

Mid-year Report for Year 1 of Proposal Entitled  
Web-ATCF, User Requirements, and Intensity Consensus  
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December 3, 2007

The following is a list of accomplishments broken into the three sub-tasks. Also included is an estimate (in percent) of the work completed on each of the sub-tasks.

- 1) Implement a web version of ATCF (20% complete). The web-ATCF has been used for demonstration and in the ATCF Working Level Meeting in Monterey (November 4-6<sup>th</sup>, 2007). Capability is being added to the thin client s/w to allow a variety of web proxy, web server and ATCF server configurations. The server and client are currently being reconfigured to use https protocol over port 443. Modifications to the ATCF software include a new sidebar, making navigation of the web-ATCF much easier. This sidebar should also be quite useful for the standard ATCF, and it will be part of next year's build.
  
- 2) Address NHC requirements (50% complete). Requirements addressed include:
  - a. Menu changes.
  - b. Wind radii graph modifications:
    - Don't want the wind radii plot to jump when toggling taus or radii.
    - Add menu options for scaling the graph axes.
    - Add mouse readout of radii like lat/lon readout storm display
  - c. Add mouse-over label for fixes, track, aids, and forecast track
  - d. Generate CPA from best track.
  - e. Allow off-synoptic hour best track points in best track dialogs.
  - c. Differentiate off-synoptic hour on storm display.
  - d. Add "make 12 ft seas forecast" to forecast menu forecast wind radii.
  - e. Modified "list latest forecast" so it lists the 12 ft seas radii.
  - f. Add capability to highlight a select objective aid (toggle).
  - g. ATCF trigger to run wind probabilities for specials.
  - h. Retain 12-foot seas from special advisories for use in next advisory.
  - i. Prevent setting of advisory wind intensity from modifying synoptic time (best track) wind intensity.
  - j. Modify distance tool to display as you roam over the map
  - k. Add Saffir-Simpson color scheme legend (cat 1, cat2...).
  - l. Allow edit of bogus/compute parameters in edit best track.
  - m. Label Objective best track position.
  - n. Capability to display certain segments or ranges of the track.
  - o. Add a zoom out function rather than toggle back and forth in "unzoom".
  - p. Add capability to handle multiple techlists for viewing purposes,
  - q. Remove "do you want to save" alert from text edit window.
  - r. GPCE upate for 2007 season.

- s. Add corrected consensus (CCON, CGUN) for 2007 season.
  - t. Add GHMI to generalized interpolator.
  - u. Suppress wind radii pop-up error dialogs beyond 72h.
  - v. Add "Run Your Own Consensus" (RYOC) dialog.
  - w. Show list of compute parameters for previous 24 hours.
  - x. Trigger ATCF windspeed probabilities push for prelim graphic.
  - y. Probability data update for 2007, optimized code.
- 3) Evaluate and improve intensity consensus (30% complete). Intensity consensus aids were rerun for 2003-2006. In this large sample, it appears that a two-model consensus (DSHP and GFDL) and a three-model consensus (DSHP, GFDL and GFDN) provide a reasonable baseline for evaluation of other more complex intensity consensus methods. The two-model consensus also may provide useful guidance to the operational forecasters. Evaluation of consensus aids that include LGEM (Logistic Regression Model), GHMI (post-processing of GFDL output) and HWRF will continue. A longer record of performance would be beneficial to study these new aids and their impact on consensus.