JPSS STAR Science Team Annual Meeting
OMPS SDR Team Report

Xiangqian Wu

OMSP SDR Lead

May. 16, 2014

Major Events

- OMPS SDR Team Overview to Session 2 on Monday
- One-day dedicated Session 4c for the team. 20+ participants, including four of the five group leads attended in person. Several dialed in.
- Team meeting during the session.
- Side meeting on a technical issue for J1 upper code change
- Many attended Ozone EDR activities (Session 5e on Ozone EDR and Users' Breakout Sessions)

Overview

The Team Overview reviewed:

- Team member and primary roles
- Products and Users
- Requirements and Performance
- Accomplishments
- Algorithms Evaluation
- Future Plans for J1

Session 4c

- 12 presentations
  1. Solar calibration
  2. Dark and linearity calibration
  3. Wavelength registration
  4. Stray light correction
  5. Calibration in the region of NP-NM spectral overlap
  6. Accounting for solar activities in OMPS calibration
  7. Inter-calibration
  8. OMPS performance and monitoring
  9. LP SDR Science
  10. S-NPP and J1 CONOPS
  11. J1 OMPS pre-launch calibration status
  12. J1 SCDB analysis and conversion to LUT

Team Meeting

- Vision of team interaction: STAR expects to
  - Perform cal/val and adapt for IDPS
  - Collaborate with NASA broadly and indefinitely
  - Get advice from NGAS for as long as possible
  - Work with Raytheon and Aerospace as has been
- Lessons Learned from S-NPP:
  - Inflexible code, esp. CAL SDR
  - Update the DARK sooner
  - Evaluate stray light and update the correction sooner.
  - Wavelength registration may depend on temperature.
  - Dichroic transmittance may change after orbit.
  - Need offline science code.
  - Need tools to interrogate the RDR / SRD
  - Need tools and data to compare (GOME-2, SBUV/2, OMI, CRTM, MLS, …)
  - Need to access BATC documents
- New Challenges of J1:
  - Pre-processor
  - Spectral gaps
  - CAL RDR collection
  - CAL SDR improvements

TIM on LUT with Spectral Gaps

- Informal but informative discussion of
  - Importance to properly handle gaps
  - Current capability
  - Minimum requirements for J1
  - Ideal scenario for J1
  - Outlook of schedule
  - Options and cautions
  - Potential contributors and ways of collaboration

EDR Activities

- Benefited from users' perspective.

Summary

- Most comprehensive collection to document the progress.
  - This was the major goal and has been accomplished, thanks to the team members.
  - Will digest and archive.
- Team meeting to discuss the changing roles, lessons learned, new challenges.
- Precious opportunity to learn about the (indirect) users' perspective.
- TIM to focus on technical issue.
- Very productive overall.