



ATMO ACCESS
Access to Atmospheric Research Facilities



Services provided by CESAR

Cabauw Experimental Site for Atmospheric Research



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atmo-access.eu

SERVICE 5 – In-situ, column integrated, vertical profiling and spatial atmospheric observations

TYPE OF SERVICE	Data, research, technical, innovation, training service
SERVICE DESCRIPTION	<p>The CESAR location in Cabauw is characterised by a 213 m high observation tower and surrounding observation field, located 50 km far from the North Sea. The site is ideal for atmospheric research on relations between the atmospheric boundary layer, land surface, weather, climate and atmospheric composition. The site is representative for long-term atmospheric studies because surroundings do not differ significantly from those in 1972 when the site was commissioned. Cabauw is one of very few observatories around the world that monitors such a wide scope of relevant processes in atmospheric chemistry and physics, hydrology, meteorology, climate, and atmospheric chemistry.</p> <p>The observational programme includes the following topics:</p> <ul style="list-style-type: none"> - Operational meteorological station - Operational air quality monitoring station - In-situ observations of meteorological parameters, including extensive land-atmosphere interaction. - Energy balance observations including flux measurements. - Radiation observations, including a Baseline Surface Radiation Network (BSRN) installation and hemispherical cloud cover observations. - A suite of aerosol remote sensing instruments, including a high-performance multi-wavelength Raman lidar for aerosols, clouds and water vapour, a ceilometer and a UV-depolarisation lidar. - A suite of (scanning) cloud remote sensing instruments, including 3/35/94 GHz cloud radars, microwave radiometers - Precipitation observations including a scanning drizzle radar, micro rain radar and disdrometers. - Wind profile observations along the tower up to 200 m and a scanning Doppler wind lidar - Greenhouse gas observations at four different levels in the tower between 20 m and 180 m. - In-situ aerosol observations, including scattering and absorbing aerosol properties, as well as chemical speciation and isotope analysis. - Atmospheric composition measurements using in-situ observations and UV-VIS remote sensing. <p>In addition, the specific flight-restricted area over the station offers the possibility for drones, and tethered balloon flights.</p> <p>The Cabauw site offers access for research projects, measurement campaigns, intercomparisons, and test facility for new instruments, as well as training.</p> <p>More information at: https://ruisdael-observatory.nl/cabauw/</p>
ATMOSPHERE TYPE	Ambient
TYPE OF ACCESS	Physical, remote



TARGET USERS	Academia, business/private sector, public sector
SERVICE STATUS	The service is available (operational and ready to be offered)
AVAILABILITY PERIOD	All year round
TIME CONSTRAINTS	None
CONTACT	Arnoud Apituley (arnoud.apituley@knmi.nl)

SERVICE 6 – Cloud radar calibration

TYPE OF SERVICE	The Cabauw site offers expertise, service and training for cloud radar calibration as part of the ACTRIS topical center for cloud remote sensing (CCRES).
SERVICE DESCRIPTION	More information at: https://ruisdael-observatory.nl/cabauw/
ATMOSPHERE TYPE	Ambient
TYPE OF ACCESS	Physical
TARGET USERS	Academia, business/private sector, public sector
SERVICE STATUS	The service is available (operational and ready to be offered)
AVAILABILITY PERIOD	All year round
TIME CONSTRAINTS	None
CONTACT	Prof.dr.ir. H.W.J. Russchenberg (herman.russchenberg@tudelft.nl)

SERVICE 7 – Trace gas remote sensing intercomparison

TYPE OF SERVICE	The Cabauw site offers expertise, service and training for UV-VIS trace gas remote sensing intercomparisons as part of the ACTRIS topical center for trace gas remote sensing (CREGARS).
SERVICE DESCRIPTION	More information at: https://ruisdael-observatory.nl/cabauw/
ATMOSPHERE TYPE	Ambient
TYPE OF ACCESS	Physical
TARGET USERS	Academia, business/private sector, public sector
SERVICE STATUS	The service is available (operational and ready to be offered)
AVAILABILITY PERIOD	All year round
TIME CONSTRAINTS	None
CONTACT	Arnoud Apituley (arnoud.apituley@knmi.nl)

