Thursday, January 26th, 2017 presentation given at National Hurricane Center

**An evaluation of the HFIP Corrected Consensus Approach (HCCA) for tropical cyclone track and intensity forecasts"**

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Abstract:

Prior to the 2015 hurricane season, the Hurricane Forecast Improvement Project (HFIP) Corrected Consensus Approach (HCCA) was implemented at the National Hurricane Center (NHC) as an “in-house” guidance product for tropical cyclone track and intensity forecasts. Although HCCA shares similarities with the Florida State SuperEnsemble (FSSE) in that it assigns unequal weighting coefficients to a set of input model forecasts based on forecasts from a training phase, the selection of the input models and the real-time configuration of HCCA were specifically tailored to the operational needs of NHC.

Compared to the HCCA input models, the equally weighted consensus, and the NHC official forecast, the HCCA track and intensity forecasts for 2015-2016 were competitive. In particular, HCCA was the most skillful for 2015 eastern North Pacific intensity forecasts from 24 h – 72 h. Although HCCA performs well in terms of season average track and intensity error, its performance relative to the input models and the equally weighted consensus can fluctuate from forecast to forecast. Several operational forecasts from 2015-2016 that proved challenging for HCCA will be discussed in greater detail, along with ideas for improving the technique.