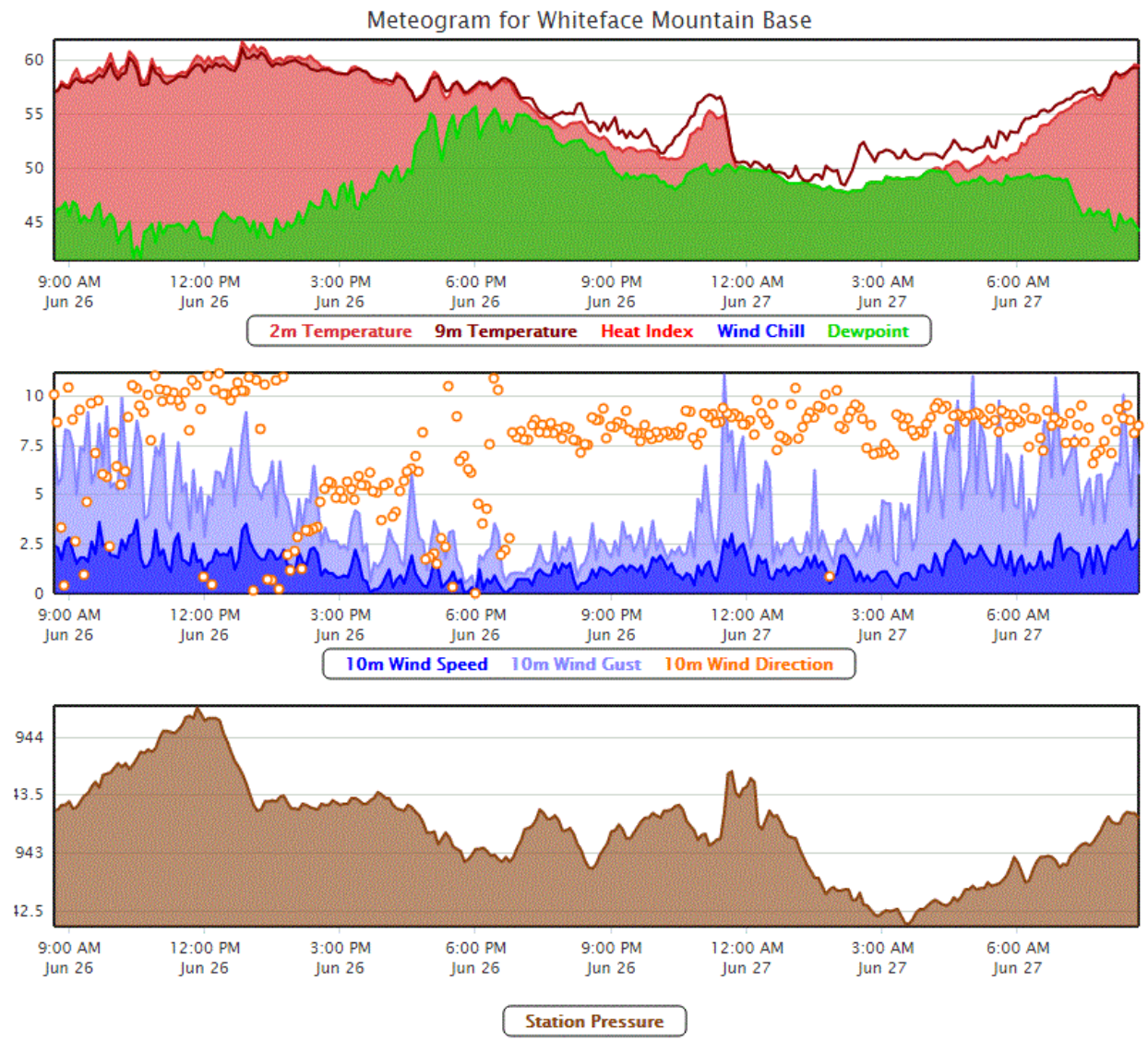
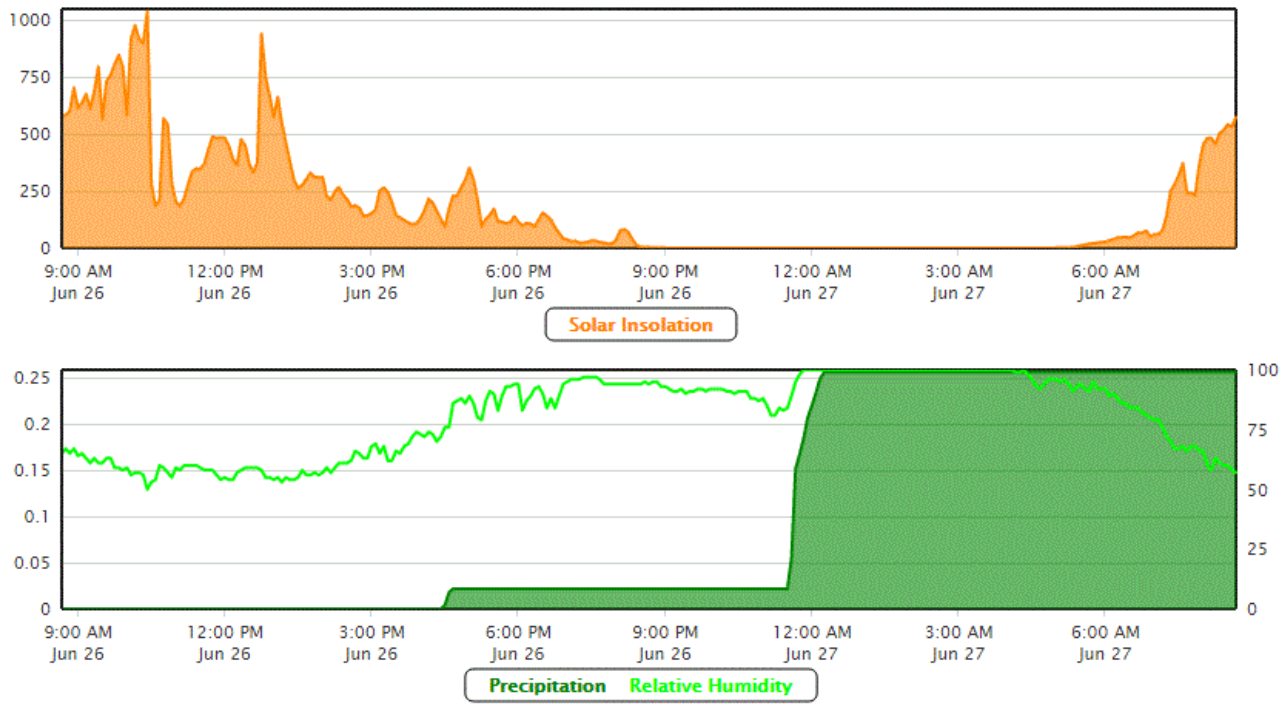
Forecast for 6/28-7/31

Forecaster: Matthew Brewer

Forecast made at: 12z 6/27/2017

Whiteface lodge Mesonet
Meteogram for the past 24 hours





http://www.nysmesonet.org/data/meteogram#?stid=WFMB

Whiteface Summit past meteogram

UNIVERSITY AT ALBANY
State University of New York

Whiteface Mountain Summit

NEW YORK STATE OF OPPORTUNITY. NYSERDA Supported

ATMOSPHERIC SCIENCES RESEARCH CENTER SUNY

Summit Conditions 06/27 09:21

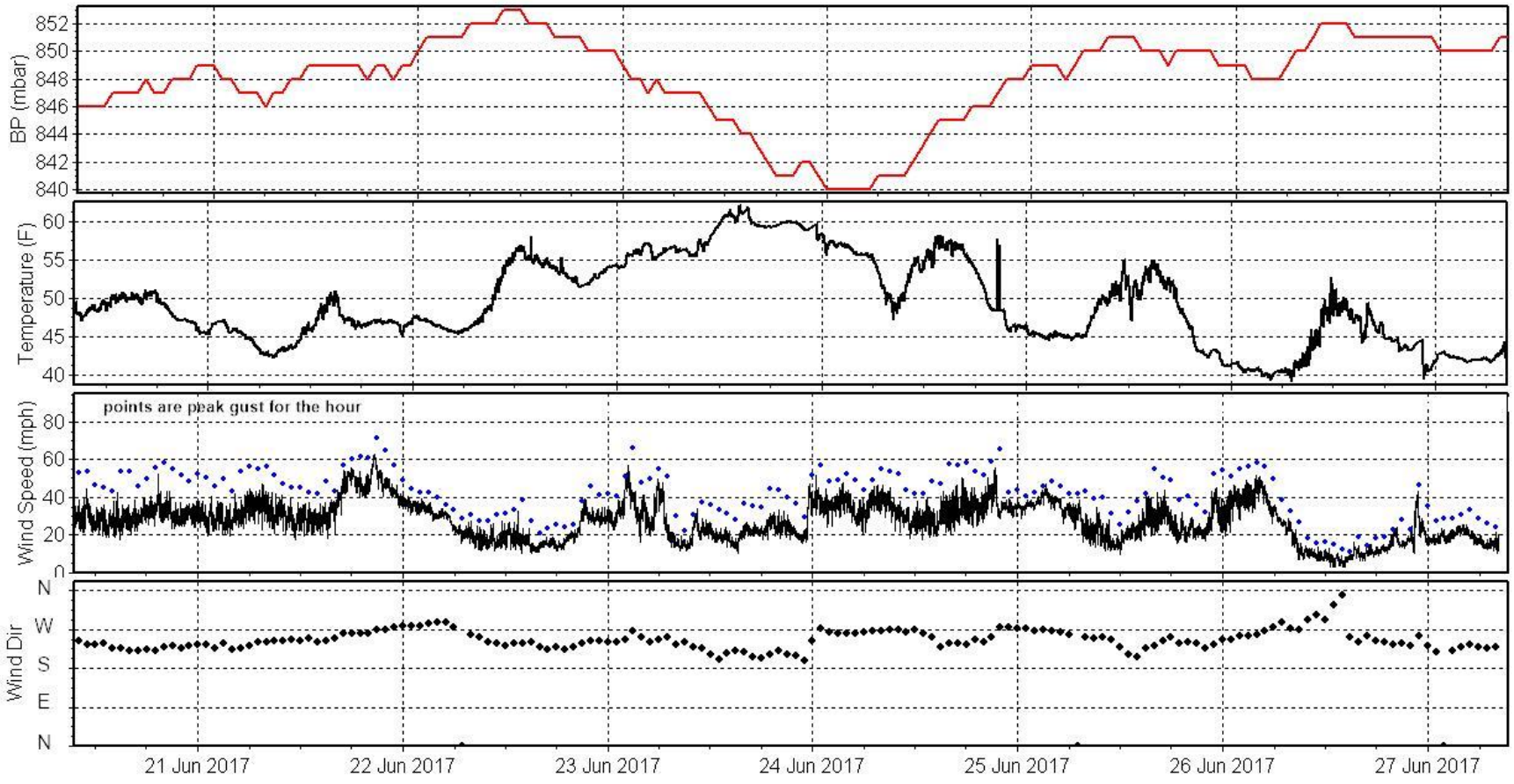
temperature 44°F / 7°C
humidity 100 %
wind speed 15 mph / 24 kph
gusting to 24 mph / 39 kph

wind direction

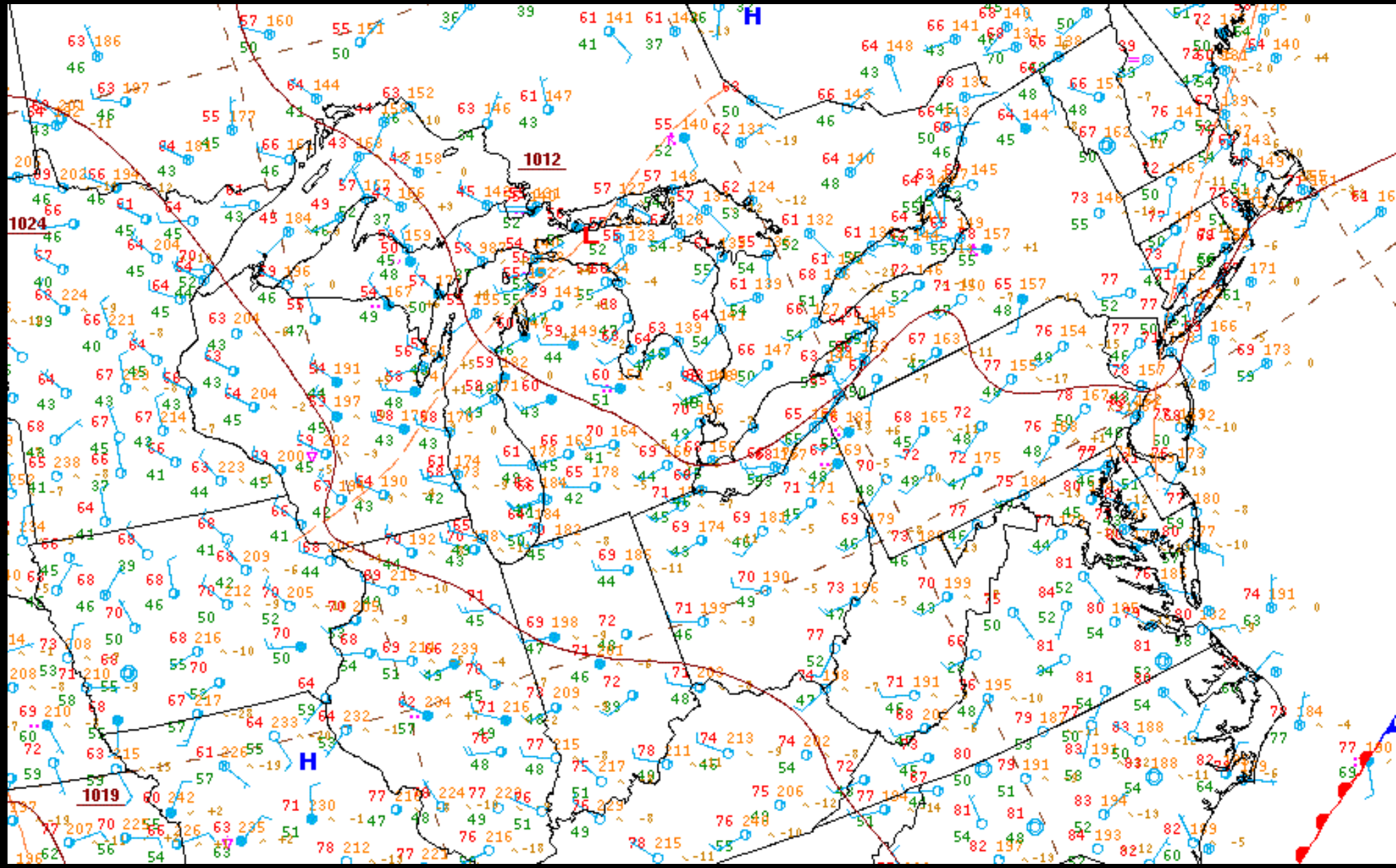
Preliminary data. Data displayed on these pages are preliminary and subject to change.

