

## ATMOSPHERIC STATION

Name: Lampedusa (Lmp)

**Location (lat-long):** Central Mediterranean Sea, remote island, 35.320 - 12.630,

45 m above mean sea level.

**Environment:** Open ocean. **Operational history:** 1997 – present.

**Scientific purpose:** Investigation of climate processes.

Station description: The island of Lampedusa is more than 100 km far from

continental areas. The island is small (surface area of about 22 km<sup>2</sup>), with sparse vegetation, and few relevant local pollution sources (power plant; airport; port; town with about 6000 inhabitants). The island maximum altitude is 130 m. The Station for Climate Observations is located on a 45 m high plateau in the North Eastern sector of the island, about 15 m from the northern cliff. Measurements at the Station in Lampedusa were started in 1997. parameters are at present monitored (meteorology, aerosols, ozone, greenhouse gases, clouds, water vapour, surface radiation in different bands, etc.). Lampedusa is part World Meteorological Organization Atmosphere Watch Regional network, and contributes to the NOAA Cooperative Air Sampling Network. A marine section of the observatory, constituted by an instrumented

buoy, is being implemented.

Measured ICOS core parameters: CO<sub>2</sub>, CH<sub>4</sub>, air temperature, relative humidity, wind direction,

wind speed.

Measured ICOS desirable parameters: CO.

Other measured parameters: Atmospheric aerosol optical properties and chemical

composition, aerosol deposition, column water vapour, cloud cover, precipitation, black carbon, surface and total ozone, spectral UV irradiance, shortwave and longwave

downwelling and upwelling irradiances, PAR.

Website/data portal: <a href="http://www.lampedusa.enea.it">http://www.lampedusa.enea.it</a>

**Responsible organization:** ENEA

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Referente:



Aerial view of the Station for Climate Observations on the island of Lampedusa.

