

Real-time TDR Graphics Description & Links

Compiled by Paul Reasor, AOML/HRD; Updated: 8/26/2025

Timing: **Fix (t=0)** -> Analysis Done (t≈50 m) -> Files Xmit (t≈1 h) -> **Graphics (t≈1 h 10 m)**

Composites/centers: Use vortex center-finding method of Fischer et al. (2022, 2024 MWR)

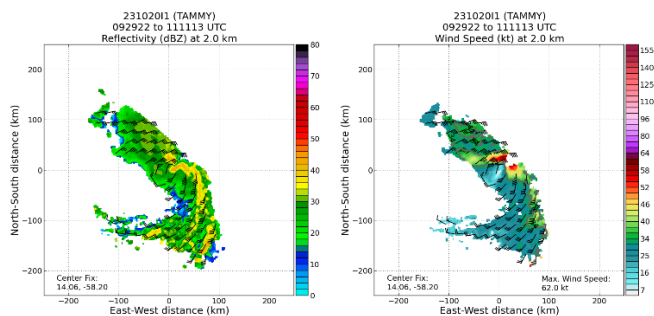
Grid spacing: Planview (x,y,z) = (2 km, 2 km, 500 m), Vertical profile (r,z) = (1.5 km, 150 m)

Follow this link for 2025 real-time graphics sorted by flightID (YYYYMMDDAI):

<https://www.aoml.noaa.gov/ftp/pub/hrd/data/RTradar/2025/>

Graphics/Diagnostics in order of production (using 20231020I1 as an example):

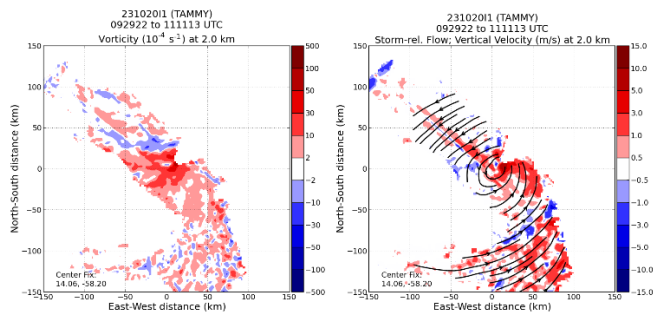
<https://www.aoml.noaa.gov/ftp/pub/hrd/data/RTradar/2023/20231020I1/swaths/>



Refl & WS Per Fix (1 to 18 km)

[231020I1 TAMMY 1045 dbz ws 2.0km.png](#)

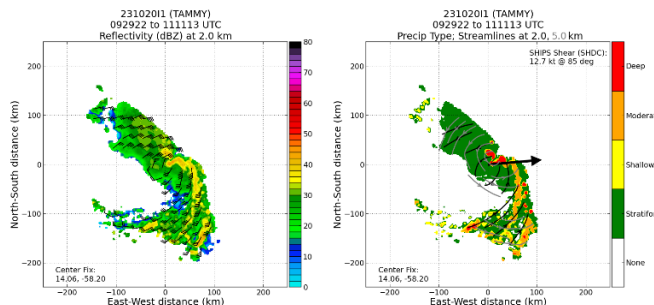
Earth-relative Flow



Vort & Vert Wind Per Fix (1 to 18 km)

[231020I1 TAMMY 1045 vort w 2.0km.png](#)

Storm-relative Flow



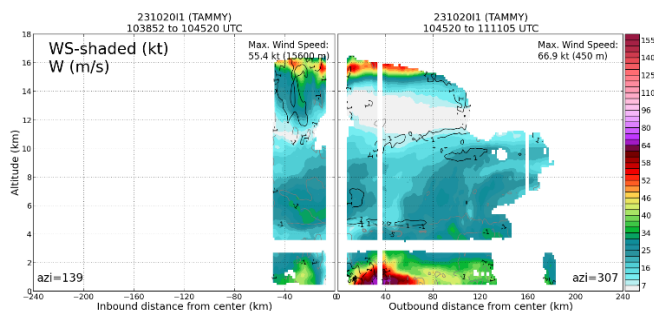
Precipitation Classification

[231020I1 TAMMY 1045 precip class planview.png](#)

See App C of Fischer et al. (2024, MWR)

Earth-relative Flow

<https://www.aoml.noaa.gov/ftp/pub/hrd/data/RTradar/2023/20231020I1/profiles/>

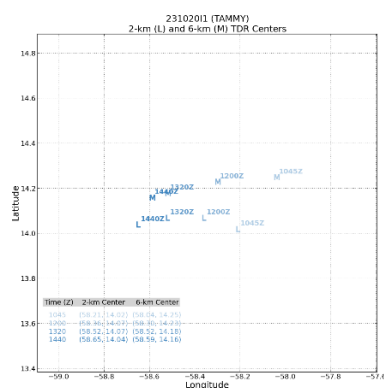


High-Vertical-Res In(out)bound
Profiles of Refl, WS, Storm-Rel Radial
Wind, & PBL Zoom-In

[231020I1 TAMMY 1045 ws_profile_139_307.png](#)

