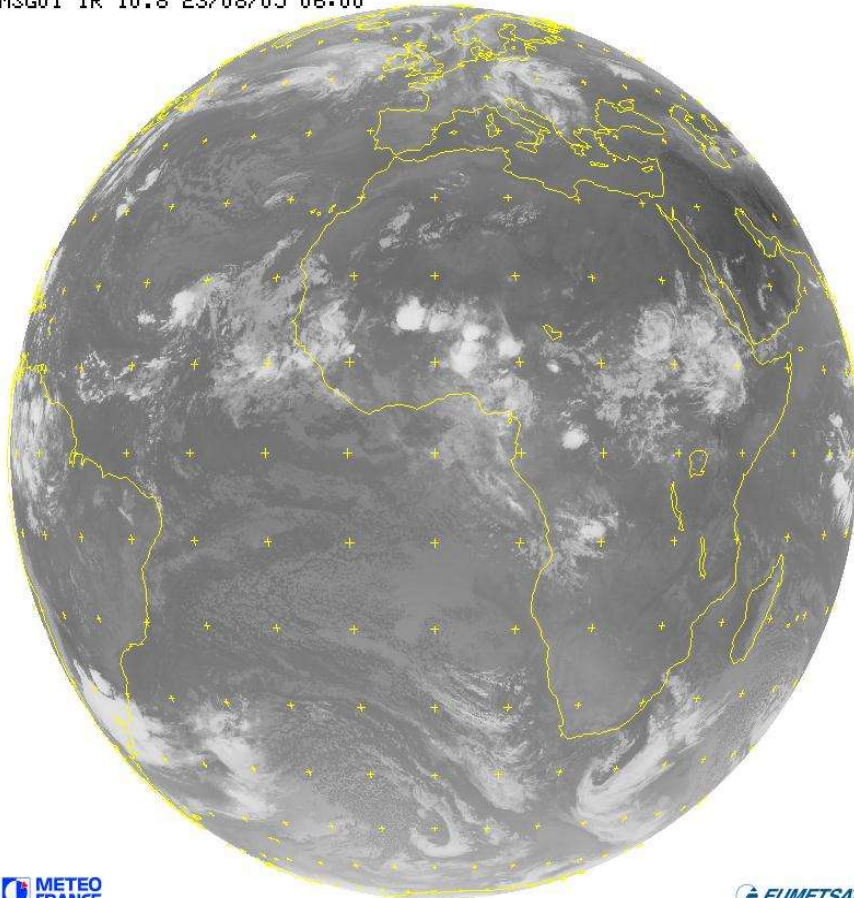


Meso-NH forecast for AMMA-Dry Run – Tue 23 August 2005 – This morning 6 UTC

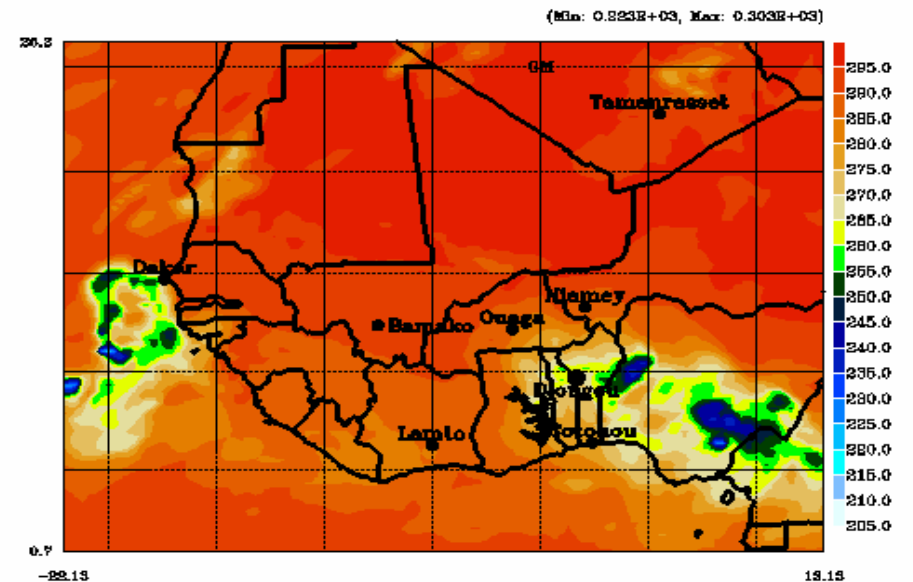
MSG Observation

MSG01 IR 10.8 23/08/05 06:00



MET-8 10.8 micron BT (K)

