

# High Resolution Doppler Lidar on the RV Brown: boundary layer dynamics and backscatter

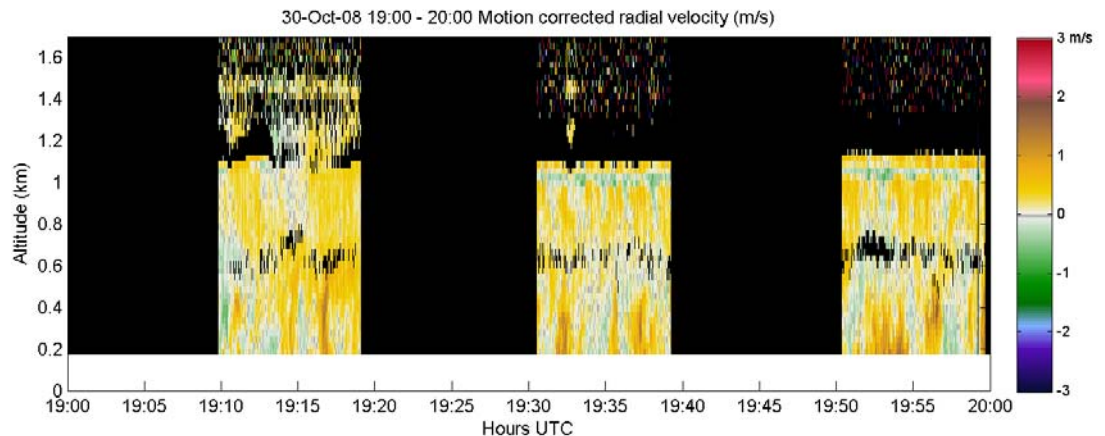
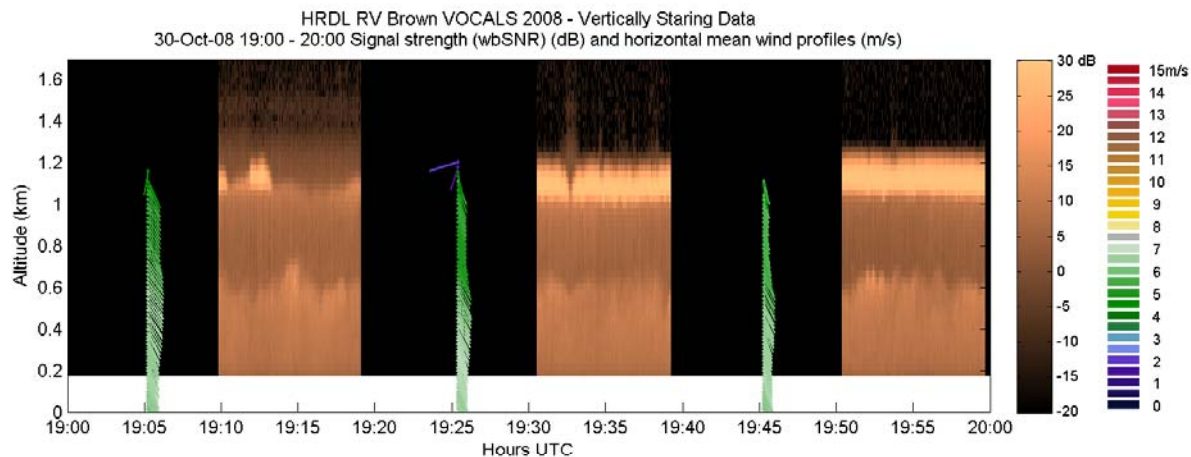
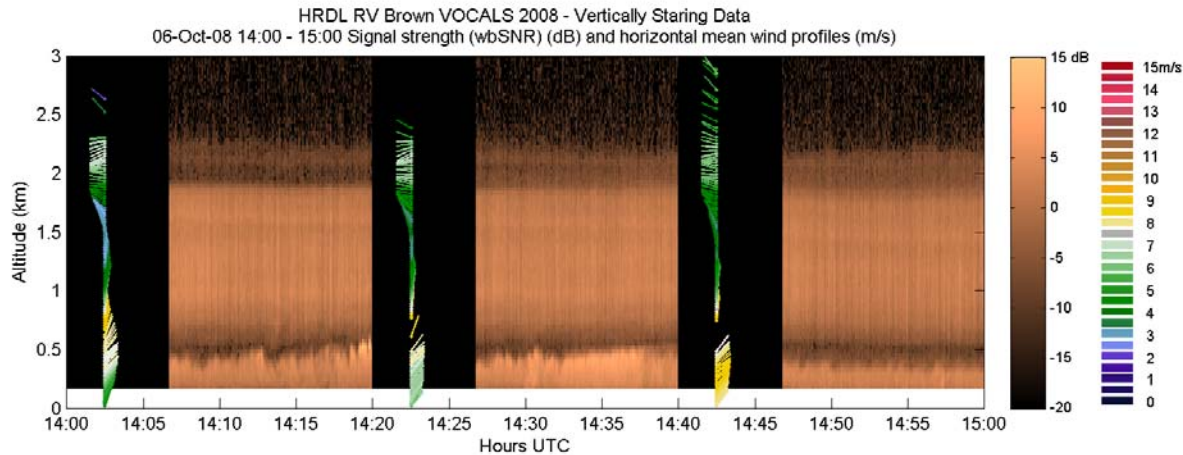


