

aeronetllorin sun photometer

General information

Dataset name: aeronetllorin sun photometer
Created on: 2006-12-05

Contact(s)

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Period

Date begin (yyyy-mm-jj): 1998-04-25
Date end (yyyy-mm-jj): 2006-05-27

Project(s)

OBSERVATORIES > PHOTON AERONET

Data description

Abstract

Sun photometer measurements of the direct (collimated) solar radiation provide information to calculate the columnar aerosol optical depth (AOD). AOD can be used to compute columnar water vapor (Precipitable Water) and estimate the aerosol size using the Angstrom parameter relationship. Two data versions (Versions 1 and 2) and three quality levels (Levels 1.0, 1.5, 2.0) exist for each product. While Levels 1.0 and 1.5 are provided in near real-time, the 12-month or longer delay (due to final calibration and manual inspection) ensures that the highest quality data can be found in Version 2, Level 2.0 data products. Version 2 AOD processing now includes fine and coarse mode AOD as well as fine mode fraction.

Observing strategy

Sun photometer measurements of the direct (collimated) solar radiation provide information to calculate the columnar aerosol optical depth (AOD). AOD can be used to compute columnar water vapor (Precipitable Water) and estimate the aerosol size using the Angstrom parameter relationship. Two data versions (Versions 1 and 2) and three quality levels (Levels 1.0, 1.5, 2.0) exist for each product. While Levels 1.0 and 1.5 are provided in near real-time, the 12-month or longer delay (due to final calibration and manual inspection) ensures that the highest quality data can be found in Version 2, Level 2.0 data products. Version 2 AOD processing now includes fine and coarse mode AOD as well as fine mode fraction.

Instrument information

Sensor

Instrument type:	Photometers
Manufacturer:	Cimel Electronique 172, rue de Charonne 75011 Paris, FRANCE
Model:	Sun Photometer

Geographic information

ILORIN

Location name:	ILORIN
Platform type:	GROUND STATIONS
West bounding coordinate (°):	4.34
East bounding coordinate (°):	4.34
North bounding coordinate (°):	8.32
South bounding coordinate (°):	8.32
Altitude min:	350
Altitude max:	350

Measured parameters

Aerosol Optical Thickness at 1020 nm

Parameter name:	Aerosol Optical Thickness at 1020 nm
Parameter keyword:	Atmosphere > Aerosols > Aerosol Optical Depth/Thickness
Unit:	no unit
Date begin (yyyy-mm-jj):	1998-04-25
Date end (yyyy-mm-jj):	2006-05-27

Aerosol Optical Thickness at 870 nm

Parameter name:	Aerosol Optical Thickness at 870 nm
Parameter keyword:	Atmosphere > Aerosols > Aerosol Optical Depth/Thickness
Unit:	no unit
Date begin (yyyy-mm-jj):	1998-04-25
Date end (yyyy-mm-jj):	2006-05-27

Aerosol Optical Thickness at 675 nm

Parameter name: Aerosol Optical Thickness at 675 nm
Parameter keyword: Atmosphere > Aerosols > Aerosol Optical Depth/Thickness
Unit: no unit
Date begin (yyyy-mm-jj): 1998-04-25
Date end (yyyy-mm-jj): 2006-05-27

Aerosol Optical Thickness at 500 nm

Parameter name: Aerosol Optical Thickness at 500 nm
Parameter keyword: Atmosphere > Aerosols > Aerosol Optical Depth/Thickness
Unit: no unit
Date begin (yyyy-mm-jj): 1998-04-25
Date end (yyyy-mm-jj): 2006-05-27

Aerosol Optical Thickness at 440 nm

Parameter name: Aerosol Optical Thickness at 440 nm
Parameter keyword: Atmosphere > Aerosols > Aerosol Optical Depth/Thickness
Unit: no unit
Date begin (yyyy-mm-jj): 1998-04-25
Date end (yyyy-mm-jj): 2006-05-27

Aerosol Optical Thickness at 380 nm

Parameter name: Aerosol Optical Thickness at 380 nm
Parameter keyword: Atmosphere > Aerosols > Aerosol Optical Depth/Thickness
Unit: no unit
Date begin (yyyy-mm-jj): 1998-04-25
Date end (yyyy-mm-jj): 2006-05-27

Aerosol Optical Thickness at 340 nm

Parameter name: Aerosol Optical Thickness at 340 nm
Parameter keyword: Atmosphere > Aerosols > Aerosol Optical Depth/Thickness
Unit: no unit
Date begin (yyyy-mm-jj): 1998-04-25
Date end (yyyy-mm-jj): 2006-05-27

Water Vapor at 940 nm

Parameter name: Water Vapor at 940 nm
Parameter keyword: Atmosphere > Atmospheric Water Vapor > Water Vapor Indicators > Water Vapor
Unit: grams per square centimeter
Date begin (yyyy-mm-jj): 1998-04-25
Date end (yyyy-mm-jj): 2006-05-27

Solar Zenith Angle

Parameter name:	Solar Zenith Angle
Parameter keyword:	Atmosphere > Atmospheric Radiation
Unit:	degrees - degrees
Date begin (yyyy-mm-jj):	1998-04-25
Date end (yyyy-mm-jj):	2006-05-27

Data use information

Use constraints:	<p>The public domain data you are about to download are contributed by the International AERONET Federation. Each site has a Principal Investigator(s) (PI) , responsible for deployment, maintenance and data collection. The PI has priority use of the data collected at the site. The PI is entitled to be informed of any other use of that site data. Recommended guidelines for data use and publication: Although journal paper authorship and acknowledgement is the domain of the senior author and no policy is universally applicable, the AERONET contributors ask that every practical attempt be made to honor the following general guidelines. Using AERONET data: Please consult with the PI(s) of the data to be used. Publishing AERONET data from a 'few' sites: Please consider authorship for the PI(s) and/or the following acknowledgement: We thank the (Project/PI) for (its/theirs) effort in establishing and maintaining (site name(s)) sites. Publishing data from 'many' sites: A general acknowledgement is typically sufficient and may read: We thank the (PI investigators) and their staff for establishing and maintaining the (#)sites used in this investigation. However if the AERONET data are a principal component of the paper then co-authorship to PI's should be offered.</p>
Database:	AMMA database
Original data format(s):	ascii text