23/08/05 11H38M34
AMS34.1.f10946.0029AV



DATE MOD. 2005/ 8/23 0H 0M 0S DATE CUR. 2005/ 8/23 6H 0M
LA/UPS/CNR

IR brightness temperature (K) at 10.8um

*Correct initialization over Nigeria and downwind of Dakar –
Mesoscale systems observed over Mali (~15°N) are not predicted properly*

Meso-NH forecast for AMMA-Dry Run - Tue 23 August 2005

Convection this afternoon 18UTC

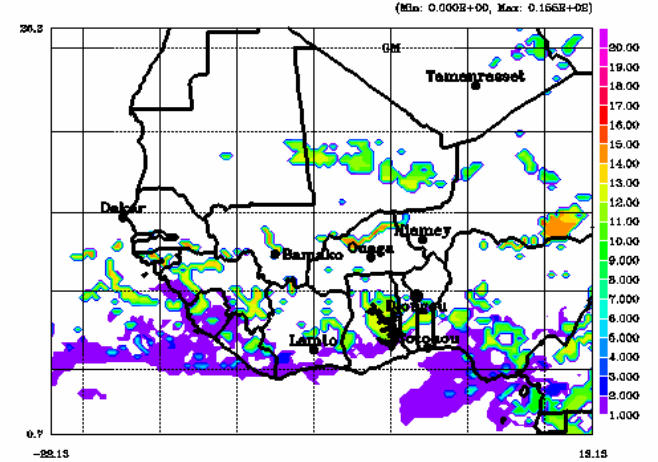
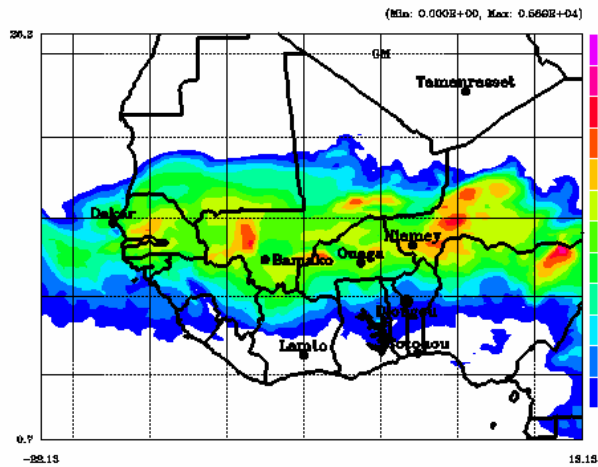
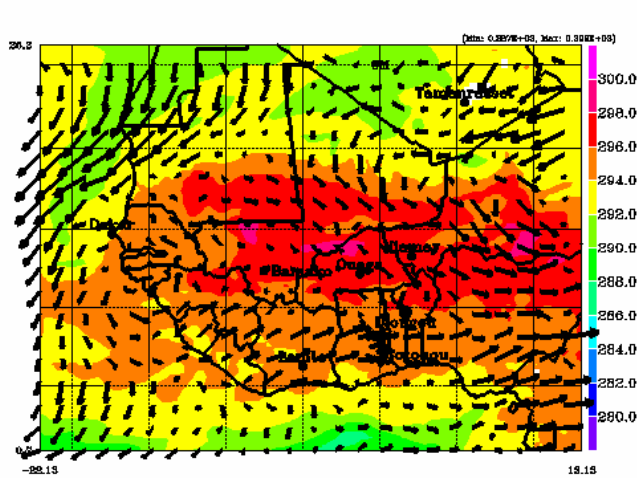
Wet. Pot. Temp. (K)

