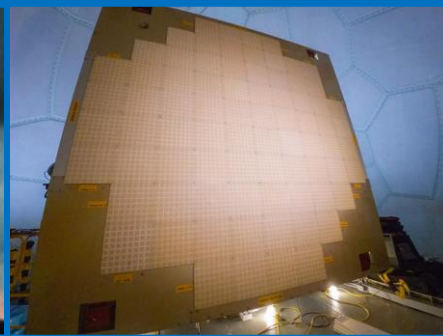




PERiLS 2023: NOXP Data

Addison Alford, Anthony Reinhart, and Ted Mansell
NOAA/OAR/National Severe Storms Laboratory

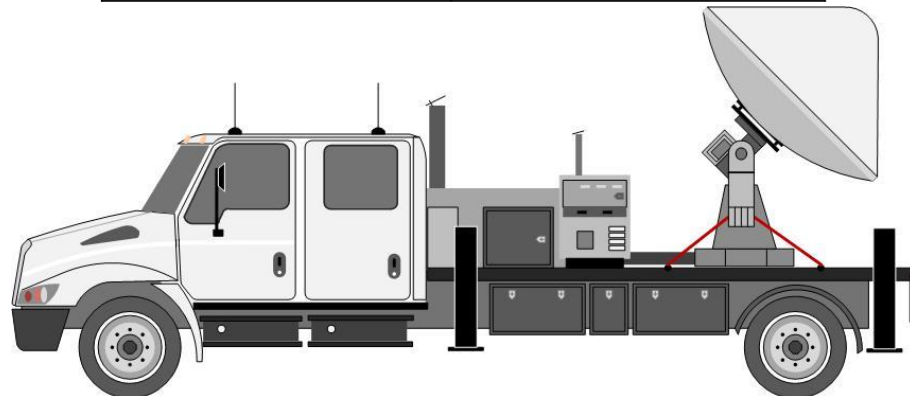




NOXP

- The NOAA X-band polarimetric mobile radar (NOXP) has been used in multiple US and international field experiments
- $R_{max} = 77$ km
- Nyquist 15.6 m s^{-1}
- 0.5 microsecond pulse
- VCP: alternating “low” and “high”
- 10 min sync
- Data are rotation corrected and checked
- Converted to cfradial and uploaded to EOL in early November

Frequency (MHz)	9415
Wavelength	3.19 cm
Peak Power	250 kW
Antenna type	2.4-m Parabolic Dish
Antenna Gain (dBi)	45.5
-3 dB Antenna aperture	0.9°
Polarization	Linear; simultaneous H&V
Rotation speed	36 deg/s (max)
Pulsewidth	0.5-2.0 μs
Duty cycle	.001



