Summary: GSICS VIS/NIR meeting, July 15, 2021

Eunkyu Kim (KMA) presented AMI visible calibration results using MODIS and VIIRS based on ray-matching of AMI and Terra-MODIS and NPP-VIIRS with maximum in winter and a minimum in summer. The AMI/MODIS ray-matched results showed large seasonal cycles. The AMI/VIIRS ray-matched results showed slight seasonal dependence. DCC invariant target calibration showed consistent PDFs. AMI calibration is updated every 4 weeks based on the onboard solar diffuser.

Kazuki Kodera (JMA) presented the Validation of Himawari-8/AHI by Ray-matching method. The ray-matching results were compared against the stratus cloud Radiative Transfer Method (RTM) coincident MODIS and AHI pairs. The ray-matched method was applied to the AHI and NPP VIIRS. The B02 and B05 differences were attributed to the calibration difference between Aqua-MODIS and NPP-VIIRS. The ray-matching method also showed some seasonal variation. Not as large as the AMI amplitude. Question. Why is an IR threshold used to only use BT<273. To exclude clear-sky land. It was also noted that only the tropical domain what was used JMA ray-matching.

Dave Doelling recommended a GSICS VIS/NIR monthly web meeting to compare agency ray-matching methods to come up with best practices later this year. Tim Hewison agreed and highly recommended. This meeting would focus on the methodology.

Yeeun Lee (Ewha Womans University, Korea) presented Potential of DCC for inter-comparison of UVIS hyperspectral measurement. She ray-matched the geostationary GEMS UV hyper-spectra with the NPP OMPS UV hyper-spectra over DCC. Identifying DCC in the UV has the same issues as in visible bands, that some DCC are cold but thin. Larry Flynn commented that the OMPS onboard calibration relies on solar diffuser measurements. There is a primary solar diffuser and a secondary that is only used annually. The UV community uses multiple scene types to verify the onboard calibration systems. Maximum brightness is currently used and there is a possibility of utilizing deep convective clouds.