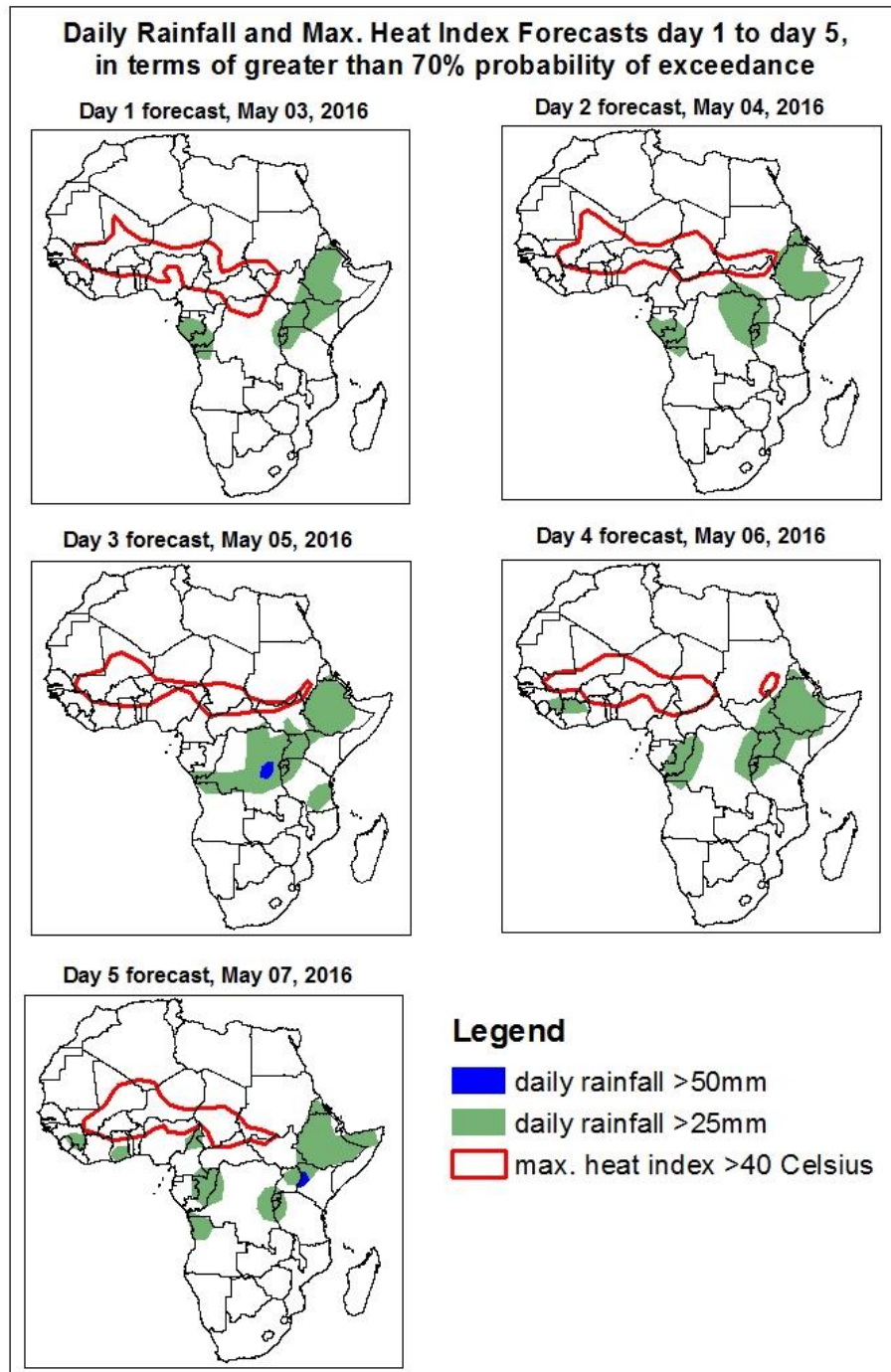


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

