

Recent campaigns
'up-wind' of the
Cape Verde site.
AMMA and DODO

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*AMMA Science team and the
DODO Science team*



AMMA

African Monsoon Multidisciplinary Analysis

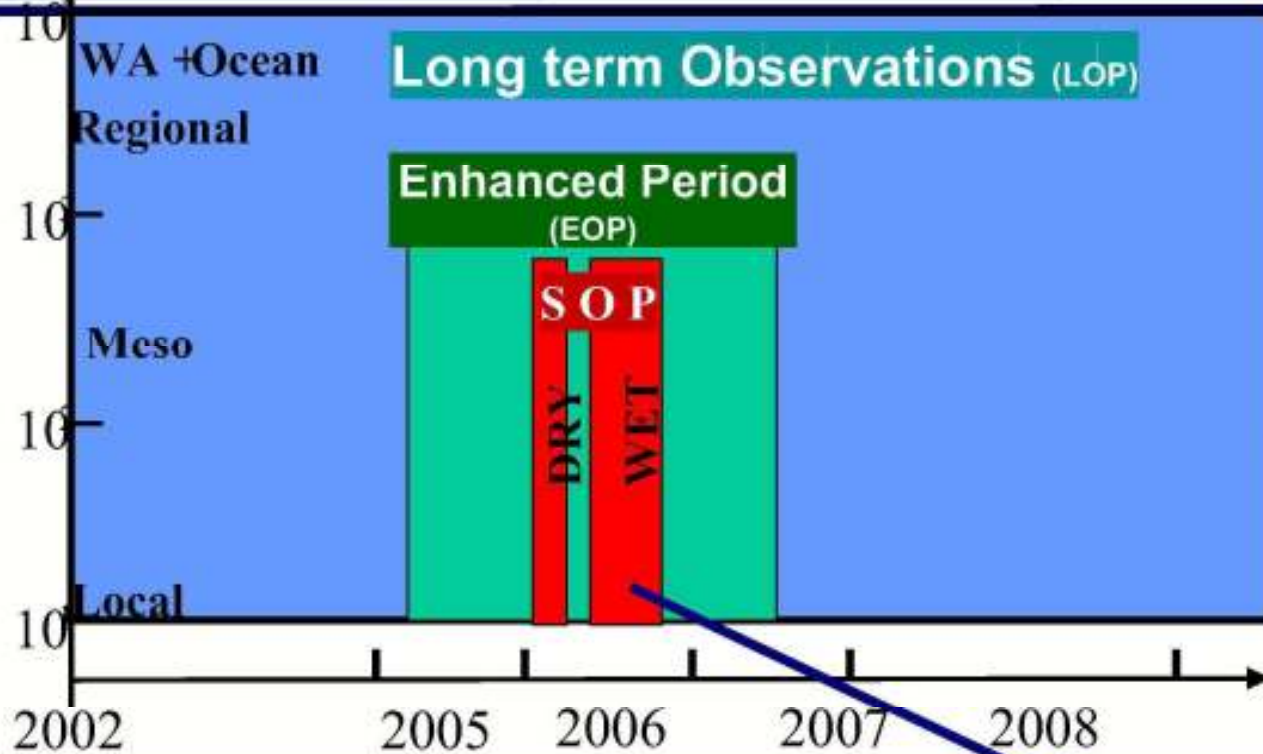


- It is a continuing effort to understand the changing climate and the associated impacts on West Africa.
- Activities on daily, monthly and seasonal timescales
- Probably the largest focused effort to understand the processes controlling the climate, composition and subsequent impacts of a region

