

# LIDAR DIRECTORY FORM

LIDAR RESEARCHER: (Title, First Name, Middle Initial, Last Name)

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LIDAR LOCATION (CITY, COUNTRY, LAT., LONG.): Sta. Cruz de Tenerife, Canary  
Islands, Spain, 28° 28' 21" N, 16° 14' 50" W

SITE ELEVATION: 52 m

PARAMETER(S) OR CONSTITUENT(S) MEASURED:

Aerosols: extinction and backscattering coefficients  
MBL height

RESEARCH OBJECTIVES AND SPONSOR: Radiative transfer under Saharan dust  
conditions for satellite instrument validation (Home funding, Spanish Ministry of  
Education and Science)

MEASUREMENT TECHNIQUE: Elastic backscattering lidar

MEASUREMENT RANGE: 0.5 - 60 km

VERTICAL RESOLUTION: 30 m (minima)

FREQ. OF MEASUREMENT (TYPICALLY): In continuous mode (24h/24h) except 2h  
around noon in summer solstice. One profile per minute.

MEASUREMENT TIMES (TYPICALLY): 24 hours

LASER TYPE AND WAVELENGTH (s): Nd:YLF at 523.5 nm

LASER ENERGY/PULSE: 7  $\mu$ J/pulse at 523.5 nm

PULSE REPETITION RATE: 2500 Hz

RECEIVER SIZE AND CONFIGURATION: 8-inch Schmidt-Cassegrain telescope

DETECTORS USED: Perkin-Elmer APDs at 523.5 nm

SIGNAL PROCESSING: Information not available

ANALOG-TO-DIGITAL CONVERTER: Information not available

COMPUTER: PC

PLATFORM (if applicable):

PUBLICATIONS (5 recent and/or significant):

Rodríguez-González, J. M., C. López, S. Chueca, T. J. Martín, M. Gil, V. Ayala, y N. Guillemont. Lidar MPL en Santa Cruz de Tenerife. Proyecto de automatización y control de medidas. XI Congreso Nacional de Teledetección, 21-23 septiembre 2005, Tenerife, España.

COMMENTS: Micro Pulse Lidar (MPL) is integrated in MPLNET (NASA).

PICTURES:



*Lidar MPL is hosted in a hut over a terrace in Sta. Cruz de Tenerife*



*Transceiver and Data Unit of the MPL-3*