

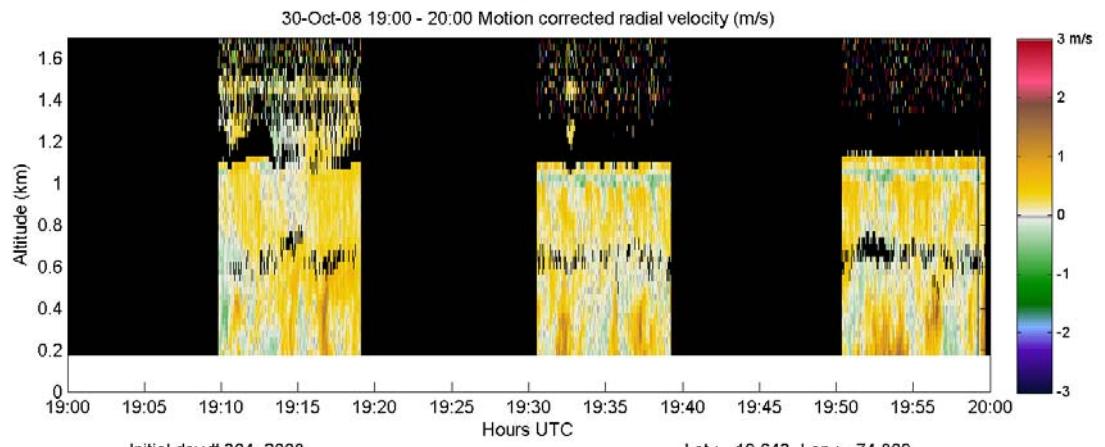
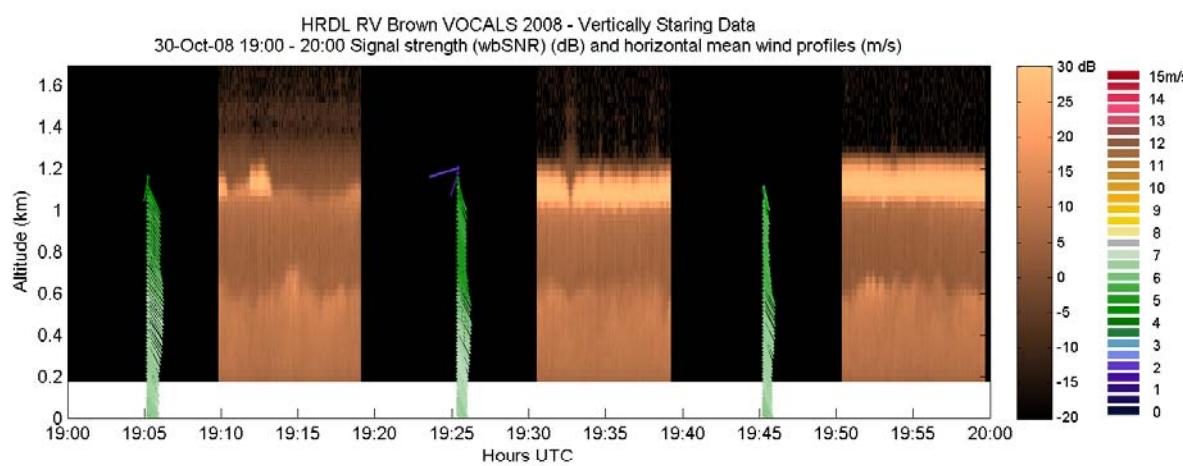
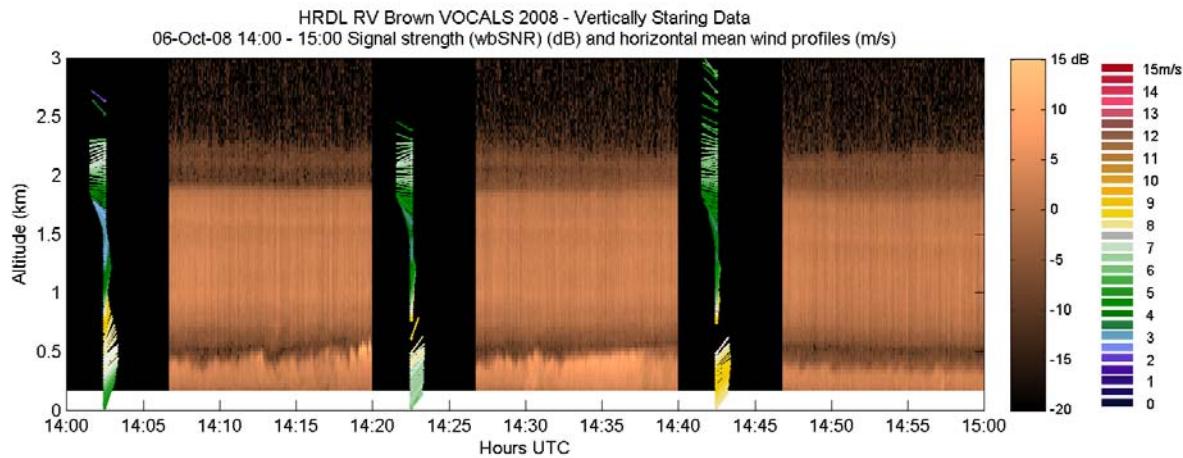
# High Resolution Doppler Lidar on the RV Brown: boundary layer dynamics and backscatter



