

Forecasting Dust in Sahelian countries

Mariane DIOP KANE

Senegal National Meteorological Agency
ANAMS

Email: riane_diopkane@yahoo.fr

Outline

- **Brief Introduction**
- **Forecasting systems**
- **Example**
- **Convlusions & recommendations**



- Dust occurs mainly during the dry season, either locally or transported, with a peak between February and May
- main sources are from Mauritania/ Algeria and the Bodele depression
- impacts on transport through reduced visibility
- impacts on health (meningitis, respiratory diseases, flu, eye infections)
- impacts on agriculture through land degradation

Short term forecasting of dust

Observations

Global and LAM forecast model

outputs: winds, MSLP, RH

Satellite images: visible, RGB

dust

now

+ Dust model outputs



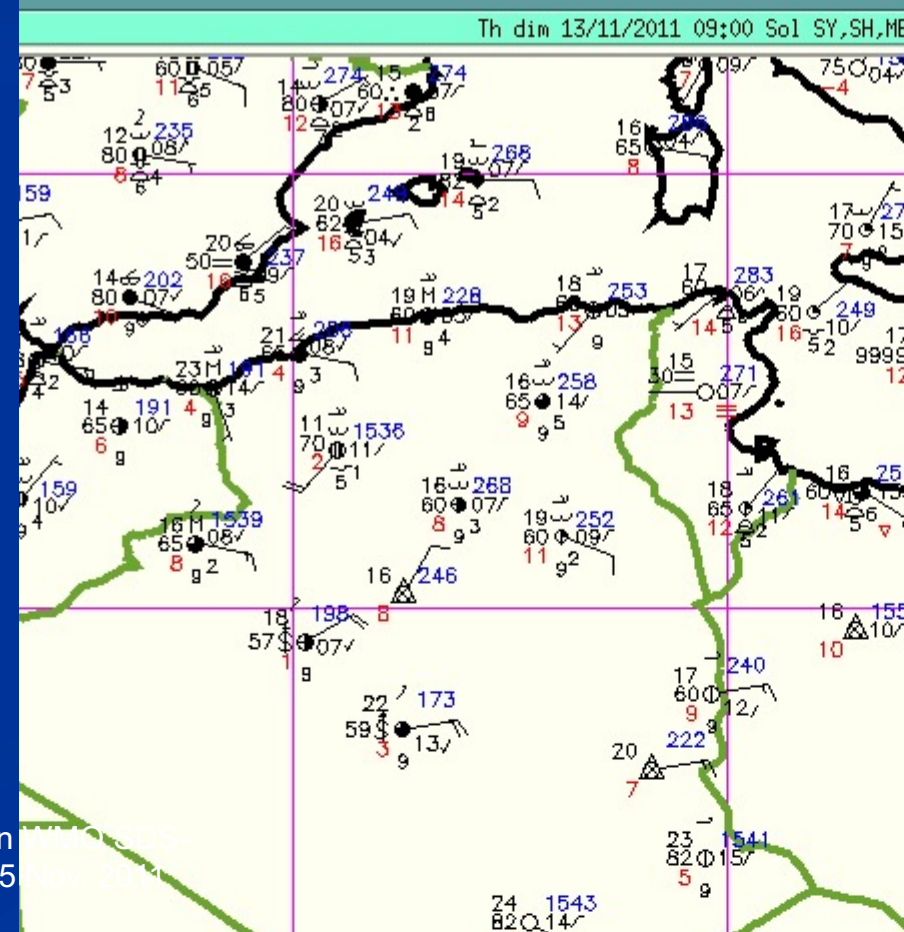
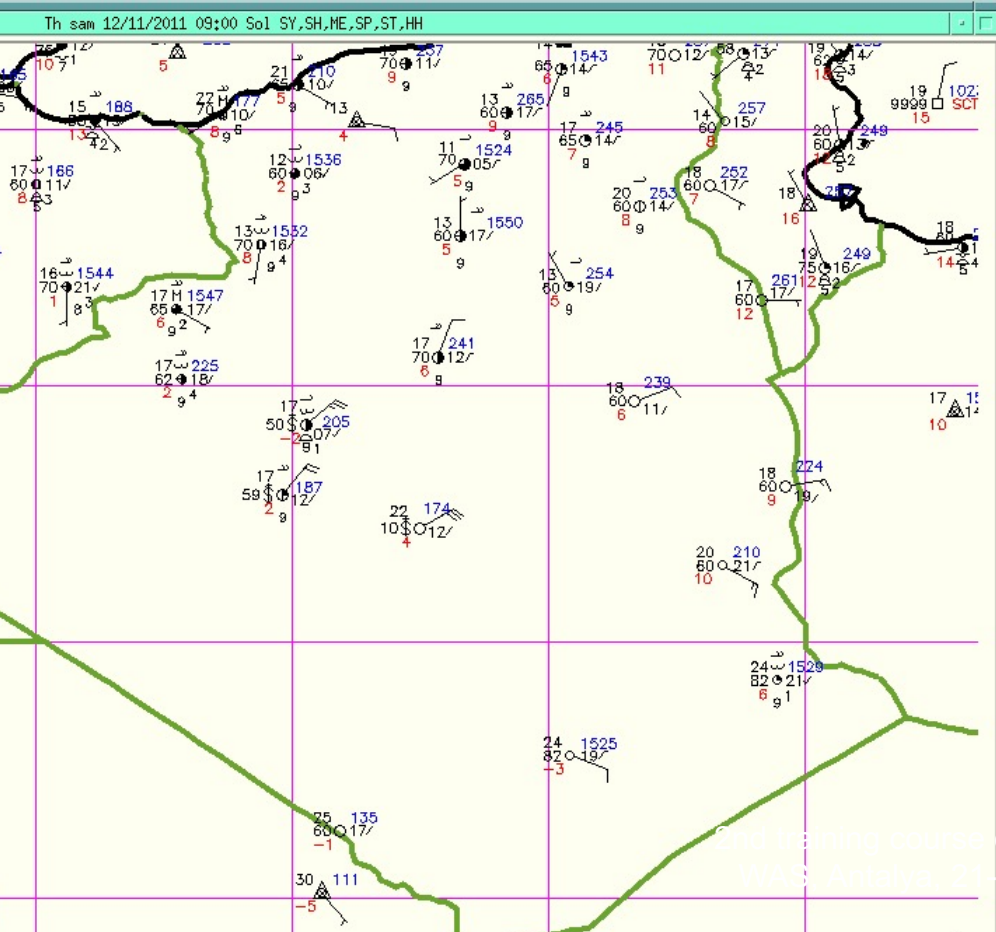
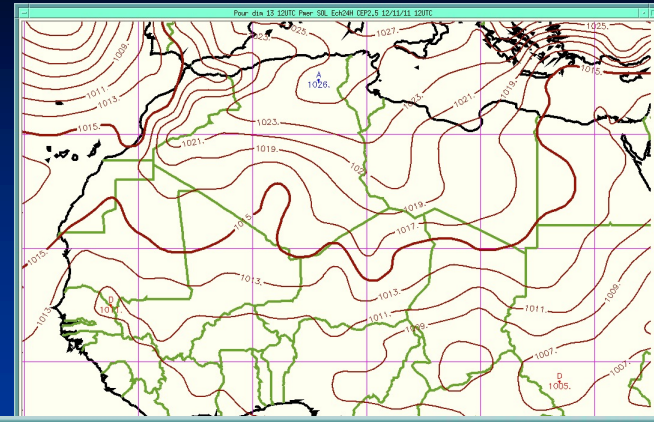
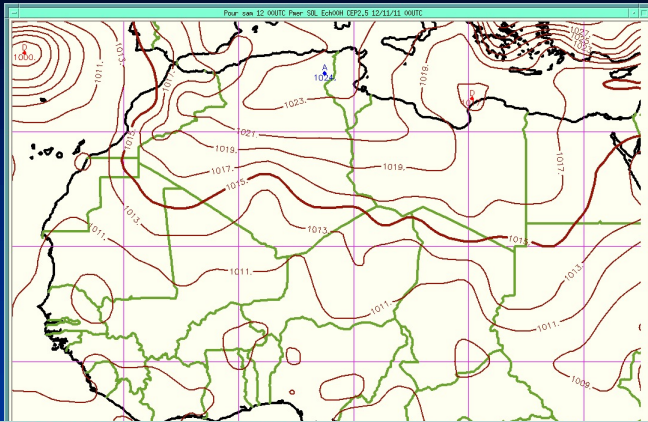
Dust
forecast

