



CIEMAT
Madrid, SPAIN
Atmospheric Pollution Unit

Preliminary results

Continuous & size segregated inorganics
SMPS distributions

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Science Meeting 26th may 2009
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DAURE 2009 Experimental Field Campaign, Barcelona Meeting 26th May 2009

Inorganic aerosol - BCN site

Semi-continuous measurements



- Particulate nitrate
analyser (R&P8400N)

-Particulate sulfate analyser
(Thermo 5020i SPA)

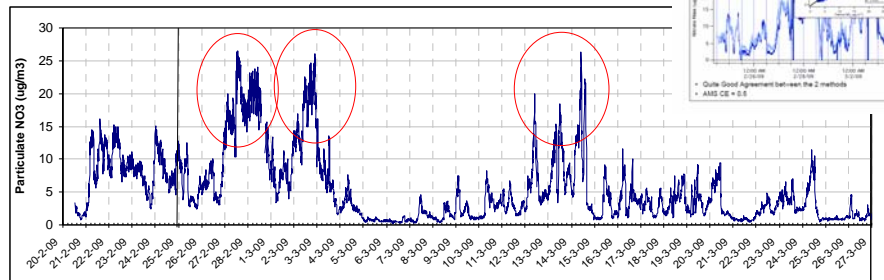
Not available due to instrumental failures

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Continuous Particulate Nitrate

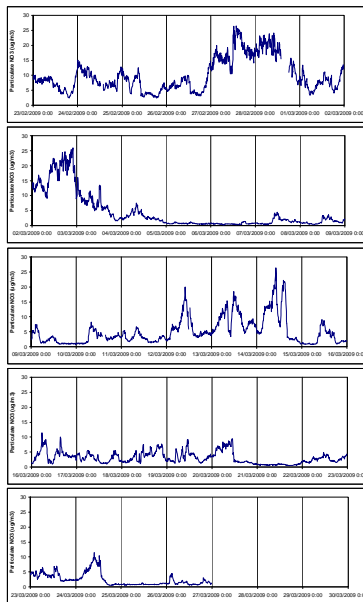
Preliminary analysis

- Weekly pattern
- Daily patterns
- Special (high/low) concentration events



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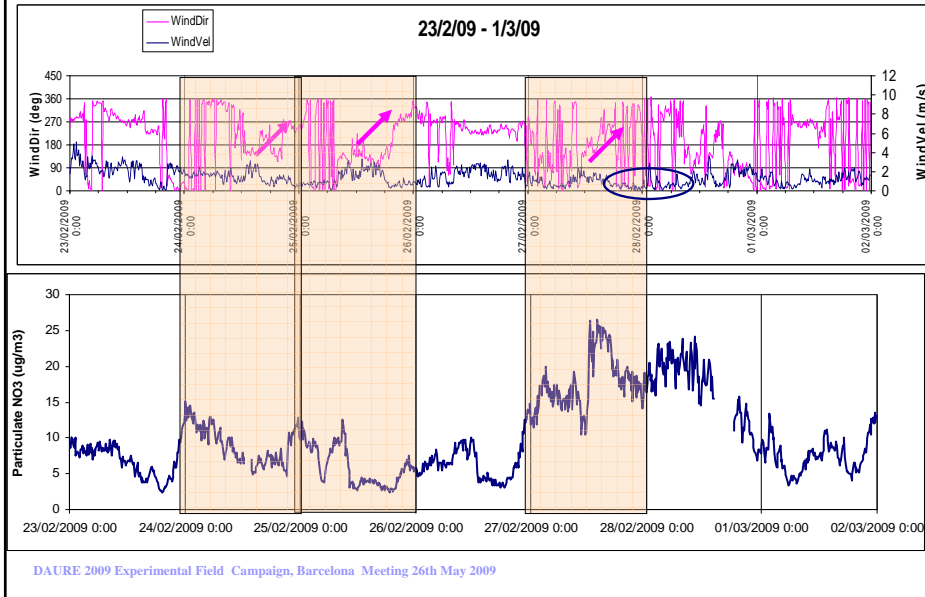
Time Series

