

# Advances on CENICA´s participation in the MILAGRO campaign

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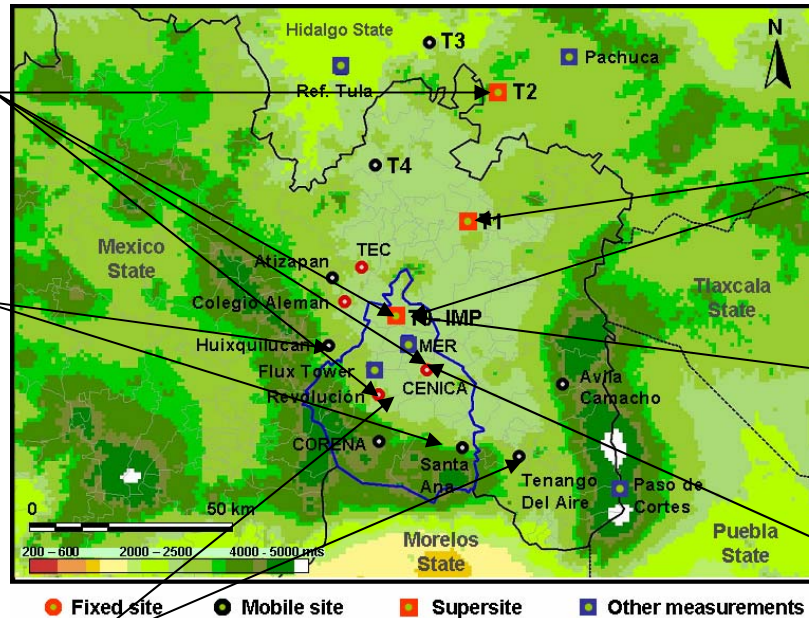
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# Experiments

Manual particle samplers

Meteorological stations

Pilot balloons



Total gas mercury

Tethered balloon

Monitoring station

# Manual particle samplers:morpho-chemical characterization

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T0, T1, CENICA, UNAM: started at March 1,  
T2 started at March 10

	T0	T1	T2	CENICA	UNAM
<u>MiniVol</u>	Daily samples of 12 and 24 hours of PM <sub>2.5</sub> and PM <sub>10</sub> .				
<u>HiVol</u>	Every 3 <sup>rd</sup> day samples of 12 hours of PM <sub>2.5</sub> and PM <sub>10</sub>	Every 3 <sup>rd</sup> day samples of 12 of hours of PM <sub>2.5</sub> , PM <sub>10</sub> and PST	Every 3 <sup>rd</sup> day samples of 12 hours of PM <sub>10</sub>		
RAAS				Daily samples of PM <sub>2.5</sub>	

- ❑ Chemical characterization: elemental composition, EC/OC, and ions, Hg in particle phase, SEM
- ❑ Individual samples with denuder
- ❑ First tests with GRIM sampler

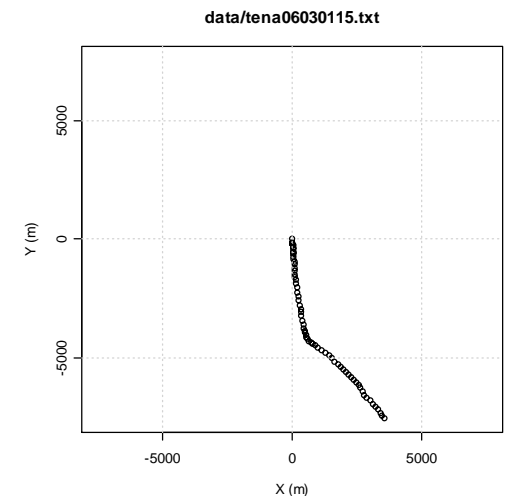
# Tethered balloon at T0

- VOC's, Ozone and meteorological parameters (WSP, WDR, T, RH)
- Elevations: March 2, 3, 12 and 13. Next planned elevations: March 17, 18, 23, 28, and 29, from 4AM to 4PM.
  - Colaboration with A. Guenther and Jim Grimber (NCAR) for VOCs comparisson
  - Particle counter of Jun Noda of Gotemborg University added for trial in some flights



