# Operational Use of LM
# at the 1ˢᵗ Olympics Test Event
"Regata 2002"

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- **LM Version : lm_020328_2.16**

- **Coarse Domain Size: 189 x 225 grid points**

- **Coarse Grid Spacing (horizontal): 0.0625^0 (~7 km)**

- **Number of Layers: 35**

- **Time step: 30 secs**

- **Forecast Range: 48 hs**

- **Initial Time of Model Runs: 00 UTC**

- **Lateral Boundary Conditions: Interpolated from GME at 1 hour intervals**

- **Initial State: Interpolated from GME (Version: gme2lm_020321_1.15)**

- **External Analyses: None**

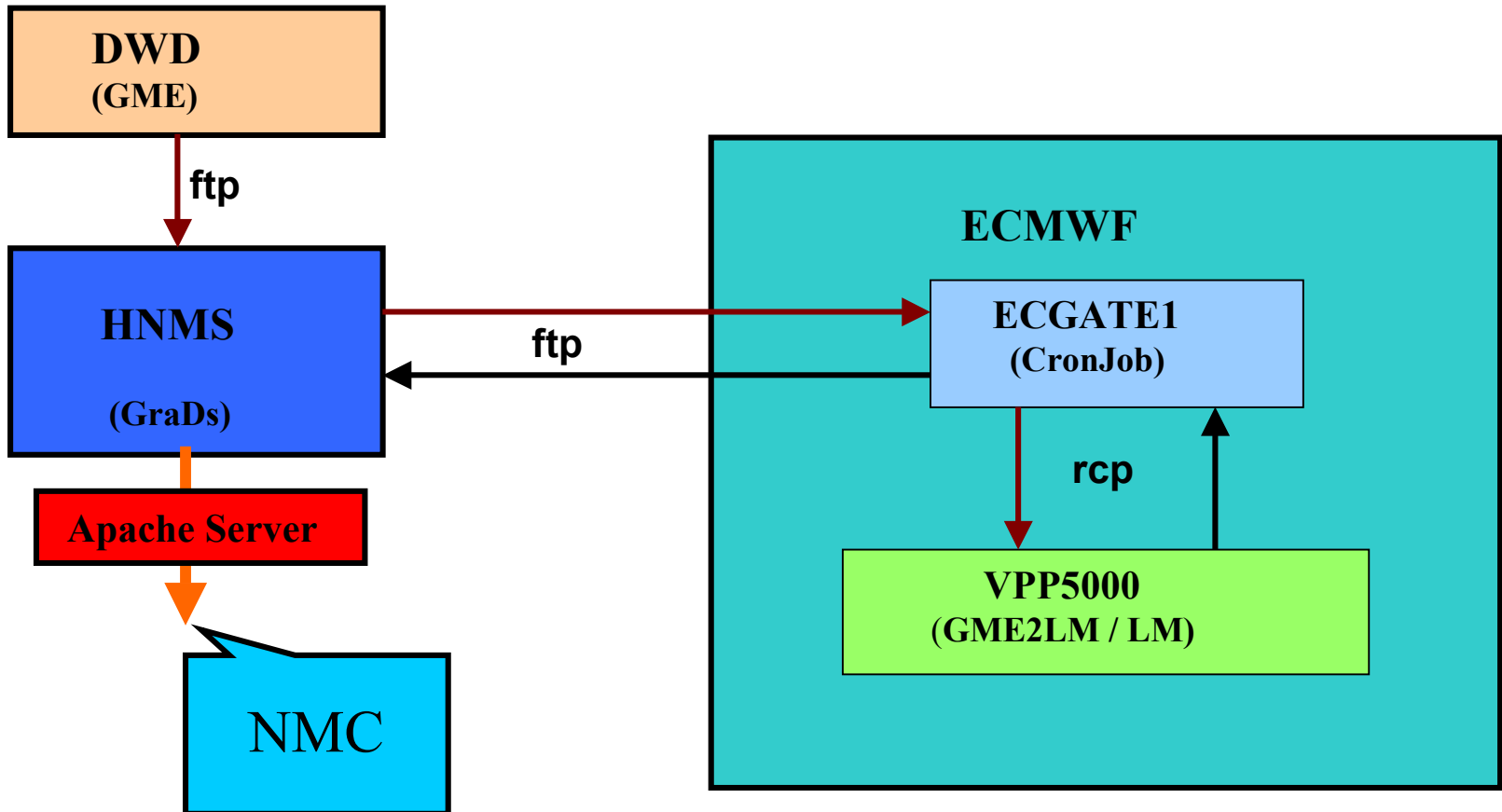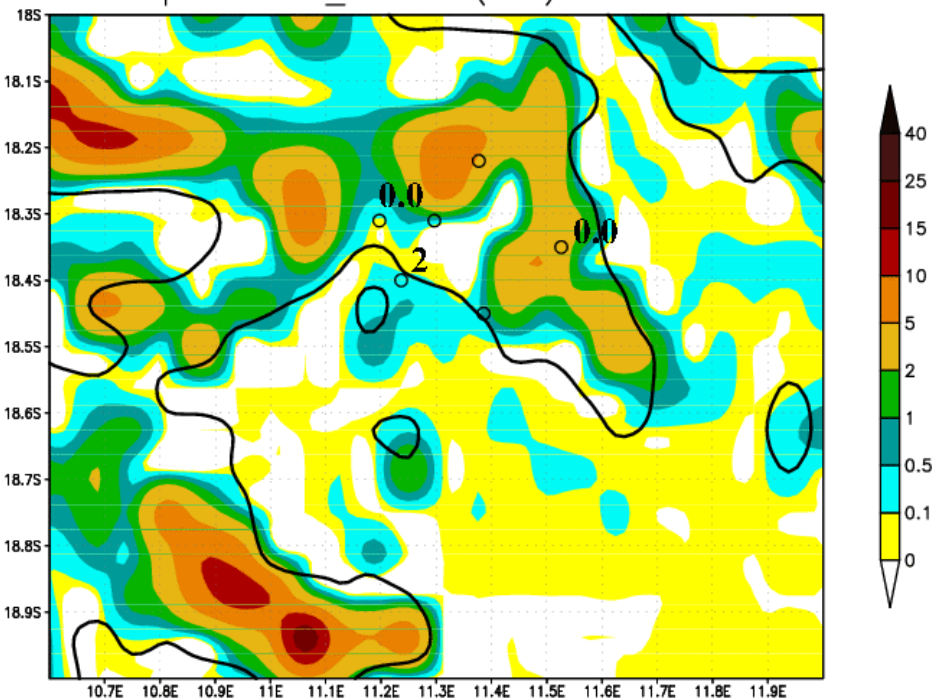- **Hardware: VPP5000 Fujitsu at ECMWF**
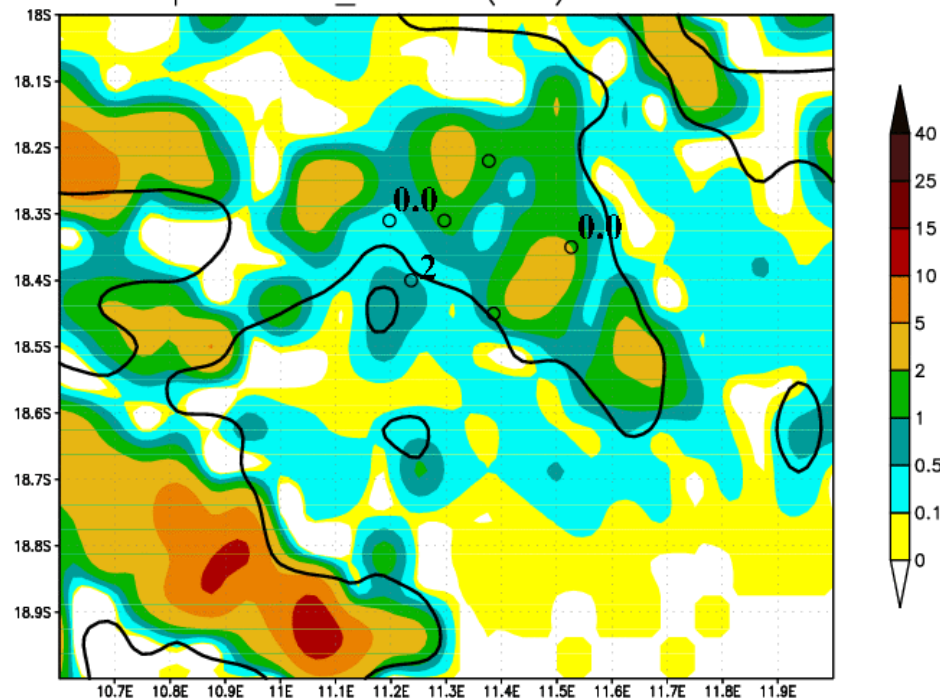
LM Area for Greece
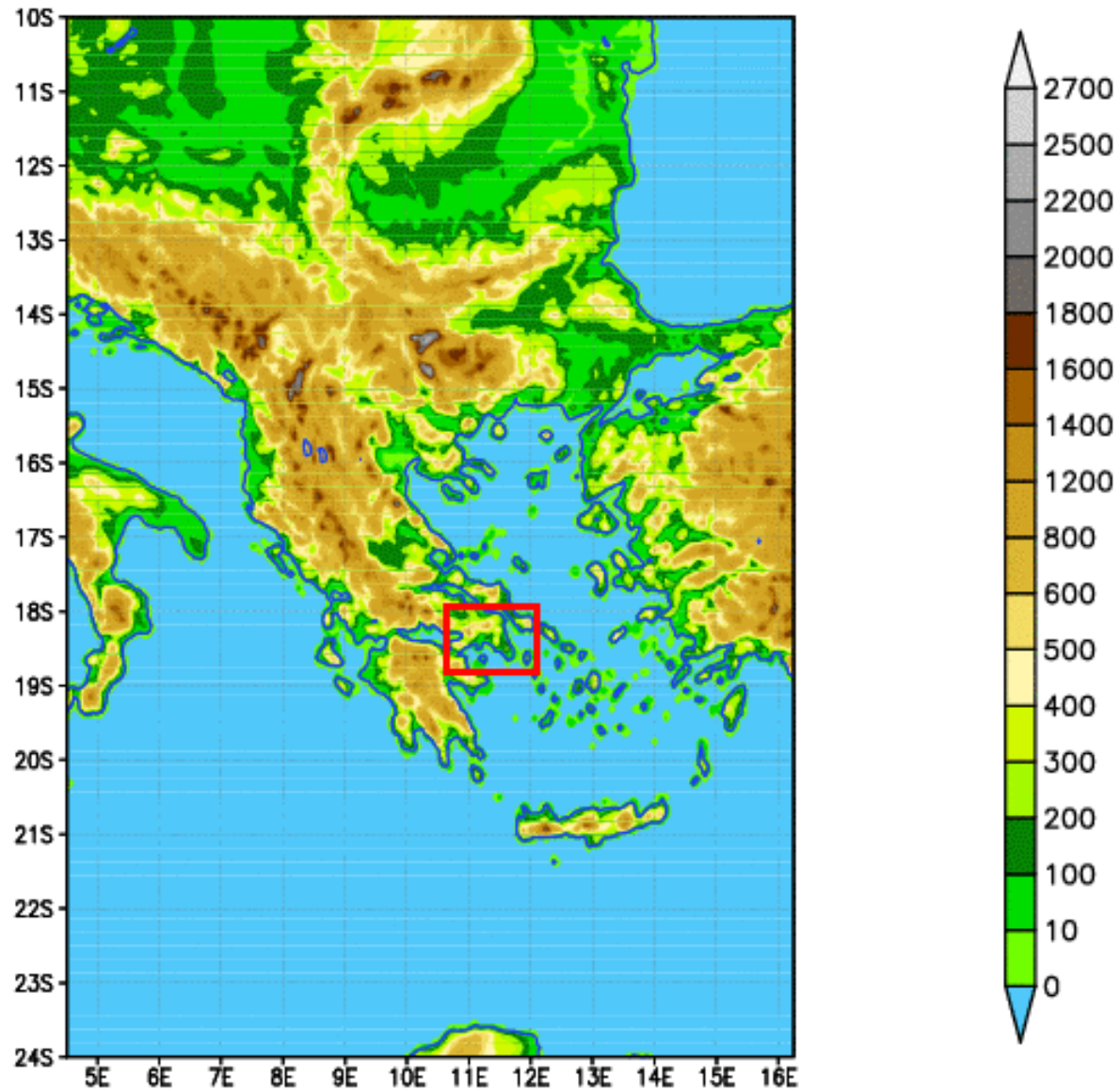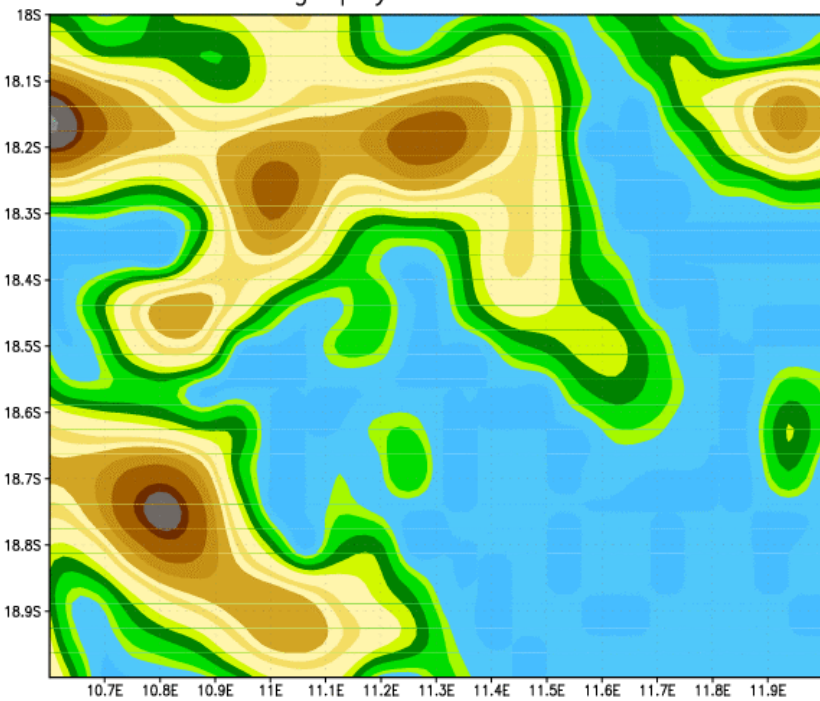
7 km Orography
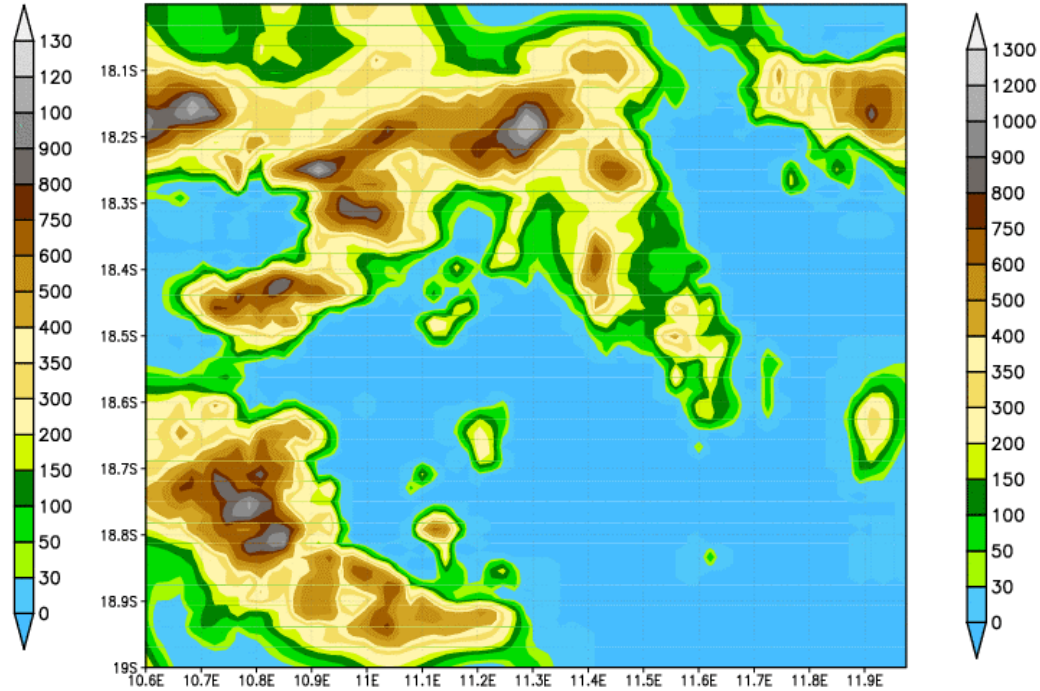
2.3 km Orography