IOPs 1 & 2





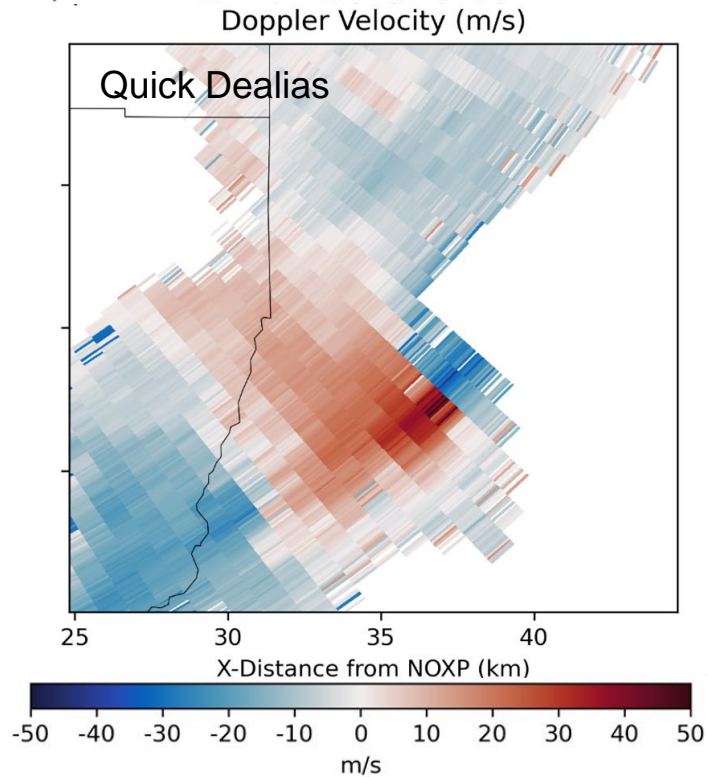
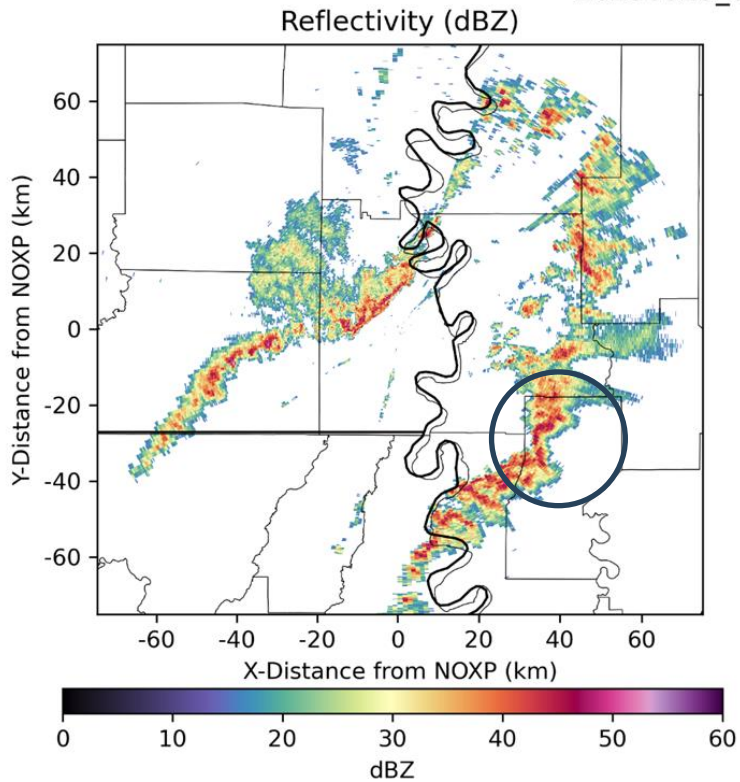
IOP 3

- Team: Ted Mansell (Lead), Tom Galarneau, Charles Kuster, and Jacob Widanski
- Operation Window: 24 March 2023 20:33 to 25 March 2023 02:00 UTC
- Notable Obs: Rolling Fork, MS Tornado
- No operations issues.



