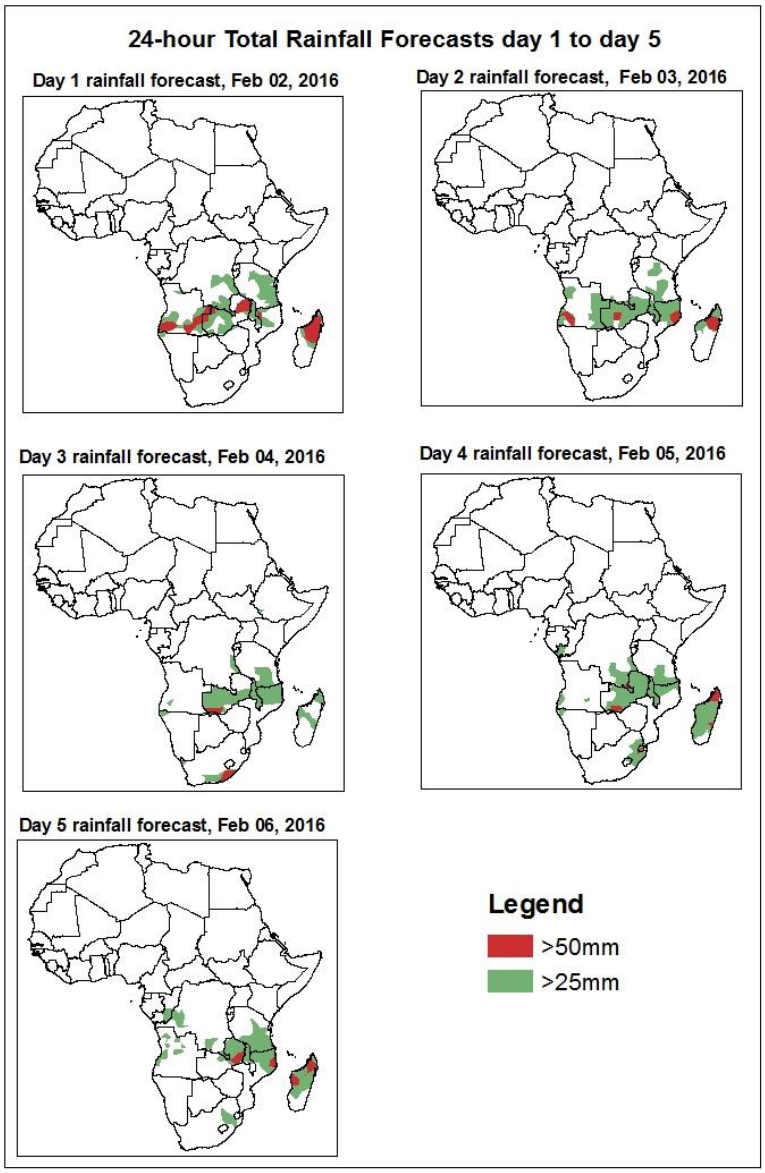
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

