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Technical Implementation Notice 12-11
National Weather Service Headquarters Washington DC
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Subject: Change to Land/Water Bitmask in Select GEFS Products: Effective
April 17, 2012

On or about Tuesday, April 17, 2012, starting with the 1200 Coordinated Universal Time (UTC) model distribution, the National Centers for Environmental Prediction (NCEP) will make a minor modification to a few output products from the Global Ensemble Forecast System (GEFS).

The change will correct the bitmasks used in the GRIB files to denote the boundaries of variables defined only over land and/or ice. The change will affect the soil temperature and soil moisture in the 0-10cm depth layer and the snow depth fields only.

This change affects ensemble mean and spread products for the 0- to 192-hour forecast hours, and then every 12 hours from 204 to 380 hours. In these three fields, the bitmasking results in no data value when the grid point is over water. In the current GEFS, some of the bitmasks have been inconsistent for these three output products. With this change, the bitmask will now be consistent across all products. Users may see some points previously having missing values now have data, and vice versa.

This change does not affect any products available on NOAAPort or in the Advanced Weather Interactive Processing System (AWIPS).

These ensemble mean and spread products are available on the NCEP FTP server at:

<ftp.ncep.noaa.gov/pub/data/nccf/com/gens/prod/gefs.YYYYMMDD>

where YYYYMMDD is the year, month and day. The files containing these products are:

pgrb2a/geavg.tHHz.pgrb2afFF
pgrb2a/gespr.tHHz.pgrb2afFF
pgrb2alr/geavg.tHHz.pgrb2afFF.2
pgrb2alr/gespr.tHHz.pgrb2afFF.2

where HH is the model cycle and FF is the forecast hour. Sample products with the new, consistent bitmasks are online at:

<ftp://ftp.emc.ncep.noaa.gov/gmb/rwobus/avgspr>

pgrb2a.2012022400.prod contains current GEFS output.
pgrb2a.2012022400.test contains the product as it will be after implementation.

For questions regarding these changes, please contact:

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National Technical Implementation Notices are online at:

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