Weekly analysis

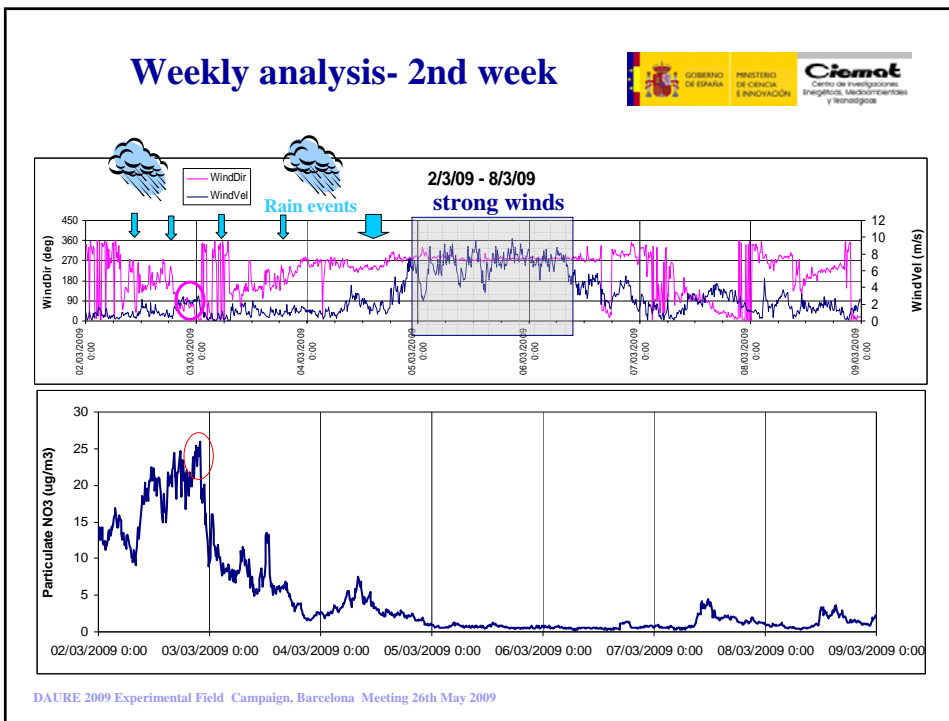
- Weekend effect/ meteorological influence
- Episodic days under high pressure system
- Clean/ventilated days
- Local conditions with daily cycles

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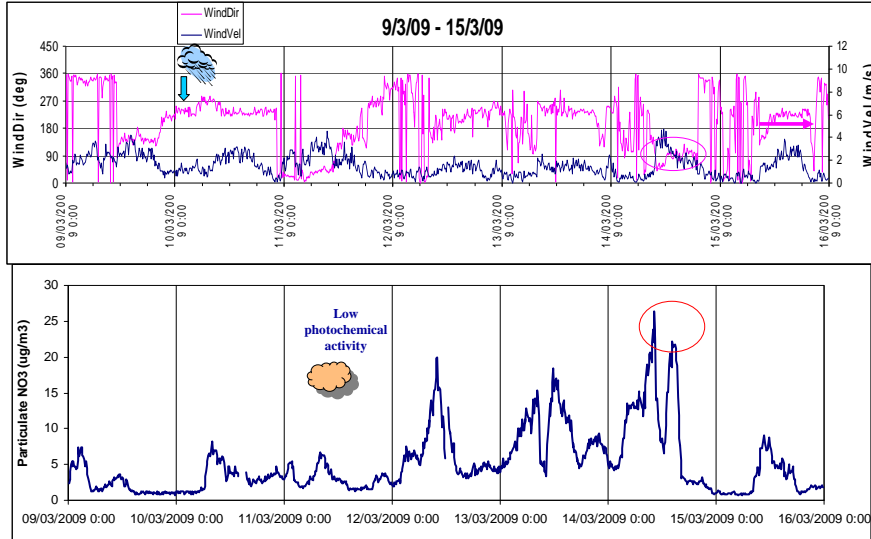
Weekly analysis- 1st week