LM-Dataflow

Precipitation 06_18 UTC (mm) 24hs forecast

Precipitation 06_18 UTC (mm) 48hs forecast

Precipitation Difference

August
16th
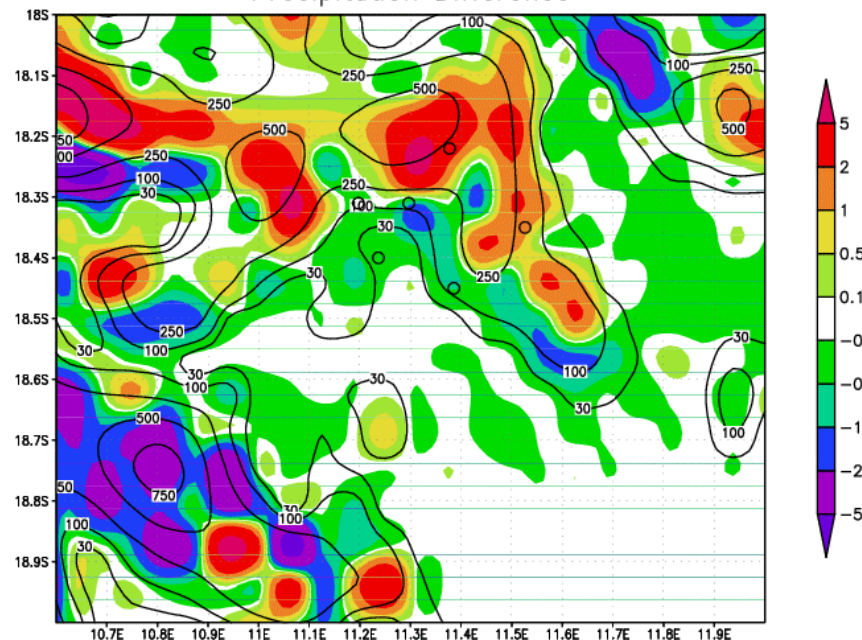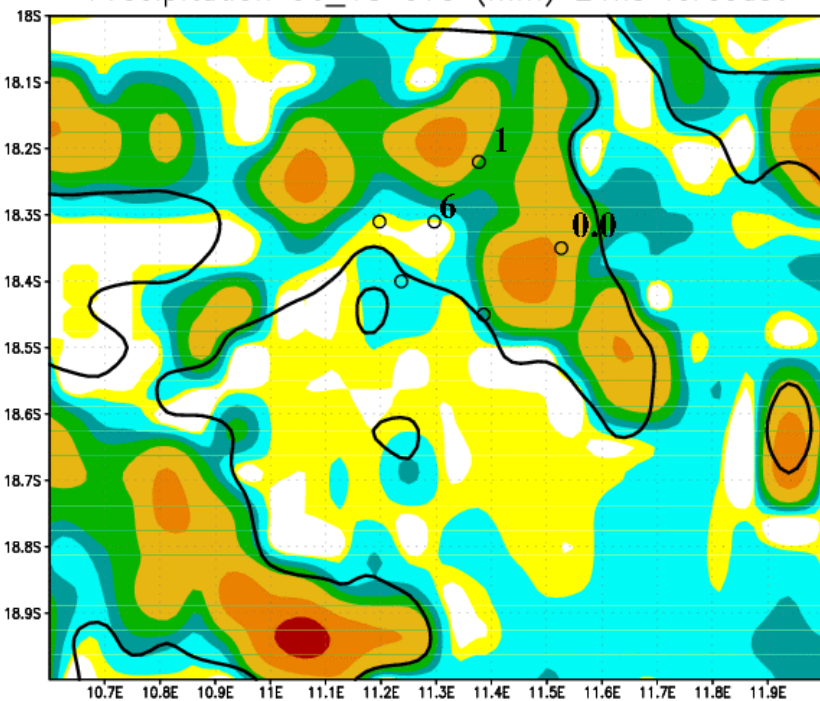
August
17th

