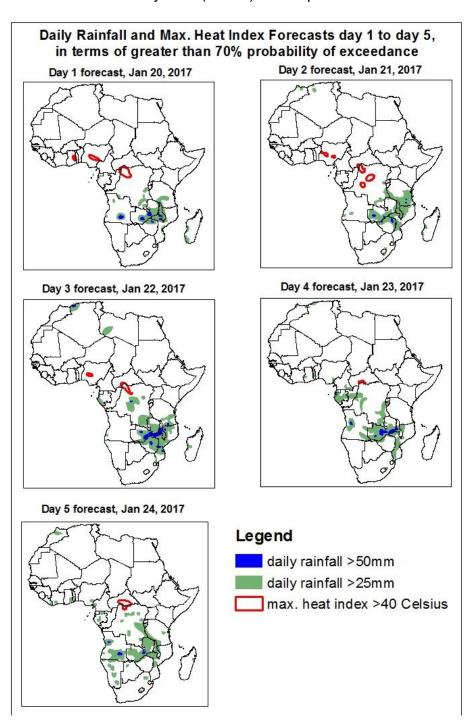
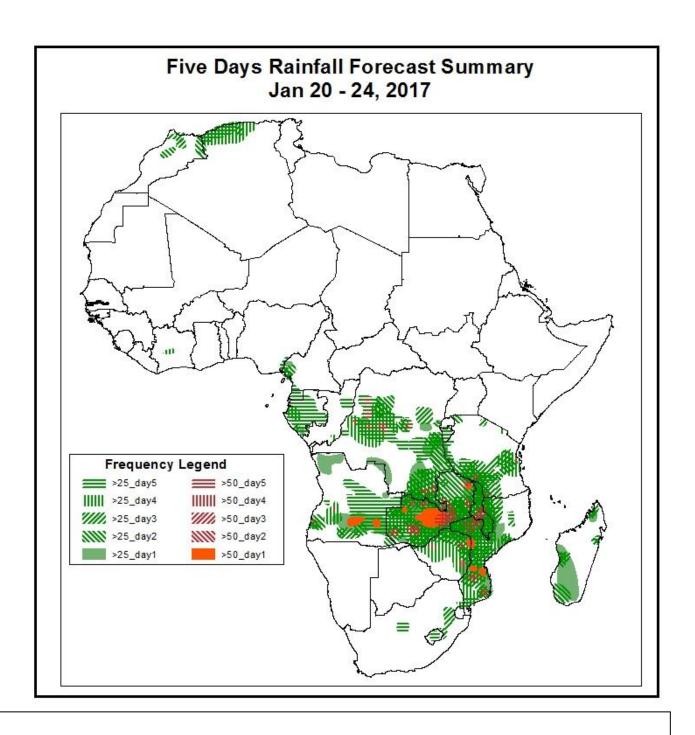
### 1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on Jan 19, 2017)

#### 1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: Jan 20 –24, 2017)

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.



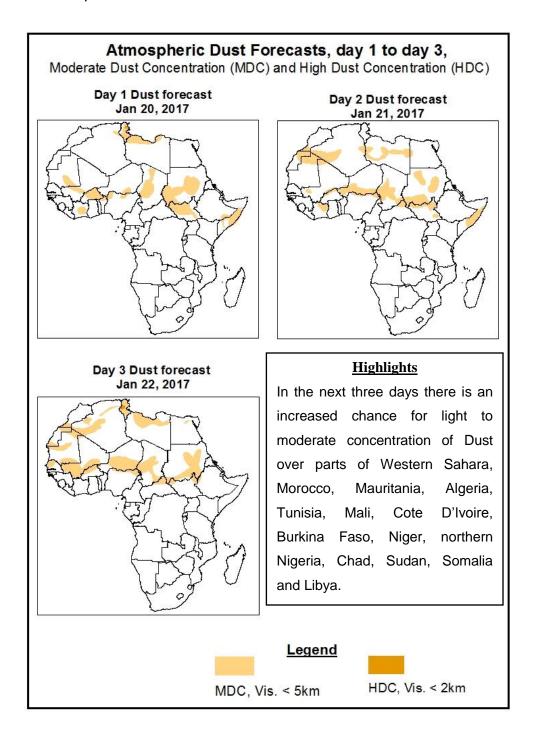


# **Highlights**

In the next five days, lower level wind convergences across the northern and eastern parts of the South African countries are expected to enhance rainfall in their respective regions. Therefore, there is an increased chance for two or more days of light to moderate rainfall over portions of Zambia, Malawi and Mozambique, local areas of Gabon, DRC, Tanzania, Angola, Zimbabwe and Madagascar.

## 1.2. Atmospheric Dust Concentration Forecasts (valid: Jan 20–22, 2017)

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: Jan 20 – 24, 2017

The Azores High Pressure system over the North Atlantic Ocean is expected to intensify with its value of the central pressure increasing from 1016hPa to 1027hPa during the forecast period.

The St. Helena High Pressure system over the Southeast of the Atlantic Ocean is expected to weaken with its value of the central pressure decreasing from 1028hPa to 1020hPa during the forecast period.

The Mascarene High Pressure system over the Southwest Indian Ocean is expected to intensify with its value of the central pressure increasing from 1027hPa to 1030hPa in the next 96 hours and weaken to 1028hPa during the remaining forecast period.

At 925hPa, strong dry Northerly to Easterly winds may lead from light to moderate dust concentration over parts of Western Sahara, Morocco, Senegal, Mauritania, Algeria, Tunisia, Mali, Cote D'Ivoire, Burkina Faso, northern Benin, Niger, northern Nigeria, Chad, Sudan, Somalia and Libya.

At 850hPa level, lower level wind convergences are expected to prevail over Cameroon, Gabon, Congo, CAR, DRC, Angola, Zambia, Mozambique, Namibia, Botswana, Zimbabwe and South Africa.

In the next five days, lower level wind convergences across the northern and eastern parts of the South African countries are expected to enhance rainfall in their respective regions. Therefore, there is an increased chance for two or more days of light to moderate rainfall over portions of Zambia, Malawi and Mozambique, local areas of Gabon, DRC, Tanzania, Angola, Zimbabwe and Madagascar.

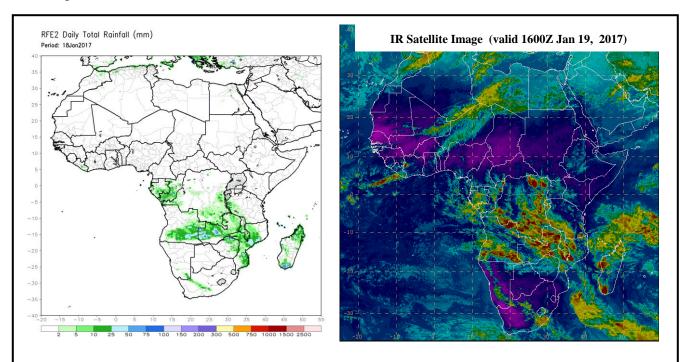
#### 2.0. Previous and Current Day Weather over Africa

#### 2.1. Weather assessment for the previous day (Jan 18, 2017)

Light to moderate rainfall was observed over portions of Gabon, Congo, DRC, Tanzania, Angola, Zambia, Malawi, Mozambique, Namibia, Zimbabwe, South Africa and Madagascar.

#### **2.2.** Weather assessment for the current day (Jan 19, 2017)

Intense convective clouds are observed over portions of Liberia, Cote D'Ivoire, Congo, CAR, DRC, Rwanda, Burundi, Tanzania, Angola, Zambia, Malawi, Mozambique, Zimbabwe and Madagascar.



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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