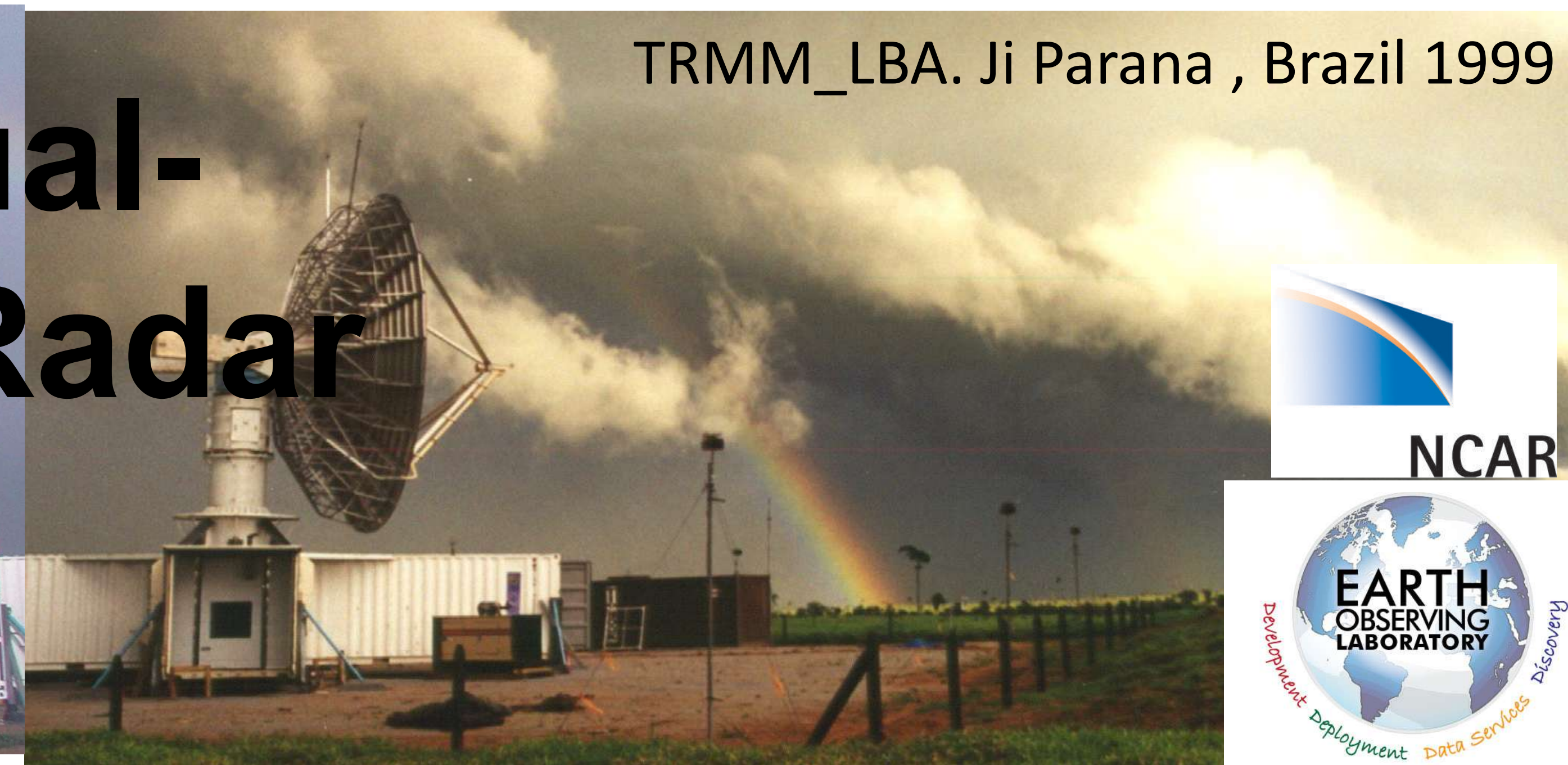


# NCAR's S-Pol: S-band Dual-Polarization Transportable Radar



Marshall Field Site

S-Pol ships in 7 sea containers anywhere in the world



## ✓ Self-contained Design

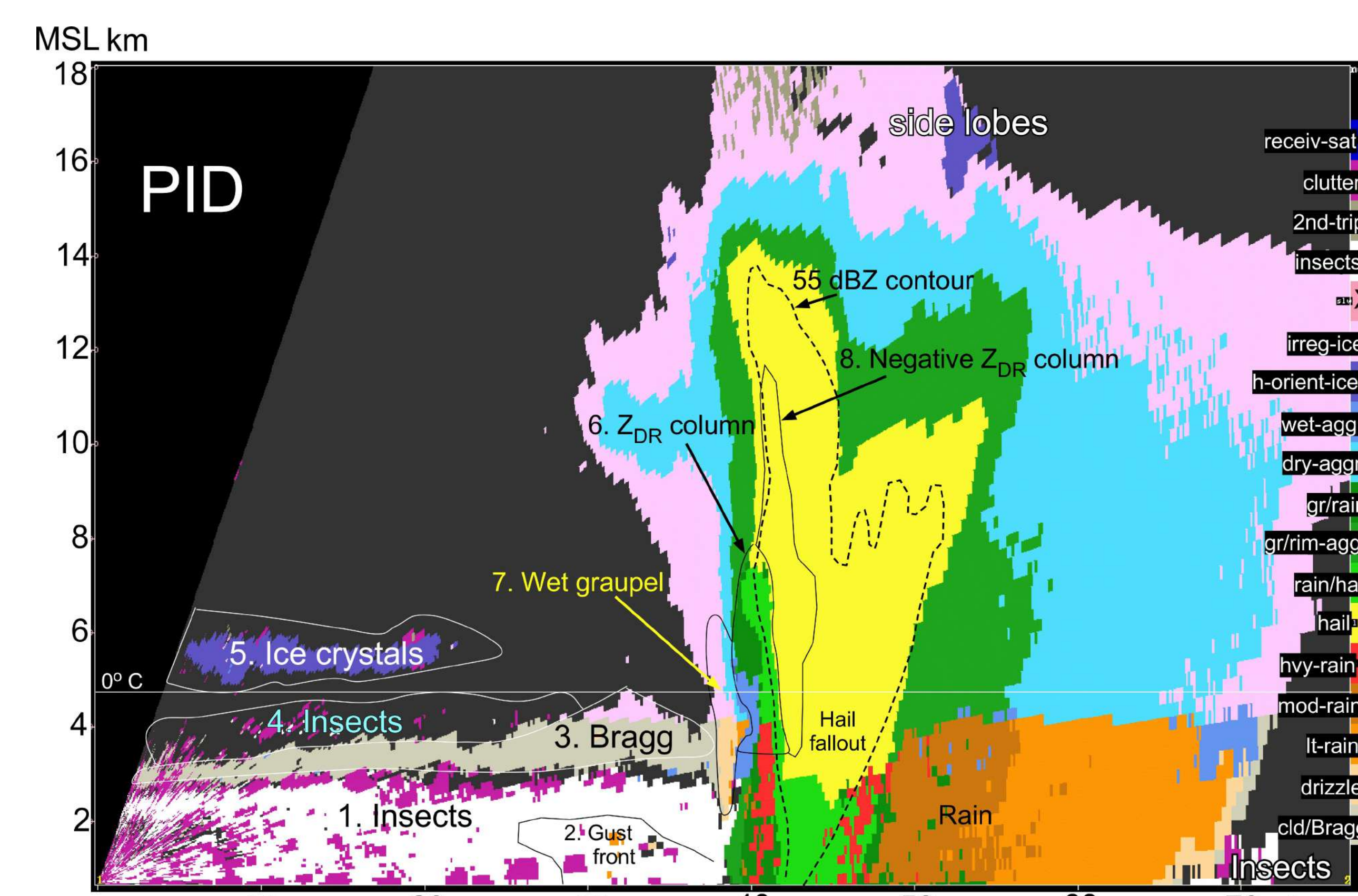
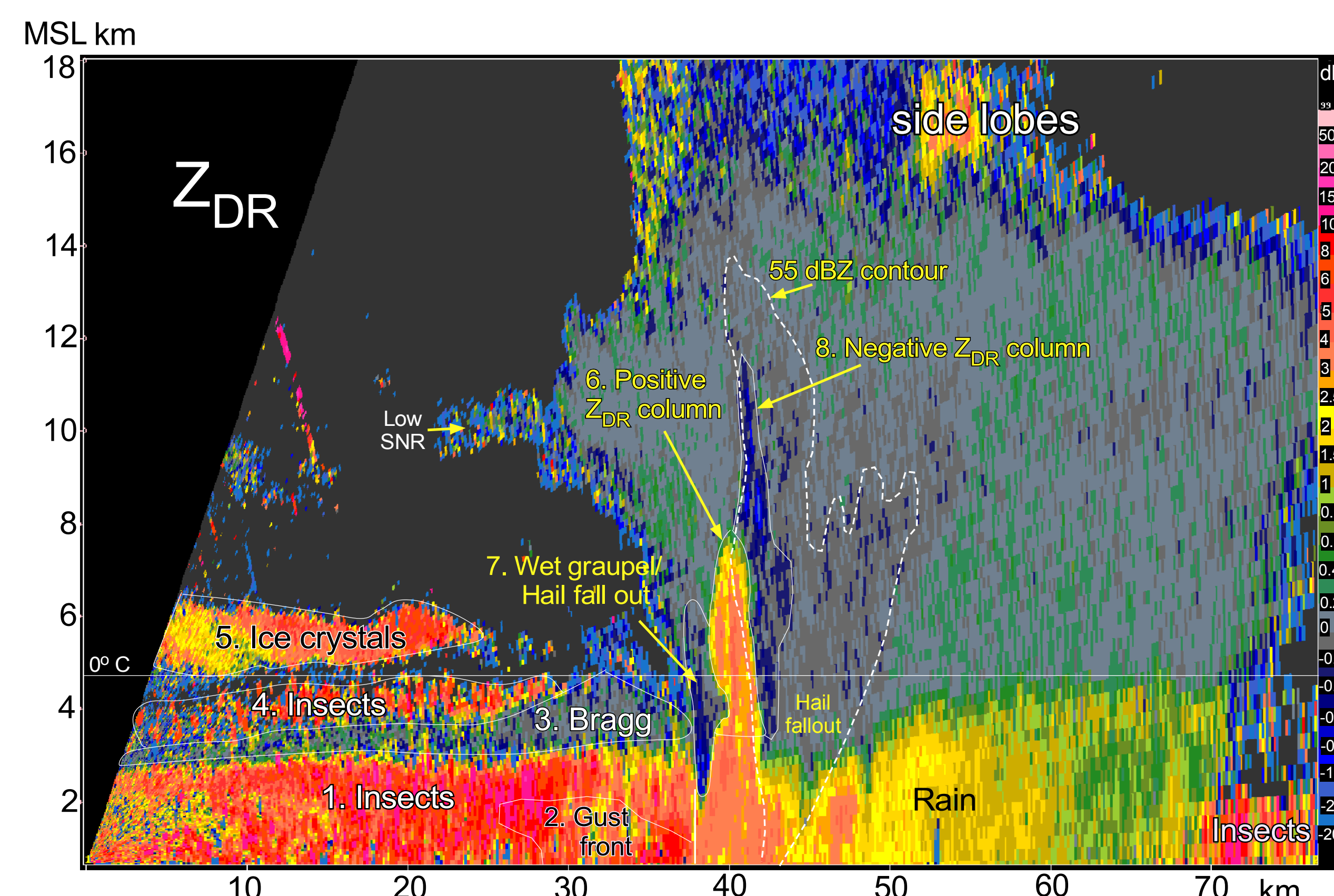
