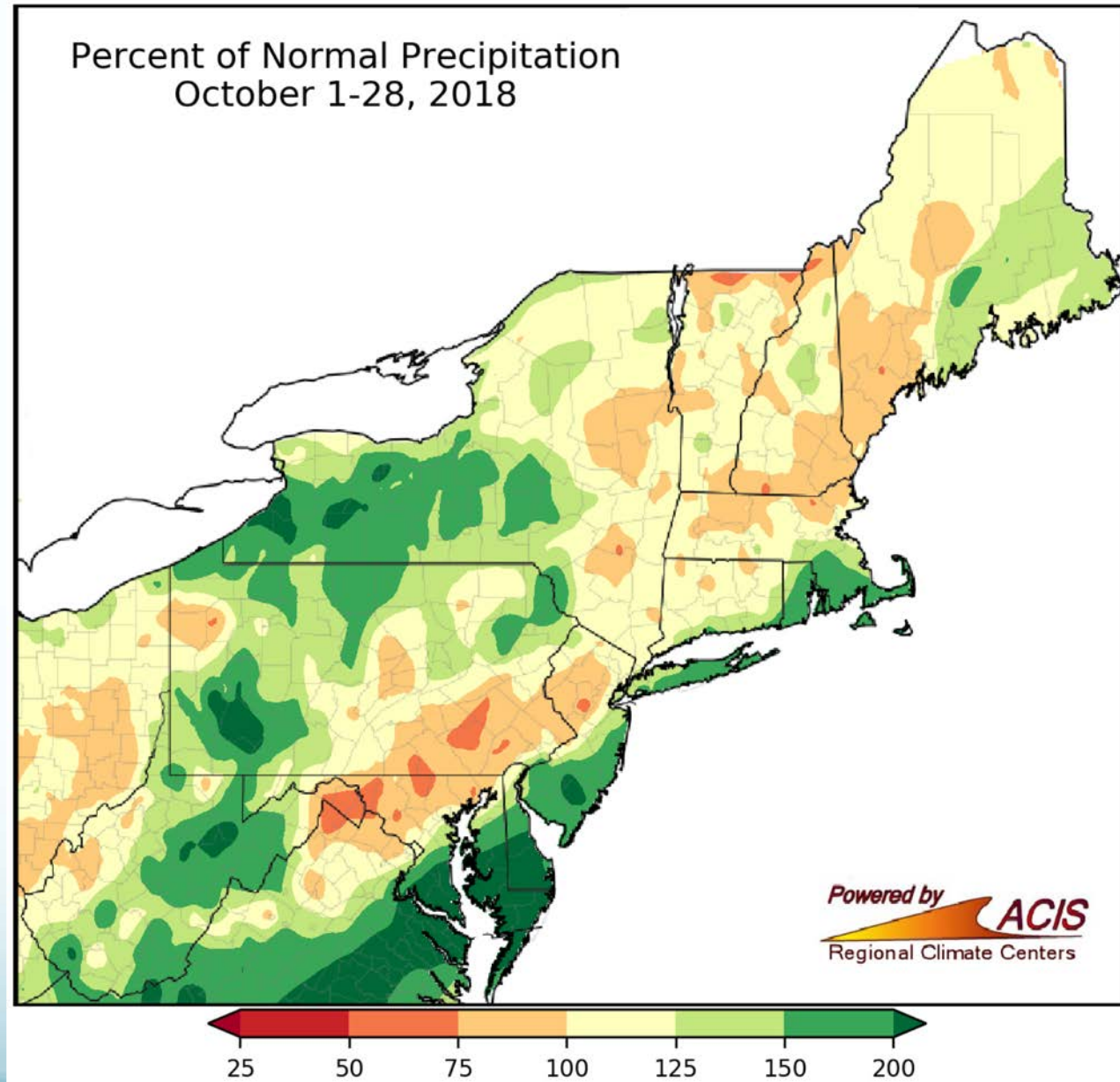


Valid Ending Friday October 12th, 2018 at 10 AM EDT



Rainfall totals from Hurricane Michael along the East Coast

October Precipitation



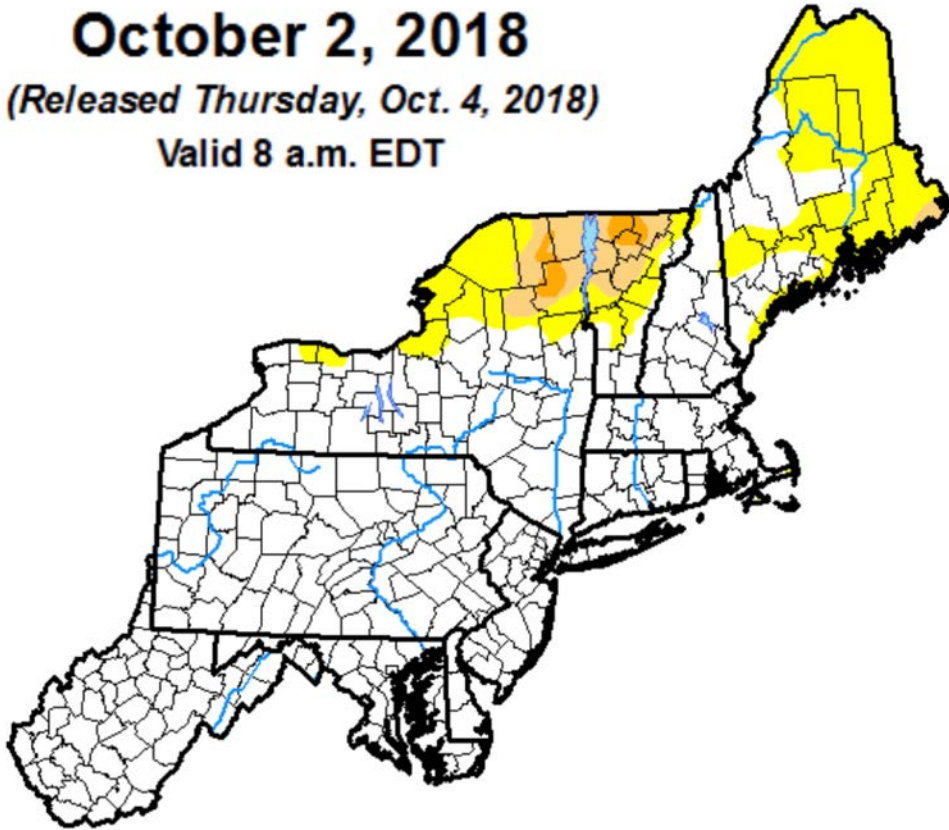
From 50% of normal to more than 200% of normal