11E12M01 CAPE in J/kg
3.0065AT

CAPE

23/08/20 11E12M01 Co3
2MS34.1712546.0065AT

Conv Cloud Top Height



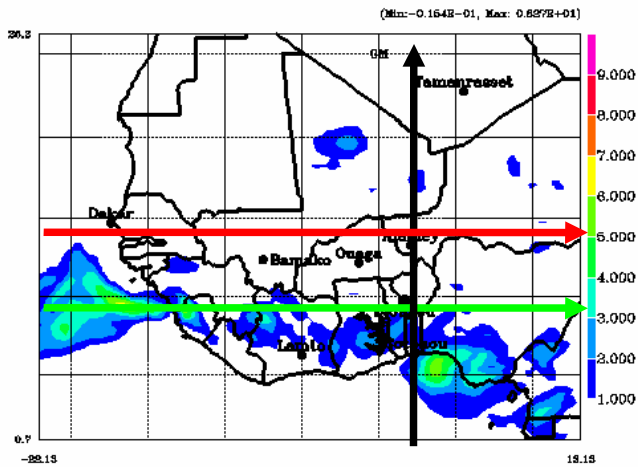
0.477E-01 0.164E+00
Minimum Twp: Maximum Twp:
DATE MOD. 2005/ 8/23 0H 0M 0S DATE CUR. 2005/ 8/23 18H 0M 0S
DATE MOD. 2005/ 8/23 0H 0M 0S DATE CUR. 2005/ 8/23 18H 0M 0S
DATE MOD. 2005/ 8/23 0H 0M 0S DATE CUR. 2005/ 8/23 18H 0M 0S
DATE MOD. 2005/ 8/23 0H 0M 0S DATE CUR. 2005/ 8/23 18H 0M 0S

Meso-NH forecast for AMMA-Dry Run - Tue 23 August 2005

LiNOx this afternoon - 18 UTC

LiNOx tracer (ppbv) at 300 hPa

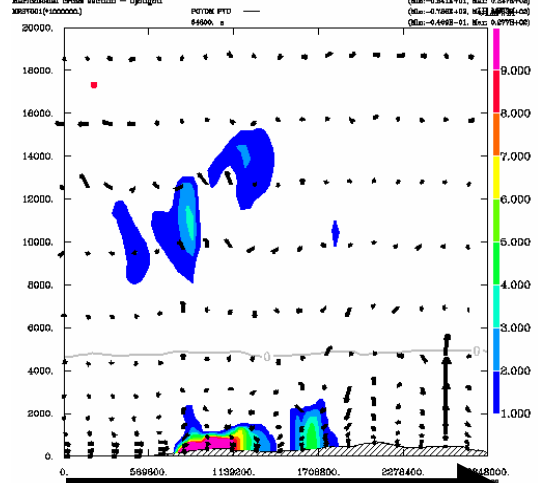
23/08/20 11:02:15Z
AMS34.1.f1946.0063A7



DATE MOD. 2005/ 8/23 0H 0M 0S DATE CUR. 2005/ 8/23 18:00:00M
LA(UPS/CNRS)

LiNOx tracer (ppbv)

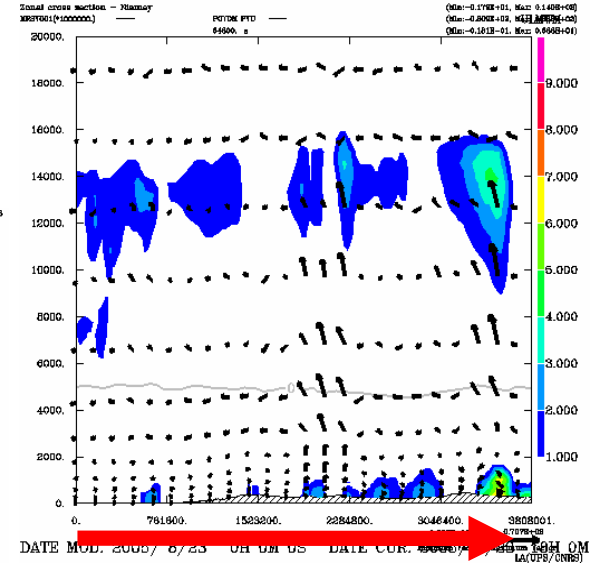
23/08/20 11:02:15Z
AMS34.1.f1946.0063A7



DATE MOD. 2005/ 8/23 0H 0M 0S DATE CUR. 2005/ 8/23 18:00:00M
LA(UPS/CNRS)

