

Semi-annual Report for JHT Project entitled:
**Prediction of Consensus TC Track Forecast Error and
Correctors to Improve Consensus TC Track Forecasts**
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Background

Funded by my previous JHT Project, a new consensus forecast model (CONU) and a Predicted Consensus Error (PCE) product for the Atlantic and eastern North Pacific basins were first installed on the ATCF for use by the NHC forecasters during the 2004 season. A PCE product for the western North Pacific and Southern Hemisphere basins has also been installed on the ATCF for use by the JTWC forecasters.

Summary of Work

Using the PCE product's pool of predictors for the 2001-2005 seasons, revised regression models to be used for the 2006 season for all combinations of forecast length and basin were derived. The new regression models for 2006 were installed on the ATCF's at NHC and JTWC for CONU and GUNA for the Atlantic and eastern North Pacific and for CONW for the western North Pacific and Southern Hemisphere.

Regression models and bias correctors were derived to predict CONU and GUNA east-west and north-south forecast error for all forecast lengths in the Atlantic basin using the PCE product's pool of predictors for the 2001-2005 seasons and experimental corrected consensus forecast models (CCON and CGUN) were installed on the ATCF for use by the NHC forecasters for the 2006 Atlantic season.

A manuscript entitled "Prediction of Consensus Tropical Cyclone Track Forecast Error" has been accepted for publication in **Monthly Weather Review**.

Remaining Work

Determine and evaluate corrected consensus forecast models for the eastern and western North Pacific and the Southern Hemisphere basins. Combine the research software developed to derive the regression models for the PCE product and the corrected consensus models into a software system that can be run at the end of each season on the ATCF by NHC and JTWC personnel to derive the regression models to be used for the next season. Test the software system on past seasons to ensure its robustness for future use by the centers. Install the software system at NHC and JTWC and provide any training necessary.

Present progress of project at the Interdepartmental Hurricane Conference.

Prepare documentation of the software and prepare final report for the project.