OMPS Nadir Ozone Profile Release, Beta Data Quality

***Last updated August 17, 2012***

***Read-me for Data Users***

The JPSS Algorithm Engineering Review Board has reviewed the OMPS Nadir Profiler Ozone Profile Data Record product (OMPS-NP-IP/IMOPO) and set the Data Quality attribute to Beta as of 1 March 2012. Beta quality is defined as:

* Early release product
* Initial calibration applied
* Minimally validated and may still contain significant errors (rapid changes can be expected)
* Available to allow users to gain familiarity with data formats and parameters
* Product is not appropriate as the basis for quantitative scientific publications, studies and applications

Because of inter-channel calibration inaccuracies, many error flag conditions are currently met. The recommendation is that all non-fill ozone values in IMOPO except the following flagged cases may be used for Beta evaluation purposes:

1. SAA Flags 1-8 and

2. Eclipse Flag set to 1.

The Board recommends that users be aware of certain specific data product characteristics. The product caveats for OMPS Nadir Profiler Ozone Profile product at this time are:

1. Day One Solar needs a definitive spectrum. Preliminary update expected in August 2012. (DR #4797; CCR #0458)
2. Profile and total ozone error flags are switched in the output. Expected correction Fall 2012 (PCR 27740).
3. Snow/Ice data is all zeroes (DR #4802).
4. Error Flags are incorrectly set to 20 (bad input) and no retrievals are made for all terrain pressures greater than 1.001 atmospheres. (DR #4860, CCR # 516 will be reset to > 1.07 atmospheres in Mx6.3 ).
5. Radiance Coefficients are for stray light corrected data but a correction has not been implemented. Correction subroutine and definitive estimates of coefficients are under development (DR #4823).
6. Wavelength Scale and adjustments need to be included. Working on definitive Day 1 and adjustments for intra-orbit scale drift

Further as the ozone products are derived from the OMPS SDR products, the Board recommends that users be aware of certain specific data product characteristics, available in the OMPS SDR Readme for Beta Data Quality; http://www.nsof.class.noaa.gov/notification/pdfs/OMPS\_Earth\_View\_SDR\_Beta\_Release\_Read\_Me.pdf

Additional information on OMPS, OMPS Nadir Ozone Profile IP Algorithm Theoretical Basis Document (ATBD) and Data Format Control Book are available at

<http://www.star.nesdis.noaa.gov/jpss/OMPS.php>

<http://www.star.nesdis.noaa.gov/jpss/documents/ATBD/GSFC_474-00026_JPSS_OMPS_Nadir_Profile_Ozone_ATBD__alt._doc._no._D43775_.pdf>

<http://www.star.nesdis.noaa.gov/jpss/documents/CDFCB/GSFC_474-00001-04-01_CDFCB_External_Vol.4-1_IPs_ARPs_and_Geolocation_Data__Alt._doc._no._D34862-04-1_.pdf>

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