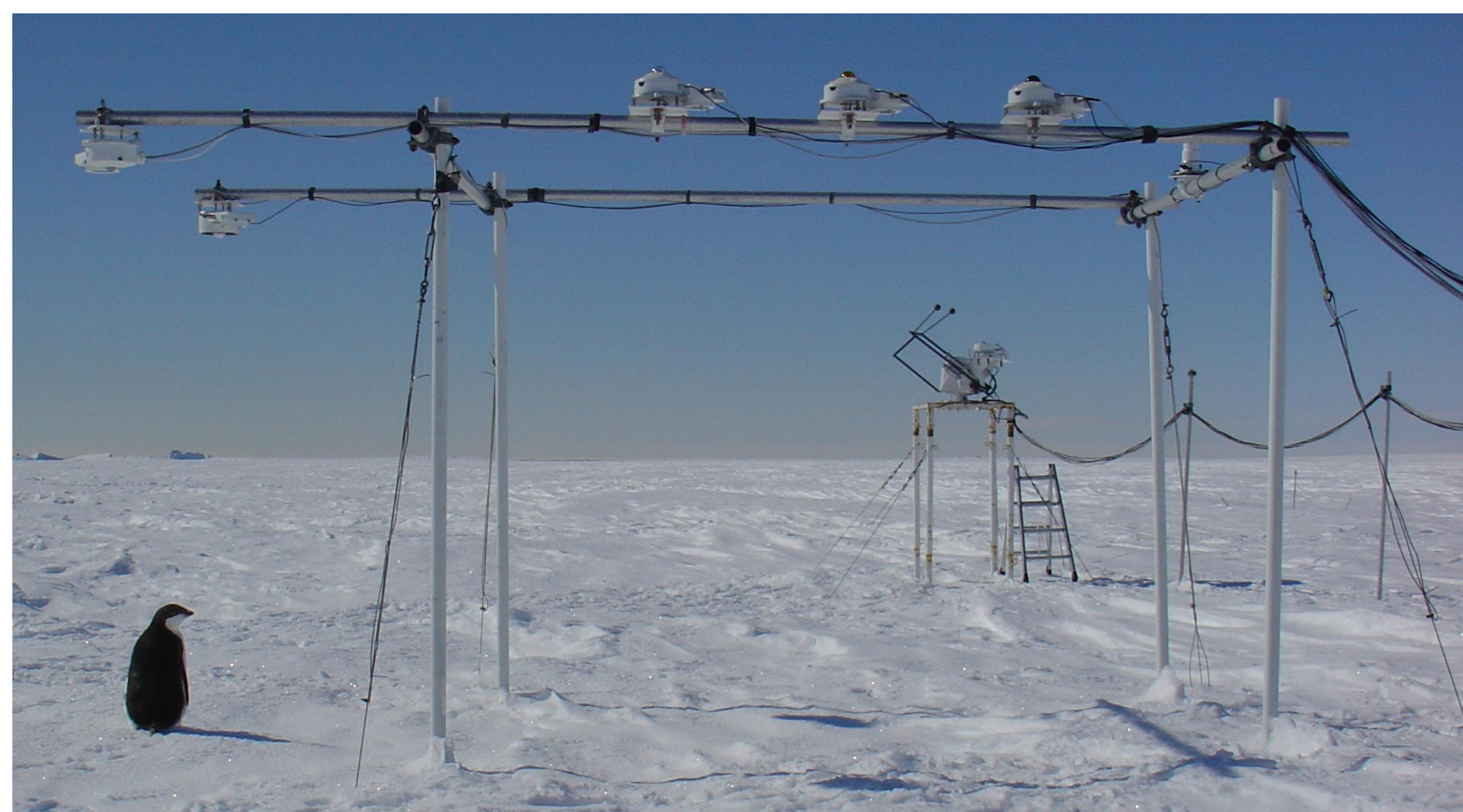


# The World Radiation Monitoring Center (WRMC) of the Baseline Surface Radiation Network (BSRN)

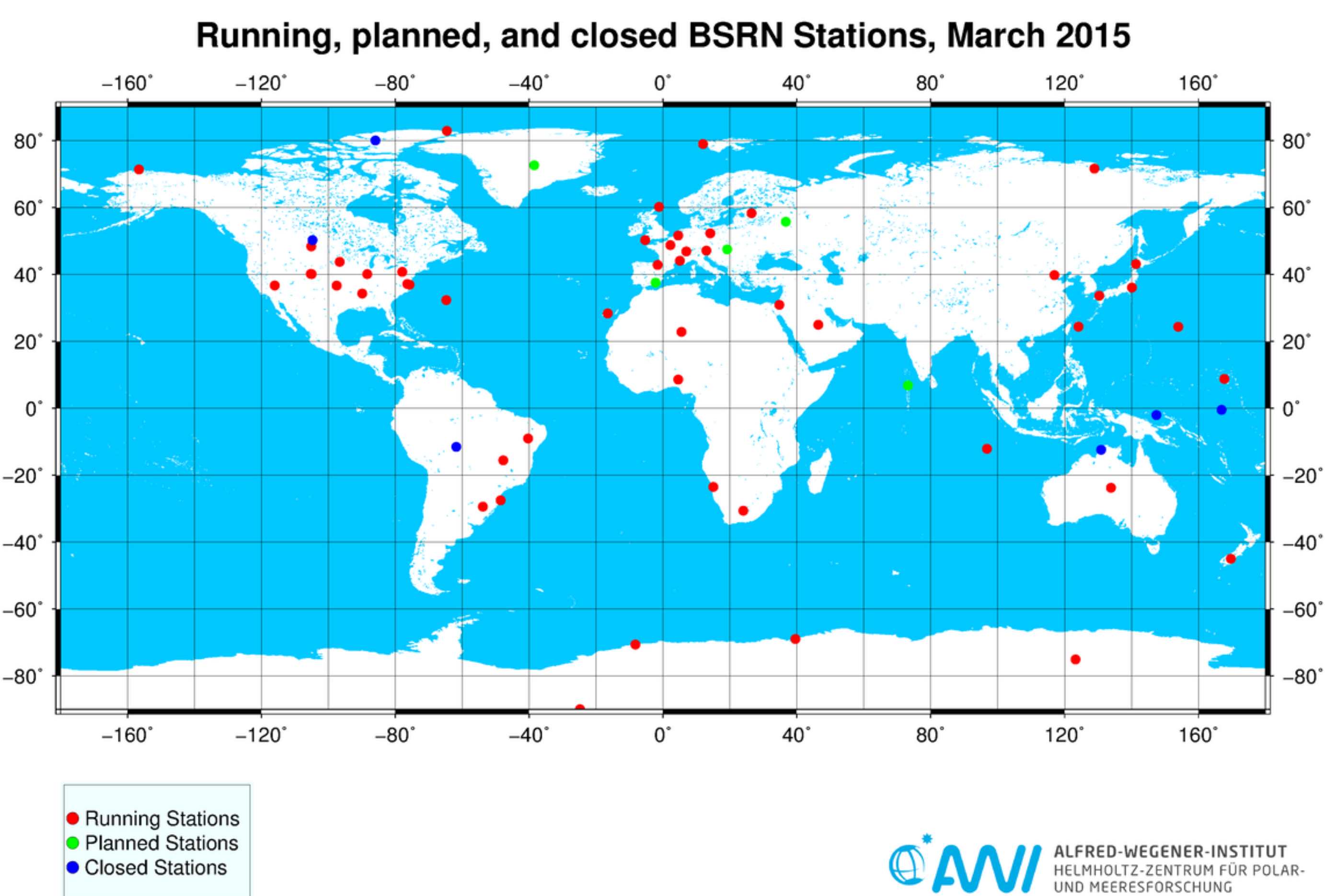
Gert König-Langlo; Amelie Driemel; Rainer Sieger;  
Wolfgang Cohrs; Bonnie Raffel

## The WRMC...

- is the central archive of the BSRN.
- It was established in 1992 at ETH Zurich.
- The objective of the archive is to provide the best possible quality for short- and long-wave surface radiation fluxes.
- These readings are taken from a small number of selected stations, in contrasting climatic zones, together with collocated surface and upper air meteorological data and other supporting observations.
- Originally, the archive was used only from climate scientists. Meanwhile, the WRMC also gets used more and more in the framework of solar energy research.



