

NOUS41 KWBC 042015 AAA
PNSWSH

Technical Implementation Notice 16-03 Amended
National Weather Service Headquarters Washington DC
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 Portfolio Manager
 NWS Office of Science and Technology Integration

Subject: Amended: Addition of GEFS/NAEFS Bias Corrected Products and
Downscaled Products for Alaska and CONUS: Effective March 29, 2016

Amended to change the implementation date from Tuesday, March 22, 2016 to
Tuesday, March 29, 2016.

Effective on or about Tuesday, March 29, 2016, beginning with the 1200
Coordinated Universal 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 the
contiguous U.S. (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 National Digital Guidance Database (NDGD).
- Upgrading Fleet Numerical Meteorology and Oceanography Center (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>
<http://nomads.ncep.noaa.gov/pub/data/nccf/com/gens/prod>

Addition of a New Variable

1. Adding the following one bias-corrected element: Total cloud cover
(TCDC) Ensemble products with the one new variable 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.

File names for GEFS and NAEFS CONUS products (where ### is 000-384):

10% probability forecast GEFS filenames:

ndgd_gb2/gefs.tCCz.ge10pt.f###.conus_ext_2p5.grib2

NAEFS filenames:

ndgd_gb2/naefs.tCCz.ge10pt.f###.conus_ext_2p5.grib2 50% probability forecast

GEFS filenames ndgd_gb2/gefs.tCCz.ge50pt.f###.conus_ext_2p5.grib2 NAEFS filenames ndgd_gb2/naefs.tCCz.ge50pt.f###.conus_ext_2p5.grib2

90% probability forecast GEFS filenames:

ndgd_gb2/gefs.tCCz.ge90pt.f###.conus_ext_2p5.grib2 NAEFS filenames

ndgd_gb2/naefs.tCCz.ge90pt.f###.conus_ext_2p5.grib2

Ensemble mean forecast GEFS filenames:

ndgd_gb2/gefs.tCCz.geavg.f###.conus_ext_2p5.grib2 NAEFS filenames

ndgd_gb2/naefs.tCCz.geavg.f###.conus_ext_2p5.grib2

Ensemble mode forecast GEFS filenames:

ndgd_gb2/gefs.tCCz.gemode.f###.conus_ext_2p5.grib2 NAEFS filenames

ndgd_gb2/naefs.tCCz.gemode.f###.conus_ext_2p5.grib2

Ensemble spread forecast GEFS filenames:

ndgd_gb2/gefs.tCCz.gespr.f###.conus_ext_2p5.grib2 NAEFS filenames

ndgd_gb2/naefs.tCCz.gespr.f###.conus_ext_2p5.grib2

File names for GEFS and NAEFS Alaska products: 10% probability forecast

GEFS filenames ndgd_gb2/gefs.tCCz.ge10pt.f###.alaska_3p0.grib2

NAEFS filenames ndgd_gb2/naefs.tCCz.ge10pt.f###.alaska_3p0.grib2

50% probability forecast GEFS filenames:

ndgd_gb2/gefs.tCCz.ge50pt.f###.alaska_3p0.grib2 NAEFS filenames

ndgd_gb2/naefs.tCCz.ge50pt.f###.alaska_3p0.grib2

90% probability forecast GEFS filenames:

ndgd_gb2/gefs.tCCz.ge90pt.f###.alaska_3p0.grib2 NAEFS filenames

ndgd_gb2/naefs.tCCz.ge90pt.f###.alaska_3p0.grib2

Ensemble mean forecast GEFS filenames:

ndgd_gb2/gefs.tCCz.geavg.f###.alaska_3p0.grib2 NAEFS filenames

ndgd_gb2/naefs.tCCz.geavg.f###.alaska_3p0.grib2

Ensemble mode forecast GEFS filenames:

ndgd_gb2/gefs.tCCz.gemode.f###.alaska_3p0.grib2 NAEFS filenames

ndgd_gb2/naefs.tCCz.gemode.f###.alaska_3p0.grib2

Ensemble spread forecast GEFS filenames:
ndgd_gb2/gefs.tCCz.gespr.f###.alaska_3p0.grib2

NAEFS filenames:
ndgd_gb2/naefs.tCCz.gespr.f###.alaska_3p0.grib2

Upgrade of FNMOC Raw and Bias Corrected Ensemble:

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

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

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

Gridded Binary Version 2 (GRIB2) packing change for FNMOC bias corrected
products Maximum Temperature and Minimum Temperature: Parameters for
discipline in temperature category are updated to World Meteorological
Organization (WMO) standard.

Add two new variables for FNMOC bias corrected products:
2-meter dew point temperature
Upward long wave radiation flux (OLR) at the top of the atmosphere

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

<http://para.nomads.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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National Technical Implementation Notices are online at:

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

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