

NOAA-20 Algorithm Maturity Review

May 27, 2021

Review Team Members: Satya Kalluri (Chair), Mitch Goldberg, Lihang Zhou, Bonnie Reed, Alisa Young, Ingrid Guch, Jim Yoe, Kevin Schrab, Rick Stumpf, Michael Ford, Gary Wick, Tom Renkevans, Jim Gleason, Greg Frost

Summary:

The OMPS Environment Data Record (EDR) science team did a great job presenting the NOAA-20 OMPS Nadir Profile (NP) EDR validation results and following prior review team guidance for the OMPS NP EDR products. The review panel recommends the OMPS NP EDR product to be designated at Validated Maturity, pending on implementation of the following two algorithm updates in operation: 1). The V8Pro v4r0 delivery with the wavelength-scale code patch and new adjustment table (expected in July NDE release), 2). The NOAA-20 OMPS NP SDR correction for the Solar In-Band Stray Light (IBSL) (expected in Mx3 release, July 2021).

OMPS Nadir Profile EDR

- Improved comparisons are between S-NPP and N-20; closer agreements between S-NPP and N-20 than the results presented in the Provisional Maturity.
 - S-NPP has been researched, analyzed, compared, and received positive users' feedback, etc - makes for a good "truth"
- The team demonstrated the performance improvements accomplished by the EDR code fix and SDR IBSL correction. Slide 26 demonstrated good comparisons with ozone sondes and other ozone profile measurements including Umkehr profiles
- Mitch recommended to add error propagation to better characterize the measurement errors and retrieval errors in the next steps
- Nice comparisons with MERRA-2 for the months of March and Sept showing within the spec.
- Team did a nice job, quite a challenge with the operational wavelength shifts in the S-NPP OMPS SDR occurring during a critical period for the validation effort. Analysis convincing that EDR is within 10% and meets requirements.
- Would like to get feedback on the best OMPS NP EDR rather than previous versions that had the code error.... Path forward to update user feedback. In the short-term, Ingrid recommended updating the user feedback slides to make it more clear that matching between S-NPP and N-20 was a high priority, and that we expect positive feedback now that we have closed the gap there and will update the package.
- Larry made a comment about better notifications about "provisional" vs "fully validated" declarations to the user community

RFA-1:

- OMPS EDR team to follow up with the users and provide the updated users' feedback on the data sets produced with the validated maturity algorithms. (due Aug. 31, 2021)