AWI- BSRN station at Neumayer

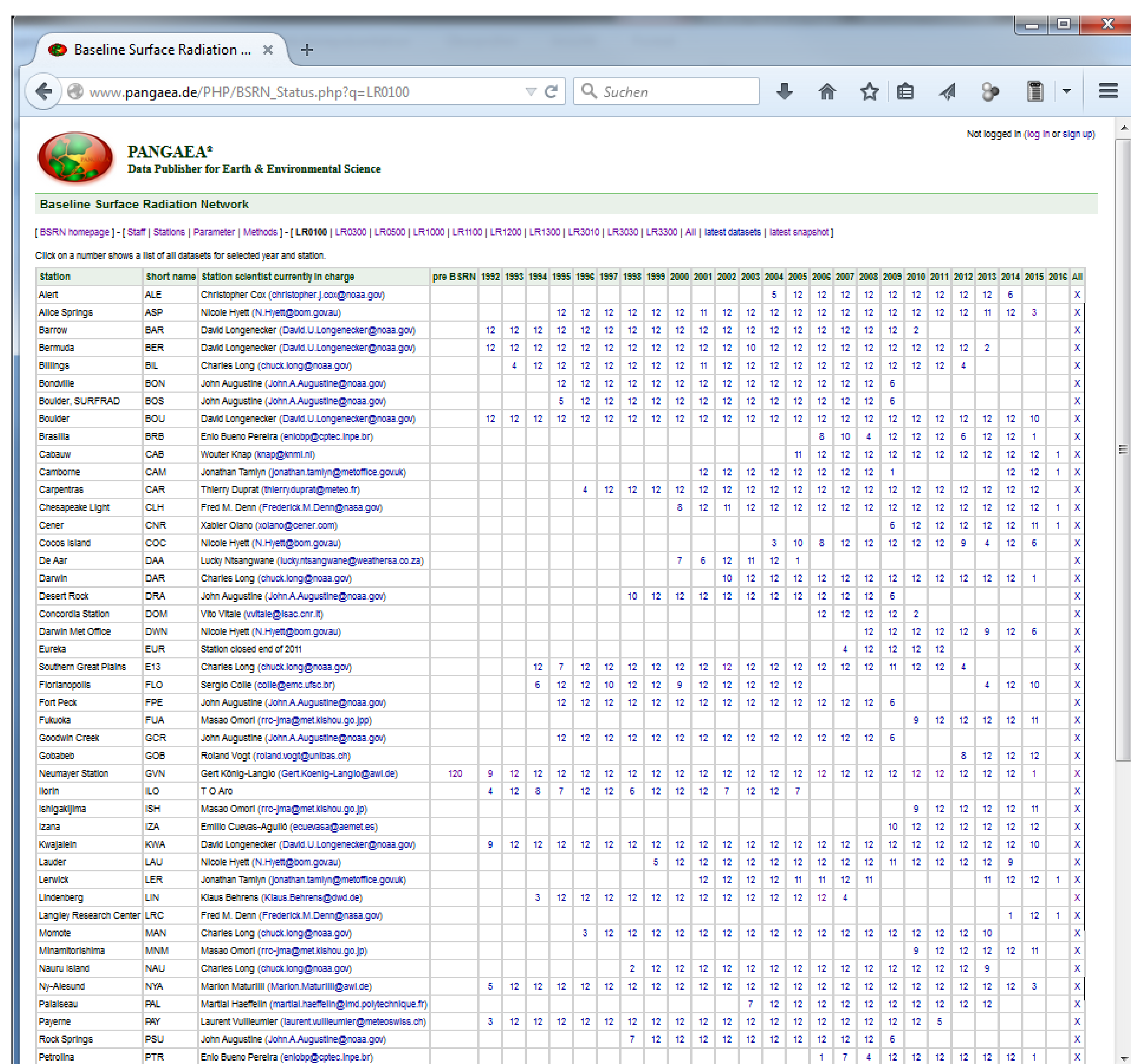


## Available datasets

- The typical average interval for radiation data is one minute.
- The parameters offered: global, diffuse, direct, long-wave down, reflex, long-wave up, UV radiation, synoptic observations, upper air soundings, total ozone, ceilometer data, and radiation measurements from towers.
- More than 8700 months (~ 725 years) of high quality radiation data submitted from 59 stations since 1992 are archived.
- BSRN data are available for non commercial users for bona fide research purposes at no cost. For details see: <http://bsrn.awi.de/data/conditions-of-data-release.html>.
- All data can be retrieved interactively by any registered user from a ftp-server and the Publishing Network PANGAEA (<http://www.pangaea.de/search?q=BSRN>).

## Brief History

- The BSRN was conceived and implemented in the late 1980s by the World Climate Research Program (WCRP).
- Since the early 2000s the WRMC/BSRN is part of GEWEX, GAW, and GCOS.
- In July 2008 AWI took over the WRMC from ETH Zurich (<http://www.bsrn.awi.de>).



