Overview

• 2010 Concordiasi campaign provided atmospheric data across Antarctica during spring transition months
• The purpose was to improve model performance with increased data
• 19 balloons: 13 with dropsondes, 2 with GPS RO equipment
• We analyze the GPS RO carrier phase data, calculate refractivity profiles, and compare to nearby dropsondes and model profiles

Results

• Modifications to the analysis procedure were developed to adapt to the low sampling rate and limited hardware capabilities (clock) of the stratospheric balloon platform.
• Refractivity profiles closely match nearby dropsondes

Future

• Analyze a larger data set of refractivity profiles for assimilation into the WRF model.
• Assess changes in cyclone intensity and winds for cases near the ice edge.