



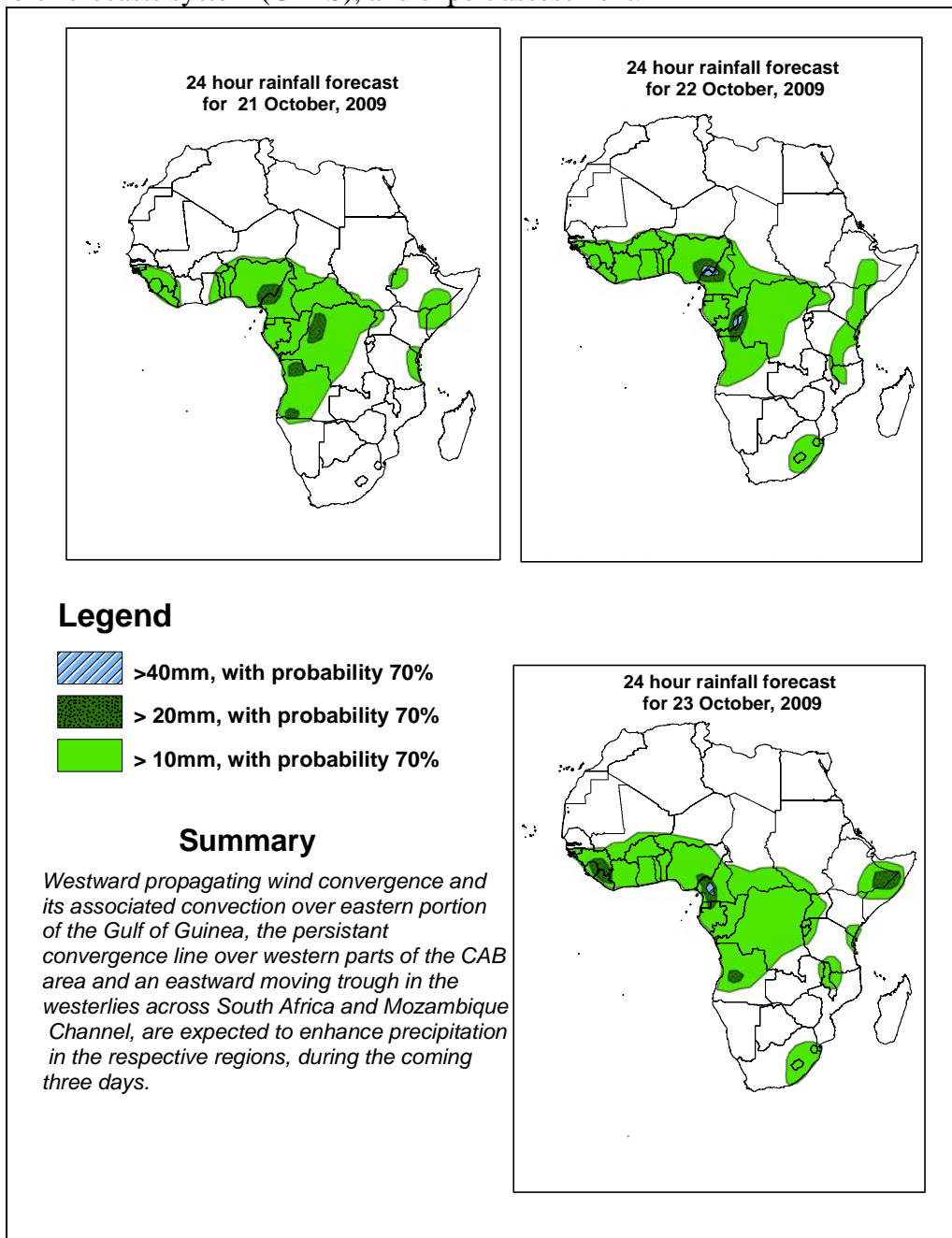
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative.

FORECAST DISCUSSION 14H00 EST, 20 OCTOBER, 2009

Valid: 00Z 20 October – 23 October, 2009

1. Twenty Four Hour Cumulative Rainfall Forecasts

The forecasts are expressed in terms of probability of precipitation (POP) exceedence based on the NCEP, UK Met Office and the ECMWF NWP outputs, the NCEP global ensemble forecasts system (GEFS), and expert assessment.



2. Model discussion

Model comparison (Valid from 00Z; 19, OCTOBER, 2009): all the three models are in general agreement especially with respect to the positioning of large scale features, however, the UK model tends to give lower values than both the GFS and ECMWF models especially in the Equatorial region (10°S and 10°N).

2.1. Weather assessment for the previous day (19 October 2009): During the previous day, moderate to heavy rainfall events were observed over parts of Sierra Leone, northern Benin, eastern Nigeria, Cameroon, Central Africa Rep., Congo, parts of DR Congo, southern Sudan, southwestern Ethiopia, southwestern Angola and northern Namibia.

2.2. Weather assessment for the current day (20 October 2009): Intense clouds are observed over Sierra Leone, Nigeria, Cameroon, southern Chad, Central Africa Rep., Gabon, northern Congo, DR Congo, western Uganda, Rwanda, Burundi, western Tanzania, Angola and Namibia.

2.3. Flow at 850hPa

T+24h: Localized convergence areas are expected over Nigeria and Cameroon. Moreover, the convergence associated with the Congo Air mass is expected persist over CAB region, aligning itself with another convergence line over Angola. Another, localized wind convergence is expected over the southwestern coast of South Africa.

T+48h: The localized convergence areas over Nigeria and Cameroon are expected to shift slightly to the west, while, the convergence over Congo air boundary region is expected to weaken slightly. A trough associated with mid-latitude frontal system is expected to extend towards South Africa.

T+72h: The convergence over Nigeria is expected to move westwards to the coastal areas of the Gulf. A localized wind convergence is expected to develop over an area bordering DRC and Uganda, while another convergence line extends between southern DRC and western Namibia. The mid-latitude westerly trough is expected to move towards Mozambique Channel, leaving behind a localized convergence area over South Africa

2.4. Flow at 500hPa

T+24h: Mid tropospheric easterlies are expected to dominate the flow over tropical Africa, while a westerly trough is expected to extend northwards through Mozambique Cannel up to 20°S latitude..

T+48h: The westerly trough is expected to expand towards Mozambique and Malawi.

T+72h: The westerly trough in Mozambique Channel is expected to move slightly to the east.

2.5. Flow at 200hPa

T+24h: A trough in the westerlies is expected to dominate the flow over the Horn of Africa.

T+48h: The westerly trough is expected to persist dominating the flow over the Horn of Africa.

T+72h: The upper tropospheric trough is expected to deepen further and a cut of cyclonic circulation is expected to form over the region northeast of Lake Victoria..

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