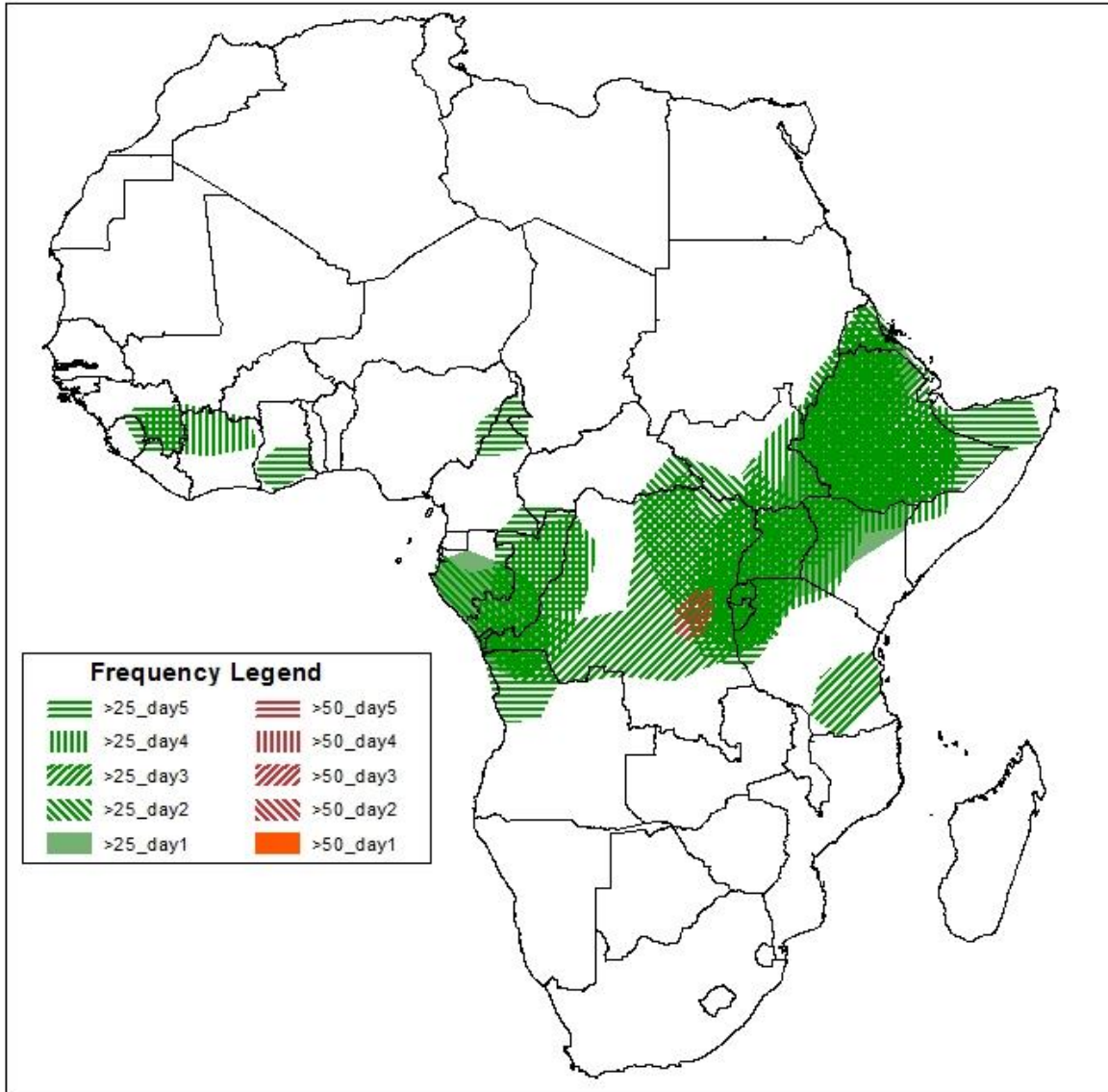
1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on May 02, 2016)

