ASFennec.F-F20-LNG - LEANDRE Nouvelle GÃ©nÃ©ration lidar reflectivity measurement

General information

Dataset name:	ASFennec.F-F20-LNG - LEANDRE Nouvelle Génération lidar reflectivity measurement
Created on:	2011-08-10

Contact(s)

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Period

Date begin (yyyy-mm-jj):	2011-06-02
Date end (yyyy-mm-jj):	2011-06-23

Project(s)

FENNEC

Data description

Abstract

The SAFIRE (Service des Avions Français Instrumentés pour la Recherche en Environnement) Falcon 20 was deployed during the FENNEC SOP in June 2011 to study the atmospheric boundary layer dynamics, the radiative budget as well as dust emission and transport over the Sahara.

Observing strategy

The Falcon 20 performed eighteen flights from the Island of Fuerteventura (Canary Islands), fourteen of which were made over the central Sahara, for a total of 65h (see Figure 1). The Falcon 20 was equipped with the nadir pointing backscatter lidar LNG (de Villiers et al., 2010) allowing the measurement of atmospheric reflectivity at three wavelengths (355, 532 and 1064 nm) to analyze the structure and radiative characteristics of desert dust plumes. The Falcon 20 was also equipped with a dropsondes launching device, radiometers (broad-band up- and down-looking pyranometers and pyrgeometers), the radiometer CLIMAT (Legrand et al., 2000) as well as in situ PTU (pressure /temperature/humidity) and wind sensors. The Falcon consistently flew at an altitude of 11 km amsl.

Instrument information

Sensor

Instrument type:	LIDAR > Light Detection and Ranging

Geographic information

F-FALCON 20

Location name:	F-FALCON 20
Plateform type:	AIRCRAFT
West bounding coordinate (°):	-10
North bounding coordinate (°):	30
South bounding coordinate (°):	10

Measured parameter

Reflectivity

Parameter name:	Reflectivity
Parameter keyword:	Spectral/Engineering > Radar > Radar Reflectivity
Unit:	Not communicated - N.C
Date begin (yyyy-mm-jj):	2011-06-02
Date end (yyyy-mm-jj):	2011-06-23

Data use information

Use constraints:	FENNEC Data Policy. Acknowledgement sentence: The FENNEC-France project is funded by the Agence Nationale de la Recherche (ANR), the Institut National des Sciences de l'Univers (INSU/CNRS) through the LEFE program, by the Centre National d'Etudes Spatiales (CNES) through the TOSCA program and by Météo-France. FENNEC also benefited from support from the University Paris Est in Créteil (UPEC) and the Commissariat à l'Energie Atomique (CEA). FENNEC is a cooperative project built on international collaborations between France, the United Kingdom, Germany, Mauritania and Algeria.
Data policy:	AMMA data policy
Database:	AMMA database
Original data format(s):	ascii text