#9: Evaluation of Performance in Cycled Data Assimilation (DA)

- Both models interfaced to operational 4D ensemble-variational DA system

- Due to time and HPC constraints, tests run at reduced resolution (~50 km)

- 80 member ensemble, cycle started at 2015090100 (***In progress, results are preliminary***)

- Differences with operational configuration:

  – No high-resolution control analysis

  – No static background error component (full ensemble used to maximize feedback between dycore and DA)

  – No digital filter or tangent-linear balance constraint

  – No stochastic physics in ensemble (multiplicative inflation increased to compensate)

- Baseline GFS experiment at T382 resolution for reference

- Assessing:

  – Work required to replace spectral dycore in GDAS

  – Whether issues arise that may not be evident when models initialized from 'foreign' analysis

Vector Wind (left) and Temp (right) O-F (2015090500-2015092618)