Weekly analysis- 2nd week

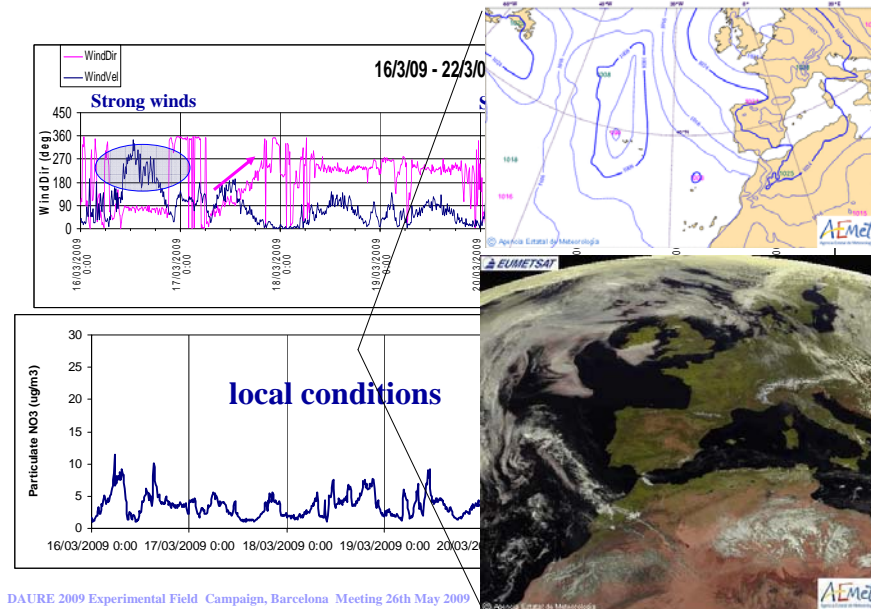


Weekly analysis- 3rd week



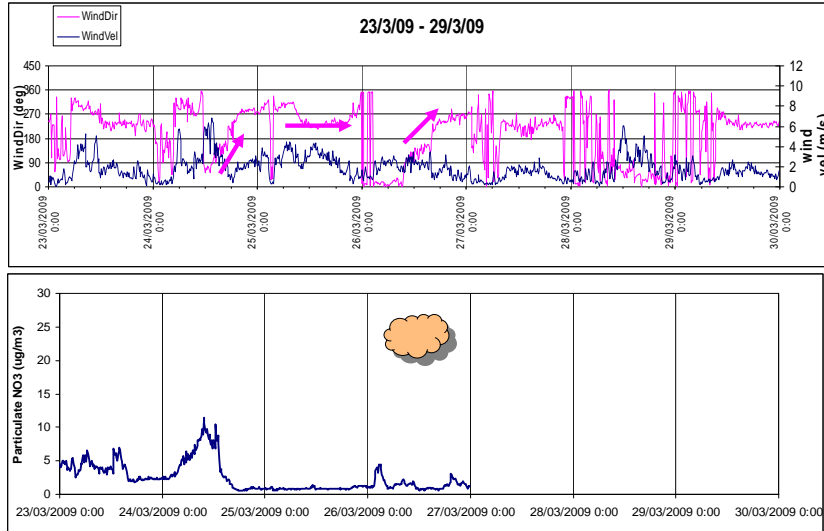
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Weekly analysis- 4th week