Data and Forecasting systems

- Data from GTS are received through the RETIM-SYNERGIE System and MSG PUMA-AMESD stations
- ECMWF, Meteo-France, UKMO model outputs, surface, upper air observations and satellite data are received

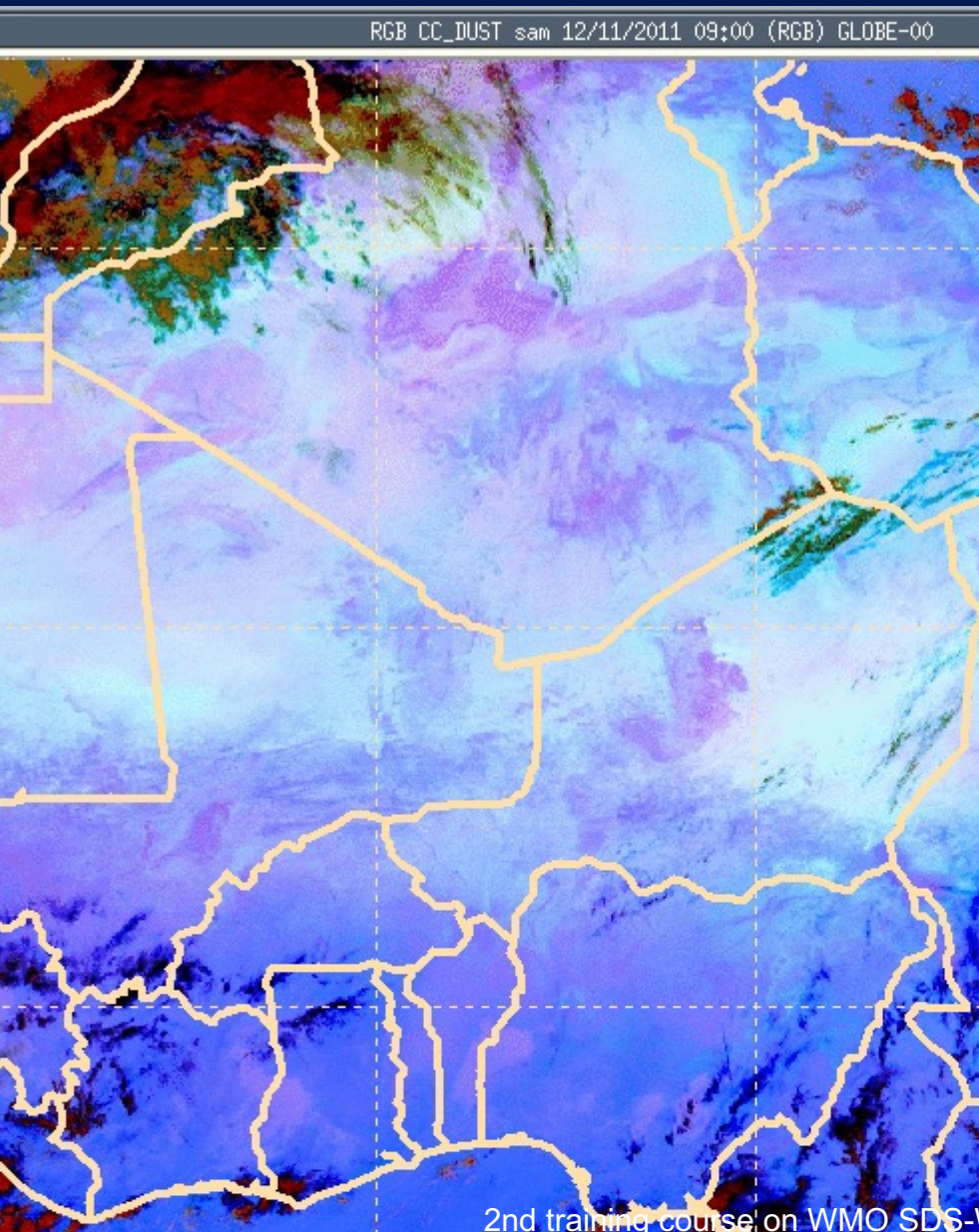
ECMWF MSLP 12/11/11 at 00Z