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Derek Coffman, Dave Covert, and Scott Sandberg**

**NOAA - ESRL & PMEL, CIRES-U. of Colorado & JISAO-U. of Washington  
+ crew and other scientists of the RHB VOCALS cruise**

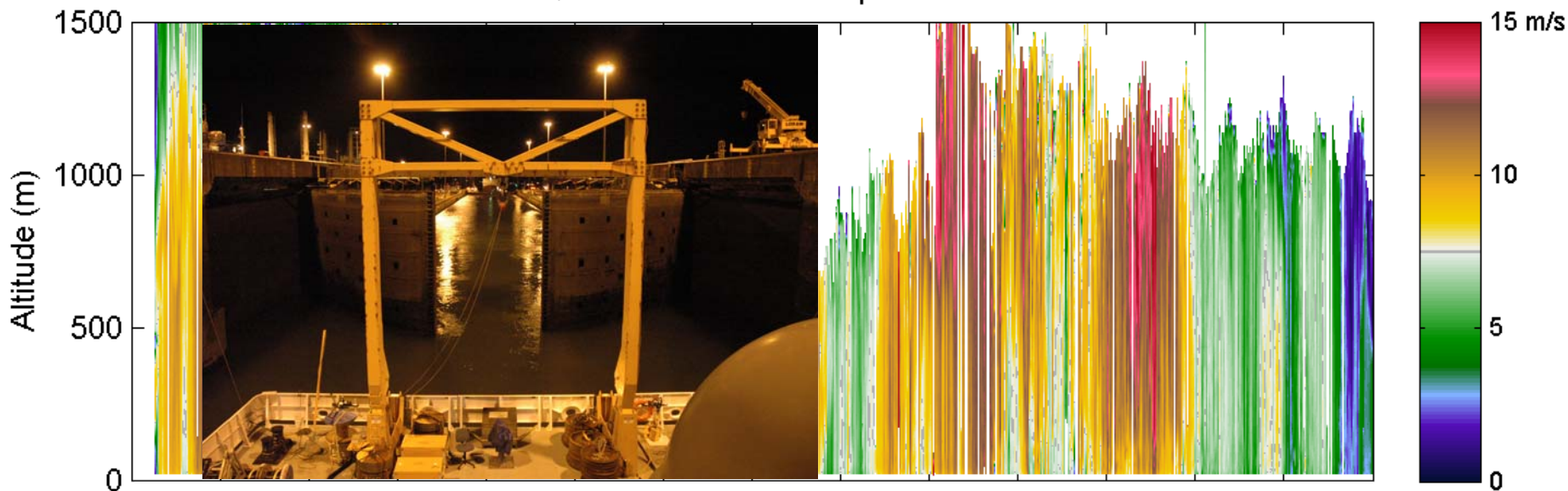
# NOAA/ESRL High Resolution Doppler Lidar (HRDL)

- Profiles of:
  - Mean wind speed and direction
  - Uncalibrated Aerosol Backscatter
  - Small scale  $\sigma_v^2$
- Mixing height
- Aerosol height
- Vertical winds
- Divergence, rolls, streaks, outflows, etc.