1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: May 03– May 07, 2016)

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



Five Days Rainfall Forecast Summary May 03 -May 07, 2016

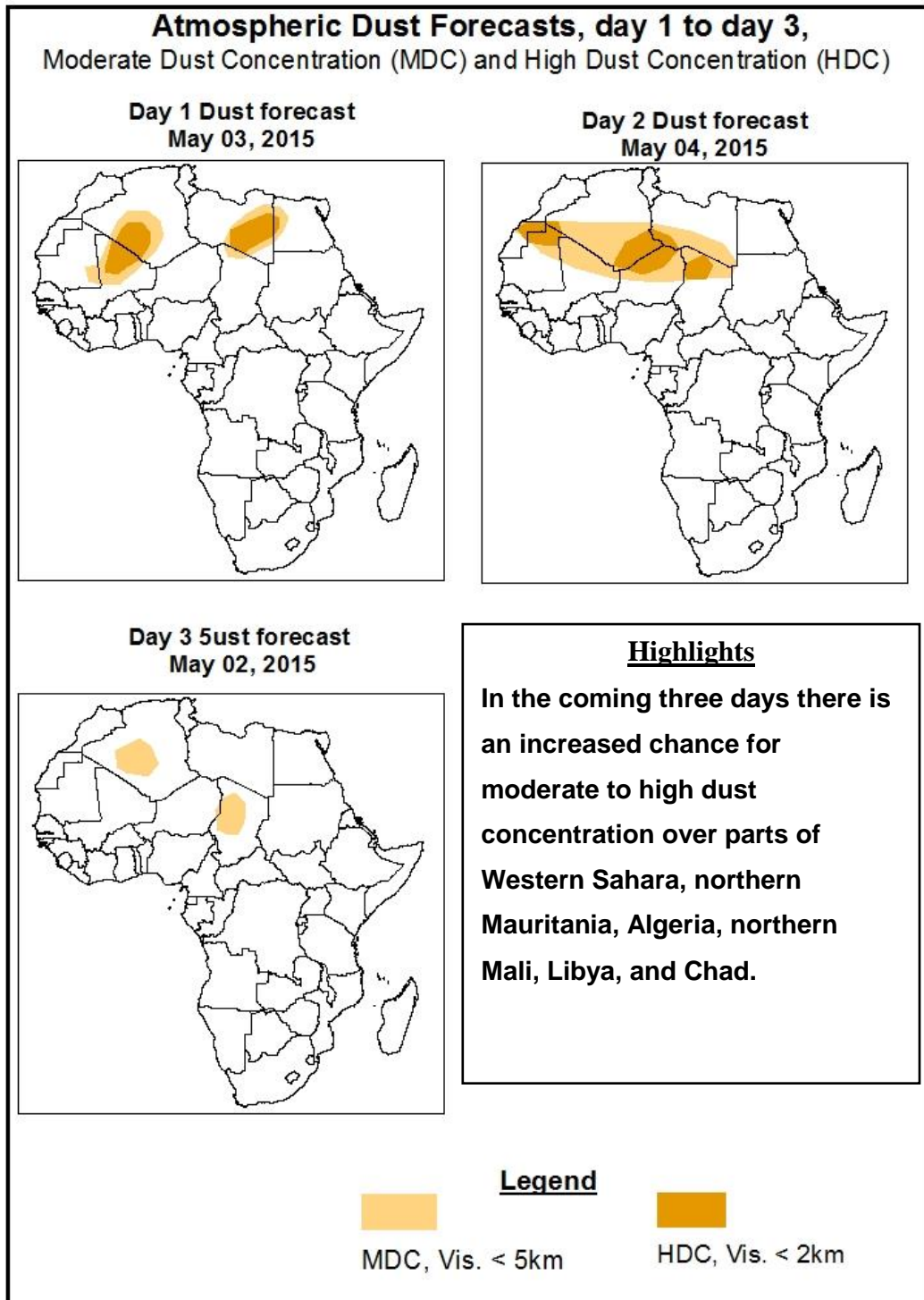


Highlights

In the coming five days, interactions between mid-latitude and tropical systems across Eritrea and Ethiopia, monsoon flow and its associated lower-level convergence across the equatorial Africa region, and active meridional wind convergences near the Lake Victoria region are expected to enhance rainfall in their respective areas. Therefore, there is an increased chance for two or more days of moderate to heavy rainfall over much of Eritrea and Ethiopia, Kenya, portions of Tanzania, Uganda, Rwanda, northeastern Zambia, and much of Gabon, Congo and northwestern Angola.

1.2. Atmospheric Dust Concentration Forecasts (valid: May 03 – May 05, 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: May 03 – May 07, 2016

The Azores high pressure system over the Northeast Atlantic Ocean is expected to maintain an average central pressure value of 1030hPa during the forecast period.

The St. Helena High pressure system over the Southeast Atlantic Ocean is expected to intensify, with its central pressure value increasing from about 1027hPa to 1036hPa through 24 to 120 hours.

The Mascarene high pressure system over the Southwest Indian Ocean is expected to intensify during the first half of the forecast period, and it tends to weaken towards end of the forecast period.

The heat low over the western Sahel region is expected to deepen slightly, with its central pressure value decreasing from about 1007hPa to 1004hPa, whereas the heat lows over the central and eastern Sahel are expected to maintain an average central pressure value of 1007hPa during the forecast period.

At 925hPa level, dry northeasterly to easterly flow is expected to prevail across northern Africa and parts of the Sahel countries, whereas moist southwesterly monsoon flow is expected to prevail across the Gulf Guinea countries during the forecast period.