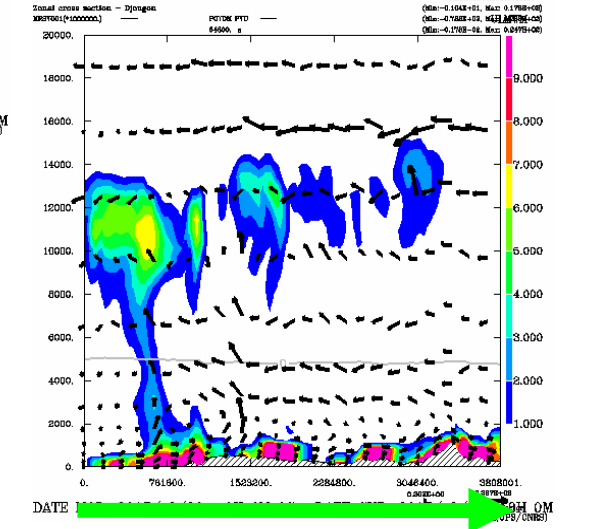
LiNOx tracer (ppbv)

23/08/20 11:02:15Z



LiNOx tracer (ppbv)

23/08/20 11:02:15Z



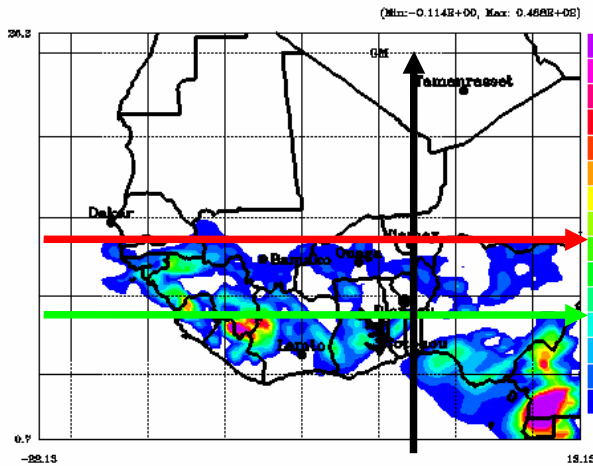
Strongest source of LiNOx near the coast below 10°N

Meso-NH forecast for AMMA-Dry Run - Tue 23 August 2005

Biogenic COV this afternoon – 18 UTC

COV tracer (ppbv) at 300 hPa

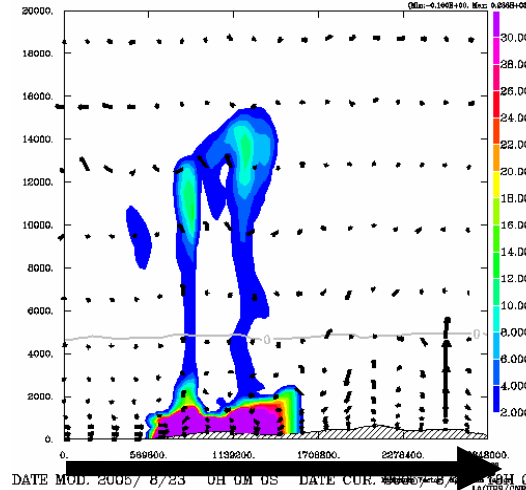
23/08/20 11021645
282534.1.11044.0065A7



DATE MOD. 2005/ 8/23 0H 0M 0S DATE CUR. 2005/ 8/23 18H 0M
LA(UPS/CNRS)

