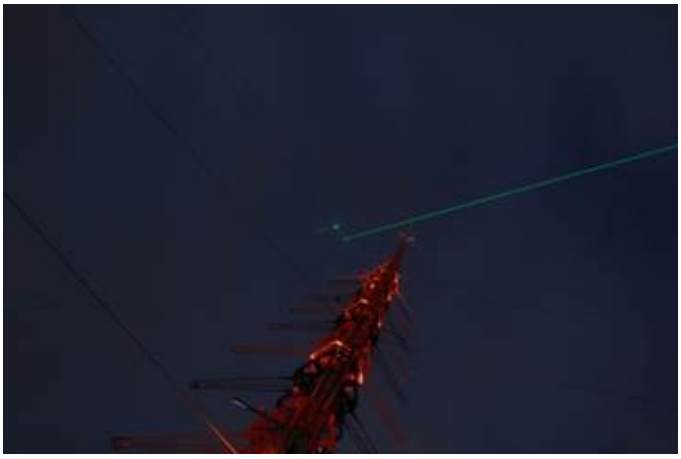
MSc Project

Hydrology, Water management, Geoscience and Remote Sensing

No dust, no clouds

Background
Cloud droplets need dust to grow on. This is a crucial step in cloud formation. It also means that there may be a relationship between air pollution, clouds and rainfall. It is one of the open issues in climate science, leading the a large uncertainty forecasts of the future climate.



Objective
In this study, you will analyse the correlation between dust (so-called aerosols) in the atmosphere and cloud properties. The instruments you will use are the cloud radars of the KNMI and TU Delft and an instrument call 'lidar'. This transits a laser beam into the atmosphere and measures reflections by dust particles. Key points of interests are:

- How strong is the correlation between the cloud properties and dust particles below trhe cloud?
- What does it tell us about the influence of humas on cloud formation?

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