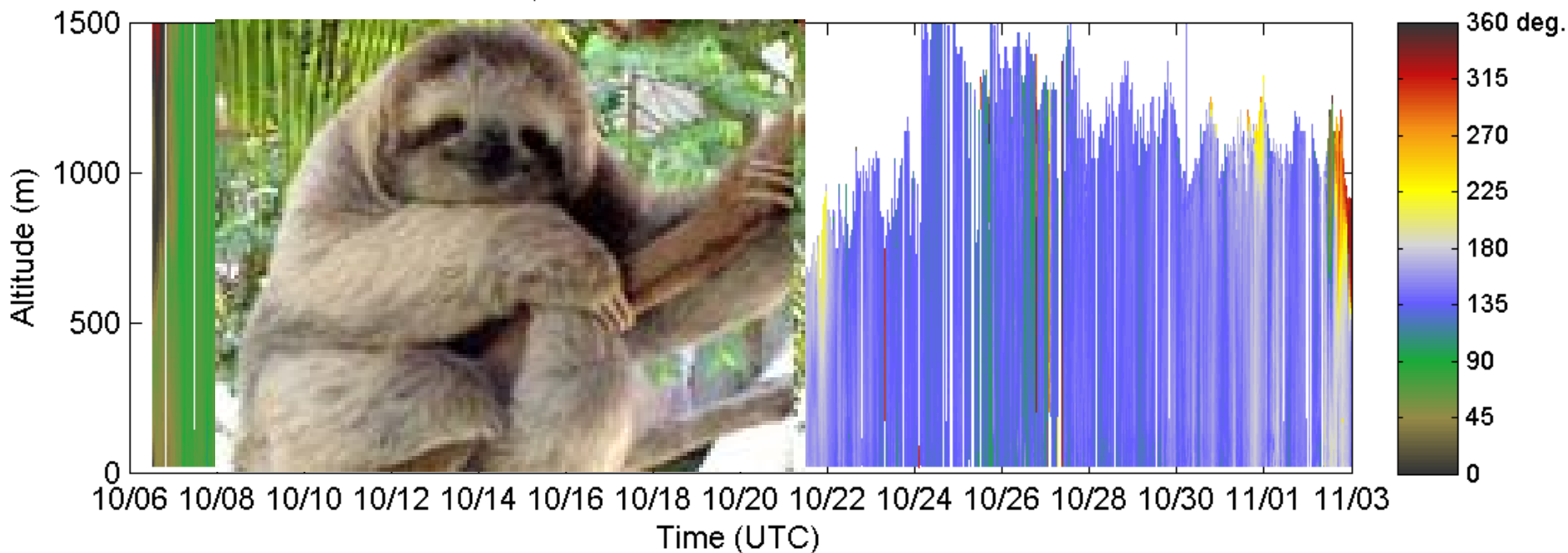




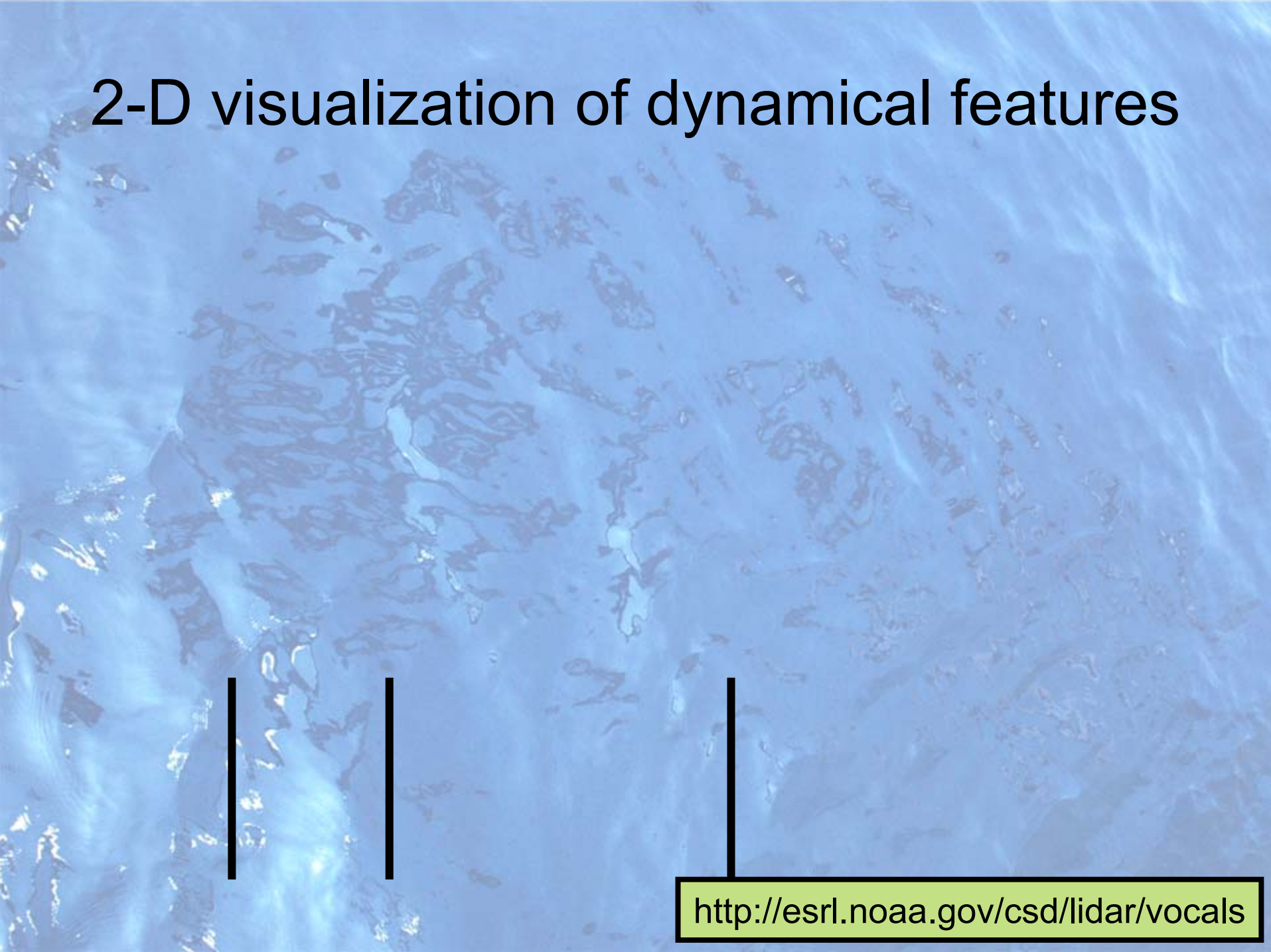
HRDL RV Brown - TexAQS 2008 Mean Wind Speed Profiles: 06-Oct to 02-Nov