Precipitation 06_18 UTC (mm) 24hs forecast
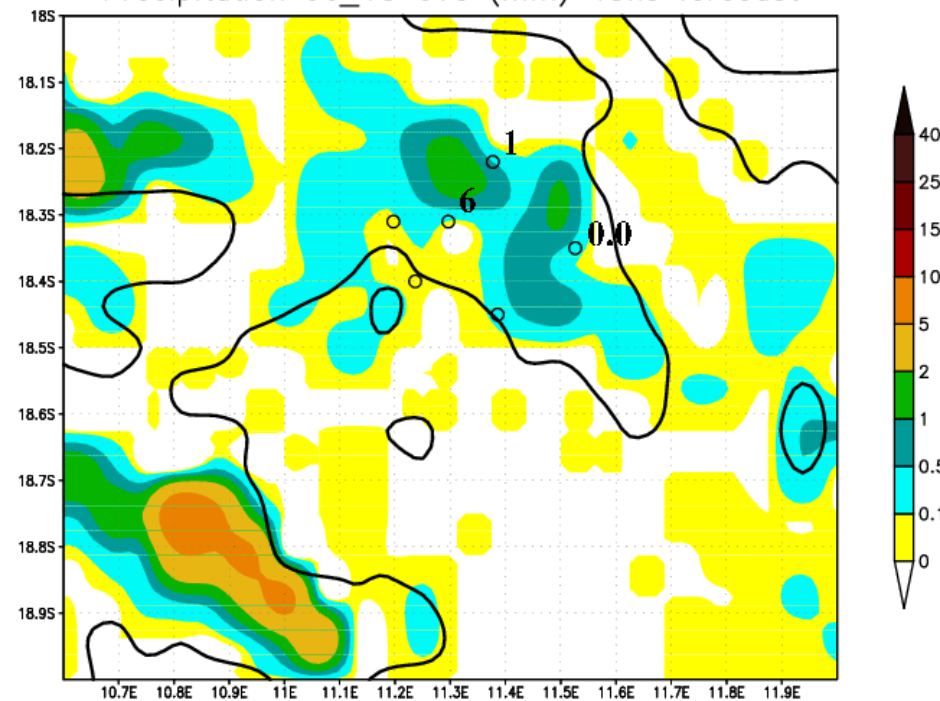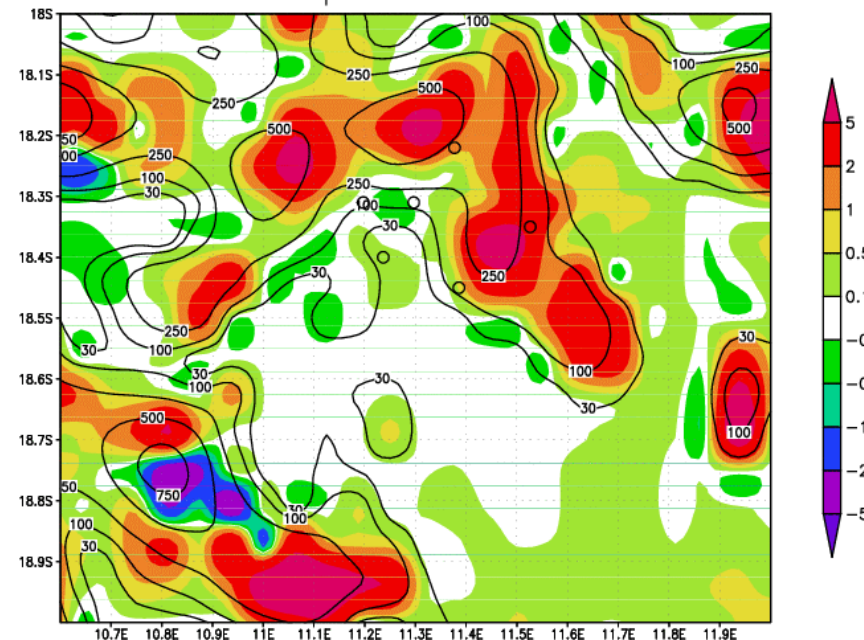
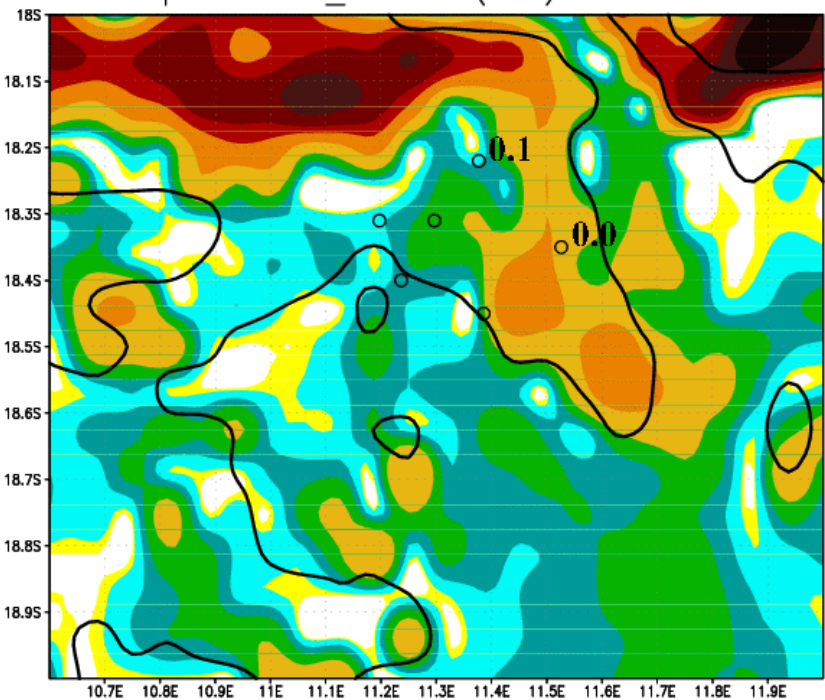Precipitation 06_18 UTC (mm) 48hs forecast
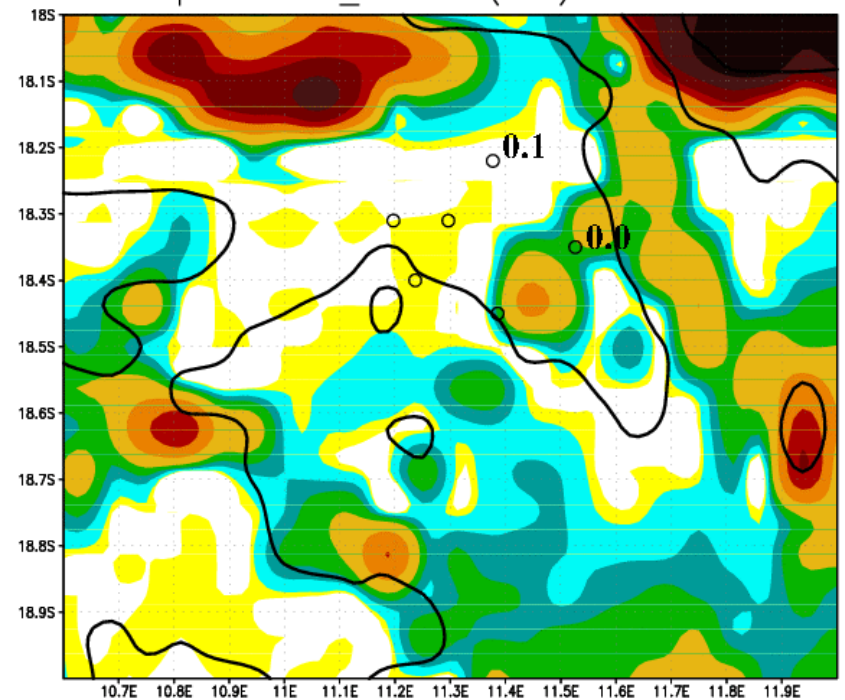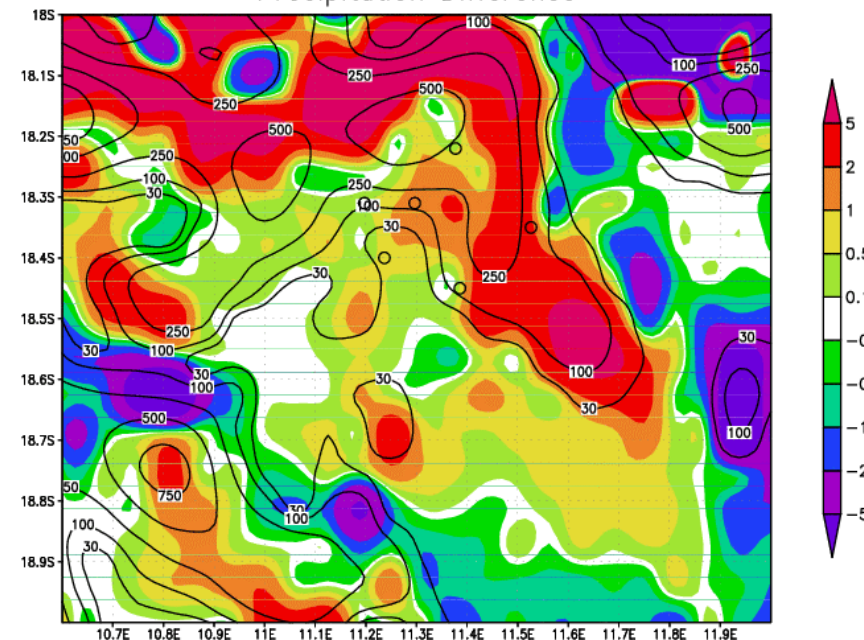
Precipitation Difference

