



# OMPS Ozone Product Utilization @NCEP

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*\*Innovim*

# 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

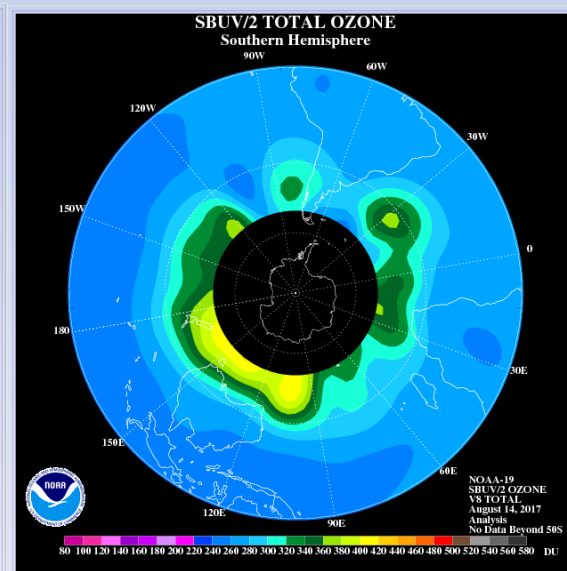
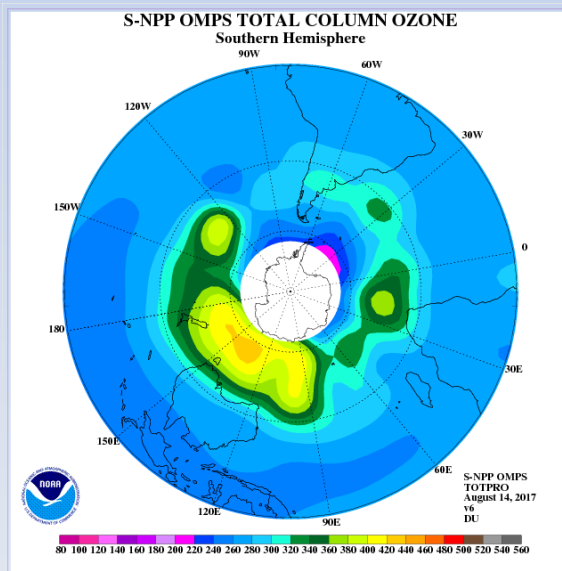
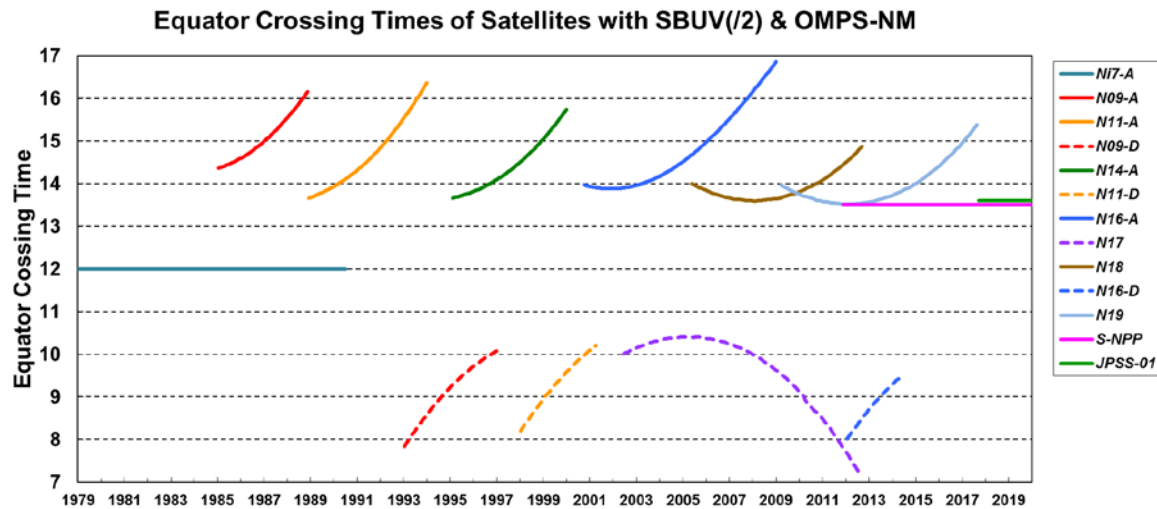
# NCEP Operations

