

# The Ohio Valley Tornado Outbreak November 5<sup>th</sup> 2017

## An Examination of the Long Track EF2 Tornado Across E. Indiana/W. Ohio

*26<sup>th</sup> Annual US/Canada Great Lakes  
Operational Meteorology Workshop*

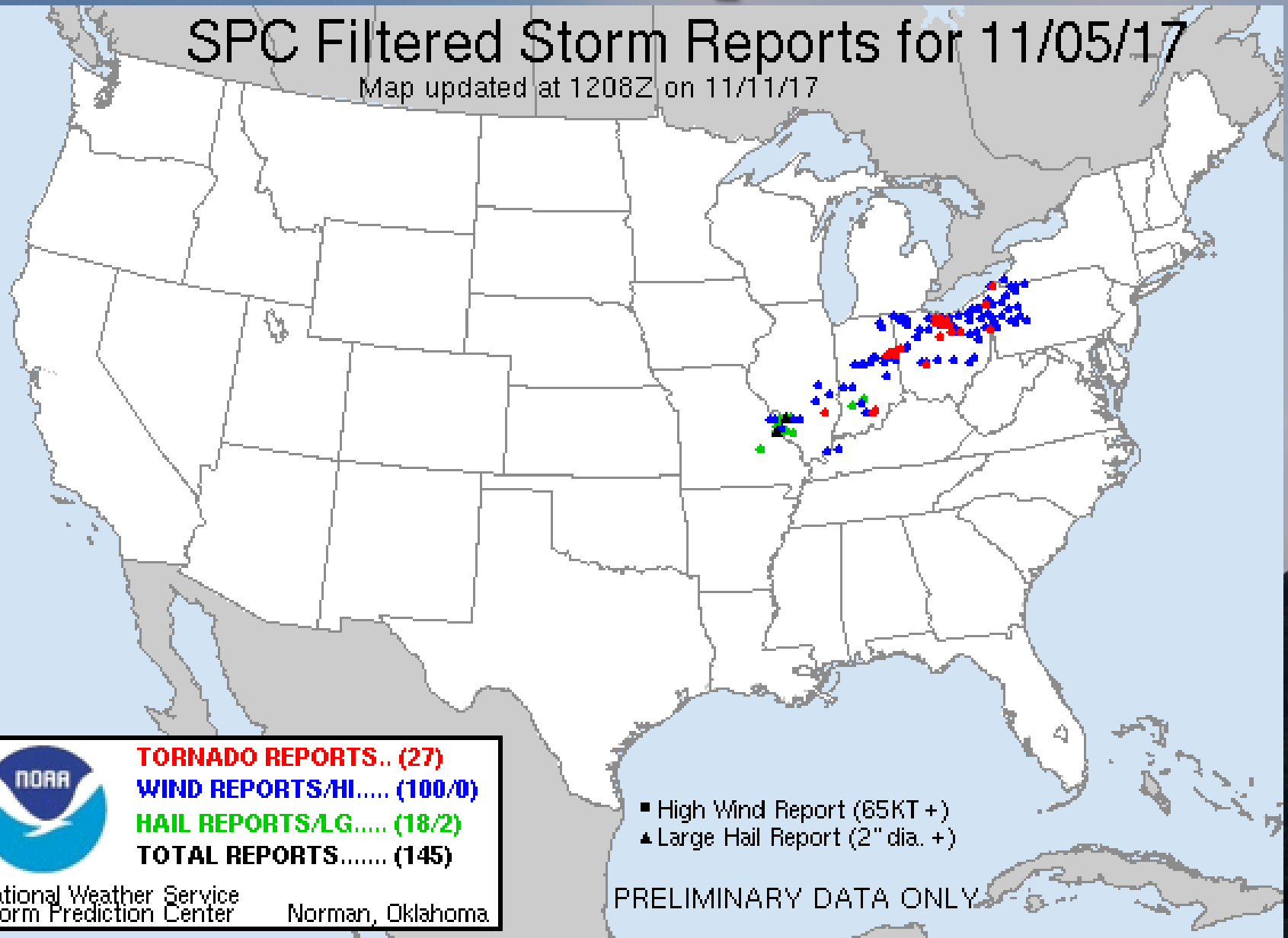


Jeff Logsdon, Science and Operations Officer  
Todd Holsten, Lead Forecaster  
NWS Northern Indiana

# Storm Reports

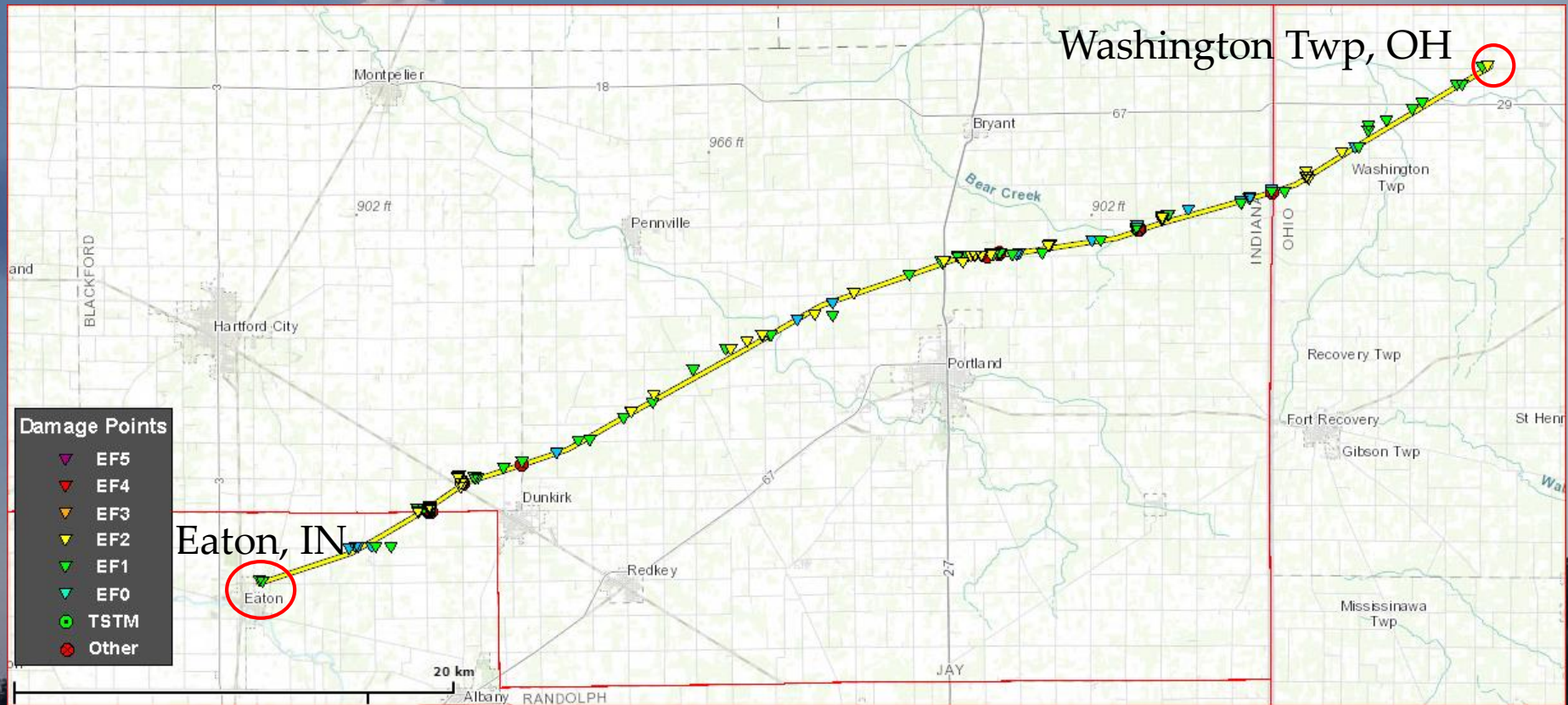
## SPC Filtered Storm Reports for 11/05/17

