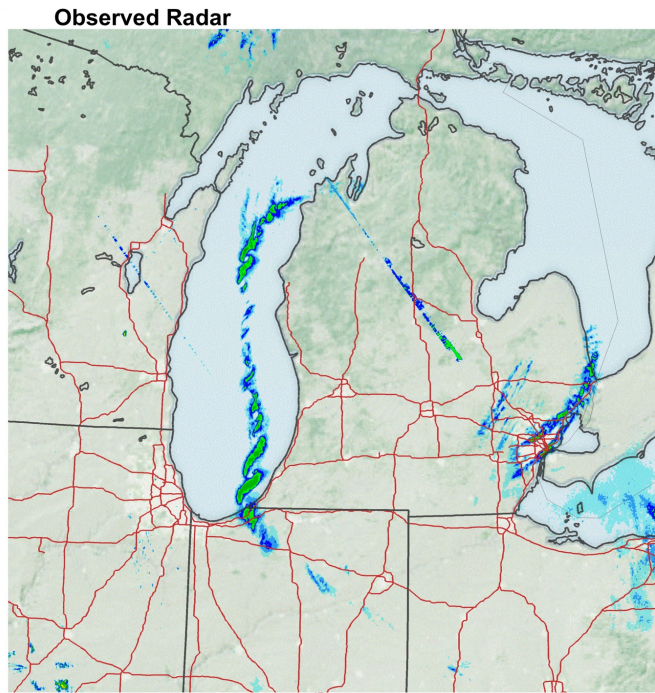
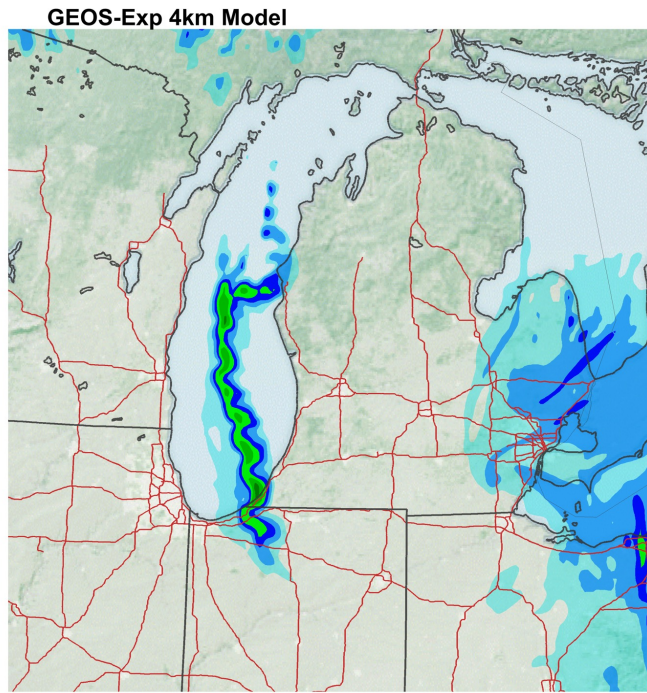
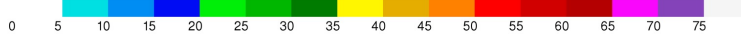
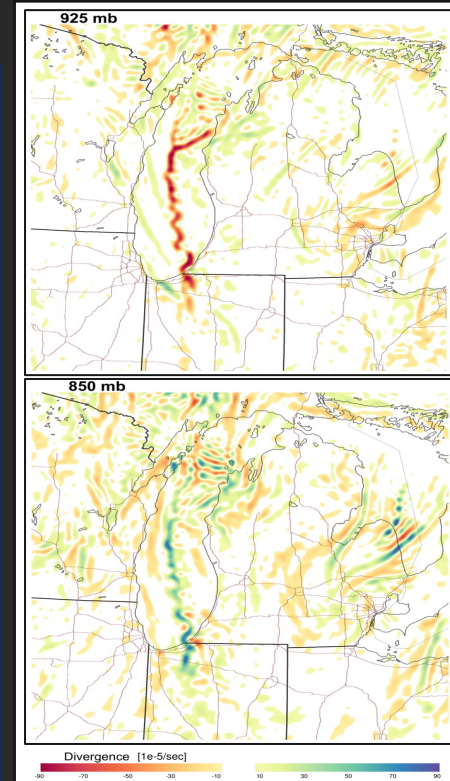


Lake Effect Snow in GEOS-Exp 4km Model

The experimental Goddard Earth Observing System (GEOS) 4km resolution model forecasted a significant lake-effect snow event over Lake Michigan on January 19th, 2024. The high-resolution model accurately depicted the formation, length, and snow totals for this event.



Radar Reflectivity [dBZ]

029 Forecast Hours
INIT: 20240118 12z
GEOS 4-km

Low-level convergence (red, negative) at 925mb lifts air to the divergence (blue, positive) at 850mb, leading to the snow squalls formed.

The GEOS-Exp 4km model simulated radar reflectivity (right) 29 hours before the event that was remarkably close to the observed radar (left) for this event which left some areas of Indiana with over 20 inches of snow.