

## Tenth BSRN Scientific Review and Workshop, 7-11 July 2008 KNMI, De Bilt, The Netherlands

### Monday, July 7

#### **Opening and overviews**

- 08:30 – 08:35 Ellsworth Dutton and Wouter Knap – Meeting opening and logistics  
08:35 – 08:45 Hein Haak, Director of Climate and Seismology – Welcome to KNMI  
08:45 – 09:15 Reinout Boers – Observations and research activities at the Cabauw Experimental Site for Atmospheric Research (CESAR)  
09:15 – 09:30 Peter van Oevelen – Overview of GEWEX activities and global data products  
09:30 – 09:45 Dave Goodrich (presented by Richard Thigpen) – Report from the GCOS Secretariat  
09:45 – 10:00 Ellsworth Dutton – Overview and expectations for the meeting  
10:00 – 10:30 Break (complete poster set up)

#### **Observatories – Status and Proposals (other status reports are in Posters)**

- 10:30 – 10:45 Enio Pereria – Status of newly instituted BSRN activities in Brazil  
10:45 – 11:00 Bruce McArthur – Proposal for the inclusion of Eureka, Nunavut as a BSRN station  
11:00 – 11:15 Raquel Gastesi Barasoain – The radiometric station of CENER (Pamplona, Spain): Candidate to BSRN  
11:15 – 11:30 Vito Vitale – Status of BSRN measurements at Concordia station (Dome C - Antarctica)  
11:30 – 11:45 Anatoly Tsvetkov – An overview on the activity of setting up BSRN site in Russia  
11:45 – 12:00 All – Discussion on newly proposed sites and additional site needs  
12:00 – 13:00 Lunch and poster viewing  
13:00 – 13:20 Fernanda Carvalho – Azores Global Atmosphere Monitoring Complex (AGAMC) and Surface Radiation Measurements in the Azores

#### **Archive Activities**

- 13:20 – 13:45 Gert König-Langlo – The World Radiation Monitoring Center at the Alfred Wegener Institute  
14:45 – 15:10 All – Focused discussion on BSRN archiving procedures and practices  
15:10 – 15:40 Break and poster viewing  
15:40 – 16:00 Anatoly Tsvetkov – The long term archiving activities at the WRDC and current operation related to GAW/BSRN data

#### **Basic Observations – Analysis and Review**

- 16:00 – 16:20 Steve Wilcox – NREL Radiometer Calibrations and Data Quality Assessment Methods  
16:20 – 16:40 Rachel Pinker – Characterization of the radiation climate of the BSRN sites  
16:40 – 17:00 Joseph Michalsky – Ongoing activities in the development of a proposed solar diffuse irradiance reference  
17:00 – 17:45 Poster viewing

### Tuesday, 8 July

- 08:30 – 08:50 Steve Wilcox – The Effects of the Thermal Environment on the Eppley Normal Incidence Pyrheliometer (NIP)  
08:50 – 09:10 Claus Behrens – The Responsivity of the Lindenberg BSRN pyranometers determined with different methods  
09:10 – 09:30 David Halliwell – Pyranometer Calibration and Characterization: Comparing Results from Mix-of sun-and-cloud Calculations to ISO/ASTM Alternating and Continuous Sun-and-shade Methods  
09:30 – 09:50 Christian Lanconelli – First analysis on albedo measurements at Concordia station and comparison with South Pole evaluations.  
09:50 – 10:05 Joop Mes - A proposed Improvement to the laboratory calibration of pyranometers.  
10:05 – 10:30 Break  
10:30 – 10:40 Ellsworth Dutton – Discussion on basic observations  
10:40 – 12:00 Working Group reports (15 minutes each + discussion - IR, AOD, Pyranometer, Direct, Pyrgeometer, Uncertainties)  
12:00 – 13:00 Lunch

## **Clouds and Aerosols**

- 13:00 – 13:20 Steve Cooper – Retrieved cloud properties from BSRN-type observations  
13:20 – 13:40 Laurent Vuilleumier – Radiation transfer in stratus clouds at BSRN Payerne  
13:40 – 14:05 Jean-Charles Dupont or Martial Haeffelin – Observed cirrus cloud radiative effects on surface-level shortwave and longwave irradiances  
14:05 – 14:25 Rachel Pinker – Aerosol radiative effects in the sub-Sahel Africa: Dust and biomass burning  
14:25 – 14:45 Mikhail Alexandrov – Characterization of atmospheric aerosols and water vapor using ground-based Sun photometry  
14:45 – 15:05 John Augustine – Climatology and interpretation of 11-years of aerosol optical depth data from the U.S. BSRN stations  
15:05 – 15:30 Break  
15:30 – 15:50 Wouter Knap – Quantification of the direct aerosol effect for Cabauw, the Netherlands  
15:50 – 16:20 Fernanda Carvalho – Aerosol Optical Measurements in the Azores

## **Network Activities, Calibrations, and Special Reports**

- 16:20 – 16:45 Richard Thigpen – Report on the GCOS global surface and upper air networks, GSN and GUAN, implementation activities  
16:45 – 17:45 Poster viewing

