WRMC-BSRN
World Radiation Monitoring Center- Baseline Surface Radiation Network

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BSRN-Archive

Overview and Status

All | Water | Sediment | Ice | Atmosphere

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project:BSRN COC Search

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Always quote citation when using data!

80 datasets found on search for »project:BSRN COC« Show Map | Google Earth | Data Warehouse

<< PREV | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | NEXT >>

1. **Forgan, B (2010): Basic measurements of radiation at station Cocos Island (2004-11)**
   Size: 512216 data points
   doi:10.1594/PANGAEA.730511 - Score: 100% - Similar datasets
2. **Forgan, B (2010): Basic measurements of radiation at station Cocos Island (2004-12)**
   Size: 612576 data points
   doi:10.1594/PANGAEA.730512 - Score: 100% - Similar datasets
3. **Forgan, B (2010): Basic measurements of radiation at station Cocos Island (2005-01)**
   Size: 68148 data points
   doi:10.1594/PANGAEA.730514 - Score: 100% - Similar datasets
4. **Forgan, B (2010): Basic measurements of radiation at station Cocos Island (2005-02)**
   Size: 613000 data points
   doi:10.1594/PANGAEA.730515 - Score: 100% - Similar datasets
5. **Forgan, B (2010): Basic measurements of radiation at station Cocos Island (2005-03)**
   Size: 635584 data points
   doi:10.1594/PANGAEA.730516 - Score: 100% - Similar datasets
6. **Forgan, B (2010): Basic measurements of radiation at station Cocos Island (2005-04)**

Gert König-Langlo, Rainer Sieger, BSRN Meeting 2012

WRMC-BSRN

World Radiation Monitoring Center- Baseline Surface Radiation Network

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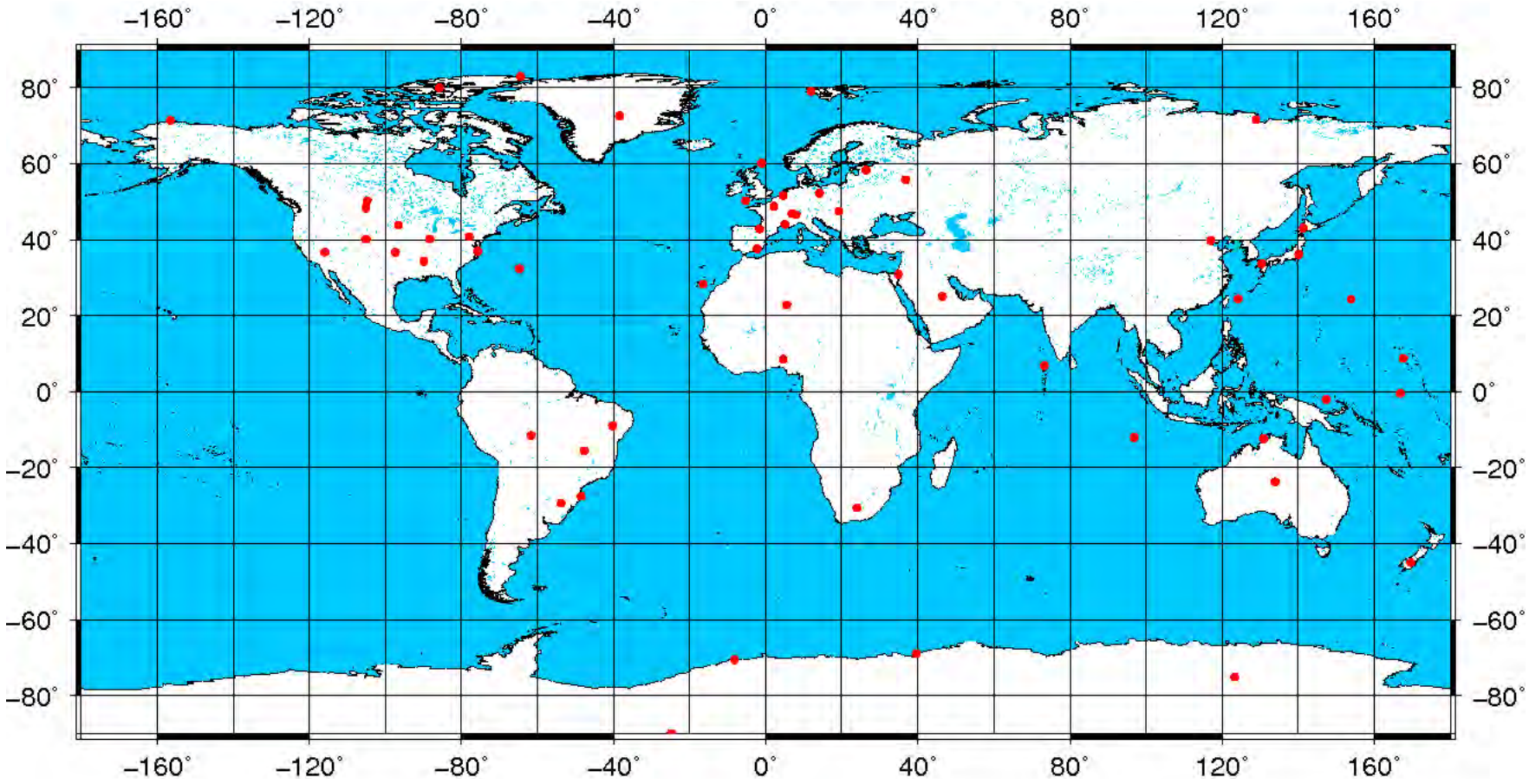
Present State of the WRMC: 54 stations providing data



Gert König-Langlo, Rainer Sieger, BSRN Meeting 2012

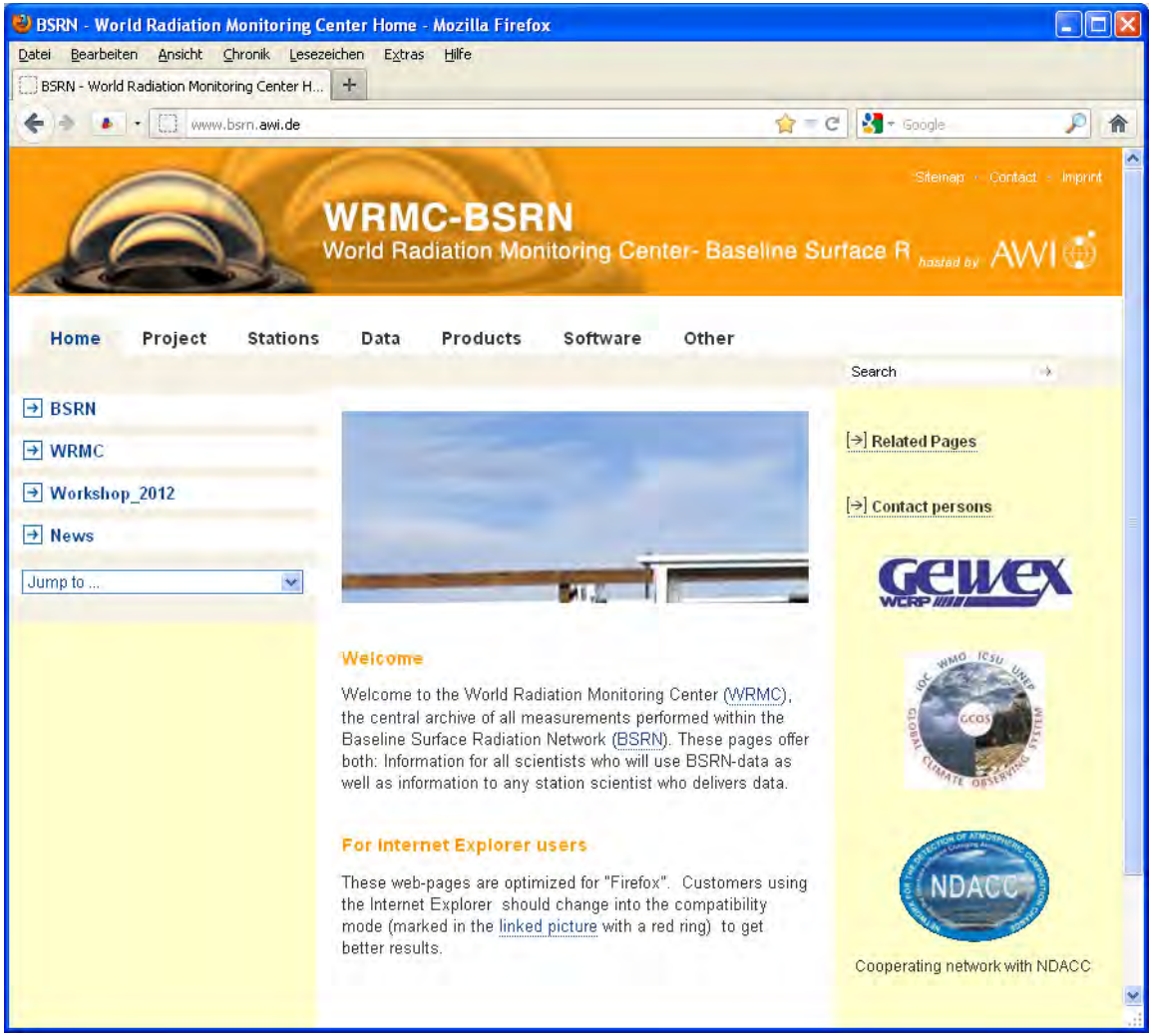
Present State of the WRMC: Datasets

The typical average interval for radiation data is 1 minute:

1. LR 0100: (Global, Diffuse, Direct, Long-wave down) 54 stations
2. LR 0300: (Reflex, Long-wave up) 9 stations
3. LR 0500: (UV) 12 stations
4. LR 1000: (Synops) 12 stations
5. LR 1100: (Upper air soundings) 29 stations
6. LR 1200: (Total ozone) 9 stations
7. ~~LR 1300: (Aerosol optical depths) (under construction) (14) stations~~
8. LR 1300: (Ceilometer data) 3 stations
9. LR 30x0: (Radiation measurements from tower) 13 stations