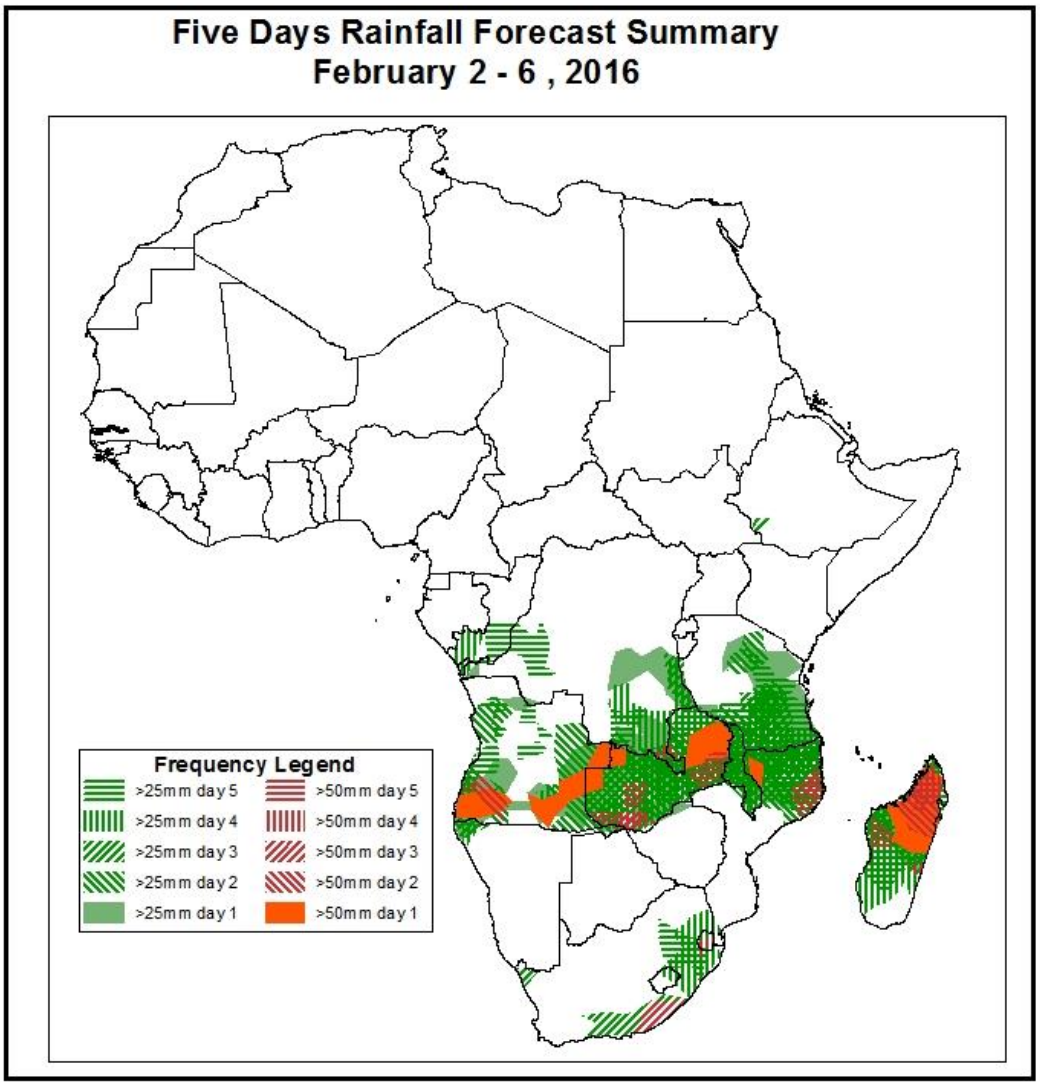
1. Rainfall and Dust Concentration Forecasts

Valid: 06Z of Feb 02, 2016 - 06Z of Feb 6, 2016. (Issued on February o1, 2016)

1.1. 24-hour Cumulative Rainfall Forecasts

The forecasts are expressed in terms of high probability of precipitation (POP), based on the NCEP/GFS, ECMWF and the NCEP Global Ensemble Forecasts System (GEFS) and expert assessment.





