

## NASA IPHEX ACHIEVE Datasets Initial Documentation

*Preliminary information about the dataset, official guide document will be posted when available*

All ACHIEVE datasets:

Dataset/Instrument:

[ACHIEVE \(Aerosol, Cloud, Humidity, Interactions Exploring and Validating Enterprise\) mobile laboratory](#)

Principal Investigator w/ Institution:

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Platform during IPHEX:

[Ground Station](#)

Number of Datasets to be archived and made public for distribution after the campaign:

[One dataset, only W-band quick-look images were uploaded during the mission and no new images will be uploaded.](#)

Coordinate Bounding box for complete dataset:

[Maggie Valley, North Carolina, USA; Single point: Lat=35.5198, Lon=-83.0947](#)

In case of separate instances of the instrument at different locations, list site & coordinates:

[N/A](#)

Website for additional information/documentation:

<http://smartlabs.gsfc.nasa.gov>

Publication restrictions:

**\*\*\*Use of this data for publication is prohibited without proper reference, and/or offer of co-authorship, or expressed permission\*\*\***

Dataset/Instrument:

**Vaisala CL51 910 nm High Range Ceilometer / CL51**

Instrument Type:

ceilometer/lidar

Brief Description of Instrument and Function:

vertical profiles of aerosol backscatter, retrieval of cloud base detection and boundary layer structure

Product names:

two-way attenuated backscatter, 1st, 2nd, and 3rd boundary layer and cloud base heights

Type:

data only

Volume per file/day/mission:

10 MB/day

Version:

intermediate

Data format:

netcdf3

NASA Processing level:

Level 1B

Direct products/parameters measured:

two-way attenuated backscatter

Derived products/parameters:

boundary layer and cloud base heights

Temporal resolution—per file:

24 hr

Temporal resolution—per each record in the file:

16 s

Resolution of the instrument:

10 m range resolution, total range of 4.5 km for backscatter data; cloud base heights up to 7.7 km