Infrastructure

1. Homepage: http://www.bsrn.awi.de



WRMC-BSRN
World Radiation Monitoring Center- Baseline Surface Radiation Network

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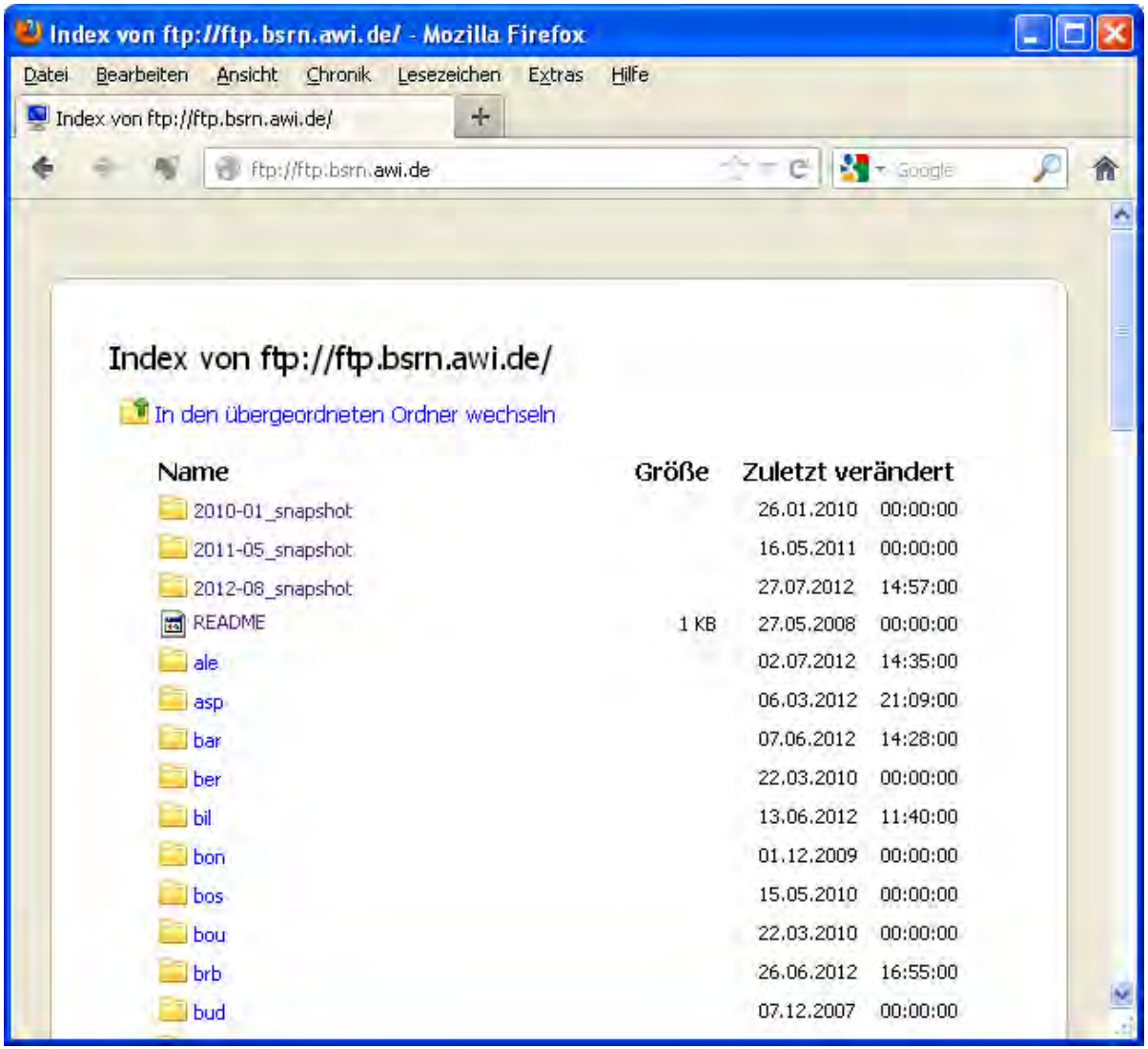
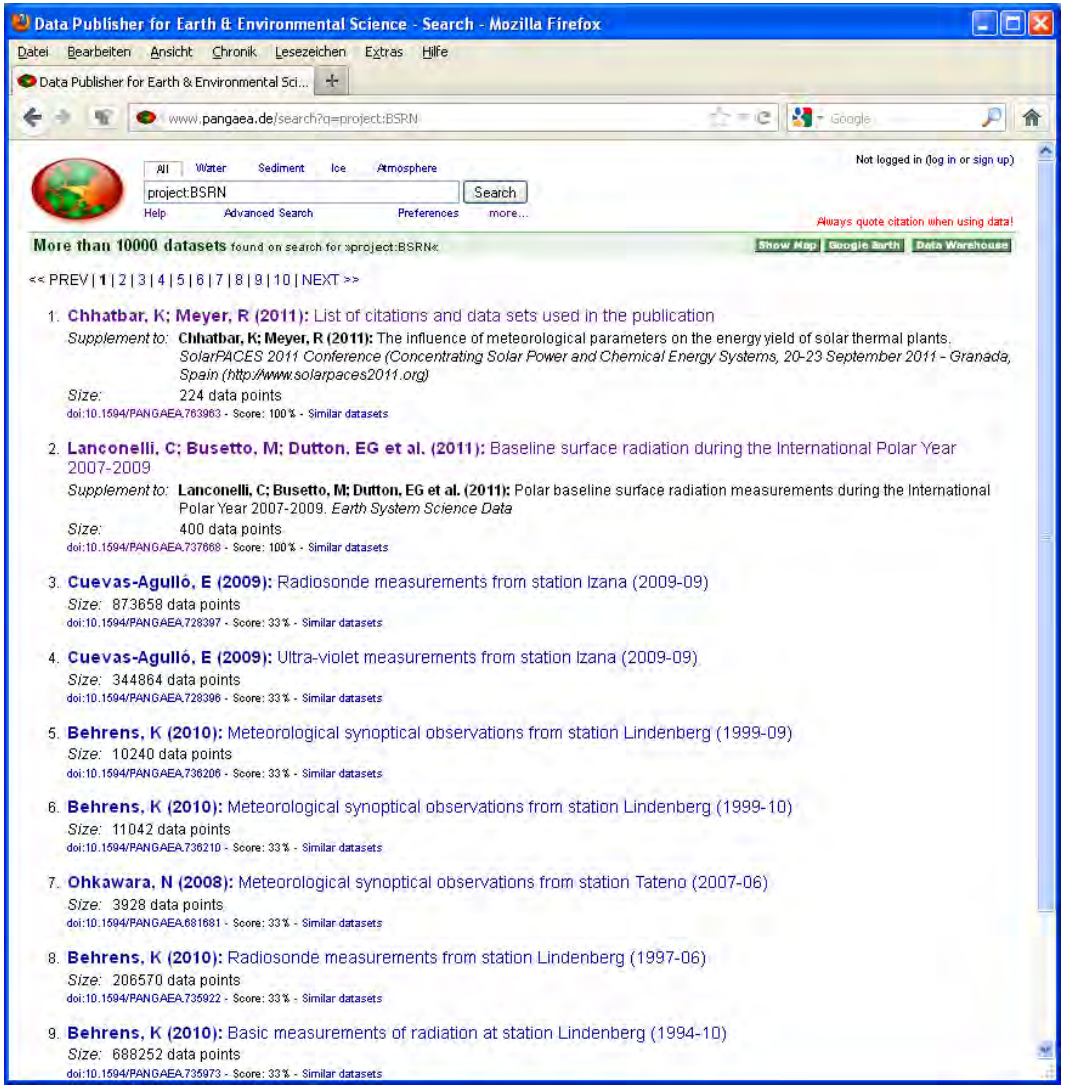
Infrastructure

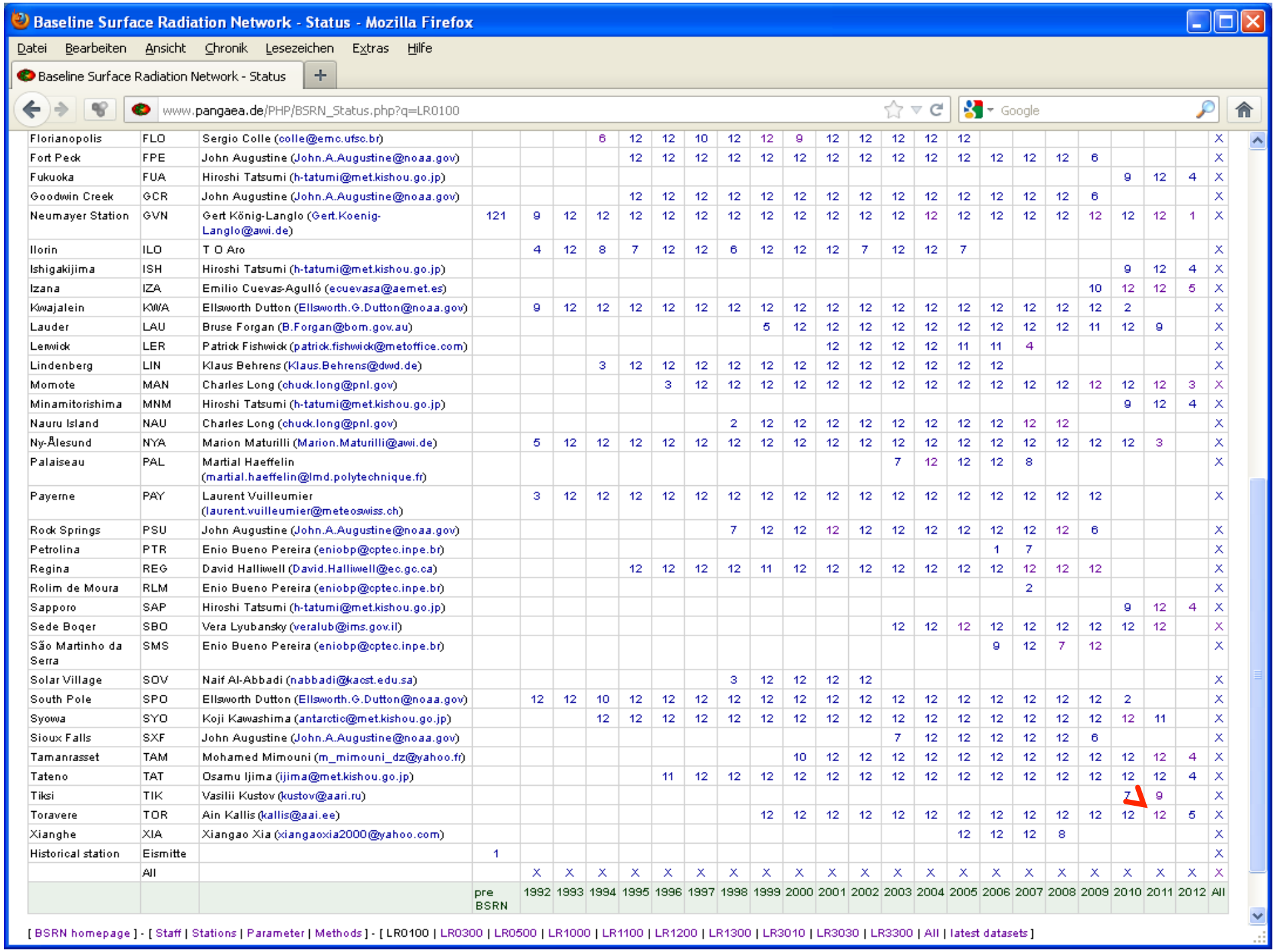
1. Homepage: http://www.bsrn.awi.de
2. Ftp access: ftp://ftp.bsrn.awi.de/



Infrastructure

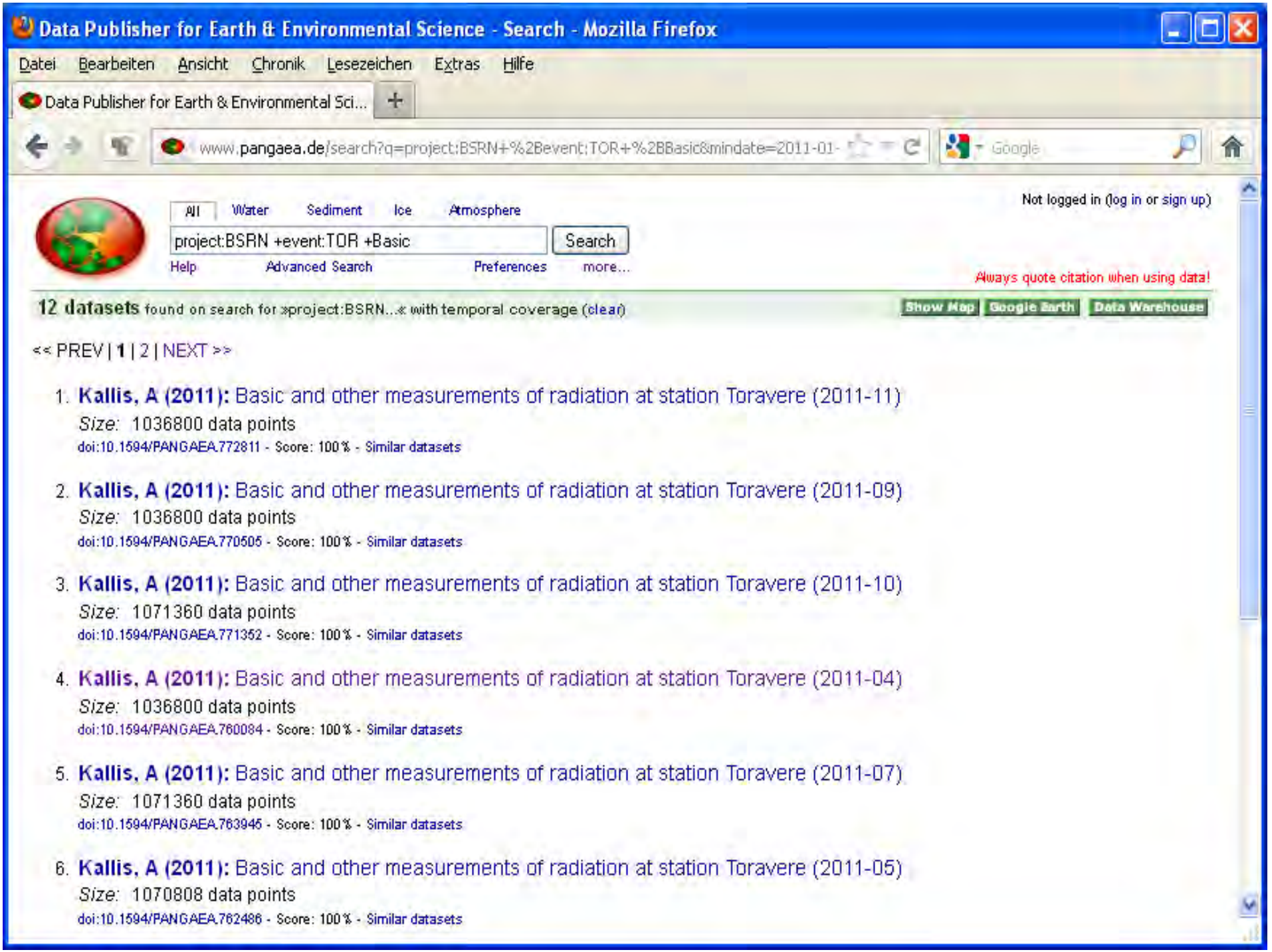
1. Homepage: http://www.bsrn.awi.de.
2. Ftp access: ftp://ftp.bsrn.awi.de/
3. PANGAEA access: http://www.pangaea.de/search?q=project:BSRN