- 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

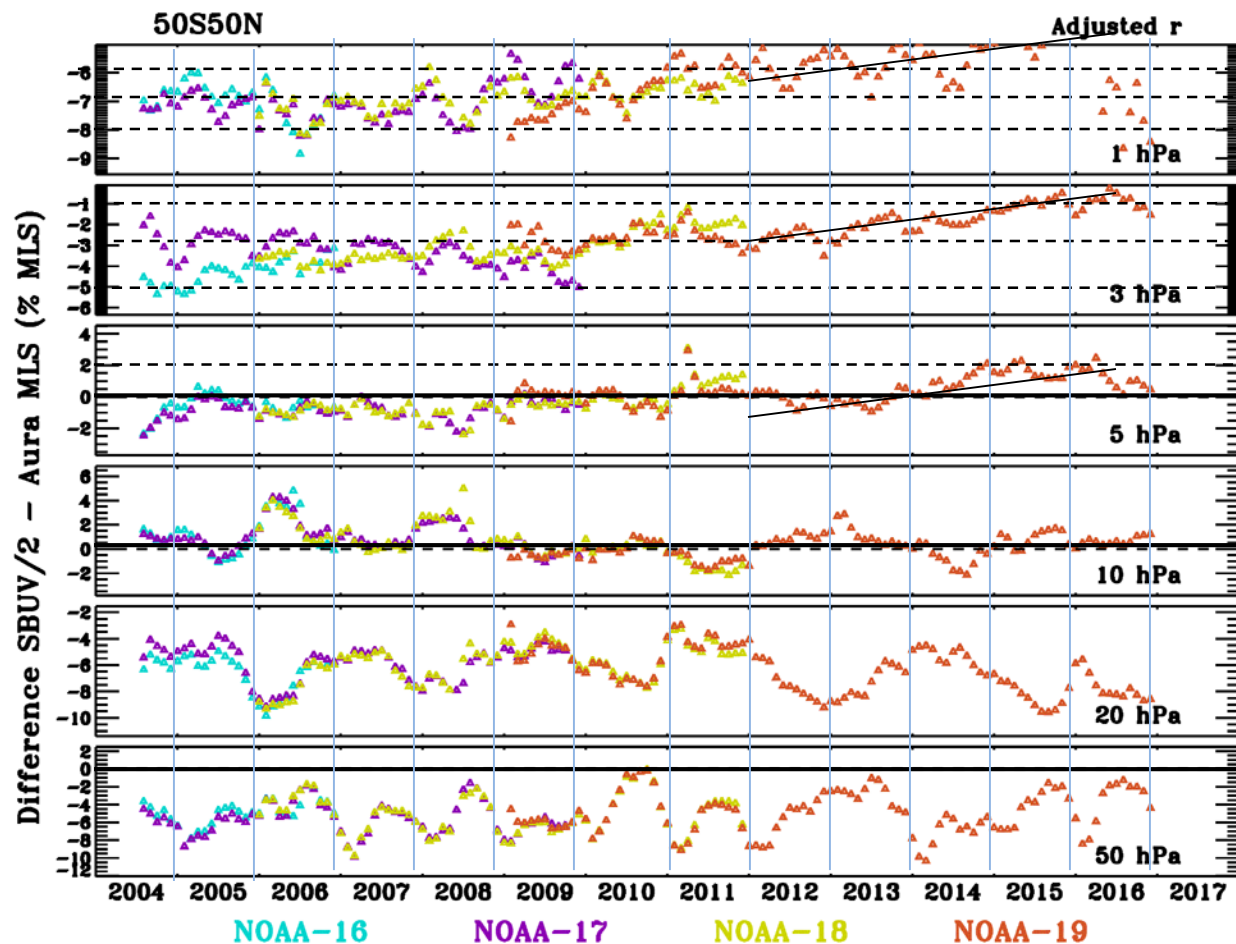
# NOAA-19 Precession



OMPS latitude  
extent is  
currently 65S

No observations  
poleward of 50S

# N19 Precession Impacts on Comparing SBUV/2 with MLS

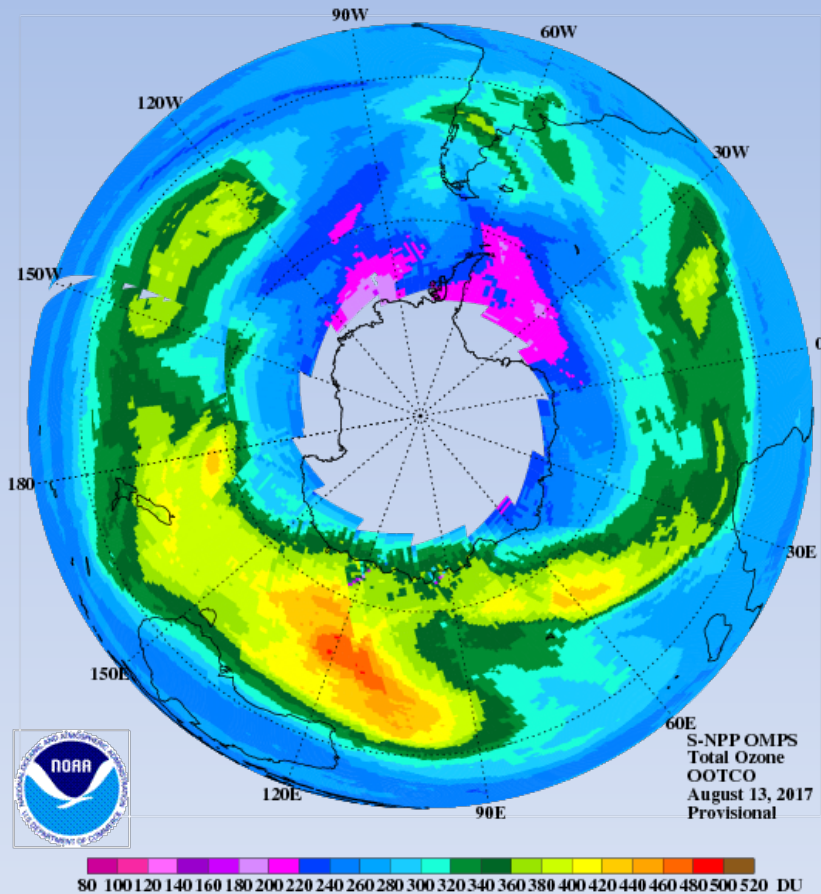


