

# Mesures de méthane par ballon-sonde - 21/08/2021 - Kiruna

Félix Langot

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*LMD - Palaiseau*

8 avril 2022



2021 08 21

time : UTC

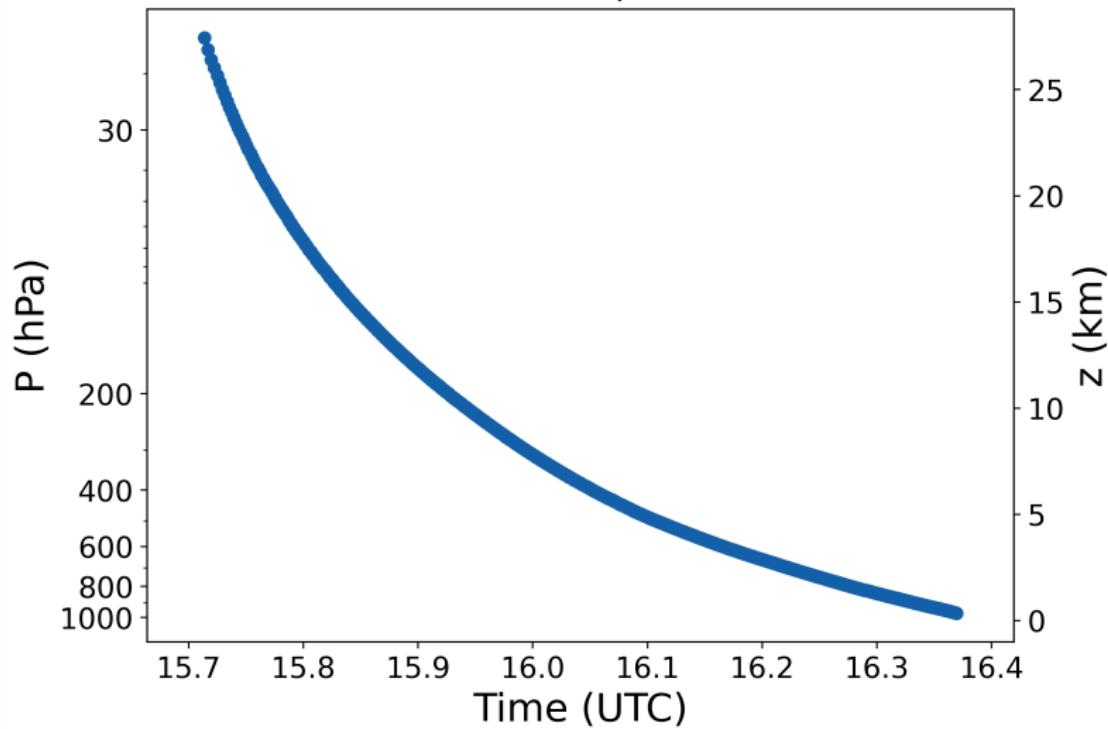
- Latitude (deg. N) • CH<sub>4</sub> (ppb)
- Longitude (deg. E) • sd CH<sub>4</sub> (ppb)
- GPS geopotential altitude (km) • CO (ppb)
- Pressure (hPa) • sd CO (ppb)
- Ambient Temperature (K) • N<sub>2</sub>O (ppb)
- Ambient Relative Humidity (%) • sd N<sub>2</sub>O (ppb)
- CO<sub>2</sub> (ppm) • H<sub>2</sub>O (ppb)
- sd CO<sub>2</sub> (ppm) • sd H<sub>2</sub>O (ppb)

- Take-off latitude 67.88925 deg.N
  - Take-off longitude 21.08244 deg.E
  - Take-off site ground pressure 972.591 hPa
  - Take-off site ground altitude 0.338 km
  - Burst altitude 27.603 km
  - Landing site latitude (AirCore) 67.84699 deg.N
  - Landing site longitude (AirCore) 21.61335 deg.E
  - Landing site ground pressure (AirCore) 970.878 hPa
  - Landing site ground altitude (AirCore) 0.341 km
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- Landing site (AirCore) : In a tree within a marshy forest
  - Separation AirCore/Radiosonde : No
  - Take-off time 14 :32
  - Burst time 15 :43
  - Landing site time (AirCore) 16 :22
  - Closing valve status : auto 16 :22
  - AirCore analysis starting time 19 :34
  - AirCore analysis ending time 20 :22

- AirCore ID : 35
- Length, external diameter and width of AirCore tubes : 23m, 8mm, 0.20mm | 46m, 4mm, 0.15mm
- CO<sub>2</sub>a, CH<sub>4</sub>a, COa, H<sub>2</sub>Oa data measured with a Picarro G2401.
- N<sub>2</sub>Ob, CO<sub>b</sub>, H<sub>2</sub>O<sub>b</sub> data measured with a Picarro G5310.
- Measure orientation : top of profile analyzed first
- Mole fraction measurements are corrected to WMO reference scales.
- Lat, Lon, Alt, T, RH provided by the M20 meteosonde where the air was sampled.
- P is provided by the AirCore electronic board where the air was sampled.

