atmosphere

Supplementary Materials: An Object-based Method for Tracking Convective Storms in Convection Allowing Models

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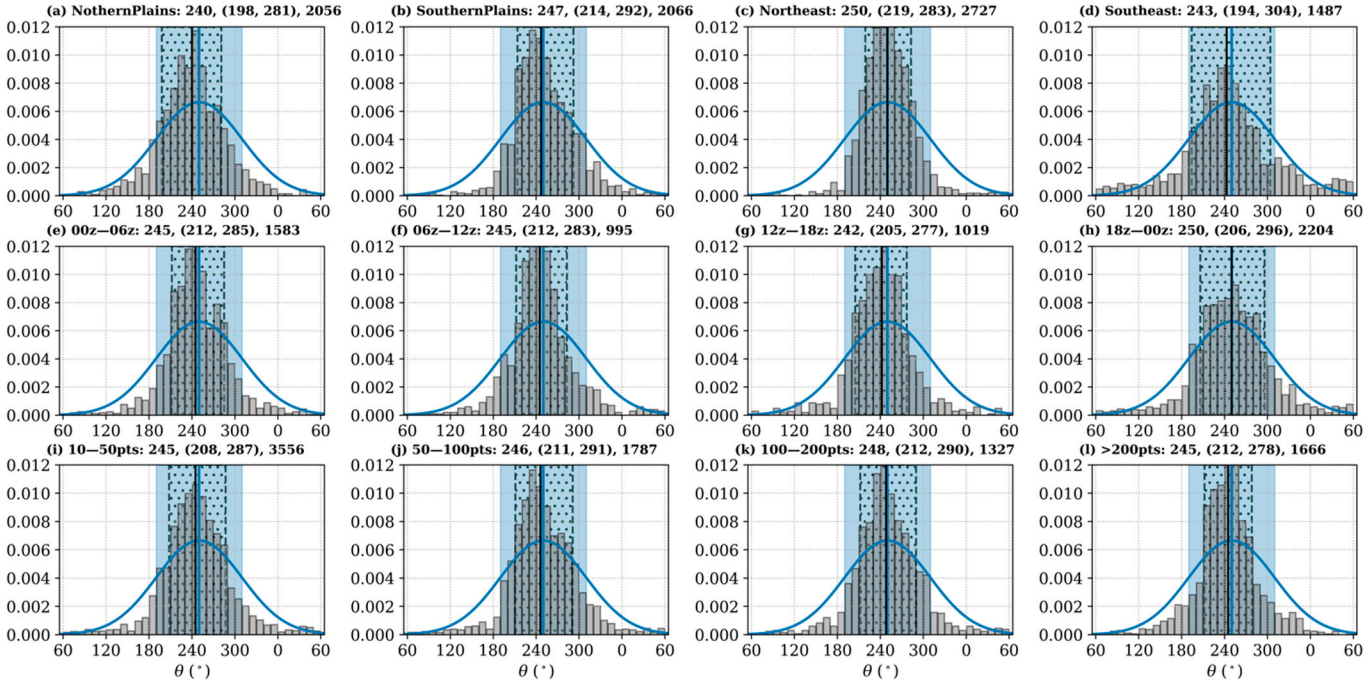

Figure S1. Histograms of track direction (θ) for objects located at different regions of CONUS: (**a**) Northern Plains (north of 37°N and west of 108°W), (**b**) Southern Plains (south of 37°N and west of 108°W), (**c**) Northeast (north of 37°N and east of 108°W), and (**d**) Southeast (south of 37°N and east of 108°W); (**e**-**h**) for objects present at different time periods of a day and (**i**-**l**) for objects in different size group. Sample mean, one standard deviation range, and sample size are listed on top of the histograms. The PDFs plotted on top of the histograms (blue curve) are the same as in Fig.3a.