*Ozone diurnal cycle is larger in the upper strat than middle and lower strat*

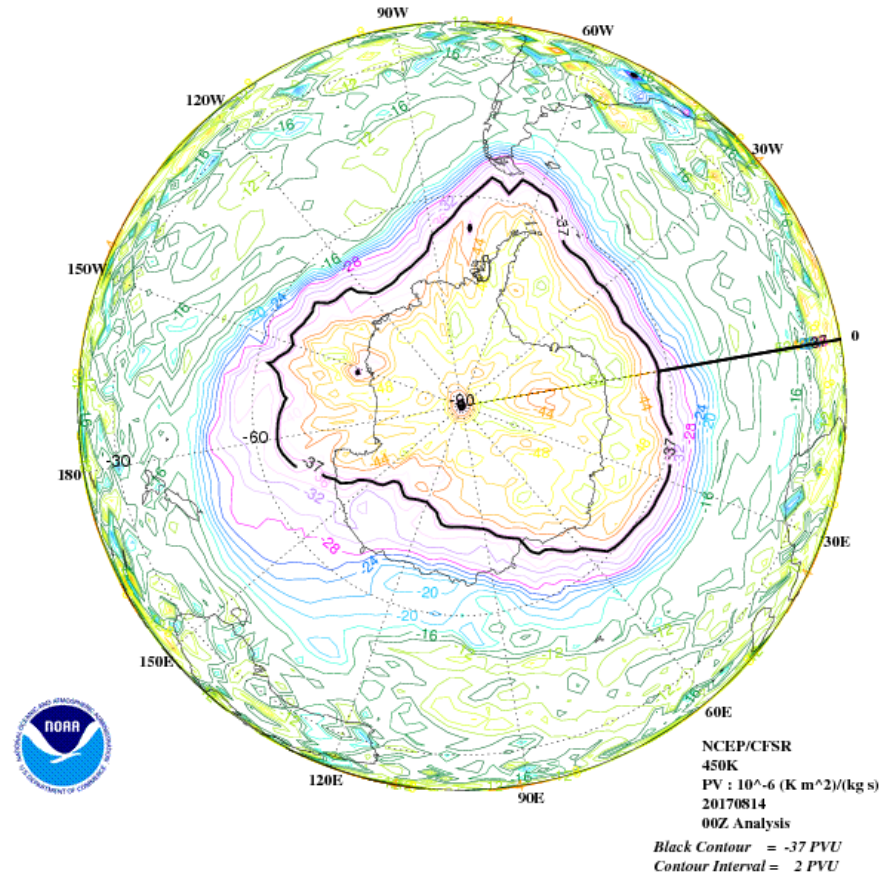
*N19 SBUV/2 upper strat differences with MLS are changing due to orbital drift to later Eq times.*