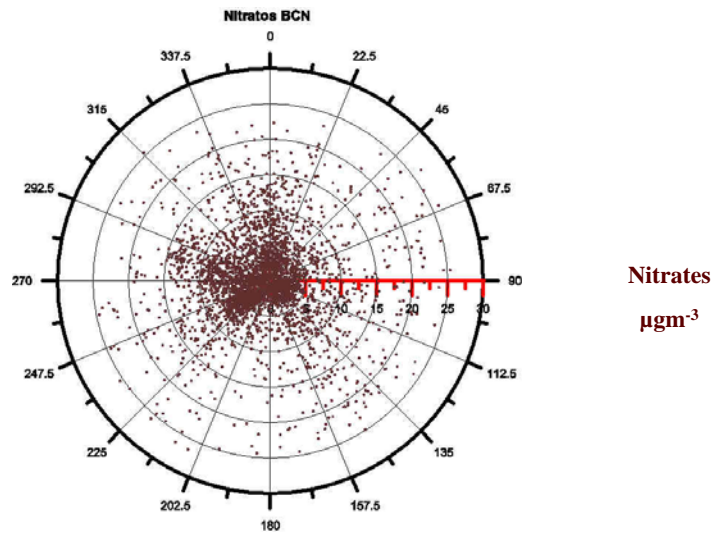


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Weekly analysis- 5th week



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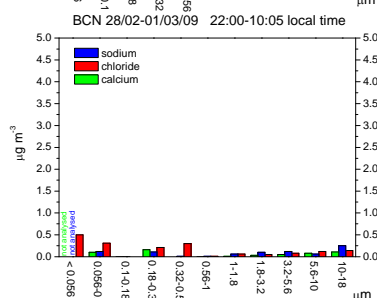
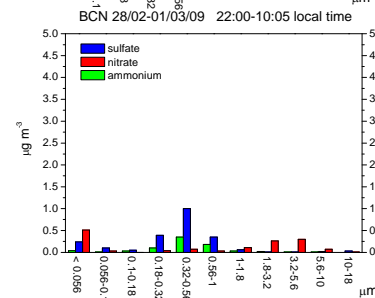
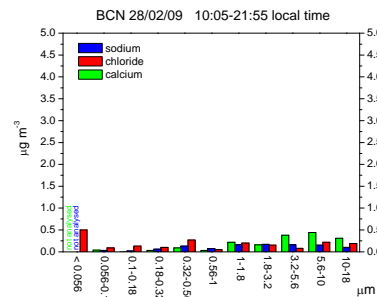
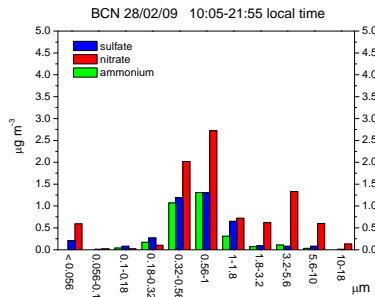
Size segregated measurements and chemical analysis Cascade impactor: MOUDI



