

Instrument	Manufacturer	Location	Start of operation	Observation mode
<b>Active remote sensing of clouds and rain</b>				
Ka-Band cloud radar (JOYRAD-35)	METEK	Jülich	2011	continuous
Micro rain radar (MRR-01)	METEK	Bonn	2008	continuous
Micro rain radar (MRR-02)	METEK	Bergheim	2008	continuous
Micro rain radar (MRR-03)	METEK	Bonn-Roleber	2008	continuous
Micro rain radar (MRR-04)	METEK	Jülich	2008	continuous
W-Band cloud radar (JOYRAD-94)	RPG	Jülich	2015	continuous
X-Band cloud radar (JOYRAD-10)	METEK	Jülich	2018	continuous
X-Band polarimetric radar (BoXPoI)	EEC / Gamic	Bonn	2010	continuous
X-Band polarimetric radar (JuXPoI)	EEC / Gamic	Sophienhöhe	2009	continuous
<b>Passive remote sensing of clouds and rain</b>				
K/V-Band Microwave radiometer (TOPHAT)	RPG	Jülich	2010	continuous
Microwave radiometer (ADMIRARI)	RPG	Bonn	2007	campaigns
<b>Profiling of winds, humidity, aerosols and temperature</b>				
Ceilometer (CHM15k-01)	Jenoptik/Lufft	Bonn	2011	continuous
Ceilometer (CHM15k-02)	Jenoptik/Lufft	Jülich	2013	continuous
Ceilometer (CT25k)	Vaisala	Jülich	2007	continuous
Doppler wind lidar (HALO)	HALO Photonics	Jülich	2012	continuous
Radiosondes	Graw			campaigns
<b>Spectral and broadband solar and infrared sensors</b>				
Infrared pyrometer (TOPHAT)		Jülich	2010	continuous
Infrared radiation (broadband)	Eppley / Kipp&Zonen	Bonn	2011	continuous
Infrared spectrometer (AERI)	ABB	Jülich	2011	continuous
Photovoltaic module (PVM)		Jülich	2016	(continuous)
Pyranometer (CMP21)	Kipp&Zonen	Jülich		continuous
Pyrgeometer (CGR4)	Kipp&Zonen	Jülich		continuous
Pyrheliometer (CHP1)	Kipp&Zonen	Jülich		continuous
Shadowband radiometer (MFRSR)	YES Inc.	Jülich	2015	continuous
Solar radiation (direct/diffuse)	Middleton	Bonn	1994	continuous

Sun photometer (Cimel)	Cimel	Jülich	2012	continuous
Total sky imager (TSI)	AXIS	Jülich	2009/2015	continuous
<b>In-situ and mobile observations</b>				
Atmospheric pressure	Vaisala	Bonn	1995	continuous
Disdrometer (Parsivel-01)	OTT	Bonn	2011	continuous
Disdrometer (Parsivel-02)	OTT	Jülich	2013	continuous
Disdrometer (Thies-01)	Thies	Bonn	2007	continuous
Disdrometer (Thies-02)	Thies	Bonn	2007	continuous
Pluviometer (Pluvio-01)	OTT	Bonn	2010	continuous
Pluviometer (Pluvio-02)	OTT	Jülich	2014	continuous
Scintillometer (BLS900)	Scintec	Bonn	2009	continuous
Temperature/humidity (Humicap-01)	Vaisala	Bonn	2009	continuous
Temperature/humidity (Humicap-02)	Vaisala	Bonn	2009	continuous
Temperature/humidity (Psychro)	Theodor Friedrichs	Bonn	1994	continuous
Tipping rain gauge (Gauge)	Thies	Bonn	2001	continuous
Trailer			2014	campaigns
Wind speed and direction	Theodor Friedrichs	Bonn	1994	continuous