



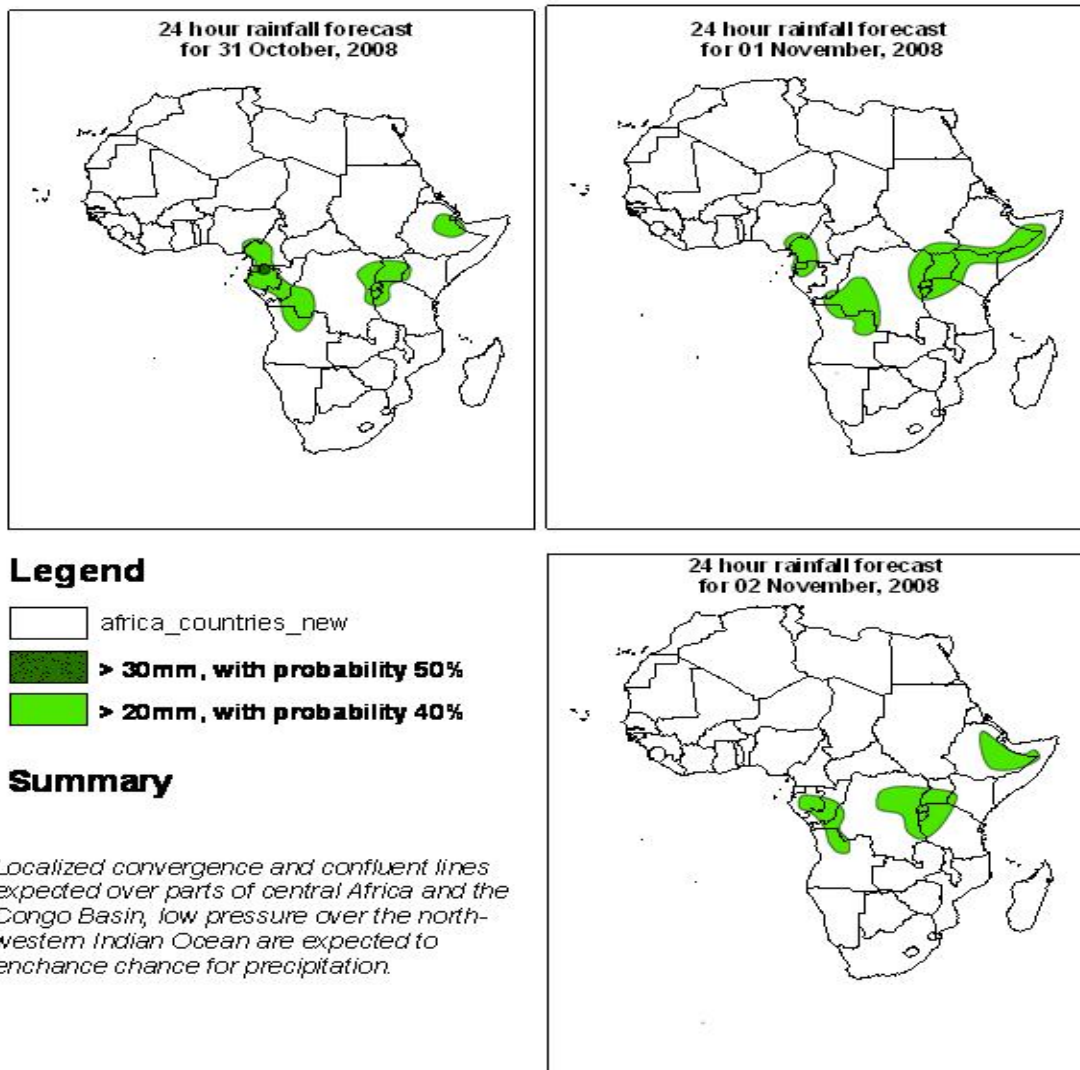
Forecast Guidance for Africa

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

FORECAST DISCUSSION 14H00 EST, 30th OCTOBER, 2008
Valid: 00Z 31st OCTOBER – 02nd NOVEMBER, 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; 31st October, 2008): all the three models are in general agreement especially with respect to the positioning of large scale features, however, the UK model has a tendency to give lower values than the GFS and ECMWF models in the Equatorial (10°S and 10°N) Continental Africa.

1. Flow at 850hPa:

T+24h, the Saharan anticyclonic circulation will dominate the flow over much of North and West Africa, while a trough will affect much of western Maghreb. Localized convergence is likely to occur over the Lake Victoria region, southeastern DRC, and over southern Angola. Confluent flows are expected to occur over southeastern Nigeria, western and eastern Ethiopia, southeastern Congo, western DRC, western Tanzania, eastern Angola and over northwestern Botswana. On the other hand, localized divergence is expected over southwestern DRC. Diffluent flows will be featured along the coast of Kenya and Tanzania. Much of Southern Africa will be under the influence of St. Helena and Mascarene anticyclones with an embedded mid latitude trough in the westerlies to the South.