Drought Monitor

October 2, 2018

(Released Thursday, Oct. 4, 2018)

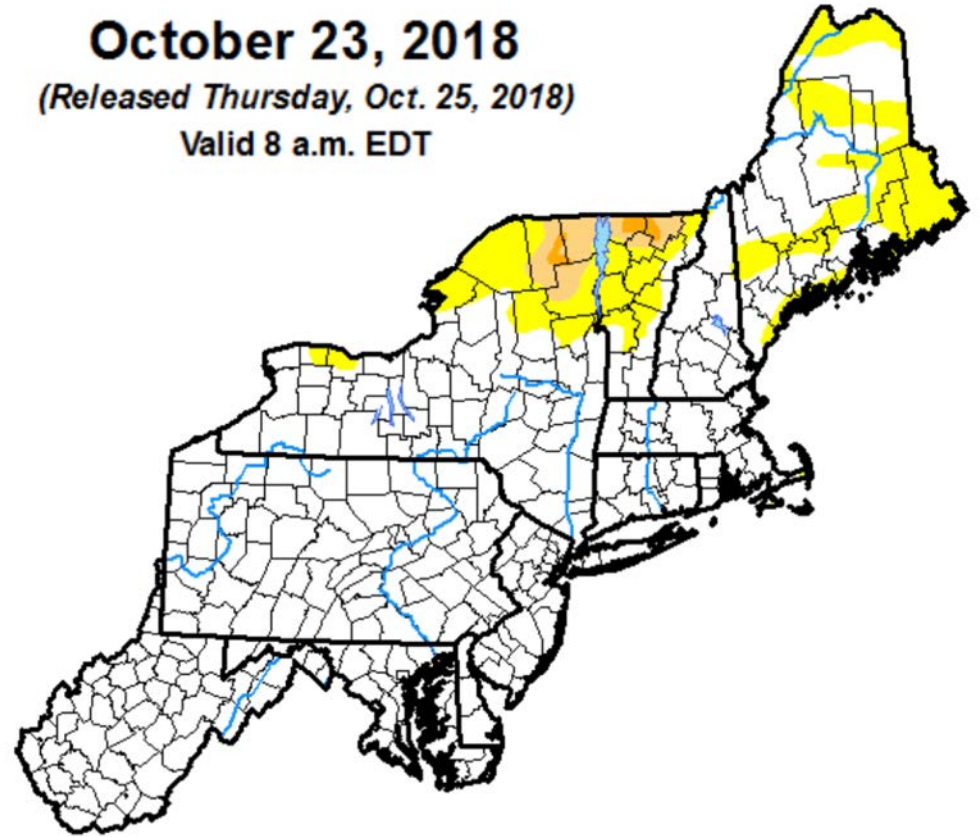
Valid 8 a.m. EDT



October 23, 2018

(Released Thursday, Oct. 25, 2018)

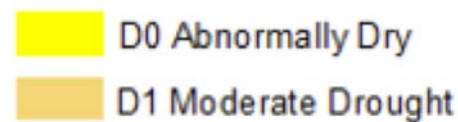
Valid 8 a.m. EDT



At the beginning of October:

- 17% of the region was abnormally dry
- 5% in a severe or moderate drought

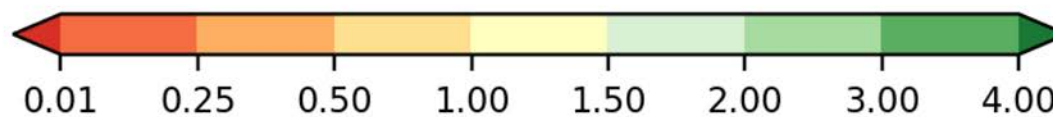
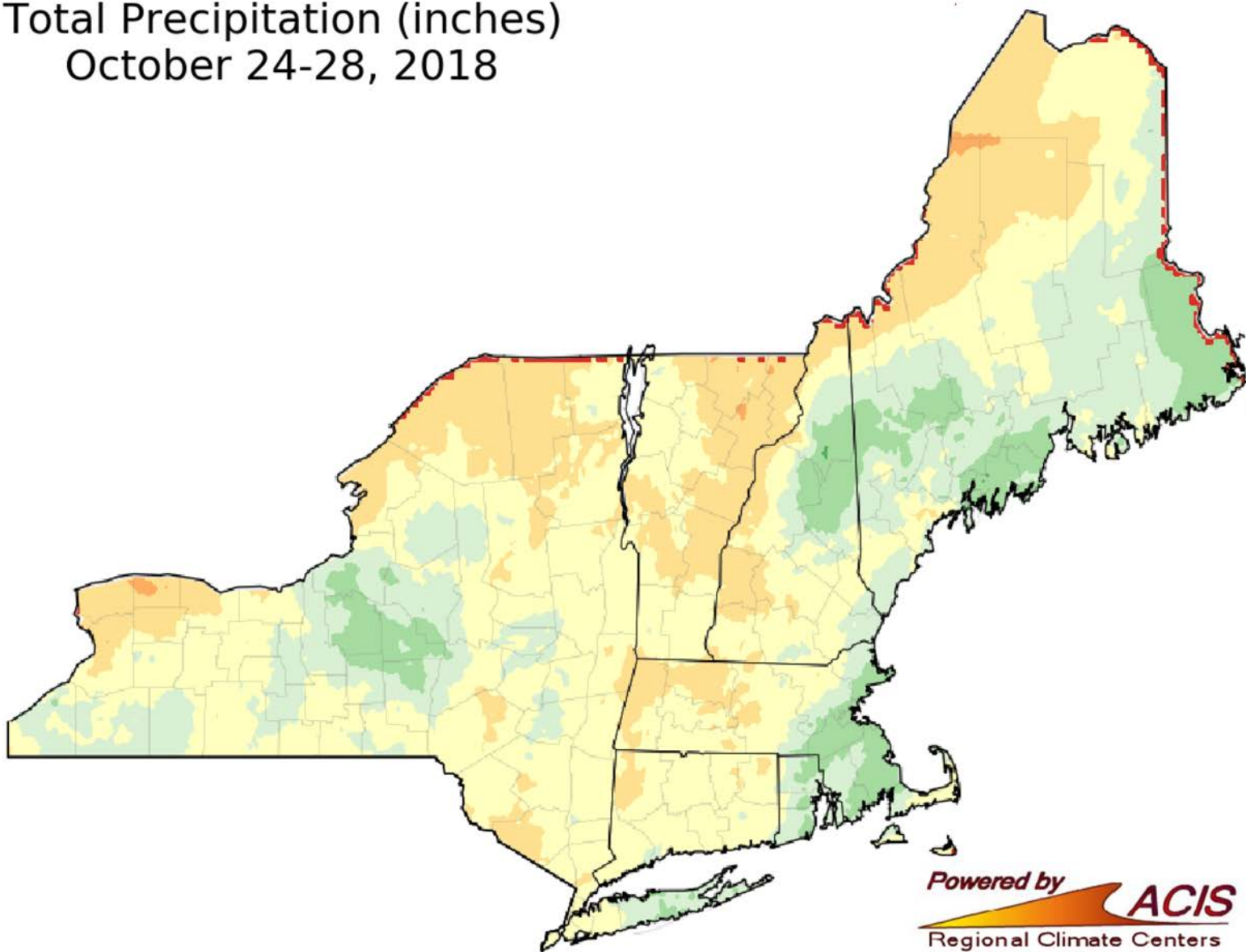
Intensity:



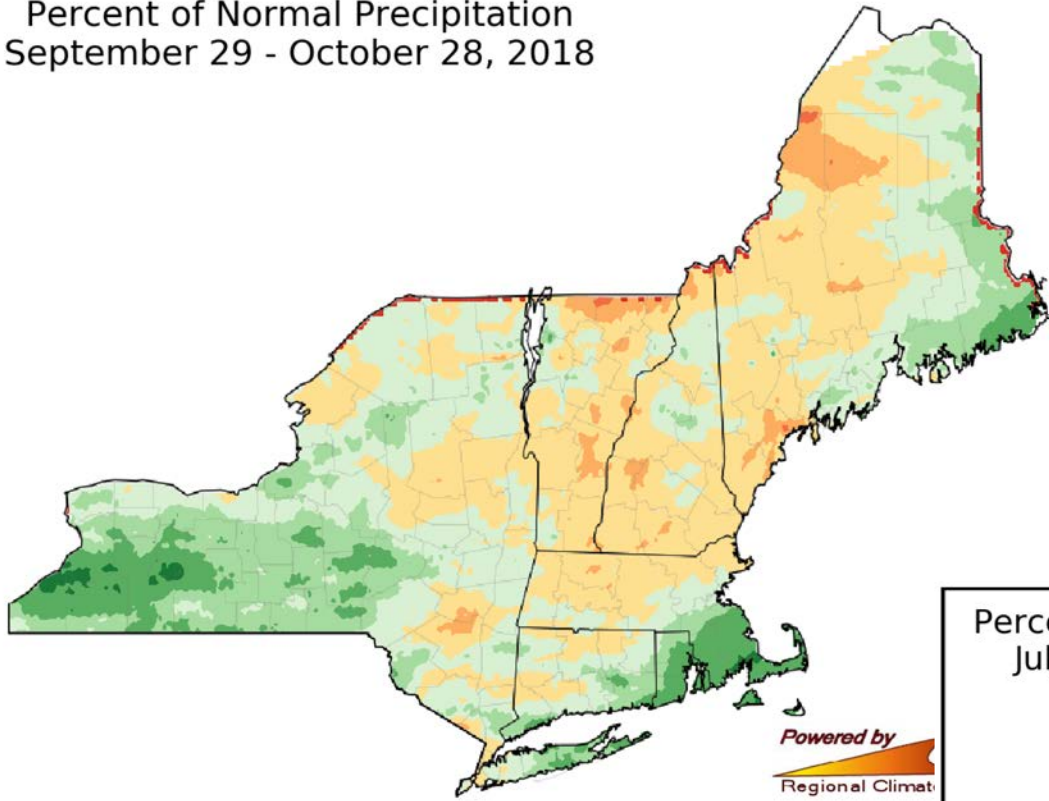
As of last week:

