

NOUS41 KWBC 042015 AAA  
PNSWSH

Technical Implementation Notice 16-03 Amended  
National Weather Service Headquarters Washington DC  
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To:           Subscribers:  
              -NOAA Weather Wire Service  
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From:         Tim McClung  
              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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