HRDL RV Brown - TexAQS 2008 Mean Wind Direction Profiles: 06-Oct to 02-Nov



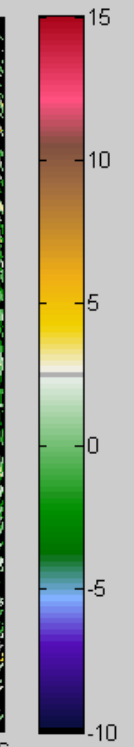
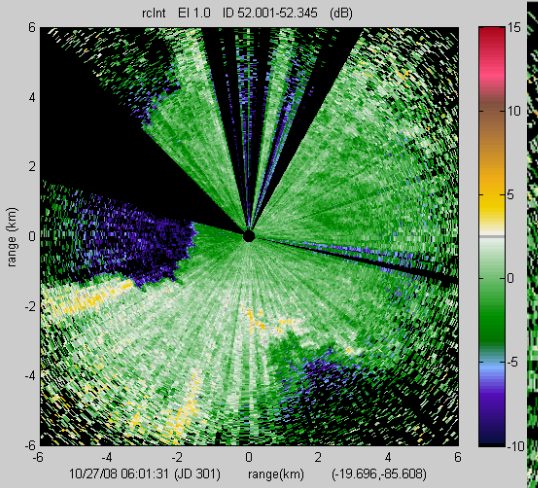
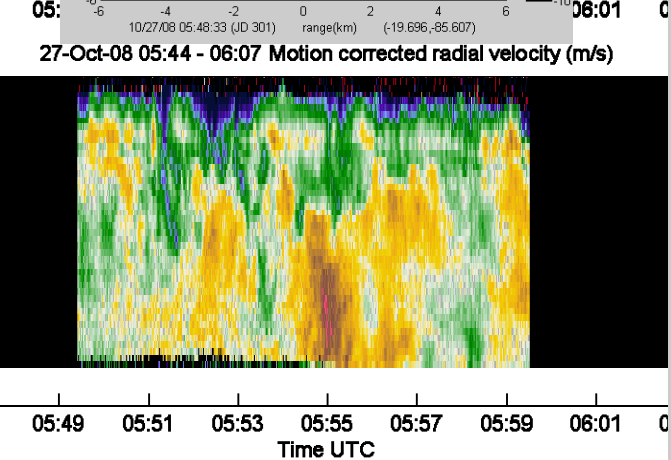
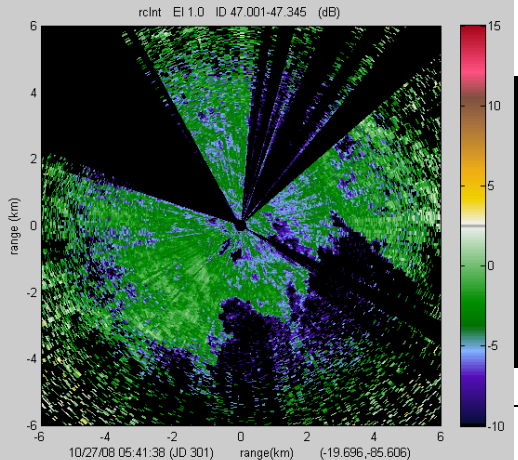
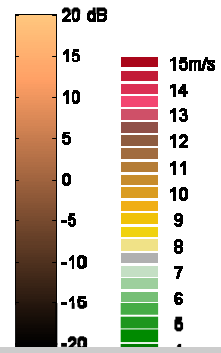
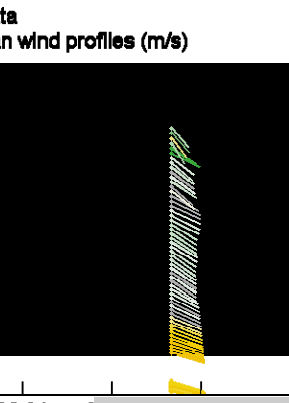
