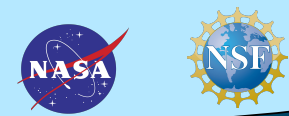


# Breaking Down the Effects of Current Feedback Coupling onto the Atmospheric Boundary Layer



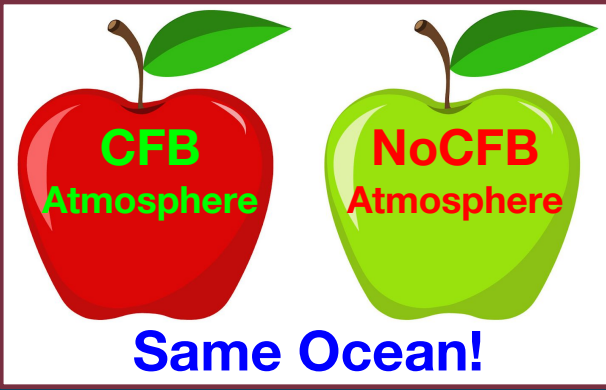
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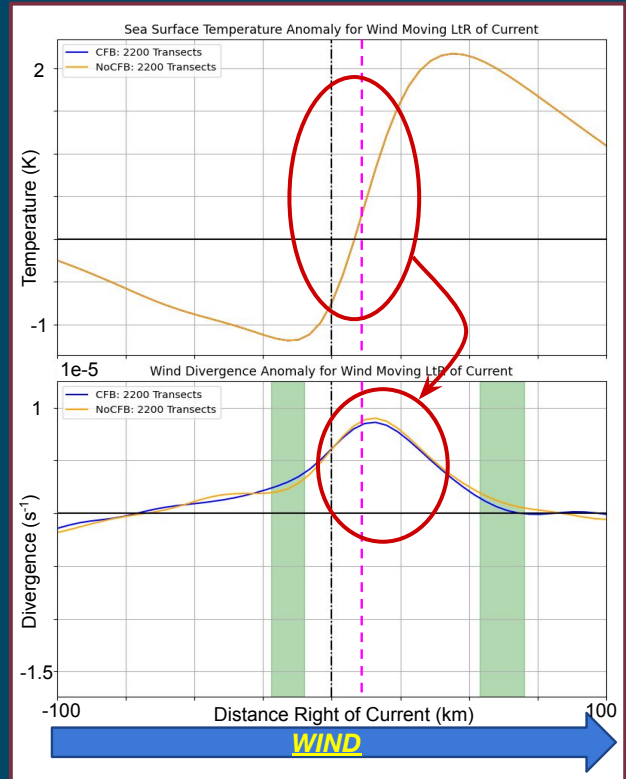
**Guiding Question**  
 What mesoscale atmospheric boundary layer responses occur due to ocean currents in quiet synoptic regimes over a western boundary current?

★ Novel method of modeling used to ‘disentangle’ effects of current wind-stress feedback from thermal feedback

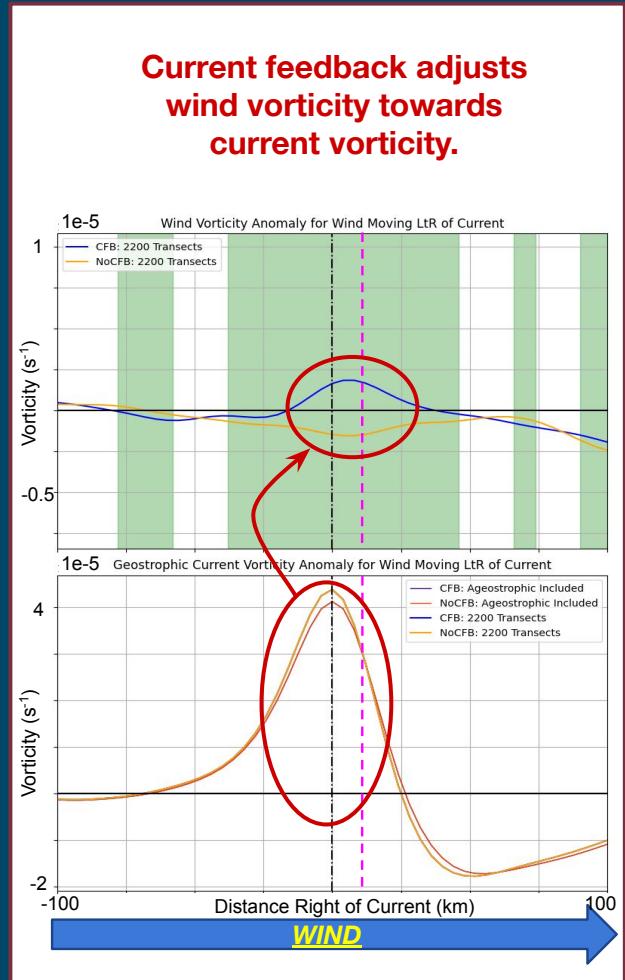
1. Fully-coupled ocean-atmosphere (ROMS-WRF) simulation
2. Re-run the atmosphere only, using saved ocean from prior simulation, but without current wind-stress feedback



More to see in my poster!  
 ↪ Wind speed & direction dependence of responses



**Thermal feedback produces wind divergence with down-wind SST gradient.**



**Current feedback adjusts wind vorticity towards current vorticity.**