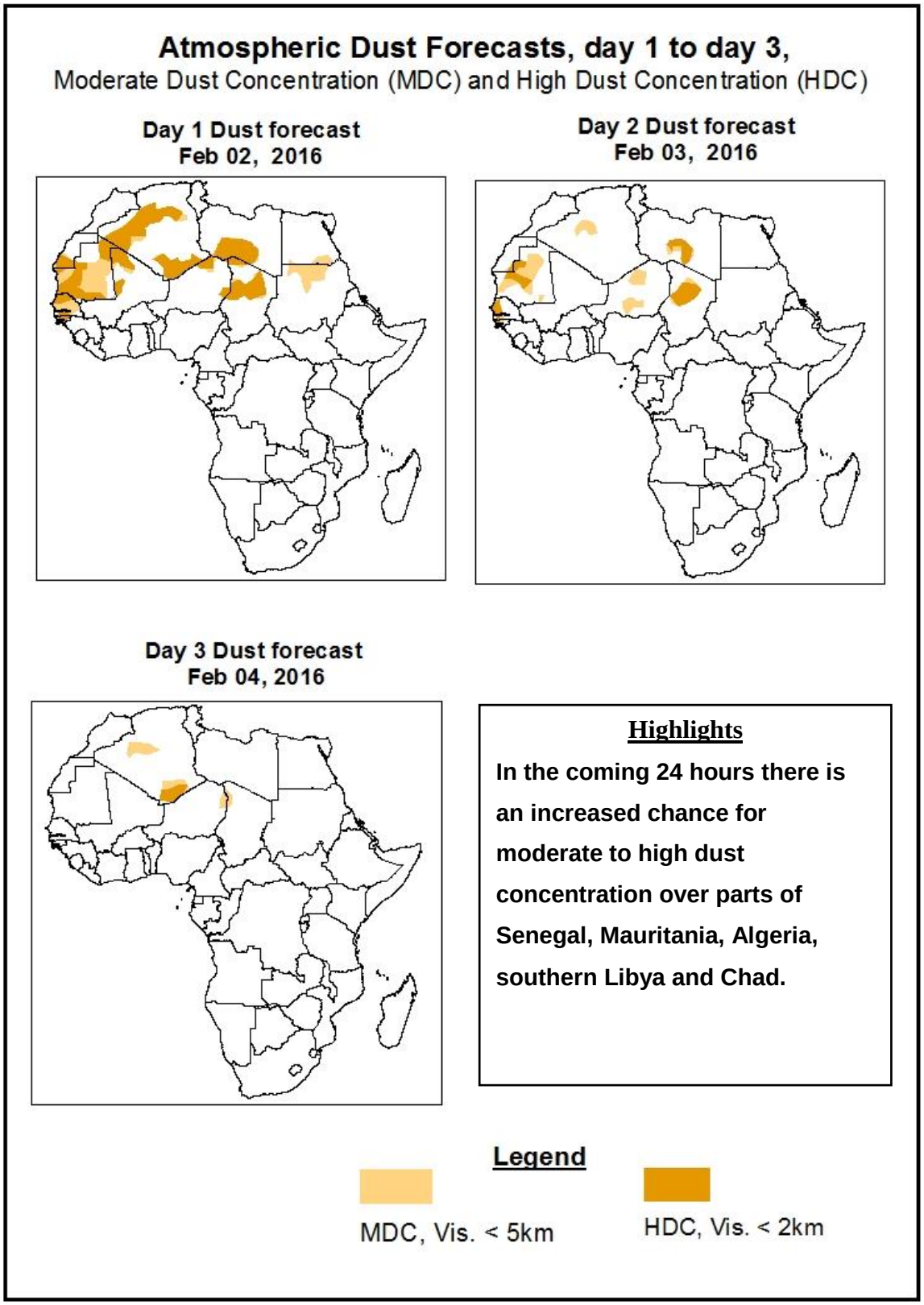
Highlights

In the coming five days, there is an increased chance for two or more days of moderate to heavy rainfall over many places in Angola, southern DRC, many parts of Zambia, southern Tanzania, Malawi, Comoros Island, northern Mozambique and northern Madagascar with high probability of heavy rainfall over parts of northern Madagascar, eastern Zambia, northern Mozambique and southern Angola.

1.2. Atmospheric Dust Concentration Forecasts

Valid: 12Z of Feb 02 – 12Z of Feb 04, 2016

The forecasts are expressed in terms of high probability of dust concentration, based on the Navy Aerosol Analysis and Prediction System, NCEP/GFS lower-level wind forecasts and expert assessment.



1.3. Model Discussion, Valid: Feb 02 – Feb 06, 2016

Azores high pressure system over Sahara is expected to weaken in to 1034Hpa In 24 hours' time from its central value of 1036Hpa and intensify in to the relative maximum value of 1039Hpa in 48 hours' time. This high pressure system is also expected to attain the central value (1039Hpa) for about 24 hours and weaken in to 1035Hpa and in to 1032Hpa in 96 and 120 hours' time respectively. During the first 24 hours the position of this system is expected to remain over eastern Atlantic, in association to this, the dominant low level wind over northern Africa tends to be more easterly and leads to an increased chance for moderate to high dust concentration over parts of Senegal, Mauritania, Algeria, southern Libya and Chad.

The Arabian high pressure system is expected to weaken in to 1024Hpa in 24 hours' time from its central value of 1027Hpa and intensify back to 1035Hpa in 48 hours' time This high pressure system is expected to attain its central value1035Hpa for about 24 hours and weaken back in to 1031Hpa and in to 1023Hpa in 96 and 120 hours' time respectively.

