

201902 - Rainfall - Greece

Status: Finalised Material from: Linus

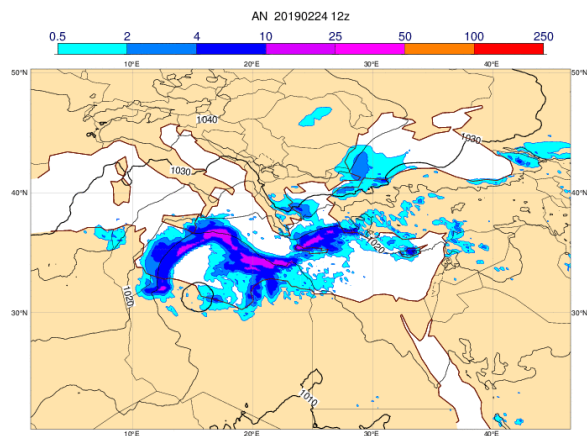
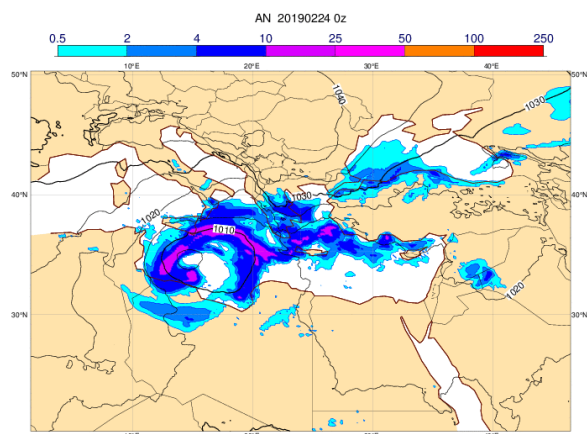
1. Impact

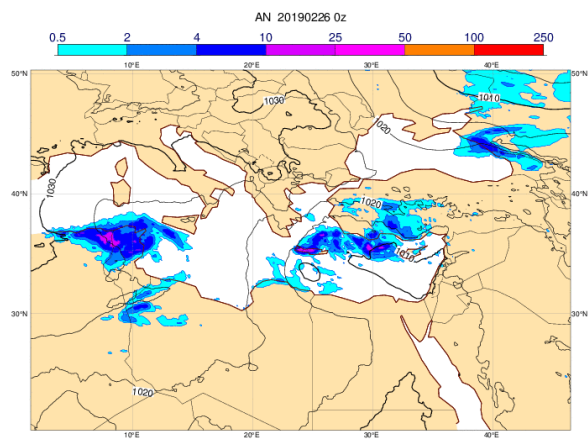
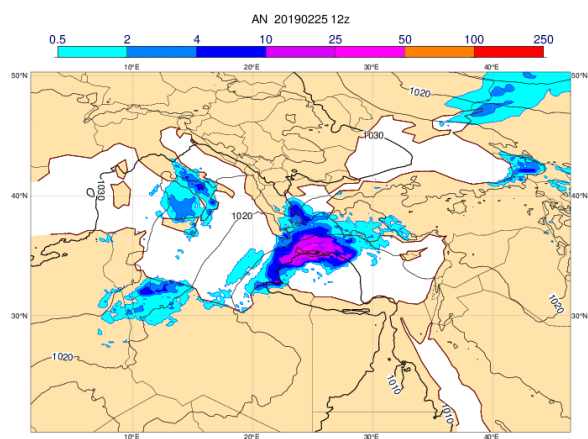
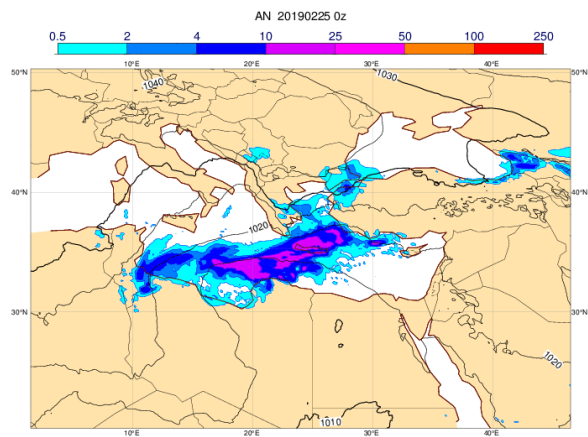
On 25 February torrential rainfall hit Crete, with many roads flushed away and leaving one dead.

<http://floodlist.com/europe/greece-crete-storm-oceanis-february-2019>

2. Description of the event

The plots below show analyses of MSLP and 6-hour precipitation forecasts every 12h hour between 23 and 26 February.

