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Technical Implementation Notice 10-50 Amended
National Weather Service Headquarters Washington DC
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From: Timothy McClung
 Chief, Science Plans Branch
 Office of Science and Technology

Subject: Amended: Changes to the North American Ensemble Forecasting
System (NAEFS): Effective March 1, 2011

Amended to reschedule this implementation for March 1, 2011. Also amended
to remove the inclusion of the global ensemble system run by the Fleet
Numerical Meteorology and Oceanography Center in the NAEFS system.

Effective Tuesday, March 1, 2011, beginning with the 1200 Coordinated
Universal Time (UTC) run, the National Centers for Environmental
Prediction (NCEP) will make modifications to the North American Ensemble
Forecasting System (NAEFS). The current NAEFS output is derived by
combining the NCEP Global Ensemble Forecast System (GEFS) and the Canadian
Meteorological Center's (CMC's) GEFS.

The NAEFS output is disseminated only via the NCEP server. Products are
available for http and ftp download at the following URLs:

<http://www.ftp.ncep.noaa.gov/data/nccf/com/gens/prod/> and
<ftp://ftp.ncep.noaa.gov/pub/data/nccf/com/gens/prod/>

NCEP will be modifying the output available from the NCEP GEFS, CMC GEFS
and the NAEFS. These modifications include:

- Adding the following 13 bias-corrected elements to the NCEP GEFS and
NAEFS output for all probabilistic products:

10 hPa(mb) geopotential height
10 hPa(mb) temperature
10 hPa(mb) u component of wind
10 hPa(mb) v component of wind
50 hPa(mb) geopotential height
50 hPa(mb) temperature
50 hPa(mb) u component of wind
50 hPa(mb) v component of wind
100 hPa(mb) geopotential height
100 hPa(mb) temperature

100 hPa(mb) u component of wind
100 hPa(mb) v component of wind
850 hPa(mb) vertical velocity

The directory location of the raw CMC GEFS data will be changed. Starting on March 1, the gridded binary version 2 (GRIB2) output for the individual member and ensemble means and spreads will be online in the following directories, where YYYYMMDD is the date and CC is the model cycle:

<http://www.ftp.ncep.noaa.gov/data/nccf/com/gens/prod/cmce.YYYYMMDD/CC/pgrb2a>

and:

<ftp://ftp.ncep.noaa.gov/pub/data/nccf/com/gens/prod/cmce.YYYYMMDD/CC/pgrb2a/>

In addition, the following 28 variables will be added to the CMC output:

10 hPa(mb) geopotential height
10 hPa(mb) temperature
10 hPa(mb) relative humidity
10 hPa(mb) u component of wind
10 hPa(mb) v component of wind
50 hPa(mb) geopotential height
50 hPa(mb) temperature
50 hPa(mb) relative humidity
50 hPa(mb) u component of wind
50 hPa(mb) v component of wind
100 hPa(mb) geopotential height
100 hPa(mb) temperature
100 hPa(mb) relative humidity
100 hPa(mb) u component of wind
100 hPa(mb) v component of wind
850 hPa(mb) vertical velocity
Convective inhibition (CIN 180-0 hPa)
Latent heat net flux
Sensible heat net flux
Downward shortwave radiation flux at surface
Downward longwave radiation flux at surface
Upward shortwave radiation flux at surface
Upward longwave radiation flux at surface
Upward longwave radiation flux at top of atmosphere
Volumetric soil moisture (0-10cm)
Water equivalent of accumulated snow depth
Snow depth (surface)
Soil temperature (0-10cm down)

Data delivery timing is not expected to be impacted by the implementation. There will only be a minor increase in the data volumes of existing files due to the addition of new variables. A sample dataset for this NAEFS implementation is available at:

ftp://ftp.emc.ncep.noaa.gov/gc_wmb/yzhu/1q2011

Specific information regarding the NAEFS and scientific implementation is online at:

http://www.emc.ncep.noaa.gov/gmb/yzhu/html/imp/201012_imp.html

By early December, once the model is running in parallel on the NCEP Central Computing System, a consistent parallel feed of data will be available on the NCEP server. The parallel data will be available via the following URLs:

<http://www.ftp.ncep.noaa.gov/data/nccf/com/gens/para> and
<ftp://ftp.ncep.noaa.gov/pub/data/nccf/com/gens/para>

NCEP urges all users to ensure their decoders can handle changes in content order, changes in the scaling factor component within the product definition section (PDS) of the GRIB files, and volume changes. These elements may change with future NCEP model implementations. NCEP will make every attempt to alert users to these changes before implementation.

For questions regarding these changes, please contact:

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For questions regarding the dataflow aspects of these datasets, please contact:

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National Technical Implementation Notices are online at:

<https://www.weather.gov/notification/archive>

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