

Synergistic use of ground-based multi-instrument platforms and satellite recordings to investigate the aerosol-cloud-dynamic interaction in Cyprus

Hossein Panahifar¹, Maria Poutli^{1,2}, George Kotsias¹, Argyro Nisantzi^{1,2}, Silas Michaelides², Diofantos Hadjimitsis^{1,2}, Patric Seifert³, Albert Ansmann³ and Rodanthi-Elisavet Mamouri^{1,2}

¹ Eratosthenes Centre of Excellence, Limassol, 3012, Cyprus- hossein.panahifar@eratosthenes.org.cy

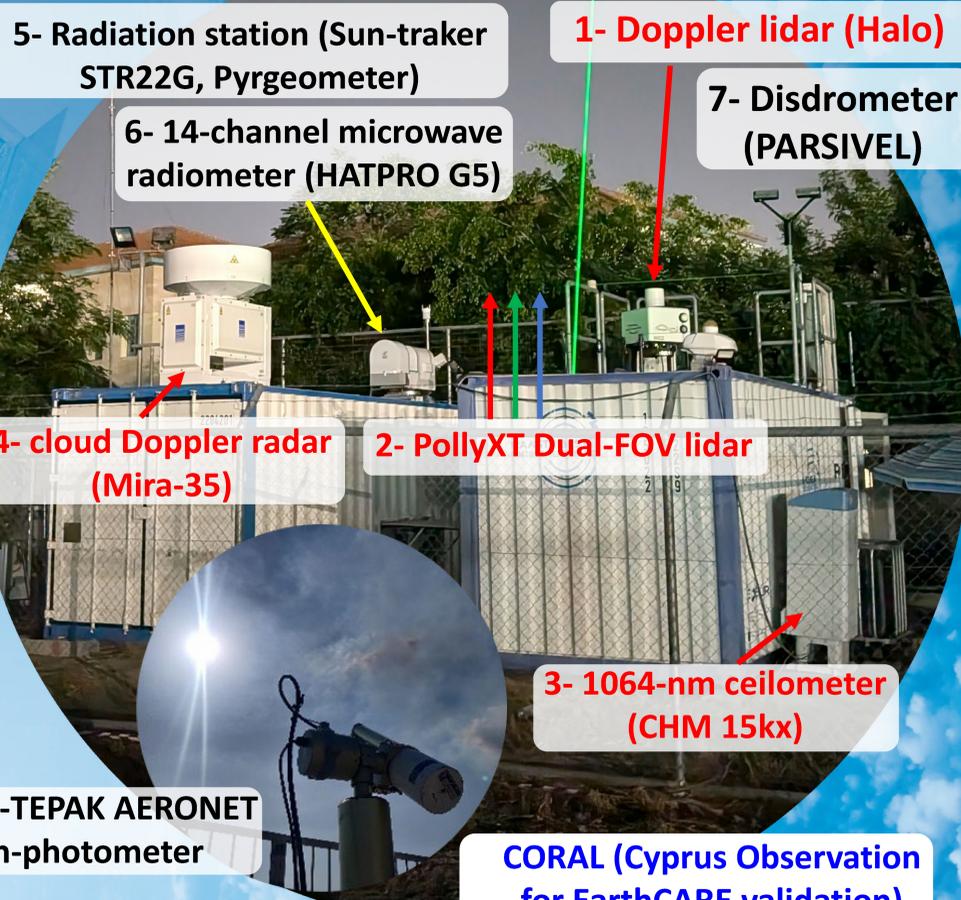
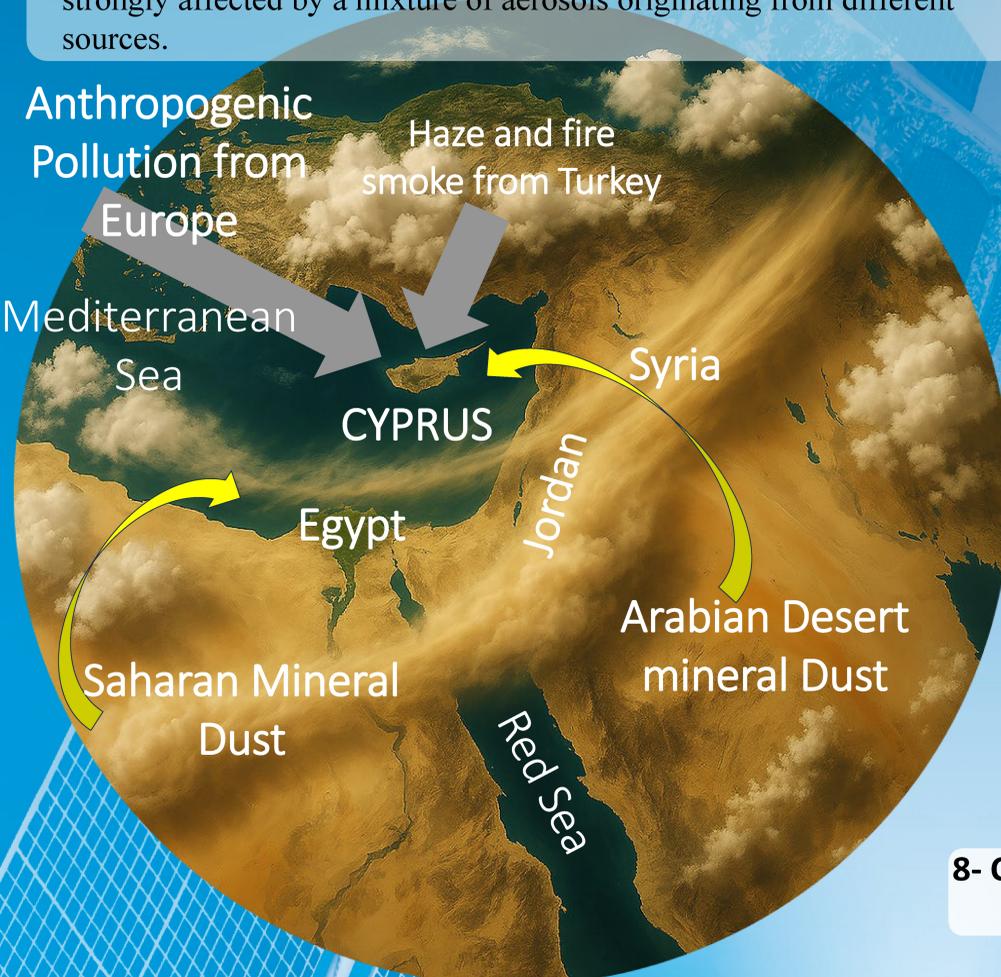
² Department of Civil Engineering and Geomatic, Cyprus University of Technology, Limassol, 3036, Cyprus