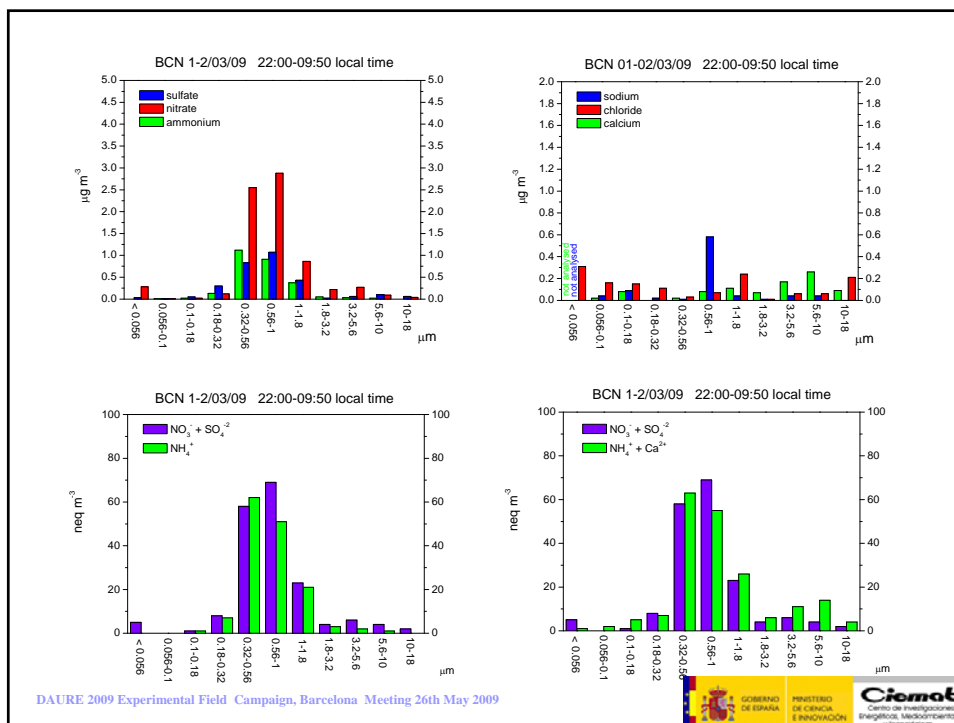
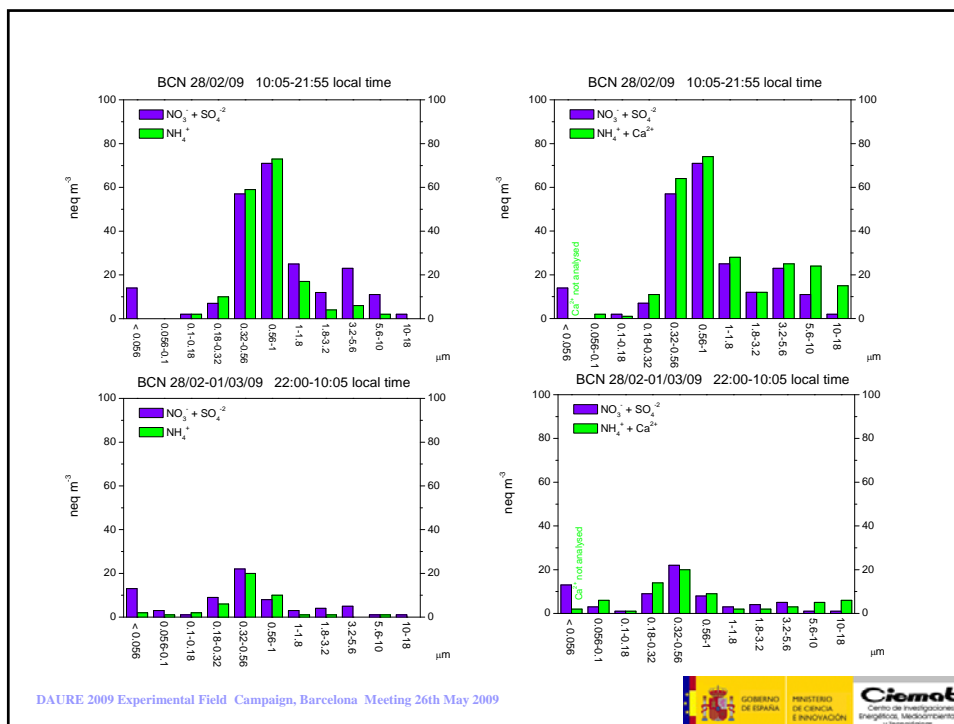
- 12 hour sampling schedule
- Starting the 24th Feb night
- 27 samples (15 days) in BCN
- 6 days in Montseny (2 s 48-h, 2 s 24-h)

