

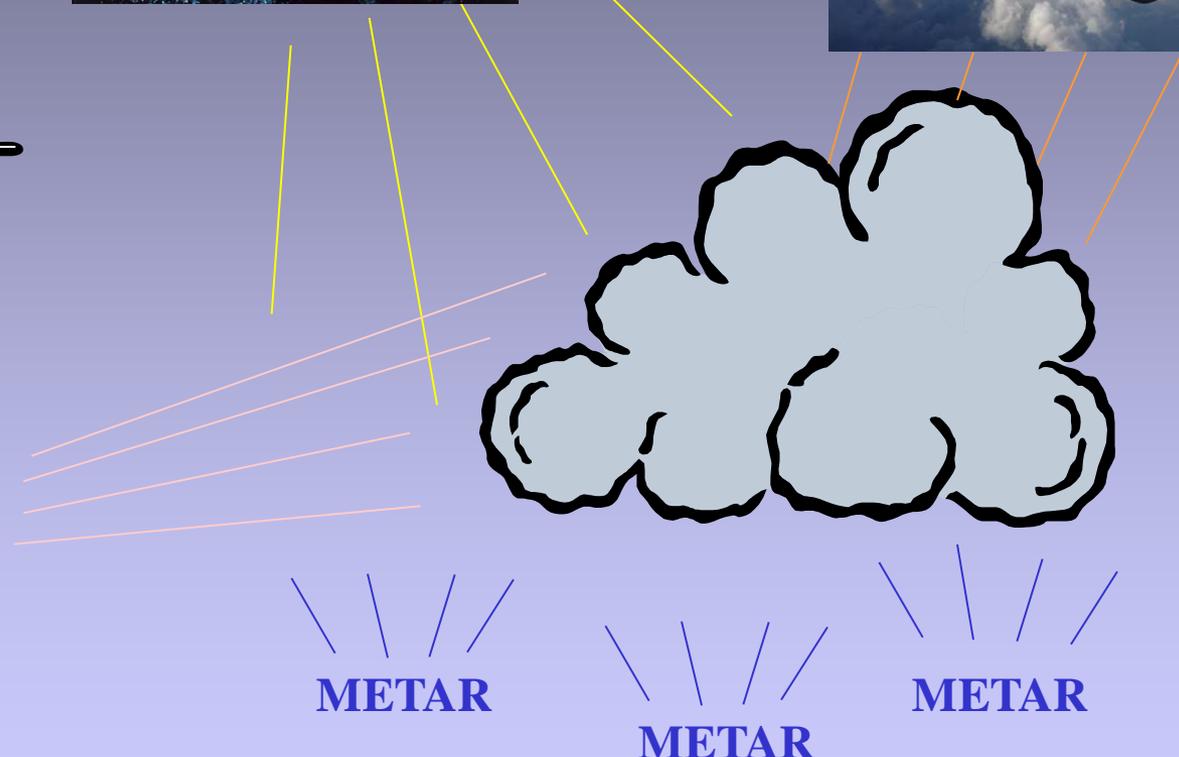
Icing NextGen Workshop

Steve Albers, John McGinley
NOAA / ESRL / GSD / FAB

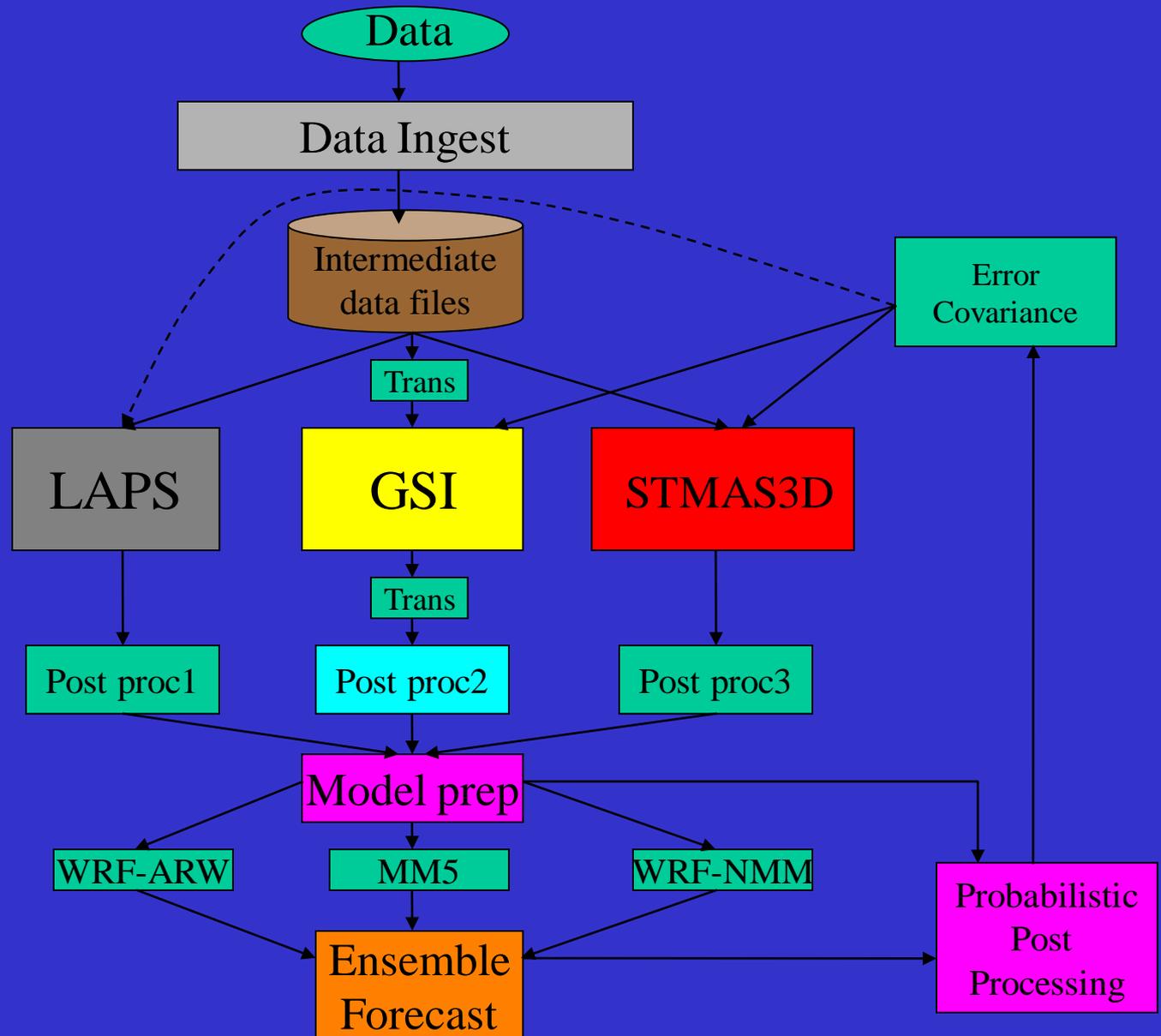
March 22-24, 2010

LAPS Cloud analysis

3-D Icing info



LAPS DA System



Some LAPS History

