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From:    Timothy McClung
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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:

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

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