IOP 3

20230325_011028 UTC | EI = 0.5





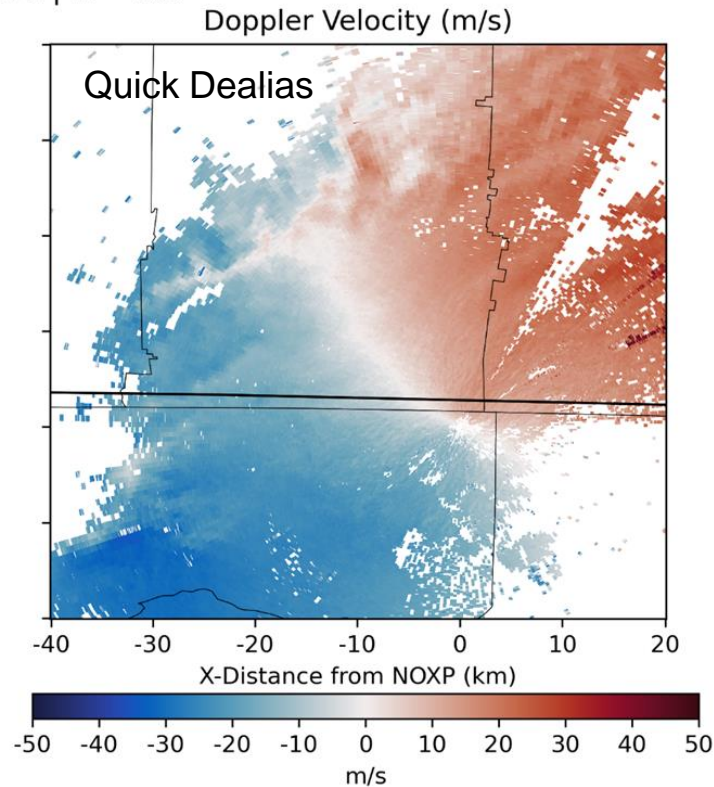
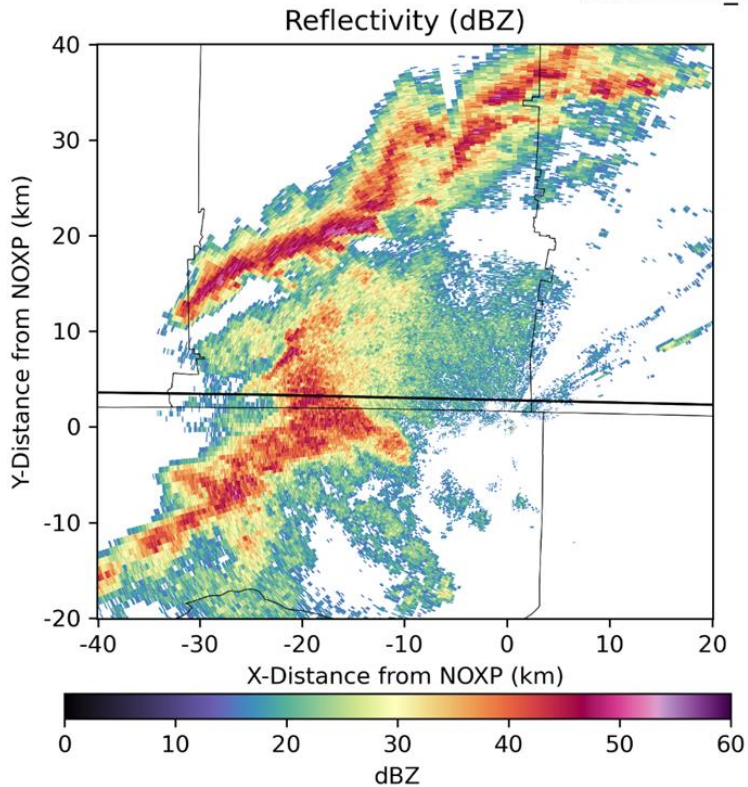
IOP 4

- Team: Addison Alford (Lead), Tom Galarneau, Thea Sandmael, and Jacob Carlin
- Operation Window: 31 March 2023 20:33 to 01 April 2023 08:00 UTC
- Notable Obs: Multiple vorticity maxima associated with embedded supercells and linear features.
- No operations issues.