Florianopolis	FLO	Sergio Colle (colle@emc.ufsc.br)				6	12	12	10	12	12	9	12	12	12	12	12								X
Fort Peck	FPE	John Augustine (John.A.Augustine@noaa.gov)					12	12	12	12	12	12	12	12	12	12	12	12	12	12	6				X
Fukuoka	FUA	Hiroshi Tatsumi (h-tatumi@met.kishou.go.jp)																				9	12	4	X
Goodwin Creek	GCR	John Augustine (John.A.Augustine@noaa.gov)					12	12	12	12	12	12	12	12	12	12	12	12	12	12	6				X
Neumayer Station	GVN	Gert König-Langlo (Gert.Koenig-Langlo@awi.de)	121	9	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	1	X
Ilorin	ILO	T O Aro		4	12	8	7	12	12	6	12	12	12	7	12	12	7								X
Ishigakijima	ISH	Hiroshi Tatsumi (h-tatumi@met.kishou.go.jp)																				9	12	4	X
Izana	IZA	Emilio Cuevas-Agulló (ecuevasa@aemet.es)																			10	12	12	5	X
Kwajalein	KWA	Ellsworth Dutton (Ellsworth.G.Dutton@noaa.gov)		9	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	2			X
Lauder	LAU	Bruse Forgan (B.Forgan@bom.gov.au)									5	12	12	12	12	12	12	12	12	12	11	12	9		X
Lerwick	LER	Patrick Fishwick (patrick.fishwick@metoffice.com)											12	12	12	12	11	11	4						X
Lindenberg	LIN	Klaus Behrens (Klaus.Behrens@dwd.de)				3	12	12	12	12	12	12	12	12	12	12	12	12							X
Momote	MAN	Charles Long (chuck.long@pnl.gov)						3	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	3	X
Minamitorishima	MNM	Hiroshi Tatsumi (h-tatumi@met.kishou.go.jp)																				9	12	4	X
Nauru Island	NAU	Charles Long (chuck.long@pnl.gov)								2	12	12	12	12	12	12	12	12	12	12					X
Ny-Ålesund	NYA	Marion Maturilli (Marion.Maturilli@awi.de)		5	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	3		X
Palaiseau	PAL	Martial Haeffelin (martial.haeffelin@lmd.polytechnique.fr)													7	12	12	12	8						X
Payerne	PAY	Laurent Vuilleumier (laurent.vuilleumier@meteoswiss.ch)		3	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12				X
Rock Springs	PSU	John Augustine (John.A.Augustine@noaa.gov)								7	12	12	12	12	12	12	12	12	12	12	6				X
Petrolina	PTR	Enio Bueno Pereira (eniobp@cptec.inpe.br)															1	7							X
Regina	REG	David Halliwell (David.Halliwell@ec.gc.ca)					12	12	12	12	11	12	12	12	12	12	12	12	12	12	12				X
Rolim de Moura	RLM	Enio Bueno Pereira (eniobp@cptec.inpe.br)																2							X
Sapporo	SAP	Hiroshi Tatsumi (h-tatumi@met.kishou.go.jp)																				9	12	4	X
Sede Boqer	SBO	Vera Lyubansky (veralub@ims.gov.il)													12	12	12	12	12	12	12	12	12		X
São Martinho da Serra	SMS	Enio Bueno Pereira (eniobp@cptec.inpe.br)																9	12	7	12				X
Solar Village	SOV	Naif Al-Abbadi (nabbadi@kacst.edu.sa)								3	12	12	12	12											X
South Pole	SPO	Ellsworth Dutton (Ellsworth.G.Dutton@noaa.gov)		12	12	10	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	2			X
Syowa	SYO	Koji Kawashima (antarctic@met.kishou.go.jp)				12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	11		X
Sioux Falls	SXF	John Augustine (John.A.Augustine@noaa.gov)													7	12	12	12	12	12	6				X
Tamanrasset	TAM	Mohamed Mimouni (m_mimouni_dz@yahoo.fr)										10	12	12	12	12	12	12	12	12	12	12	12	4	X
Tateno	TAT	Osamu Ijima (ijima@met.kishou.go.jp)						11	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	4	X
Tiksi	TIK	Vasilii Kustov (kustov@aari.ru)																				7	9		X
Toravere	TOR	Ain Kallis (kallis@aai.ee)									12	12	12	12	12	12	12	12	12	12	12	12	12	5	X
Xianghe	XIA	Xiangao Xia (xiangaoxia2000@yahoo.com)															12	12	12	8					X
Historical station	Eismitte		1																						X
	All			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
			pre BSRN	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	All

[BSRN homepage] - [Staff | Stations | Parameter | Methods] - [LR0100 | LR0300 | LR0500 | LR1000 | LR1100 | LR1200 | LR1300 | LR3010 | LR3030 | LR3300 | All | latest datasets]


Data Publisher for Earth & Environmental Science - Search - Mozilla Firefox
Datei Bearbeiten Ansicht Chronik Lesezeichen Extras Hilfe
Data Publisher for Earth & Environmental Sci...
www.pangaea.de/search?q=project:BSRN+%2Bevent:TOR+%2BBasic&mindate=2011-01-
Google
All Water Sediment Ice Atmosphere
Not logged in (log in or sign up)
project:BSRN +event:TOR +Basic
Search
Help Advanced Search Preferences more...
Always quote citation when using data!
12 datasets found on search for »project:BSRN...« with temporal coverage (clear)
Show Map Google Earth Data Warehouse
<< PREV | 1 | 2 | NEXT >>
1. Kallis, A (2011): Basic and other measurements of radiation at station Toravere (2011-11)
Size: 1036800 data points
doi:10.1594/PANGAEA.772811 - Score: 100 % - Similar datasets
2. Kallis, A (2011): Basic and other measurements of radiation at station Toravere (2011-09)
Size: 1036800 data points
doi:10.1594/PANGAEA.770505 - Score: 100 % - Similar datasets
3. Kallis, A (2011): Basic and other measurements of radiation at station Toravere (2011-10)
Size: 1071360 data points
doi:10.1594/PANGAEA.771352 - Score: 100 % - Similar datasets
4. Kallis, A (2011): Basic and other measurements of radiation at station Toravere (2011-04)
Size: 1036800 data points
doi:10.1594/PANGAEA.760084 - Score: 100 % - Similar datasets
5. Kallis, A (2011): Basic and other measurements of radiation at station Toravere (2011-07)
Size: 1071360 data points
doi:10.1594/PANGAEA.763945 - Score: 100 % - Similar datasets
6. Kallis, A (2011): Basic and other measurements of radiation at station Toravere (2011-05)
Size: 1070808 data points
doi:10.1594/PANGAEA.762486 - Score: 100 % - Similar datasets

Kallis, A (2011): Basic and other measurements of radiation at station Toravere (2011-11) - Mozilla Firefox

Datei Bearbeiten Ansicht Chronik Lesezeichen Extras Hilfe

Kallis, A (2011): Basic and other measureme...

doi.pangaea.de/10.1594/PANGAEA.772811

Data Description

Show Map | Google Earth

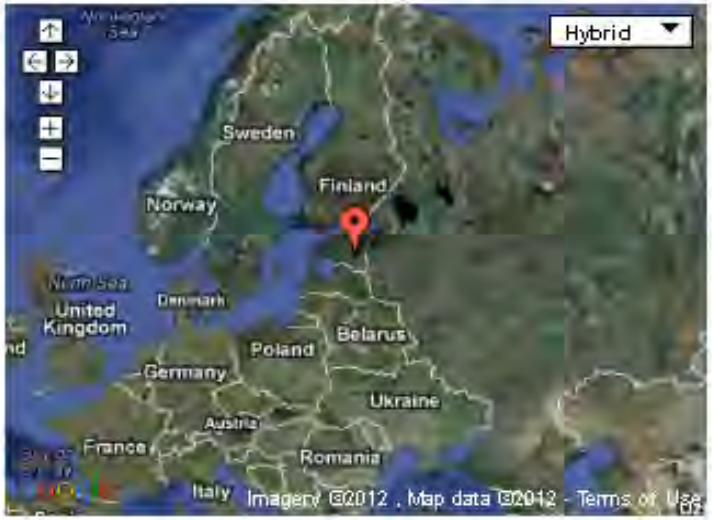
Citation: **Kallis, Ain (2011):** Basic and other measurements of radiation at station Toravere (2011-11). *Tartu Observatoorium, Toravere*, doi:10.1594/PANGAEA.772811

Project(s): **Baseline Surface Radiation Network** (BSRN)