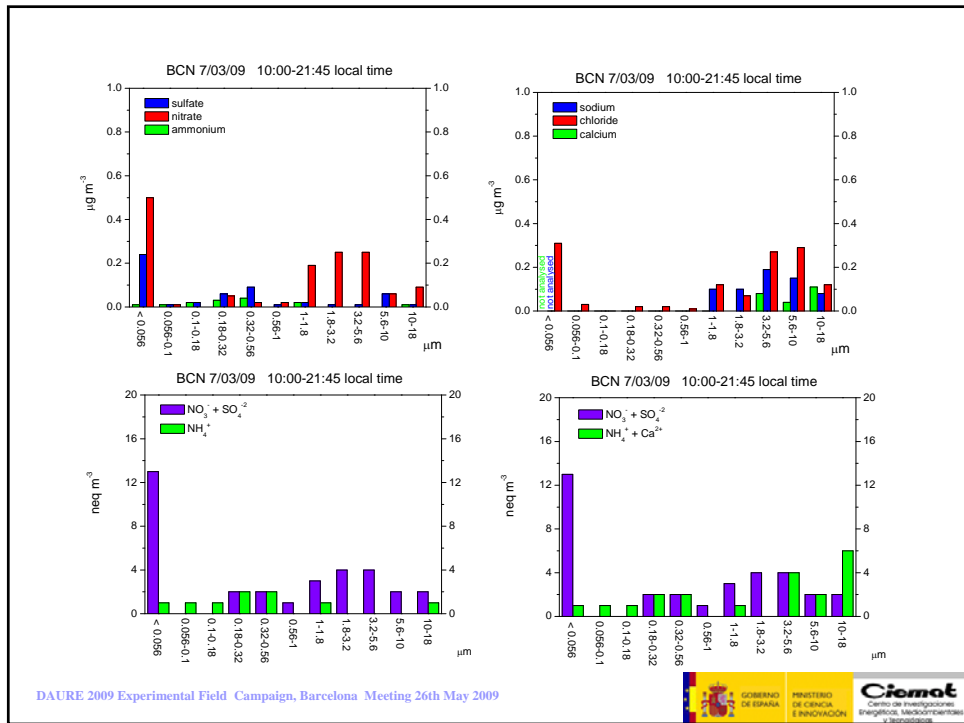
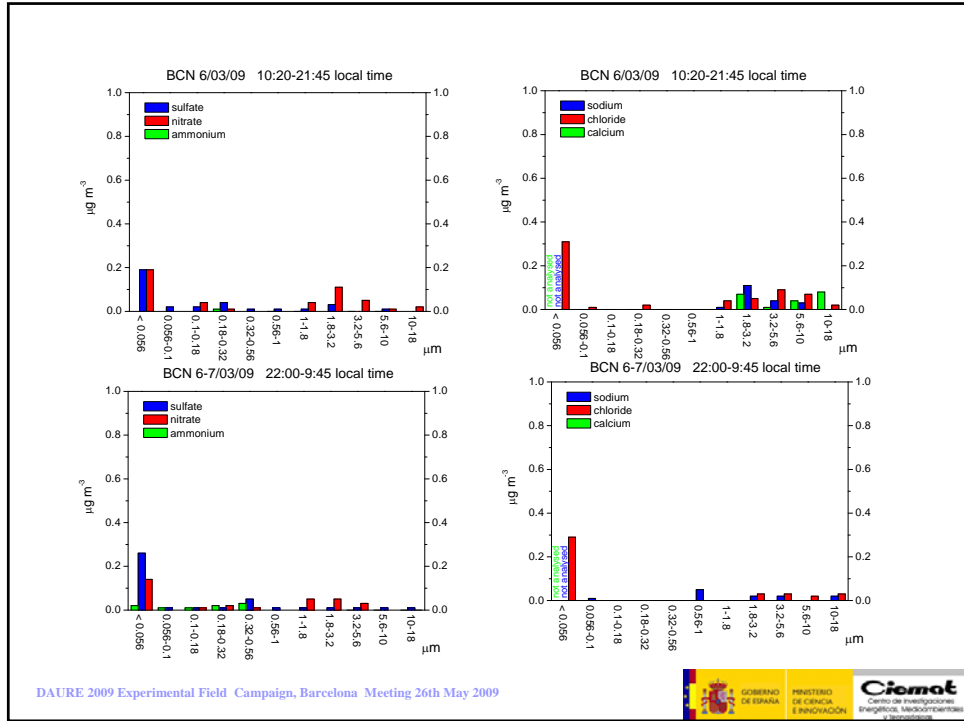
10 size stages 0.056-18 μm (Al substrates)
backup filter < 0.056 μm (Qz substrate)