Current image from Whiteface Summit

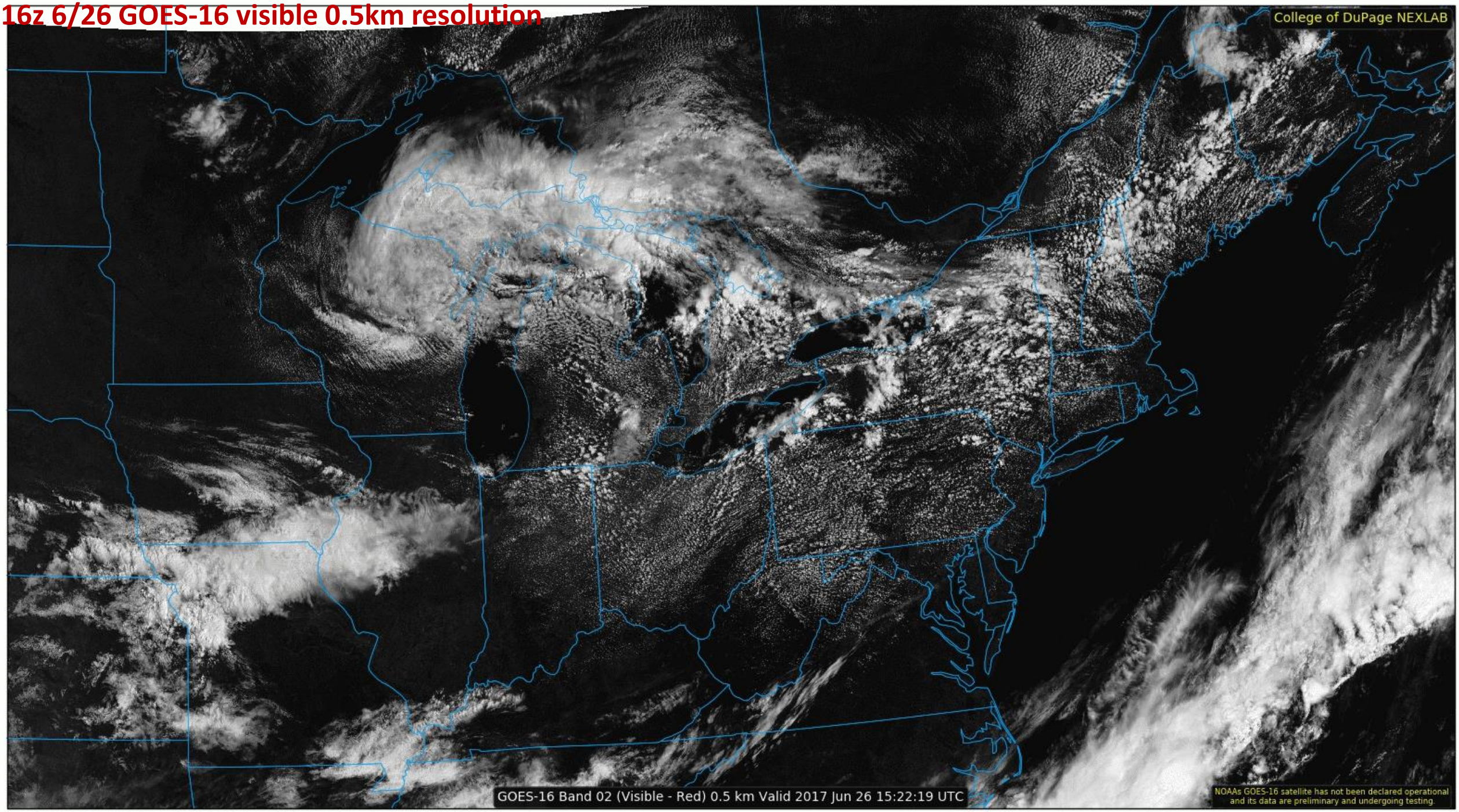
one-week time series:

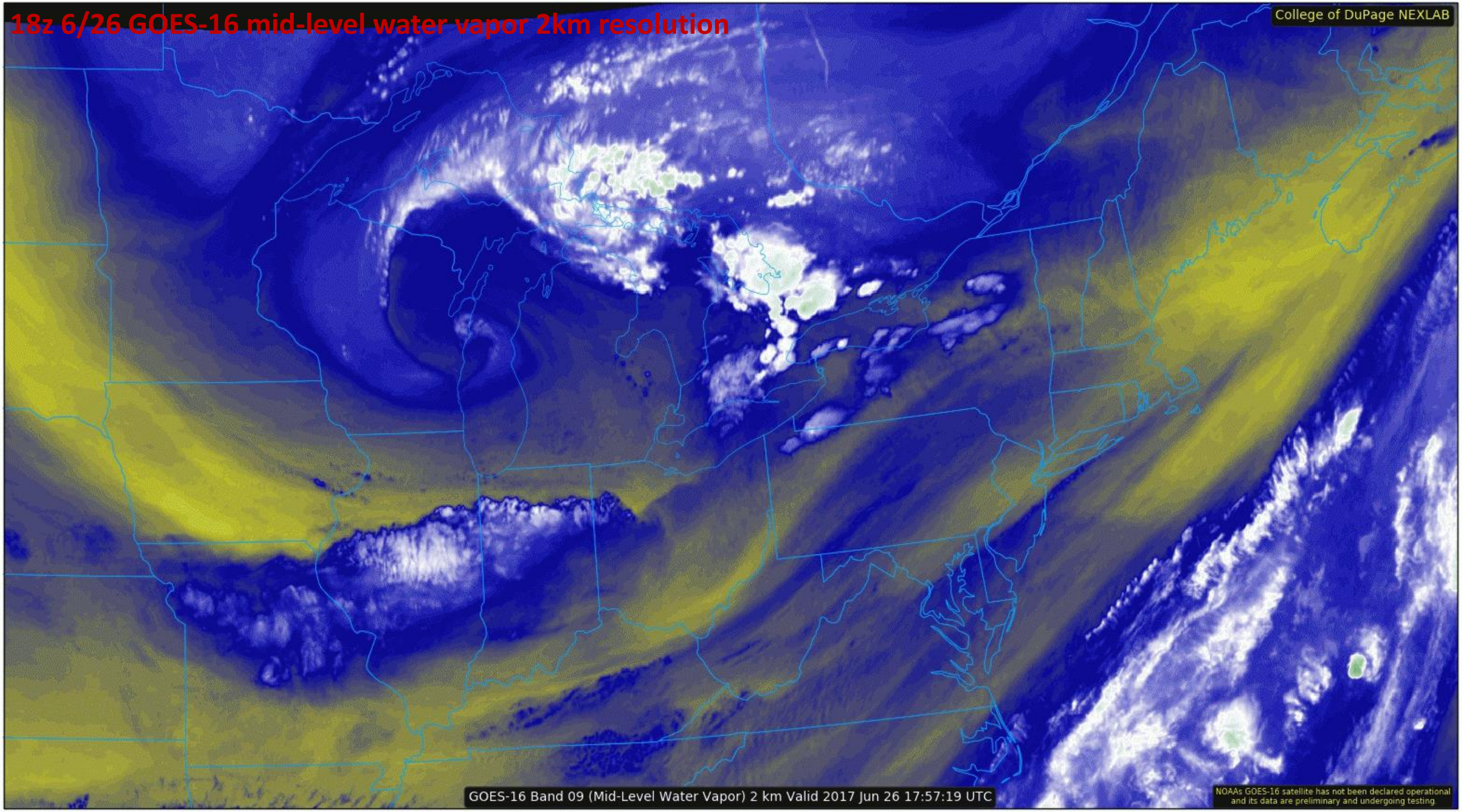


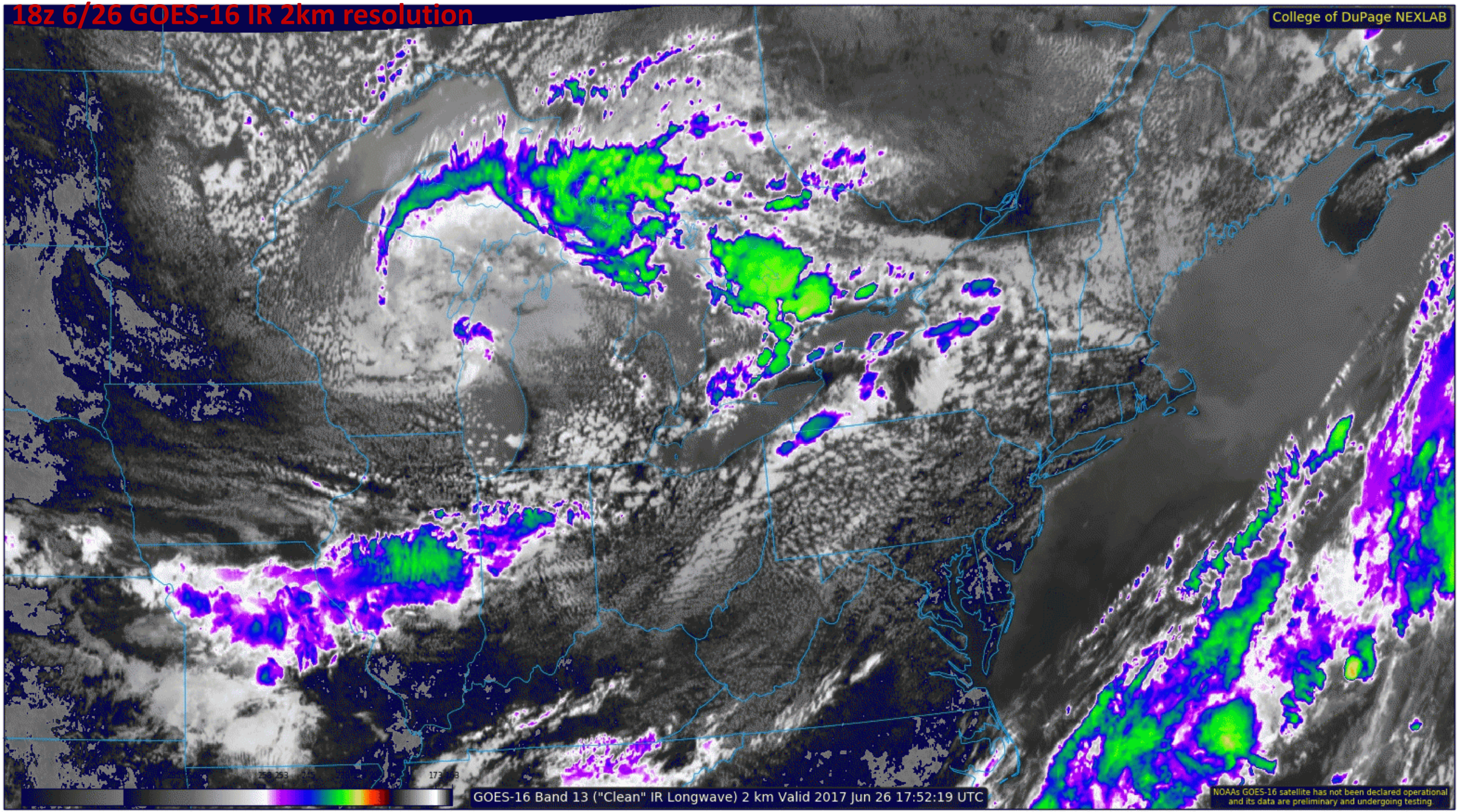
18z surface analysis from yesterday (6/26)



http://www.wpc.ncep.noaa.gov/html/sfc-zoom.php

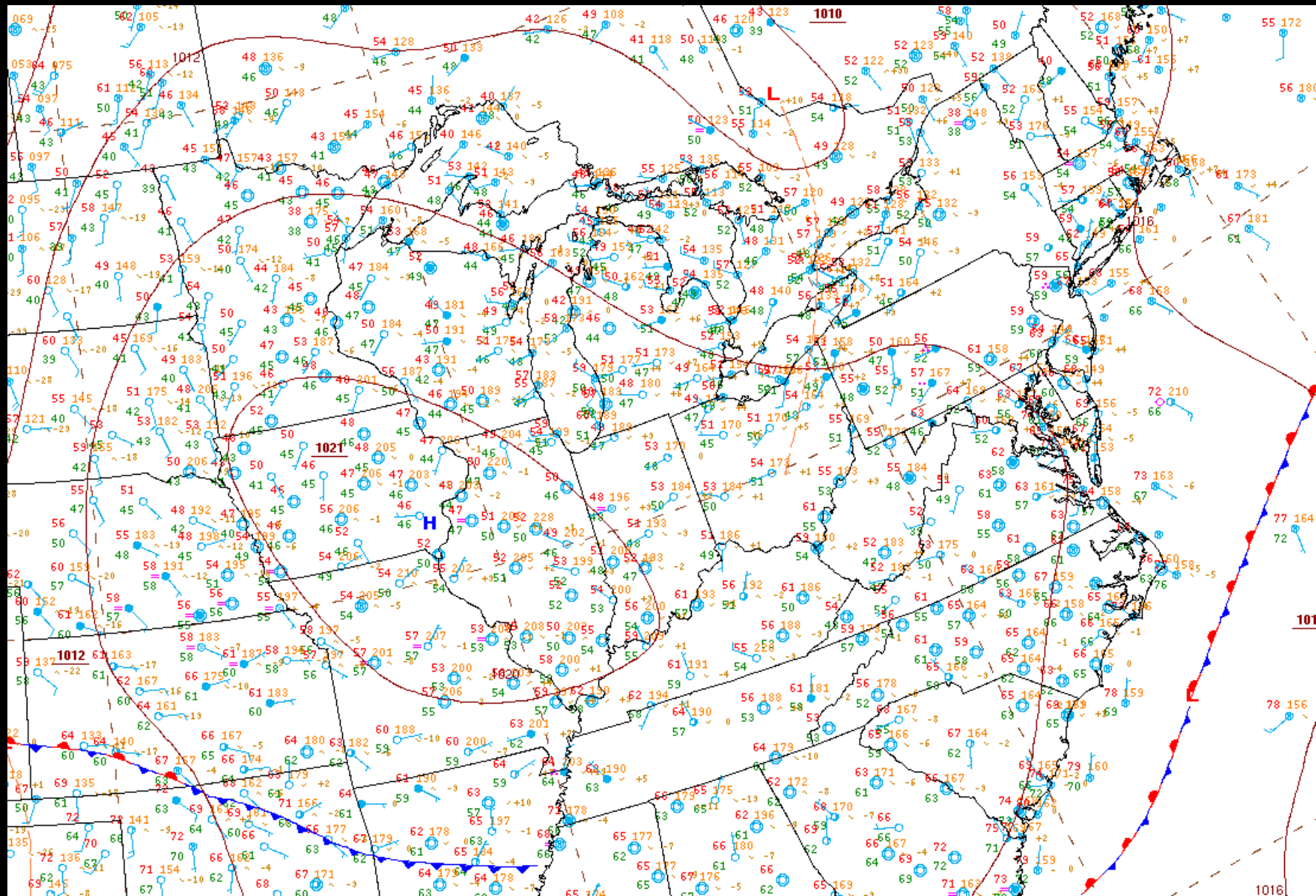

16z 6/26 GOES-16 visible 0.5km resolution
College of DuPage NEXLAB
GOES-16 Band 02 (Visible - Red) 0.5 km Valid 2017 Jun 26 15:22:19 UTC
NOAAs GOES-16 satellite has not been declared operational and its data are preliminary and undergoing testing.