Map updated at 1208Z on 11/11/17





# Tornado Track



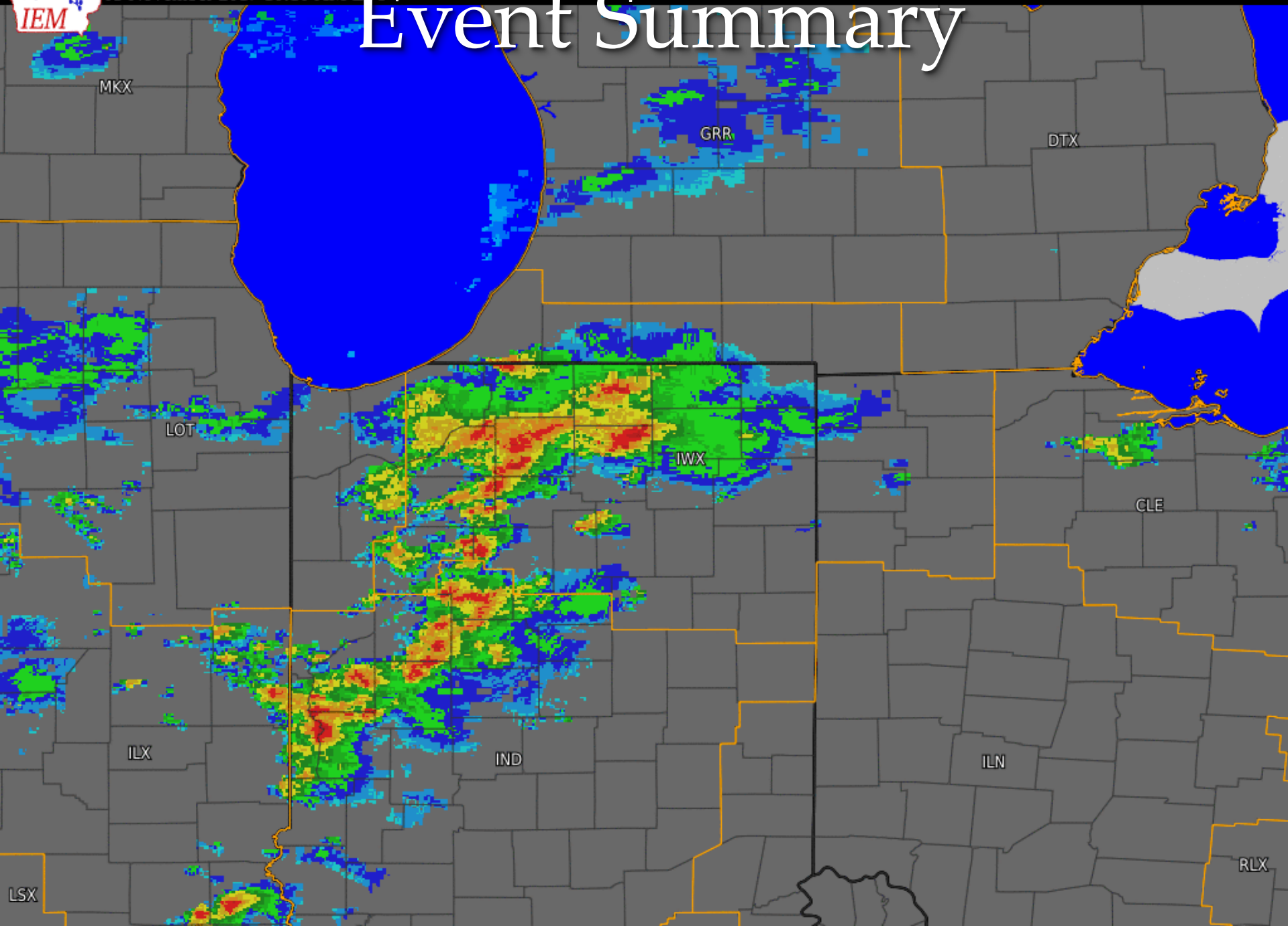
- Total Track Length: 39 miles...a record November track had it remained in Indiana
- Record 38 mile track of Kokomo Tornado on Nov 17, 2013 still stands



NEXRAD Base Reflectivity  
05 November 2017 10:10 AM EST

Light Intense

# Event Summary





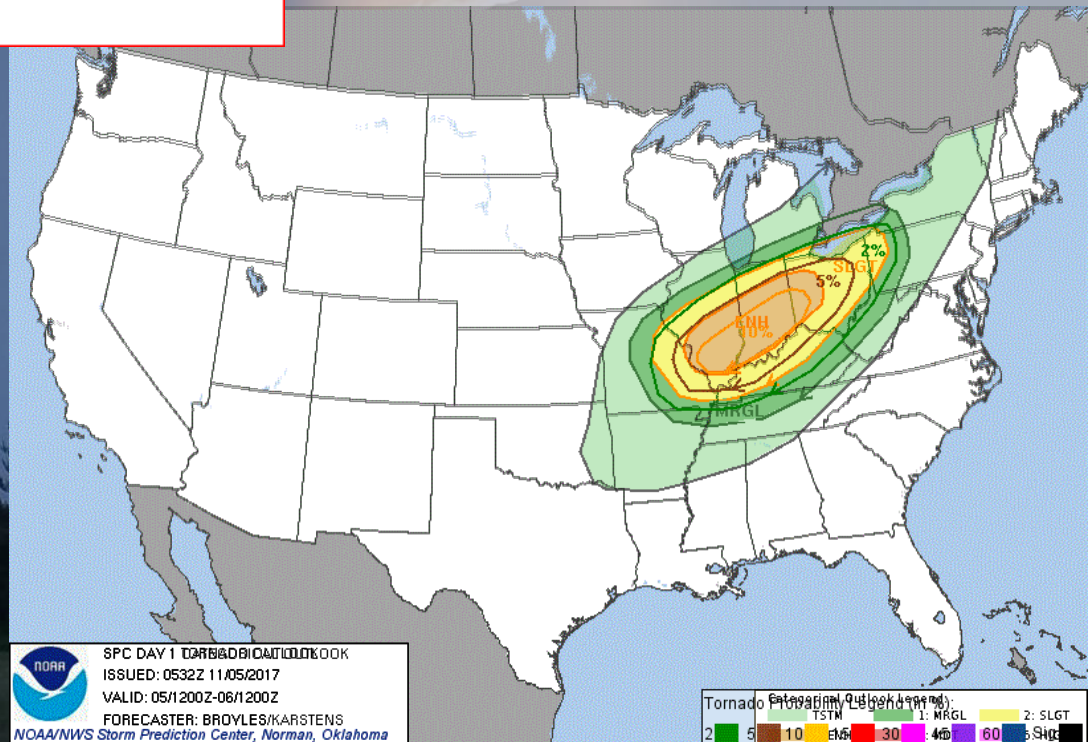
# SPC 12Z Outlook

534 AM EST Sun Nov 5 2017 / 434 AM CST Sun Nov 5 2017/

This hazardous weather outlook is for portions of southwest Michigan...northern Indiana and northwest Ohio.