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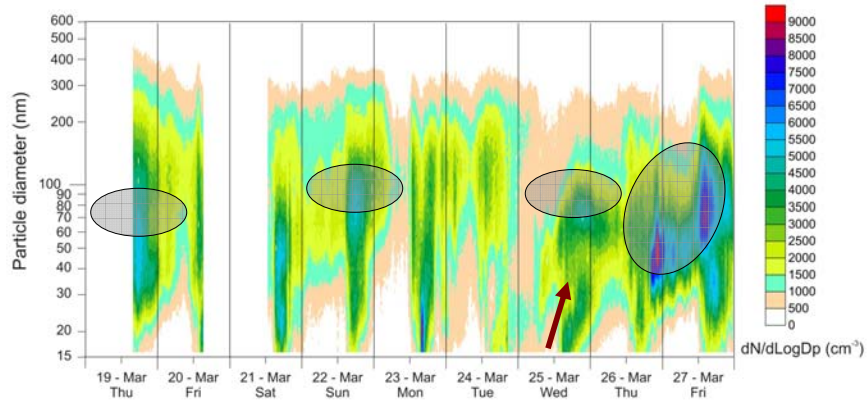
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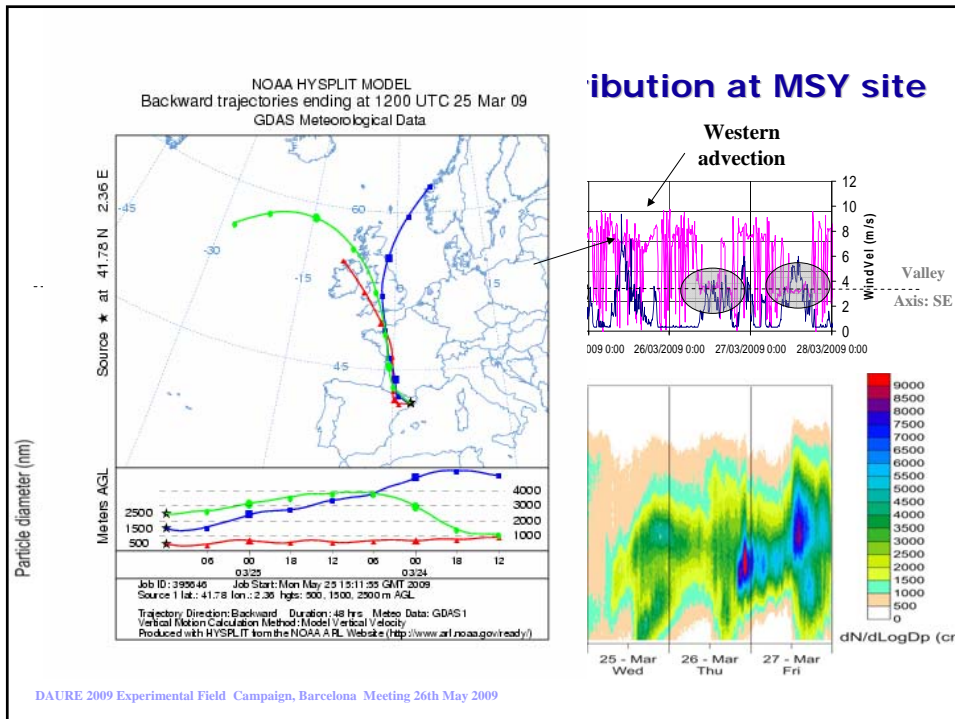




SMPS Preliminary Results

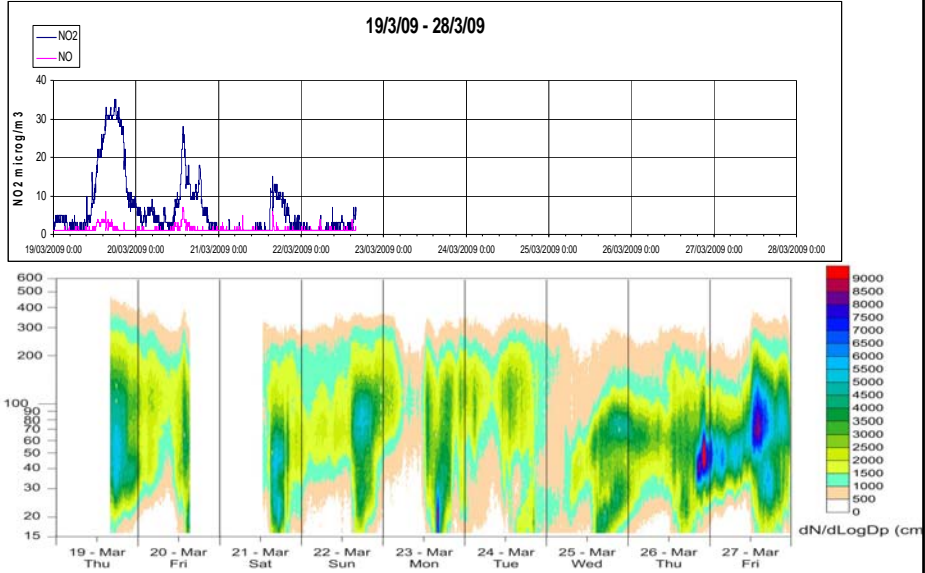


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Size number distribution at MSY site



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