T+48, the flow over much of North and West Africa will be similar to that of the previous day. The trough over western Maghreb is expected to weaken and move northwestwards but still affect western Morocco. Convergence is likely to occur over eastern Ethiopia, the Lake Victoria region, eastern and southern Angola and over eastern Namibia. Confluent flows are expected to occur over northern Ethiopia, southeastern Sudan, western Tanzania and over northwestern Zambia. Conversely, divergence is expected over central DRC. The flow over much of Southern Africa will be dominated by the St. Helena and Mascarene Anticyclonic circulation systems. To the South a westerly wave will prevail with a cut off anticyclonic circulation.

T+72, the Saharan anticyclonic circulation will prevail over much of North and West Africa. The trough over western Maghreb is likely to strengthen and remain in the same position. Convergence is expected to occur over the Lake Victoria region and over the border between southeastern Angola and northeastern Namibia. Confluent flows are likely to occur over northeastern Sudan, western and southeastern Ethiopia, southwestern Congo, the southeastern sector of DRC, eastern Angola and over central Botswana. Conversely, divergence will be featured over southwestern DRC. Much of Southern Africa is expected to be under the influence of the St. Helena and Mascarene anticyclones. A trough, in the westerlies, will affect the southeastern sector of South Africa.

2.2. Flow at 500hPa:

T+24, a westerly wave in which a trough is embedded over northern Morocco and western Algeria will affect the flow over the Maghreb region, while much of North Africa will be dominated by an extensive sub-tropical anticyclonic circulation. Confluent flows are likely to occur over southern Cote D'Ivoire, northwestern DRC onto northeastern Congo, eastern Uganda, southern Somalia, southwestern DRC onto northern Angola, southeastern DRC and over the southern coast of Tanzania. Divergence will be featured over western Somalia and over the western sector of Ethiopia. Much of Southern Africa will be dominated by an anticyclonic circulation system, while a westerly wave will affect southern South Africa and part of Madagascar.

T+48, a Sub-tropical anticyclonic circulation will dominate the flow over North Africa, while a westerly wave will dominate pole ward. The mid-latitude trough over Morocco and

western Algeria will retreat northwards. Convergence is expected to occur over northwestern Zambia, northwestern and northeastern Mozambique. Confluent flows are likely to occur over eastern Sudan, western DRC, southeastern DRC onto eastern Angola, northern and southern Tanzania. Divergence is expected to occur over northern Somalia and over northeastern Gabon. Much of Southern Africa will be under the influence of the St. Helena ridge except for northern Madagascar which will be affected by the Mascarene Anticyclone. A westerly wave will prevail to the South.

T+72, an extensive Sub-tropical anticyclonic circulation system will dominate the flow over much of North Africa with a westerly wave to the north in which the embedded trough over western Maghreb will expand slightly southwards. Confluent flows will be featured over northern Congo, northwestern and southeastern DRC and over western Zambia onto eastern Angola. Divergence is likely to occur over southwestern Somalia and over eastern DRC. The flow over much of Southern Africa will be dominated by St. Helena ridge, while the Mascarene anticyclone will affect northern Madagascar. A westerly wave will dominate to the South.

2.3. Flow at 200hPa:

T+24h, a westerly wave with an embedded trough over Morocco will dominate the flow over the Maghreb region including Egypt. To the south, an extensive anticyclonic circulation system will prevail. Localized convergence is likely to occur over northern DRC. Convergent flows will be featured over northeastern Nigeria, northern Sudan, northwestern Congo, southeastern Ethiopia and over western Kenya. Divergence is likely to occur over western Cameroon. The northern sector of Southern Africa will be under the influence of an anticyclonic circulation, while a mid-latitude westerly wave will dominate the flow over the southern sector.

T+48h, a westerly wave will dominate the flow over the Maghreb region. The trough over Morocco will retreat northwards. To the South, an extensive anticyclonic circulation system will prevail. Convergence is likely to occur over of Cote D'Ivoire, southwestern Sudan and over southern Ethiopia. Confluent flows are expected to occur over southwestern Sudan, southeastern Cameroon, northeastern DRC and over southern Somalia. The flow over the northwestern sector of Southern Africa will be dominated by an anticyclonic circulation system, while the remaining part will be under the influence of a westerly wave.

T+72h, a westerly wave will prevail over North Africa and the upper-level trough over western Maghreb is likely to weaken and retreat northwards. An anticyclonic circulation is expected to dominate the flow to the South. Convergence is likely to occur over northwestern CAR. Confluent flows will be featured over northeastern and southern Ethiopia, eastern Uganda and over southeastern Kenya. Divergence is likely to occur over western DRC. The flow over much of Southern Africa is expected to be dominated by a mid latitude westerly wave that will expand to northern Zambia and southern Tanzania with a cut off anticyclonic circulation system to north of Madagascar.

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