

Meteorology 3110

# Thermal Wind

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- What does the thermal wind allow you to do?
- Determine layer mean advection from one sounding!
- If you have  $V_{go}$ , and the mean horizontal temperature gradient of a layer, you can find the geostrophic wind at any other layer.

# Key Points

- Thermal wind blows parallel to the isotherms (or thickness contours) with warm air to the right in the Northern Hemisphere.
- Geostrophic wind backs with height → CAA
- Geostrophic wind veers with height → WAA

# Key Points #2

- What vertical motion does CAA imply?
- What vertical motion does WAA imply?
- What happens to the thickness in regions where there is CAA?
- What happens to the thickness in regions where there is WAA?