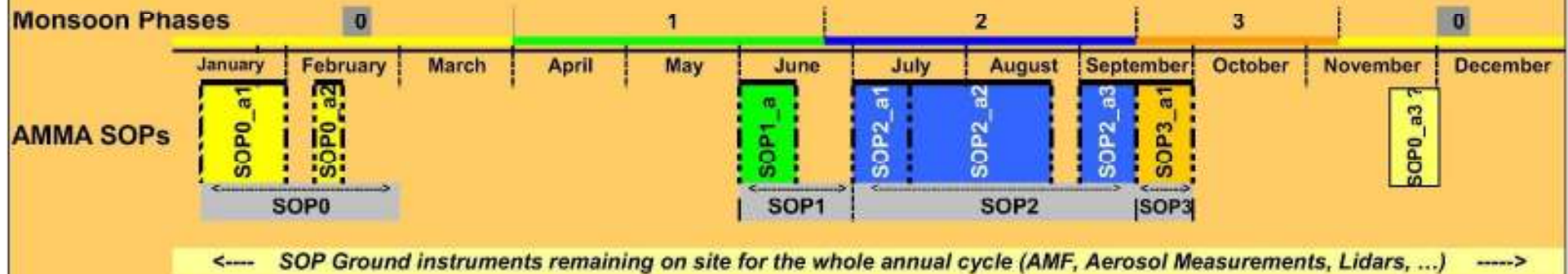


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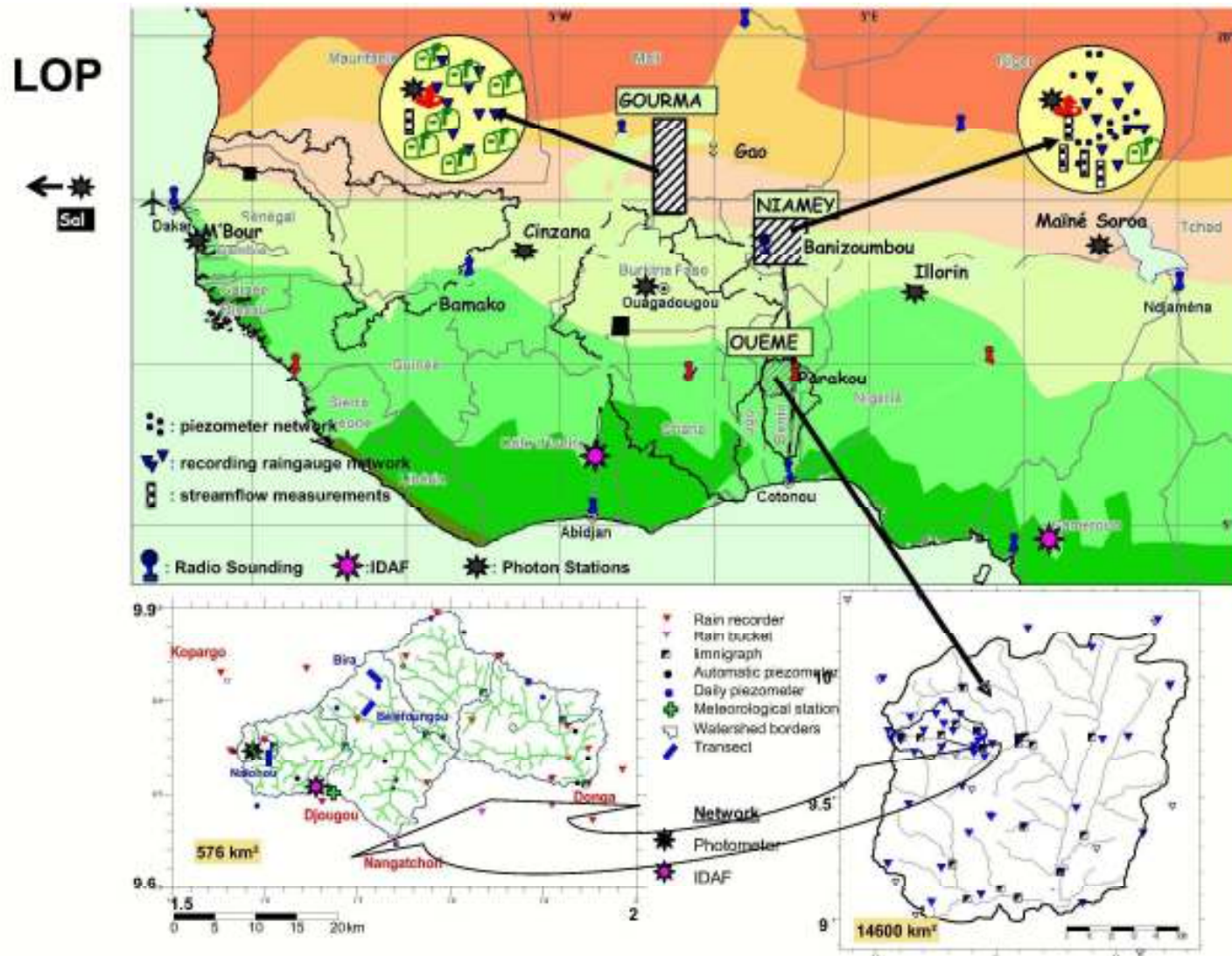
10 years of observation and research