- 14% is abnormally dry
- 2% in a severe or moderate drought

Total Precipitation (inches) October 24-28, 2018

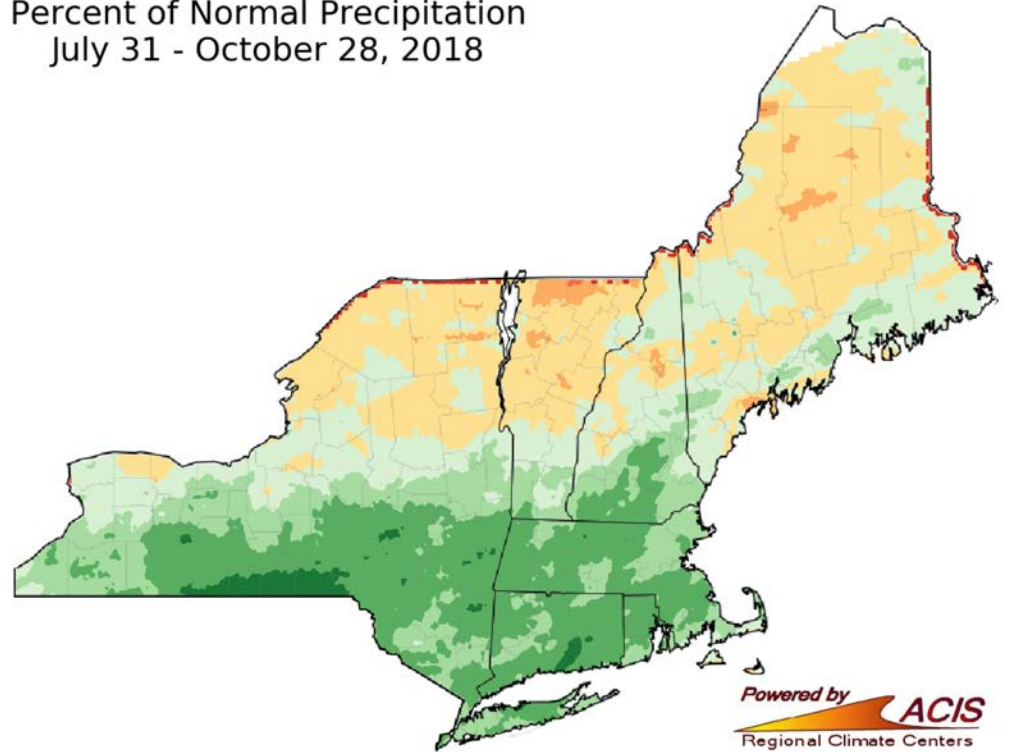


Percent of Normal Precipitation
September 29 - October 28, 2018



Powered by
Regional Climate

Percent of Normal Precipitation