.DAY ONE...Today and Tonight

Thunderstorms will become likely today and persist into this evening. Severe storms are possible with large hail and damaging winds. Isolated tornadoes and heavy rainfall that may lead to flooding are also possible. The best chances for severe storms and flooding are near and south of highway 24. Please see the Flash Flood Watch product for more information.



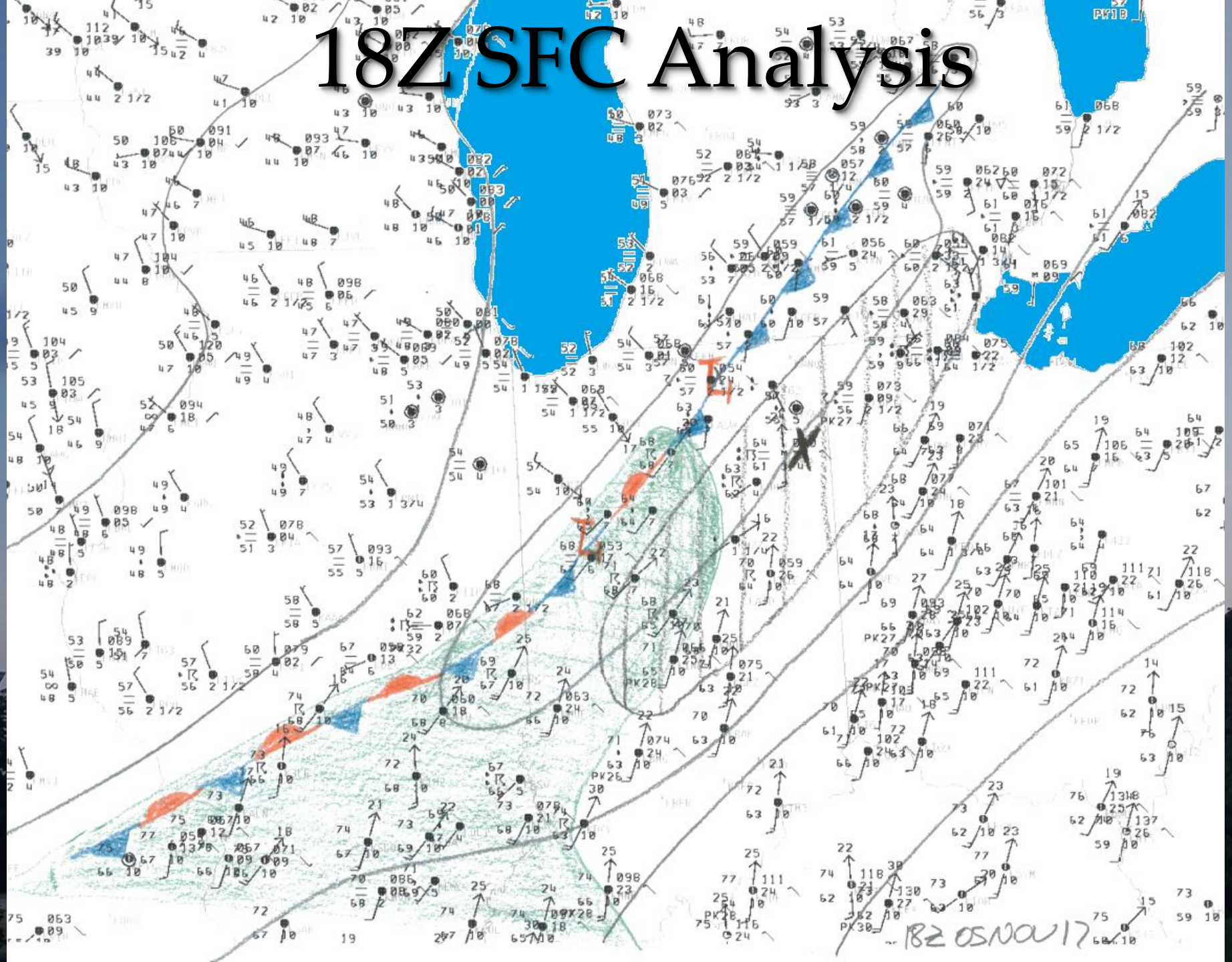
# *“2 out of 3 rule”*

Does not always work...

- 1) Readily apparent radar signatures
- 2) Reports of confirmed tornado and/or extensive damage
- 3) Favorable mesoscale environment and/or stormscale interactions