AMMA SOP Year: 2006



Surface observations



Mobile platforms last summer



R/V US RON BROWN
North Atlantic
6 June - 9 July



R/V D METEOR
Tropical Atlantic
23 May -16 July



R/V F ATALANTE
Gulf of Guinea
24 May -6 July



F-ATR



F-F20



D-F20



GB-BAE



Geophysica



Science undertaken

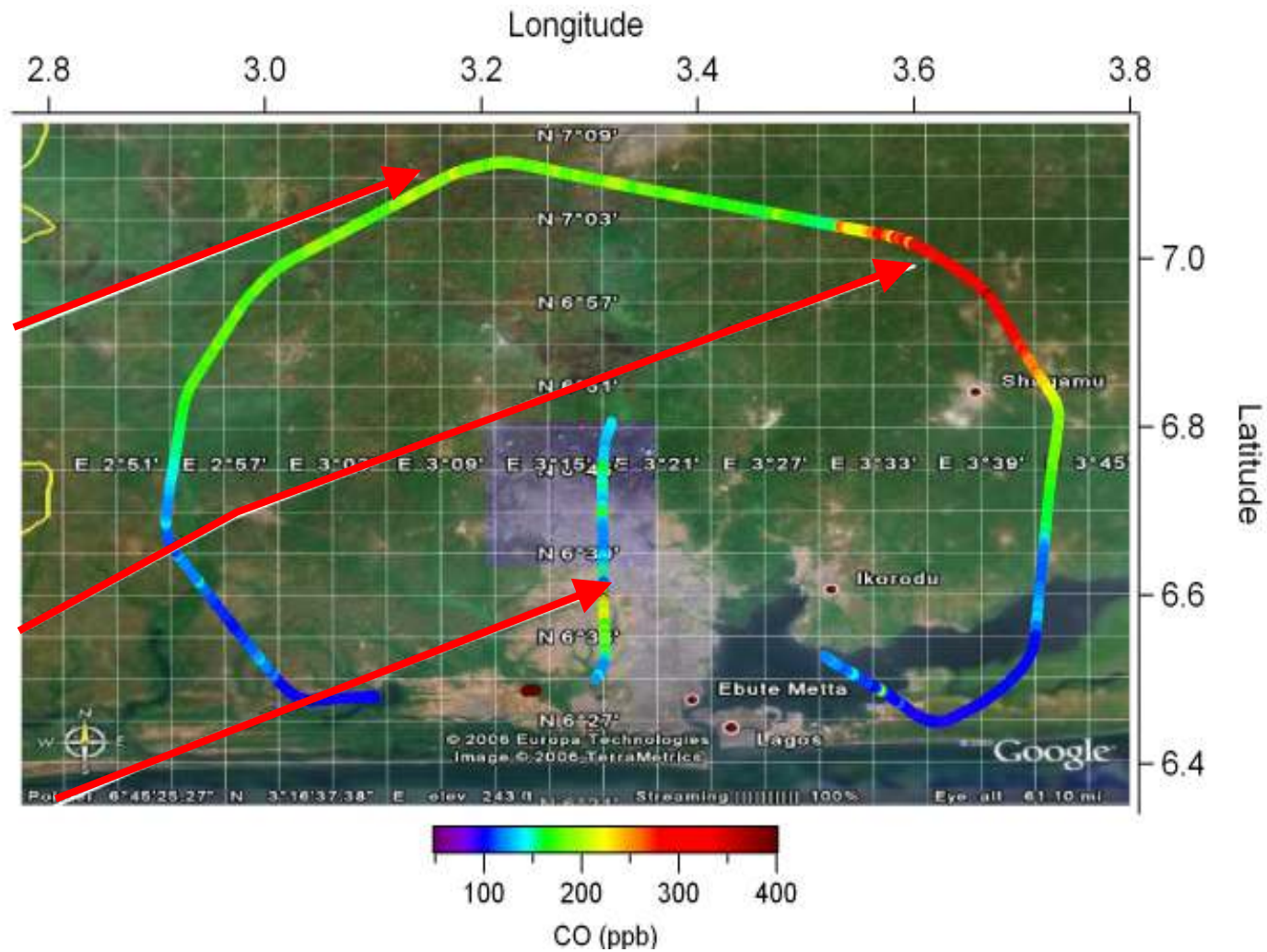
- ***Extremely*** wide range of atmospheric phenomena
- Meteorology
 - Cloud microphysics
 - Surface – atmosphere interaction
 - Convection
- Atmospheric composition
 - Emission – biogenic, anthropogenic, bacterial
 - Processing – photochemical, heterogeneous, surface



