Analyse the turning of the wind with altitude:

* Compare wind profile with geostrophic wind, calculated from pressure gradients based on observations at neighbouring weather stations.
* Plot the angular deviation of the surface wind relative to the geostrophic wind as a function of the geostrophic wind speed?

Analyse the turning of the wind as a function of stability:

* Use dtheta/dz as a measure of the stability, taken either to be at the surface, or the average over the 200 m.
* Plot the angular deviation of the surface wind relative to the geostrophic wind as a function of the stability, maybe also considering the geostrophic wind speed

Extra:

* Analyse not only the turning of the wind, but also the change in wind speed.
* Analyse the BL wind shear (combi of changes in wind speed and direction) as a function of stability and geostrophic wind speed. This might give some interesting insight in the ability of thunderstorms to benefit from increased wind shear in the BL after sunset.

Other interesting features:

* Look at occurrence of inertial oscillations
* Look at occurrence of low-level jets