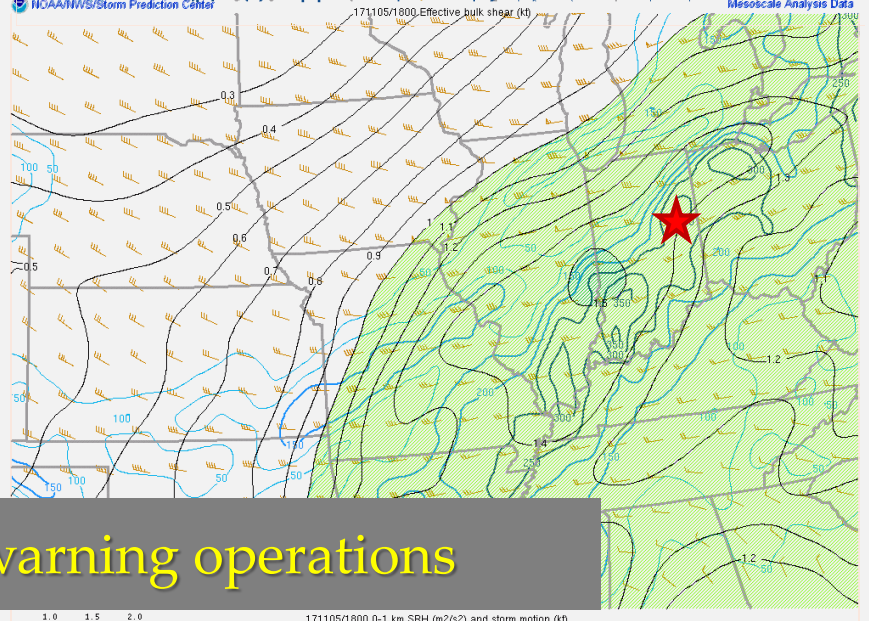
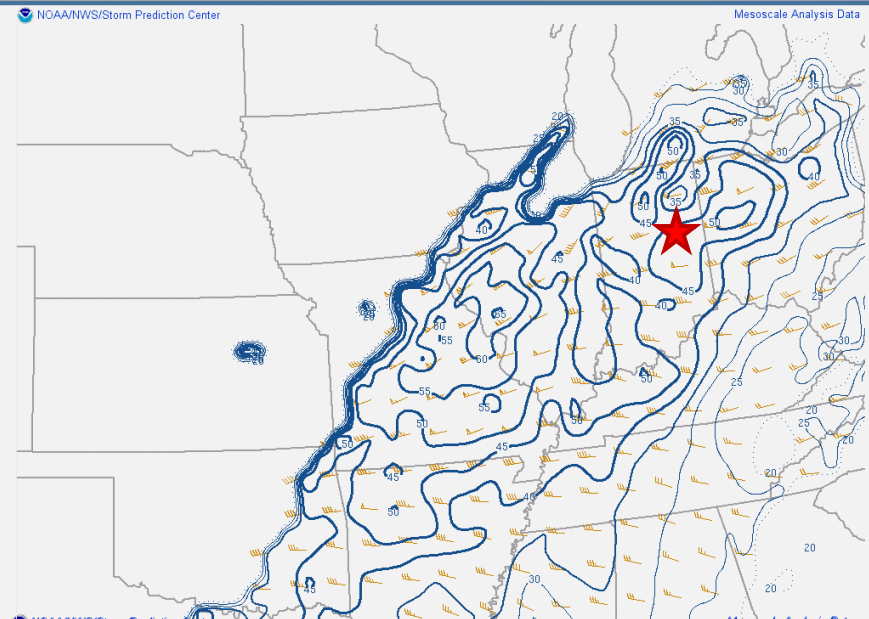
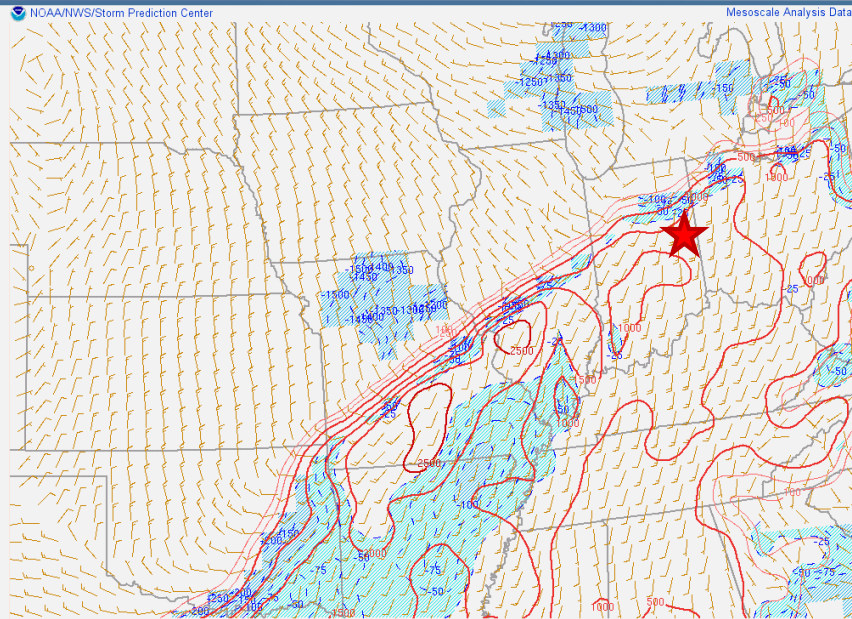


# 18Z SFC Analysis





# Adjusting to mesoscale changes



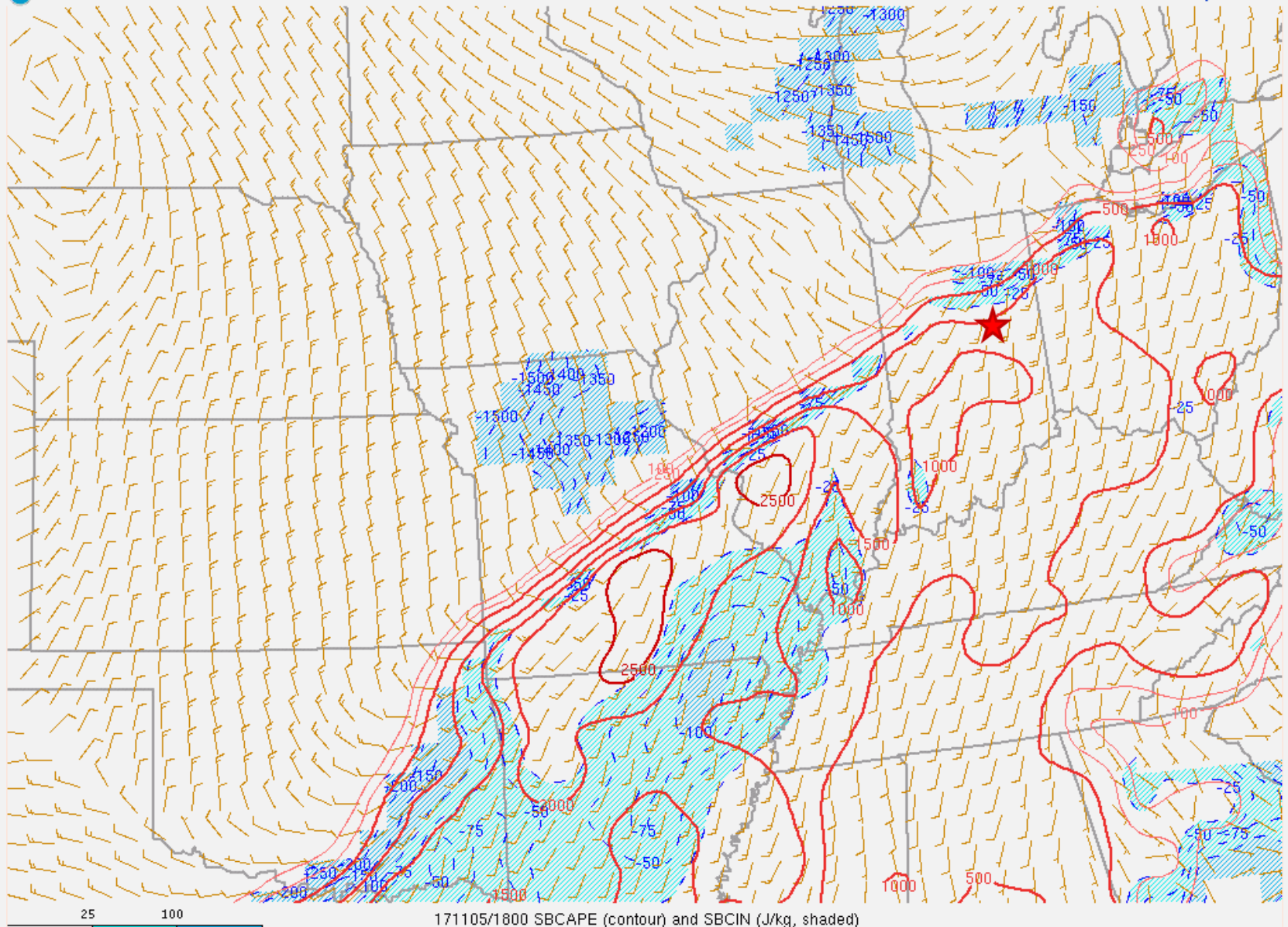
Crucial to successful warning operations



