



Forecast Guidance for Africa

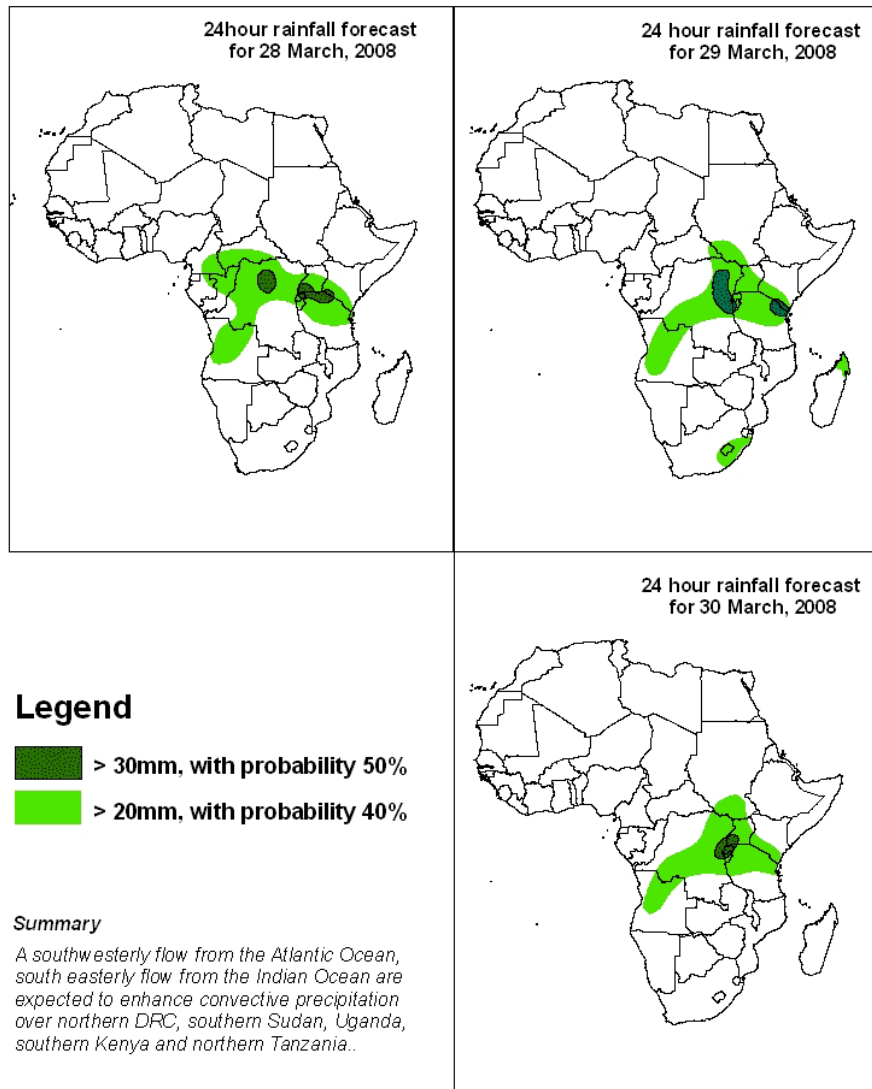
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

FORECAST DISCUSSION 14H00 EST, 27 MARCH 2008

Valid: 00Z, 28-30 MARCH, 2008

1. Twenty Four Hour Cumulative Rainfall Forecasts

The forecasts are expressed in terms of probability of precipitation (POP) exceedance 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; 27th March 2008): There is a general agreement between UK MET, ECMWF and GFS models, but the UKMET model placed pressure and circulation systems slightly to the south in comparison to other models.

2.1. Flow at 850hPa

T+24h, a low pressure system associated with the tropical disturbance (ex-Lola) is expected to be centered near 62E 28S and dominate over the Indian Ocean with a weak trough extending to the northern coast of Mozambique and Tanzania. An anticyclonic circulation is expected to be centered over northeastern South Africa and dominate the eastern side of the subcontinent while cyclonic circulation with a weak trough is expected to dominate along the atlantic coast. These systems will cause convergence over western South Africa, northwestern Namibia, Angola, northwestern DRC, Lake Victoria basin, Uganda and southern Sudan.

T+48h, the low pressure system over the Indian Ocean is expected to prevail with a trough extending northwestward to the north of Madagascar, while an anticyclonic circulation is expected to prevail over northeast South Africa and develop westward, causing convergence to shift further west to northwestern Namibia and central Angola. A ridge from the Gulf of Guinea is expected to develop further inland, causing divergence over western DRC and convergence over southeastern DRC, the Lake Victoria basin and Uganda.

T+72h, The low pressure system over the Indian Ocean is expected to fill up as it moves further east and allow an anticyclonic circulation to dominate over the eastern side of the subcontinent from eastern South Africa to Somalia, while a low pressure area is expected to prevail over the western coast of Angola with a weak trough along the atlantic coast. This system will confine convergence only over central Angola and Uganda.

2.2. Flow at 500hPa

T+24h, an anticyclonic flow pattern is expected to dominate over northeastern South Africa, western Mozambique, Zambia, Zimbabwe, eastern Botswana, southwestern South Africa and northeastern Madagascar. This system is expected to be surrounded by cyclonic flow patterns over Namibia and southern Angola to the west and over the Indian Ocean off the coast of Tanzania, Kenya and Sudan to the east.

T+48h, an anticyclonic flow pattern is expected to dominate over the eastern part of the subcontinent (Mozambique, Zimbabwe, eastern Zambia, Botswana and South Africa) surrounded by cyclonic flow patterns over Namibia and western Angola to the west and to the east off the coast of Somalia with a trough towards the Mozambique Channel and southern Madagascar. The high pressure system over northern Madagascar is expected to prevail and a strong divergent area is expected to develop over central Tanzania.

T+72h, the anticyclonic flow pattern is expected to prevail over the eastern part of the subcontinent (Mozambique, Zimbabwe, eastern Zambia, Botswana and South Africa) also surrounded by cyclonic flow patterns over Namibia and western Angola to the west and

to the east over the coast of Somalia with a weak trough over the Mozambique Channel and southern Madagascar.

2.3. Flow at 200hPa

T+24h, an upper level anticyclonic flow system is expected to dominate over Angola, southwestern DRC and over the Indian Ocean northeast of Madagascar with an upper level trough over northern Mozambique, the Mozambique Channel across to southern Madagascar. A small cyclonic flow system is expected to develop over off the coast of southern Namibia and a generally westerly flow is expected to dominate to the south of latitude 20S.

T+48h, an upper level anticyclonic flow system is expected to dominate over the central part of the subcontinent (southern DRC, Angola, northern Zambia, northern Zimbabwe, northern Mozambique and Tanzania) with a strong upper level divergence over central DRC. A small upper level cyclonic flow pattern is expected to prevail over western Namibia within generally westerly flow south of latitude 20S.

T+72h, an upper level anticyclonic flow pattern is expected to prevail over the central part of the subcontinent while an upper level trough is expected to prevail over eastern South Africa and another one to develop northwest of South Africa and southern Namibia.

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