

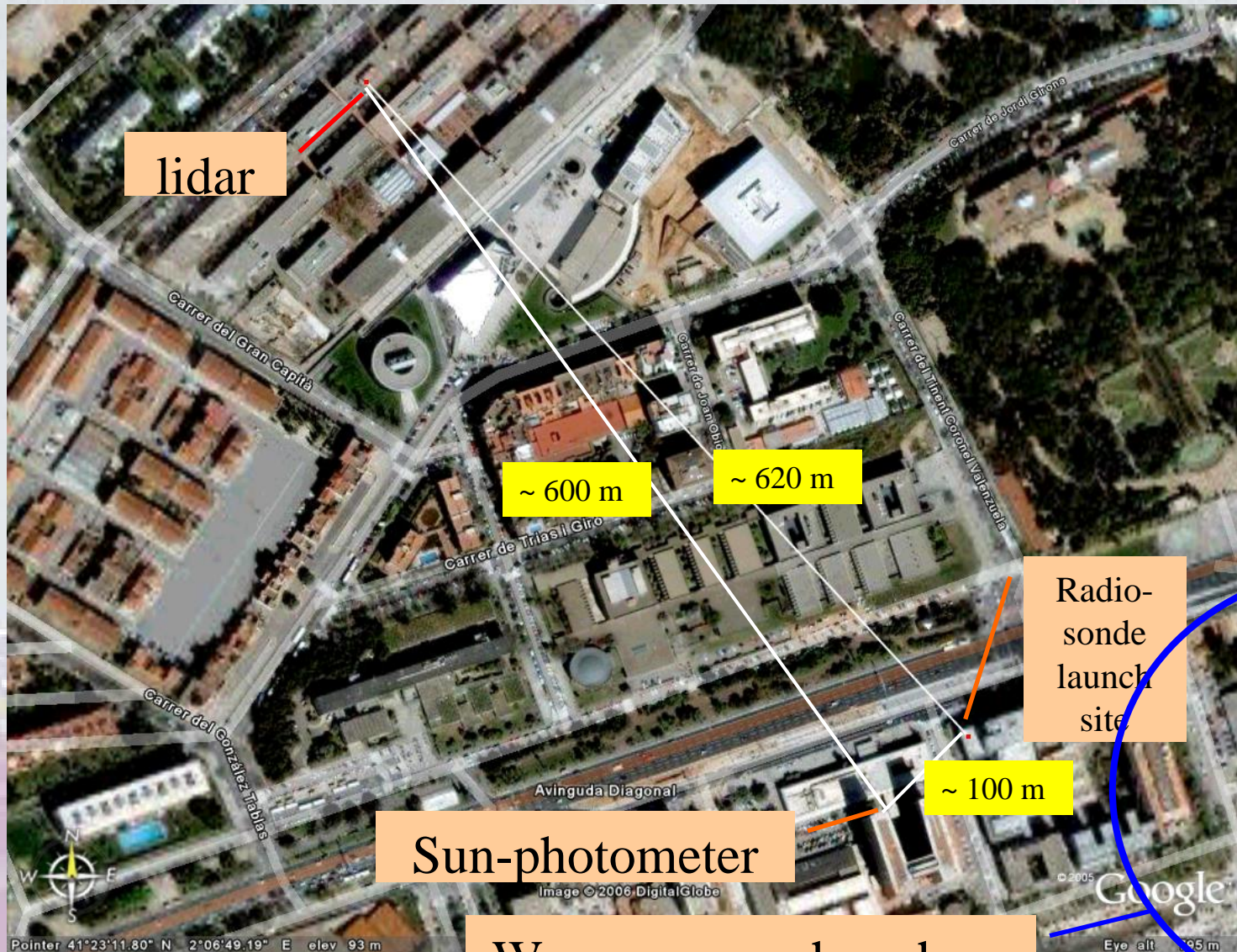
UPC lidar team and system

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Location



March 2nd, 2009

We are somewhere here

First DAURE Science meeting

The UPC “2+1” scanning Raman lidar



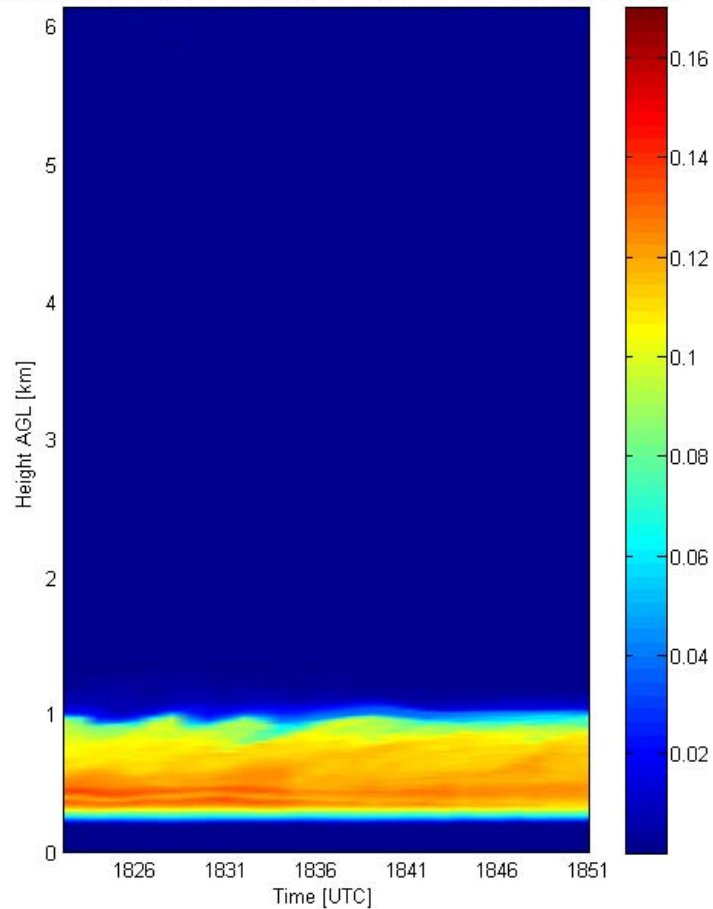
Parameters	Values
Wavelength (nm)	1064, 532
Emitted energy (mJ)	160, 160
PRF (Hz)	20
Pulse duration (ns)	6
Reception diameter (m)	0.20
Receiver optical transmission (%)	40
Detector quantum efficiency (%)	20
Transmission full FOV (mrad)	0.5
Receiver full FOV (mrad)	1.5
Filter bandwidth FWHM (nm)	10
Zenith scanning range (°)	0 - 90
Max. Range (km)	10
Vertical resolution (m)	15

Measurement schedule during DAURE