COV proxy
Metodi cross section - Djougou

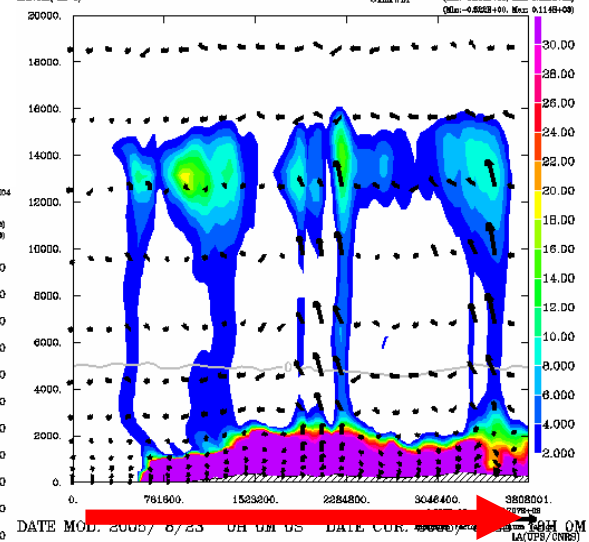
23/08/20 11020804
282534.1.11044.0065A7
(Min: -0.1148+00, Max: 0.4682+00)



DATE MOD. 2005/ 8/23 0H 0M 0S DATE CUR. 2005/ 8/23 18H 0M
LA(UPS/CNRS)

COV proxy
Total cross section - Niamey

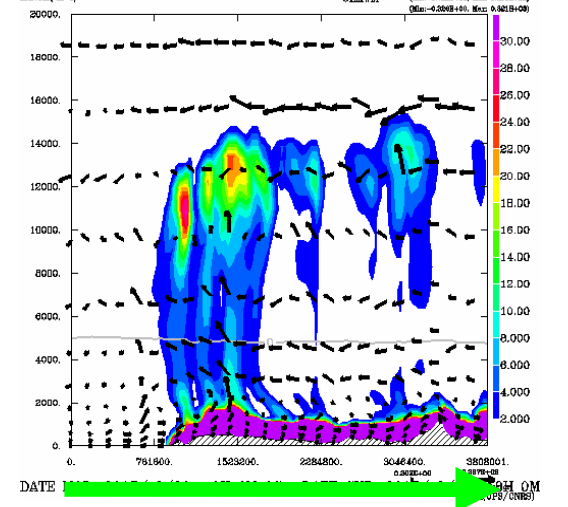
23/08/20 11024054
282534.1.11044.0065A7
(Min: -0.2002+00, Max: 0.3368+00)



DATE MOD. 2005/ 8/23 0H 0M 0S DATE CUR. 2005/ 8/23 18H 0M
LA(UPS/CNRS)

COV proxy
Total cross section - Djougou

23/08/20 11023651
282534.1.11044.0065A7
(Min: -0.1928+00, Max: 0.2668+00)



DATE MOD. 2005/ 8/23 0H 0M 0S DATE CUR. 2005/ 8/23 09H 0M
LA(UPS/CNRS)

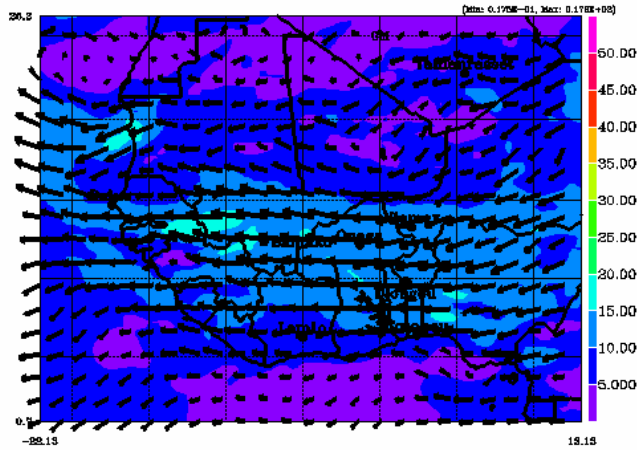
Strong convective transport of BCOV near the coast, no significant vertical transport over Djougou and Niamey. Emissions are transported by the southwesterly flow @300hPa

