

NOAA-20 Algorithm Maturity Review

Sept 17, 2020

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

Summary

The review panel acknowledges the Global Surface Type (GST) team did an excellent job preparing and presenting the GST products cal/val results. The review panel recommends the Annual surface type to be designated at Validated Maturity level.

Global Surface type (GST)

The products demonstrated meet the documented requirements. Good comparisons are obtained with SNPP, NOAA-20, and combined products, for daily, monthly, and annual Global Surface Type products. The annual values derived from NOAA-20 and S-NPP demonstrated excellent agreement and are nearly identical (as shown on slides 46-49). In the presentation, there was not enough information to describe the training data sets for the developments, and validation data sets for deriving the error budget. Therefore the review team requests the GST team to provide additional information as described in the RFA #1.

The review team recommends the GST team to solicit and document better understanding of EMC users' needs and feedback, and to work with the users to develop a utilization plan. The utilization plan will define which of the products (N-20, SNPP, or combined) will be used to replace the MODIS products, and when the VIIRS products are going to be used in which applications. (See RFA #2). The review team also recommends the GST team to work with the Global Biomass Burning Emissions Product (GBBEPx) project to migrate from using MODIS to VIIRS surface type in GBBEPx.

Finally, for the combined products, the team needs to define and document how the products will be generated when one of the satellite inputs is unavailable or unusable. (See RFA #3).

RFAs:

1. GST Team to provide more slides on how the training and validation datasets developed (due by Sept 30th 2020)
2. GST team to obtain users' feedback on whether they intend to use N20, SNPP, or combined products, and to develop a plan to define the products needed by the EMC and the timeline of using these products in operations. (due by Dec 31st, 2020)
3. Provide an update on the approach for the combined GST when one of the satellites goes wrong (due by Dec 31st, 2020)