## **Wednesday, 9 July**

- 08:30 – 09:00 Ellsworth Dutton – State of BSRN  
09:00 – 09:30 Julian Gröbner – Calibration Activities at the World Radiation Center, PMOD/WRC  
09:30 – 09:50 Richard McKenzie – High-quality spectral UV measurements used to calculate optimal sun-exposure times.  
09:50 – 10:10 Thomas Stoffel – Radiometer Calibrations and Irradiance Measurements  
10:10 – 10:40 Break  
10:40 – 12:00 All – General Discussions, action items  
12:00 – 22:00 Lunch and local tour

## **Thursday, 10 July**

- 08:30 – 08:55 Chuck Long – Brief report on the International Workshop on Global Dimming and Brightening  
08:55 – 09:15 Laurent Vuilleumier – Long-term comparisons of collocated ground irradiance flux measurements

## **Model and Satellite Comparisons and Analysis**

- 09:15 – 09:35 Yuanchong Zhang – Importance of surface-based, nonradiative-flux parameters for validating satellite-derived radiative fluxes  
09:35 – 09:50 Taiping Zhang – Processing of the Baseline Surface Radiation Network (BSRN) Data and Its Application in Validating the NASA GEWEX SRB Data  
09:50 – 10:00 Wouter Knap – Pyrheliometer Ventilation  
10:00 – 10:15 Break  
10:15 – 10:35 Martin Wild – Applications of BSRN data to GCM models and comparisons  
10:35 – 10:50 Chuck Long – Detection of the MJO from Manus surface radiation measurements  
10:50 – 11:00 Jean-Charles Dupont – Evaluation of SW and LW based cloud detection algorithms  
11:00 – 11:20 Ping Wang – Clear sky closure study during EUCAARI campaign  
11:20 – 11:40 Nozomu Ohkawara – Comparison of Downward Radiation Observations at Tateno with Reanalyses Data.  
11:40 – 12:00 Fred Denn – Climatology at the Clouds and the Earth's Radiant Energy System (CERES) Ocean Validation Experiment (COVE)  
12:00 – 13:20 Lunch and Poster viewing

## **Spectral observations**

- 13:20 – 13:40 Bruce McArthur – A first look at an optically multiplexed spectral (UVA/VIS/NIR) radiometer  
13:40 – 14:10 Joseph Michalsky – 2008 Report on the Spectral Measurements Working Group.

14:10 – 16:00 Poster viewing (including a break)  
16:00 – 17:00 All – Discussion – Review and status assessment.  
17:00 – 17:45 Poster viewing

### **Friday, 11 July**

08:30 – 08:50 Crystal Schaaf -Use of BSRN data for Satellite Albedo Verification  
08:50 – 09:10 Plans and activities for next two years – charges to WGs  
09:10 – 11:00 Working group meetings  
11:00 – 12:00 Workshop conclusions, decisions, and wrap up  
12:00 – 13:00 Lunch

### **Posters**

- Gé Verver – Status of the radiation measurements in Paramaribo, Suriname
- Marion Maturilli and Gert König-Langlo – Status of the Polar BSRN Sites Ny-Ålesund and Neumayer
- R. Schioppo, C. Lanconelli, M. Busetto, V. Vitale, R. Stone, A. Lupi, M. Mazzola – Use of an 2AP tracker in a measuring site over the Antarctic Plateau
- Julian Gröbner – The PMOD-COST 726 calibration and Intercomparison campaign of erythemal radiometers
- Julian Gröbner – Intercomparison of erythemal broadband radiometers calibrated by seven UV calibration facilities in Europe and the U.S.A.
- David Halliwell and Bruce McArthur – Current activities at the Bratt's Lake BSRN site
- David Halliwell and BruceMcArthur – Current activities at the Alert BSRN site - a NOAA/EC cooperative effort
- Zheng Xiagdong – Atmospheric radiation observations in the CMA GAW sites
- Gary Hodges – Spectral Albedo at Table Mountain SURFRAD
- Stephan Nyeki – The GAWPFR aerosol optical depth network at baseline GAW stations
- Fred Denn and Bryan Fabbri – On going measurement projects at the Clouds and the Earth's Radiant Energy System (CERES) Ocean Validation Experiment (COVE)
- Nozomu Ohkawara – Status Report of Tateno Station
- Laurent Vuilleumier – Status of the Payerne BSRN station
- Jean-Philippe Morel – The impact of the clouds on UV radiation in French Indies
- Lamine Boulkelia – Status of Tamanrasset BSRN station (Algeria)
- R. Philipona, et al. (presented by L. Vuilleumier) – Aerosol and cloud effects on solar brightening and the recent rapid warming in Europe
- Wiel Wauben, Rob van Krimpen, Cor van Oort and Fred Bosveld – Sky Temperature / Cloud Measurements at Cabauw using the NubiScope
- Paulo Fialho – Azores Observation Network (AZONET)