

Radar & Applications Course (RAC)

Convective Storm Structure and Evolution Topic

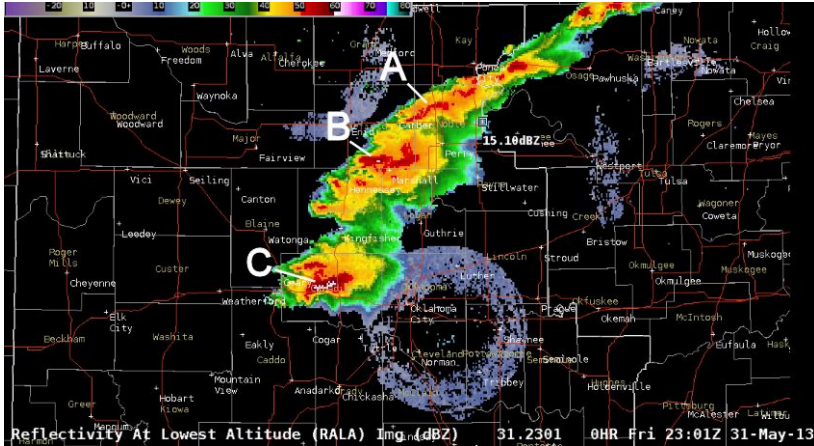
Applied Performance Drills - Worksheet

Instructions: Questions are multiple choice. Circle the best answer. Enter your answers into the Applied Performance Drills quiz on the Commerce Learning Center (CLC).

1. At which location is the initiation of deep, moist convection most likely during the next 1-2 hours?



- A
 - B
 - C
 - D
2. Given deep, moist convection during the next 1-2 hours in the WFO OUN County Warning Area, which is the most likely storm type?
 - Ordinary cell
 - Supercell
 3. After using MRMS and/or single site radar at 2301Z to screen the storms over the the WFO OUN County Warning Area, which is the highest ranked storm based on its hazzard (hail wind, tornado, flash flood) potential?



- A
 - B
 - C
4. After evaluating the RAP13 analysis sounding at 23Z for Union City, Oklahoma, what is the risk of a mesocyclonic tornado from the storm over Canadian County, Oklahoma?
 - None or Slight
 - Moderate
 - High
 5. After evaluating the RAP13 analysis sounding at 23Z for Union City, Oklahoma, what is the risk of a non-mesocyclonic tornado from the storm over Canadian County, Oklahoma?
 - None or Slight
 - Moderate
 - High
 6. After evaluating the RAP13 analysis sounding at 23Z for Union City, Oklahoma, what is the risk of severe hail from the storm over Canadian County, Oklahoma?
 - None or Slight
 - Moderate
 - High
 7. After evaluating the RAP13 analysis sounding at 23Z for Union City, Oklahoma, what is the risk of severe wind from the storm over Canadian County, Oklahoma?
 - None
 - Slight
 - Moderate to High
 8. After evaluating the RAP13 analysis sounding at 23Z for Union City, Oklahoma, what is the risk of flash flooding from the storm over Canadian County, Oklahoma?

- None
 - Slight to Moderate
 - High
9. What is the convective mode for the storm over Canadian County, Oklahoma at 2301Z?
- Ordinary cell
 - Supercell
 - Multicell
10. What is the height of the 50 dBZ echo for the storm over Canadian County, Oklahoma at 2301Z?
- 35,000 feet
 - 45,000 feet
 - 55,000 feet
 - 65,000 feet
11. What is the storm-top divergence (ΔV) for the storm over Canadian County, Oklahoma at 2301Z?
- 50 knots
 - 115 knots
 - 165 knots
 - Greater than 215 knots
12. What is the severe hail potential for the storm over Canadian County, Oklahoma at 2301Z?
- Severe hail (with little rain)
 - Severe hail mixed with rain
 - Sub-sever dry hail
 - Sub-severe melting hail
 - Significant (≥ 2 -inch) hail
13. What is the low-level rotational velocity for the vortex signature located 30 nm@295 deg from KCRI at 2311 UTC?
- 30 kts
 - 40 kts
 - 80kts
 - 160 kts
14. How would you classify the vortex signature located 23 nm @ 308 deg from KCRI at 2332 UTC?
- Tornado Signature (TS)
 - Tornado Vortex Signature (TVS)
 - Mesocyclone
 - Meso-anticyclone

15. What is the correct number of Tornado Debris Signatures in the scene at 2332 UTC east of El Reno, OK?
- 1
 - 2
 - 3
 - 4
16. What is the radial velocity difference in the MARC found 57 nm @ 348 deg from KCRI at 2245 UTC?
- 36 kts
 - 48 kts
 - 78 kts
 - 50 kts
17. What is the coldest temperature that the Zdr column reached for the storm 55 nm @ 353 deg at 2224 UTC?
- 0 °C
 - 10 °C
 - 20 °C
 - 30 °C
18. What common supercell structure and/or signature is missing in the storm featured 30 nm @ 295 deg from KCRI at 2311 UTC?
- Low-level reflectivity notch
 - WER/BWER
 - Echo overhang
 - Hook echo
 - Mesocyclone
 - Zdr arc
 - Low CC updraft core
 - none of the signatures are missing