August 18th

Precipitation 06_18 UTC (mm) 24hs forecast
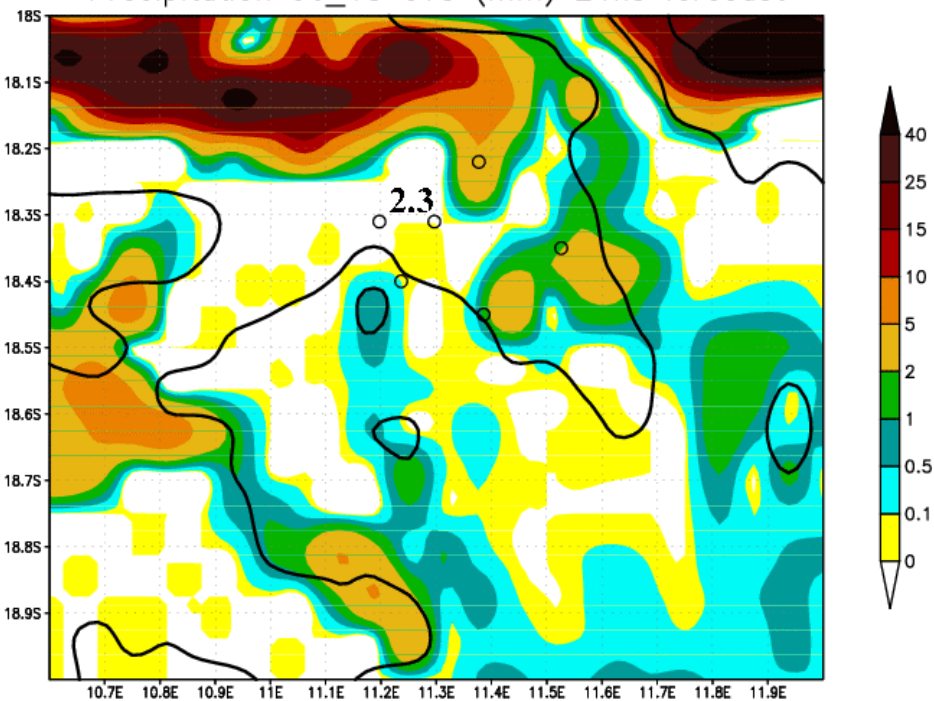
Precipitation 06_18 UTC (mm) 48hs forecast

Precipitation Difference

August
19th

Precipitation 06_18 UTC (mm) 24hs forecast

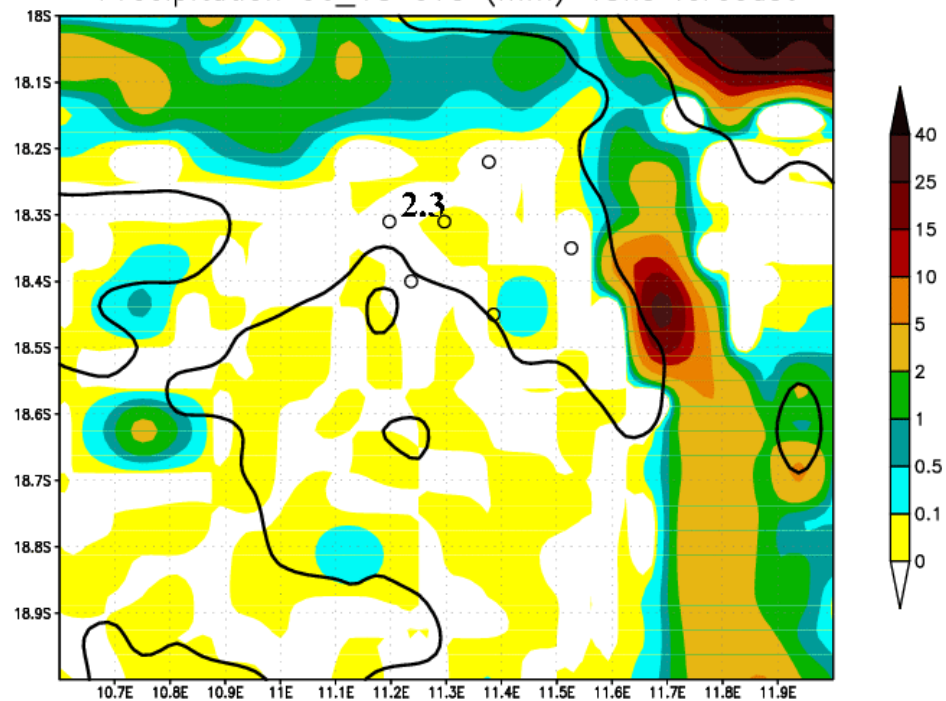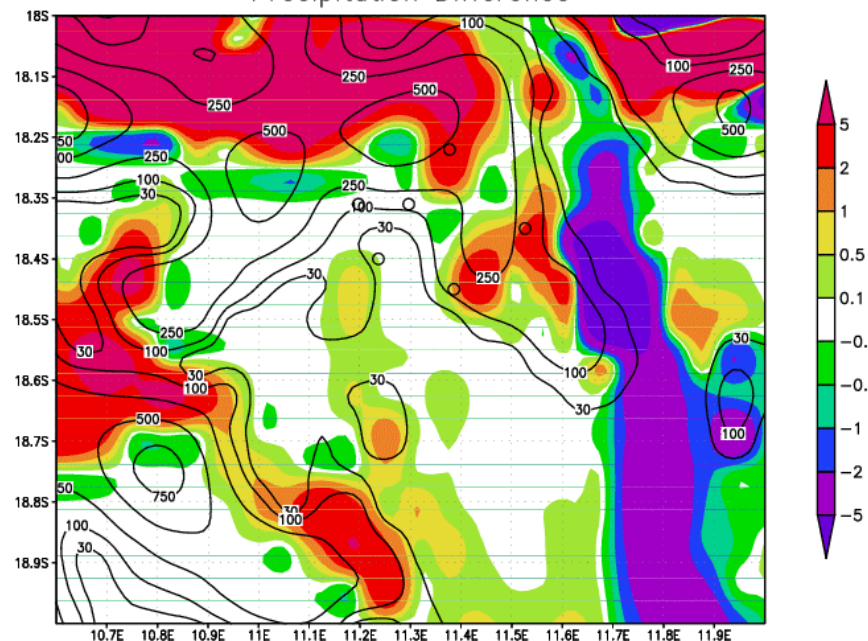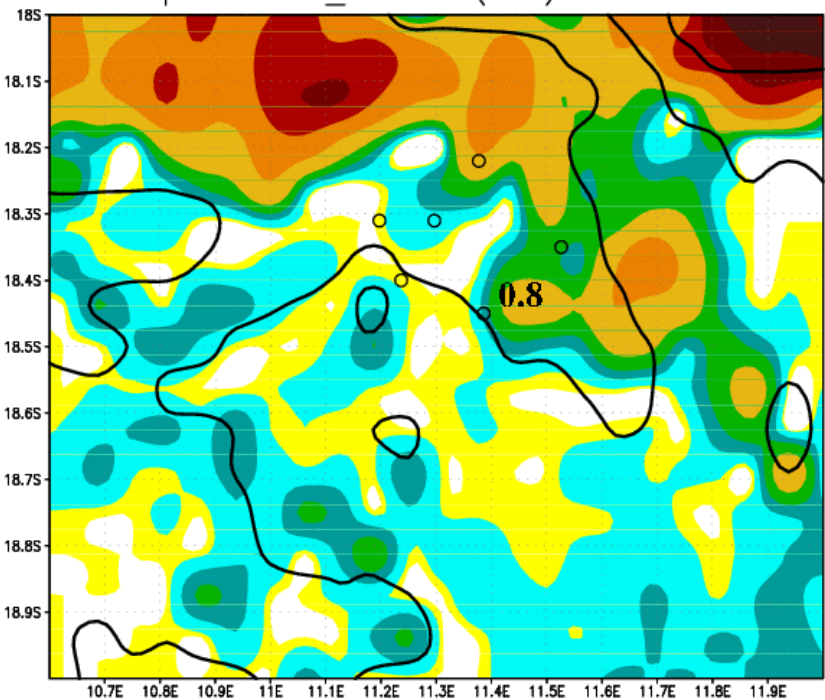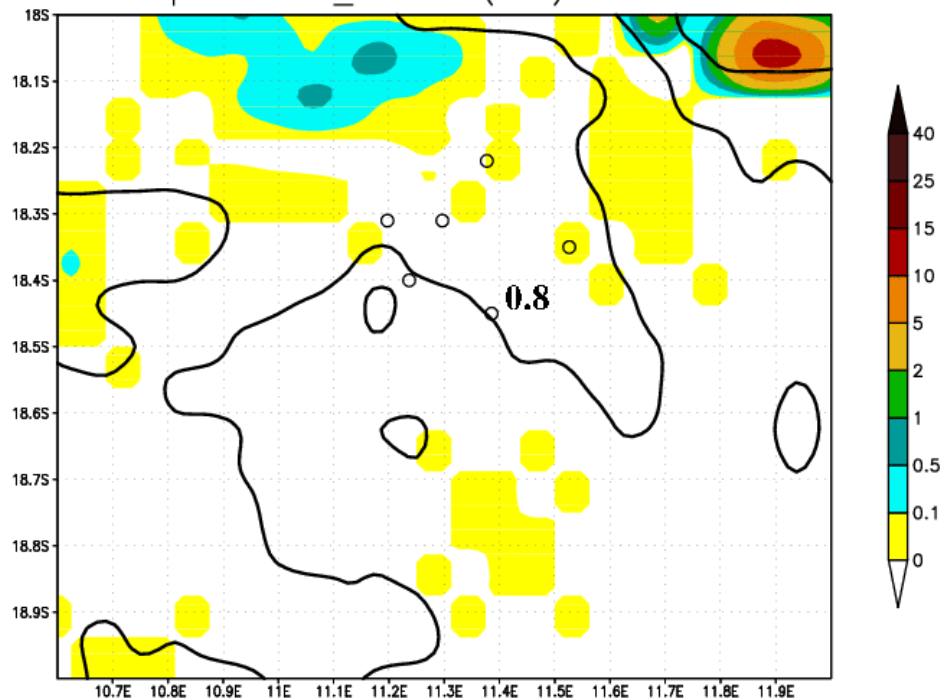Precipitation 06_18 UTC (mm) 48hs forecast