The St Helena high pressure system over South East Atlantic Ocean is expected to weaken in to 1023Hpa and in to 1022Hpa in 24 and 48 hours' time from its central value of 1027Hpa respectively and intensify back in to 1024Hpa in 72 hours' time. This high pressure system is also expected to attain this value for about 24 hours and weaken in to 1022Hpa by the end of the forecast period.

The Mascarene high pressure system over Southwest Indian Ocean is expected to weaken in to 1029Hpa and in to 1028Hpa in 24 and 48 hours' time from the central value for about 24 hours and of 1031Hpa. This high pressure system is also expected to attain the central value for about 48 hours' time and intensify in to the relative maximum value of 1035Hpa by the end of the forecast period. Development of low pressure system is also expected over northern Madagascar and hence enhanced rainfall is expected over Comoros Island and northern Madagascar.

In the coming five days, there is an increased chance for two or more days of moderate to heavy rainfall over many places in Angola, southern DRC, many parts of Zambia, southern Tanzania, Malawi, Comoros Island, northern Mozambique and northern Madagascar with high probability of heavy rainfall over parts of northern Madagascar, eastern Zambia, northern Mozambique and southern Angola.

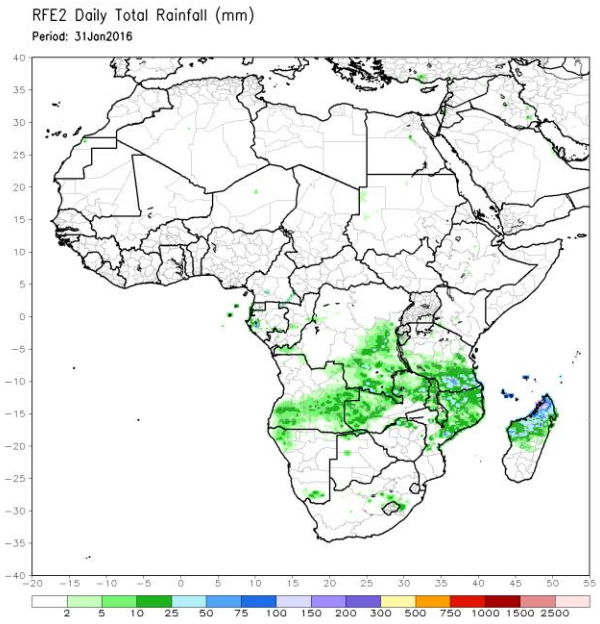
2.0. Previous and Current Day Weather over Africa

2.1. Weather assessment for the previous day (January 31, 2016)

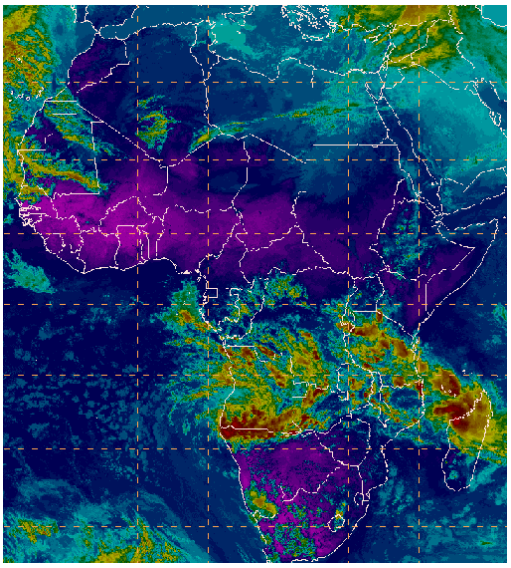
Moderate to heavy rainfall was observed over southern DRC, eastern Angola, southern Tanzania, northern Mozambique, Zambia, Malawi and northern Madagascar.

2.2. Weather assessment for the current day (February 01, 2015)

Intense convective clouds are observed across southern DRC, central Tanzania, Zambia, Malawi, northern Namibia, southern Angola, northern Mozambique and northern Madagascar.



IR Satellite Image (valid 1430z February 01, 2016)



Previous day rainfall condition over Africa (Left) based on the NCEP CPCE/RFE and current day cloud cover (right) based on IR Satellite image

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