NOUS41 KWBC 042015 AAA
PNSWSH

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

To: Subscribers:
           -NOAA Weather Wire Service
           -Emergency Managers Weather Information Network
           -NOAAPort
           Other NWS Partners, Users and Employees

From: Timothy McClung
           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 National Centers for Environmental Prediction (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 Real Time Mesoscale Analysis
(RTMA)/UnRestricted Mesoscale Analysis (URMA) upgrade. The job makes
additional reruns at 1/3/5/7 days past the valid date.

- Add 2.5 km National Digital Guidance Database (NDGD) grid output. This
grid analysis is generated by interpolating from the Hydrologic Rainfall
Analysis Project (HRAP) grid to 2.5 km NDGD grid. The 2.5 km NDGD CCPA
covers the same domain as the five km 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 NOAA Operational Model Archive and Distribution System (NOMADS) server:
http://nomads.ncep.noaa.gov/pub/data/nccf/com/ccpa/prod/ccpa.YYYYMMDD/HH

NCEP File Transfer Protocol (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) contiguous U.S. (CONUS) grid
ndgd2p5: 2.5 km 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 2.5 km NDGD grid. The delay is expected to be seven to eight minutes or less. Users are also advised to pay special attention to additional updates with the extended look-back periods: The rerun one day after the valid date may be delayed by up to seven to eight 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/yzhu/imp/i201507/CCPA_upgrade_2_015.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 gridded binary (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:

Yan Luo
NCEP/EMC Global Modeling Branch
College Park, MD
Phone: 301-683-3778
Email: yan.luo@noaa.gov

For questions regarding the dataflow aspects of this data set, please contact:

Justin Cooke
NCEP/NCO Dataflow Team
College Park, MD
Phone: 301-683-0567
Email: ncep.list.pmb-dataflow@noaa.gov

National Technical Implementation Notices are online at:

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

NNNN