Precipitation Difference

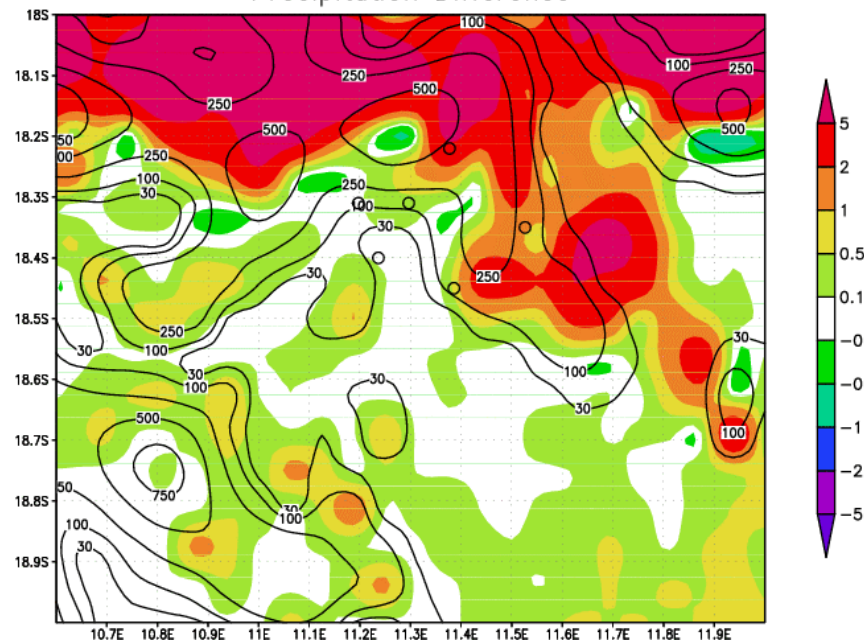August 20th

Precipitation 06_18 UTC (mm) 24hs forecast
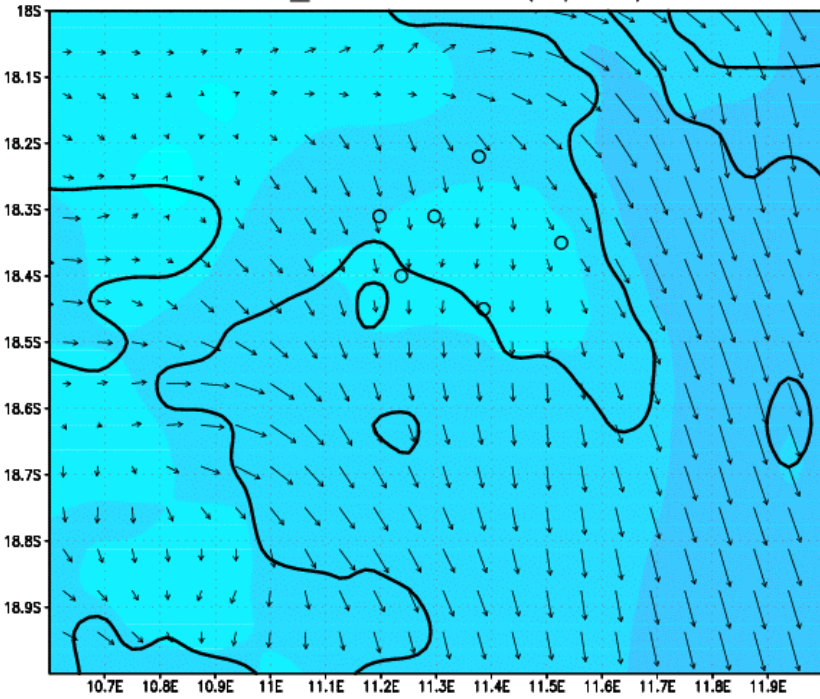
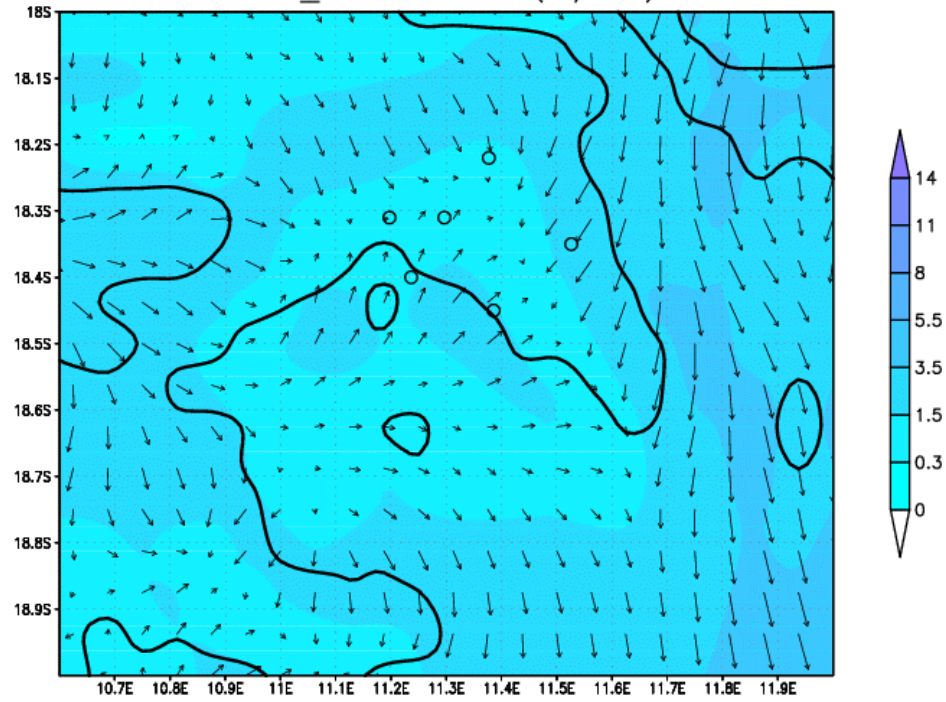Precipitation 06_18 UTC (mm) 48hs forecast
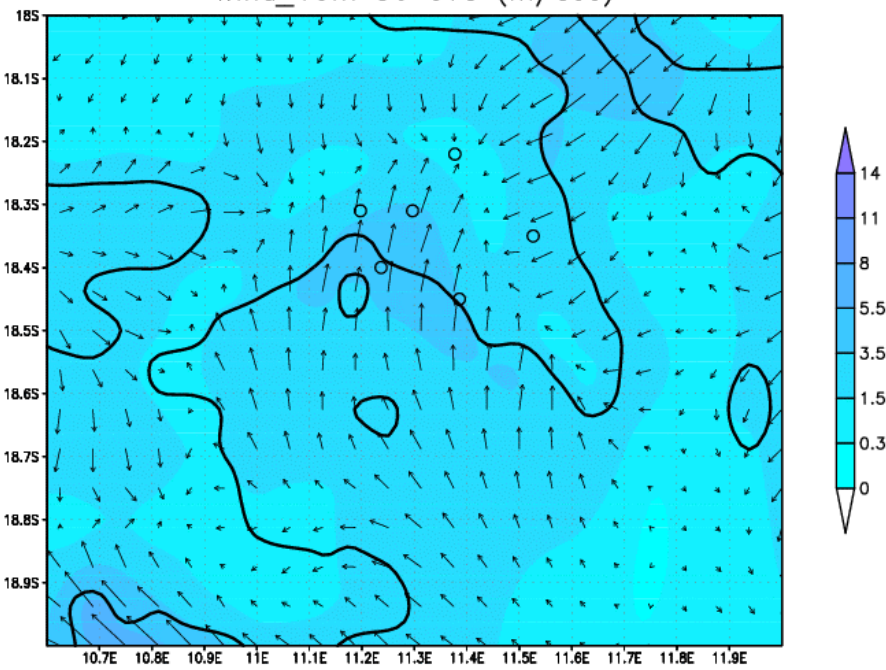
August
21st

