Synthesis of session 1A
Regional scale perspective

- R. Garreaud: MBL Variability
- T. Toniazzo: Synoptic scale forcing
- R. George: Subseasonal variability over the SEP
- M. Wyant: PreVOCA & VOCA
- H. Pan: NCEP GFS Modeling
- S. Wang: COAMPS real time evaluation
- L. O’Neill: Climo. of cloud LW diurnal cycle
PreVOCA: Mean Boundary Layer Depth Along 20°S
Observed and Simulated (WRF) MBL height at 20°S during

Great!  Good  Bad
Low Cloud Amount & MBL Height

Model LCA vs H: \( c = -0.76 \)

COES LCA vs H: \( c = -0.56 \)
Coastal MBL

- Simulated height about half of observed value (~1 km)
- Very constant in time and uniform along a wide range of latitudes
- Significant diurnal cycle of winds above it
- What is wrong in our models? Perhaps lack of Atacama Plateau
Time series at 20°S, 80°W
• As seen previously, October is much more variable than November.

• Subsidence and Residual are on average the largest, opposing terms

• Advection and dH/dt are more variable and appear to be related.