Vertical spacing = 150 m

<https://www.aoml.noaa.gov/ftp/pub/hrd/data/RTradar/2023/20231020I1/centers/>

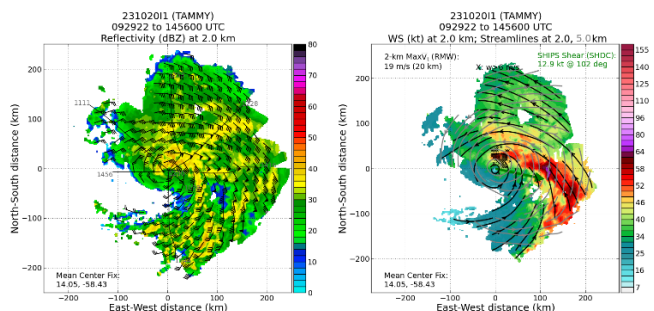


Track Map of 2- and 6-km Centers

[231020I1 TAMMY tdrcenters.png](#)

Centers based on *Storm-relative* Flow
Flag value = 99.99

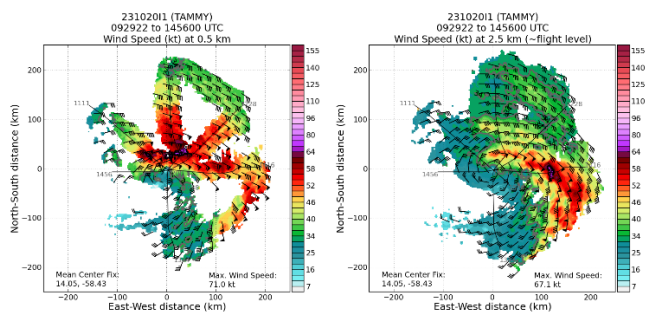
<https://www.aoml.noaa.gov/ftp/pub/hrd/data/RTradar/2023/20231020I1/composites/>



Composite Refl & WS

[231020I1 TAMMY 0929 1456 ws_dbz_planview.png](#)

Earth-relative Flow

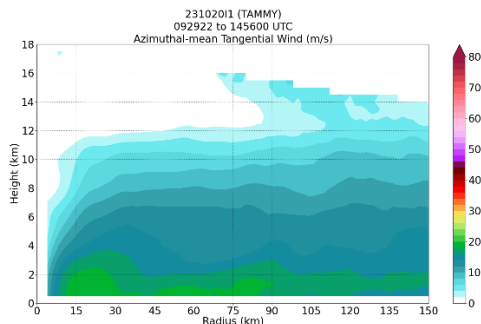


Composite 0.5-km & Flight-level WS

[231020I1 TAMMY 0929 1456 ws_nhc_planview.png](#)

Earth-relative Flow

<https://www.aoml.noaa.gov/ftp/pub/hrd/data/RTradar/2023/20231020I1/rzmeans/>

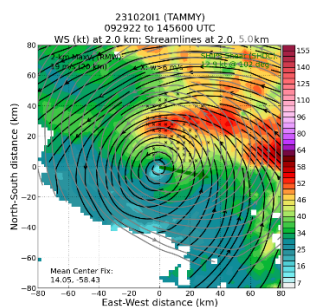
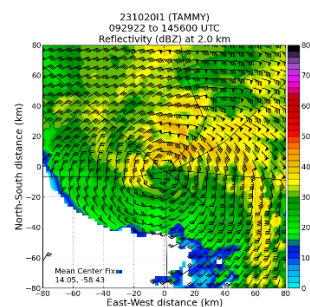


Azi-Mean Refl, Tangential & Radial Wind

[231020I1 TAMMY 0929 1456 vt rzmean.png](#)

Grid spacing (r,z) = (2 km, 500 m)

<https://www.aoml.noaa.gov/ftp/pub/hrd/data/RTradar/2023/20231020I1/zoom/>



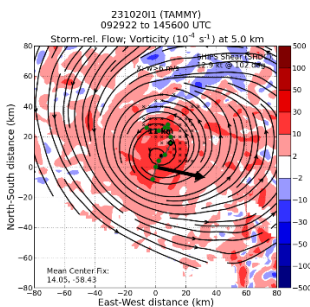
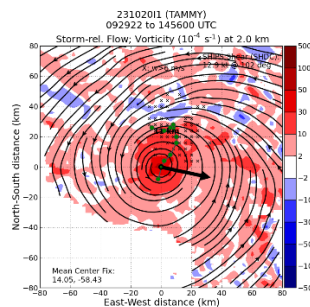
Composite Zoom-In Refl & WS

[231020I1 TAMMY 0929 1456 ws dbz planview zoom.png](#)

Inner 80 km

Earth-relative flow

<https://www.aoml.noaa.gov/ftp/pub/hrd/data/RTradar/2023/20231020I1/tilt/>



Composite Vorticity and Vortex Tilt

[231020I1 TAMMY 0929 1456 vort tilt.png](#)

Altitude step = 1 km

Black circle = Center @ planview alt.

Storm-relative Flow

https://www.aoml.noaa.gov/ftp/pub/hrd/reasor/tdr_centers/

TDR center info from 220920I1_1200_xy.nc:

Alt (km)	Lat (deg)	Lon (deg W)
0.5	14.00	58.38
2.0	14.07	58.36
3.0	14.09	58.34
6.0	14.23	58.30

2-6-km Vortex Tilt: 19.0 km at 18 deg

Vortex Centers Per Fix (0.5 to 6 km)

[220920H1 1247 tdrcenters.txt](#) (for example)

Centers based on Storm-relative Flow

Flag Value = 99.99