Technical Implementation Notice 11-15
National Weather Service Headquarters Washington DC
1042 AM EDT Thu Apr 21 2011

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From: Tim McClung
Science Plans Branch Chief
Office of Science and Technology

Subject: North American Ensemble Forecast System Modification:
Effective May 24, 2011

Effective May 24, 2011, beginning with the 1200 Coordinated
Universal Time (UTC) run, the National Centers for Environmental
Prediction (NCEP) will make a modification to the datasets used
in the North American Ensemble Forecast System (NAEFS)
calculations. The NAEFS output is derived by combining the NCEP
Global Ensemble Forecast System (GEFS) and the Canadian
Meteorological Center’s (CMC) GEFS. At this time, NCEP receives
raw GEFS output from CMC and bias-corrects the dataset locally
before use in NAEFS calculations. With this implementation,
NCEP will receive bias-corrected CMC GEFS data directly from
CMC, and will no longer compute the bias corrections at NCEP.

This will result in a slight difference in the CMC data used in
NAEFS. Both modeling centers use the same bias-correction
algorithm but minor differences arise due to two factors.
First, NCEP and CMC run their bias correction algorithms on
slightly different model grids. Second, NCEP computed the CMC
bias corrections using data up to the previous day, while CMC
calculates the bias correction using data that includes the
current day’s values. Tests have shown the differences in the
CMC bias-corrected dataset and the NCEP version of CMC bias-
corrected data to be minor.

There will be no changes in the content of NAEFS products with
this implementation.
NCEP encourages all users to ensure their decoders are flexible and are able to adequately handle changes in content order, changes in the scaling factor component within the product definition section (PDS) of the gridded binary (GRIB) files, and also any volume changes which may be forthcoming. These elements may change with future NCEP model implementations. NCEP will make every attempt to alert users to these changes prior to any implementations.

For questions regarding these changes, please contact:

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