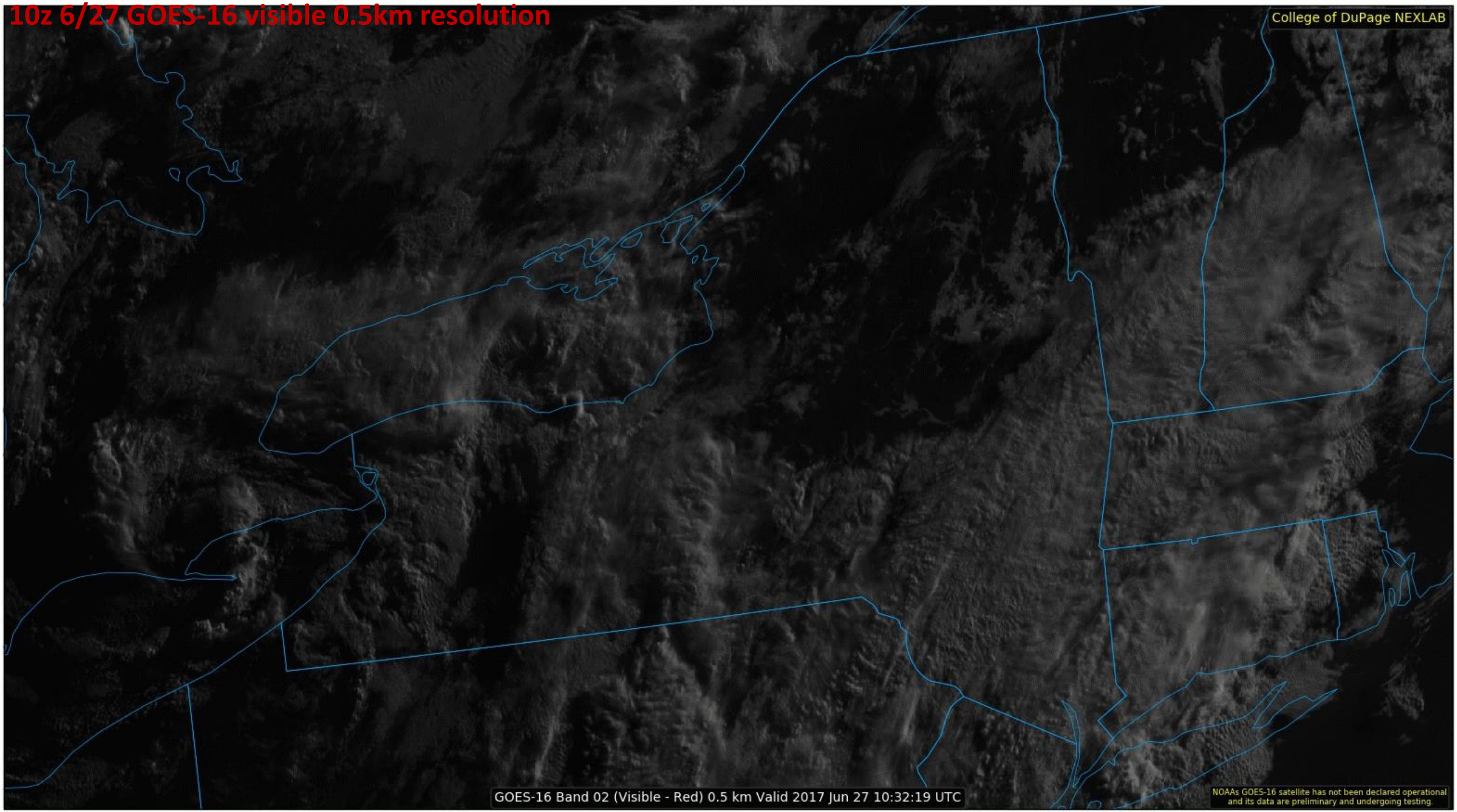

18z 6/26 GOES-16 mid-level water vapor 2km resolution
College of DuPage NEXLAB
GOES-16 Band 09 (Mid-Level Water Vapor) 2 km Valid 2017 Jun 26 17:57:19 UTC
NOAAs GOES-16 satellite has not been declared operational and its data are preliminary and undergoing testing.

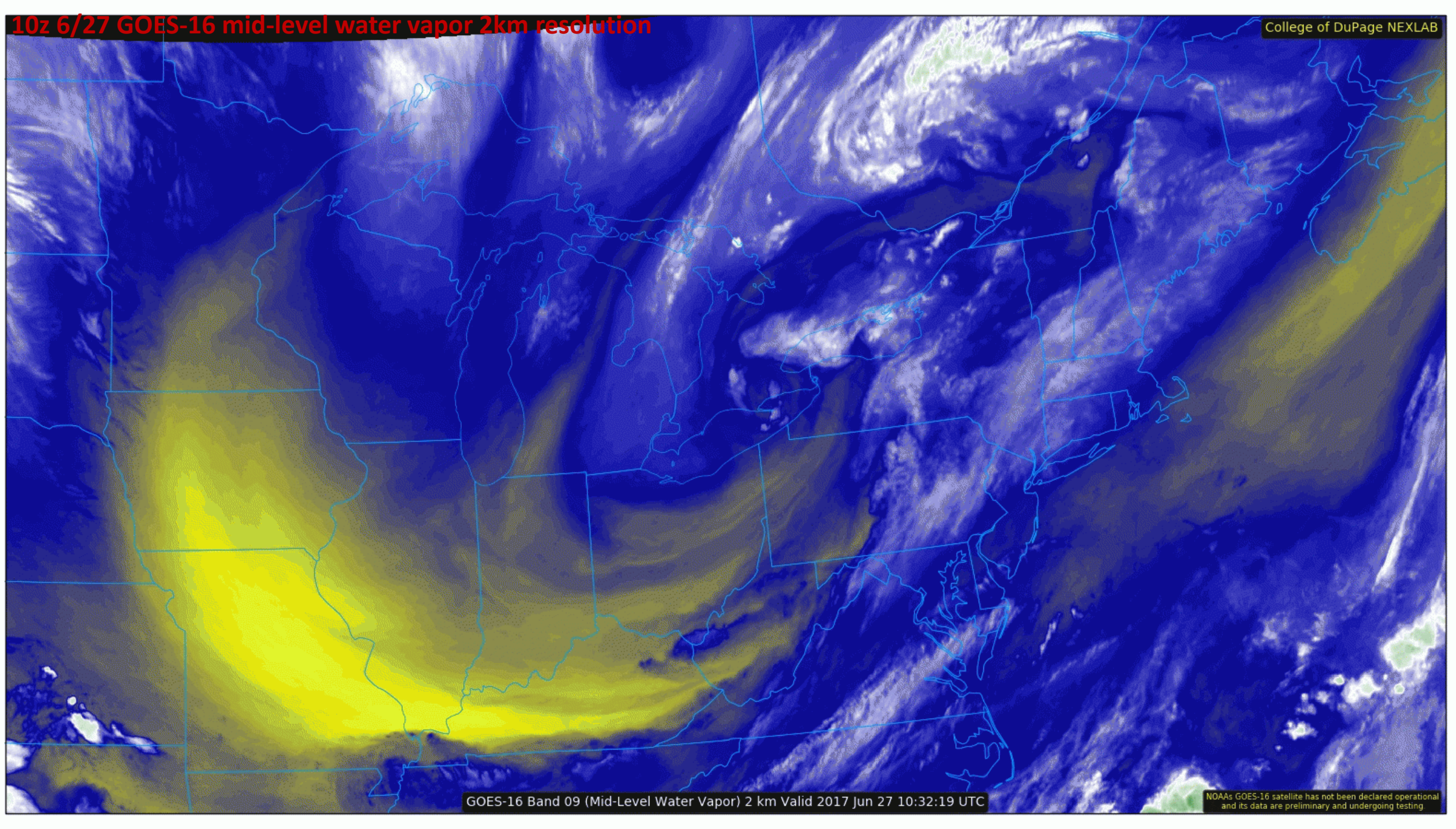

18z 6/26 GOES-16 IR 2km resolution
College of DuPage NEXLAB
GOES-16 Band 13 ("Clean" IR Longwave) 2 km Valid 2017 Jun 26 17:52:19 UTC
NOAAs GOES-16 satellite has not been declared operational and its data are preliminary and undergoing testing.

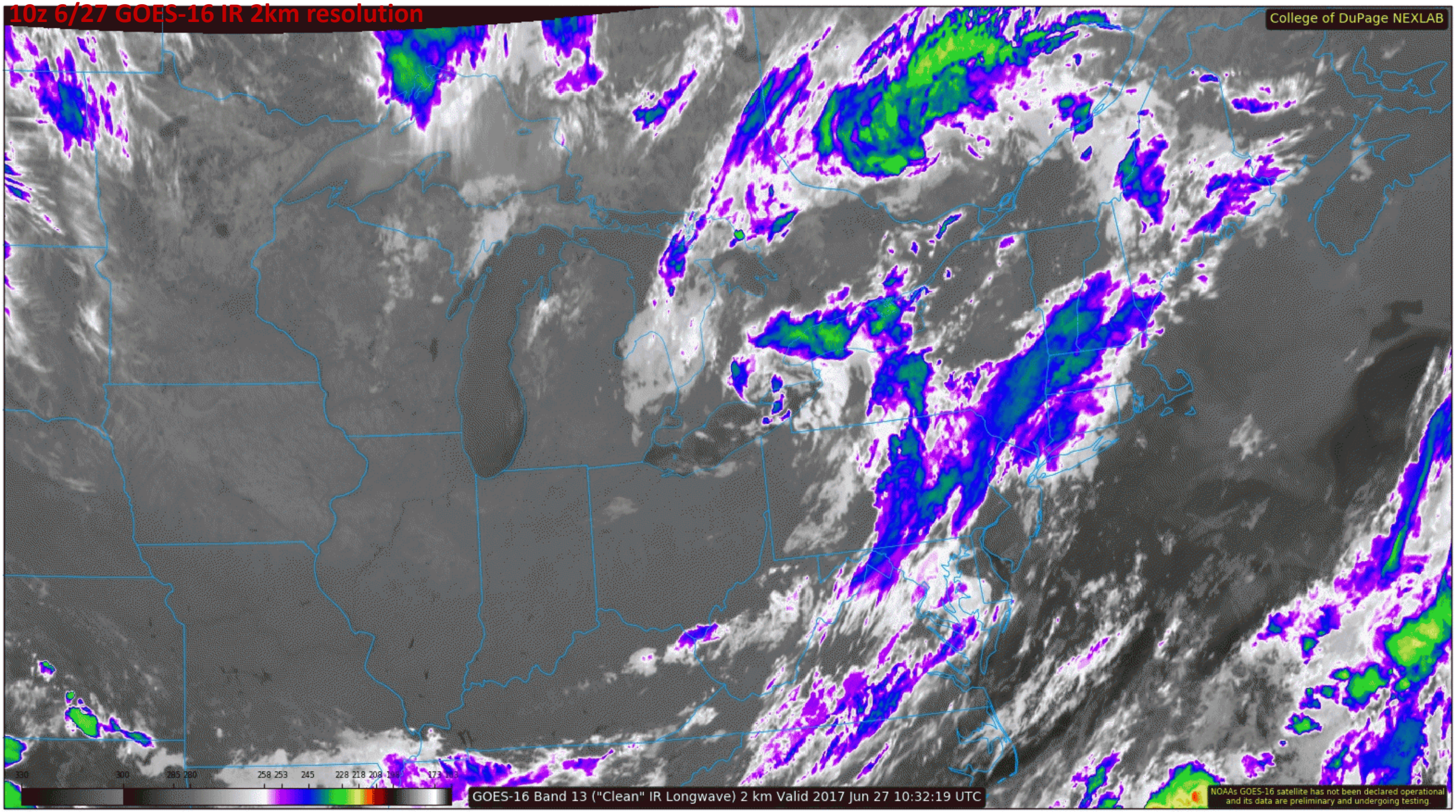
Current Surface Analysis

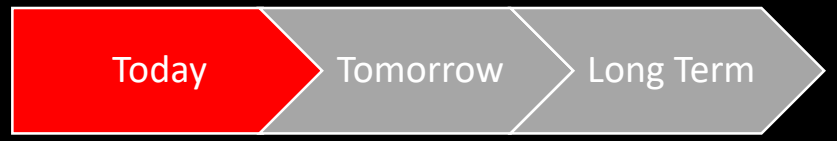
- Shown is the NOAA WPC surface analysis from 15z 6/23/2017
- The low over the Hudson bay and Lake Huron are forecasted to move that cold front in the Adirondack region tonight




10z 6/27 GOES-16 visible 0.5km resolution
College of DuPage NEXLAB
GOES-16 Band 02 (Visible - Red) 0.5 km Valid 2017 Jun 27 10:32:19 UTC
NOAAs GOES-16 satellite has not been declared operational and its data are preliminary and undergoing testing.


10z 6/27 GOES-16 mid-level water vapor 2km resolution
College of DuPage NEXLAB
GOES-16 Band 09 (Mid-Level Water Vapor) 2 km Valid 2017 Jun 27 10:32:19 UTC
NOAAs GOES-16 satellite has not been declared operational and its data are preliminary and undergoing testing


10z 6/27 GOES-16 IR 2km resolution
College of DuPage NEXLAB
330 300 285 280 258 253 245 228 218 208
GOES-16 Band 13 ("Clean" IR Longwave) 2 km Valid 2017 Jun 27 10:32:19 UTC
NOAAs GOES-16 satellite has not been declared operational and its data are preliminary and undergoing testing.

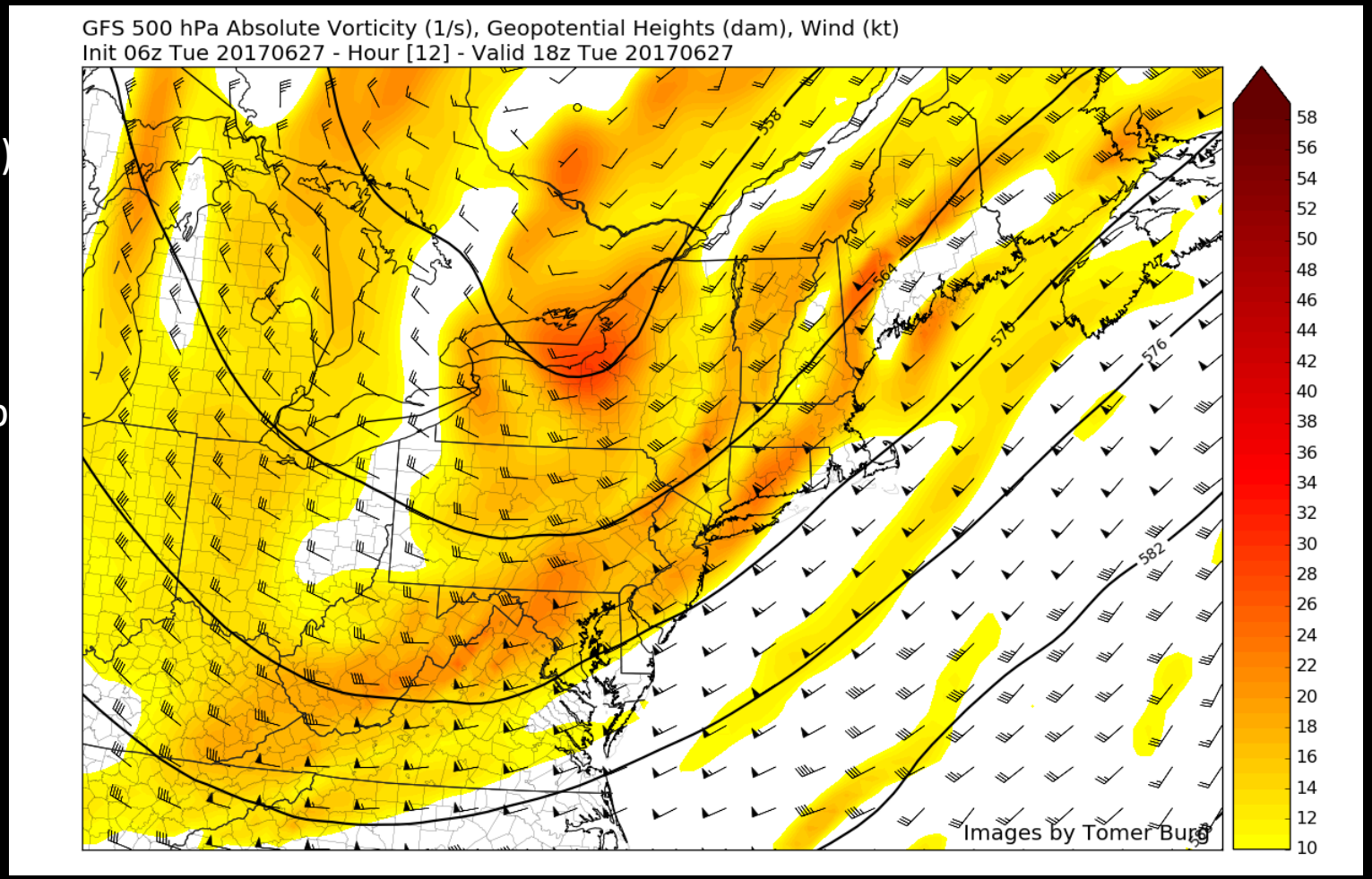


Overview

- Rain likely this afternoon
- Located over central NY is an upper level trough with a local vorticity maximum
- Upward vertical motion will be created by upper level vorticity advection helping force precip
- A cold front will pass through the area which associated with low pressure system located near Ottawa, Ontario
- Vertical instability is also present which will aid in surface based convection and precip formation especially as the cold front passed through the area

