



OMPS LP Release 2 - Status

Matthew DeLand (for the PEATE team)
SSAI

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LP Overview (*since December 2013*)



Ozone PEATE

- Explicit aerosol correction turned off for ozone retrieval.
- Aerosol extinction coefficient retrieval now performed in separate application (no changes to V1 algorithm).
- **Ozone** Level 2 reprocessing completed May 12 (34 days on ACPS). General behavior of product is consistent with previous tests using “golden days” from 2012. Results of evaluation studies to be discussed in this meeting.
- Data collected with sample table v0.5 (11/26/2013 – 01/23/2014) show large ozone profile biases in UV retrieval range. Omit period from public release?
- **Aerosol** Level 2 reprocessing is running on ACPS (currently in July 2013). Estimated completion ~June 10.
- Documentation for L1G and L2 products has been created and reviewed internally. Revisions in progress.



Extra Slides



L1 Changes for V2 Processing

- Implement tangent height adjustment through OPF (with additional 500 m shift for this test). Also implement intra-orbit tangent height adjustment.
- Revise wavelength gridding in L1G product to use fixed grid for all events.
- Revise reference wavelength scale to use better data set.
- Implement intra-orbit and seasonal wavelength scale adjustments.
- Eliminate merging of multiple gain/aperture values for determining radiance at each pixel.
- Prioritize data selection to use high gain sample for $\lambda < 500$ nm, low gain sample for $\lambda > 500$ nm.
- Revise ancillary data selection to use GMAO products for temperature, pressure, density. Profiles extended to 80 km with constant temperature lapse rate.

L2 Changes for V2 Processing

- Implement new ozone *a priori* data set created from 2012 MLS data.
- Implement SUSIM data for UV portion of high-resolution solar irradiance spectrum.
- Exclude OH emission wavelengths (306.5-311 nm) from UV ozone profile retrieval.
- Add 1% instrument error term to SNR noise term for retrieval.
- Turn off explicit aerosol correction in ozone retrieval.
- Lower UV retrieval normalization altitude to 65 km.
- Revise VIS retrieval wavelengths to use 510 nm and 673 nm as reference, 549-633 nm for ozone.
- Report ozone products for all three slits over 0-60 km.
- Combined ozone profile uses VIS retrieval results up to 26.5 km, UV retrieval results from 27.5-60.5 km (no merging or normalization). Also report UV and VIS ozone retrieval results separately.
- Create mixing ratio profile product on regular pressure grid.