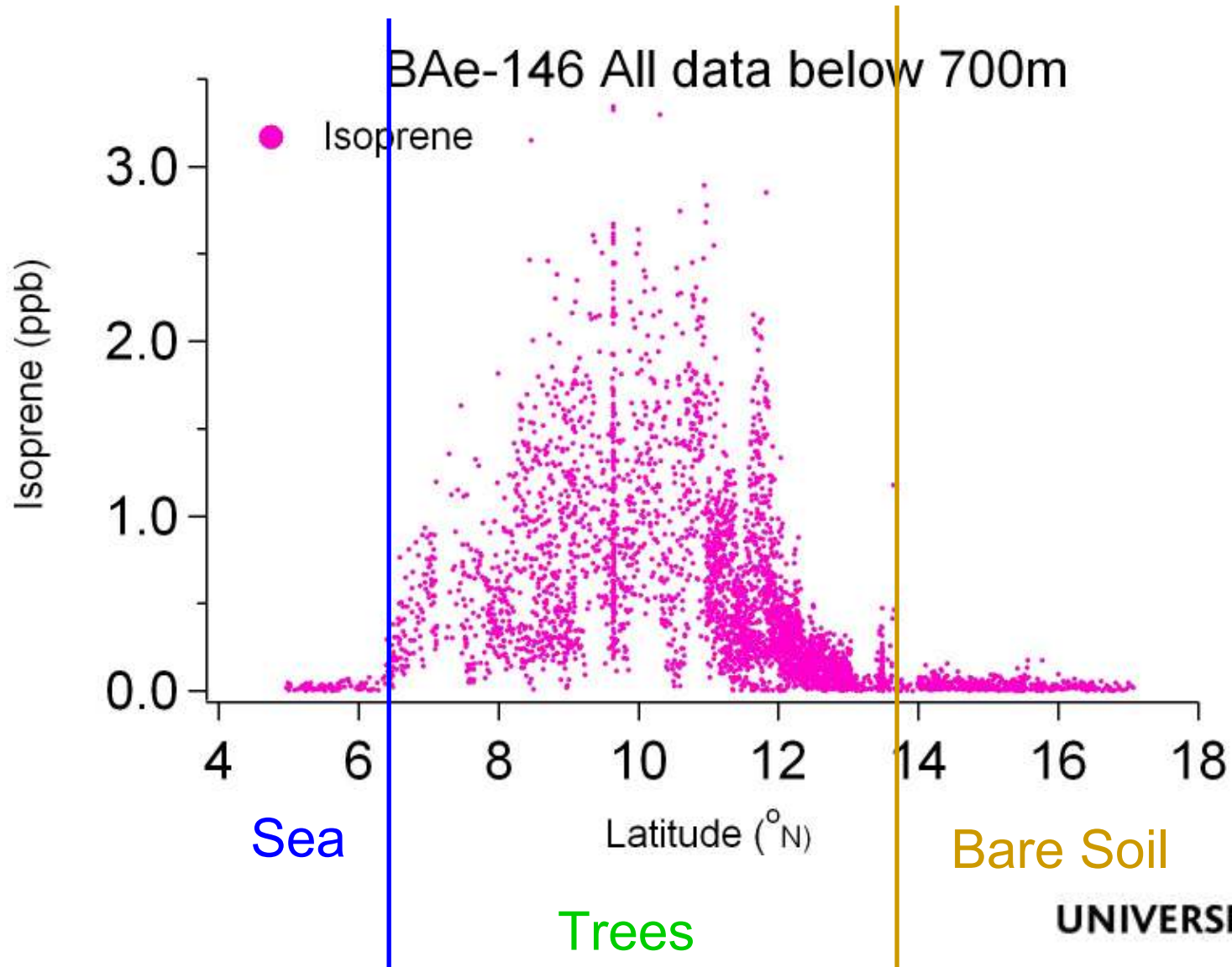
Contrasts



Anthropogenic emissions



Emissions from Vegetation



Dust storms

Flew through many dust 'events'



DODO

Dust Outflow and Deposition to the Ocean



- How do radiative and microphysical properties of dust change as it is transported from West Africa?
- What are the characteristics of Saharan dust from different sources?
- How much dust is deposited to the ocean?