1989 - Wind Analysis Developed, Radar remapping of V,Z

1991 - Cloud Analysis developed and tested in the WISP experiment (with NCAR)

1992 - TLAPS installed at 40 ITWS sites using Doppler Winds

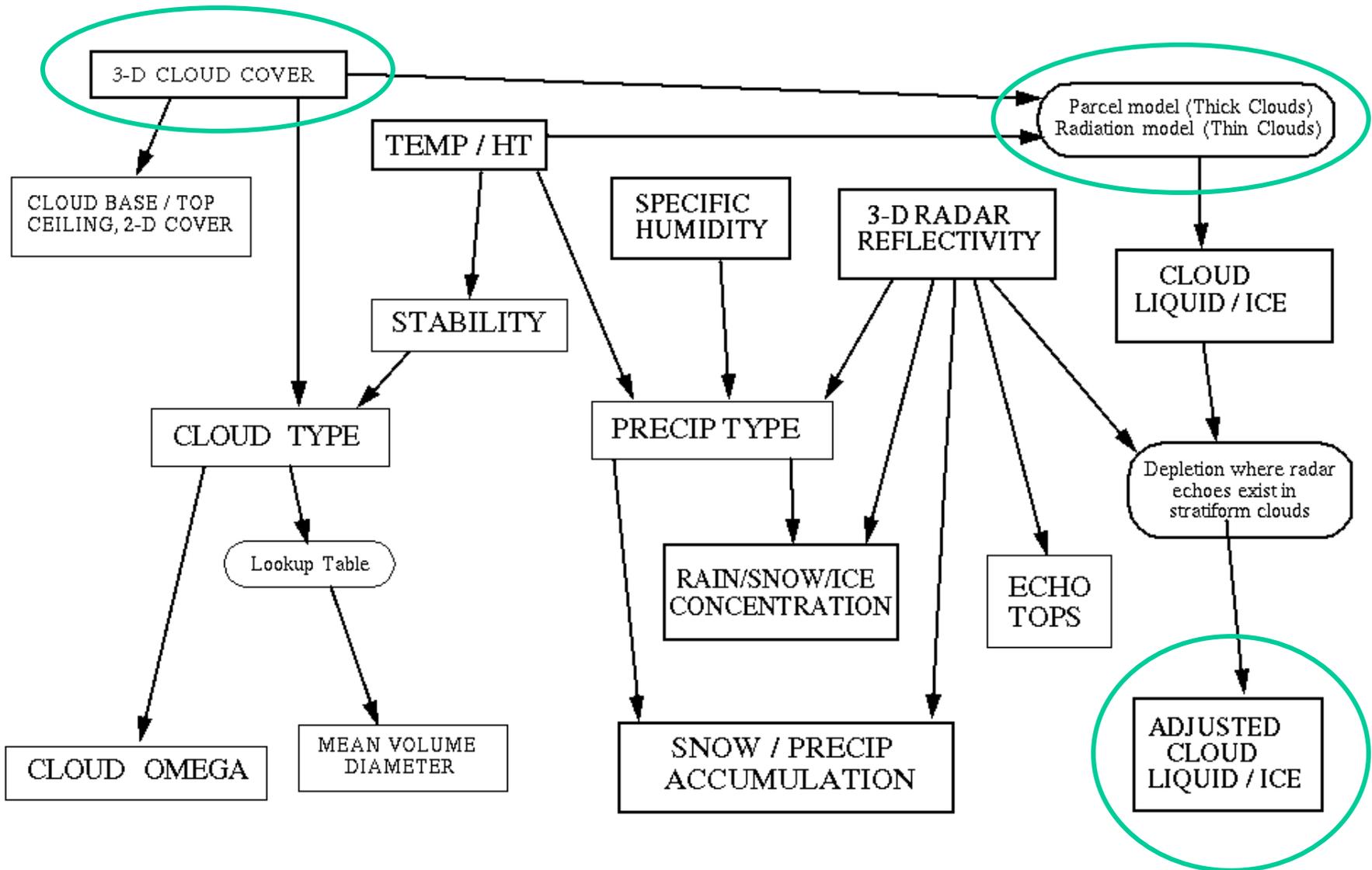
2000s – Cloud analysis elements incorporated into RUC

