Recommended Radar Interrogation Guidance for Potential of Tropical Cyclone Tornadoes

Rotation Intensity

Range from Radar: < 40 nm

Low-level V_r ≥ 20 kts

Contracting low-level

diameter

Low-level shear increasing

Convective Features

Inflow notch or hook echo (appendage) feature

 $to \ge 0.01s^{-1}$

(Identify at least one of the two following features)

Horizontal Separation of
Greater ZDR/KDP
Values
Mesocyclonic VES with
enhanced radial
velocity values of
≈ 30 kts or greater

Rotation Intensity

Range from Radar: 40-70 nm

0.5° Tilt V_r ≥ 15 kts Contracting diameter at the 0.5° tilt

Convective Features

(Identify at least one of the two following features)

Greater ZDR/KDP
Values
Mesocyclonic VES with
enhanced radial
velocity values of
≈ 30 kts or greater

Horizontal Separation of

Inflow notches, hook features could add confidence but not viable discriminators

0.5° Tilt V_r ≥ 12 kts

Notes About the Guidance:

Range from Radar: > 70 nm

Rotation Intensity

Consider some of the following challenges when applying this guidance:

- ☐ Range folding
- Cone of silence
- ☐ Distance from radar

Use your best judgment when applying this guidance, and remember that no guidance is perfect.

Goal: Reduce FAR



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