Meso-NH forecast for AMMA-Dry Run - Tue 23 August 2005

Mid and upper troposphere @ 18 UTC

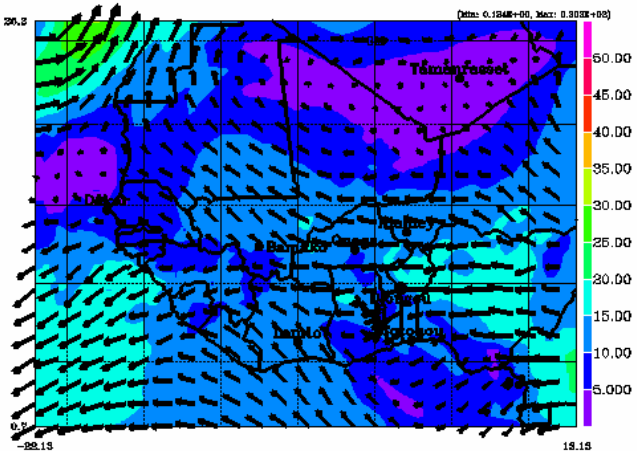
Wind speed (m/s) at 700hPa

22/08/20 165579645
ZMS30.1.f12346.006SAT



Wind @ 700 hPa

0.190E+00 0.170E+00
Minimum Vector Maximum Vector
DATE MOD. 2005/ 8/22 0H 0M 0S DATE CUR. 2005/ 8/22 18H 0M
84606a(CFR/C3DR)