- Can we predict dust storms and deposition events?



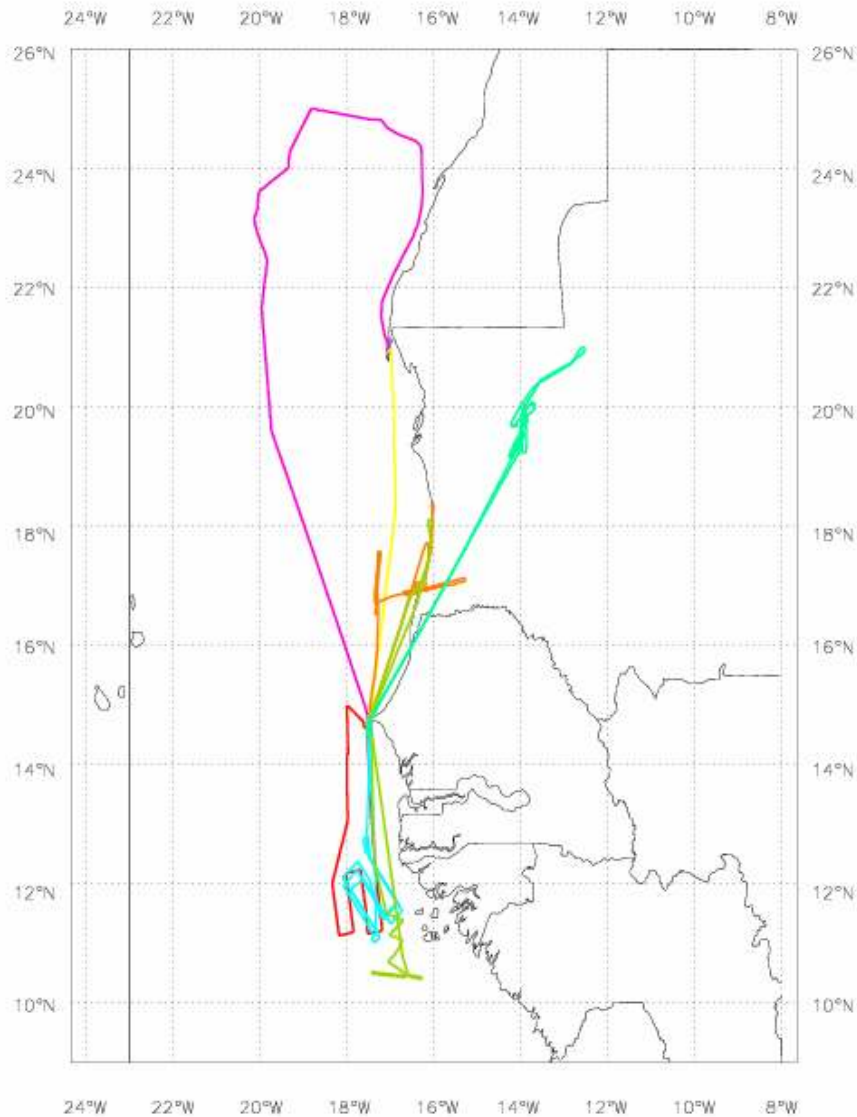
Post – campaign analysis

- Airborne dust, microphysical, chemical and radiative properties ***Reading***
- Iron loading, chemical form and inorganic salt identification ***Manchester + LISA-PARIS***
- Soluble iron content ***Manchester + LISA***
- Source characteristics and apportionment ***Birmingham***
- WAS bottles ***University of York***