July 31 - October 28, 2018

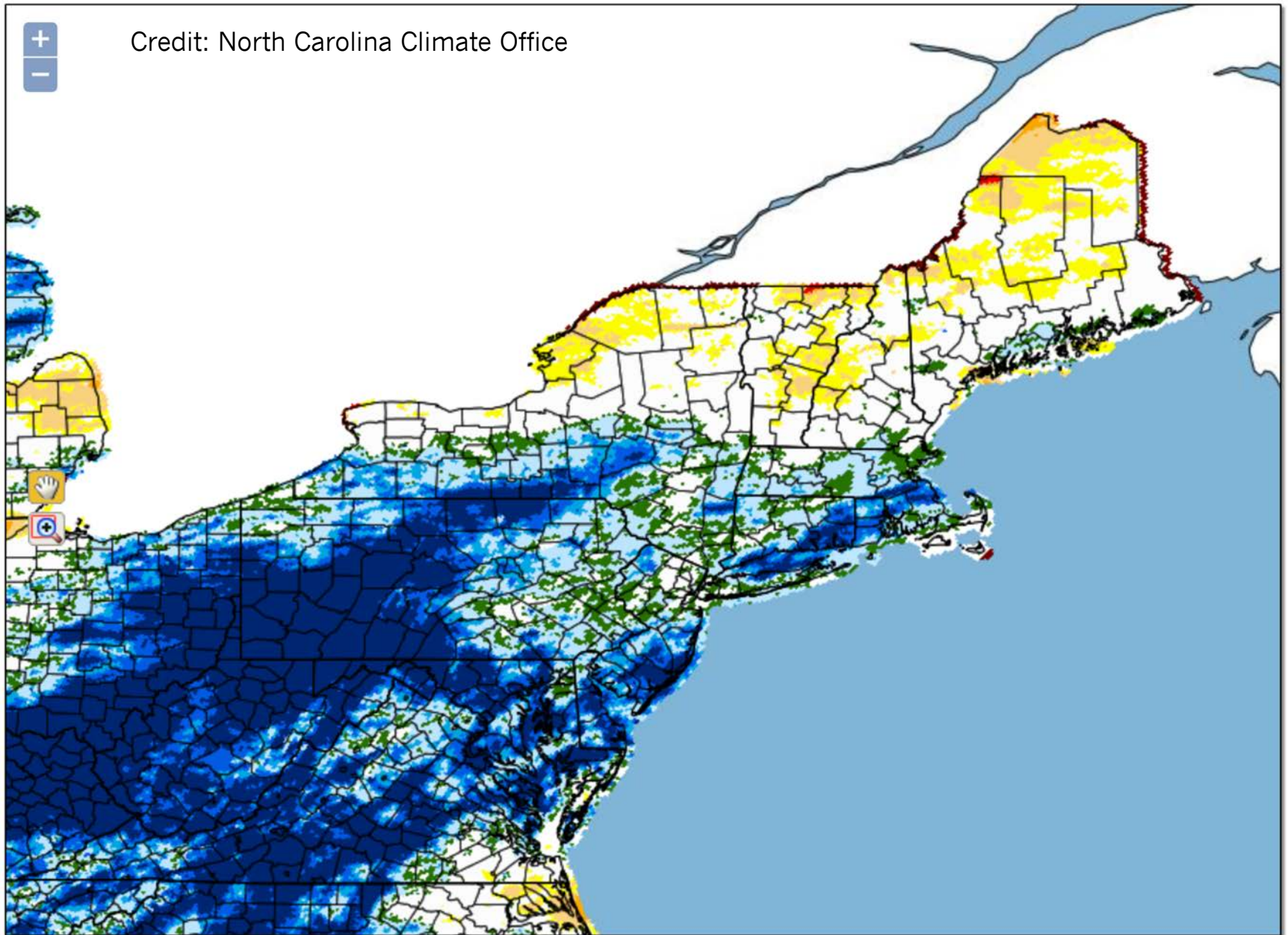


Powered by
Regional Climate Centers





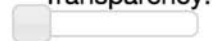
Credit: North Carolina Climate Office



60 day SPI for October 28, 2018

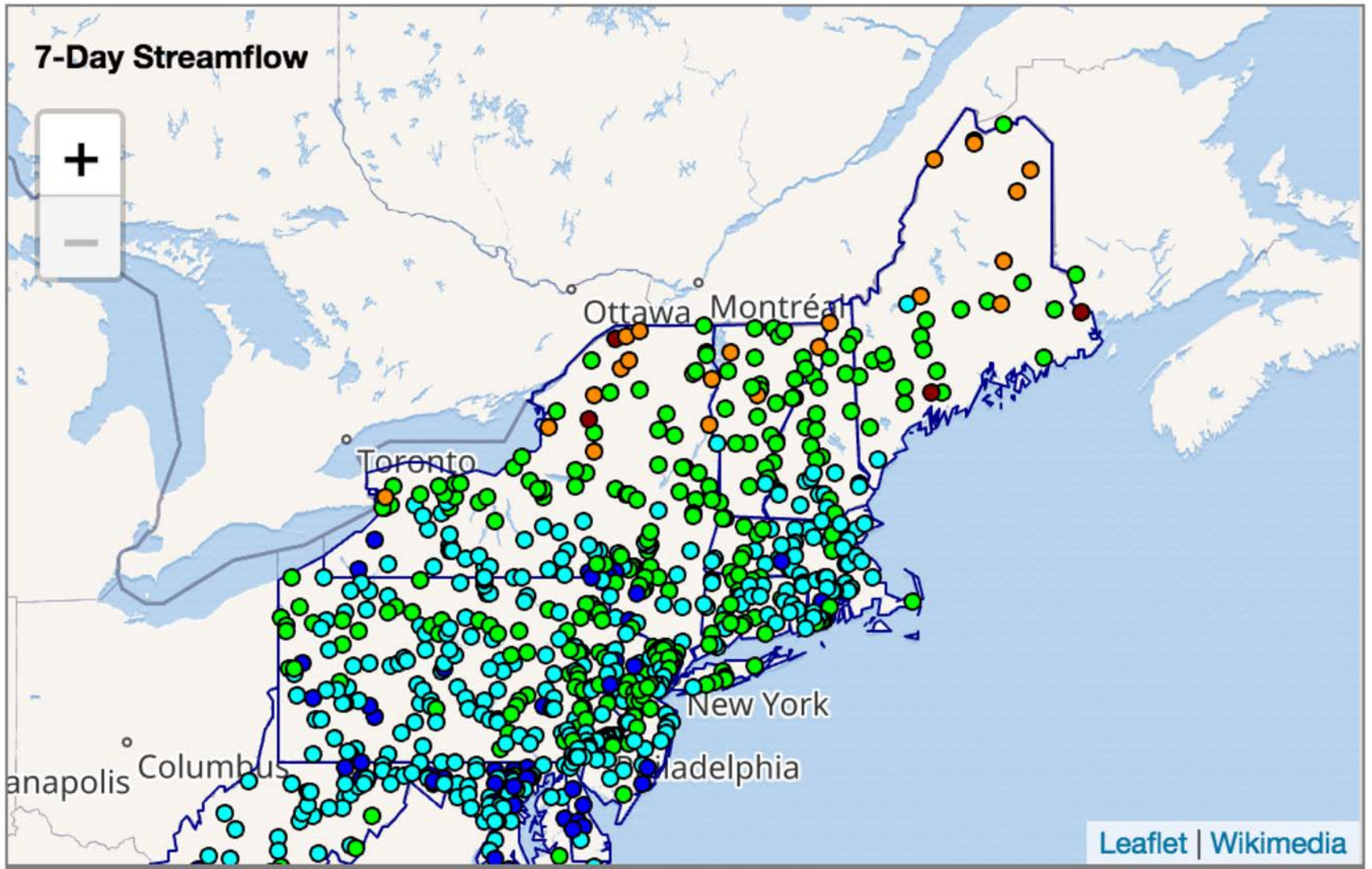


Transparency:



