

NOUS41 KWBC 042015 AAA
PNSWSH

Technical Implementation Notice 16-02 Amended
National Weather Service Headquarters Washington DC
315 PM EST Fri Mar 4 2016

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 Portfolio Manager
 NWS Office of Science and Technology Integration

Subject: Amended: Climatology Calibrated Precipitation Analysis
(CCPA) Changes: Effective March 29, 2016

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

On or about Tuesday, March 29, 2016, beginning with the 1200
Coordinated Universal Time (UTC) run, the Climatology Calibrated
Precipitation Analysis (CCPA) product will be updated.

The upgrade in the CCPA production suite includes:

Update the regression coefficients with extended historical
training data sets of the NCEP Climate Prediction Center (CPC)
Unified Global Daily Gauge Analysis and the NCEP Environmental
Modeling Center (EMC) Stage IV 6-hourly multi-sensor estimation
from 2002 to 2015.

Change the computation of weights used in downscaling from 6
hourly CCPA to 3-hourly CCPA, by using Stage II to replace Stage
IV data in CNRFC where the latter has poor quality.

Extend the CCPA look-back period following the Stage IV update
schedule in 2015 implementation of the RTMA/URMA upgrade. The
job makes additional reruns at 1/3/5/7 days past the valid date.

Add 2.5 km NDGD grid output. This grid analysis is generated by
interpolating from the HRAP grid to 2.5 km NDGD grid. The 2.5
km NDGD CCPA covers the same domain as the 5km NDGD CCPA, and it
is also available for both 3-hourly and 6-hourly accumulations.

Following the NCEP implementation standards, there will be significant changes in CCPA product directory structure and output file names.

Directory Changes:

CCPA files will be moved from the gens/prod/gefs.YYYYMMDD/HH/ccpa directory structure to ccpa/prod/ccpa.YYYYMMDD/HH

Files will be available on external servers in the following directories:

NCEP NOMADS server:

<http://nomads.ncep.noaa.gov/pub/data/nccf/com/ccpa/prod/ccpa.YYYYMMDD/HH>

NCEP FTP server:

<http://www.ftp.ncep.noaa.gov/data/nccf/com/ccpa/prod/ccpa.YYYYMMDD/HH>

or

<ftp://ftp.ncep.noaa.gov/pub/data/nccf/com/ccpa/prod/ccpa.YYYYMMDD/HH>,

where YYYYMMDD is the date and HH is the ending time (hour) of the 6-hour accumulation period.

File Name Changes:

All existing files named ccpa_conus_GRID_tXXz_LLh_gb2 will be replaced by ccpa.tXXz.LLh.GRID.conus.gb2. Where GRID is the spatial resolution, XX is the accumulation ending time, and LL is the accumulation length.

There will be six files for each (XX,LL) pair corresponding to the following six grids (GRID):

hrap: HRAP Grid (same as the Stage IV grid)

ndgd5p0: 5 km National Digital Forecast Database (NDFD) CONUS grid

ndgd2p5: 2.5 km National Digital Forecast Database (NDFD) CONUS grid

0p125: 0.125 degree CONUS latitude/longitude grid (Grid ID 110)

0p5: 0.5 degree latitude/longitude grid with data coverage over CONUS only

1p0: 1.0 degree latitude/longitude grid with data coverage over CONUS only (Grid ID 3)

For specifications of Grid IDs 3 and 110, see

<http://www.nco.ncep.noaa.gov/pmb/docs/on388/tableb.html>

The timing of final data delivery will be delayed by this implementation as some additional time will be needed to generate the data at the 2.5km NDGD grid. The delay is expected to be 7-8 minutes or less. Users are also advised to pay special attention to additional updates with the extended look-back periods: The rerun 1 day after the valid date may be delayed by up to 7-8 minutes while the added updates 3/5/7 days after the valid date will slightly improve the product accuracy.

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/ccpa/para>

Test data will be available at:
ftp://ftp.emc.ncep.noaa.gov/gc_wmb/yluo

More information regarding the CCPA and its scientific implementation can be found at:
<http://journals.ametsoc.org/doi/abs/10.1175/JHM-D-11-0140.1>

[http://www.emc.ncep.noaa.gov/gmb/ens/NAEFS-5th/Session 3/Hou precipitation analysis.pdf](http://www.emc.ncep.noaa.gov/gmb/ens/NAEFS-5th/Session%203/Hou_precipitation_analysis.pdf)

[http://www.emc.ncep.noaa.gov/gmb/yzhu/imp/i201507/CCPA upgrade 2015.pdf](http://www.emc.ncep.noaa.gov/gmb/yzhu/imp/i201507/CCPA_upgrade_2015.pdf)

Disclaimer: NCEP would encourage all users to ensure their decoders are flexible and are able to adequately handle changes in content order, parameter fields changing 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 implementation.

For questions regarding these changes, please contact:

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

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