# Adjusting to mesoscale changes

NOAA/NWS/Storm Prediction Center

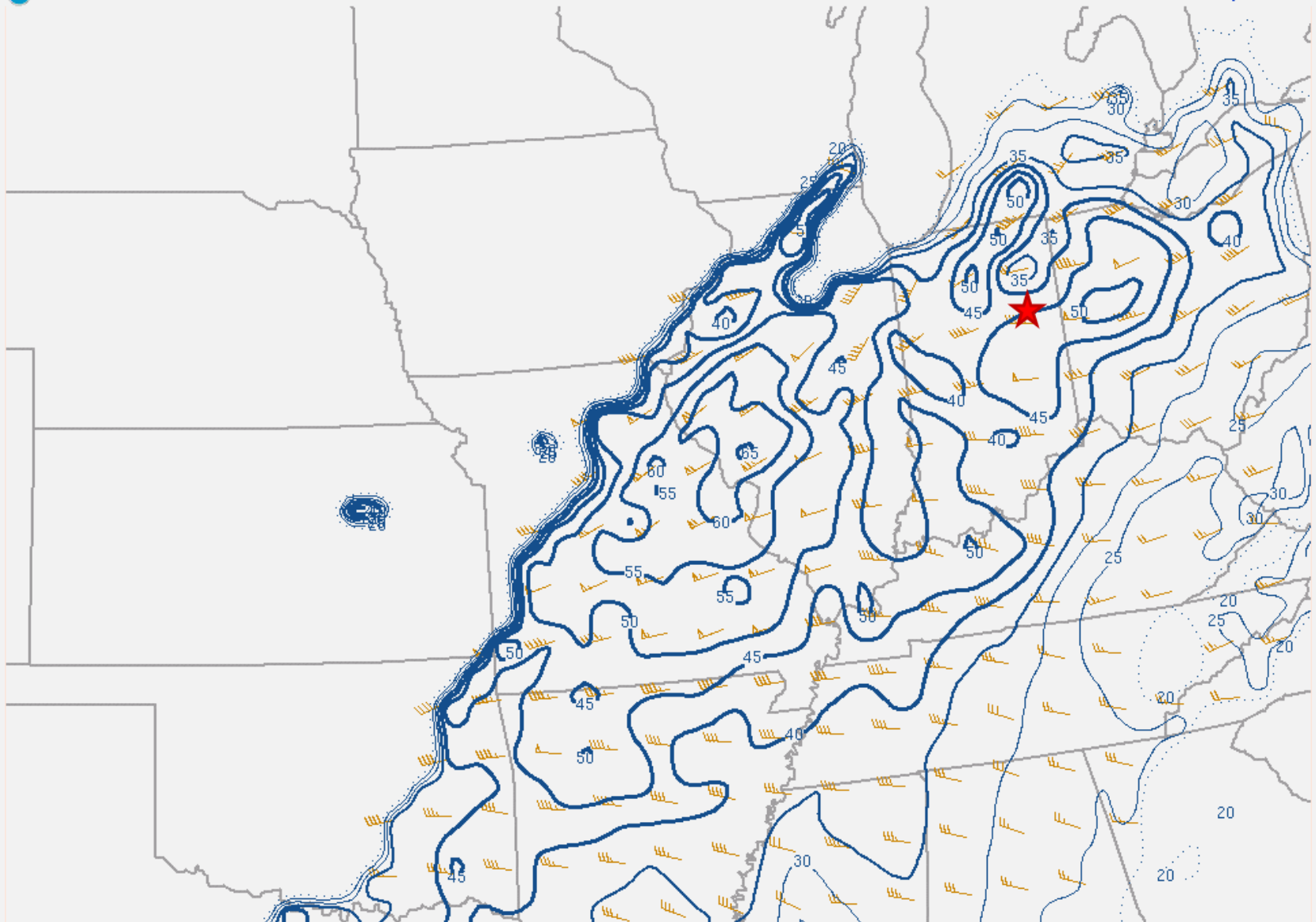
Mesoscale Analysis Data



# Adjusting to mesoscale changes

NOAA/NWS/Storm Prediction Center

Mesoscale Analysis Data



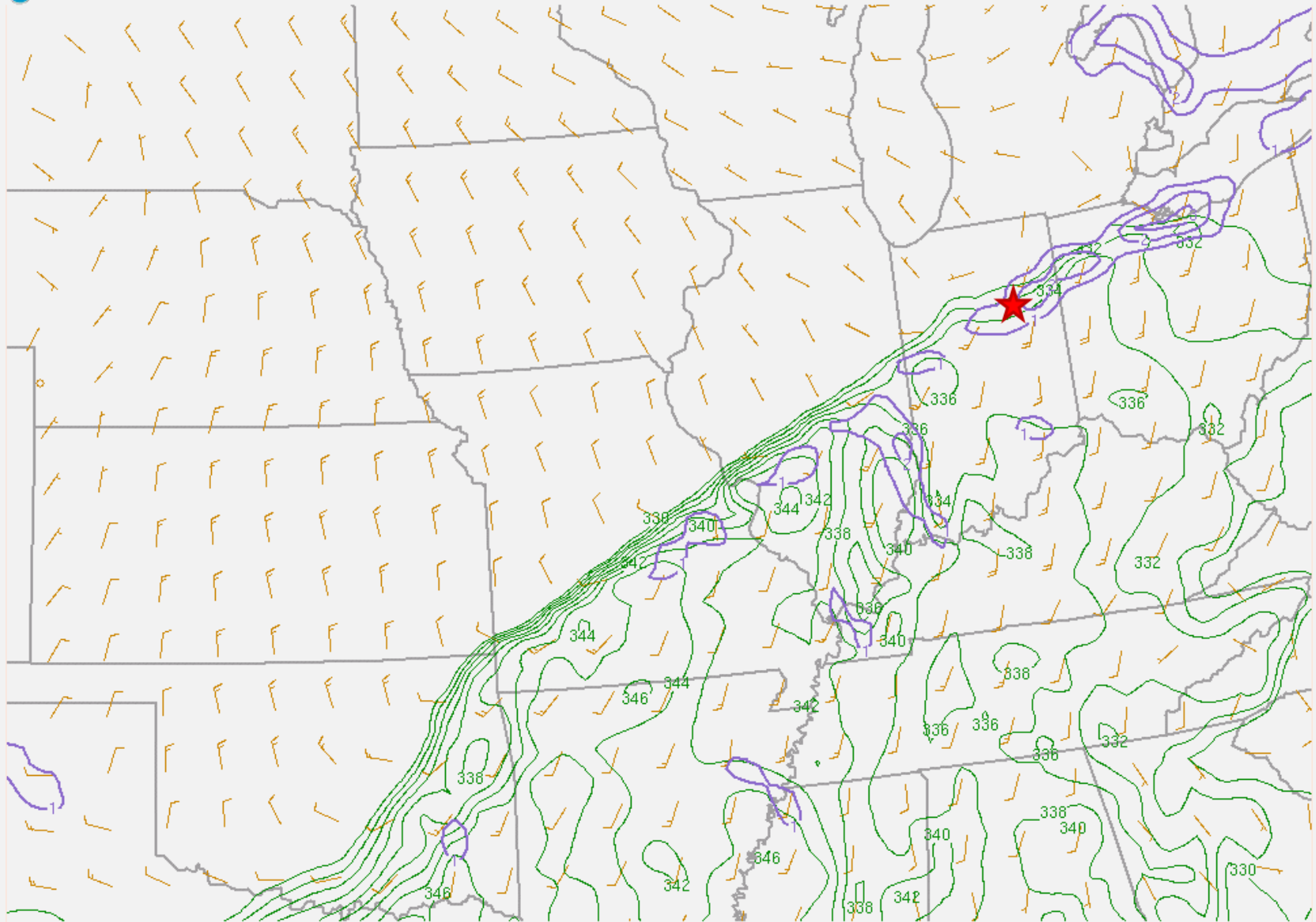
171105/1800 Effective bulk shear (kt)