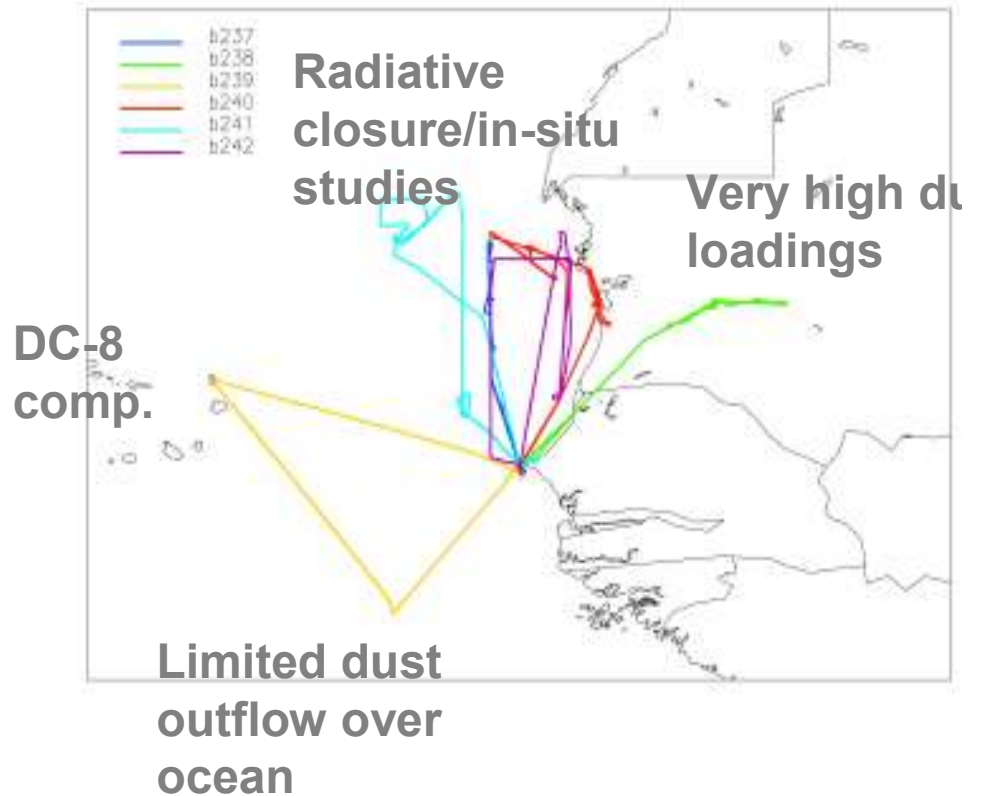
DODO-1

7-16th Feb 2006



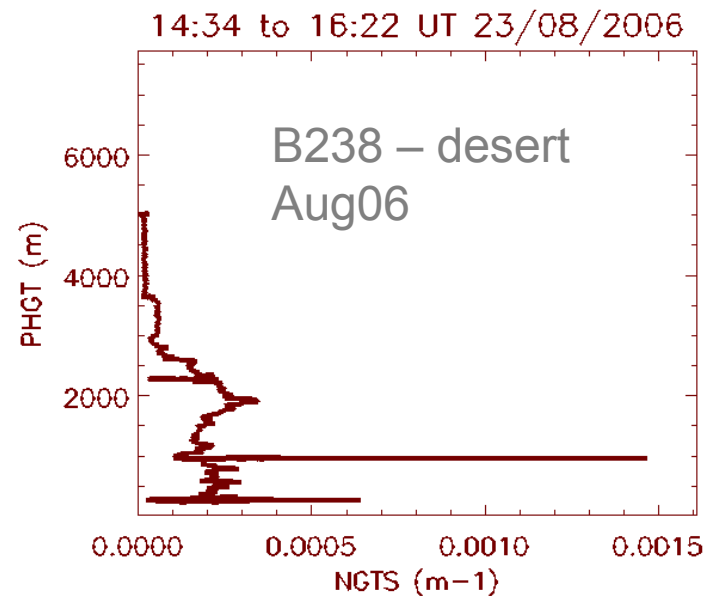