2006 - STMAS surface analysis developed & tested at MIT/LL for CoSPA

2009 - STMAS 3-D analysis developed

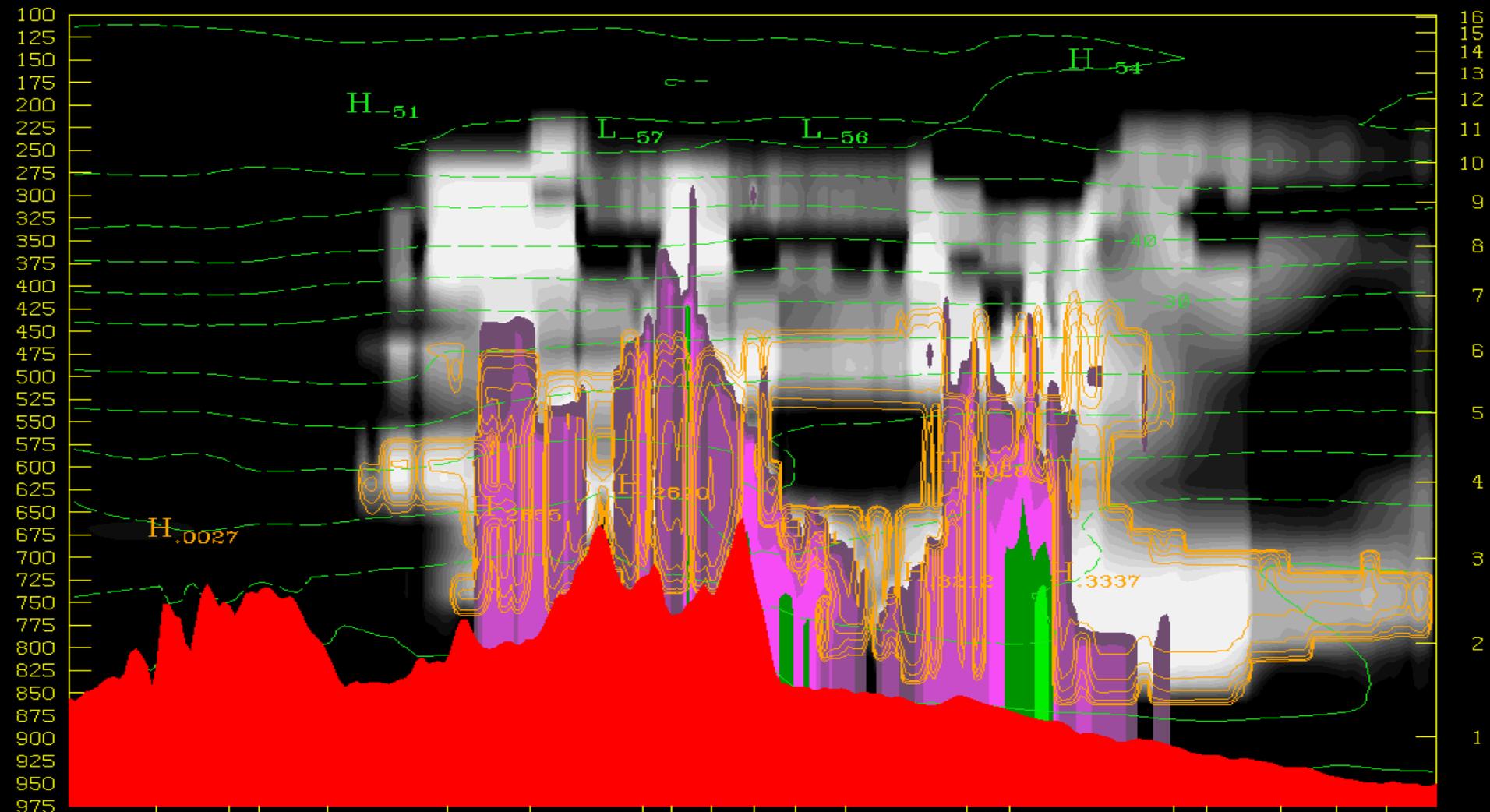
Cloud Liquid Analysis

LAPS DERIVED CLOUD / HYDROMETEOR FIELDS



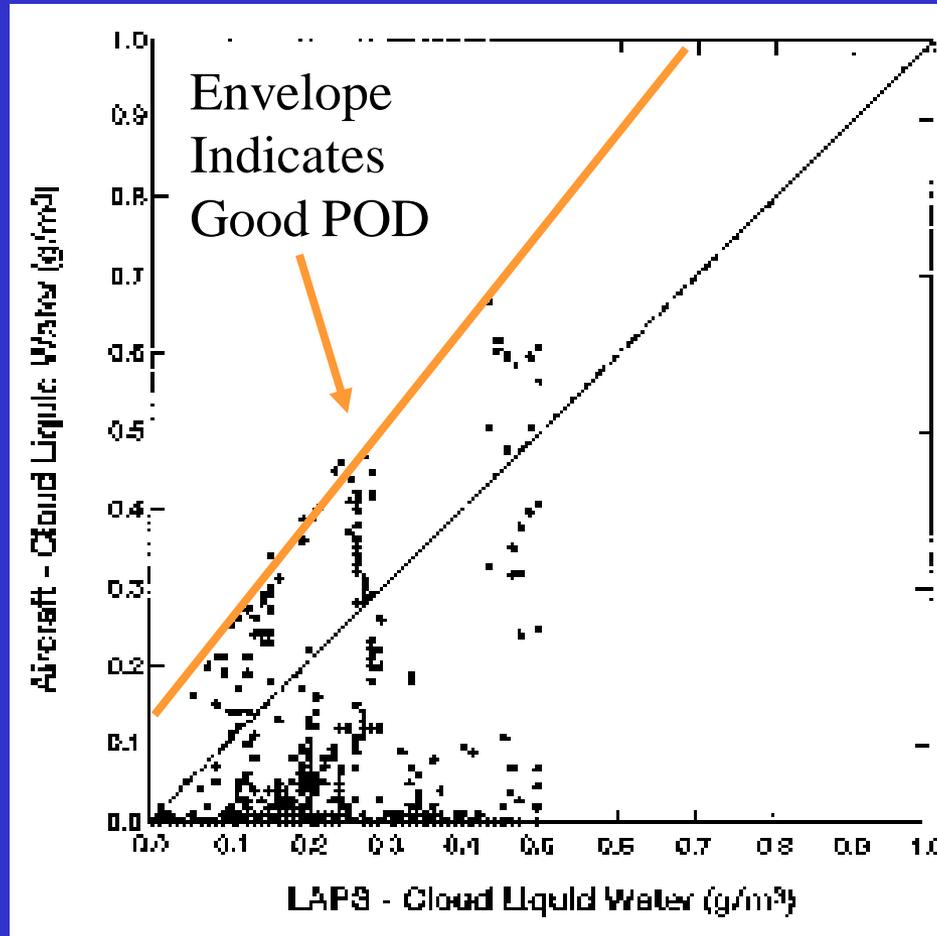
Cloud liquid / Temperature

NOAA/ESRL LAPS



39.71 18N NEP17S 65SUT140S MYT 23S K4V 6S EEO 10S HCP20S 65S 65S 64AS KNV 32S 64AS 634 27N 103A 649 3N KNIN 5N KP45 KSM 39.71
 -112.75 Gridded Cloud Cover X-Sect VT 19-Mar-2010 1100 UTC -98.25
 LAPS Reflectivity Vert X-Sect VT 19-Mar-2010 1100 UTC
 LAPS Temp Vert X-Sect, Deg C VT 19-Mar-2010 1100 UTC

Analyzed Cloud Liquid vs WISP Aircraft measurements



Scatter (FAR) due to unresolved small-scale LWC variability, otherwise good analysis of icing potential