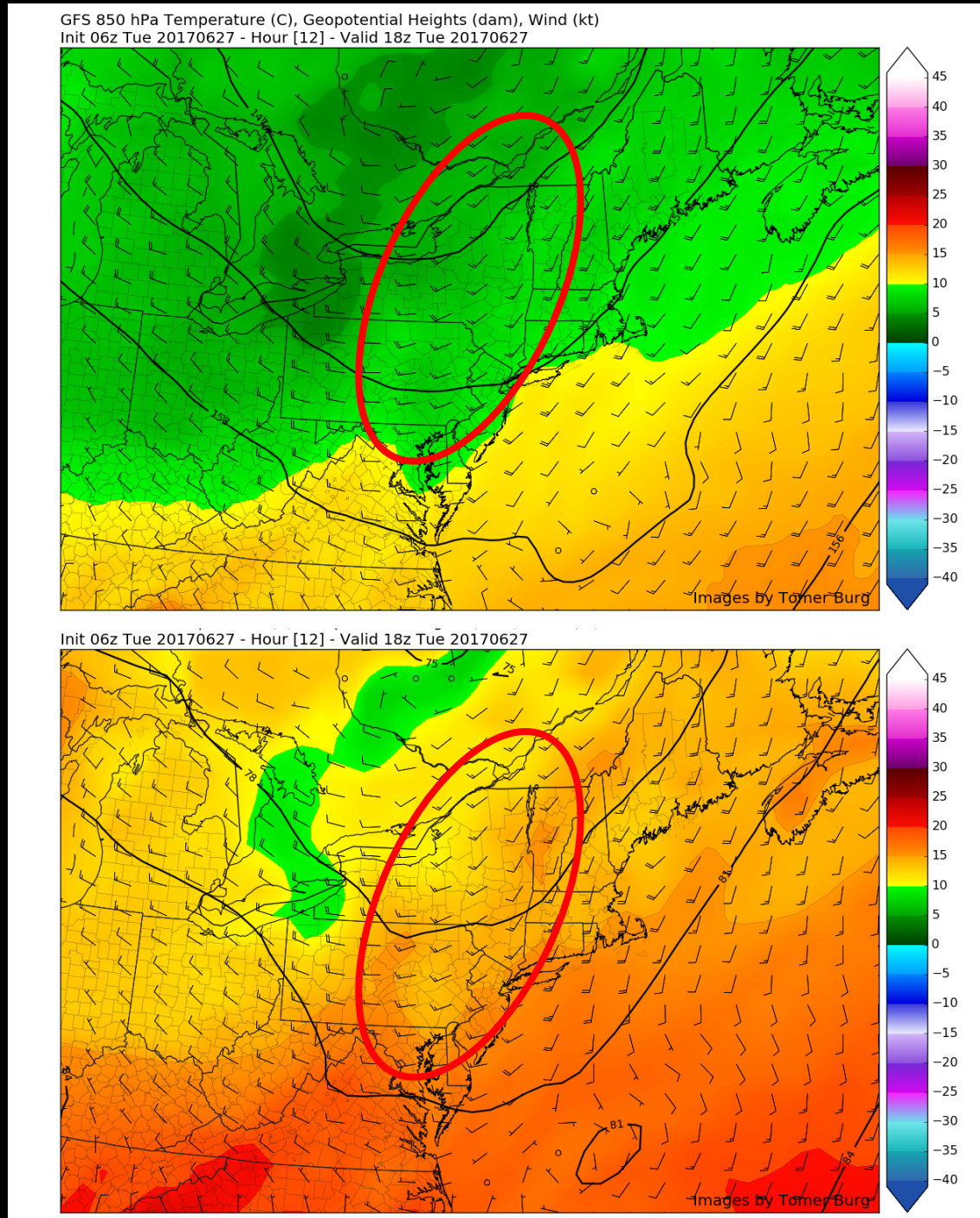
Today | Tomorrow | Long Term

- Shown 500hPa height, wind, and vorticity(filled) from the 6z GFS run valid for 18z today
- The upper level trough has created a local vorticity maximum over NY
- The advection of the vorticity will create upward vertical motion helping force the precip forecasted for today



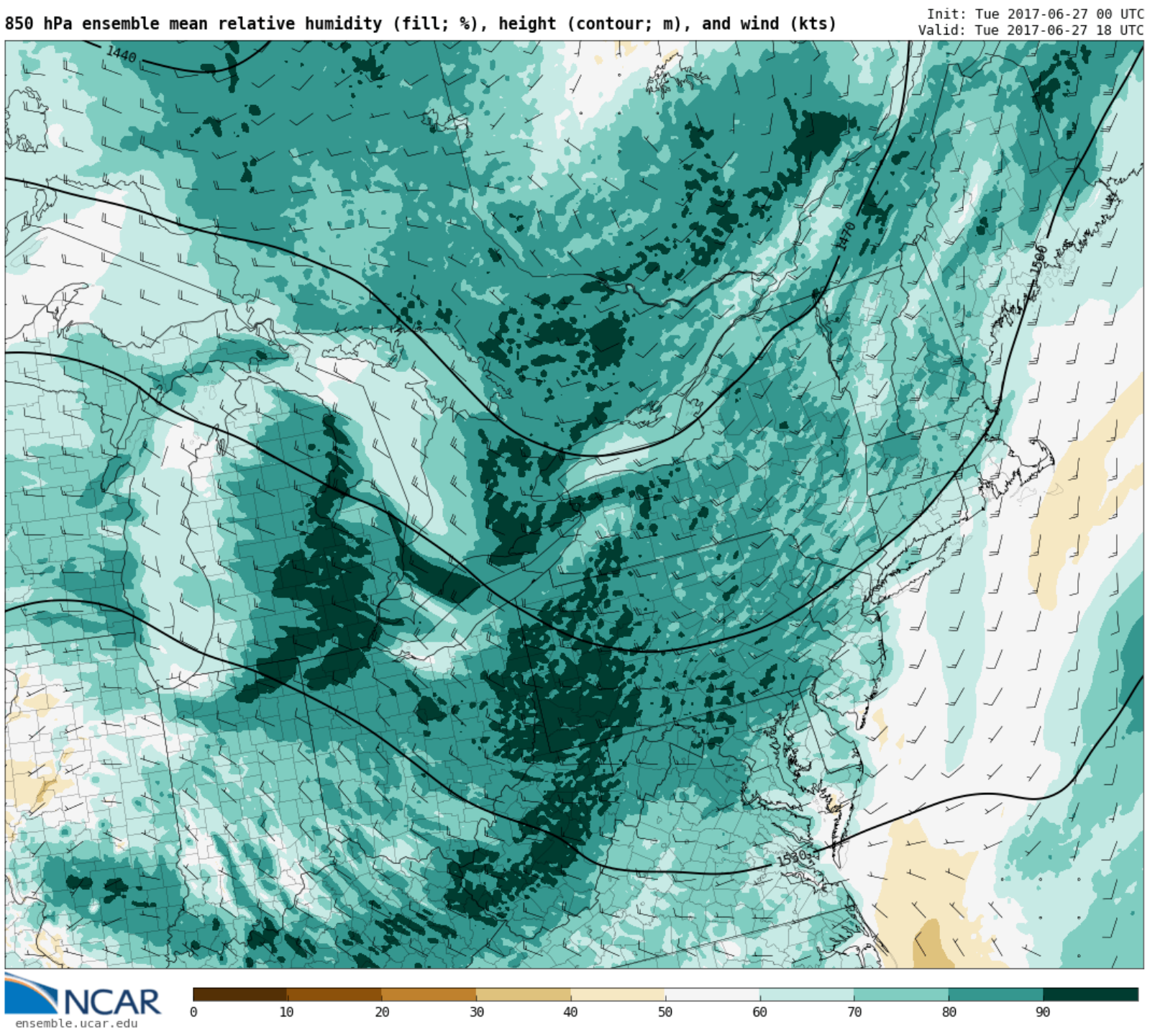
Today | Tomorrow | Long Term

- Top: 850hpa heights, winds, and temperature filled
- Bottom: 925hpa heights, winds, and temperature filled
- The circled areas sow area of a possible weak cold front associated with the low pressure system located in Canada
- The front will creating forcing for cloud formation and precip



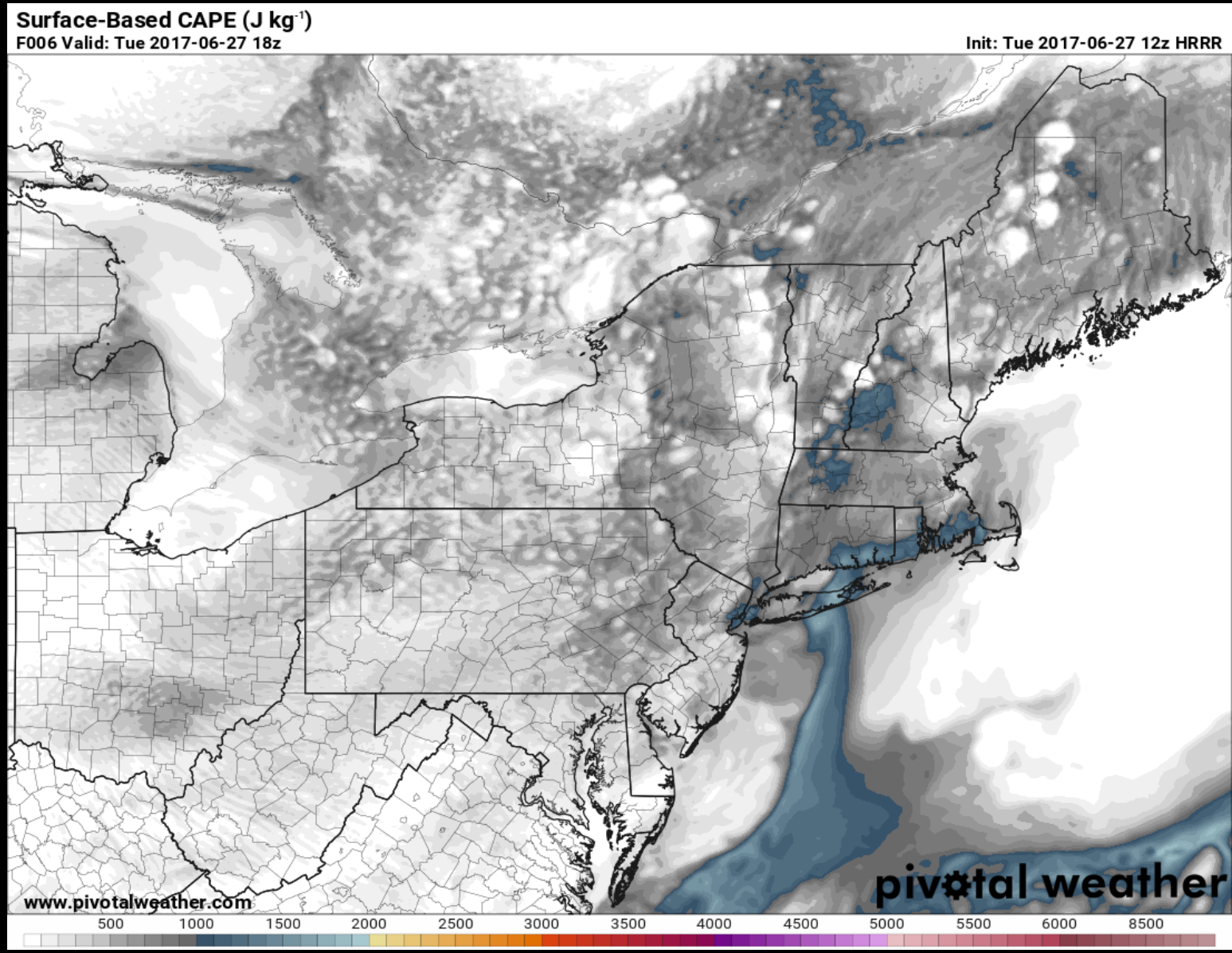
Today | Tomorrow | Long Term

- Shown 850hPa height, wind, and relative humidity (filled) from the NCAR valid for 18z today
- High RH will be favorable for cloud formation and precip to occur today



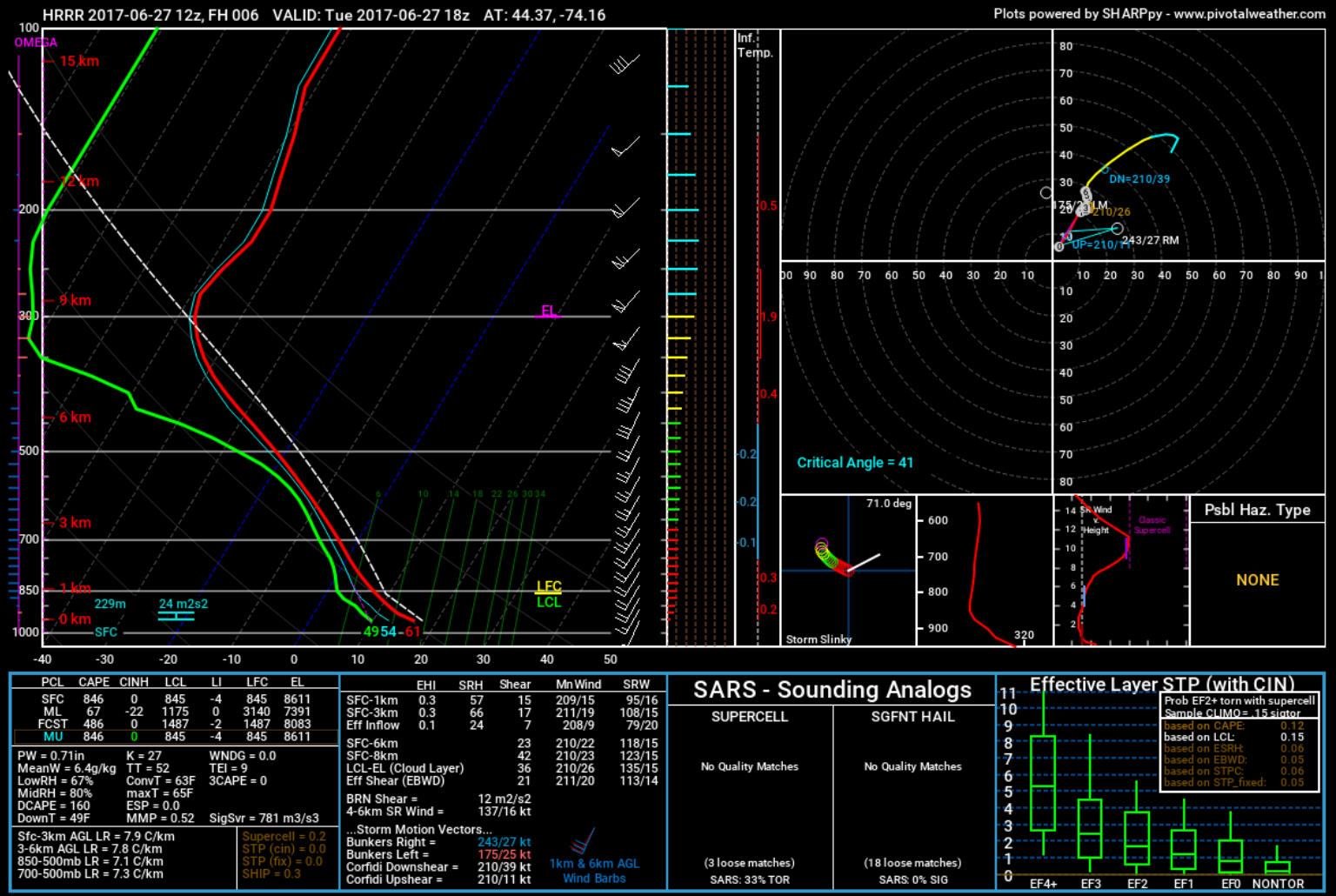
Today | Tomorrow | Long Term

- Shown is surface based CAPE from the 12z HRRR run valid for 18z today
- The dark grey show weak cape <1000 J/kg
- This weak instability will allow for surfaced based convection to occur
- The cold front passage will help trigger the convection and cause thunder storm and precip to occur