Coverage: *Latitude:* 58.254000 * *Longitude:* 26.462000

Date/Time Start: 2011-11-01T00:00:00 * *Date/Time End:* 2011-11-30T23:59:00

Minimum HEIGHT above ground: 2.0 m * *Maximum HEIGHT above ground:* 2.0 m

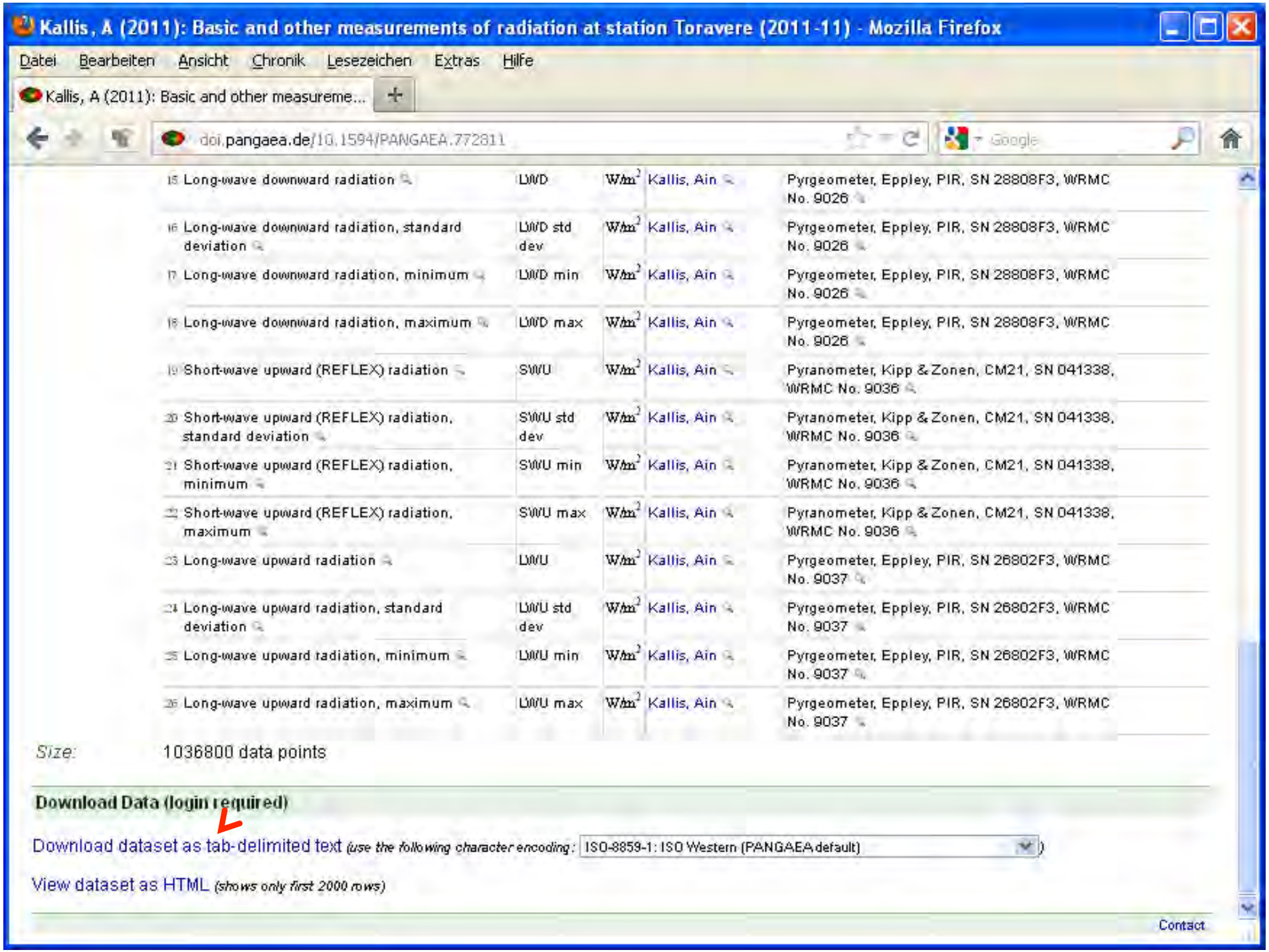


Event(s): **TOR** (Toravere) * *Latitude:* 58.254000 * *Longitude:* 26.462000 * *Date/Time:* 1999-01-01T00:00:00 * *Elevation:* 70.0 m * *Location:* Estonia * *Campaign:* WCRP/GEWEX * *Device:* Monitoring station * *Comment:* BSRN station no: 9; Surface type: grass; Topography type: flat, rural; Horizon from 1999 to 2001-06: doi:10.1594/PANGAEA.671374; Horizon after 2001-06: doi:10.1594/PANGAEA.671373; Station manager: Ain Kallis (kallis@aai.ee)

Other version: ftp://ftp.bsrn.awi.de/tor/tor1111.dat.gz

Parameter(s):

#	Name	Short Name	Unit	Principal Investigator	Method	Comment
1	DATE/TIME	Date/Time				Geocode
2	HEIGHT above ground	Height	m			Geocode
3	Short-wave downward (GLOBAL) radiation	SWD	W/m²	Kallis, Ain	Pyranometer, Kipp & Zonen, CM21, SN 010868, WRMC No. 9021	
4	Short-wave downward (GLOBAL) radiation, standard deviation	SWD std dev	W/m²	Kallis, Ain	Pyranometer, Kipp & Zonen, CM21, SN 010868, WRMC No. 9021	
5	Short-wave downward (GLOBAL) radiation, minimum	SWD min	W/m²	Kallis, Ain	Pyranometer, Kipp & Zonen, CM21, SN 010868, WRMC No. 9021	
6	Short-wave downward (GLOBAL) radiation, maximum	SWD max	W/m²	Kallis, Ain	Pyranometer, Kipp & Zonen, CM21, SN 010868, WRMC No. 9021	
7	Direct radiation	DIR	W/m²	Kallis, Ain	Actinometer, Yanishevsky, AT-50, SN 10A, WRMC	



15	Long-wave downward radiation	LWD	W/m²	Kallis, Ain	Pyrgeometer, Eppley, PIR, SN 28808F3, WRMC No. 9026
16	Long-wave downward radiation, standard deviation	LWD std dev	W/m²	Kallis, Ain	Pyrgeometer, Eppley, PIR, SN 28808F3, WRMC No. 9026
17	Long-wave downward radiation, minimum	LWD min	W/m²	Kallis, Ain	Pyrgeometer, Eppley, PIR, SN 28808F3, WRMC No. 9026
18	Long-wave downward radiation, maximum	LWD max	W/m²	Kallis, Ain	Pyrgeometer, Eppley, PIR, SN 28808F3, WRMC No. 9026
19	Short-wave upward (REFLEX) radiation	SWU	W/m²	Kallis, Ain	Pyranometer, Kipp & Zonen, CM21, SN 041338, WRMC No. 9036
20	Short-wave upward (REFLEX) radiation, standard deviation	SWU std dev	W/m²	Kallis, Ain	Pyranometer, Kipp & Zonen, CM21, SN 041338, WRMC No. 9036
21	Short-wave upward (REFLEX) radiation, minimum	SWU min	W/m²	Kallis, Ain	Pyranometer, Kipp & Zonen, CM21, SN 041338, WRMC No. 9036
22	Short-wave upward (REFLEX) radiation, maximum	SWU max	W/m²	Kallis, Ain	Pyranometer, Kipp & Zonen, CM21, SN 041338, WRMC No. 9036
23	Long-wave upward radiation	LWU	W/m²	Kallis, Ain	Pyrgeometer, Eppley, PIR, SN 26802F3, WRMC No. 9037
24	Long-wave upward radiation, standard deviation	LWU std dev	W/m²	Kallis, Ain	Pyrgeometer, Eppley, PIR, SN 26802F3, WRMC No. 9037
25	Long-wave upward radiation, minimum	LWU min	W/m²	Kallis, Ain	Pyrgeometer, Eppley, PIR, SN 26802F3, WRMC No. 9037
26	Long-wave upward radiation, maximum	LWU max	W/m²	Kallis, Ain	Pyrgeometer, Eppley, PIR, SN 26802F3, WRMC No. 9037

Size: 1036800 data points

Download Data (login required)

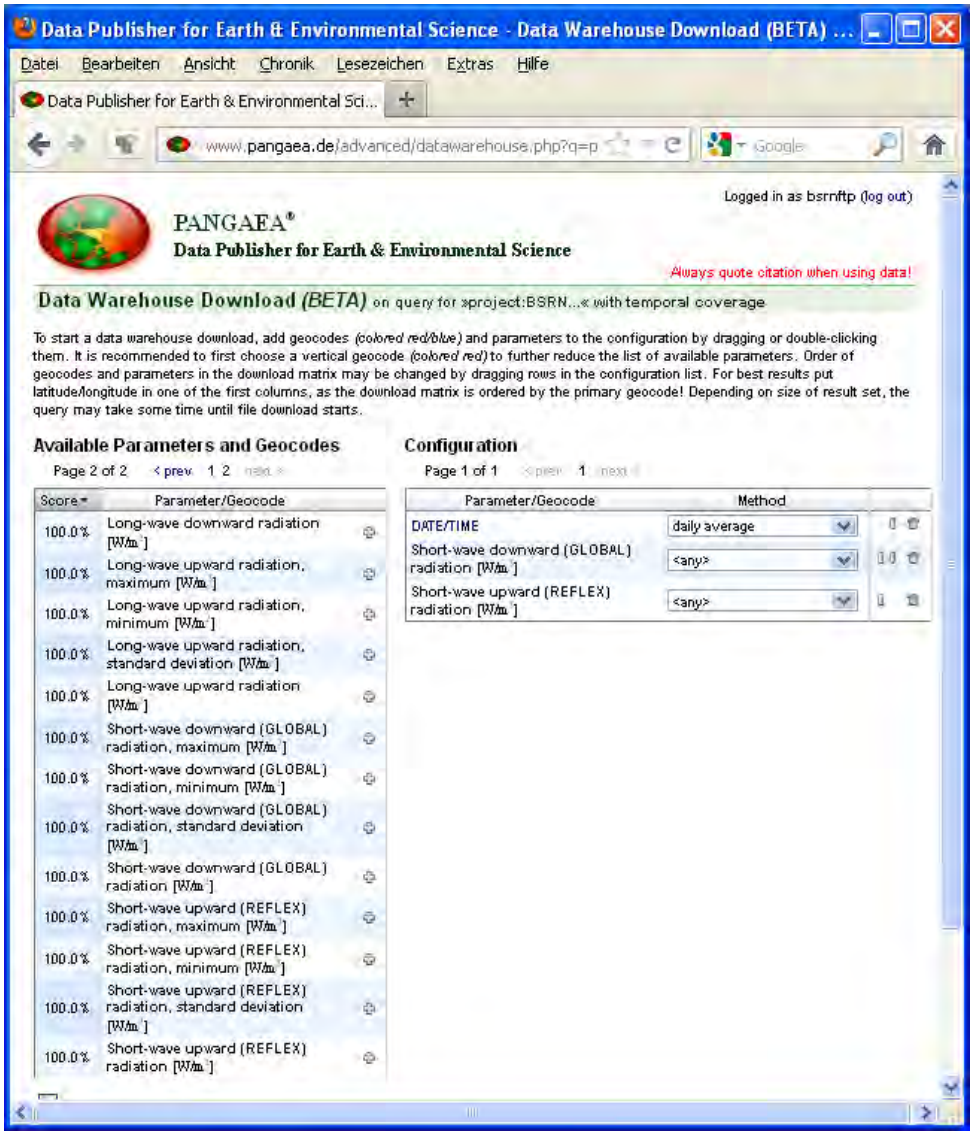
Download dataset as tab-delimited text *(use the following character encoding:* ISO-8859-1: ISO Western (PANGAEA default))

View dataset as HTML *(shows only first 2000 rows)*

Contact

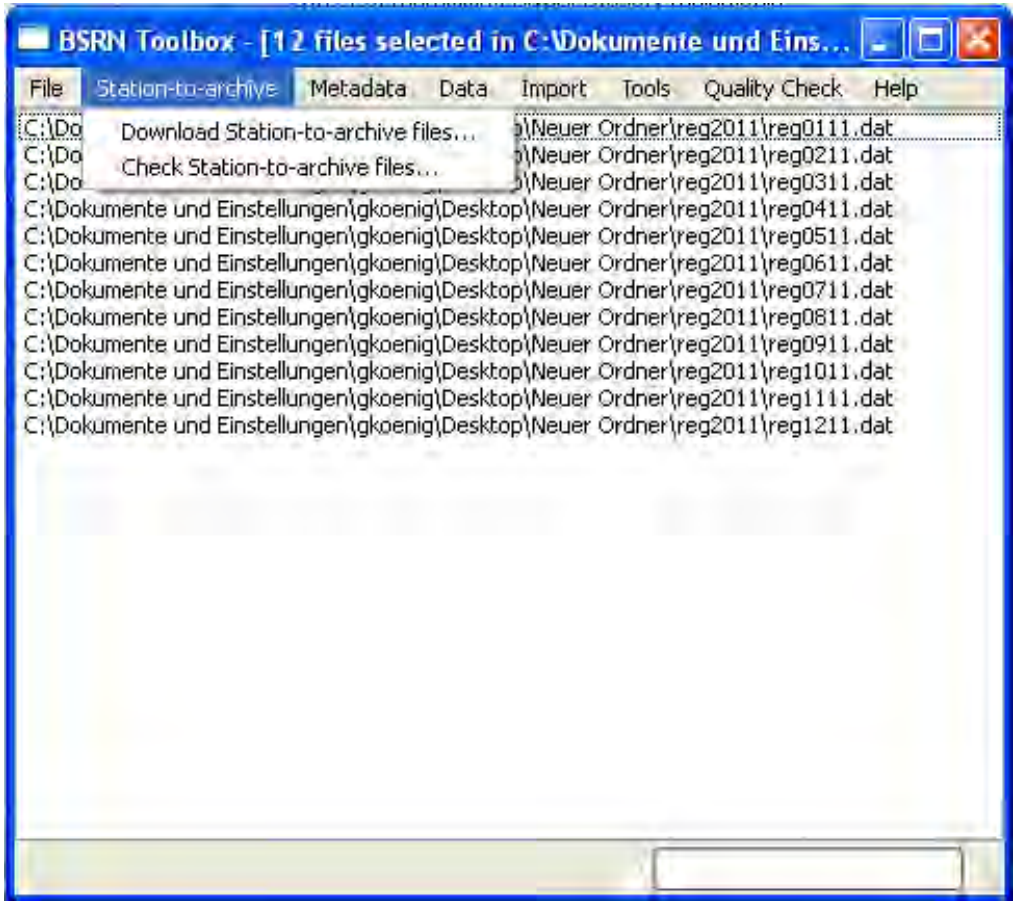
Infrastructure

1. Homepage: http://www.bsrn.awi.de.
2. Ftp access: ftp://ftp.bsrn.awi.de/
3. PANGAEA access: http://www.pangaea.de/search?q=project:BSRN
4. DataWarehouse:



Infrastructure

1. Homepage: http://www.bsrn.awi.de.
2. Ftp access: ftp://ftp.bsrn.awi.de/
3. PANGAEA access: http://www.pangaea.de/search?q=project:BSRN
4. DataWarehouse:
5. Software (BSRN-Toolbox, etc.) http://wiki.pangaea.de/wiki/BSRN_Toolbox



Infrastructure

1. Homepage: http://www.bsrn.awi.de.
2. Ftp access: ftp://ftp.bsrn.awi.de/
3. PANGAEA access: http://www.pangaea.de/search?q=project:BSRN
4. DataWarehouse:
5. Software (BSRN-Toolbox, etc.) http://wiki.pangaea.de/wiki/BSRN_Toolbox
6. PangaWiki: http://wiki.pangaea.de/wiki/WRMC

WRMC-BSRN
World Radiation Monitoring Center- Baseline Surface Radiation Network

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Present State of the WRMC: 6719 station-months available

Station	Short name	Station manager 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	All
Alert	ALE	David Halliwell (David.Halliwell@ec.gc.ca)																							X
Alice Springs	ASP	Bruce Forgan (B.Forgan@bom.gov.au)					12	12	12	12	12	12	11	12	12	12	12	12							X
Barrow	BAR	Ellsworth Dutton (Ellsworth.G.Dutton@noaa.gov)		12	12	12	12	12	12	12	12	12	12	12	12	12									X
Bermuda	BER	Ellsworth Dutton (Ellsworth.G.Dutton@noaa.gov)		12	12	12	12	12	12	12	12	12	12	12	10										X
Billings	BIL	Charles Long (chuck.long@pnl.gov)			4	12	12	12	12	12	12	12	11									7	12	4	X
Bondville	BON	John Augustine (John.A.Augustine@noaa.gov)					12	12	12	12	12	12								12	6				X
Boulder, SURFRAD	BOS	John Augustine (John.A.Augustine@noaa.gov)					5	12	12	12									12	12	6				X
Boulder	BOU	Ellsworth Dutton (Ellsworth.G.Dutton@noaa.gov)		12	12	12	12	12									12	12	12	12	12	2			X
Brasilia	BRB	Enio Bueno Pereira (eniobp@cptec.inpe.br)																8	10	4	9	12	12	5	X
Cabauw	CAB	Wouter Knap (knap@knmi.nl)															11	12	12	12	12	12	12	4	X
Camborne	CAM	Patrick Fishwick (patrick.fishwick@metoffice.com)											12	12	12	12	12	12	6						X
Carpentras	CAR	Jean-Philippe Morel (jean-philippe.morel@meteo.fr)									12	12	12	12	12	12	12	12	12	12	12	12	12	5	X
Chesapeake Light	CLH	Fred M. Denn (Frederick.M.Denn@nasa.gov)										8	12	11	12	12	12	12	12	12	12	12	12	6	X
Serra																									
Solar Village	SOV	Naif Al-Abbadi								3	12	12	12	12											X
South Pole	SPO	Ells		12	12	10	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	2			X
Syowa	SYO					12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	11		X
Sioux Falls															7	12	12	12	12	12	6				X
Tamanrasset		_mimouni_dz@yahoo.fr)										10	12	12	12	12	12	12	12	12	12	12	12	4	X
Tateno		(ijima@met.kishou.go.jp)						11	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	4	X
Tiksi		Vasilii Kustov (kustov@aari.ru)																				7	9		X
Toravere		Ain Kallis (kallis@aai.ee)									12	12	12	12	12	12	12	12	12	12	12	12	12	5	X
Xianghe	XIA	Xiangao Xia (xiangaoxia2000@yahoo.com)															12	12	12	8					X
Historical station	Eismitte		1																						X
	All			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
			pre BSRN	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	All

~ 560 years of radiation measurements

Gert König-Langlo, Rainer Sieger, BSRN Meeting 2012

Some more numbers:

1. Known publications based on BSRN-data listed in http://www.bsrn.awi.de/en/other/publications/: **116(130)**
2. New customer accounts per year: **about 100**
3. New active BSRN-stations since 2010: **7**
4. Cooperating Network with NDACC started in: **2011-07-7**

Future plans (*copy of my last talk 2010, Queenstown*):

1. Publication of an updated „Technical Plan for BSRN Data Management". A draft is already available.

G. König-Langlo, R. Sieger, H. Grobe, H. Schmithüsen, E. G. Dutton (2012):
The Baseline Surface Radiation Network and its World Radiation Monitoring Center at the Alfred Wegener Institute

Submitted to **Earth System Science Data** (http://www.earth-system-science-data.net/)
MS No.: essd-2012-23

Future plans (*copy of my last talk 2010, Queenstown*):

1. Publication of an updated „Technical Plan for BSRN Data Management". A draft is already available.
2. Data handling of the "spectral aerosol optical depths" (AODs) must be redefined since AODs cannot be included in the station-to-archive files as originally planed. This work is in process (Bruce Forgan). As soon as AOD data are available they will be offered in PANGAEA.

Future plans (*copy of my last talk 2010, Queenstown*):

1. Publication of an updated „Technical Plan for BSRN Data Management". A draft is already available.
2. Data handling of the "spectral aerosol optical depths" (AODs) must be redefined since AODs cannot be included in the station-to-archive files as originally planed. This work is in process (Bruce Forgan). As soon as AOD data are available they will be offered in PANGAEA.
3. A central quality management will be established from Dr. Xiuping Yan, who started to work at AWI in February 2010. The main tool of the new quality management system will be a program which adds quality flags to PANGAEA derived datasets.

Holger Schmithüsen

Minor changes in the station-to-archive files:

- LR1300 (AOD) was excluded (nobody used it before)
- LR4000 (Pyrgeometer temperatures at ground level) can be included
- LR4nnn (Pyrgeometer temperatures at nnn meters) can be included
- No conflicts with the former formats!!!

Logical record	Line no.	Description of field / format of line	Range of values	Missing code	Format of v./l.
4000	1	date [day]	1 - 31		I2
pyrgeo.	1	time [minute]	0 - 1439		I4
temp.	1	dome temperature 1 downward long-wave instrument [°C]		-99.9	F5.1
	1	dome temperature 2 downward long-wave instrument [°C]		-99.9	F5.1
	1	dome temperature 3 downward long-wave instrument [°C]		-99.9	F5.1
	1	body temperature downward long-wave instrument [°C]		-99.9	F5.1
	1	thermopile output downward long-wave instrument [W/m^2]		-999	I4
	1	dome temperature 1 upward long-wave instrument [°C]		-99.9	F5.1
	1	dome temperature 2 upward long-wave instrument [°C]		-99.9	F5.1
	1	dome temperature 3 upward long-wave instrument [°C]		-99.9	F5.1
	1	body temperature upward long-wave instrument [°C]		-99.9	F5.1
	1	thermopile output upward long-wave instrument [W/m^2]		-999	I4
		(X,I2,X,I4,4(F5.1,X),I4,3X, 4(F5.1,X),I4			
4nnn pyrgeo. temp. at nnn meter		pyrgeometer temperatures from instruments mounted on towers at a height of nnn meters are coded according to the definitions for pyrgeometers at standard height (~ 2 meters) see LR 4000.			

Quality control:

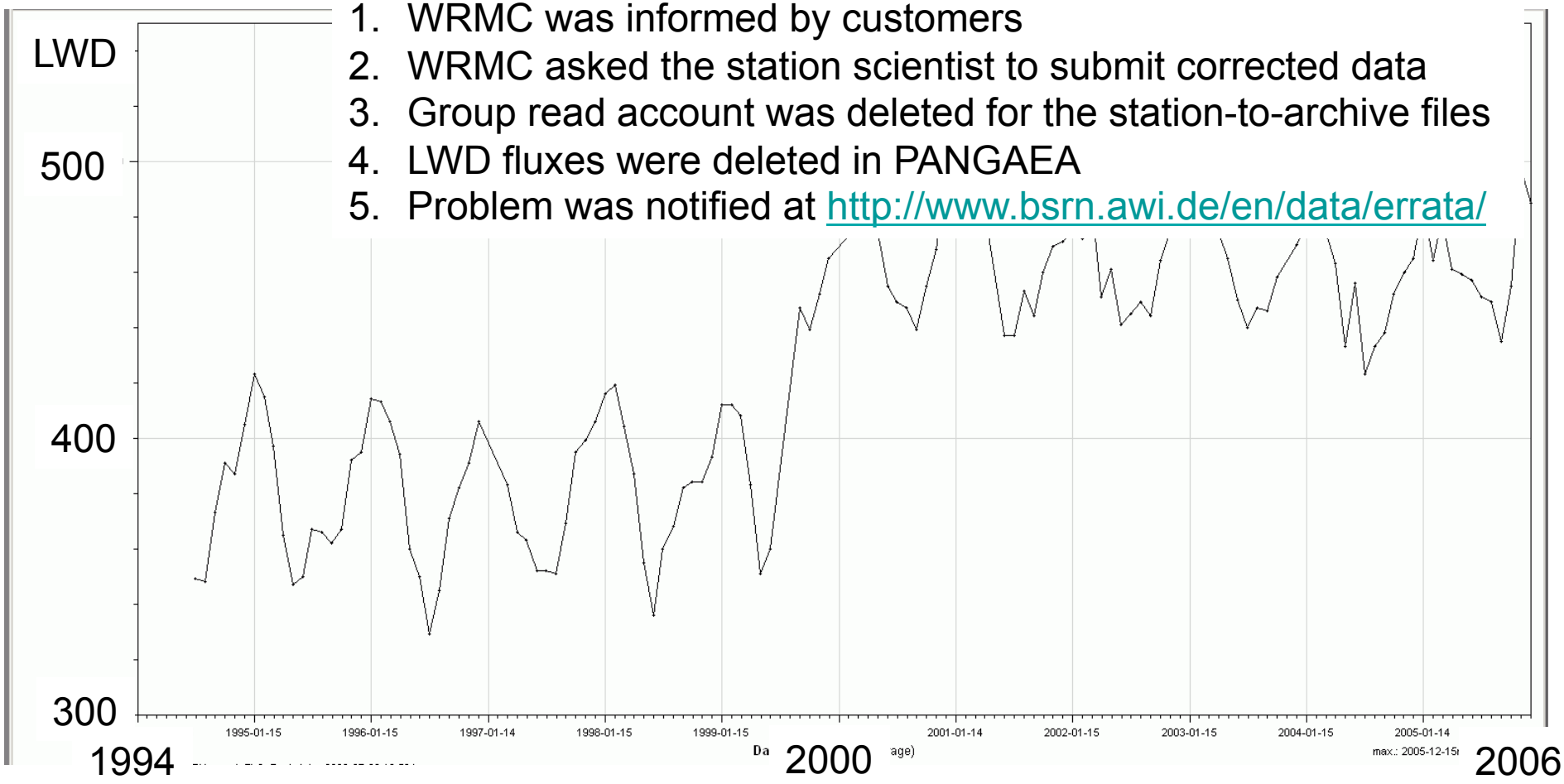
AIM:
BSRN/WRMC consists only of a small number of selected research stations which provides surface radiation fluxes of the **best possible quality** currently available.

Responsibility:
The BSRN station scientist (not the WRMC!!!) is responsible for the data quality of their station(s).