Baseline Surface Radiation Network

Station	Short name	Station scientist currently in charge	pre BSRN	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	All
Alet	ALE	Christopher Cox (christopher.j.cox@noaa.gov)																											
Alice Springs	ASP	Nicole Hyett (N.Hyett@boom.gov.au)																											X
Barrow	BAR	David Longenecker (David.L.Longenecker@noaa.gov)																											X
Bermuda	BER	David Longenecker (David.L.Longenecker@noaa.gov)																											X
Billingis	BIL	Charles Long (chuck.long@noaa.gov)																											X
Bonville	BON	John Augustine (John.A.Augustine@noaa.gov)																											X
Boulder	BOS	John Augustine (John.A.Augustine@noaa.gov)																											X
Boulder	BOU	David Longenecker (David.L.Longenecker@noaa.gov)																											X
Brasilia	BRB	Elio Suend Pereira (elio.suend@cpac.inpe.br)																											X
Caracas	CAB	Wouter Knap (wkn@cmi.nl)																											X
Caromb	CAM	Jonathan Tamny (jonatan.tamny@metoffice.gov.uk)																											X
Carpetras	CAR	Thierry Duprat (thierry.duprat@meteo.fr)																											X
Chesapeake Light	CLH	Fred M. Denn (Fredrick.M.Denn@noaa.gov)																											X
Cher	CNR	Xavier Orlan (xolan@ceh.fr)																											X
Coos Bay	COC	Nicole Hyett (N.Hyett@boom.gov.au)																											X
De Aar	DAA	Ludy Ntlangwane (ludy.ntlangwane@weather.co.za)																											X
Darwin	DAR	Charles Long (chuck.long@noaa.gov)																											X
Desert Rock	DRA	John Augustine (John.A.Augustine@noaa.gov)																											X
Concordia Station	DOM	Vito Vitec (vitec@isac.osi.fr)																											X
Darwin Met Office	DWN	Nicole Hyett (N.Hyett@boom.gov.au)																											X
Eureka	EUR	Station closed end of 2011																											X
Southern Great Plains	E13	Charles Long (chuck.long@noaa.gov)																											X
Fionnropps	FLO	Sergio Orlan (sergio.orlan@meteo.fr)																											X
Fort Peck	FPE	John Augustine (John.A.Augustine@noaa.gov)																											X
Fukuoka	FUK	Masao Omori (mori-jm@met.kishou.go.jp)																											X
Goodwin Creek	GCR	John Augustine (John.A.Augustine@noaa.gov)																											X
Goosau	GOB	Roland Vogt (roland.vogt@meteo.ch)																											X
Neumayer Station	GNV	Gert König-Langlo (Gert.Koenig-Langlo@awi.de)	120	9	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	X
Isoiri	ILO	T O Aio																											X
Ishigaki	ISH	Masao Omori (mori-jm@met.kishou.go.jp)																											X
Isana	ISA	Emilio Cuevas-Agullo (ecuevas@meteo.es)																											X
Kerguelen	KGA	David Longenecker (David.L.Longenecker@noaa.gov)																											X
Lausick	LAU	Nicole Hyett (N.Hyett@boom.gov.au)																											X
Lanzer	LER	Jonathan Tamny (jonatan.tamny@metoffice.gov.uk)																											X
Lindenberg	LIN	Klaus Behrens (klaus.behrens@meteo.de)																											X
Langley Research Center	LRC	Fred M. Denn (Fredrick.M.Denn@noaa.gov)																											X
Monote	MAN	Charles Long (chuck.long@noaa.gov)																											X
Mitsubishi	MMI	Masao Omori (mori-jm@met.kishou.go.jp)																											X
Nauru Island	NAU	Charles Long (chuck.long@noaa.gov)																											X
Ny-Alesund	NVA	Marian Maturilli (Marian.Maturilli@awi.de)																											X
Palaiseau	PAL	Martial Haertlin (martial.haertlin@meteo.fr)																											X
Payenne	PAY	Laurent Vuilleumier (laurent.vuilleumier@meteo.ch)																											X
Rock Springs	RSU	John Augustine (John.A.Augustine@noaa.gov)																											X
Trondheim	TRN	Elio Suend Pereira (elio.suend@cpac.inpe.br)																											X

Web-interface for retrieving monthly BSRN datasets using PANGAEA