# Adjusting to mesoscale changes

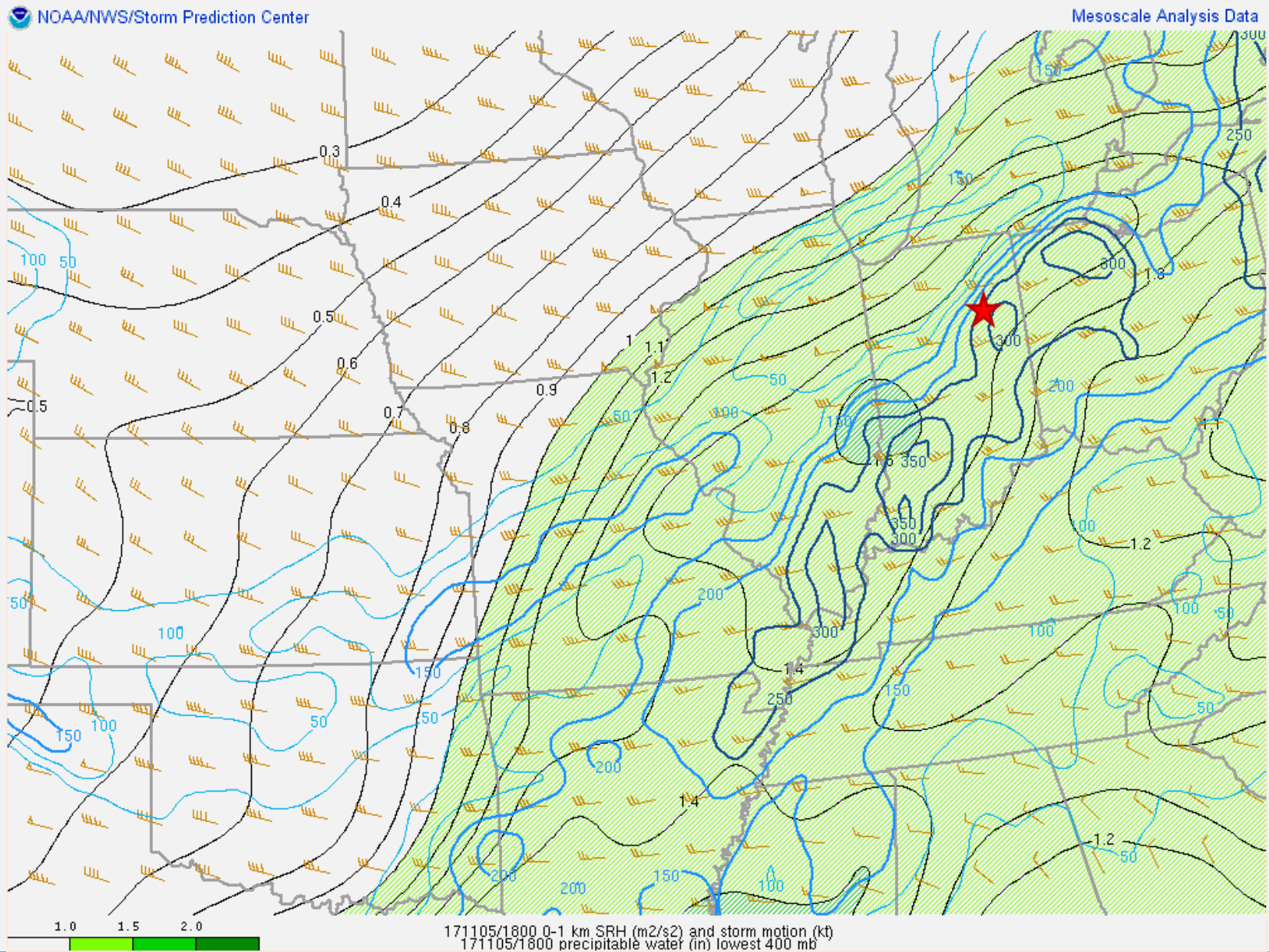
NOAA/NWS/Storm Prediction Center

Mesoscale Analysis Data



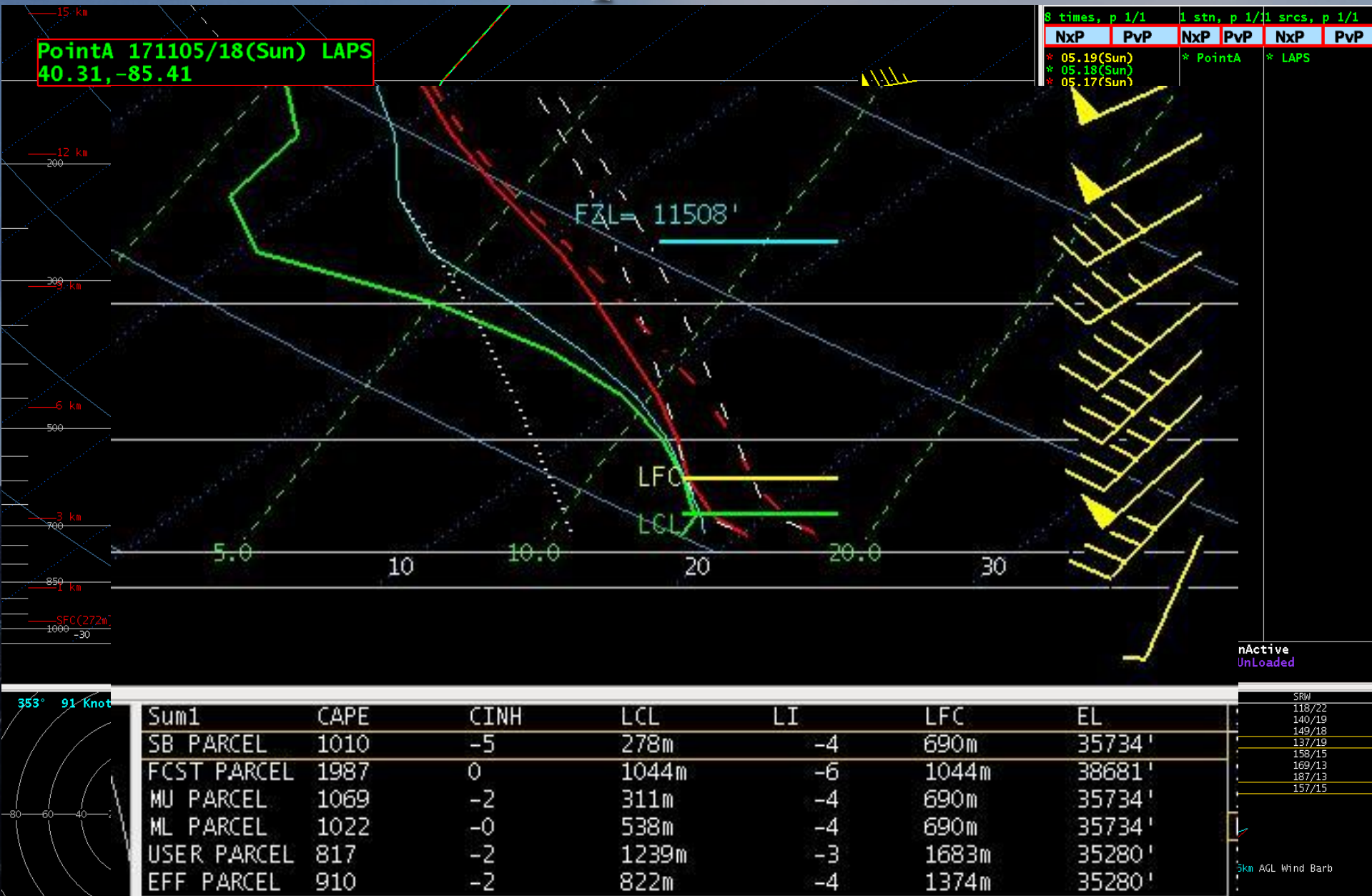
171105/1800 Surface ThetaE / Advection (C/hr)