DOWNLOAD
GEOTIFF



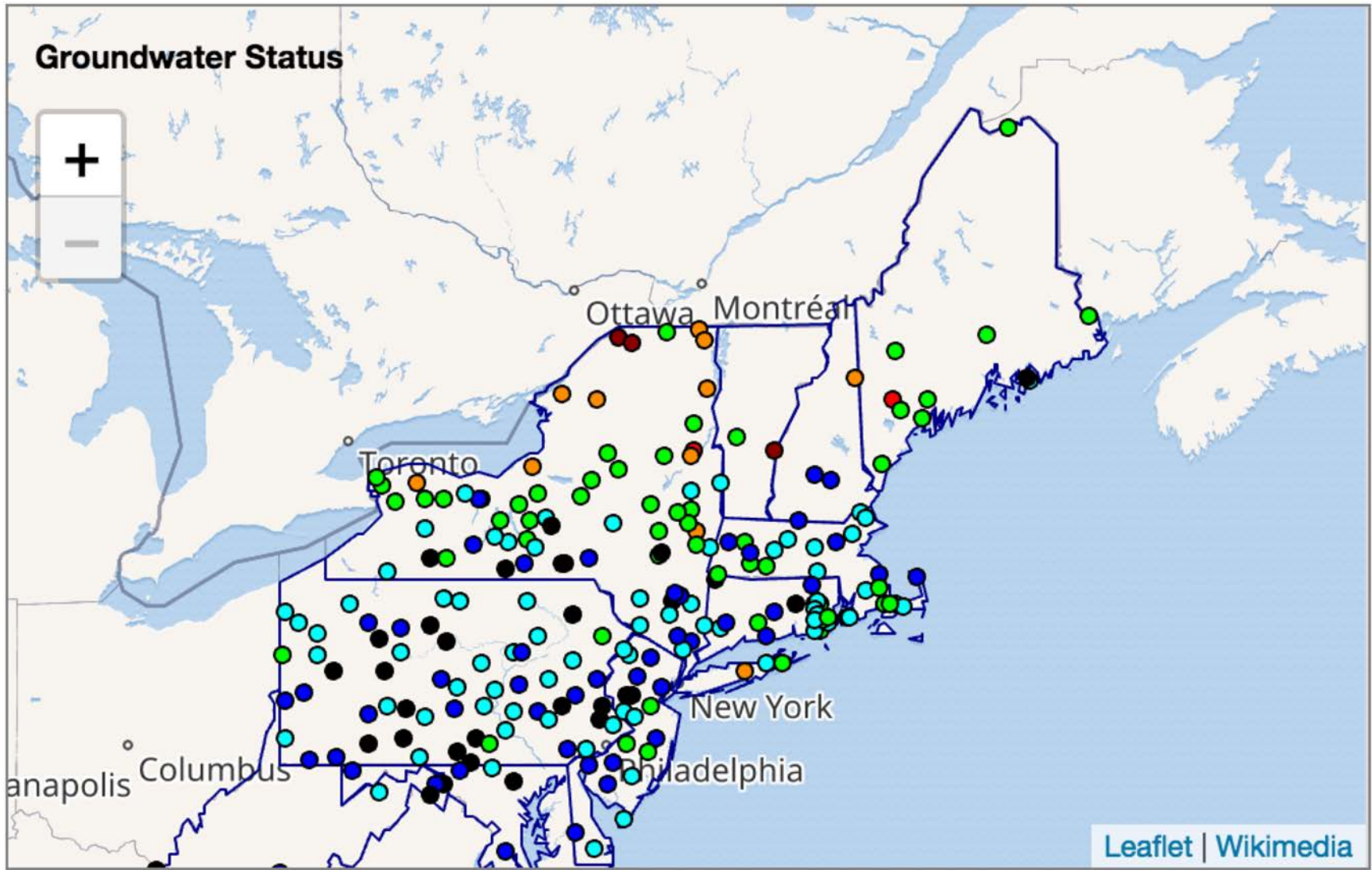


Explanation - Percentile Classes

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

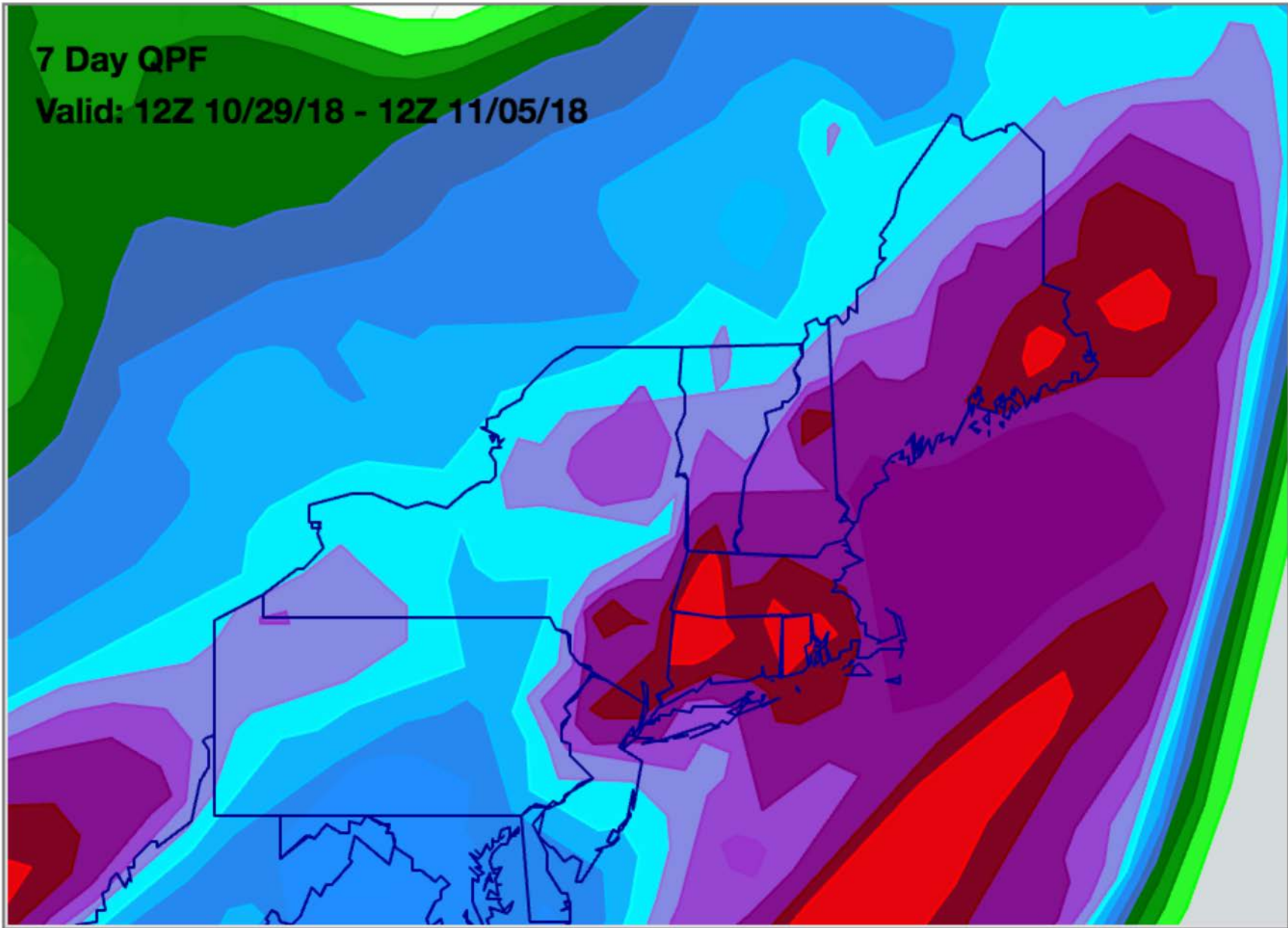
Low	Much below normal	Below normal	Normal	Above normal	Much above normal	High	
	<10%	10-24%	25-75%	76-90%	>90%		

