AEROCLO-sA F20 PLASMA2

General information

Dataset name:	AEROCLO-sA F20 PLASMA2
Dataset DOI:	10.6096/AEROCLO.1807
Created on:	2020-03-24

Contact(s)

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Period

Date begin (yyyy-mm-jj):	2017-09-05
Date end (yyyy-mm-jj):	2017-09-12

Project(s)

AEROCLO

Data description

Abstract

The Photomètre Léger Aéroporté pour la surveillance des Masses d?Air (PLASMA, Karol et al., 2013) is an airborne Sun-photometer developped at Laboratoire d'Optique Atmosphérique (LOA, Lille, France). PLASMA2 operated from the SAFIRE Falcon 20 during AEROCLO-sA campaign.

Observing strategy

PLASMA2 is a sun-tracking photometer providing aerosol optical depths over a wide spectral range (from 340 to 1640 nm).

References

Karol, Y., Tanré, D., Goloub, P., Vervaerde, C., Balois, J. Y., Blarel, L., Podvin, T., Mortier, A. and Chaikovsky, A.: Airborne sun photometer PLASMA: concept, measurements, comparison of aerosol extinction vertical profile with lidar, Atmospheric Measurement Techniques, 6(9), 2383?2389, doi:10.5194/amt-6-2383-2013, 2013.

Instrument information

Sensor

Instrument type:	Photometers
Instrument features / Calibration:	PLASMA2 data have been pre- and post-calibrated with AERONET master Sun-photometers. The instrument has also been tested in a controlled chamber (CHARME, CHamber for Atmospheric Reactivity and Metrology of the Environment) thanks to Cécile Coeur.

Geographic information

Aircraft operations from Walvis Bay, Namibia

Location name:	Aircraft operations from Walvis Bay, Namibia
Plateform type:	F-FALCON 20
West bounding coordinate (°):	8
East bounding coordinate (°):	20
North bounding coordinate (°):	-16
South bounding coordinate (°):	-24
Altitude max:	10000

Measured parameters

Aerosol Optical Depth/Thickness

Parameter keyword:	Atmosphere > Aerosols > Aerosol Optical Depth/Thickness
Acquisition methodology and quality:	Measurements at 340 and 380 nm should be considered carefully due to calibration difficulties.
Sensor precision:	0.01
Date begin (yyyy-mm-jj):	2017-09-05
Date end (yyyy-mm-jj):	2017-09-12

Water-Vapor abundance

Parameter name:	Water-Vapor abundance
Parameter keyword:	Atmosphere > Atmospheric Water Vapor
Unit:	grams per square centimeter
Date begin (yyyy-mm-jj):	2017-09-05
Date end (yyyy-mm-jj):	2017-09-12

Derived parameter

Angstrom Exponent

Parameter keyword:	Atmosphere > Aerosols > Aerosol Optical Depth/Thickness > Angstrom Exponent
Date begin (yyyy-mm-jj):	2017-09-05
Date end (yyyy-mm-jj):	2017-09-12

Data use information

Use constraints:	The Principal Investigator(s) of the PLASMA data for the AEROCLO-sA campaign is Luc Blarel. The scientific investigator is Philippe Goloub, and technical investigators are Rodrigue Loisil and Cyril Delgove. If you intend to use the following data please consult Luc Blarel via e-mail: luc.blarel@univ-lille.fr. Please consider authorship for the PI whenever using the OSIRIS data. The PLASMA2 data was acquired with the support of the SNO-PHOTONS.
Data policy:	AEROCLO data policy
Database:	AEROCLO-sA on BAOBAB
Original data format(s):	ascii text