At 850hPa level, east-west oriented wind convergence is expected to prevail in the region between Niger and Sudan during the forecast period. A weak cyclonic circulation is expected to prevail across Mali and the neighboring areas. Lower-level meridional wind convergence is expected to remain active in the Lake Victoria region.

At 500hPa level, a trough in mid-latitude westerly flow is expected to prevail across the eastern Mediterranean Sea, with the southern extent of the westerly trough reaching the latitudes of Eritrea towards end of the forecast period.

In the coming five days, interactions between mid-latitude and tropical systems across Eritrea and Ethiopia, monsoon flow from the Indian Ocean with its associated convergence across

Kenya and In the coming five days, interactions between mid-latitude and tropical systems across Eritrea and Ethiopia, monsoon flow and its associated lower-level convergence across the equatorial Africa region, and active meridional wind convergences near the Lake Victoria region are expected to enhance rainfall in their respective areas. Therefore, there is an increased chance for two or more days of moderate to heavy rainfall over much of Eritrea and Ethiopia, Kenya, portions of Tanzania, Uganda, Rwanda, northeastern Zambia, and much of Gabon, Congo and northwestern Angola.

There is also an increased chance for maximum heat index values to exceed 40°C portions of Mali, Burkina Faso, Ghana, Togo, Nigeria, Niger, Chad, CAR and parts of eastern Sudan South Sudan Republic.

2.0. Previous and Current Day Weather over Africa

2.1. Weather assessment for the previous day (May 01, 2016)

Moderate to locally heavy rainfall was observed over portions of SE Mali, Ivory Coast, southern Ghana, Togo, Benin, CAR, Cameroon, DRC, South Sudan, Uganda, Kenya, Ethiopia, Somalia and local areas in Tanzania.

2.2. Weather assessment for the current day (May 02, 2016)

Intense convective clouds are observed across portions Southern Nigeria, Cameroon, Central Africa countries, and local areas in Greater Horn of Africa region.

