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PNSWSH

Technical Implementation Notice 10-45
National Weather Service Headquarters Washington DC
930 PM EDT Tuesday Nov 06 2015

To: Subscribers:
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           -NOAA Weather Wire Service
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           -NOAAPORT
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From: Tim McClung
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           Office of Science and Technology

Subject: Addition of GEFS/NAEFS Bias Corrected Products and Downscaled
           Products for Alaska and CONUS: Effective February ??, 2016

Effective on or about Tuesday, February ??, 2016, beginning with the 1200
Universal Coordinated Time (UTC) run, the National Centers for
Environmental Prediction (NCEP) will upgrade the Global Ensemble Forecast
System (GEFS) and the North American Ensemble Forecast System (NAEFS). The
upgrade will include:

   - Adding one variable to bias-corrected products 1 degree globally
      from GEFS
   - Increasing resolution of downscaled probabilistic products for CONUS
      (from 5km to 2.5km) and Alaska (from 6km to 3km) for GEFS and NAEFS
   - Extending the CONUS domain to cover southern part of Canada
      following the extended NDGD
   - Upgrading FNMOC ensemble. Variable Total Cloud Cover will use
      "percentage (%)" instead of "fraction (0-1)
   - Directly distributing FNMOC's bias corrected forecast instead of
      NCEP produced bias corrected forecast

All filenames given below can be located on the NCEP servers at:

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

Addition of A New Variables

1. Adding the following one bias-corrected element:
      Total cloud cover (TCDC)

   Ensemble products with the one new variables listed include:
      NCEP bias-corrected GEFS forecast for each member
          GEFS filenames pgrb2a_bc/gep##
      NCEP bias-corrected GFS forecast
          GEFS filenames pgrb2a_bc/gegfs

Changes in File Names

The file names in the ndgd_gb2 sub-directory will be different from those in current production

1. File names for GEFS and NAEFS CONUS products

        10% probability forecast
                GEFS filenames
                ndgd_gb2/gefs.t##z.ge10pt.f###.conus_ext_2p5.grib2
                NAEFS filenames
                ndgd_gb2/naefs.t##z.ge10pt.f###.conus_ext_2p5.grib2
        50% probability forecast
                GEFS filenames
                ndgd_gb2/gefs.t##z.ge50pt.f###.conus_ext_2p5.grib2
                NAEFS filenames
                ndgd_gb2/naefs.t##z.ge50pt.f###.conus_ext_2p5.grib2

        90% probability forecast
                GEFS filenames
                ndgd_gb2/gefs.t##z.ge90pt.f###.conus_ext_2p5.grib2
                NAEFS filenames
                ndgd_gb2/naefs.t##z.ge90pt.f###.conus_ext_2p5.grib2

        Ensemble mean forecast
                GEFS filenames
                ndgd_gb2/gefs.t##z.geavg.f###.conus_ext_2p5.grib2
                NAEFS filenames
                ndgd_gb2/naefs.t##z.geavg.f###.conus_ext_2p5.grib2

        Ensemble mode forecast
                GEFS filenames
                ndgd_gb2/gefs.t##z.gemode.f###.conus_ext_2p5.grib2
                NAEFS filenames
                ndgd_gb2/naefs.t##z.gemode.f###.conus_ext_2p5.grib2

        Ensemble spread forecast
                GEFS filenames
                ndgd_gb2/gefs.t##z.gespr.f###.conus_ext_2p5.grib2
                NAEFS filenames
                ndgd_gb2/naefs.t##z.gespr.f###.conus_ext_2p5.grib2

2. File names for GEFS and NAEFS Alaska products:

        10% probability forecast
                GEFS filenames ndgd_gb2/gefs.t##z.ge10pt.f###.alaska_3p0.grib2
                NAEFS filenames
                ndgd_gb2/naefs.t##z.ge10pt.f###.alaska_3p0.grib2
        50% probability forecast
                GEFS filenames ndgd_gb2/gefs.t##z.ge50pt.f###.alaska_3p0.grib2
                NAEFS filenames
                ndgd_gb2/naefs.t##z.ge50pt.f###.alaska_3p0.grib2

        90% probability forecast
                GEFS filenames ndgd_gb2/gefs.t##z.ge90pt.f###.alaska_3p0.grib2
                NAEFS filenames
                ndgd_gb2/naefs.t##z.ge90pt.f###.alaska_3p0.grib2

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        Ensemble mean forecast
                GEFS filenames
                ndgd_gb2/gefs.t##z.geavg.f###.alaska_3p0.grib2
                NAEFS filenames
                ndgd_gb2/naefs.t##z.geavg.f###.alaska_3p0.grib2

        Ensemble mode forecast
                GEFS filenames
                ndgd_gb2/gefs.t##z.gemode.f###.alaska_3p0.grib2
                NAEFS filenames
                ndgd_gb2/naefs.t##z.gemode.f###.alaska_3p0.grib2

        Ensemble spread forecast
                GEFS filenames
                ndgd_gb2/gefs.t##z.gespr.f###.alaska_3p0.grib2
                NAEFS filenames
                ndgd_gb2/naefs.t##z.gespr.f###.alaska_3p0.grib2
```

Upgrade of FNMOC Raw and Bias Corrected Ensemble:

1. Upgrade the following one element:
    Total cloud cover(TCDC): use percentage(%)instead of fraction (0-1)

   Ensemble products with the one upgraded variables listed include:
       FNMOC raw ensemble forecast for each member
       FNMOC filenames pgrb2a/ENSEMBLE.MET.fcst_et###

2. Changing file names for FNMOC bias corrected products
       FNMOC bias corrected forecast for each member
       FNMOC filenames pgrb2a_bc/ENSEMBLE.MET.fcst_bc0###

A consistent parallel feed of both GEFS and NAEFS data will be available on the NCEP server via the following URLs:

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

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 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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For questions regarding the dataflow aspects of these data sets, please

contact:

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NWS National Technical Implementation Notices are online at:

        http://www.weather.gov/os/notif.htm

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