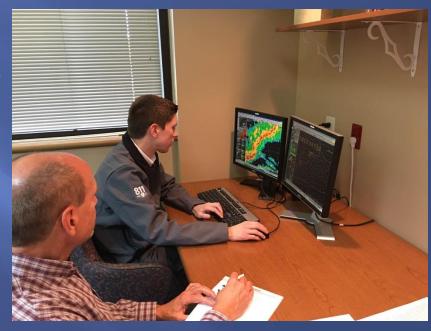
# PARTNERS OPERATIONAL WEATHER SIMULATION (POWS)

Ryan Sharp and Ted Funk NOAA/NWS Louisville

# **Benefits of POWS Program**

- Provides training in severe and winter storm structure and the warning decision process.
  Broadcast mets can get certification program credit
- Partners experience firsthand the complexity and strategies faced by NWS radar analysts
- Enhances relationships via one-toone interaction, which facilitates greater consistency in potentially life-saving messages to public
- Allows us to determine their level of skill in the warning process



Idea came from WFO St. Louis

#### Invitations

- Invited all TV Meteorologists who cover parts of our forecast area (open to others soon)
- Emphasized that simulation would be limited to 2 hours (respect their time)



#### Case Selection

- Wanted a local case they would not easily remember
- Quasi-Linear Convective Systems (QLCS) are common cool-season events in the Ohio Valley

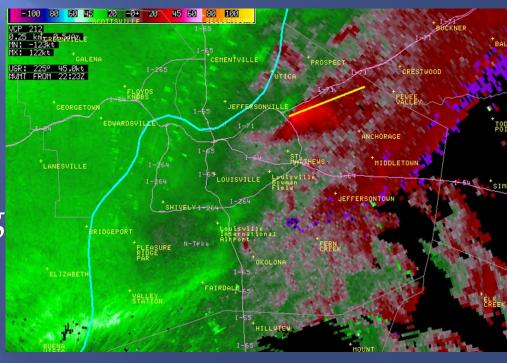
Typically have weak surface-based instability (high shear,

low instability)

 Produce wind damage and isolated embedded tornadoes (usually EF0-1)

~3 events each season

Needed a quick-hitting event (limit sim time)

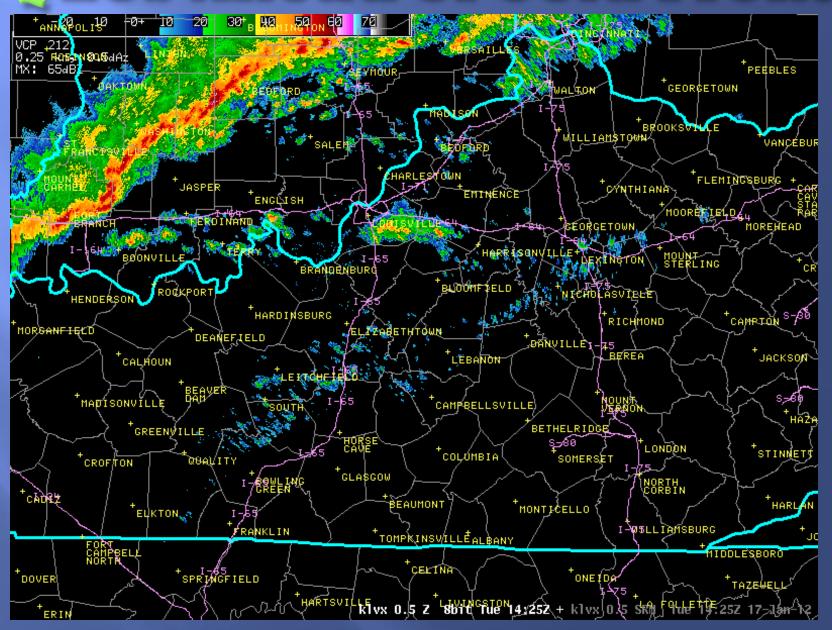


#### Pre-Brief

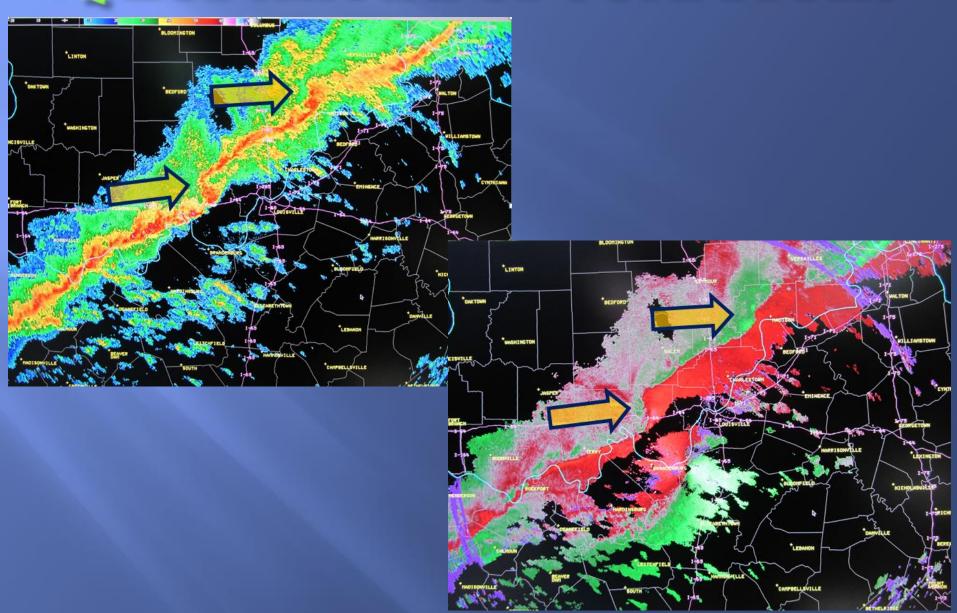
- Sent participants a packet 24 hours before their simulation (mentioned that QLCS was coming)
  - What to expect with WES
  - Asked if familiar with a typical cool-season QLCS
  - Quick primer on SRM/Velocity
  - Day 1 SPC Outlook
    - Tornado/Wind/Hail Probabilities
    - Took all time references off docs
  - SPC Mesoscale Convective Discussion
  - SPC Mesoanalysis from 15 Z