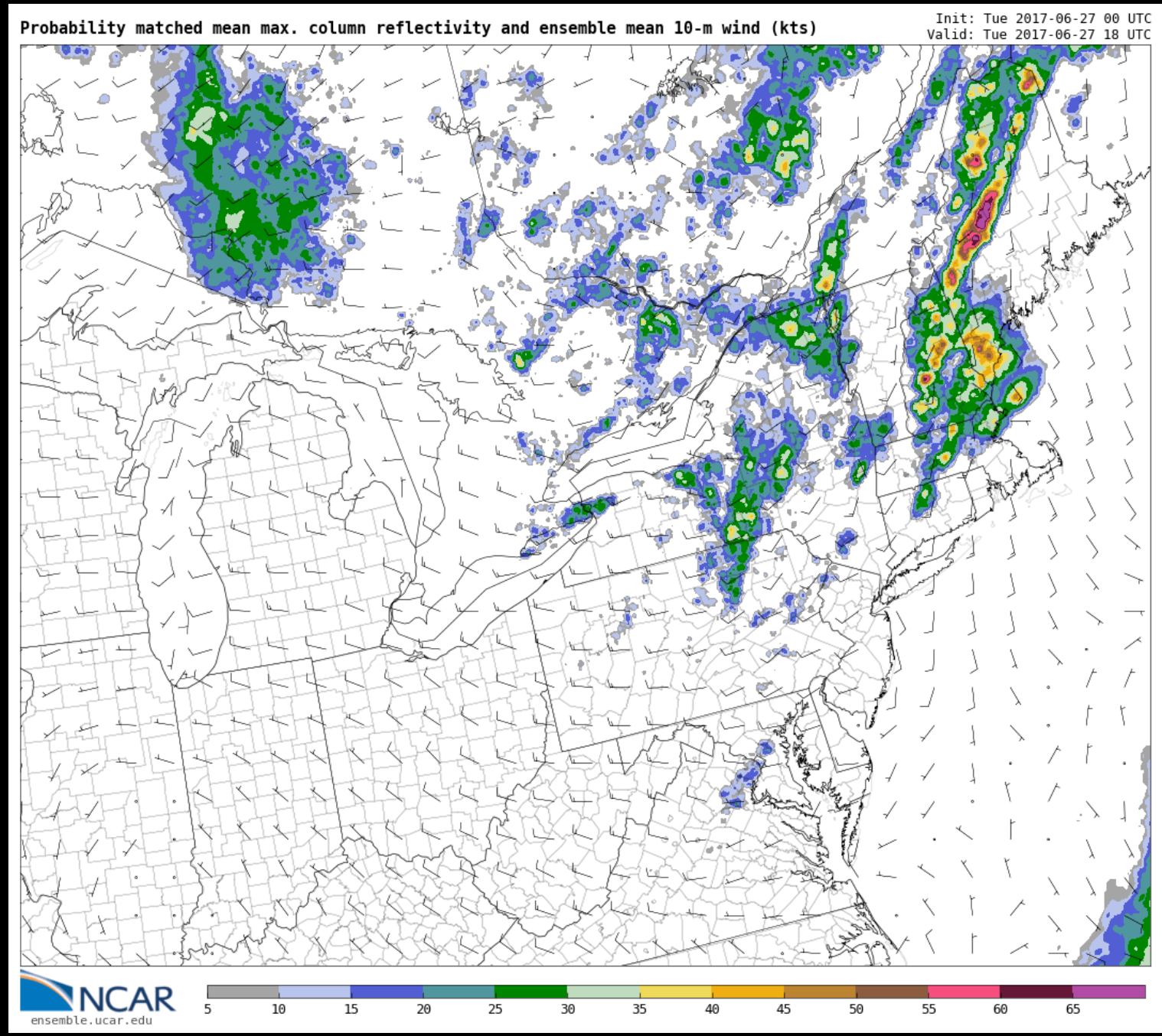
Today | Tomorrow | Long Term

- Shown is HRRR model sounding valid for 18z at Saranac Lake airport
- The shown is the weak surface based cape that will aid in convection and precip throughout the day
- The LCLs and LFC are at about summit height of 850hPa



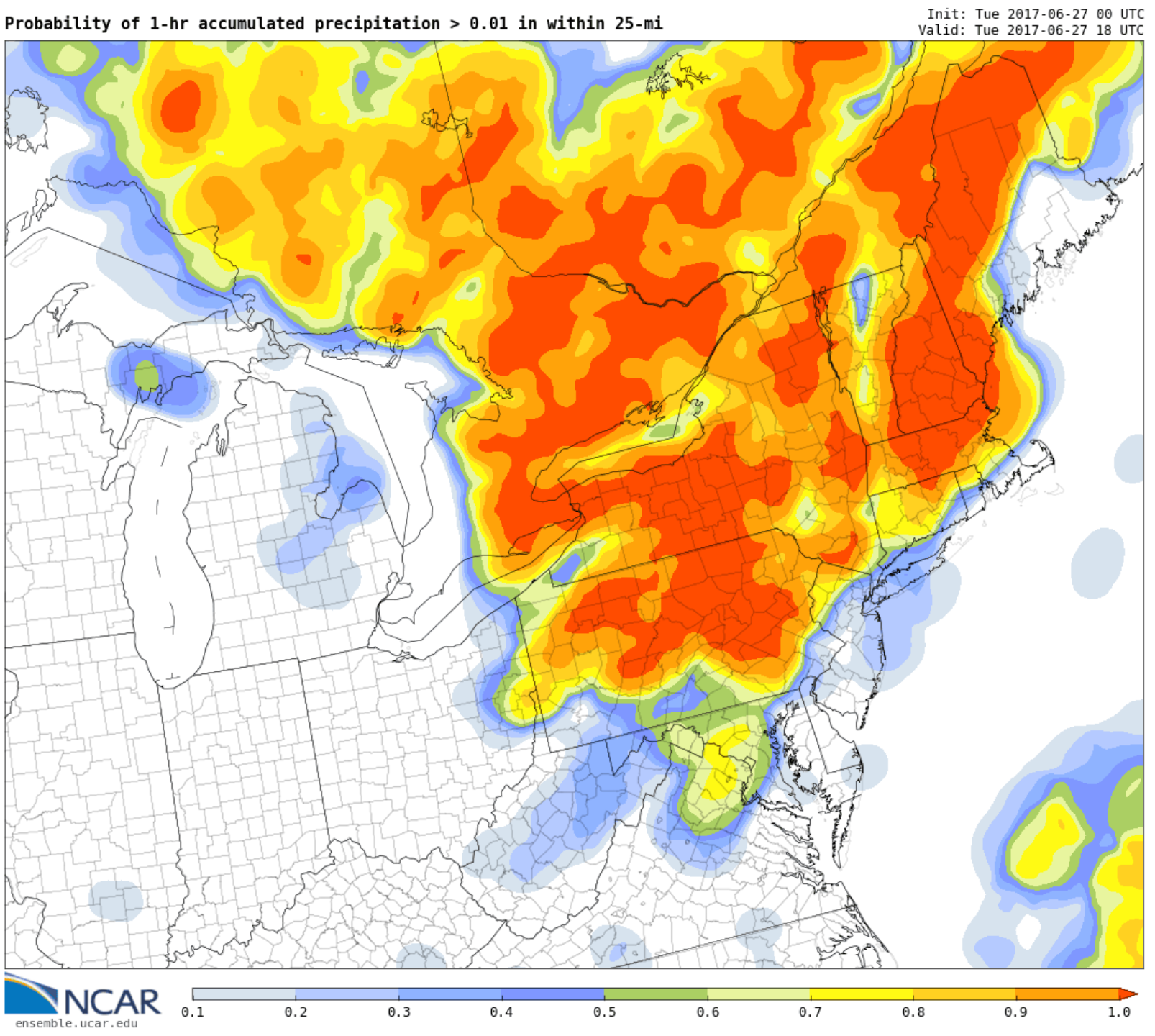
Today | Tomorrow | Long Term

- Shown is the 18z max column reflectivity from the NCAR ensemble mean
- The precip will occur as the cold front moves through the area and forces convection along its periphery
- The rain is forecast to start 2 hours prior to this images and continue for an hour after



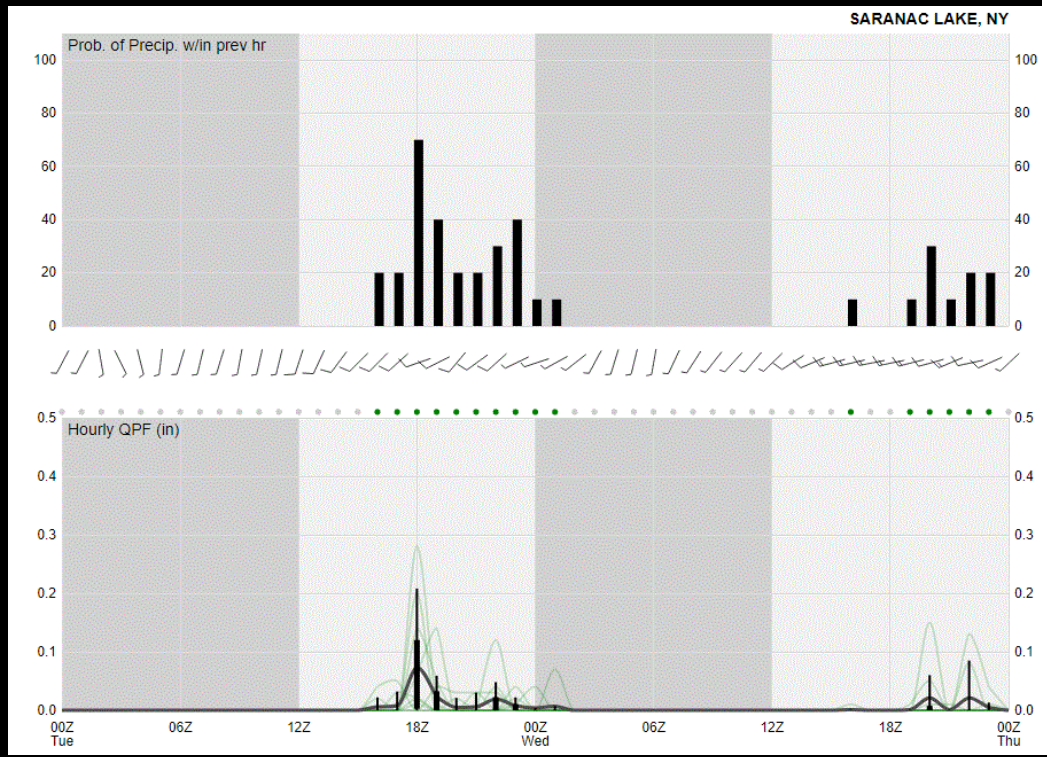
Today | Tomorrow | Long Term

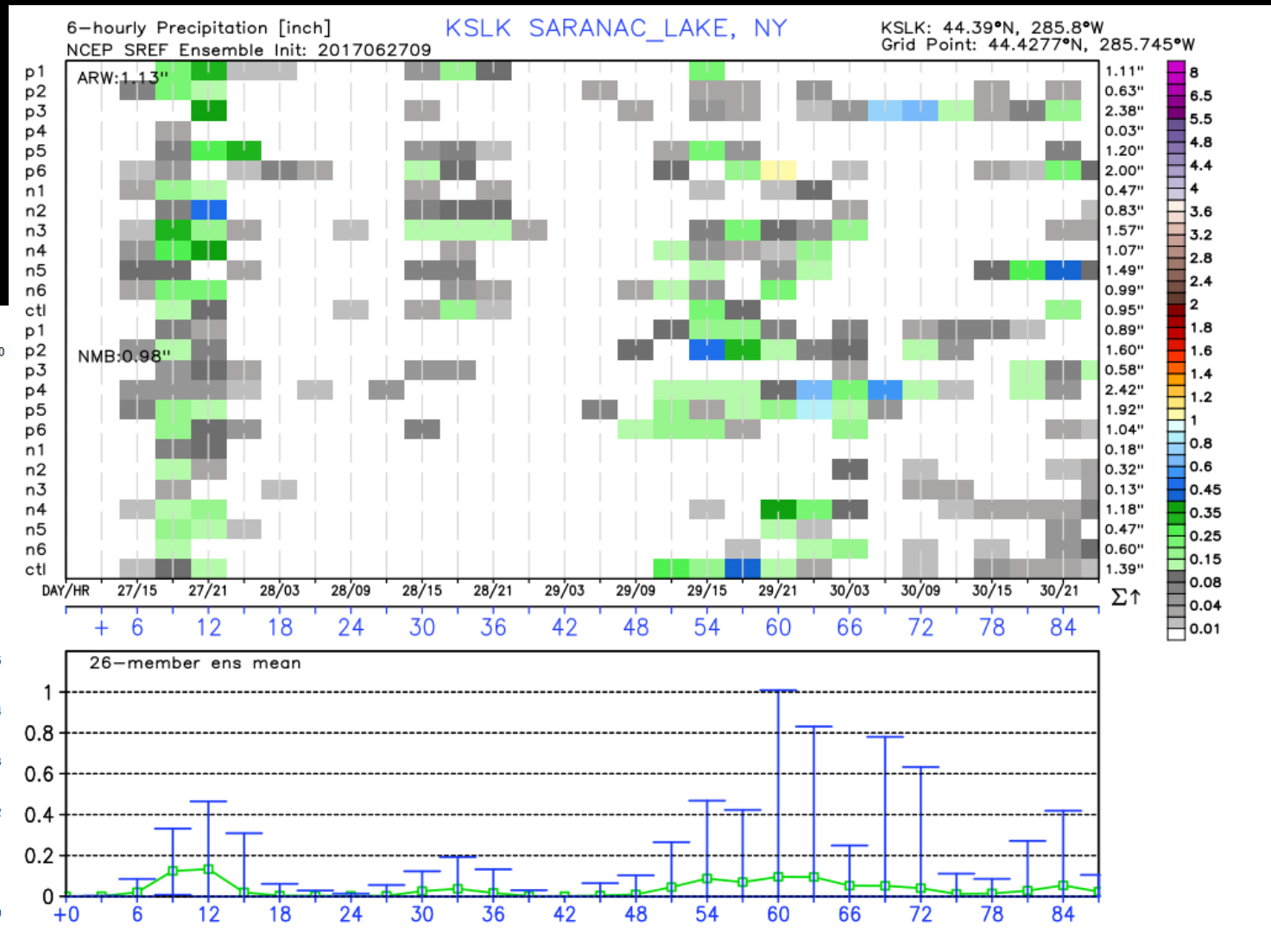
- Shown in NCAR ensemble 18z probability of accumulated precip >0.01” within 25 miles
- This shows that precip is very likely to occur within our area