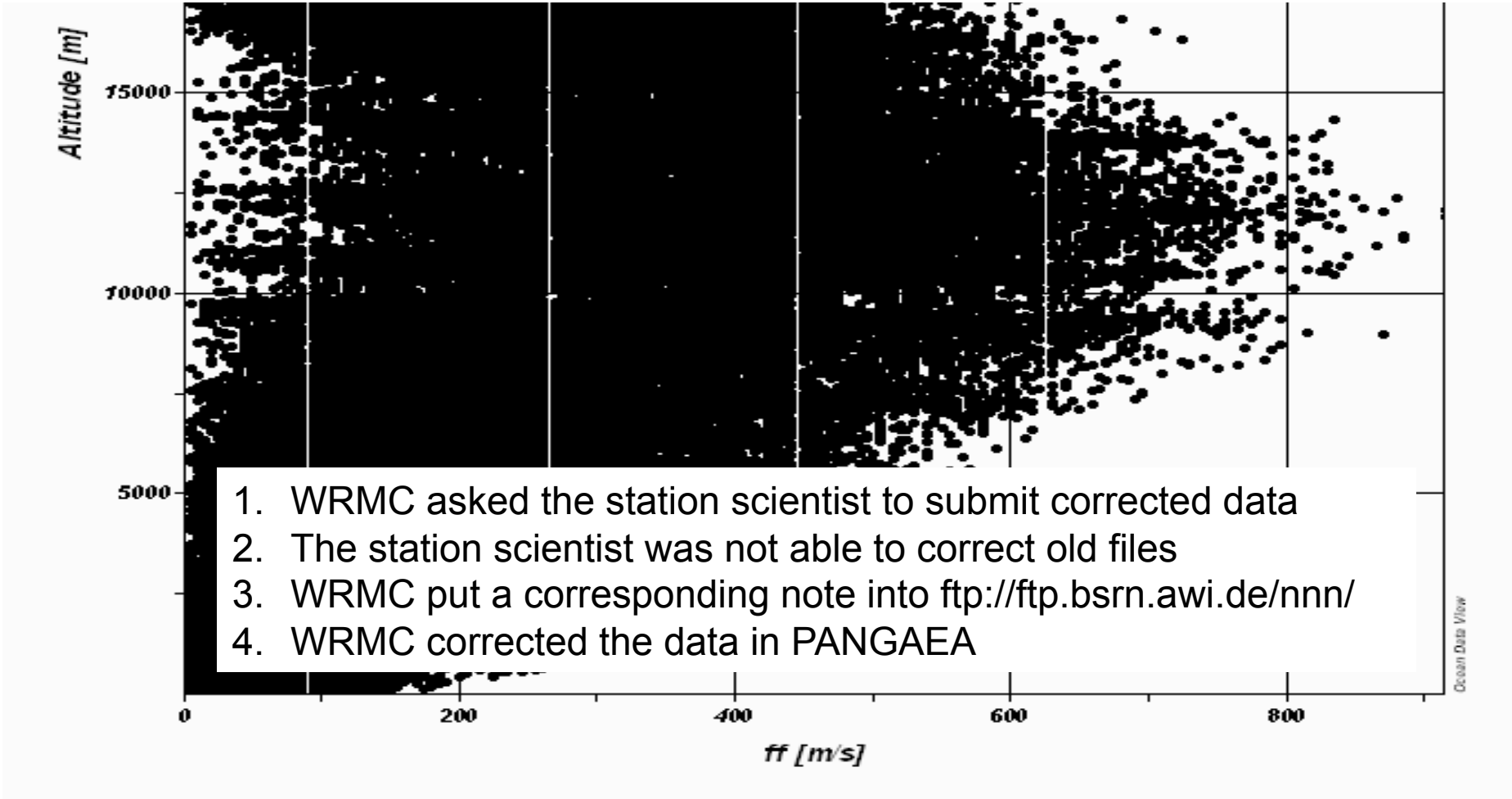
Help from the WRMC:
- Providing tools to station scientists to detect errors prior to data submission
- Handling errors detected from BSRN customers
- Doing incoming checks (since beginning of 2012)
- Refuse/delay to import data containing obvious errors
- Corresponding with station scientists about violated quality limits
- Providing tools to BSRN customers to perform quality control

Example 1: LWD Jump

1. WRMC was informed by customers
2. WRMC asked the station scientist to submit corrected data
3. Group read account was deleted for the station-to-archive files
4. LWD fluxes were deleted in PANGAEA
5. Problem was notified at http://www.bsrn.awi.de/en/data/errata/

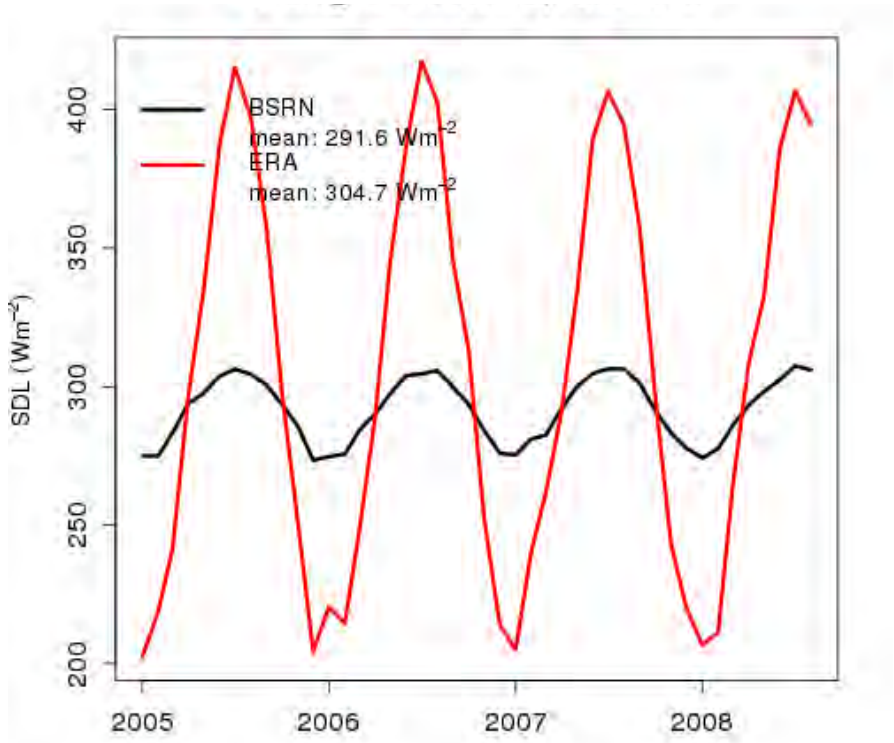


Example 2: Upper air wind 10 times too strong



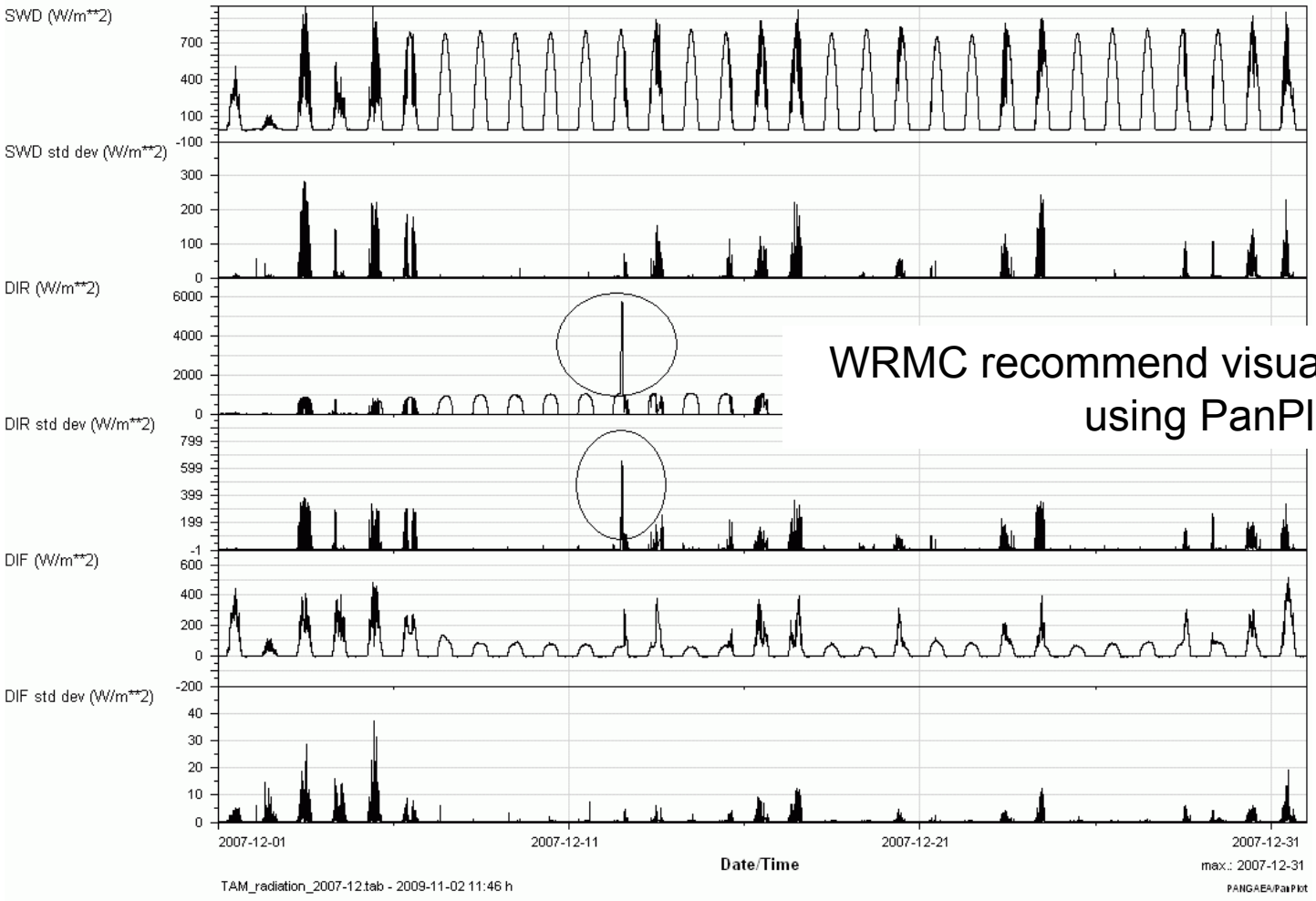
1. WRMC asked the station scientist to submit corrected data
2. The station scientist was not able to correct old files
3. WRMC put a corresponding note into ftp://ftp.bsrn.awi.de/nnn/
4. WRMC corrected the data in PANGAEA

Example 3: LWD error



1. WRMC was informed by a customer
2. WRMC asked the station scientist to submit corrected data
3. Station scientist submitted corrected data without delay
4. WRMC replaced the ftp-files
5. WRMC imported the corrected files into PANGAEA
6. WRMC deleted the wrong data in PANGAEA but…
7. … relinked the doi-numers of the wrong data to the corrected ones
8. All are happy!!!!

