

GVIS/NIR Report

David Doelling, NASA

Tom Stone present the lunar portion of the GVIS/NIR report

2021 GSICS recommendations

- Migrate from Aqua-MODIS to N20-VIIRS visible reference instrument
 - the NOAA and NASA N20-VIIRS L1B reflectances are within 0.2% for most visible channel
 - Yesterday we had a comparison of the NPP-VIIRS NOAA and NASA calibrations, the differences are larger, we will have further meetings to discuss
 - GSICS quarterly and yesterday's Lyapustin Libya-4 presentation presented the Aqua-MODIS and N20-VIIRS calibration differences
- Utilize the TSIS-1 HSRS solar spectra
 - Make sure that when comparing radiances that the L1B datasets are using the same solar spectra

Coordination with CLARREO group

- CLARREO first year of operation will be dedicated to intercalibrating NOAA-20 VIIRS and CERES
- After the first year, CLARREO will have opportunities to inter-calibrate other sensors and Earth invariant targets
 - launch late 2023
 - first year operation 2024
 - possible extension through 2030
- We had a lightning round of GSICS agency presentations of how they will be using CLARREO observations during a monthly web meeting
- We will coordinate a combine CLARREO and GSICS meeting for the 2025 annual meeting once we have a year of CLARREO observations to look at
- Also had TRUTHS and CSRB present

GSICS VIS/NIR breakout meeting, March 17

Name	Agency	UTC	Title
Seb Wagner	EUMETSAT	1200	Presentation of DCC product format
Dave Doelling	NASA	1210	Discussion of DCC paper, VIS/NIR priorities, and future web meetings
Sirish Uprety	NOAA	1220	Suomi NPP VIIRS Calibration Comparison between NOAA and NASA versions and impacts on L1b products
Alexei Lyapustin	NASA	1240	MODIS and VIIRS stability based on Libya-4 using the MAIAC framework
Raj Bhatt	NASA	1300	GSICS DCC ATBD discussion
Yves Govaerts	Rayference	1320	Harmonization of PICS and Moon calibration methods
Break		1340	
Dave Smith	RAL	1350	SLSTR lunar calibration results
Tom Stone	USGS	1410	Discussion on lunar calibration comparison between instruments
Seb Wagner	EUMETSAT	1430	Lunar discussion

VIS/NIR goals

- DCC visible channel (<1 μ m) GSICS correction product
 - ATBD (*Raj Bhatt presentation*)
 - Paper with agency results
 - DCC product format, tool (*Seb Wagner presentation*)
- Near Future GSICS VIS/NIR products
 - DCC SWIR channel calibration coefficient product, Raj Bhatt-lead
 - Begin compiling agency ray-matching methodologies
 - Begin compiling agency (desert) PICS methodologies (*Alexei Lyapustin presentation*)
 - Combining multiple calibration coefficients strategy (*Yves Govaerts presentation*)
- Future GSICS VIS/NIR products (let me know if you are interested in leading a topic)
 - Ray-matching (SNOs)
 - PICS
 - Use Reference sensor cloud properties to predict TOA sensor channel reflectances
 - Liquid water clouds (JMA, Platnick MODIS/VIIRS cloud retrieval continuity)
 - Rayleigh scattering calibration
 - Sun glint
 - Vicarious ground-based instrument calibration
 - Stars
 - other

Future Web Meetings

- We had 8 monthly web meetings
- DCC ATBD, paper, tool, and product (July)
- Dedicated Ray-matching meeting
- Dedicated PICS (desert)
- Lightning Mapper calibration
- Status of visible sensors

- If you would like to present or propose a topic please email me

Future Web Meetings

Name	Agency	Title
Steffen Dransfeld	ESA	SLSTR calibration in VIS/SWIR complementing the existing PICS analysis with results from a currently ongoing 'mini'-roundrobin between CNES and RAL
Valentina Boccia	ESA	Sentinel2A-2B intercalibration
Georgia Doxani	ESA	result of the second intercomparison exercise of atmospheric correction ACIX-II
Yeeun Lee	Ewha Womans University	Radiance biases based on ray-matching for sensors onboard GK-2 series inter-comparison results (shorter than 500 nm) of AMI, GEMS and GOCI-2 onboard GK-2A and B.
Michael Medford	Planet	Evaluating Radiometry within a Heterogenous Satellite Fleet via Continuous Moon Monitoring
Ling Wang	CMA	Performance of FY-3E MERSI_LL onboard calibrator for the reflective solar bands
Jing Wang	CMA	In-orbit Radiometric calibration progress of Fengyun-4B GHI
Kazuki KODERA	JMA	Validation results for AHI by ray-matching method with VIIRSS

If you would like to present at future VIS/NIR monthly web meetings, please email me your title