Today | Tomorrow | Long Term

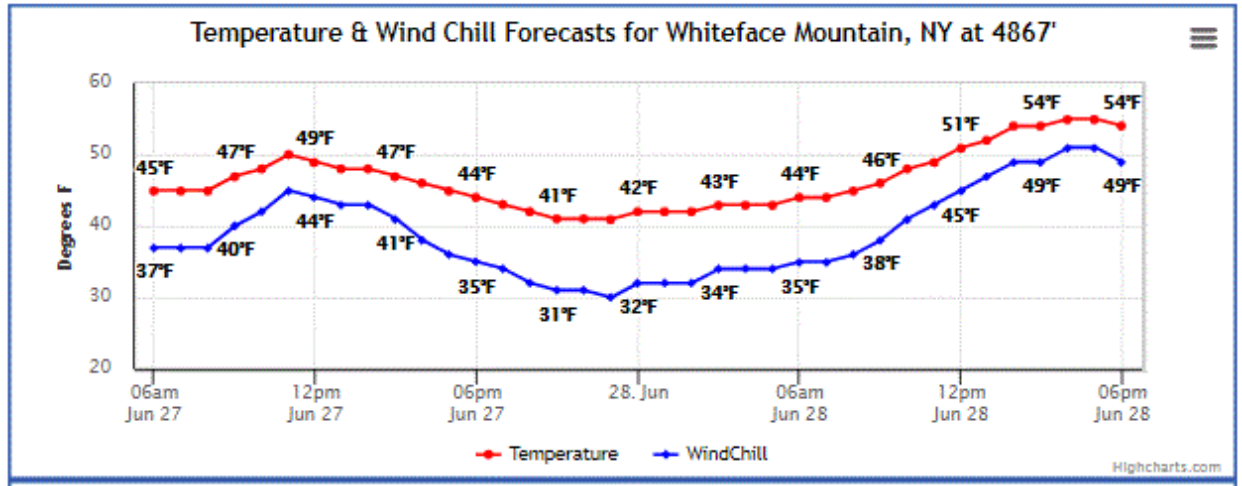
- Right: NCEP SREF 26 member ensemble 6 hour precip initialized at 9z 6/27
- Bottom: NCAR ensemble plume probability of precip and hourly QPF initialized 0z 6/27

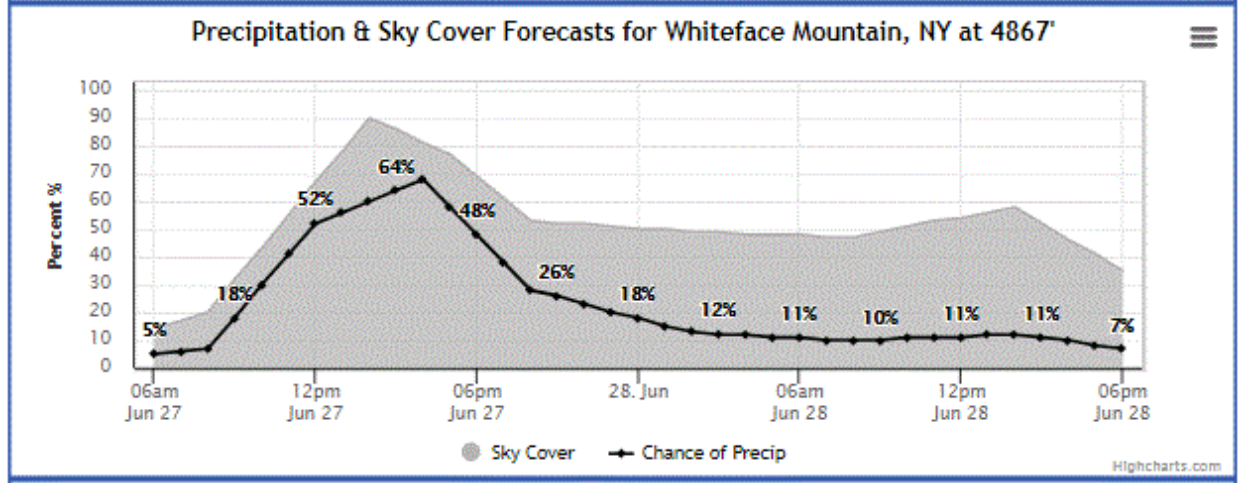


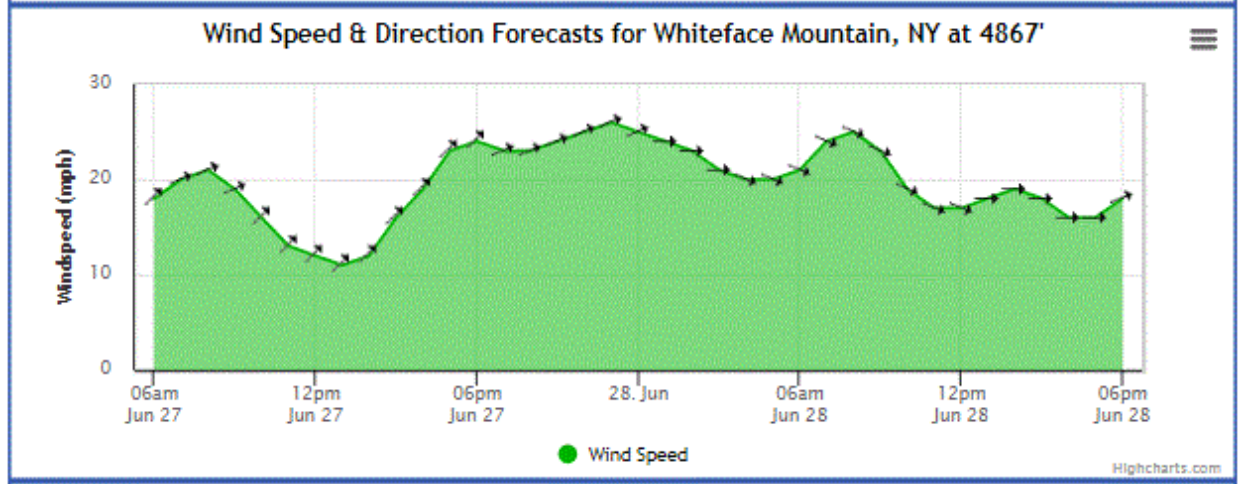


Today | Tomorrow | Long Term

- Shown is the NWS Burlington Summit forecast for Whiteface
- Temps to be in the high 40's throughout the day today and mid 50s tomorrow
- Winds shift from SW to WNW following the frontal passage in the evening
- Rain likely in the evening transitioning to only a slight chance throughout tomorrow
- The summit may be in cloud tonight during the rain and in the early morning as the surface warms





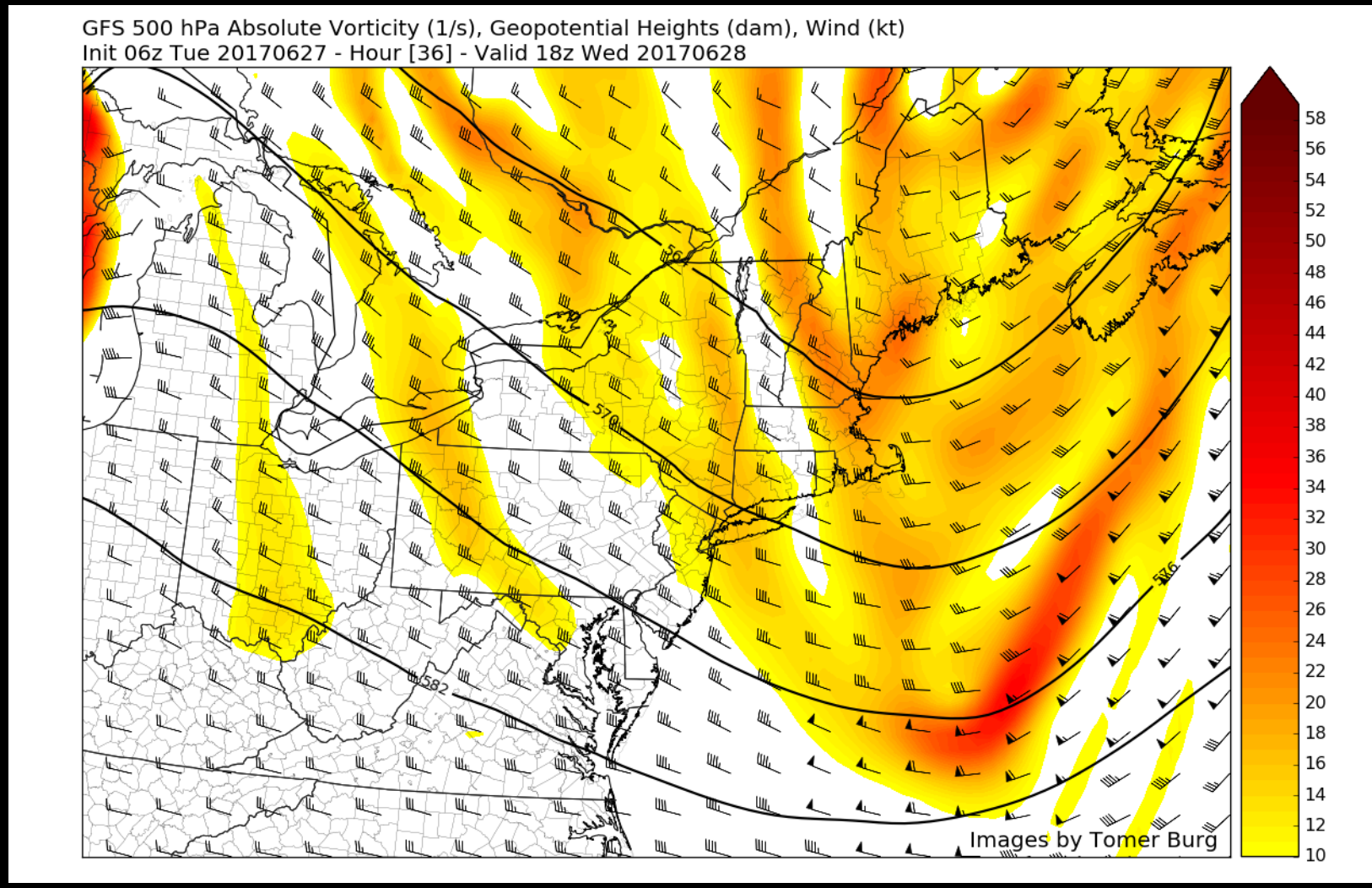


Overview for Tomorrow

- The upper level trough will start to move out of our area
- Upstream of the trough associated with the jet strips of locally maximum vorticity will develop
- Advection of this vorticity will create upward vertical motion forcing precip later in the day
- Along with the vorticity forcing there will be weak CAPE allowing for convection
- Clouds will likely form early in the morning with favorable LCLs but will quickly rise above the summit with surface warming from the sun

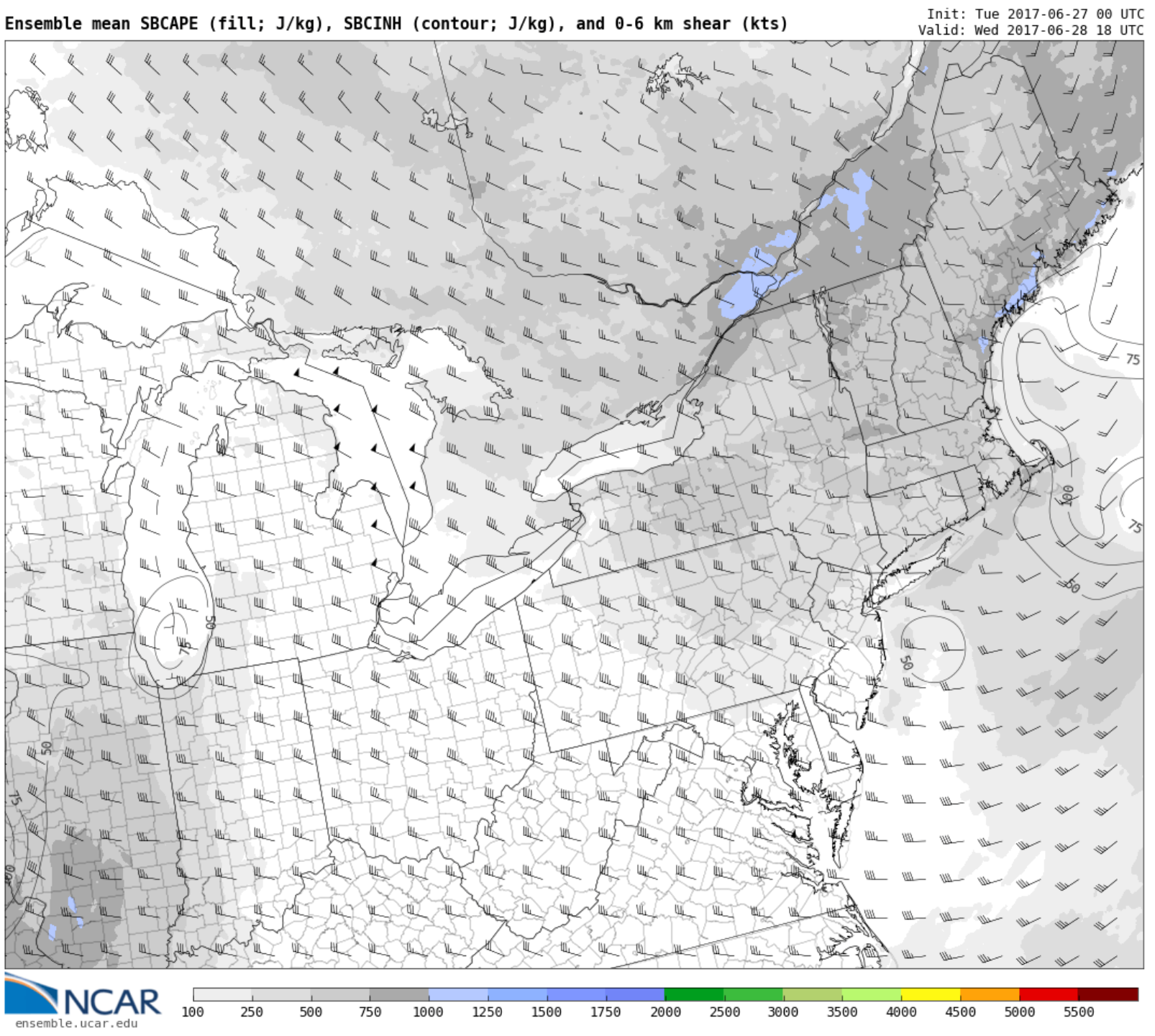
Today | Tomorrow | Long Term

- Shown in 6z GFS run valid for 18z 6/28 500hPa heights, winds, and vorticity filled
- The advection of vorticity will create upward vertical motion helping force precip