Example 4: SW errors

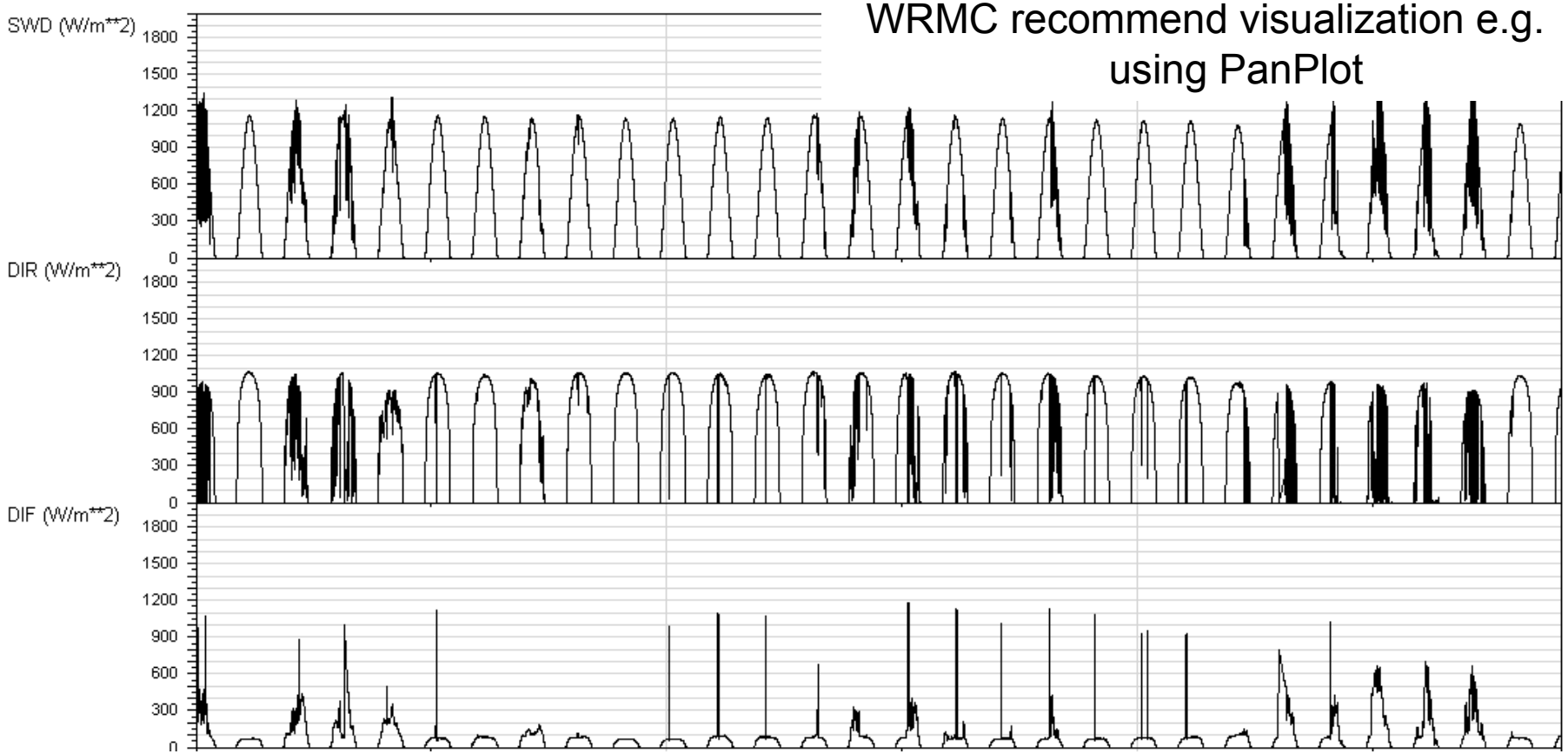


WRMC recommend visualization e.g. using PanPlot

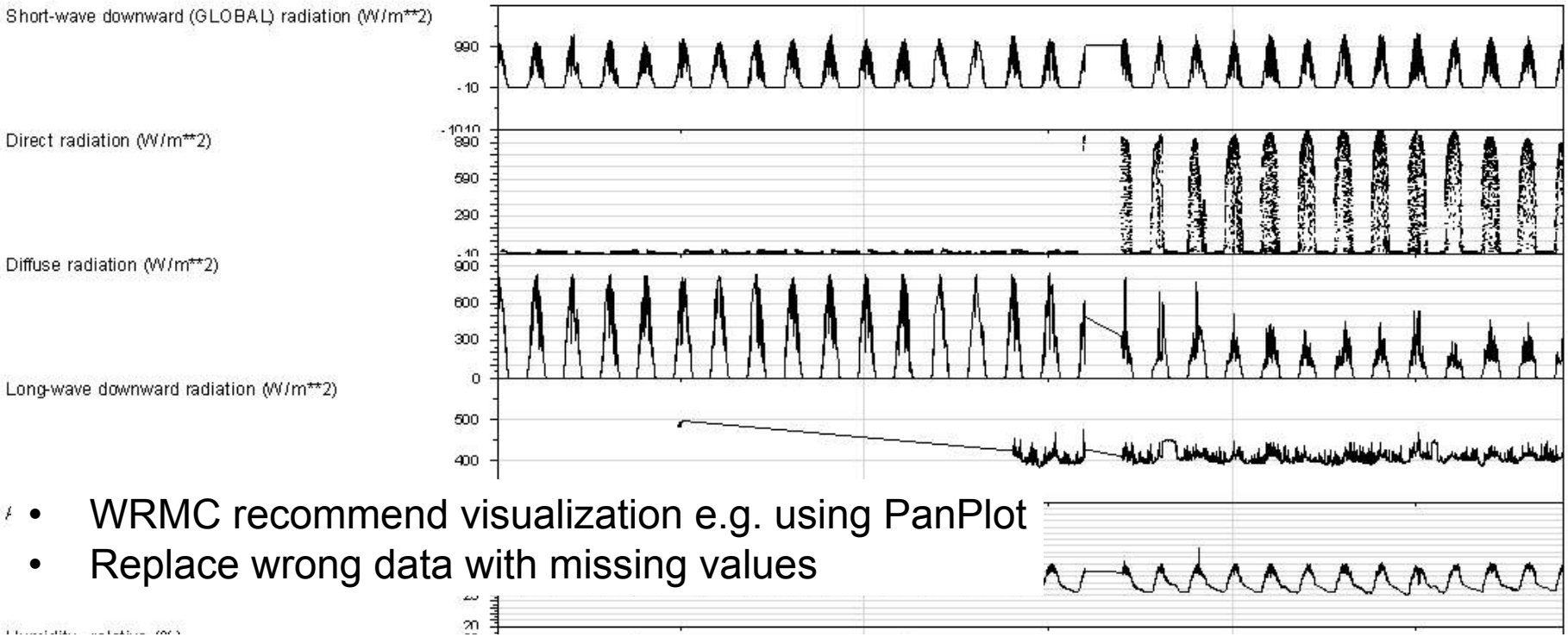
Gert König-Langlo, Rainer Sieger, BSRN Meeting 2012

Example 5: Daytime solar tracker rewinding

WRMC recommend visualization e.g. using PanPlot

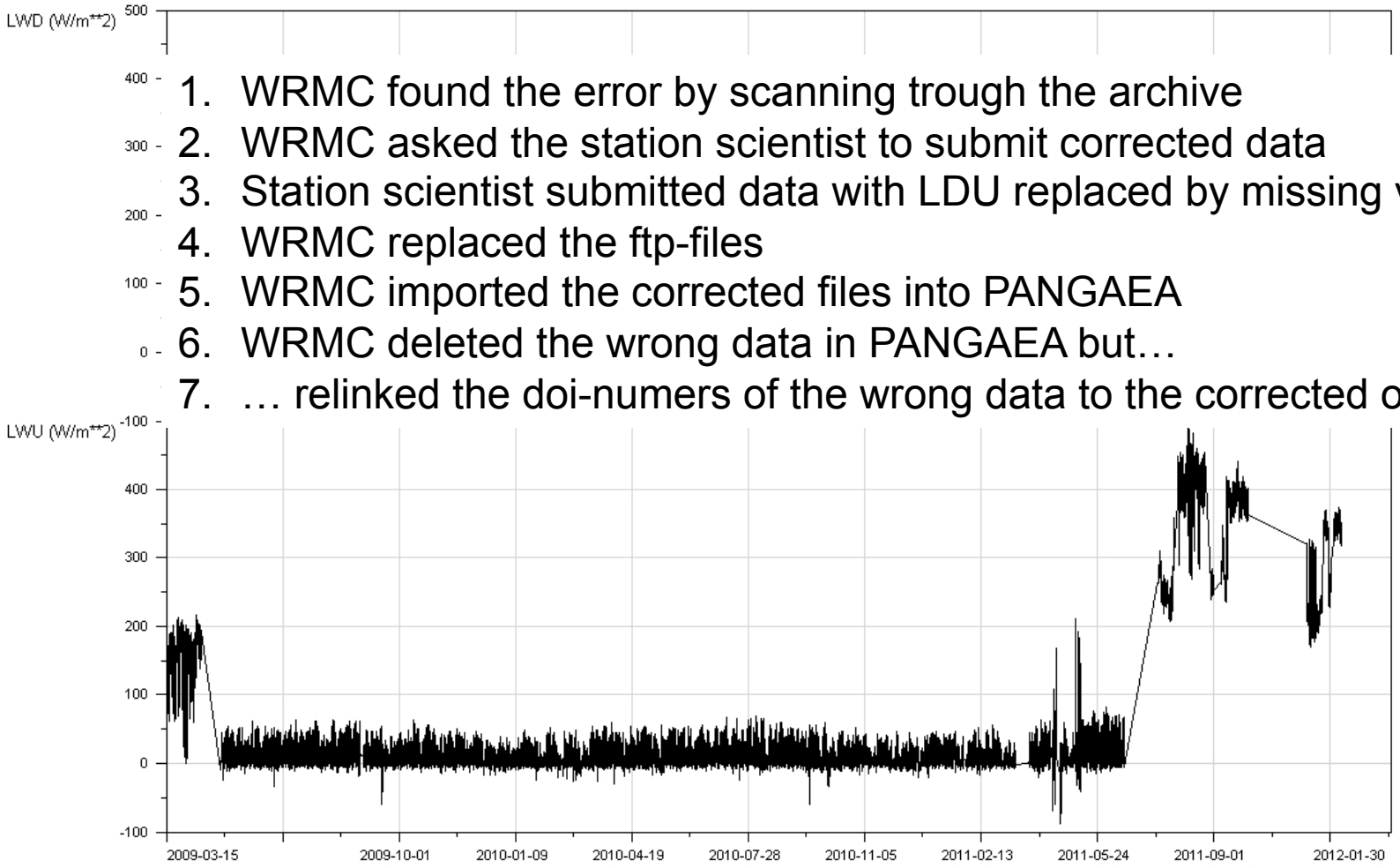


Example 6: Solar tracker not working



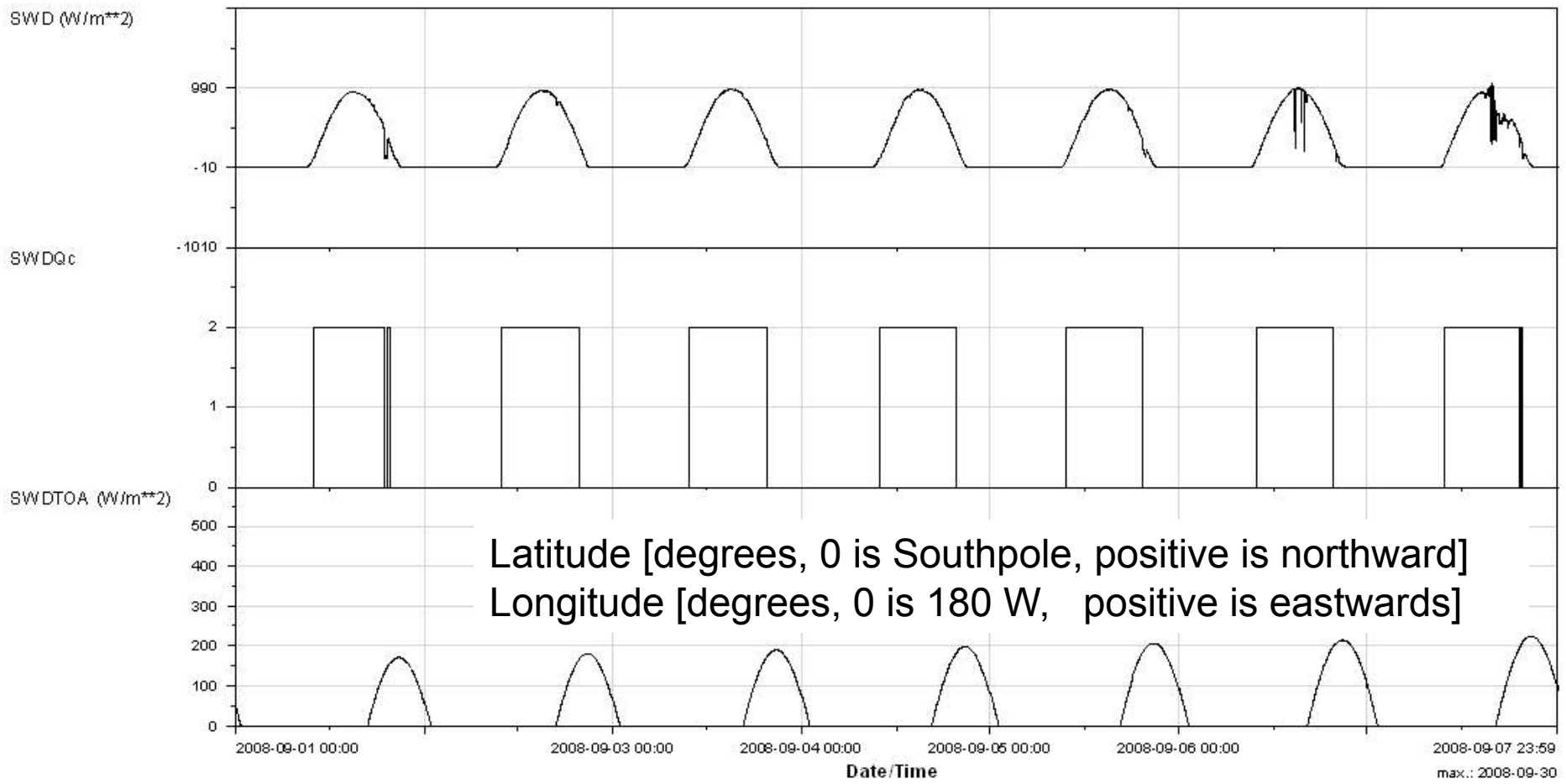
- WRMC recommend visualization e.g. using PanPlot
- Replace wrong data with missing values