# Adjusting to mesoscale changes





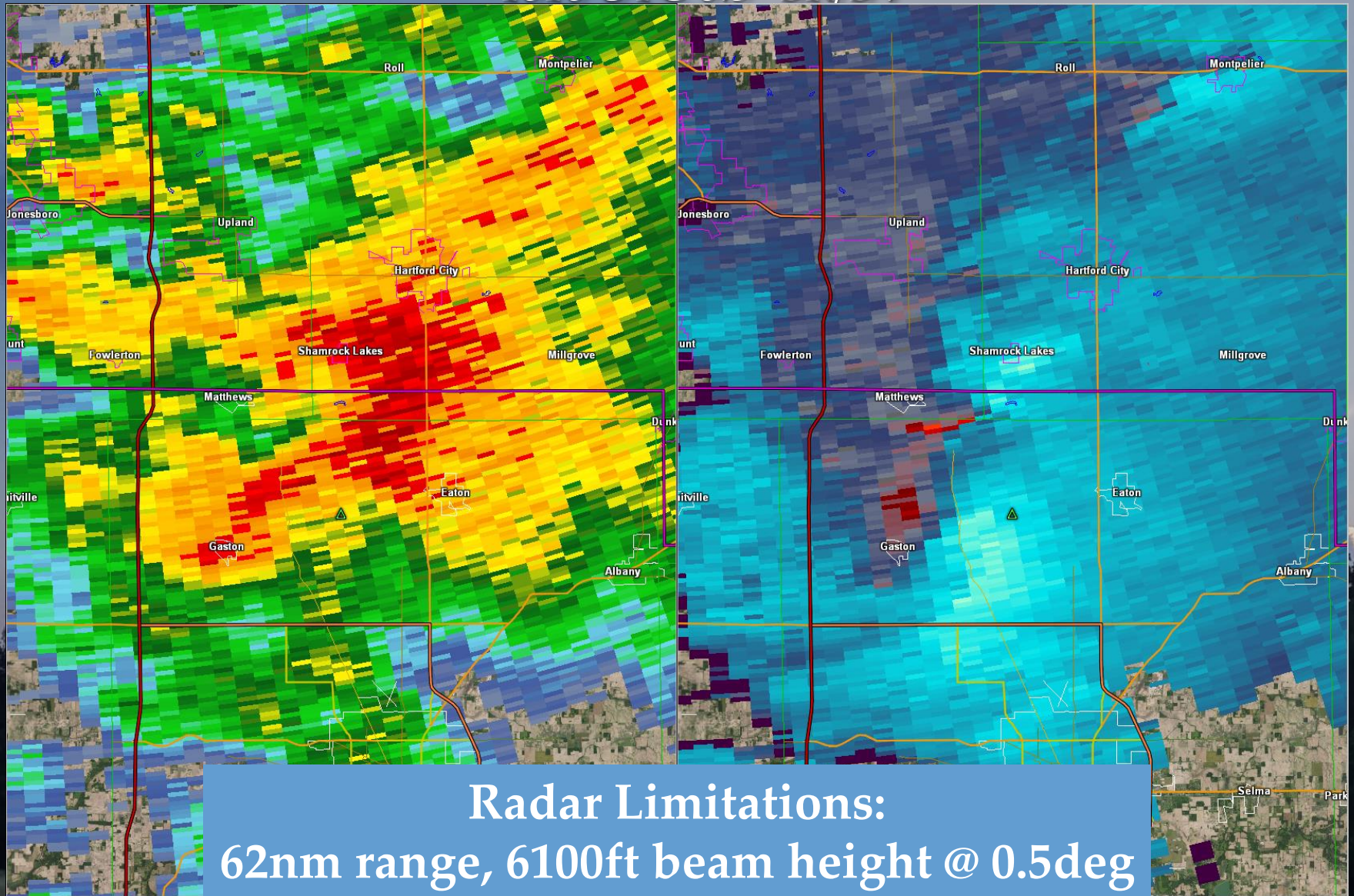
# 18Z Laps/Eaton, IN





# KIWX Radar

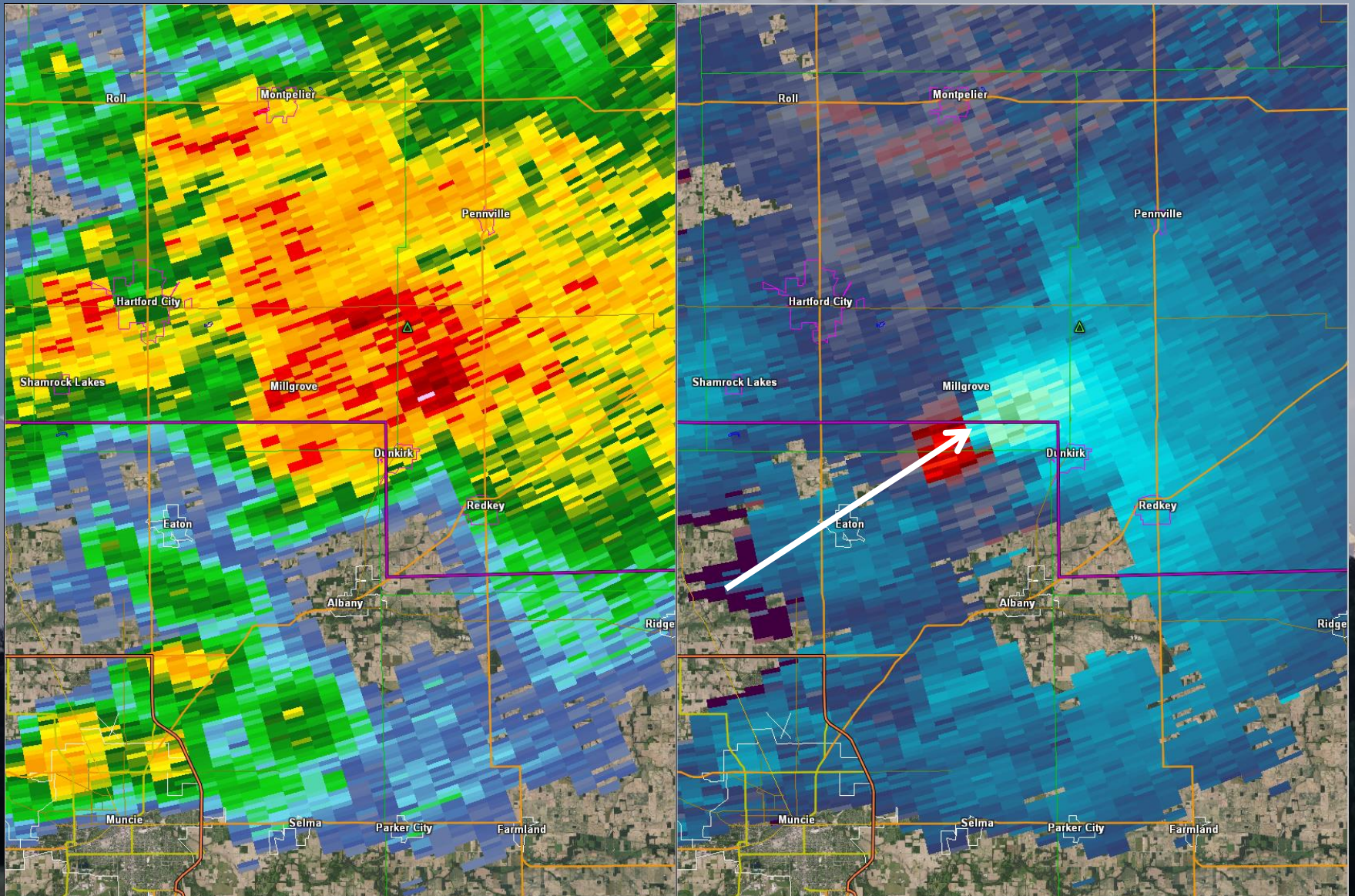
1816 UTC 0.5° BR/BV





# KIWX Radar

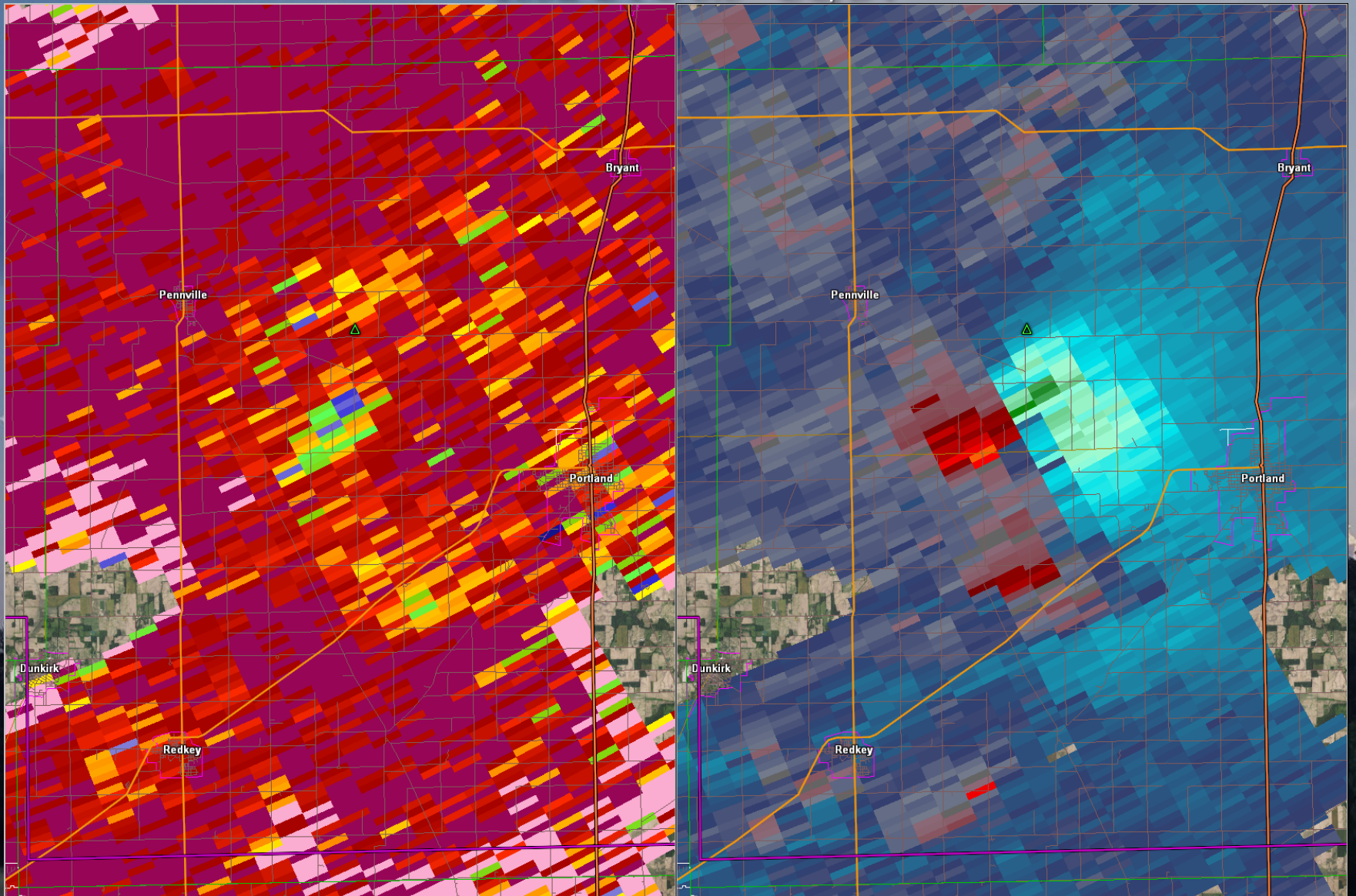
1837 UTC 0.5° BR/BV





# KIWX Radar

1852 UTC 0.5° CC/BV





# Jarod Hewett

\*\*\*NOT FOR BROADCAST\*\*\*

FOR LICENSING CONTACT  
[brett@lvestormsnow.com](mailto:brett@lvestormsnow.com)



# Survivor accounts





# Survivor accounts



\*\*\*NOT FOR BROADCAST\*\*\*

FOR LICENSING CONTACT  
brett@livestormsnow.com

LSM  
LIVE STORMS MEDIA

# Survivor accounts





# Surveyor Head Scratcher ?





# Questions?



& [Jeffrey.Logsdon@noaa.gov](mailto:Jeffrey.Logsdon@noaa.gov)  
[Todd.Holsten@noaa.gov](mailto:Todd.Holsten@noaa.gov)