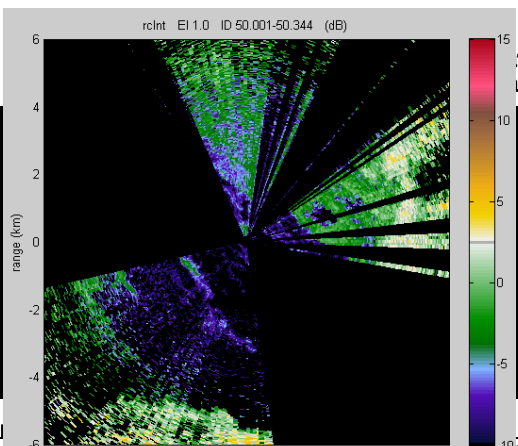
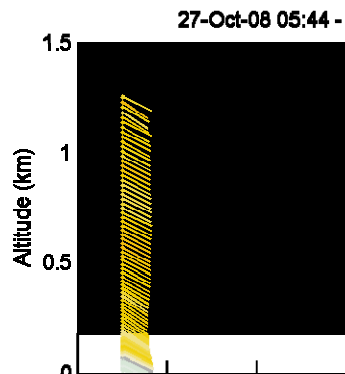
# 2-D visualization of dynamical features



<http://esrl.noaa.gov/csd/lidar/vocals>

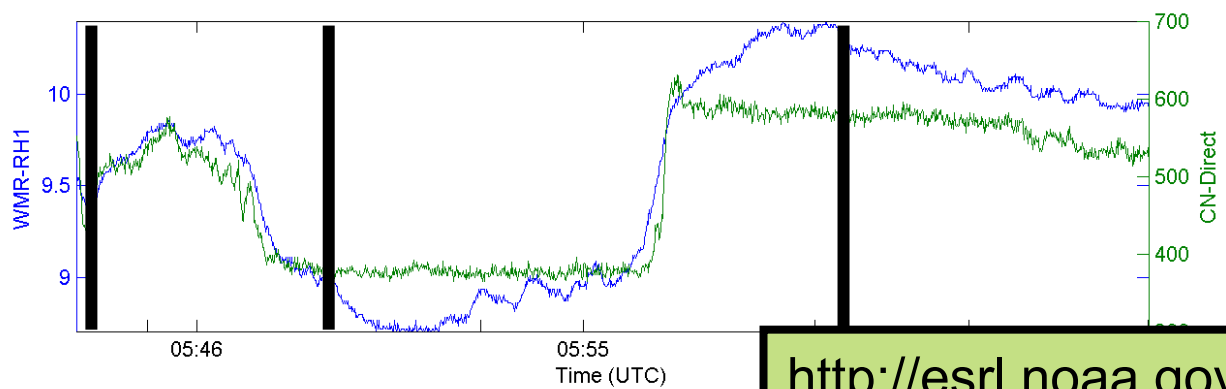
2-

es



initial day # 301 2008

Lat : -19.696 Lo



<http://esrl.noaa.gov/csd/lidar/vocals>