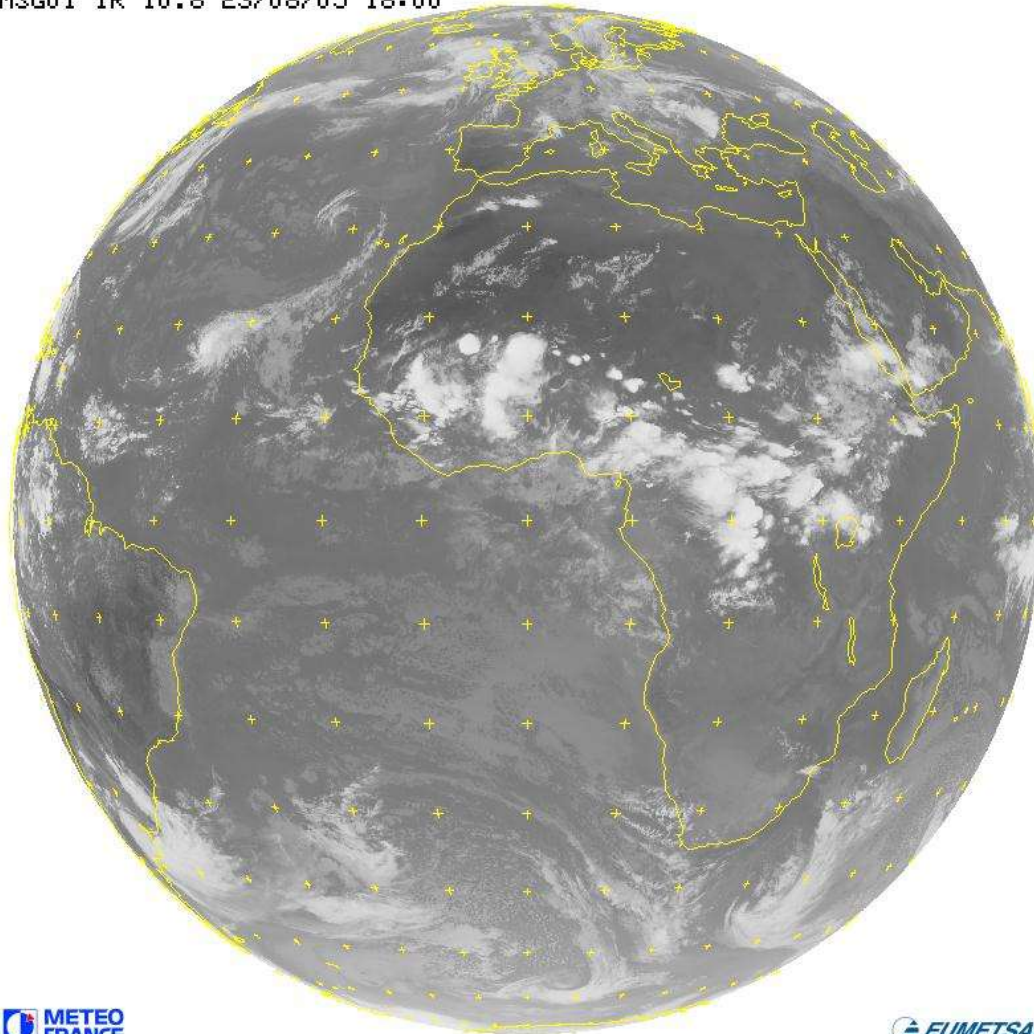
Wind @ 200 hPa

0.440E+00 0.295E+00
Minimum Vector Maximum Vector
DATE MOD. 2005/ 8/22 0H 0M 0S DATE CUR. 2005/ 8/22 18H 0M
84606a(CFR/C3DR)

Meso-NH forecast for AMMA-Dry Run - Tue 23 August 2005

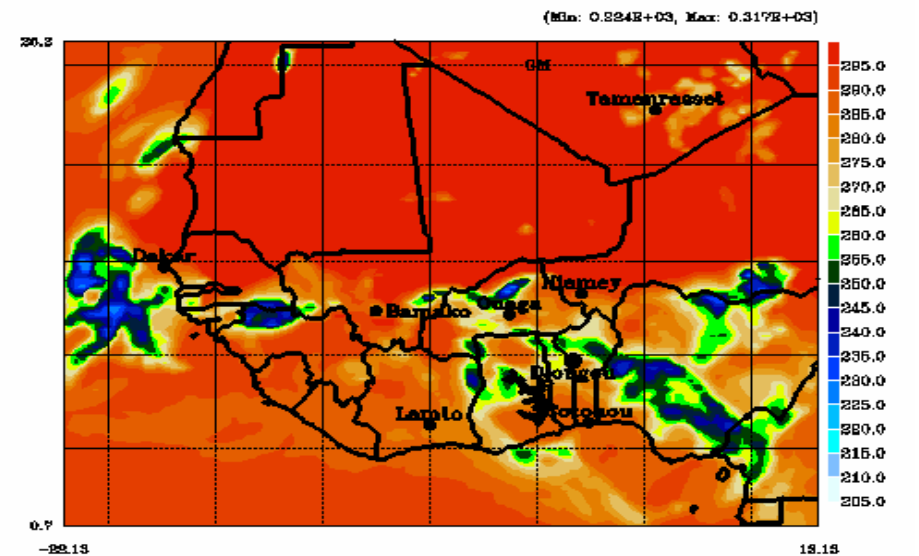
Evaluation @ 18UTC

MSG01 IR 10.8 23/08/05 18:00



MET-8 10.8 micron BT (K)

