OMPS Ozone Product Utilization @NCEP

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Uses of OMPS Products

- **NCEP Operations:**
  - V8TOZ Total column ozone mapper product to replace Aura/OMI mapper
  - V8PRO nadir ozone profiles to be added to N-19 SBUV/2 profiles

- **CPC monitoring**
  - V8TOZ will replace OOTCO mapper total column ozone
  - V8PRO will replace V6PRO ozone profiles
NCEP Operations

- V8TOZ and V8PRO BUFR test files have been delivered to NCEP
- NCEP has verified the file contents and generated internal BUFR files for operations.
- *Would like* to get latest (final) versions so internal evaluation can be started
- *Would like* to get OMPS ozone products operationally assimilated in 2018Q1 data set update to GFS model.
CPC Monitoring

• Thanks to Lihang for supporting CPC monitoring/evaluation activities.
• Have been using v6 ozone profile and OOTCO mapper products for several years.
• Have noted differences between the v6 and SBUV/2 v8 profiles
• Use profile O3MR and total profile to generate global ozone analyses
• Use total column mapper to generate global Level 3 products
• Use the above to determine ozone hole size
• Part of CPC’s suite of ozone hole monitoring products
• Eric has provided 2012-2017 data set of V8PRO and V8TOZ products
• CPC will use these products to extend its long term TOZ and profile data sets
  – Replace several years of N19 SBUV/2 due to poor latitudinal coverage.
  – Used for monitoring ozone recovery and climate change impacts in the vertical
  – QBO effects on ozone amounts, residual circulation
  – Participate in SPARC ozone trend and accuracy initiatives
NOAA-19 Precession

OMPS latitude extent is currently 65S

No observations poleward of 50S
N19 Precession Impacts on Comparing SBUV/2 with MLS

Ozone diurnal cycle is larger in the upper strat than middle and lower strat.

N19 SBUV/2 upper strat differences with MLS are changing due to orbital drift to later Eq times.
Ozone Depletion Has Started this Year
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See you next year with J-01 OMPS evaluation