Example 7: LWU wrong



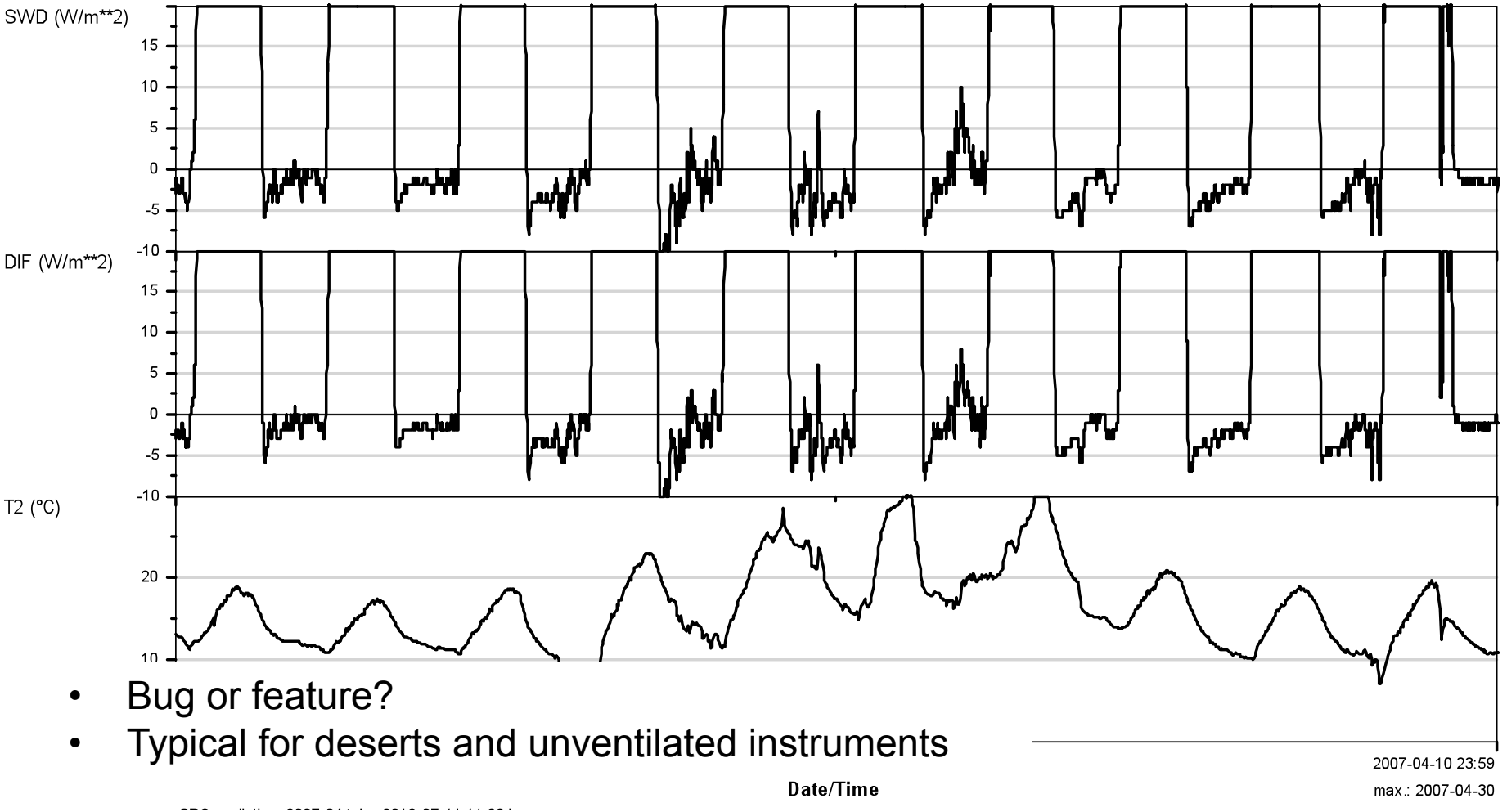
1. WRMC found the error by scanning trough the archive
2. WRMC asked the station scientist to submit corrected data
3. Station scientist submitted data with LDU replaced by missing values
4. WRMC replaced the ftp-files
5. WRMC imported the corrected files into PANGAEA
6. WRMC deleted the wrong data in PANGAEA but…
7. … relinked the doi-numers of the wrong data to the corrected ones

Example 8: Wrong lat/lon data in station to archive file



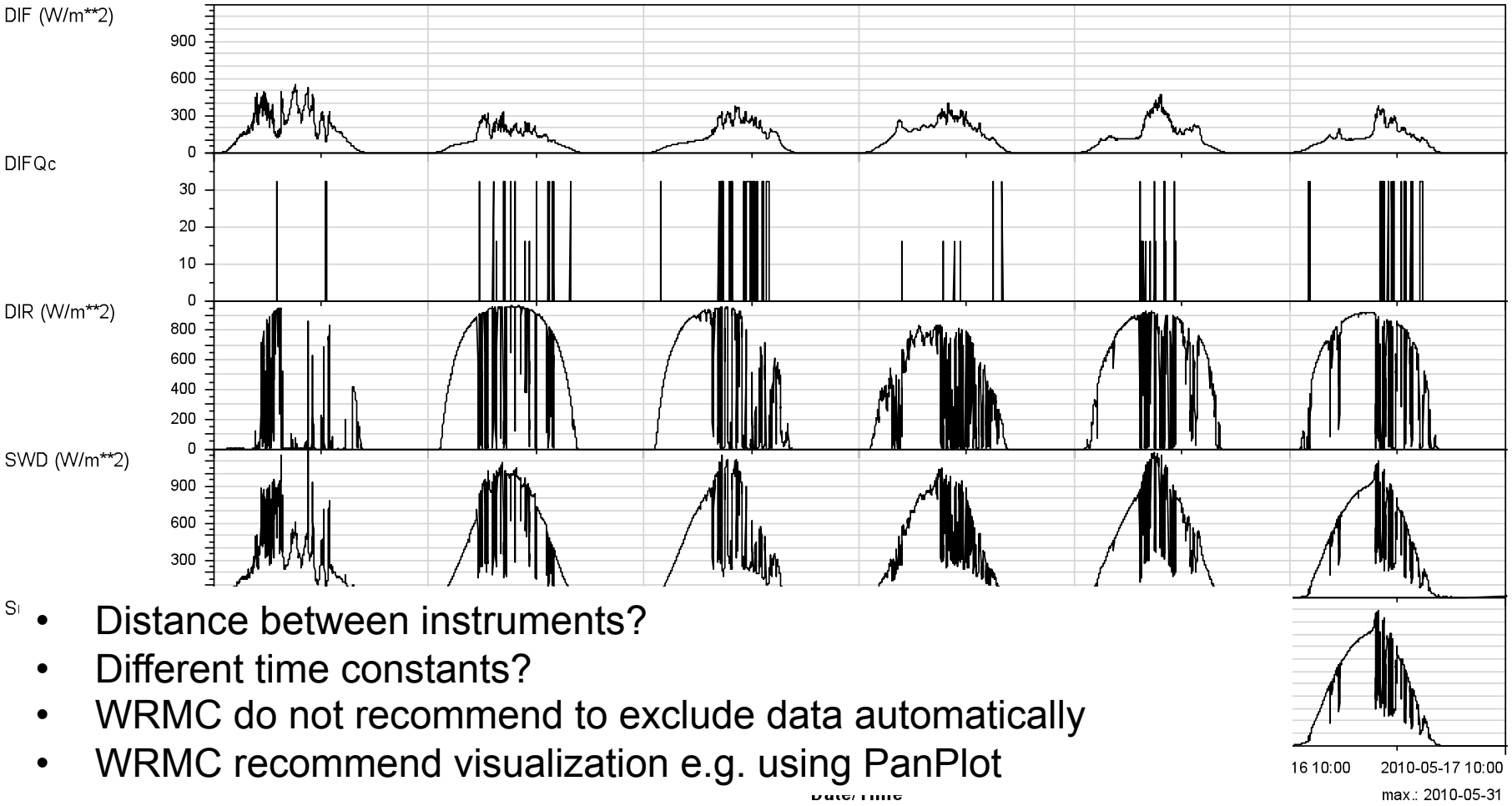
Gert König-Langlo, Rainer Sieger, BSRN Meeting 2012

Example 9: Night time zeros violate quality limits



- Bug or feature?
- Typical for deserts and unventilated instruments

Example 10: Dir, Diff, SWD and broken clouds



- Distance between instruments?
- Different time constants?
- WRMC do not recommend to exclude data automatically
- WRMC recommend visualization e.g. using PanPlot

WRMC-BSRN
World Radiation Monitoring Center- Baseline Surface Radiation Network

hosted by AWI

Error-Log

#	Discovered	Kind	PI noticed	PI answer	Status
1	2009-07-29	Wrong LW fluxes	2009-07-29	no	LW deleted in PANGAEA, no read access to ftp-files, waiting for resubmission
2	2009-07-29	Wrong LW fluxes after August 1999	2009-07-29	no	LW deleted in PANGAEA, no read access to ftp-files, waiting for resubmission
3	2011-11-24	Calibration problem with all SW-fluxes, bar0492-bar0692 updated (2012-06-10). Only LR0100+LR0300 must be re-imported in PANGAEA.	2011-11-24	Update in work	SW deleted [illegible]
4	2012-02-10	Wrong defaults in LW-data (0) cam0305.dat, cam0306.dat, cam1003.dat	2012-02-10	no	
5	2012-02-14	Wrong defaults in LW-data (0) coc0506.dat, coc0408.dat, coc0708.dat, coc1008.dat	2012-02-14		
6	2012-02-17	Spikes in LW fluxes flo0796.dat			[illegible] deleted from WRMC
7	2012-02-28	Most oft the LWU fluxes wrong		[illegible]-08 2012-04-05 2012-04-22	Data are resubmitted, reimport of LR0100/LR0300 will be sufficient All done.
8	2012-03-06	Some wr[illegible]	2012-03-06 2012-06-12	2012-03-06 2012-06-13	PI will resubmit file within weeks, nothing done at WRMC
9	2012-03[illegible]	[illegible]	2012-03-13 2012-04-03 2012-04-05	yes	New files without LWD submitted and exchanged in ftp-server. All LWD data deleted in PANGAEA.
		[illegible] in syo1010.dat	2012-03-13	2012-03-16 2012-03019 2012-04-26	PI will check and reply, nothing done at WRMC Neu Daten im ftp-server. Update in PASNGAEA fehlt noch All done.
	2012-03-29	Wrong location in ftp-files, location in PANGAEA was o.k., sms0409.dat decreasing time	no	no	Corrected from WRMC
12	2012-03-30	Wrong defaults in sms0109.dat till sms1109.dat	22012.03.31	no	Not imported into PANGAEA, no read access to ftp-files, waiting for PI-response, see 1.
13	2012-01-09	Upper air wind factor 10 too high	2012-01-09 2012-04-02	yes	In PANGAEA all upper air winds divided with 10. PI will resubmit ftp-files

Nearly not managleble within the WRMC

Recommendations for station scientists

1. Visualize your station-to-archive file prior to submission.

2. Test the recommended quality limits prior to submission.

3. Do not submit your data before you are convinced to have reached an optimal quality. (Data submission should be regarded as something like a paper submission.)

4. Submitting new versions of the same measurements is possible, but should be regarded as an exception.

5. Announce that you have submitted new files in case you are not the station scientist.

6. Take possible comments from the WRMC as help to improve your data, not as criticism.

Recommendations for data users

1. WRMC highly recommends that all users do their own quality checks of the data after extracting BSRN-data!!!

2. Since beginning of 2012 the WRMC offers a BSRN-Toolbox which can be used to perform quality checks.

3. Any user who finds questionable data in the archive should inform me so I can contact the station scientists to solve the problem.

4. Please inform me about any publication based on BSRN-data so I can update the list: http://www.bsrn.awi.de/en/other/publications/.

Your recommendations to the WRMC

Please contact the staff of the WRMC during the workshop as you please:

- Friedrich Richter (data curator)
- Holger Schmithüsen(BSRN-Toolbox, QC)
- Gert König-Langlo (director of the WRMC)

Not at the workshop:

- Rainer Sieger (PANGAEA administrator)
- Wolfgang Cohrs (technical coordinator)

We all are interested in your recommendations to optimize the archive.

Thanks for your attention