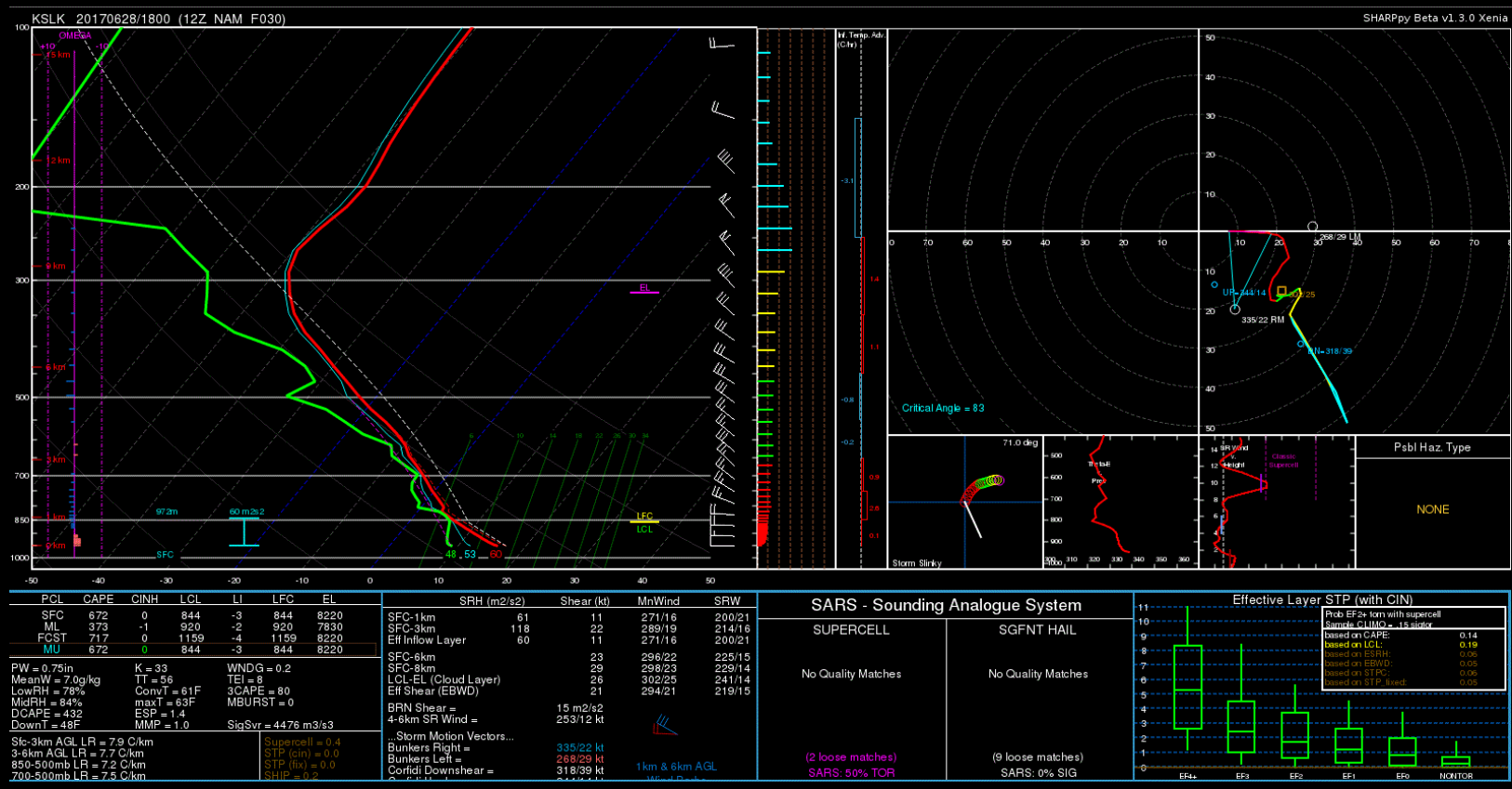
Today | Tomorrow | Long Term

- Shown is surface based CAPE from the NCAR ensemble valid for 18z tomorrow
- The light grey show weak cape <750 J/kg
- This weak instability may allow for surfaced based convection to occur
- With the added upward motion associated with upper levels the convection may form into localized precipitating storms



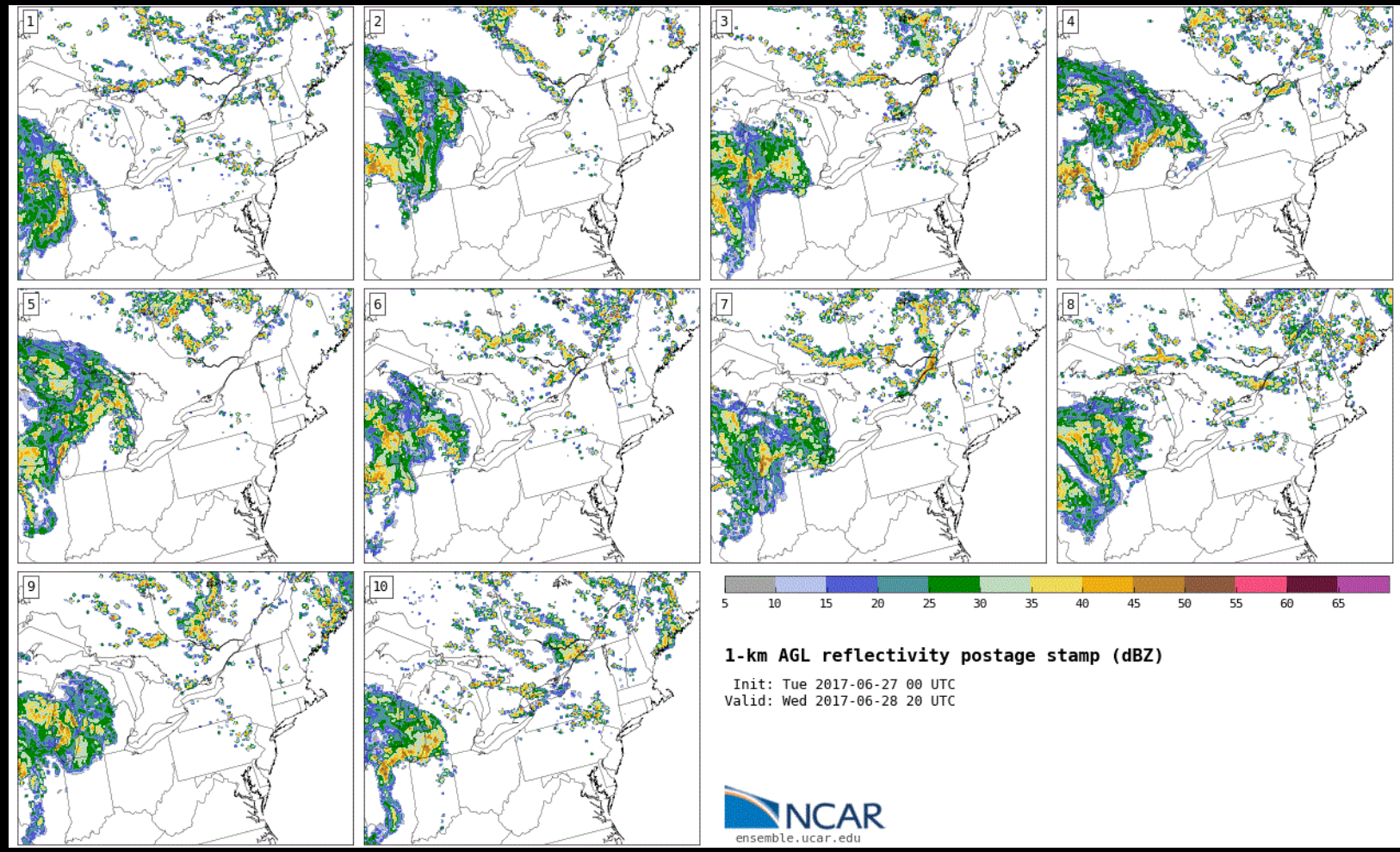
Today | Tomorrow | Long Term

- Shown is NAM model sounding initialized 12z today valid for 18z 6/28 at Saranac Lake Airport
- You can see the weak instability that will contribute to the precip in the afternoon



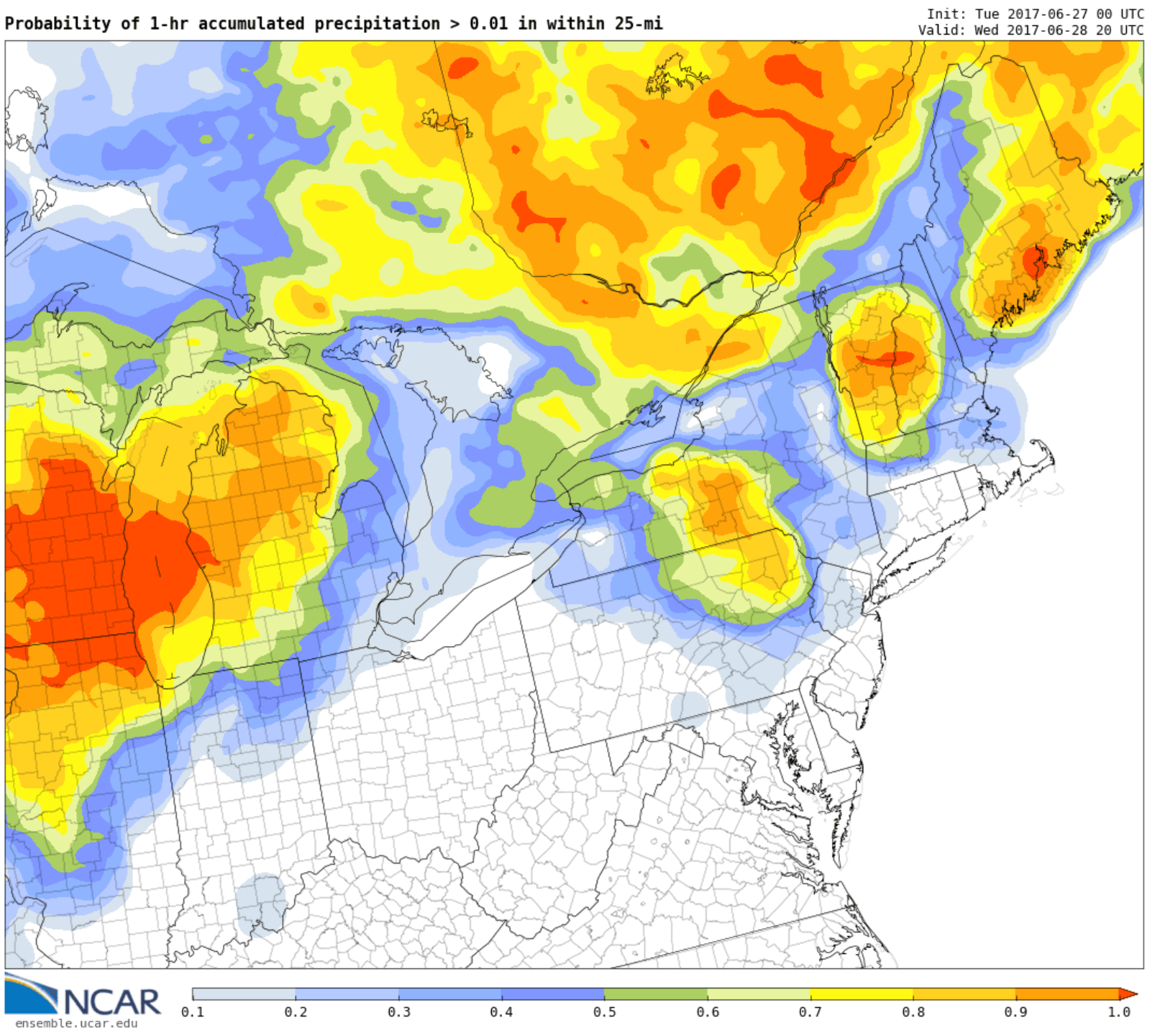
Today | Tomorrow | Long Term

- Shown is 1km AGL reflectivity postage stamps from the NCAR ensemble valid for 20z tomorrow
- There is large variability through the member on both timing and severity



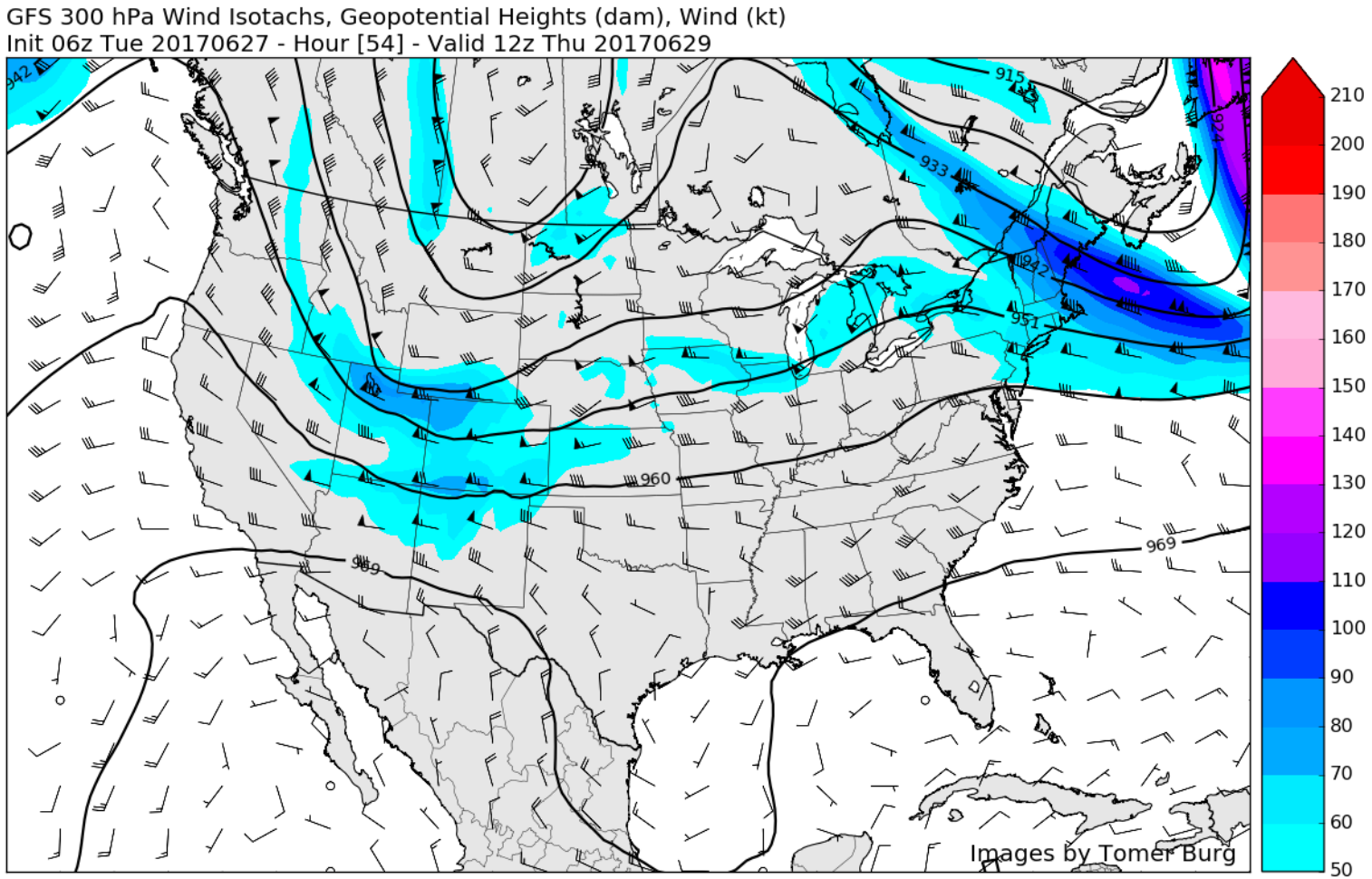
Today | Tomorrow | Long Term

- Shown in NCAR ensemble 20z probability of accumulated precip >0.01” within 25 miles, same time as the postage stamps
- This shows only a chance of precip near whiteface mountain
- Probability increase slight for the next 2 hours following this



