

# BLLAST - Lower atmospheric boundary layer observation at Lannemezan (France) :

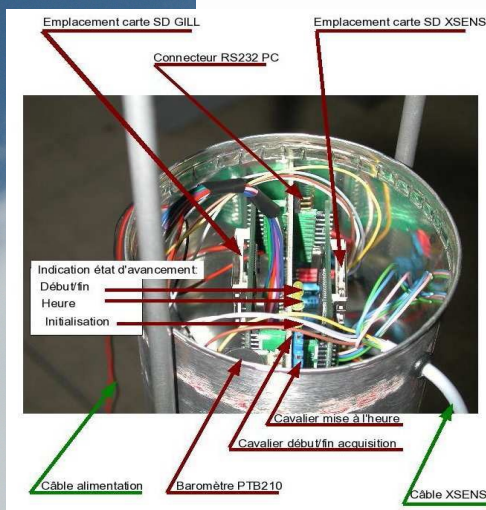
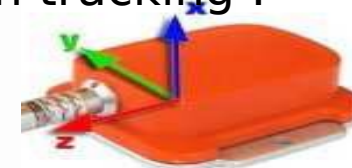
## Turbulence measurements under a tethered balloon



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- Helium-inflated 7 m<sup>3</sup> Vaisala balloon
- Measurements from ground to 1km AGL if wind < 12 m/s
- One thetersonde System TTS111
- Payload (2 kg) :
  - \* GILL WINDMASTER PRO with 2 analogic inputs (P and T\_wire 6μm)
  - \* XSENS 3D motion tracking :



- 8 NimH batteries (9,6 V)
- Micro-controller PIC24
- 1 Go SD card
- 10 Hz sampling rate

## Flight summary :

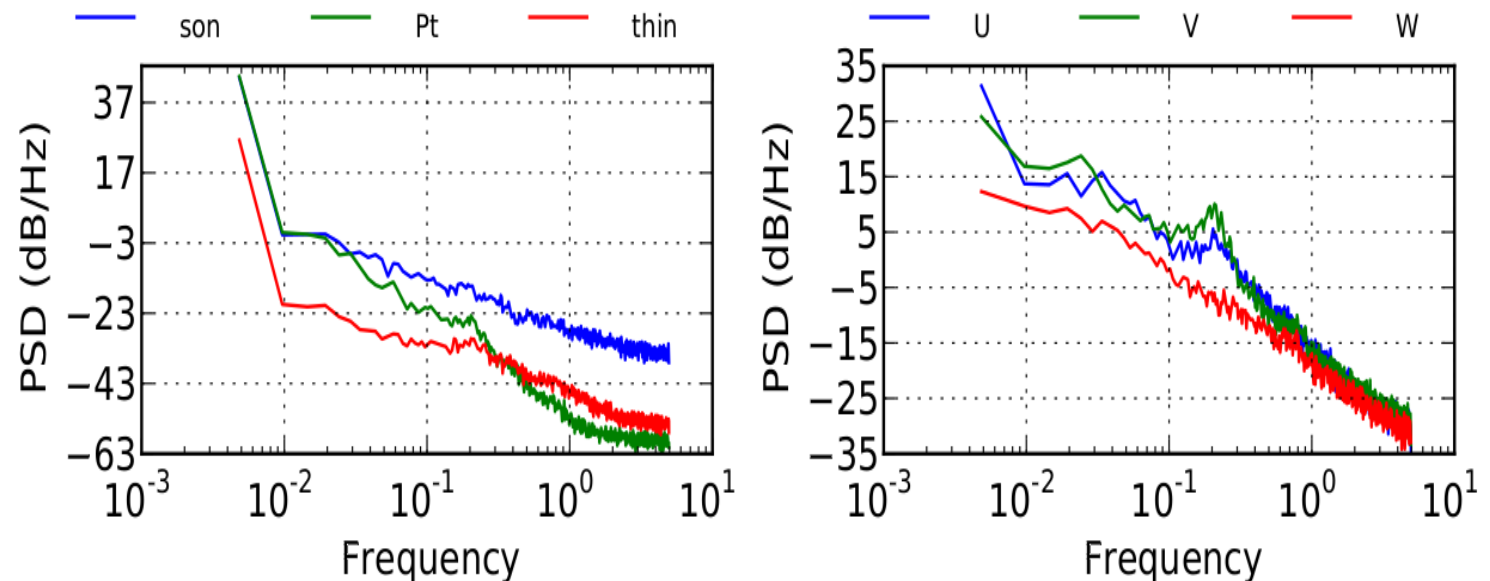
- Flew on every IOP (11 days)
- From 12h15 to 20h00 (UTC)
- Typically around 300 m AGL (legs in the 200-400m range, once 600m on IOP 1)
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# Current results and perspectives

Processing still in progress

Good results for T and W computation, and fast movement correction,

Progress needed on correction of 5 sec. U and V oscillation



Perspectives :

- Work on sensible heat fluxes can go on with data as currently processed
- Ongoing effort on data processing (including stochastic filtering) to allow future work using horizontal components (TKE, ...)