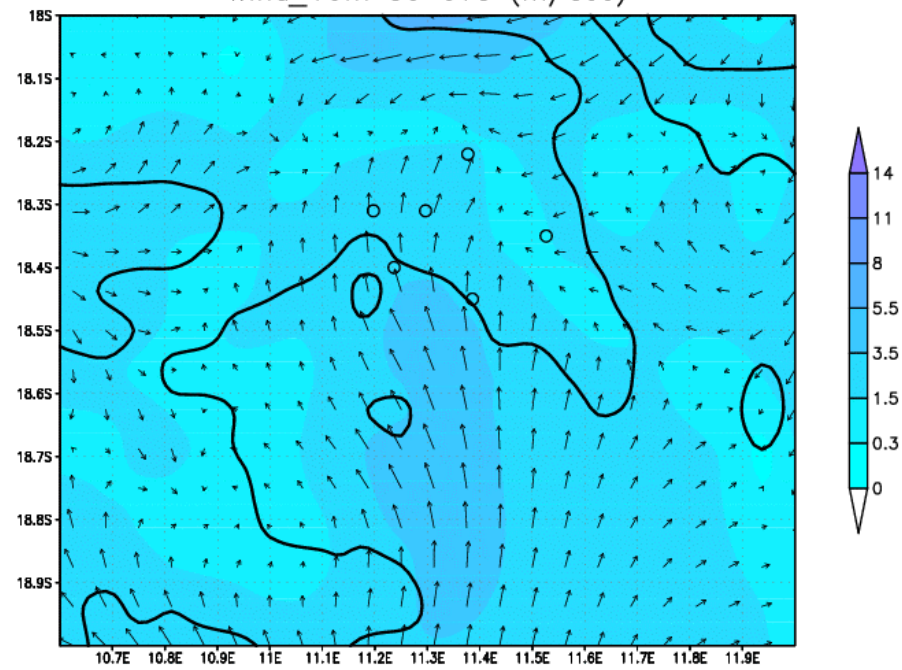Precipitation Difference

August 21st
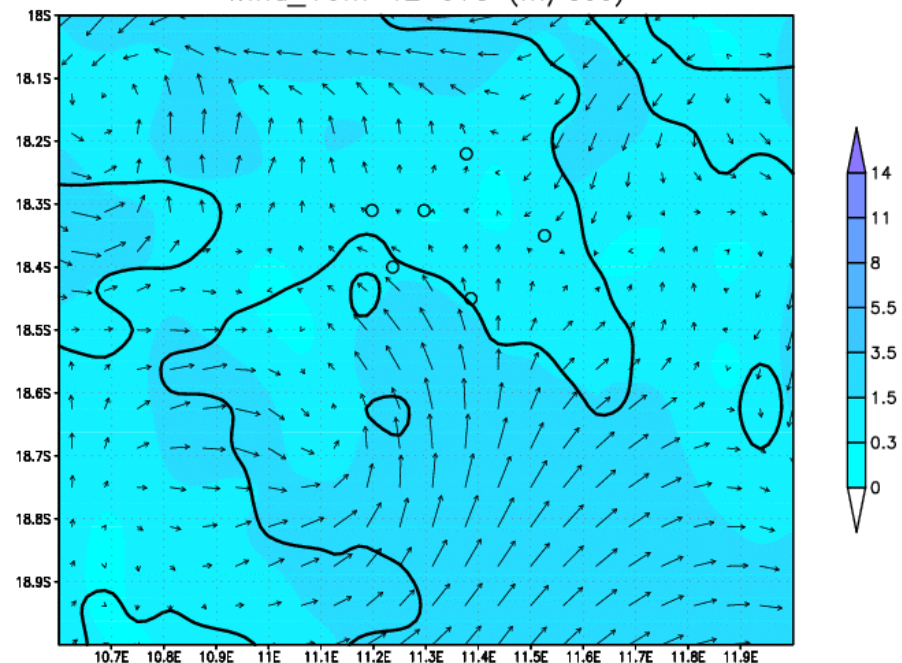

Wind_10m 30 UTC (m/sec)

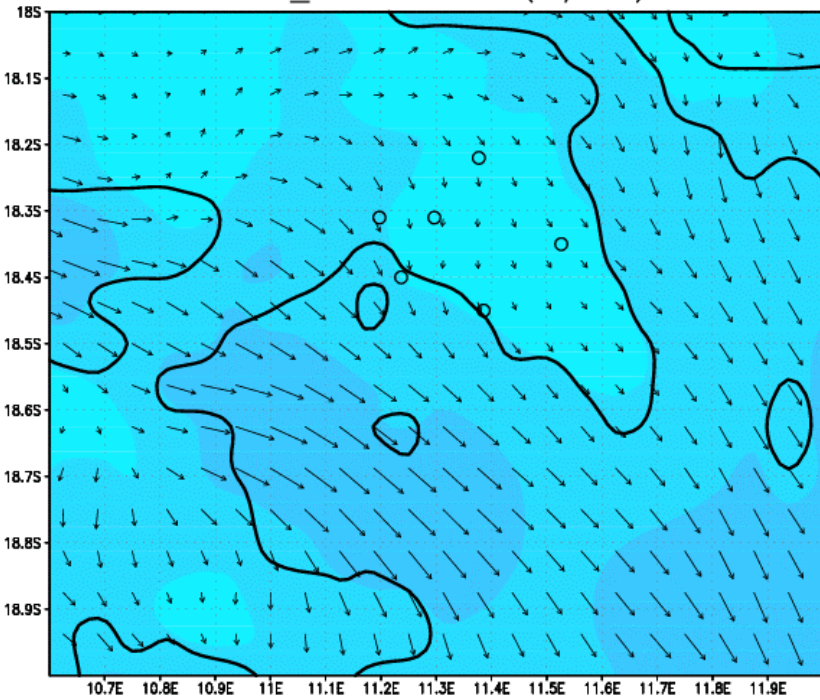Wind_10m 33 UTC (m/sec)