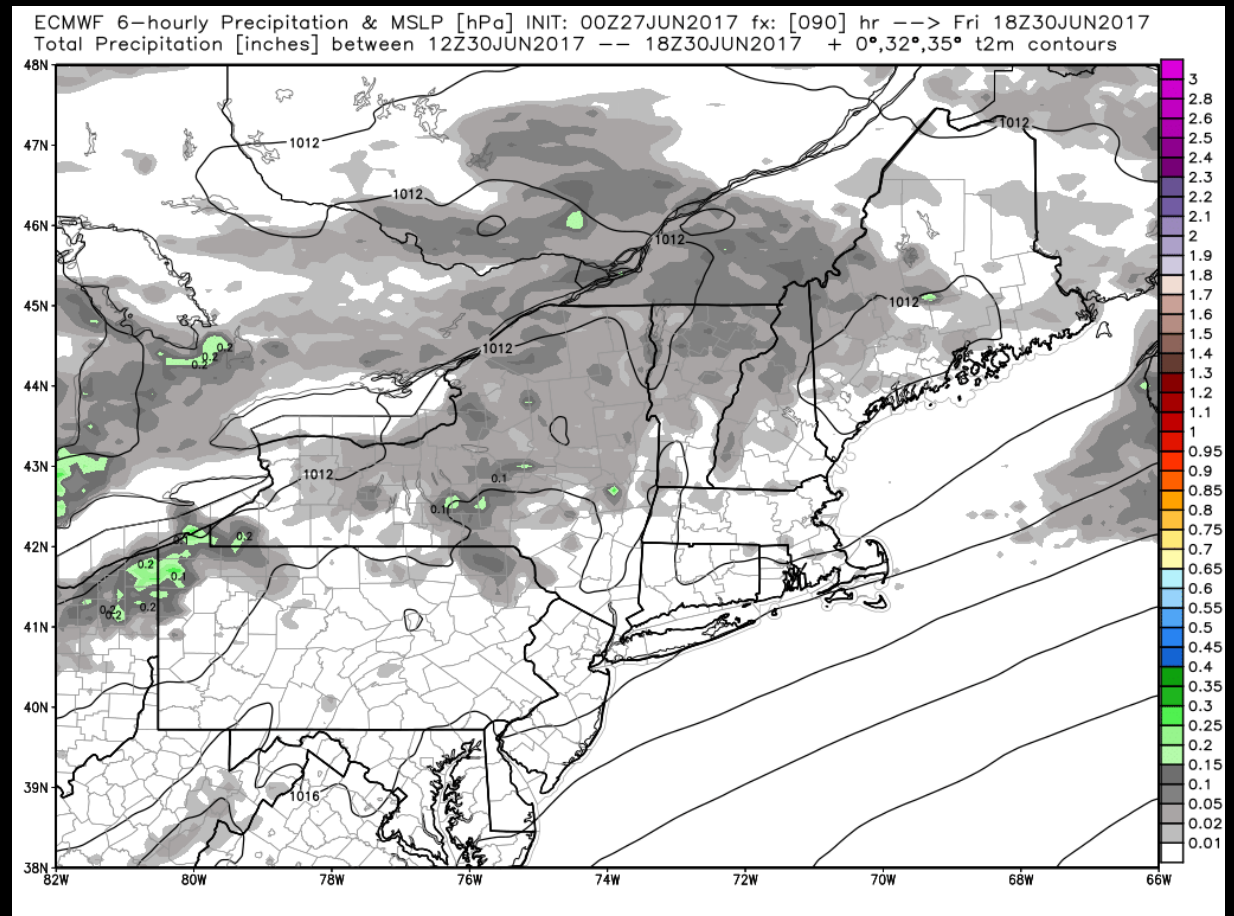
Today | Tomorrow | Long Term

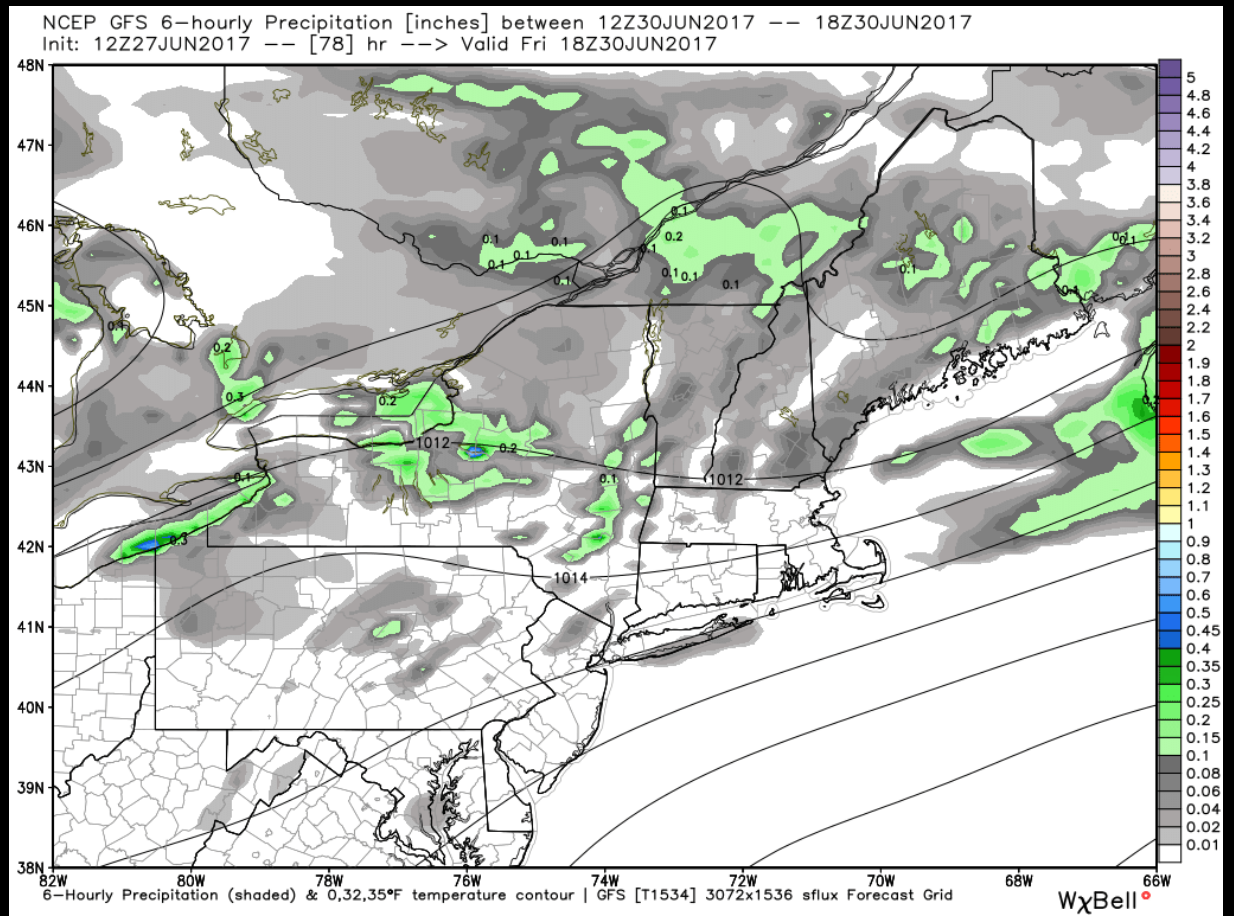
- Shown in 300hPa heights, winds, and isotachs filled from the GFS initialized 6z 6/27 valid for 12z 6/29
- During the day Thursday will be dry due to an area of high pressure
- A low pressure system will move into the area Thursday evening as the upper level ridge move to the east



Today | Tomorrow | **Long Term**

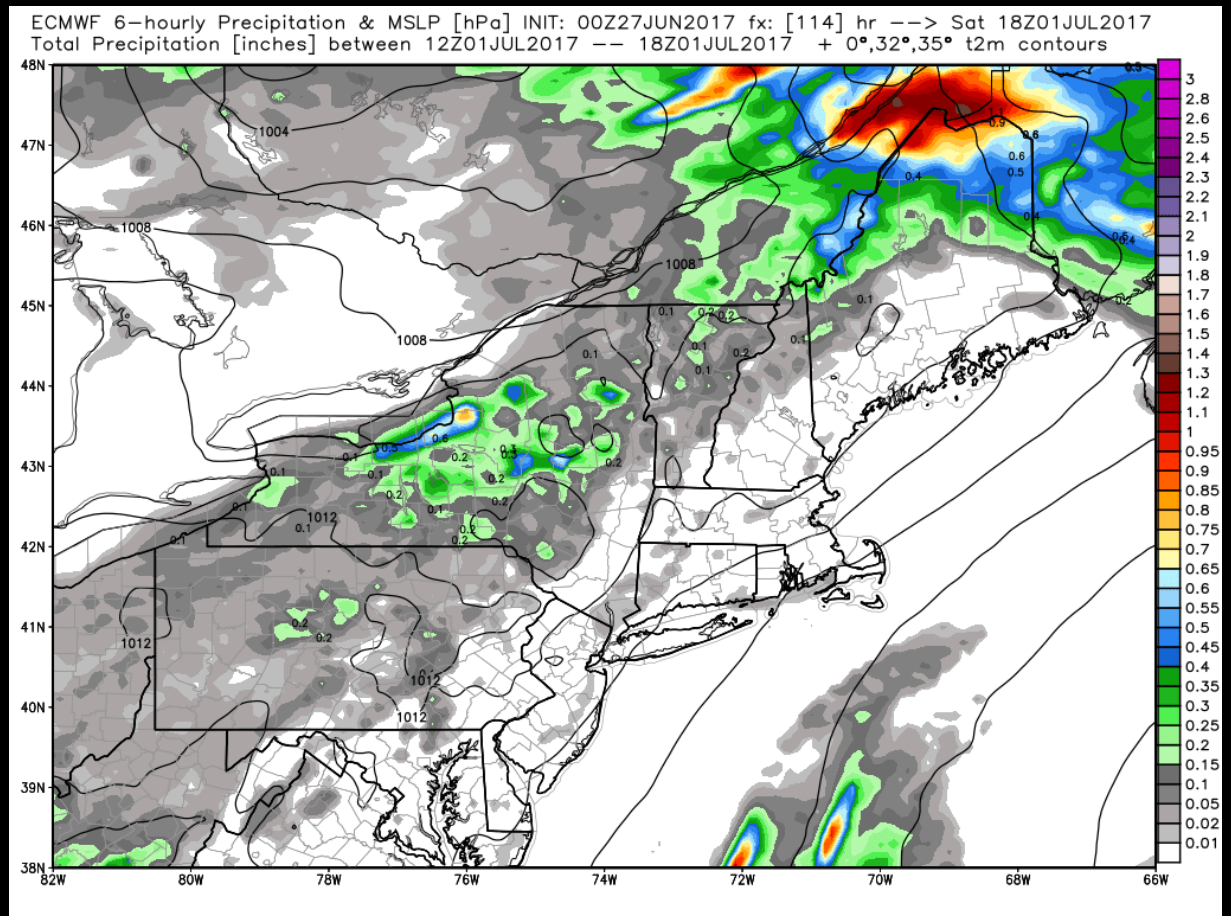
- Bottom left: ECMWF 6 hour precip valid for 18z 6/30
- Bottom right: GFS 6 hour precip valid for 18z 6/30
- Rain will be likely to occur through Friday morning and into the afternoon

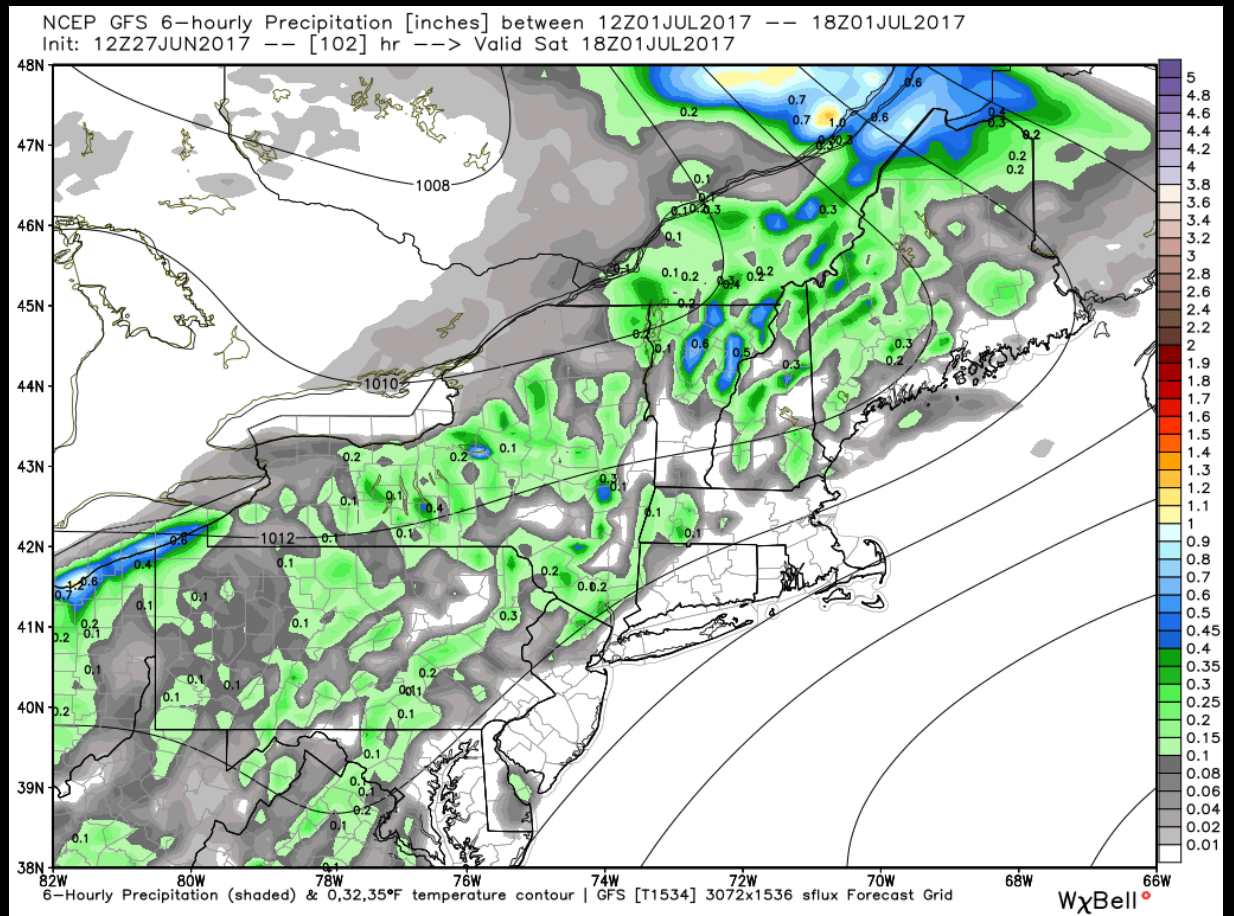




Today | Tomorrow | **Long Term**

- Bottom left: ECMWF 6 hour precip valid for 18z 6/31
- Bottom right: GFS 6 hour precip valid for 18z 6/31
- Again rain will be likely to occur through Saturday morning and into the afternoon





Today | Tomorrow | Long Term

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