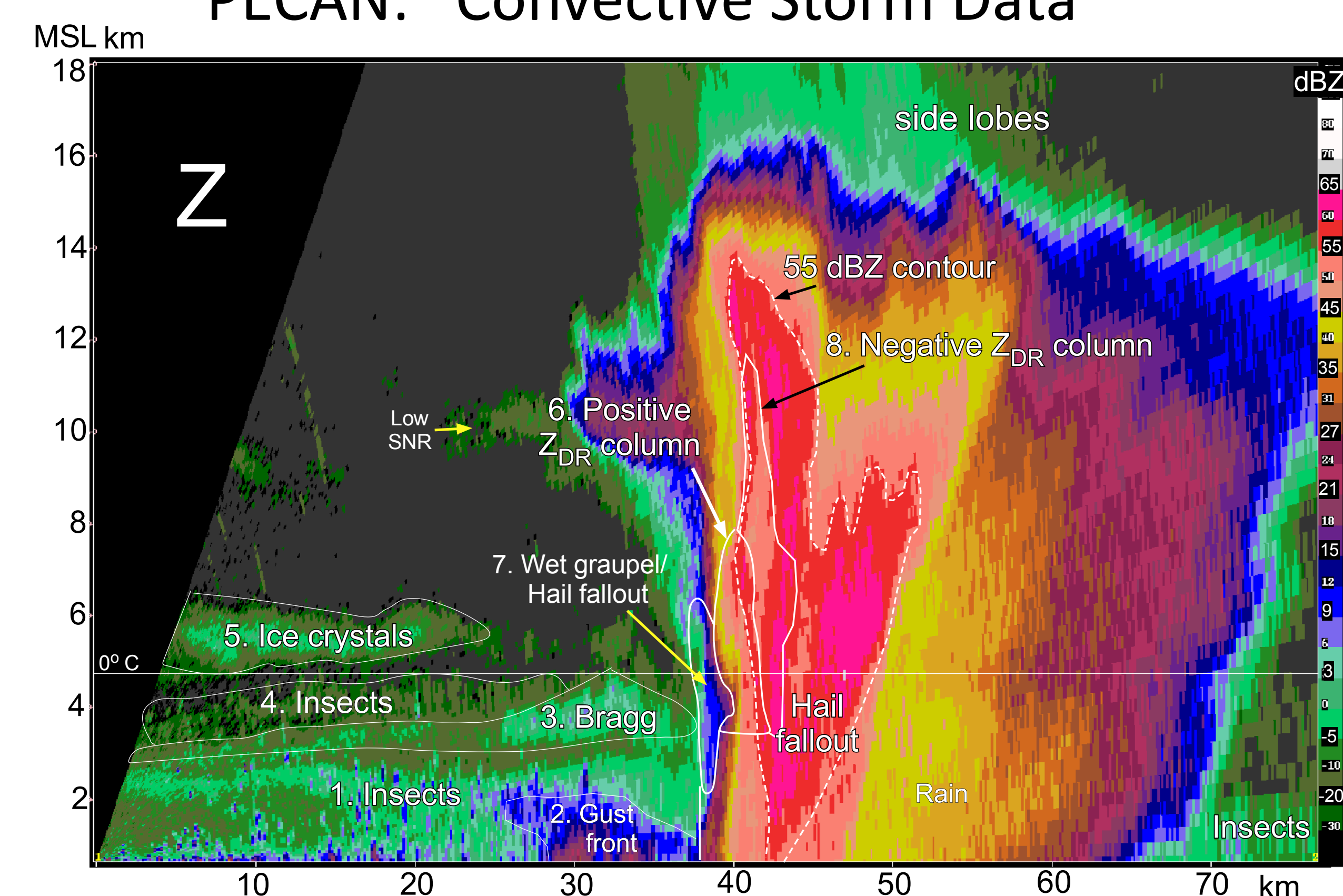
- Simplifies transport
- Minimizes site requirements
- No concrete pad
- Generator power

BAMS 2018 article

## Features/Advantages of S-Pol

1. Scan strategies controlled by the scientists in real time. RHIs routine
2. Fast alternating H and V transmission that eliminates the cross coupling problems of NEXRAD which broadcast simultaneous H and V polarizations
3. 150 meter range sampling compared to 250 meters for NEXRAD
4. LDR available; Low-level humidity available via refractivity measurements
5. Co-to-cross correlation coefficient available (canted ice crystal detection which is related to charge separation)
6. No Radome. Radomes are known to bias data especially when wet.
7. Superior Zdr calibration to a tenth of a dB. (Hubbert, 2017, JTECH)
8. Superior data quality
9. EOL/LAOF support

## PECAN: Convective Storm Data



## Ice Phase Studies, 10 degree elevation