IOP 4

20230401_065404 UTC | EI = 0.5





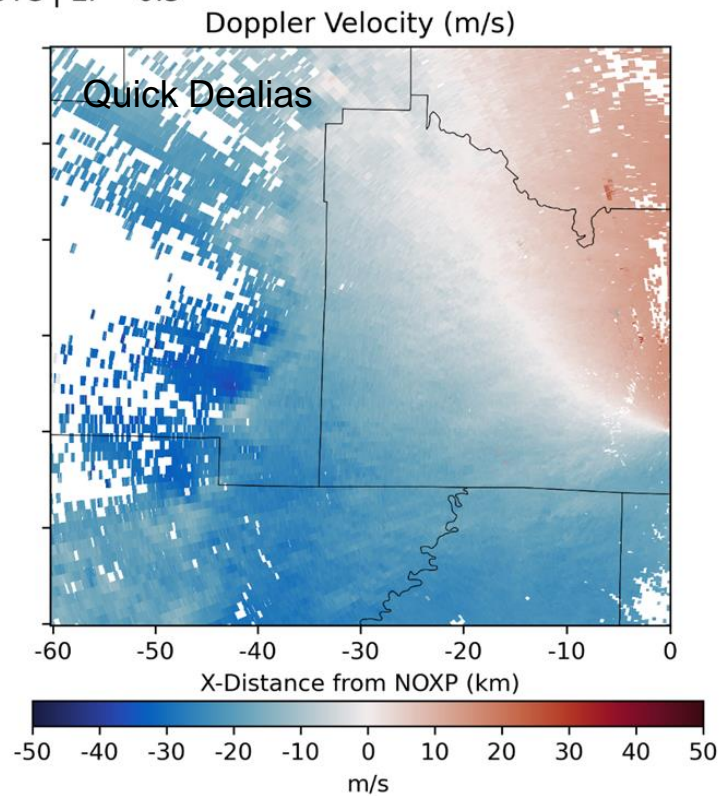
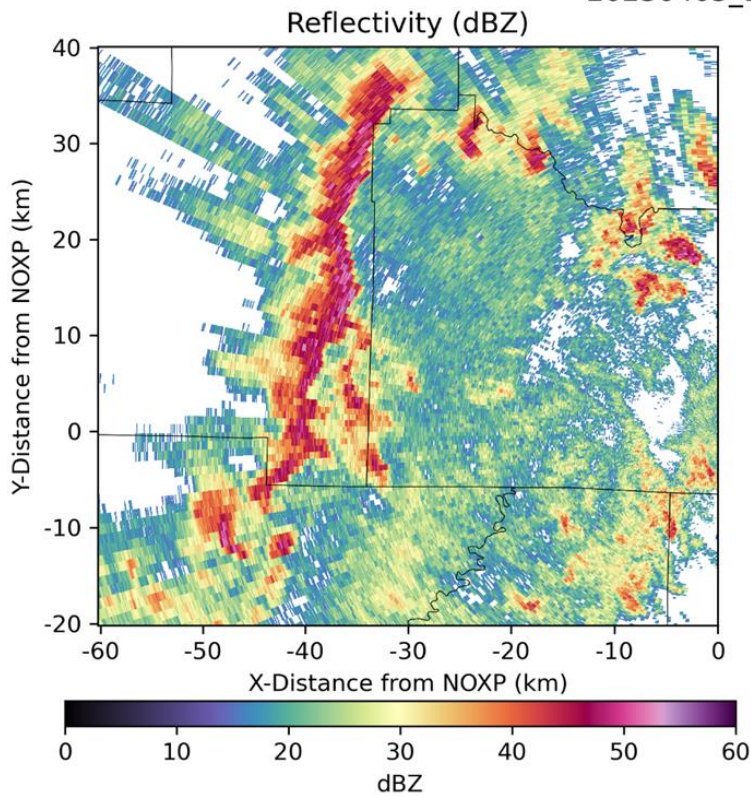
IOP 5

- Team: Addison Alford (Lead), Thea Sandmael, Jacob Segall, and Quentin Thomas
- Operation Window: 05 April 2023 14:39 to 05 April 2023 18:35 UTC
- Notable Obs: Weak mesovortex structures.
- No operations issues, but were blocked randomly by trucks passing on the highway.



IOP 5

20230405_153903 UTC | EI = 0.5





Questions?

Data are available via
<https://doi.org/10.26023/J1G9-4B6N-180E> or the QR code
to the right.