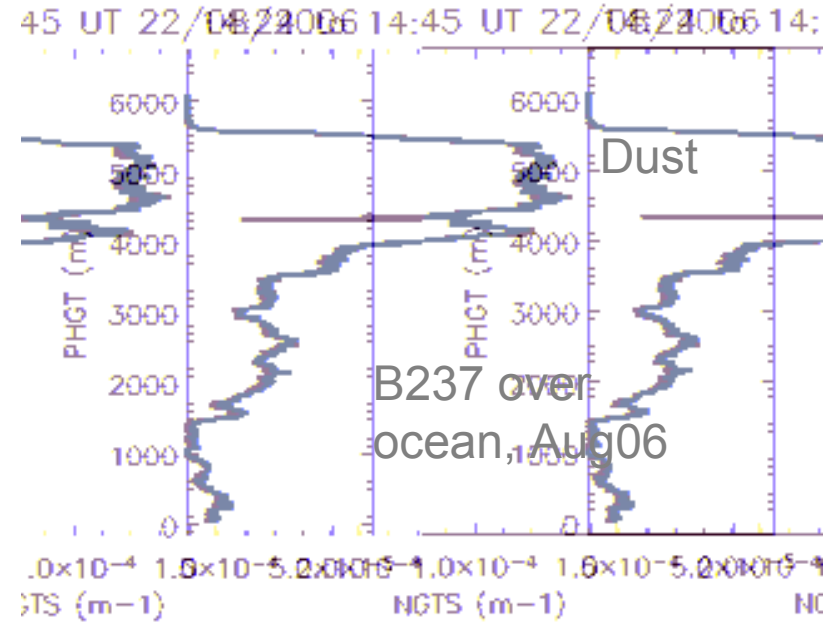
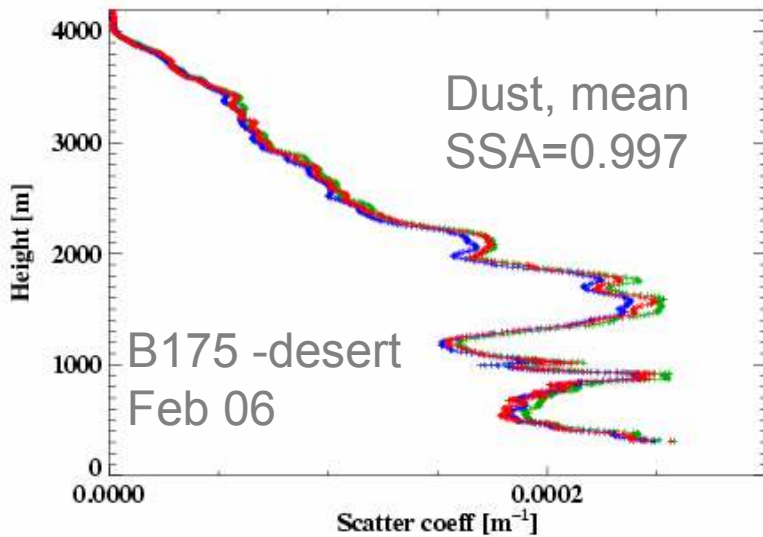
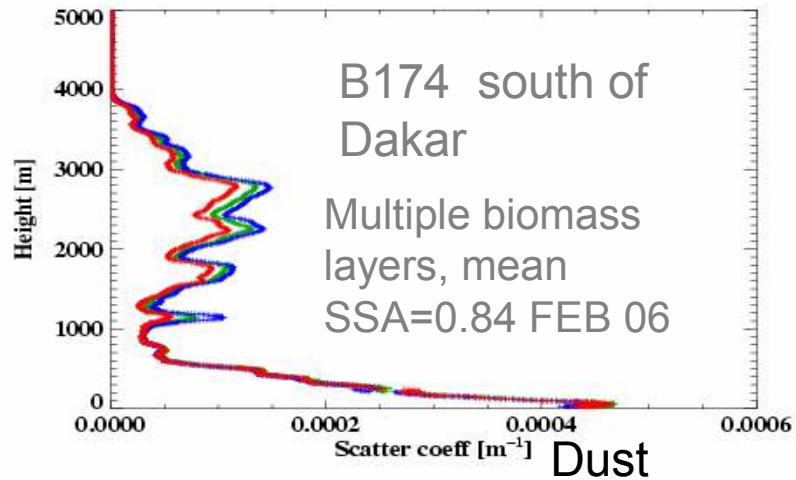
DODO-2

