

Summary of the Spring Programs Experiments for 2007
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February 21, 2007

1. Storm Prediction Center/CAPS/OU/NOAA/NCAR/NCEP Forecasts

All 33 hour forecasts start at 21Z (Monday through Friday) and will run on the PSC Bigben computer. The forecast experiment will run from April 16th to June 8th.

 - a. 10-4km 2/3 Continental US 33 hour forecasts (ensembles using the NOAA SREF forecasts as initial and lateral boundary conditions)
 - i. Data will be post-processed on Bigben and sent back to the SPC for use in forecasts and subjective forecaster evaluations
 - ii. Data will be further analyzed by the CSTAR project team over the next 3 years
 - iii. OU will manage the 10-4km ensembles via ARPSCNTL
 - iv. SIEGE/The Broker will be developed to include the 10 member ensembles prior to the end of the experiment
 - b. 1-2km 2/3 Continental US 33 hour forecast
 - i. 2km data will be transferred back to OU in a live feed to test the Lambda Rail network. The output will be in the form of a radar loop updated as the data is received.
2. LEAD triggered regional 2km forecasts. LEAD will perform two additional forecasts, one using the broker and the other using the Portal
 - a. 6 hour 2km regional domain forecast spawned by an automated triggering service. The tornado watch triggered forecast will send a message to the NCSA broker service to start a forecast over the centroid of the watch area. Data will be post-processed using the wrf-post and arpsplt software. The forecasts will run on NCSA resources. The experiment will follow that of the SPC forecasts in (1).
 - b. 6 hour 2km regional domain forecast spawned by a SPC forecaster during the day shift at the SPC. The forecast will run on NCSA resources and follow the same time period described in (1).
3. LEAD forecaster generated forecasts in support of the WxChallenge forecast contest
 - a. 10 sites will each submit a minimum of one WRF forecasts in support of the local WXChallenge forecast effort. The run can be initialized from 12Z (42 hr fcst) to 18Z (26 hr fcst) Monday – Friday from either NAM or ADAS initial condition data. The forecasts can be nested, using two domains, a 20km outer and a 5 km inner grid focused on the current forecast city. The forecasts will be run on IU and NCSA resources, as available/needed. The forecasts will be initiated using the LEAD Portal by users at the 10 sites. Data will be returned for use in the contest (via

IDV or ARPSPLT/ARPSVERIF). In addition, each site must provide NWP forecast guidance to Brad Illston at the WXChallenge for use in the model verification component of the contest. The experiment time period will begin as soon as the portal is ready for the forecasts and will run until April 26th.

4. CASA/CAPS radar data experiments. CAPS will prepare and run 4-2km regional forecasts each day during the period April 16 to June 8th.
 - a. Use OSCER computing resources and ADAS and ARPS to generate 3 to 4, 6 to 9 hour forecasts at 2 km, with and without WSR88D and/or CASA radar data. The goal is to evaluate/demonstrate the value of CASA IP1 radars. The CASA runs are not officially part of the SPC Spring Experiment