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



7 Day QPF

Valid: 12Z 10/29/18 - 12Z 11/05/18



Explanation - Forecast precipitation (inches)

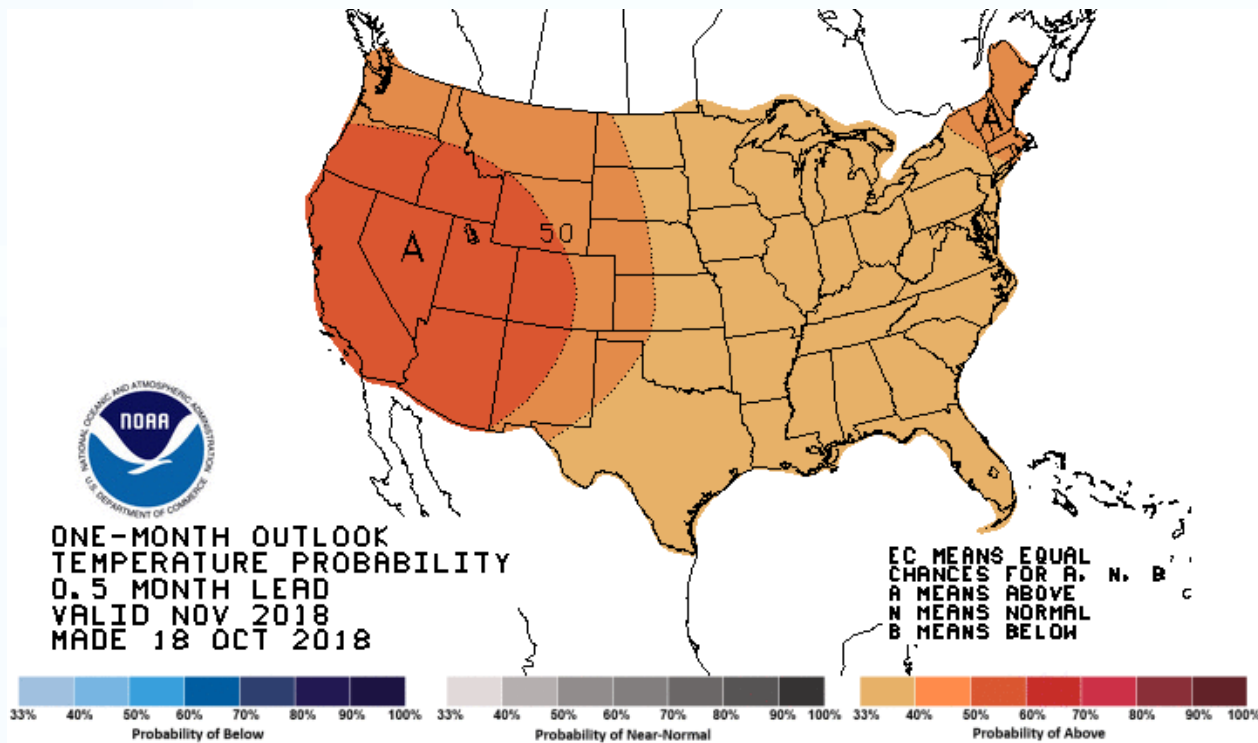


Data provided by [DOC/NOAA/NWS/NCEP/WPC](#).

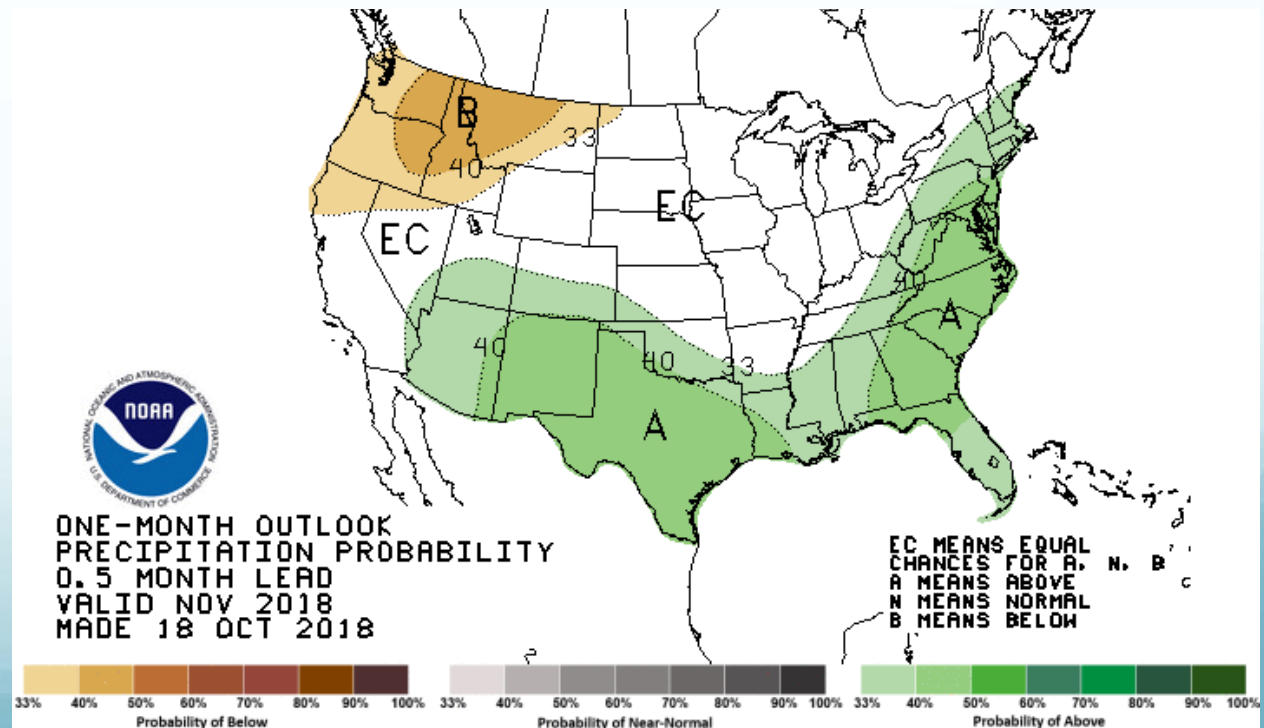


November Outlooks

Temperature:
Increased chances of above-normal temperatures for entire Northeast (left – shaded orange)