21-29th Aug 2006

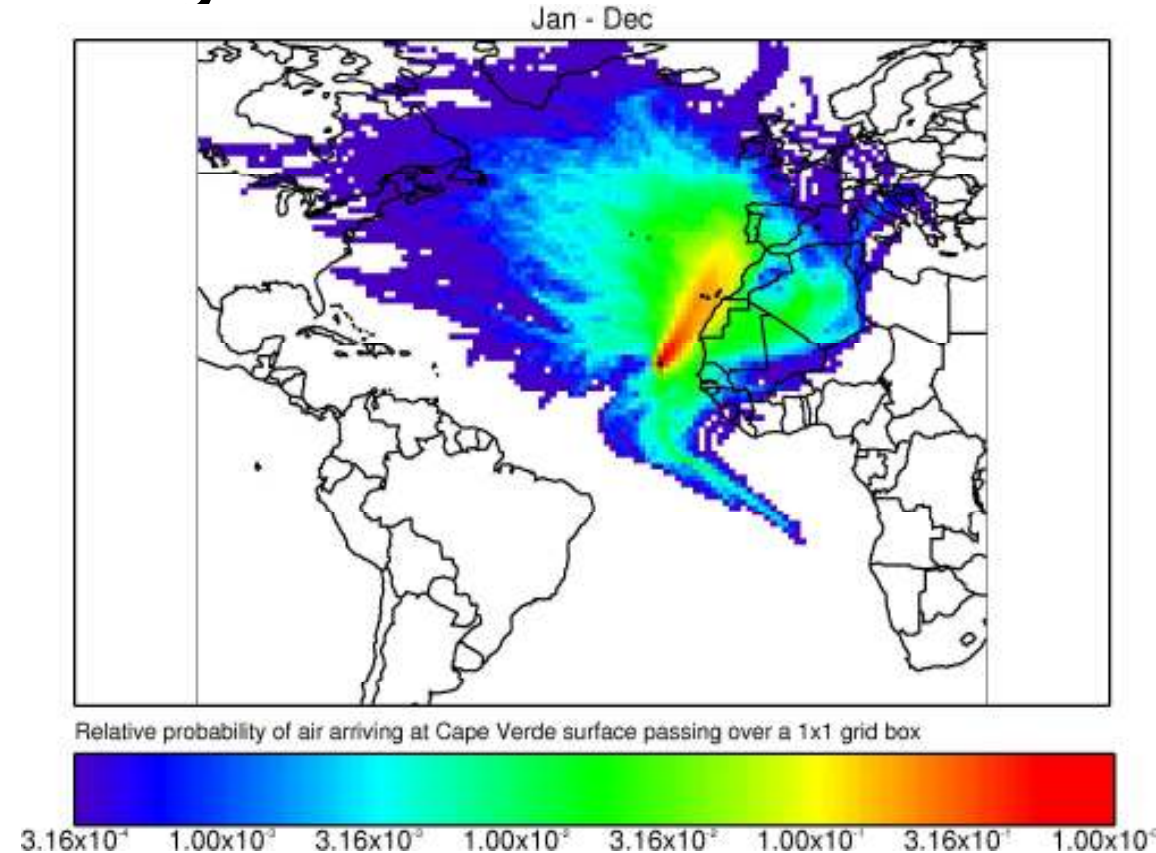


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Vertical profiles



Why could it be useful?



Under some conditions AMMA and DODO offer upwind conditions for the observatory.



Find out more from

<http://aoc.amma-international.org>

<http://www.env.leeds.ac.uk/~doug/AMMA>

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