24H forecast

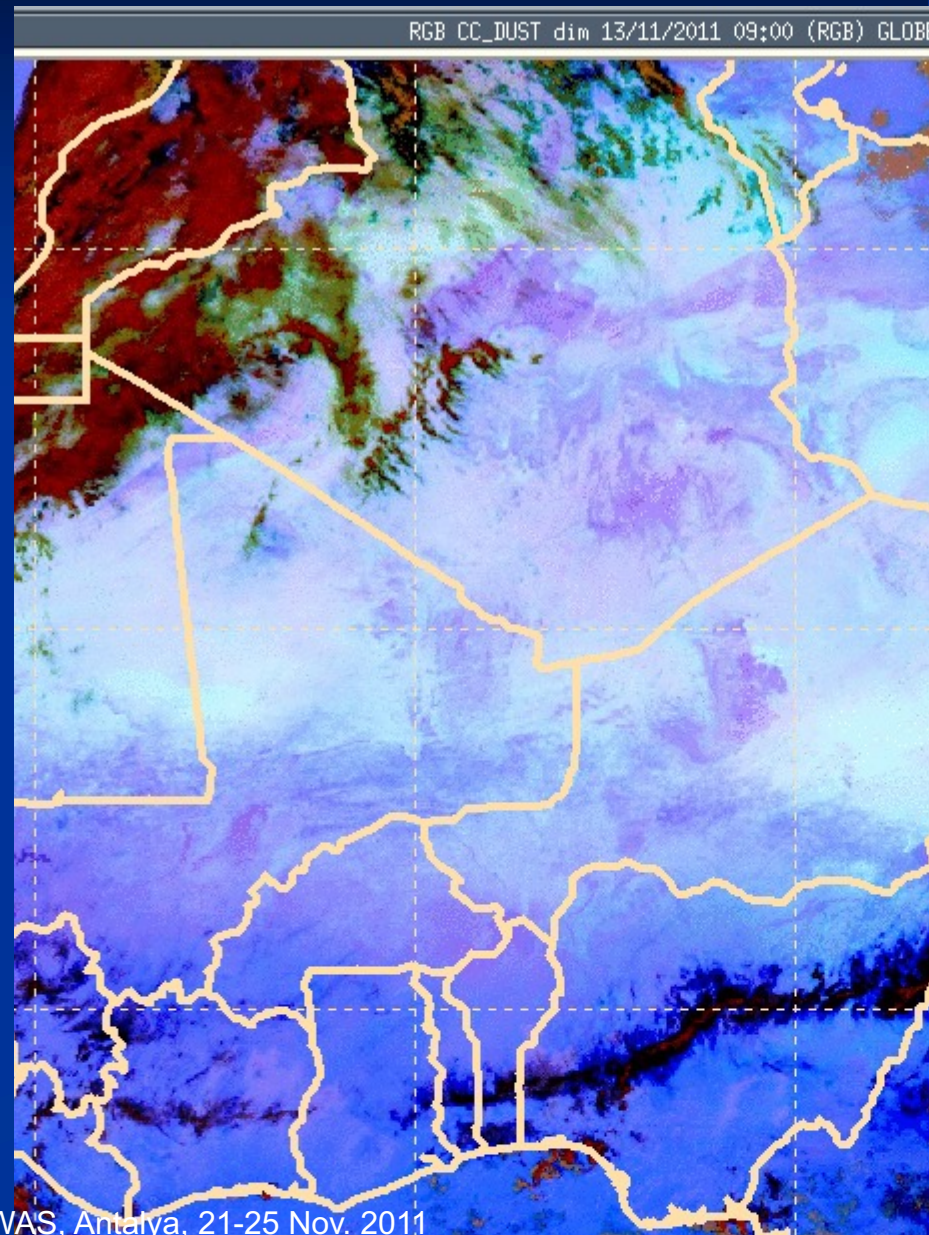


Send training course on MSLP and
MSLP Archives to 25/11/2011

12/11/11 at 0900Z



13/11/11 at 09Z



Recommendations

- Observing stations in the sahelian regions
- Dust model evaluation
- Model intercomparison
- Dust Ensemble forecast model