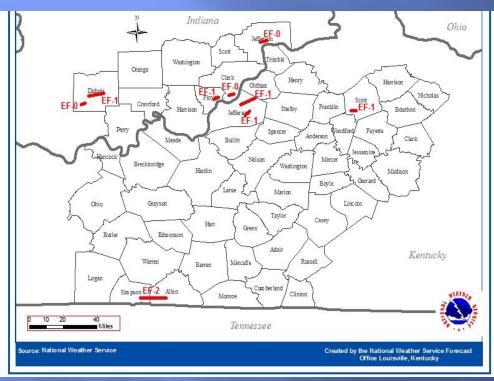
#### **OLCS Ahead of Cold Front**



# **QLCS Ahead of Cold Front**



#### Verification/NWS Warnings





# So, How Did They Do?

- General trend to issue larger Severe Thunderstorm Warnings with embedded Tornado Warnings
  - Helped them to see the thought process that must go into warning locations
  - Some were cognizant of including Louisville at the end of a polygon

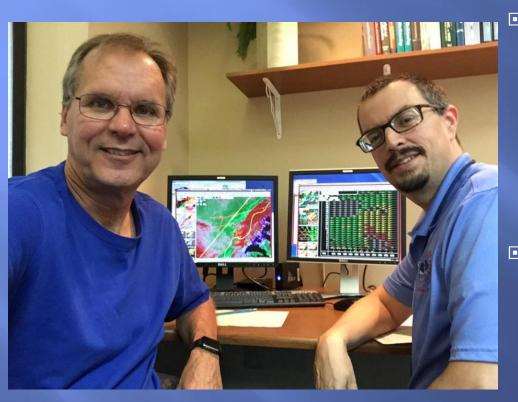
 Multiple Tornado Warnings in close proximity made for some interesting polygons

# So, How Did They Do?

- One made a large Tornado Warning for all of Louisville
  - "I'm covered for Louisville, unfortunately I just put 500,000 people in their basements."
- Some knobology concerns
  - Getting used to our system for moving around radar products and clicking through WarnGen procedures
  - Did go through a practice warning at onset



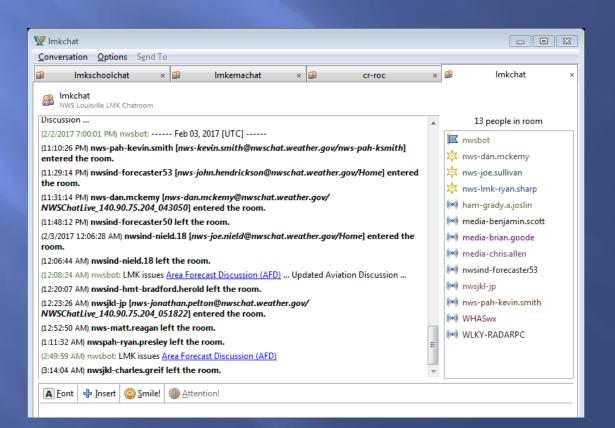
## **Quotes from TV Mets**



- "I have much greater respect for the decisions you all have to make. Having good communication on storm reports is really important to help make some of these decisions easier."
  - John Belski, WLKY Louisville
- "I've always had a lot of respect for what you guys do, but this gives me a greater sense of appreciation. Other TV mets need to do this. I'm just glad I didn't lay an egg."
  - T.G. Shuck, WHAS Louisville

#### What Have We Learned?

- TV Mets like our outgoing communication during a warning situation
  - We use NWSChat to provide updates in-between our warnings and follow-up statements. MesoAFDs used too.

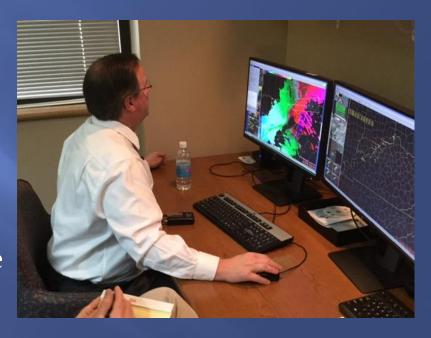


#### **Warning Challenges**

- Severe Thunderstorm Warnings do not receive as much attention or coverage in these situations as Tornado Warnings
  - Unfortunately in these situations, soon after a Tornado Warning is issued, the tornado likely will dissipate
- The TV Mets tended to issued more Tornado Warnings once they realized the threat for them was increasing

#### Last Thoughts

- Bill Meck, meteorologist from WLEX in Lexington
- Have developed a better relationship over past few years
  - Did a 5-minute segment on evening news about his POWS experience
  - He called us "Partners", which he noted was the first time those words had come from him!



• "It's a terrific tool and one that will prove invaluable to countless others as it's deployed across the nation and become another tool in our arsenal for saving lives and property."