

Cloudnet, Part I



<http://www.cloud-net.org/index.html>

The overall objectives are:

- To optimise the use of existing data sets to develop and validate cloud remote sensing synergy algorithms.
- To demonstrate the importance of an operational network of cloud remote sensing stations to provide data for the improvement of the representation of clouds in climate and weather forecast models and for the use of GCOS.



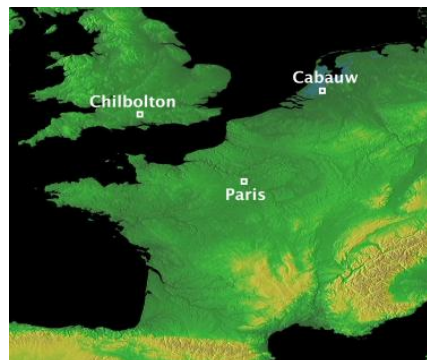
Cloud Remote Sensing Stations



Cloudnet started with three cloud observing stations:

- (1) Cabauw, The Netherlands
[51.971N, 4.927E]
- (2) Chilbolton, United Kingdom
[51.145N, 1.437W]
- (3) SIRTA-Palaiseau, France
[48.713N, 2.204E]

Each CRS station had been developed over a number of years prior to 2001 with national funding.



The instrumentation available at each site was different.

From: C L Wrench Cloudnet Final Symposium – 12 October 2005

Cloudnet, Variables observed



■ Macroscopic Variables

- (i) Cloud fractional cover
- (ii) Cloud overlap and the overlap of cloud inhomogeneities

■ Liquid Water Cloud

- (iii) Liquid water content
- (iv) Droplet size
- (v) Optical depth and emissivity

■ Ice Cloud

- (vi) Ice water content
- (vii) Ice particle size
- (viii) Optical depth
- (ix) Emissivity

■ Mixed Phase Cloud

- (x) Occurrence
- (xi) Ice water content
- (xii) Liquid water content