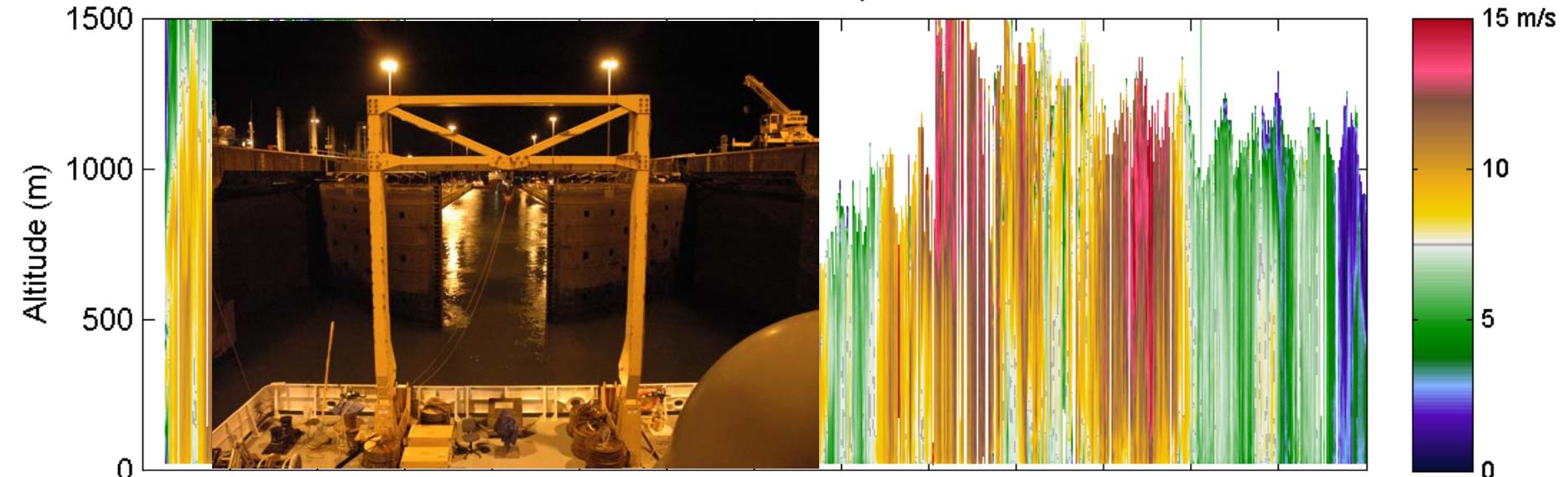
**Sara C. Tucker, Wm. Alan Brewer, Ann Weickmann,  
Derek Coffman, Dave Covert, and Scott Sandberg**  
**NOAA - ESRL & PMEL, CIRES-U. of Colorado & JISAO-U. of Washington**  
**+ crew and other scientists of the RHB VOCALS cruise**

# NOAA/ESRL High Resolution Doppler Lidar (HRDL)

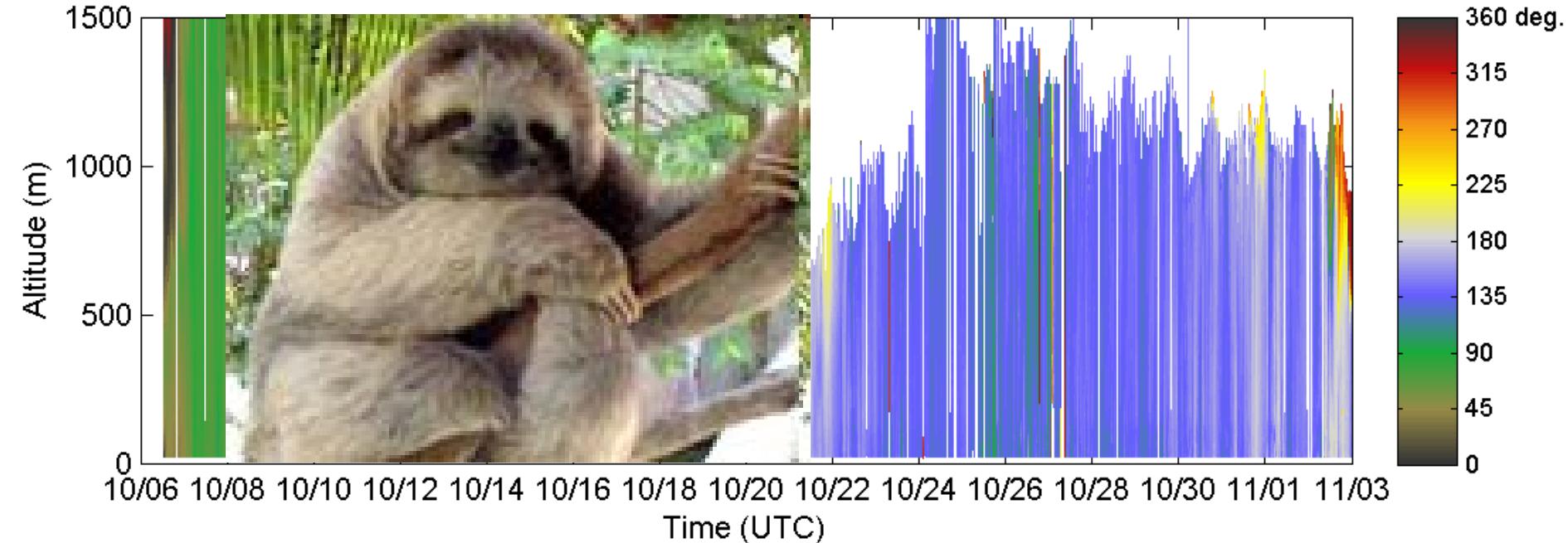
- Profiles of:
  - Mean wind speed and direction
  - Uncalibrated Aerosol Backscatter
  - Small scale  $\sigma_v^2$
- Mixing height
- Aerosol height
- Vertical winds
- Divergence, rolls, streaks, outflows, etc.



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-