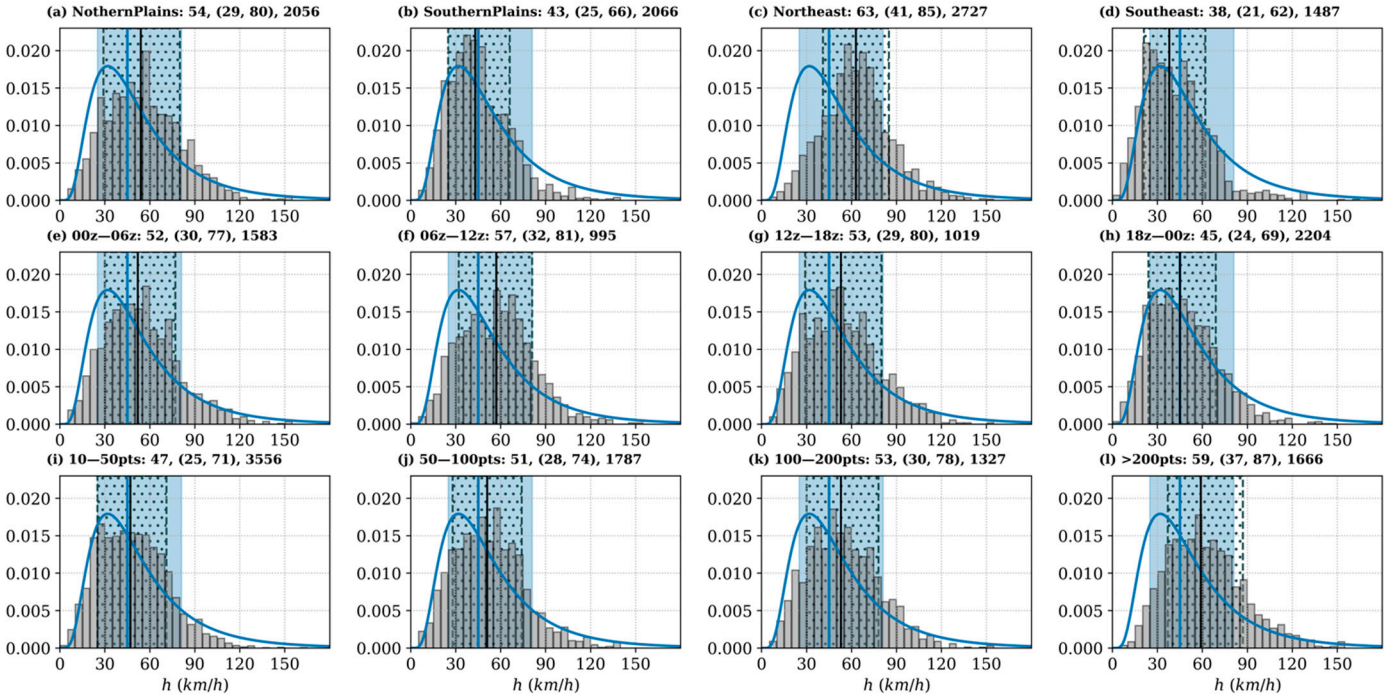

Figure S2. As in Fig.S1, but for track speed (*h*). The PDFs plotted on top of the histograms (blue curve) are the same as in Fig.3b.

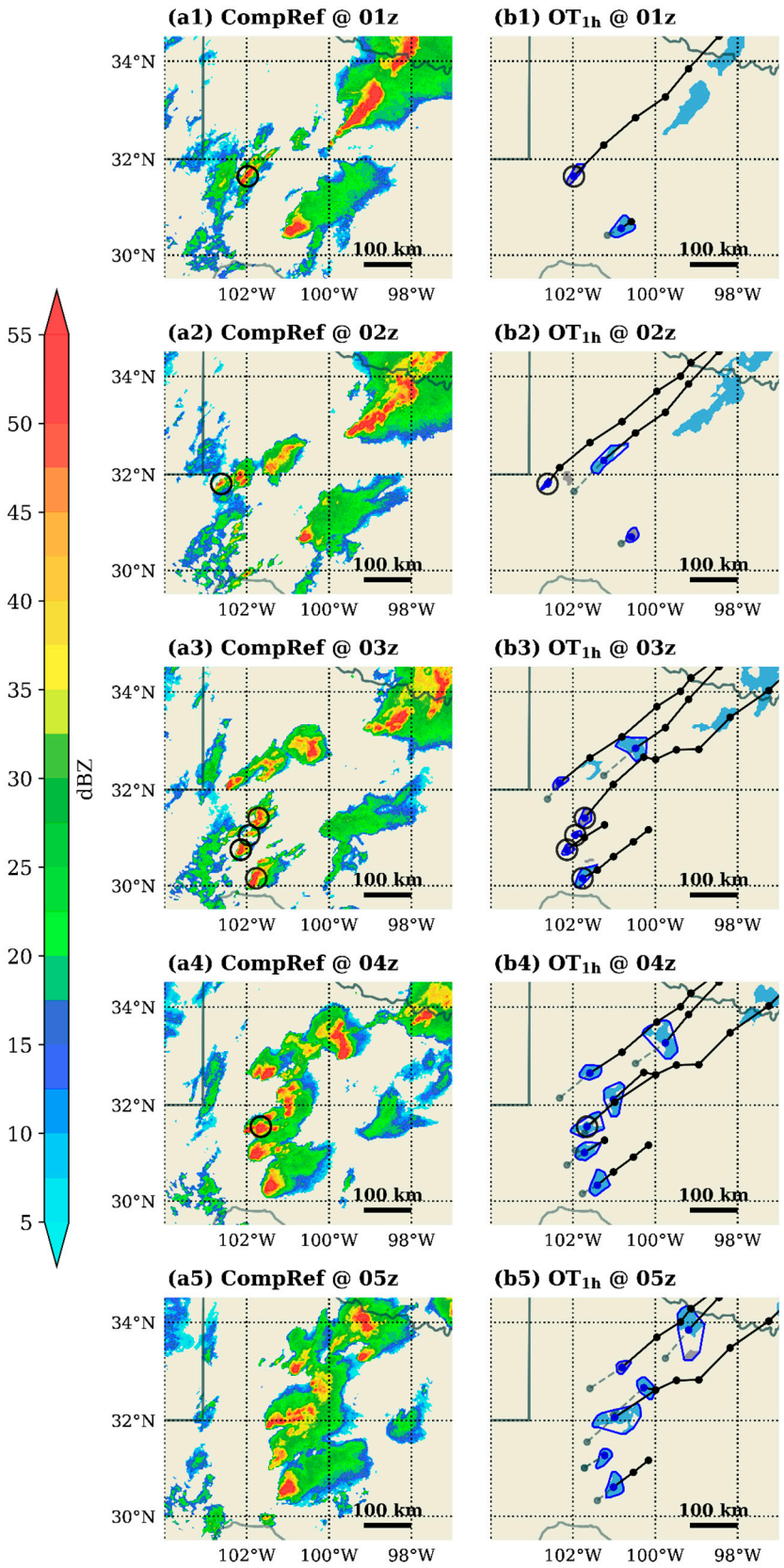

Figure S3. (Panel **a**) Hourly snapshots of MRMS composite reflectivity and (panel **b**) objects identified during 01-05z May 02, 2018, with identified OTs overlaid.