# Ozone Depletion Has Started this Year

**S-NPP OMPS TOTAL OZONE**  
*Southern Hemisphere*

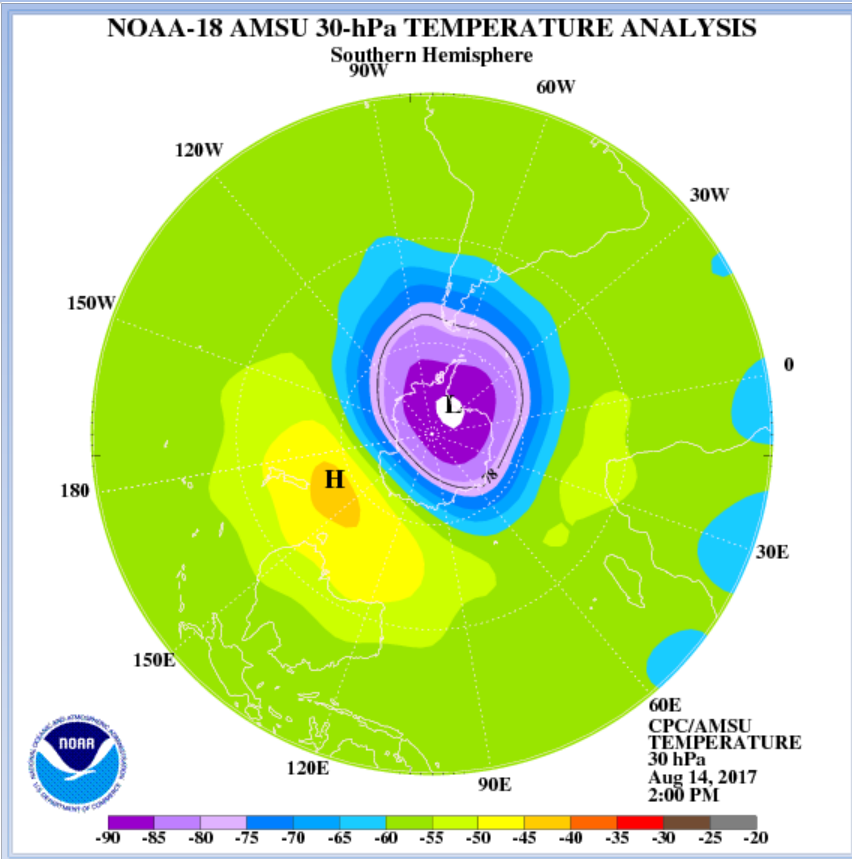
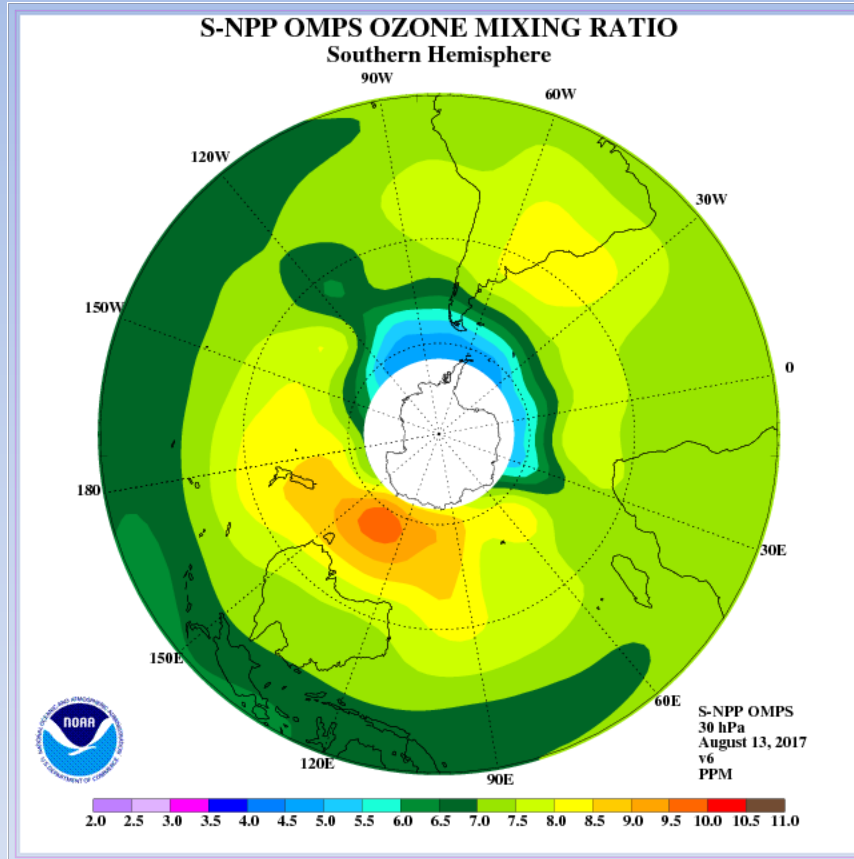


**NCEP/CFSR 450K PV Analysis**  
*Southern Hemisphere*





# Ozone Depletion Has Started this Year





*See you next year with J-01 OMPS evaluation*