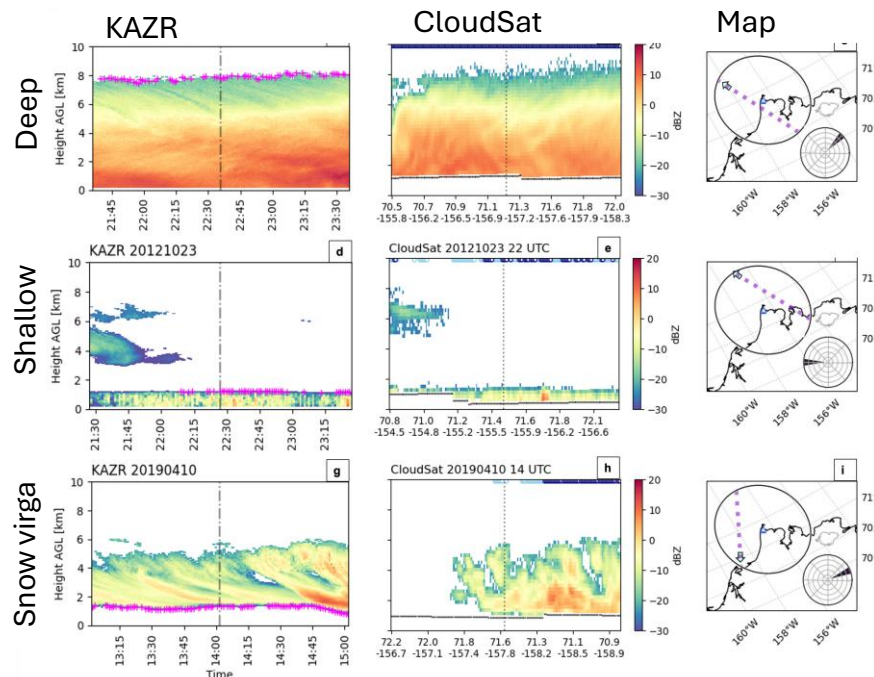


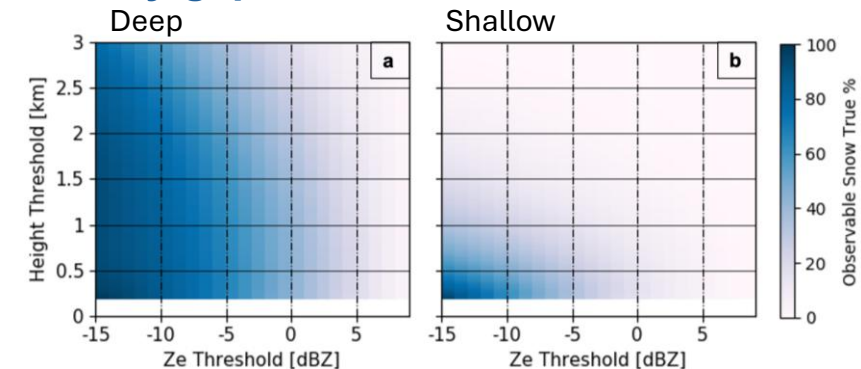
KAZR-CloudSat Analysis of Snowing Profiles at the North Slope of Alaska: Implications of the Satellite Radar Blind Zone (Shates et al. 2025, JGR Atmospheres)



Vertically profiling observations were used to identify snowfall regimes and compare the occurrence and properties of snowfall near the surface.

- Shallow snowfall was the predominant regime, and more than 50% would be undetected or underestimated in the blind zone
- Detection and occurrence varied seasonally

Quantify gaps → inform future measurements



Ground-based radar observations are an invaluable reference for testing thresholds and combinations of minimum reflectivity and lowest observable height.

King et al. (2024) demonstrated inpainting in the blind zone using a U-Net with radar and ancillary observations.

It is highly impactful to leverage spaceborne NASA observations of precipitation with ground-based perspectives.

Continue to bridge NASA observations to ground-based and operational radar networks. Direct connections between these types of platforms are important for water resources applications.

In the SF Bay Area, the AQPI program has strategically deployed a network of **gap-filling C- and X-band radars**, which operate at high resolution and provide accurate QPE. AQPI is a federal, state, and local partnership, and a pilot for future state and national efforts.