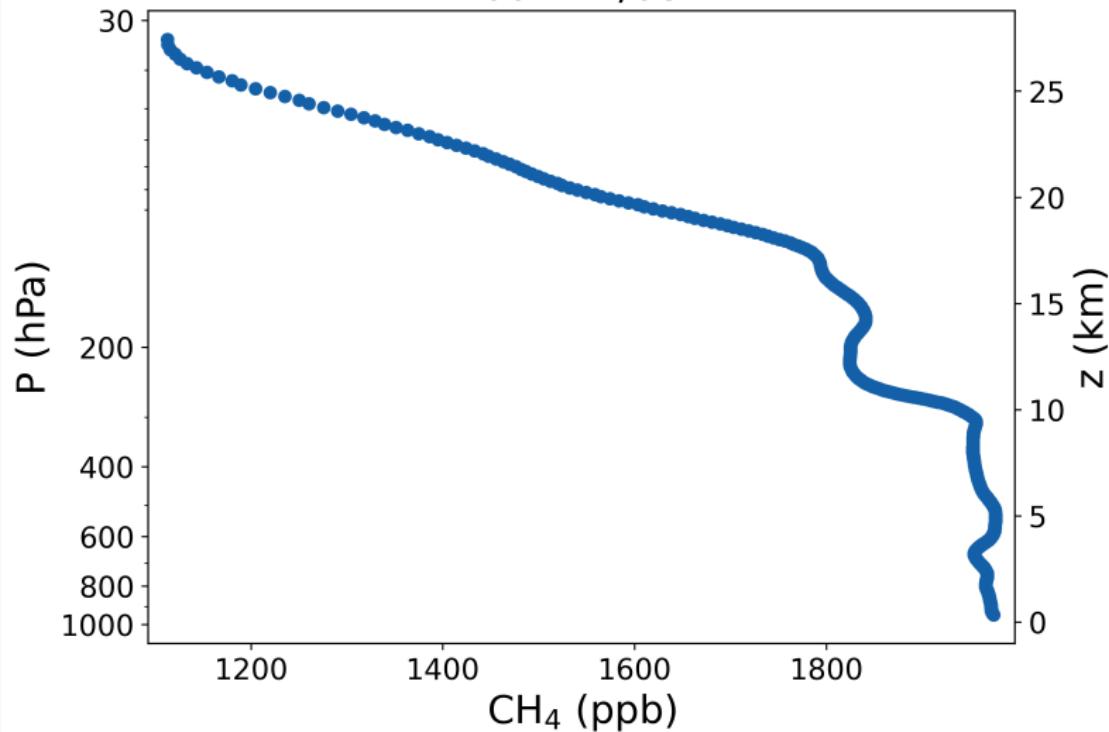
Temperature within AirCore tubes is measured by 6 thermistors positioned along the AirCore tube(s).

