

CEOS WGCV IVOS workshop: To identify, quantify and verify the post-launch performance and relative biases of Earth Observation sensors

Hosted by:
Joint Research Centre (JRC), Ispra, Italy
Room 11 Bldg 58c

Agenda

Oct 18

Registration	from 12:30
Welcome Address A Belward JRC	13:15
Introduction to Workshop objectives N. Fox NPL	13:35

Session 1: Establishing consensus on uncertainty of vicarious calibration/validation methods for Land surface imagers and priorities for future research (1/2 day).

Test site characterisation

Site Characterization for vicarious calibration of Sensors? K Thome NASA	13:45
Results of Tuz Golu comparison: Surface based measurements I. Behnert NPL	14:10
Model-based quality assurance of validation protocols for land products J.L Widlowski JRC	14:25
<u>Discussion on establishing “best practise” for use and characterisation of test-sites</u>	14:40
Coffee Break	15:10

Towards an operational network of Test-sites: automation

LandNet N. Fox NPL	15:25
Automation of test sites:	
La-Crau (ROSAS) P Henry CNES	15:35
“semi-automated” test-site D Helder SDSU	15:45
RailRoad Valley J. Cepplar-Meyers Univ of Arizona (presented by K Thome)	15:55
<u>Discussion on establishing a network of automated site: instrumentation and issues</u>	16:05

Vicarious calibration methodologies using other Techniques

Use of Deep convective clouds D. Doelling (NASA)	16:30
Rayleigh scattering for sensor calibration B Fougne CNES	16:45
<i><u>Discussion on “Non-test-site” vicarious calibration methodologies</u></i>	17:00
Review of actions for input to day 3 & Close	17:30

Oct 19

Session 2: Identify biases between sensors and establish CEOS endorsed difference factors (1 day)

Use of a “Landnet site for cross-comparison

Results of Dome- C comparison Medium to Coarser scale sensors X Xiong NOAA	09:00
High to medium scale sensors S. Mackin DMCii	09:15
Results of Sensor comparison using Tuz Golu H Ozen Tubitak Uzay	09:30
Results of sensor comparisons using RR valley/white sands K. Thome NASA	09:45
<i><u>Discussion on results of sensor cross-comparisons using nominally instrumented Landnet sites</u></i>	10:00
Break	10:30

Use of a non-instrumented single site for cross-comparison

Results of “Simultaneous Nadir Overpass” (SNO) as used by GSICS T Hewison (GSICS)	10:50
Results from Dimitri: matched angle cross-calibrations M. Bouvet/P. Goryl ESA	11:10
Results on use of Moon for cross-comparison T. Stone USGS	11:30
Results on use of NDVI for cross-comparison T. Miura Univ of Hawaii	11:50
<i><u>Discussion on results using non-instrumented single sites</u></i>	12:10
Lunch	12:40

Sensor cross-comparison using multiple sites and associated issues

Saharan Desert BRDF models 13:50
E Vermote Univ Maryland

Results of cross-comparisons of Sensors using SADE database 14:05
P. Henry CNES

Results of Cross-comparisons using multiple different sites 14:30
e.g Deserts and snow
D Smith RAL/SSTFC

Cross-calibration of wide field sensors of IRS-1C, -1D and -P6 using near-synchronous matching scenes 14:50
A Senthil Kumar ISRO

Discussion on Results multiple sites 15:10

Break 15:40

Review of relative sensor-to-sensor biases and Establishing CEOS endorsed gain “correction factors” for standard conditions.

Review summary of bias differences from pre-submitted values
And others 16:00

Discussion and conclusions

Close 17:30

Oct 20

Session 3: Establishing consensus on uncertainty of vicarious calibration/validation methods for Ocean colour imagers and priorities for future research (1/2 day)

Measurement uncertainties in vicarious calibration of Ocean colour sensors

Vicarious Calibration of Ocean Colour Sensors 09:00
(**Frederic Melin** – JRC and **Sean Bailey** - NASA)

Uncertainties of in situ ocean colour radiometric measurements 09:30
Carol Johnson - NIST

Discussion on ocean colour vicarious calibration and measurement
Uncertainties 10:00

Break 10:30

Ocean colour test-sites

MOBy vicarious-calibration site 10:50
(**Michael Feinholz**, California State University)

BOUSSOLE vicarious-calibration site 11:20
(**David Antoine** - LOV)

AERONET-OC validation sites 11:50
(**Giuseppe Zibordi** - JRC)

Discussion on ocean colour sites for vicarious calibration and validation 12:20

Lunch 12:50

Session 4: The way forward

Past, present and future Post-launch calibration and validation 14:00
P. Teillet Univ of Lethbridge

Summary of workshop to date 14:30
Land
OC

Next steps: developing a work plan 15 00

Nb This session will include some presentations to introduce some of these topics, authors of which are aware, but if there are others then will potential presenters contact chair (Nigel Fox) during the meeting to discuss.

Elements and steps to “operational”

Links and lessons to learn from others

Common Formats for exchange of data

Vicarious methodologies to use

Long-term Maintenance of test-sites and sensor comparisons

Establishing a roadmap

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Workshop Close 17:00