KIT_Doppler Lidar_Save

General information

Dataset name:	KIT_Doppler Lidar_Save
Dataset DOI:	10.6096/DACCIWA.1659
Created on:	2017-01-02

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Period

Date begin (yyyy-mm-jj):	2016-06-13
Date end (yyyy-mm-jj):	2016-07-30

Project(s)

DACCIWA > WP1 - Boundary Layer Dynamics

Data description

Abstract

Data from doppler lidar: parameters are radial velocity, signal to noise ratio and uncalibrated aerosol backscatter. Laser wavelength 2 micrometer.

Observing strategy

Continuous observation. Combination of PPI, RHI and vertical stare mode: every 30 minutes two PPIs at 15 and 75° elevation angle and two RHIs along and cross the mean wind direction were performed (total duration of scans about 5 minutes). The remaining 25 minutes the lidar was operated in vertical stare mode with 1 s integration time and a vertical range resolution of 40 m.

Instrument information

Sensor

Model:	WindTracer

Sensor resolution

Observation frequency:	10 Hz - 1 Hz

Sensor location

Longitude (°):	2.4281
Latitude (°):	8.001
Height above ground (m):	166

Geographic information

Save

Location name:	Save
Plateform type:	GROUND-BASED OBSERVATIONS
West bounding coordinate (°):	2.4281
East bounding coordinate (°):	2.4281
North bounding coordinate (°):	8.001
South bounding coordinate (°):	8.001
Altitude min:	166
Altitude max:	166

Measured parameter

Radial doppler velocity

Parameter name:	Radial doppler velocity
Parameter keyword:	Atmosphere > Atmospheric Winds
Unit:	meter per second - m/s
Acquisition methodology and quality:	Radial velocity is estimated from doppler shift, i.e. the frequency difference between the transmitted and the returned signal, which occurs when the scattering target is moving.

Data use information

Use constraints:	The research leading to these results has received funding from the European Union Seventh Framework Programme (FP7/2007-2013)DACCIWA data policy under grant agreement n° 603502.
Data policy:	DACCIWA data policy
Database:	Dacciwa database
Original data format(s):	NetCDF