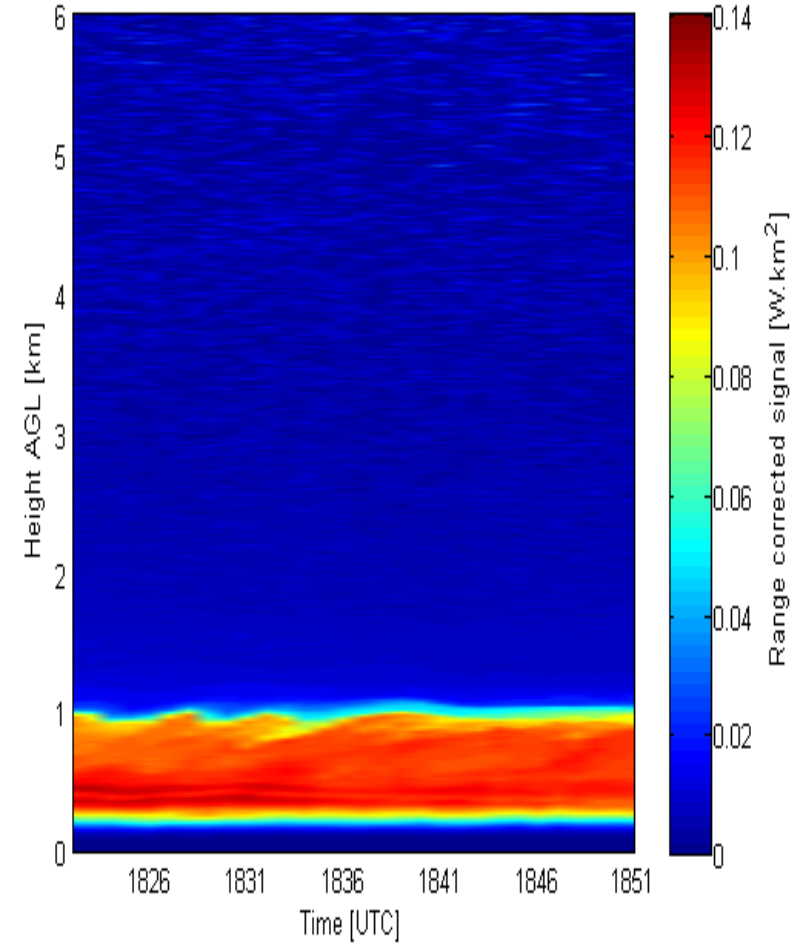
- 3 measurements per week:
 - Monday: 1400 Local Standard Time + / - 1 hour
 - Monday: Sunset + 2 / - 3 hours
 - Thursday: Sunset + 2 / - 3 hours
- 30 minutes measurements of 1-min. resolution
- If background is strong, the Raman channel is not usable → $\beta_{532}, \beta_{1064}$
- If background is weak (only at sunset), the Raman channel is usable → $(\alpha_{532}, \beta_{532}), \beta_{1064}$

Example of 26 Feb. 2009

QUICKLOOK: $\lambda=532\text{nm}$ Date:26/02/09 Start time:1822 UTC Stop time:1852 UTC



$\lambda=1064\text{nm}$ Date:26/02/09 Start time:1822 UTC Stop time:1851 UTC



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