³ Leibniz Institute for Tropospheric Research (TROPOS), Leipzig, Germany

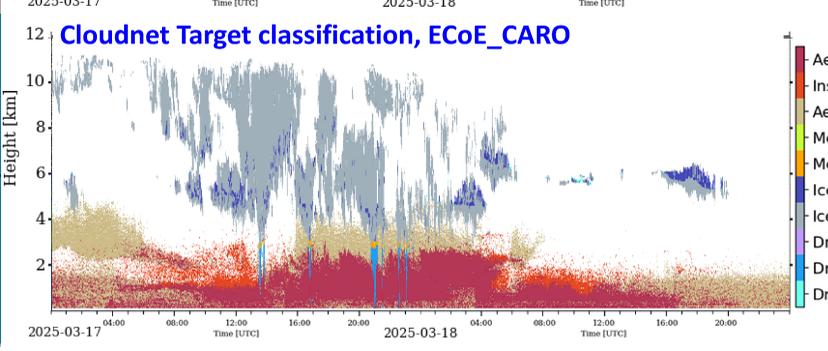
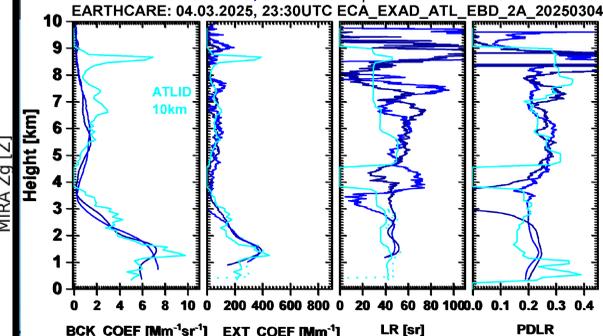
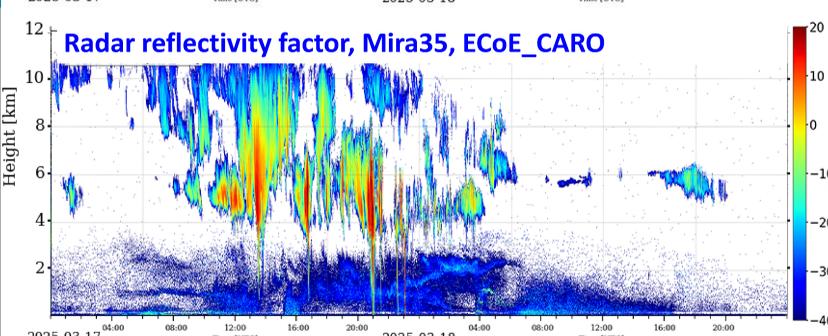
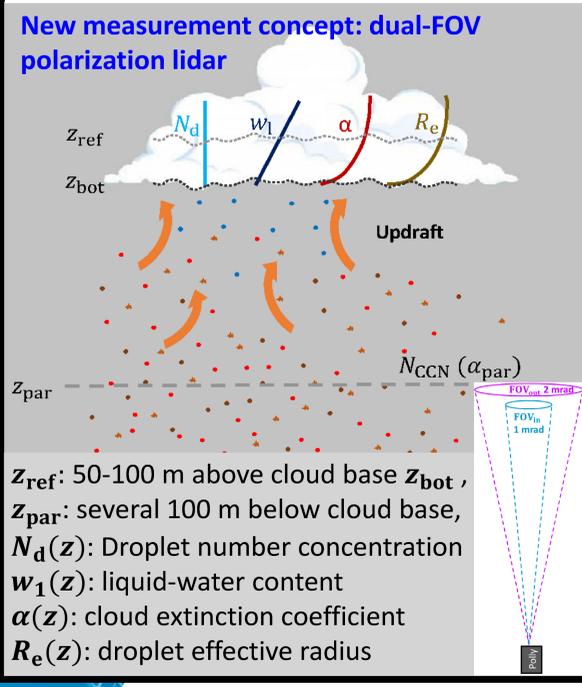
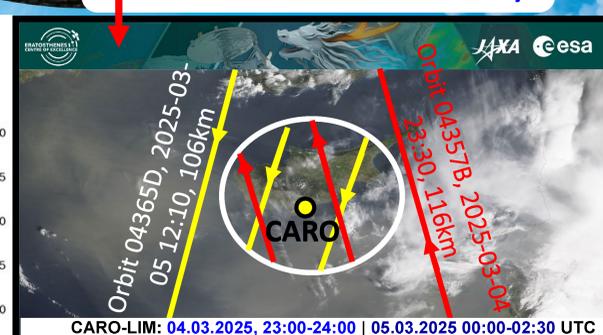
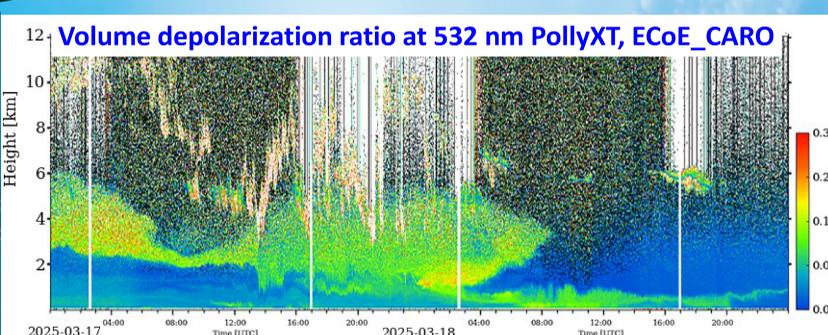
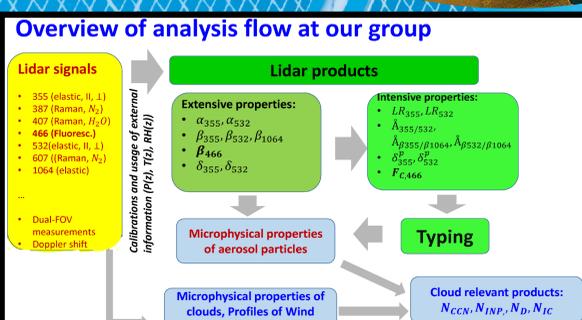
The **Cyprus Atmospheric Remote Sensing Observatory (CARO)** was established in the context of the **EXCELSIOR** project and coordinates with the Atmospheric Cluster of the Department of Climate and Environment at the **ERATOSTHENES Centre of Excellence (ECoE)**. CARO is a National Facility (NF) for remote sensing of aerosol and clouds under labelling procedures to become an ACTRIS National Research Infrastructure facility for Cyprus consisting of the aerosol remote sensing (ARS) observational platform and the cloud remote sensing (CRS) observational platform.

The primary advantage of **CARO** is that Cyprus' climate conditions are strongly affected by a mixture of aerosols originating from different sources.

The second advantage of **CARO** is that it uses multi-instrument platforms to investigate aerosol-cloud-dynamic interactions (active sensor (1-4), Passive sensor (5-8))



CORAL (Cyprus Observation for EarthCARE validation)



ATARRI Project

Measurement- Modelling synergistic approach dealing with major atmospheric research innovation aspects.

ATARRI