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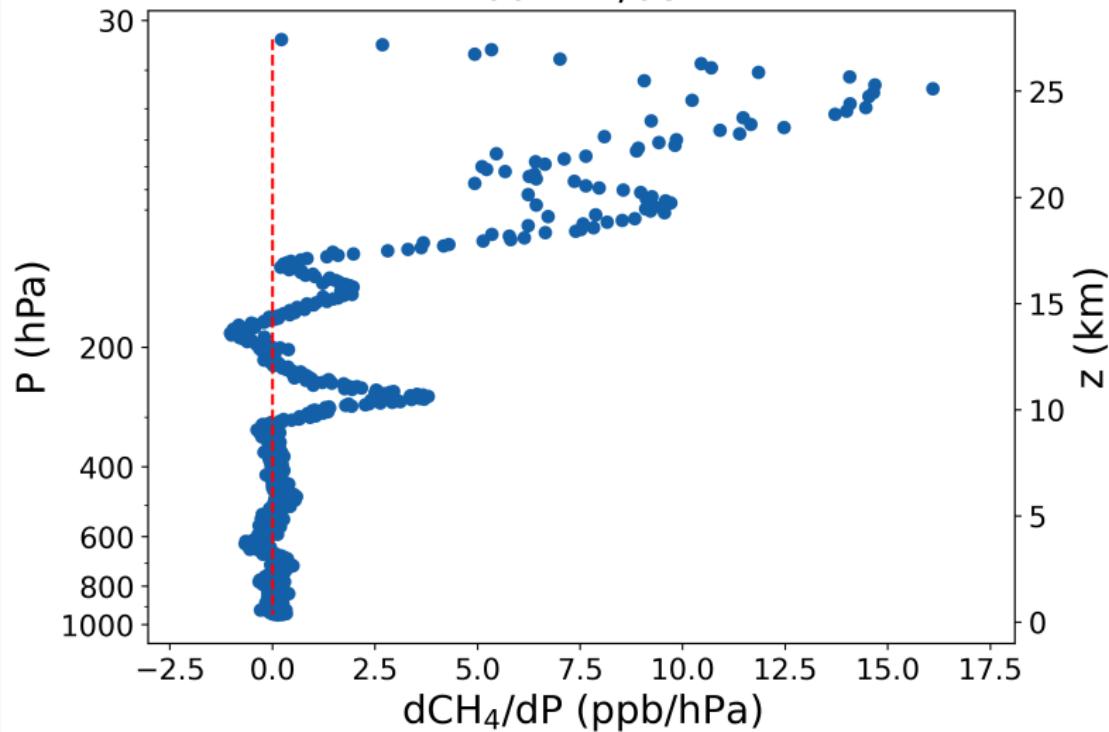
$\text{CH}_4$

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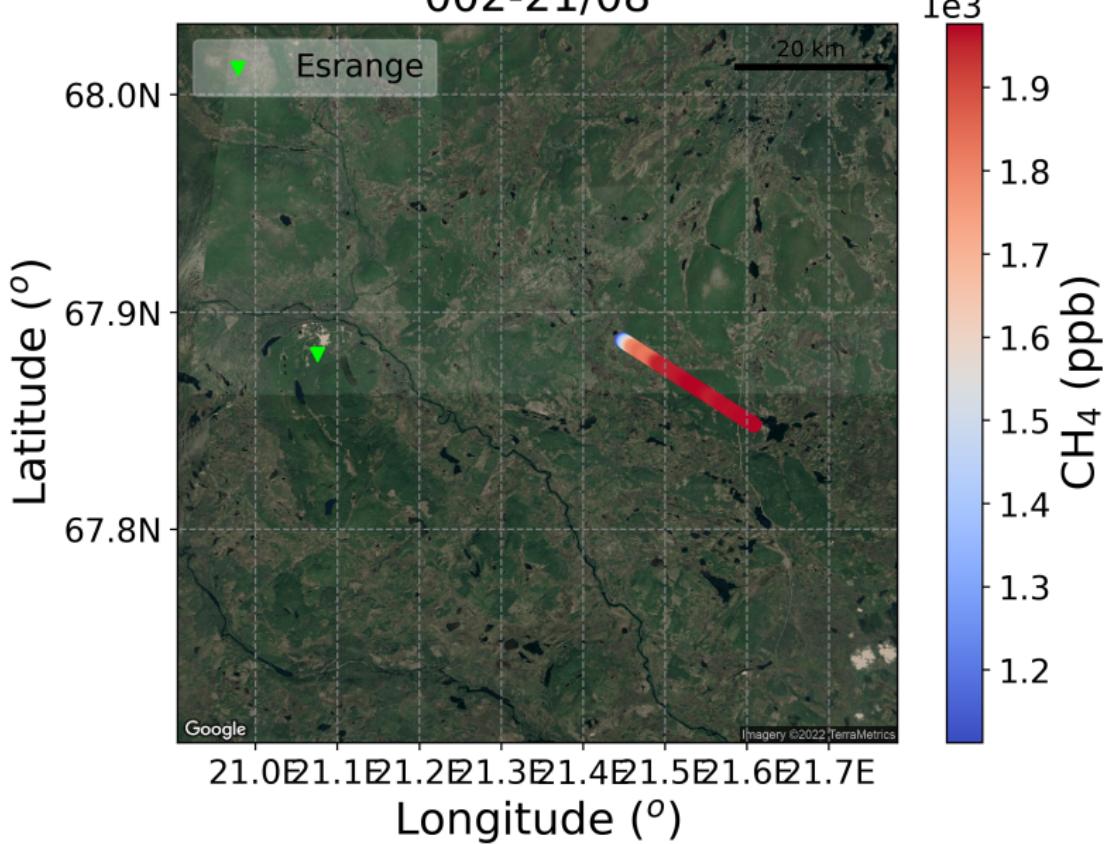


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