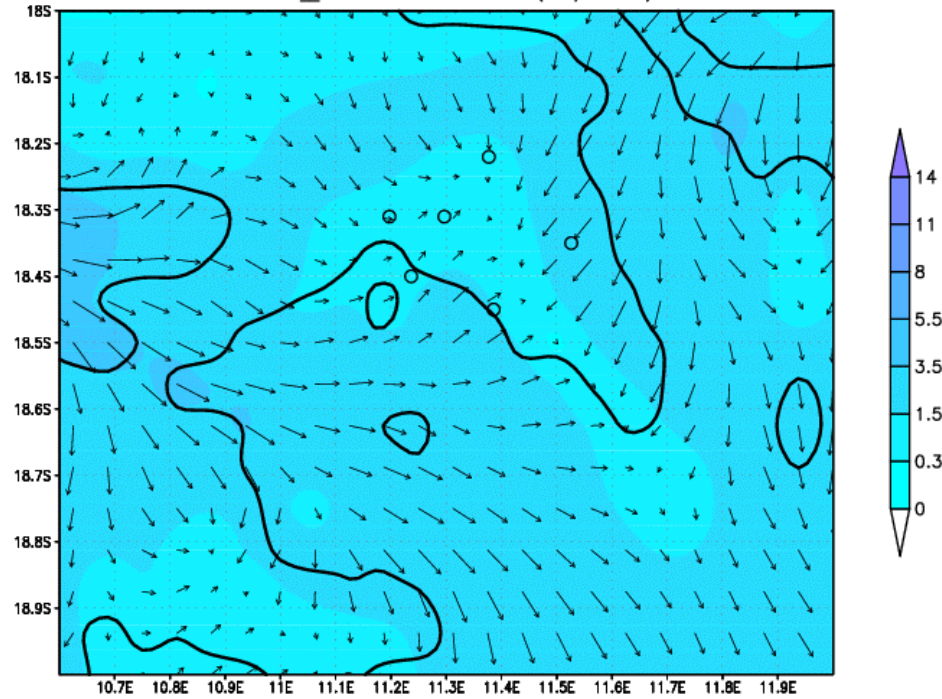Wind_10m 36 UTC (m/sec)

Wind_10m 39 UTC (m/sec)

Wind_10m 42 UTC (m/sec)

August 22st

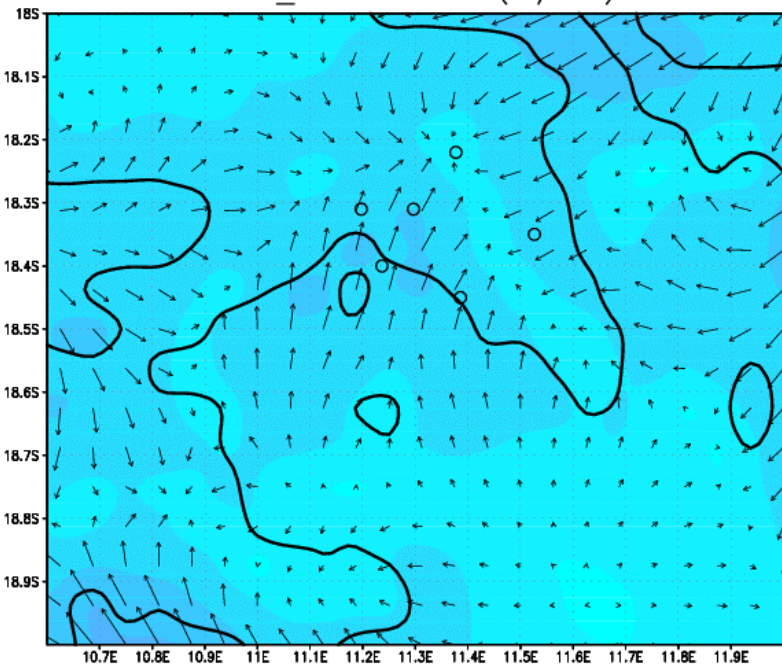

Wind_10m 06 UTC (m/sec)

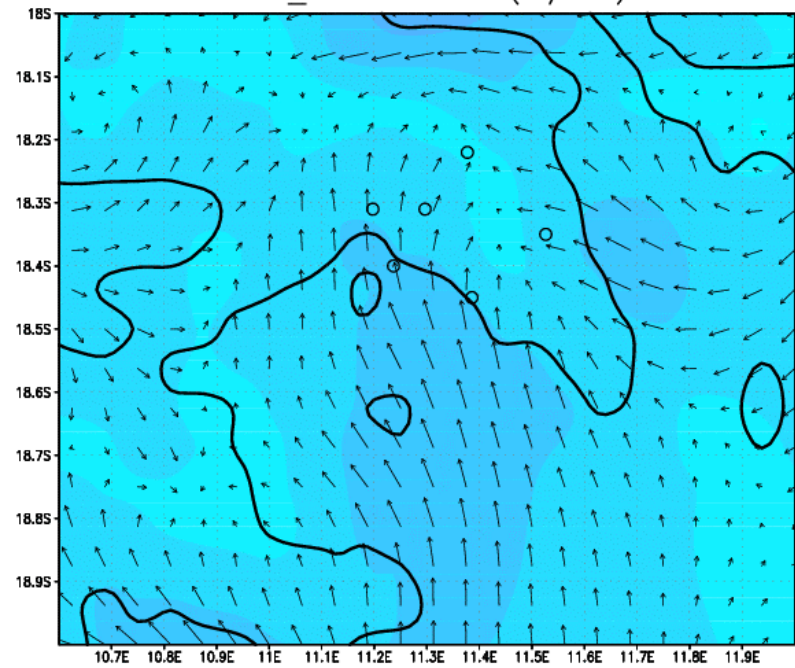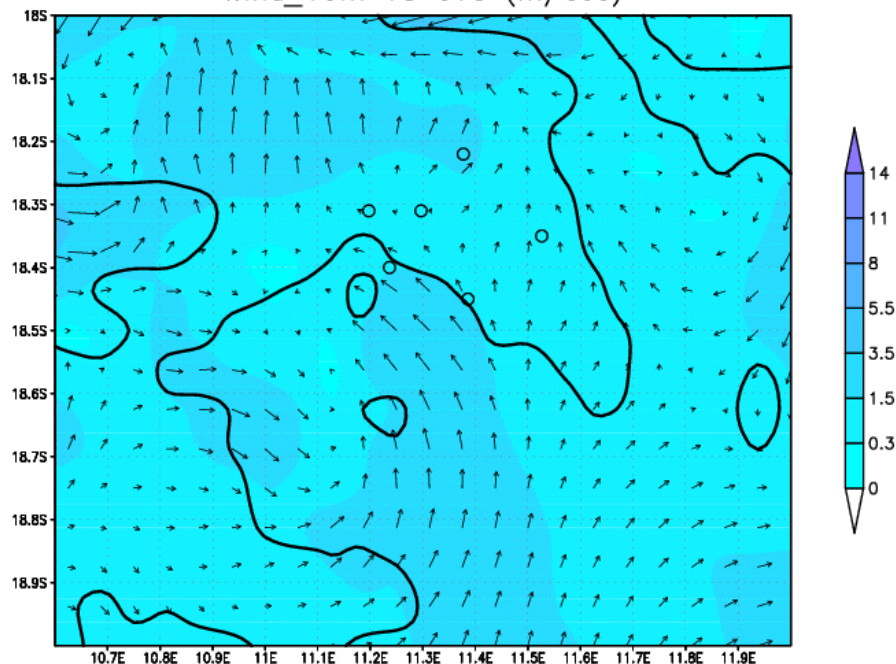Wind_10m 09 UTC (m/sec)

Wind_10m 12 UTC (m/sec)

Wind_10m 15 UTC (m/sec)

Wind_10m 18 UTC (m/sec)

Conclusions

- Precipitation was spread over a larger domain while its intensity was underestimated compared to available observations.

- Sea breeze was successfully simulated although the grid spacing (7Km) is considered "coarse".

- On the National Domain, running LM on a 7Km Grid is a Valuable Tool.

- For Operational Use during the Olympic Games, further improvements (i.e. lower grid resolution, nudging analysis …) should be necessary.