Vis/NIR breakout session — lunar part

Typically this part includes presentations on lunar calibration results for GSICS instruments

- Dave Smith from RAL reported on Moon observations with Sentinel 3A and 3B SLSTR and comparisons to the GIRO
  - Dave's Moon image processing technique prompted a discussion of size-of-source effects and the impact on using an irradiance source (the Moon) for calibration

Tom Stone initiated an open discussion on issues related to lunar irradiance measurements from instruments and comparisons to lunar models

- motivated by Hugh Kieffer's lunar modeling work, which shows large differences between instruments that are not seen with vicarious techniques using ground targets
- the cause must be related to processing Moon images into irradiance measurements, or evaluating the out-of-field spatial response of each pixel, i.e. size-of-source effects
  - Hugh suggested a pixel spatial evaluation method that gives lunar irradiance values
- Tom stressed the need for high-accuracy lunar measurements to set the absolute scale for lunar references (models)
  - current active projects include air-LUSI (deployment this week), MLO-LUSI (to start operating later this year) and ARCSTONE (CubeSat, to launch in ~2 years), **others**?

Vis/NIR breakout session — lunar part

Sebastien Wagner presented on GSICS lunar calibration activities at EUMETSAT

- main topic: planning for the next (4th) GSICS lunar calibration workshop
  - list of workshop topics includes:
    - evaluating the lunar irradiance from Moon images
    - the dispersion of instruments' measurements when compared against the same lunar reference/model
    - the GSICS lunar model inter-comparison exercise
    - use of the Moon in the IR and microwave regions
    - alternative uses of Moon imagery, e.g. MTF, stray light, band co-registration
  - EUMETSAT has planned to host in Darmstadt
  - timeframe discussed, agreed November or December 2023

Potential actions:

- revive lunar model inter-comparison exercise and report results at 2023 annual meeting

Vis/NIR webmeeting lunar talks:

- Hugh Kieffer to present his pixel spatial evaluation concept
- Seb Wagner to present Sentinel 3 OLCI and SLSTR lunar calibrations