



SST/LST comparison CEOS CV8

Joint CEOS WGCV VC-SST activity

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NPL (with ESA support)

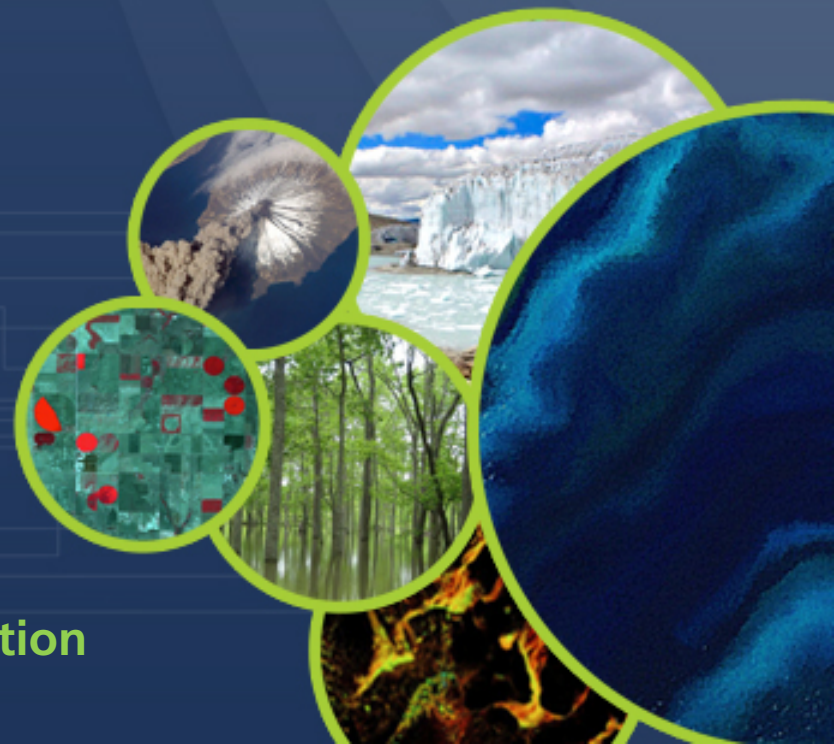
WGCV Plenary # 39

Berlin

May 6 - 8, 2015



Working Group on Calibration and Validation



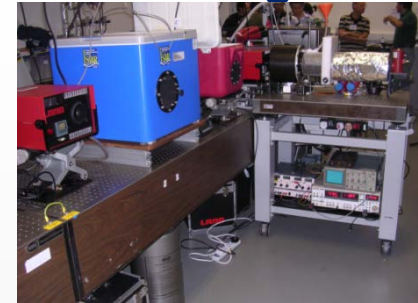


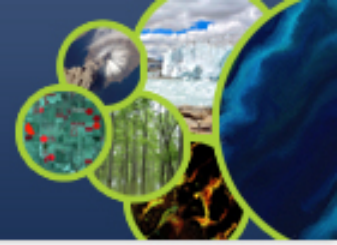
Fiducial Reference Measurements For validation of Surface Temperature of Satellites (FRM4STS)

- Organise and analyse CEOS comparisons (Laboratory and Field) for SST/LST/IST
 - Ensure traceability to SI through NMI standards
 - Evaluate sensitivities of radiometers to operational conditions (e.g. sky brightness)
 - Report results
 - Develop strategy to maintain measurement systems and their quality
- Review/Consolidate and Document best practises for establishing/maintaining and demonstrating 'traceability' (Fiducial nature of measurement system)
- Review state of art and means to improve the traceability of 'non-recoverable' measurement systems



- **Laboratory (controlled conditions) comparison of SST and LST measuring radiometers and associated travelling reference black bodies @NPL UK Q1/1.5 2016**
 - Traceability to NPL and PTB standards (SI)
 - Range of Temperatures (250 -315 K) TBC
 - updated protocols of Miami 3 comparison (2010)
 - Require detailed uncertainty budgets (training given as needed)
- **Intermediate (external near controlled conditions) comparison**
 - Investigate environmental effects (sky brightness, view angle etc)
 - @/near NPL same time frame
 - NPL facility on reservoir near LHR for SST
 - Artificial targets of gravel, sand, Grass @ NPL for LST
- **Field comparison of radiometers for LST @ Gobabeb Namibia (KIT) (Q3, Q4 2016 Q1 2017) TBC**
- **Pilot Field comparison of Radiometers for SST (bi-lateral) + protocol and database for follow-ons**
- **Pilot for IST (Greenland) Mar/Apr 2016 (TBC)**





- Invitation letter to participate in one or more of planned comparisons to be sent to community via CEOS and other Mechanisms within 1 Month
 - to include some options on dates (attempt a consensus)
 - confirmation of intent to participate and any issues on funding
(Note: as CEOS project expect key participants to be supported)
 - Types of instruments planned to participate
- Website to be created linked through Cal/Val portal (www.FRM4STS.org)
 - Details
 - Protocols
 - Photos and videos of activities when happening

