

AS.GPS_1 - SOP Ground based GPS network, Tombouctou, Tamale, Ouagadougou

General information

Dataset name: AS.GPS_1 - SOP Ground based GPS network, Tombouctou, Tamale, Ouagadougou

Created on: 2005-11-18

Contact(s)

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Period

Date begin (yyyy-mm-jj): 2006-01-01

Date end (yyyy-mm-jj): 2006-12-31

Project(s)

AMMA > AMMA-SOP

Data description

Abstract

The GPS network for the SOP is composed of 3 stations on a meridian transect (Tamale - Ouagadougou - Tombouctou). It will complement the transect deployed for the EOP (Djouougou - Niamey - Gao). The GPS data permit to document the variability in total column water vapor from sub-diurnal to intra-seasonal time scale, in three different zonal bands (of variable land cover). The dual meridian transect strategy allows for computing water budgets either directly or through 3D/4Dvar assimilation, and description of humidity environment near or in MCSs.

Observing strategy

Every GPS station provides raw data that must be transferred to the analysis center (in Paris) to produce precipitable water vapor contents with 30 min - 1 h time resolution. The timeliness of water vapor products depends on the communication links available : for the EOP, a maximum of +72H delay is planned. For the SOP, a +12H delay can be considered if the raw data are transferred to France via satellite link (Inmarsat-M4 under study). This would allow to use GPS precipitable water estimates for planning aircraft flights and for model forecast verification.

Instrument information

Sensor

Instrument type:	GPS RECEIVERS
Manufacturer:	INSU
Model:	GPS Receiver

Geographic information

Tombouctou, Tamale, Ouagadougou

Location name:	Tombouctou, Tamale, Ouagadougou
Platform type:	GROUND STATIONS
West bounding coordinate (°):	-17.47
East bounding coordinate (°):	2.18
North bounding coordinate (°):	16.73
South bounding coordinate (°):	9.55
Altitude min:	15.7
Altitude max:	402.3

Measured parameters

Zenith Tropospheric Delay

Parameter name:	Zenith Tropospheric Delay
Parameter keyword:	Atmosphere > Atmospheric Water Vapor
Unit:	meters
Date begin (yyyy-mm-jj):	2006-01-01
Date end (yyyy-mm-jj):	2006-12-31

Integrated Water Vapor

Parameter name:	Integrated Water Vapor
Parameter keyword:	Atmosphere > Atmospheric Water Vapor
Unit:	kilograms per square meter
Date begin (yyyy-mm-jj):	2006-01-01
Date end (yyyy-mm-jj):	2006-12-31

Data use information

Use constraints: AMMA data policy
Data policy: AMMA data policy