



Report of the Working Group BSRN - Baseline Surface Radiation Network

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The World Radiation Monitoring Center (WRMC) is the central archive of the Baseline Surface Radiation Network (BSRN). The objective of the BSRN is to provide short and long-wave surface radiation fluxes of the best possible quality currently available to support the research projects of the World Climate Research Programme and other scientific projects. The high quality, uniform and consistent measurements throughout the BSRN network are used to:

- monitor the short-wave and long-wave radiative components and their changes with the best methods currently available,
- validate and evaluate satellite-based estimates of the surface radiative fluxes and to
- verify the results of global climate models (GCMs).

The BSRN/WRMC started with 9 stations in 1992 at ETH Zurich, Swiss. In 2007 the archive was moved to the Alfred-Wegener-Institut (AWI) in Bremerhaven, Germany (<http://www.bsrn.awi.de/>). Additionally to the ftp-service already offered at ETH Zurich, the archive now offers data access via PANGAEA - Data Publisher for Earth & Environmental Science (<http://www.pangaea.de/>).

PANGAEA guarantees long-term availability of its content through a commitment of the operating institutions. PANGAEA follows the "Recommendations of the Commission on Professional Self Regulation in Science for safeguarding good scientific practice". The policy of data management and archiving follows the Principles and Responsibilities of ICSU World Data Centers and the OECD Principles and Guidelines for Access to Research Data from Public Funding. Each dataset is identified, shared, published and can be cited by using a Digital Object Identifier (DOI). PANGAEA metadata are GOOGLE searchable. Furthermore, PANGAEA offers a Google-like interface for searching and distributing BSRN-data via web.

Special link-tables are included in the web pages of the archive which help to find BSRN-data. The metadata can be accessed without logging into the archive. To access the data itself an account is required. Any persons who accept to follow the data release guidelines of the archive (http://www.bsrn.awi.de/en/data/conditions_of_data_release/) can get an account from Gert.Koenig-Langlo@awi.de for free. The same account is valid for data retrieval via the ftp-archive (<ftp://ftp.bsrn.awi.de/>).

In the beginning of 2012 more than 6000 station-months of data from 53 stations all over the world are available in the archive (<http://www.bsrn.awi.de/>). Although the WRMC was originally designed especially for climate researcher, the archive gets more and more additionally used in the framework of solar energy research.

The BSRN/WRMC was launched by the World Climate Research Programme WCRP. It is incorporated into the WCRP Global Energy and Water Cycle Experiment (GEWEX) Radiation Panel. Since 2004 the archive is part of the Global Climate Observing System (GCOS). In 2011 the BSRN/WRMC and the Network for the Detection of Atmospheric Composition Change (NDACC, <http://www.ndacc.org/>) have reached a formal agreement to become cooperative networks. It is planned to integrate the BSRN/WRMC as a Data Collection or Production Centre (DCPC) into the Global Information System Centres (GISCs) of the World Meteorological Organization WMO.