Dataset name:	**iCUPE Dataset (DS) from Deliverable 1.3.2:**
	Dataset on Arctic parameters exactly based on ground-based remote sensing and airborne platforms:
	Dataset on small-scale vertical and horizontal variability of the atmospheric boundary layer aerosol using unmanned aerial systems
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Place and date:	**Leipzig, Germany, 31 March 2020**

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Project name:

Investigating the Small-Scale Vertical and Horizontal Variability of the Atmospheric Boundary Layer Aerosol using Unmanned Aerial Vehicles

For information see Research in Svalbard (RIS ID 10977)

Institutes: TROPOS, TU Braunschweig, EKU Tübingen

This data set consists of data from flight campaign in Ny-Alesund with unmanned aerial systems from April-May 2018. The operation area was the local airfield in Ny-Alesund and the area around.

Flight pattern: starting with vertical profiles in square patterns up to the maximum height (below clouds, < 900 mASL)

Details about instrumentation can be taken from the teaser and from these publications:

ALADINA first setup see Altstädter, AMT, 2015
current setup will be shown in Lampert, Atmosphere, 2020 (submitted)

The produced dataset (in txt format) contains columns of collected data in the following order:

column 1 GPS time from the GNSS in UTC
column 2 Height in m ASL, calculated from the GNSS/IMU
column 3 Latitude in deg, Calculated from the GNSS/IMU
column 4 Longitude in deg, calculated from the GNSS/IMU
column 5 Temperature in degC, static temperature combined from all temperature sensors (TSYS01, HMP100, fine wire)
column 6 Relative humidity in %, derived from different humidity sensors
column 7 Potential temperature in K
column 8 Water vapour mixing ratio in g/kg
column 9 CPC1 - aerosol particle number concentration with lower detection limit of 3-4 nm , TSI model 3007
column 10 CPC2 - aerosol particle number concentration with larger detection limit of around 12 nm, TSI model 3007
column 11 OPC_C1 - aerosol particle size first channel > 300 nm OPC Met One GT-526S
column 12 OPC_C2 - aerosol particle size second channel > 500 nm OPC Met One GT-526S
column 13 OPC_C2 - aerosol particle size third channel > 700 nm OPC Met One GT-526S
column 14 BC mass concentration in ng/m^3 aethalometer AE51, Envilyse
column 15 Pyranometer on top ALADINA (incoming solar radiation)
column 16 Pyranometer bottom ALADINA (reflex radiation)
column 17 Surface temperature

filenames are created as follows:
IDXX_aladina_nyalesund_v2.txt with XX=Flight ID (from 01-50)