

January/February 2020 Maturity Review Feb 06, 2020

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

Summary

The review team acknowledges that the science teams have done an excellent job in preparing the Cal Val results for demonstrating the validated product maturity. The review panel recommends:

- Active Fires (for both VIIRS M-Band and I-band):
 - M-band Fires is at Validated Maturity
 - I-Band Fires is at Validated maturity scientifically pending completion of documentation updates and verification of the results from NDE implementation.
- The SNPP CrIS side-2 SDR has met the Validated maturity requirements

Active Fires for VIIRS M-Band and I-Band

Excellent comparisons of SNPP and N20 for both M-band and I-band fire products and meet the validated maturity scientifically. Users' feedback is positive for the fire products from ESRL, OSPO/SAB, and FIREX campaign team, especially toward the I-band fires.

Science team has done a good job reviewing comments from the users and took action to address the false alarm issue due to the solar farms in the updated algorithms. Recommend future work includes to look into potential external data sources for solar farms. On Slide 50 - regarding the statement on uncertainty, the requirement is 50% - it demonstrated in the presentation that the requirement is met. The review panel suggests stating the percentage here to show comparisons of the performance against the requirement; or point to the historical data that shows meeting the 50% performance requirement.

The panel recommends adding more validation data sources in the future, covering different geographic regions; and to continue doing more validation with the FIREX-AQ campaign data.

The panel recommends that the team to work with OSPO/OSGS to accelerate and complete the transition of I-band fires to operation, and coordinate with the users to retire the M-band fire product using the NESDIS data product retirement process.

CrIS S-NPP side-2 SDR

The review team acknowledges that the CrIS SDR science team has done an excellent job in preparing for this review and calibrating/validating the SNPP/CrIS SDR Side-2 products after the SNPP CrIS switched to side-2 electronics.

The validation results demonstrated that the performance of the CrIS SDR side-2 products meets the spectral, radiometric, and geolocation specs globally, and showing good consistency with those from SNPP CrIS SDR from side-1. Good review of the SNPP CrIS side switch and commissioning timeline. Positive users' feedback was presented by NCEP, NRL, and confirmed that the CrIS SDR from side-2 is consistent with those from side-1. The NUCAPS, NPROVS, and OSPO sounding teams also provided comprehensive feedback and confirmed that the NUCAPS retrievals from side-2 and side-1 are very consistent.

The review team recommends the CrIS team to document the success approach switching of SNPP CrIS from side-1 to side-2 into one of the future CrIS SDR publications or technical reports.