

PPS Version 3 to Version 4 Transition for GPM and Partner Satellite Data Processing and GPM Near-Realtime (NRT)

Important News

PPS has commenced Version 4 processing of GPM and Partner satellite products on March 01, 2016. All current Version 3 products have been processed through February 29, 2016.

The first data date for version 4 is March 1, 2016. As PPS verifies Version 4 products for release they will be made available to the public on our ftp site:

<ftp://arthurhou.pps.eosdis.nasa.gov/>

GPM products will be reprocessed back to launch, March 2014. Partner data will be reprocessed back to Feb 1, 2014.

Version 4 Products Currently Available:

- All Level 1A through 1C-R GMI
- Level 1C V04A partner satellite data products from 3/1/2016 to current.
- Level 1B DPR from 3/2/16 to present and 3/2014-5/2014
- Level 2 DPR, Level 3 DPR and Combined data from 3/1/2016
- Level 2-3 GPROF from March 2016-current. PPS will then reprocess data from the whole mission Starting with March 2014 data.
- Level 2-3 GPROF Climatology Products (SSMIS and AMSR2) data from 3/01/2014
- Level 2 and 3 GPROF Products for NPP ATMS data is available starting with data from 3/01/2014

All V03 GMI, DPR, and partner products are expired as of 3/7/16. These products will remain available:

<ftp://arthurhou.pps.eosdis.nasa.gov/gpmallversions/V03>

however, they will not be orderable using STORM. As Version 4 products become public, they will appear in our ftp archive and through STORM:

<https://storm.pps.eosdis.nasa.gov/>

V04 IMERG is TBD.

Version 3 IMERG data will not currently be expired due to delays in rolling out Version 4 IMERG data.

IMPORTANT ITEMS !!!!

There will be an extended delay in the start of the L2 - L3 GPROF, and IMERG version 4 processing. GPM GMI L2-L3 products will not be available until mid April, 2016. Partner L2-L3 GPROF, and IMERG will not be available until a TBD date.

PPS Toolkit TKIO version 3.70.8 should be used to read the GPM V4 products. This latest version of TKIO is also backwards compatible with GPM Version 3 product formats. TKIO 3.70.8 and associated documentation is available from:

<ftp://gpmweb2.pps.eosdis.nasa.gov/pub/PPStoolkit/GPM/tkio-3.70.8/>

The GPM file specifications have been updated for GPM Version 4 product format. File specifications and other important documents can be found at:

<https://pps.gsfc.nasa.gov/GPMprelimdocs.html>

Please also remember to read any updates to the caveats and other documents posted on the ftp site under:

<ftp://arthurhou.pps.eosdis.nasa.gov/gpmdata/documents>

netCDF4 access to V04 GPM products

In Version V04 PPS was requested to implement the netCDF4 standard way for dealing with fill values. This required the addition of _FillValue variable and an appropriate value. We were requested to do so that standard netCDF based tools will work properly. Unfortunately, earlier versions of netCDF4 failed to implement this properly. **You should upgrade your netCDF to at least 4.3.3.1** and then the netCDF issues with tools like ncdump will disappear.

Additionally, when reading Level 1 and Level 2 radar products in the production and near-realtime (NRT), the new PPS toolkit TKIO 3.70.8

<ftp://gpmweb2.pps.eosdis.nasa.gov/pub/PPStoolkit/GPM/tkio-3.70.8/>

should be used. The formats have changed and new fields added. If you are not using the PPS TKIO and are reading the fields by name there may be no impact. Please see the GPM Version 4 File Specifications and Format change document for a detailed list of changes;

<https://pps.gsfc.nasa.gov/Documents/Version%204%20GPM%20Algorithm%20Format%20Changes.pdf>

Please check back here for future announcements as more Version 4 GPM and Partner data are made available to the public:

<https://pps.gsfc.nasa.gov/>

Contact the helpdesk at: helpdesk@mail.pps.eosdis.nasa.gov if you have any questions, comments or concerns.

Version 4 Processing for GPM Near-Realtime (NRT) began late on March 2, 2016

The GPM Near-Realtime(NRT)began using V04 algorithms for:

Level 1B GMI

Level 1C GMI

Level 1 Radar

Level 2 Radar

Level 2 Combined

V04 is the first version that uses GPM as the calibrator for the constellation rather than TRMM. The GPROF database is built using the combined observations. GMI is extremely well calibrated and the brightness temperatures in 1B and 1C are an important improvement over those in V03.

V04 also made improved retrievals in the Ku, Ka, and DPR Level 2 products. Combined has also made retrieval improvements in this version.

GPROF the algorithm used for radiometer retrievals will remain at V03 until approximately April 15. This was necessary because of late bug fixes to combined that impacted the database creation the GPROF uses and was built using an earlier version of the combined retrievals.

The IMERG product will be affected by the conversion to V04 as it will not update its version for another 3 months. To minimize the impact of changes, 1C for partner constellation radiometers remains at the current version and are not yet

inter-calibrated to GMI. The GPROF also remains at the current version. Because the combined product is used for calibration as part of the IMERG system, it will not be updated during the period in which GPROF remains at V03. Intercalibrating GPROF V3 with combined V04 could lead to major retrievals biases. Hopefully these measures will minimize the impact of GPROF remaining at V03 until mid-April while the radar and combined as well as GMI 1B/1C will be updated to V04. IMERG is not scheduled for V04 until June/July time period.

Please note that the newer PPS GPM Toolkit Version 3.70.8 and higher is required to read the Level 1 and 2 Radar NRT products.

Near-Realtime (NRT) users can obtain this data from:

<ftp://jsimpson.pps.eosdis.nasa.gov/>

after registering:

<https://registration.pps.eosdis.nasa.gov/registration/>

It is important to note that access to GPM Near Realtime data requires a separate step during or after the registration process.

- Enter your registered Email address and click "Verify Email or Update Info"
- After receiving an Email titled "Manage PPS Registration" click on the provided link to update your information.
- Click the box "Near Realtime Products" beside "FTP Access in addition to Standard Research Products" Under the section "Update Contact Info and Area of Interest".