Precipitation:
Increased chances of above-normal precipitation for most of region (right – shaded green) and a few areas with equal chances (shaded white)

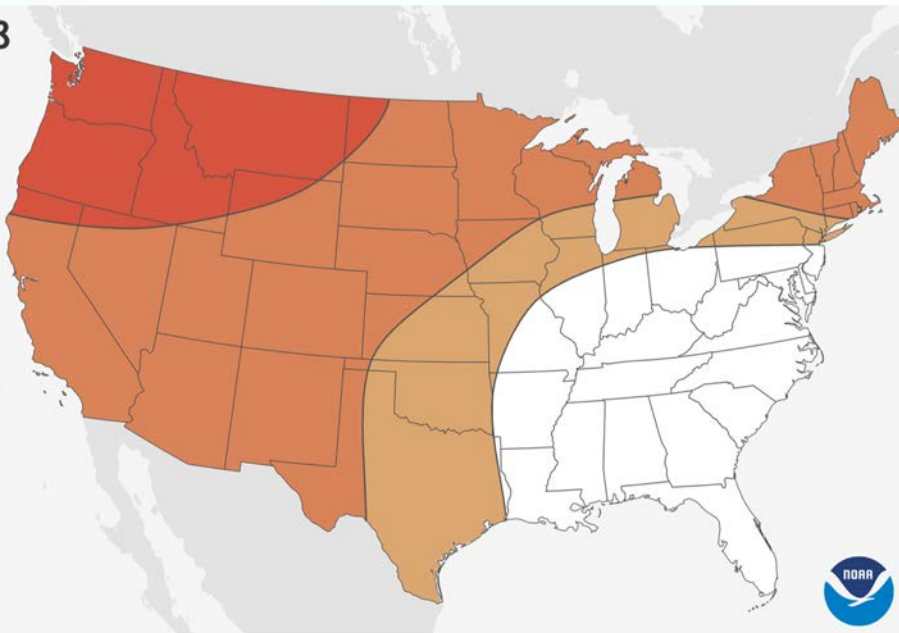


Winter 2018

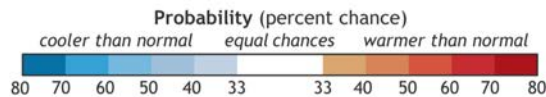
U.S. Temperature Outlook



AK and HI not to scale



Temperature Outlook
for Dec 2018 – Feb 2019
Issued 18 October 2018



NWS Climate Prediction Center
Map by NOAA Climate.gov

Winter Outlooks

Temperature (left):

Increased chances of above-normal temperatures New England, NY, northern PA, and northern NJ (shaded orange) and equal chances elsewhere (shaded white)

Precipitation (right):

Increased chances of above-normal precipitation for DE, much of MD, southeastern PA, southern half of NJ, and parts of WV (shaded green) and equal chances elsewhere (shaded white)

Special El Niño report on NRCC website:
www.nrcc.cornell.edu

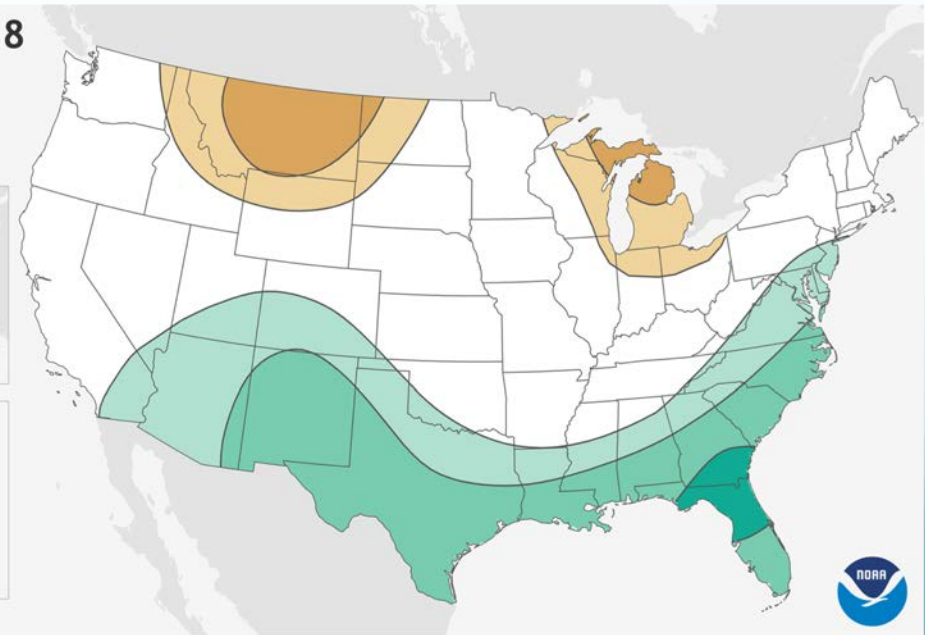
Our November webinar will feature a discussion on El Niño and the winter outlooks!

Winter 2018

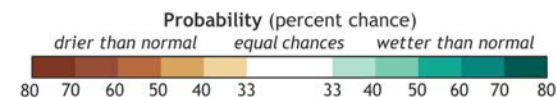
U.S. Precipitation Outlook



AK and HI not to scale



Precipitation Outlook
for Dec 2018 – Feb 2019
Issued 18 October 2018



NWS Climate Prediction Center
Map by NOAA Climate.gov

Contact Information

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

Upcoming Webinars

- Thursday, November 29 at 9:30 am
 - El Niño & Winter Outlooks
- Tuesday, December 18 at 9:30 am
 - National Climate Assessment 4 – Northeast chapter findings

www.nrcc.cornell.edu