23/08/2D 11E39M44
00234.1.F19348.0063A7



DATE MOD. 2005/ 8/23 0H 0M 0S DATE CUR. 2005/ 8/23 18H 0M
LA/UPS/CNR



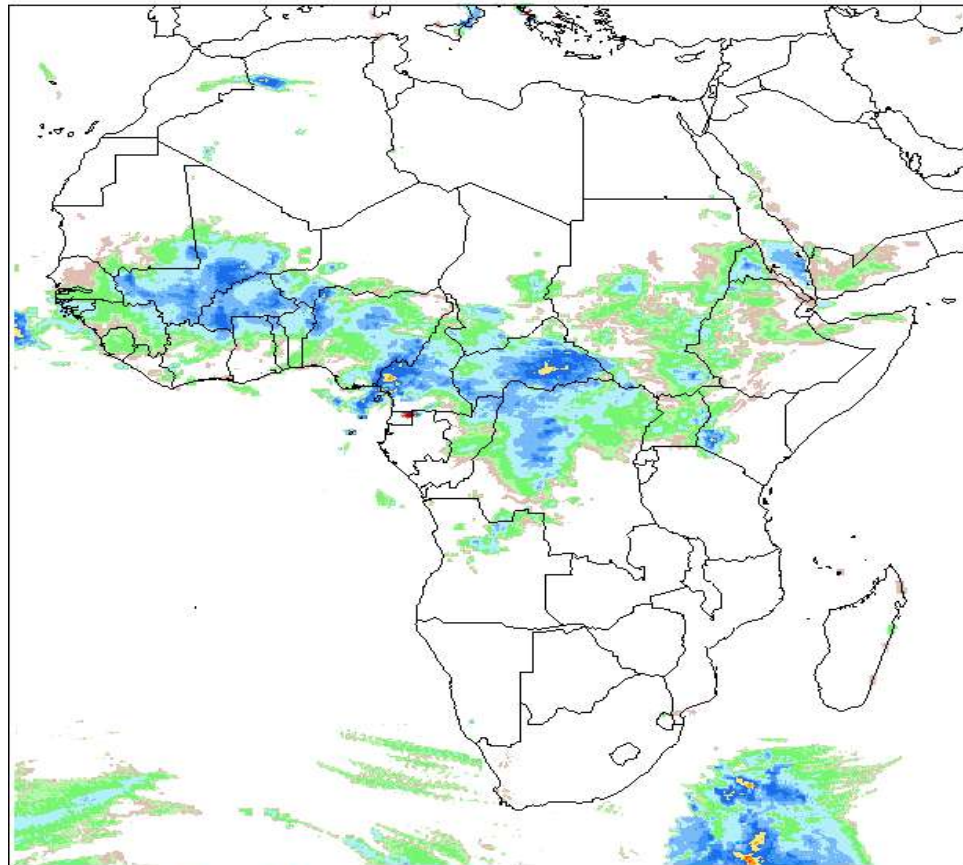
Post-experiment evaluation: The convection north of 15°N is not forecasted properly

Meso-NH forecast for AMMA-Dry Run - Tue 23 August 2005

Evaluation @ 18UTC

NOAA / Climate Prediction Center RFE2.0
GTS merged with GPI+SSMI+AMSU (oper)

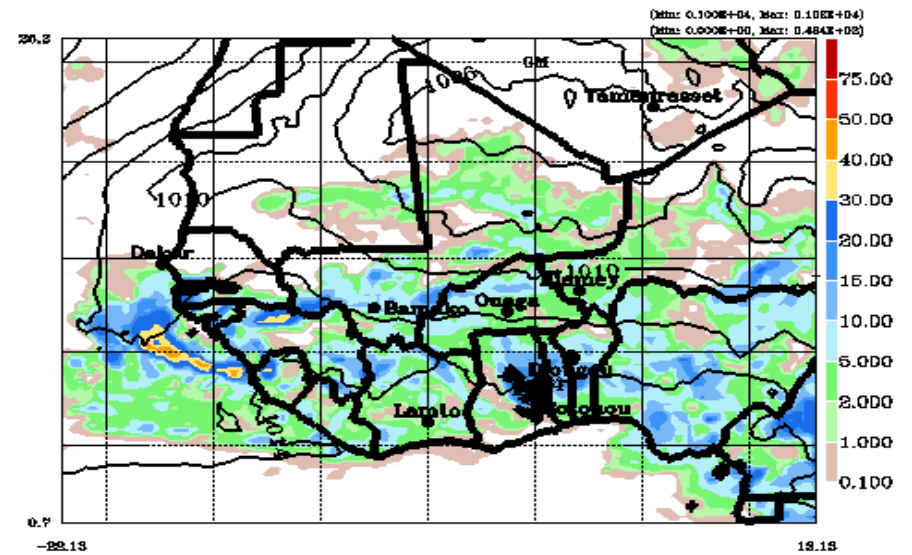
23 August 2005



graphic created Wednesday, 24 Aug 05 @ 20:21:07 EST

24h total (explicit + convective) Precip. (mm) from 0600 to 0600

25/08/20 12H22M44
02834.1.F19348.002307



Post-experiment evaluation: Unrealistic precipitation predicted in northern Mali