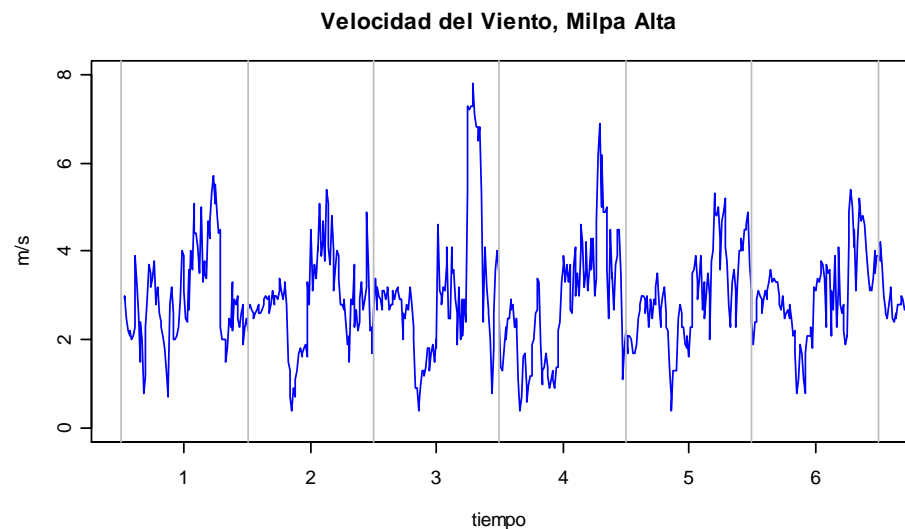
# Pilot balloons in Tenango and UNAM

- Since March 1st, four times a day
- Night flights every 6 days (March 2 and 8). Next planned night time experiments: March 20 and 26
- Flights every 1.5 hours between 9AM and 6PM carried out on March 12 and 13 for obtaining case studies with higher time resolution. Next events: March 17 and 18, March 23, March 28 and 29.



# Meteorological stations

- Huixquilucan (since Feb 28th) in coordination with fixed site for air criteria air pollutants,
- Milpa Alta (since Feb 23th)
  - In Milpa Alta, a strong wind on March 10 made the station fall, which damaged the cable for wind directions. Data loss between March 10 and March 13.



# Air quality and meteorological monitoring station at CENICA-Iztapalapa\*

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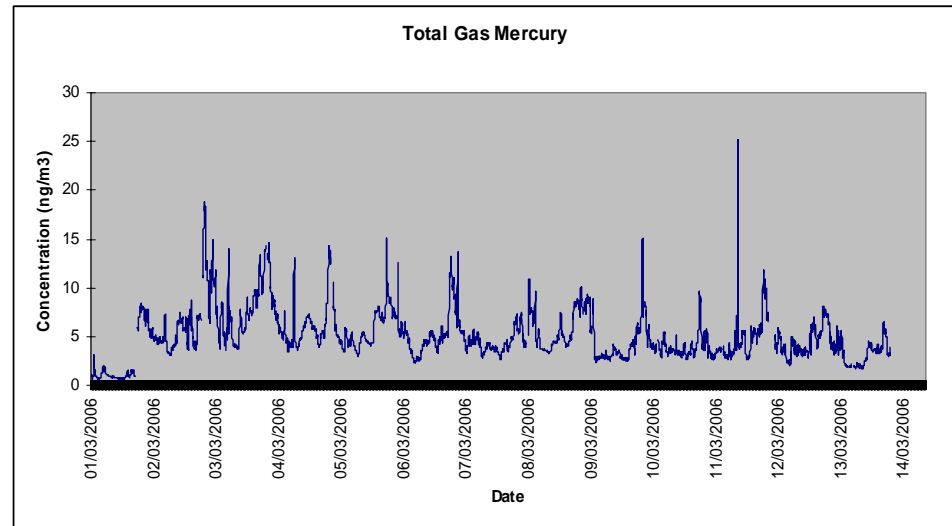
- Data (minute) for: SO<sub>2</sub>, CO, PM<sub>2.5</sub>, PM<sub>10</sub>, NO<sub>x</sub>, O<sub>3</sub> and meteorology \*\*
  - March 10th problems with PM<sub>2.5</sub> readings. Fixed.
  - Without electrical power from March 12, 3PM to March 13, 11AM, no data will be available
  - March 15-16: problems with O<sub>3</sub>. Fixed
  - March 15: problems with NO<sub>x</sub>. Pendant.
- VOCs continuous monitoring at UAMI site:
  - March 1st to March 5th.
  - March 10th-March 15th

\* In operation since 1999, not part of the SIMAT network.

\*\* calibration was done by A. Retama's team from SIMAT

# Mercury: Total gas and particles

- T1: Total gas mercury (tekran) in operation since March 1, use of sampling bags at T2.
- Particles: sampling program started on March 1 at T1 and T2.



Preliminary TGM average values around 4.9 ng/m<sup>3</sup> lower than the average previously reported by CENICA in Mexico City (9.81 ng/m<sup>3</sup>) *D.A. de la Rosa et al. (2004)*

# Outreach