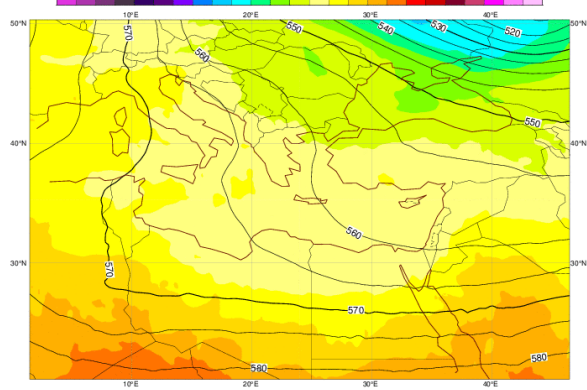




The plots below show analyses of z500 and t850 every 24 hour between 22 and 27 February.

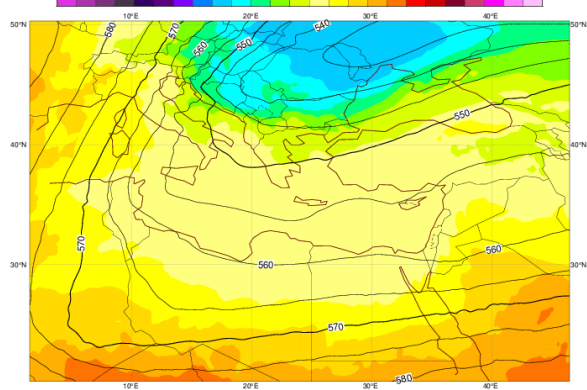
AN 20190222 0z

-52 -48 -44 -40 -36 -32 -28 -24 -20 -16 -12 -8 -4 0 4 8 12 16 20 24 28 32 36 40 44 48



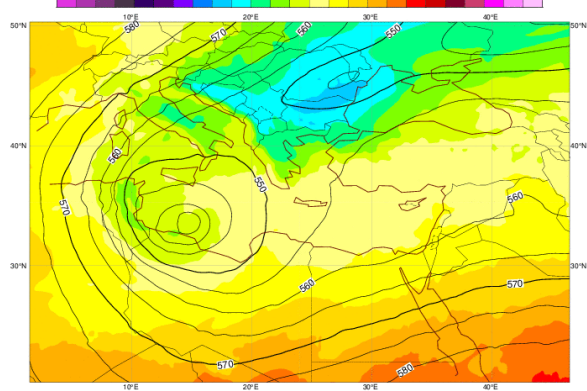
AN 20190223 0z

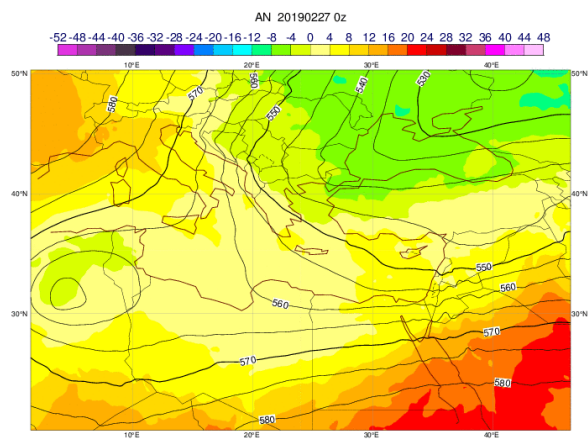
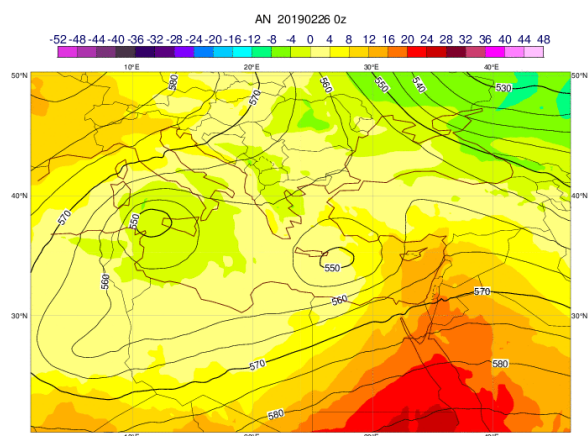
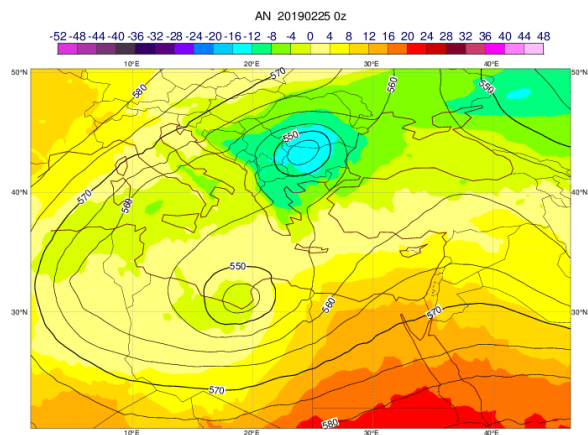
-52 -48 -44 -40 -36 -32 -28 -24 -20 -16 -12 -8 -4 0 4 8 12 16 20 24 28 32 36 40 44 48



AN 20190224 0z

-52 -48 -44 -40 -36 -32 -28 -24 -20 -16 -12 -8 -4 0 4 8 12 16 20 24 28 32 36 40 44 48



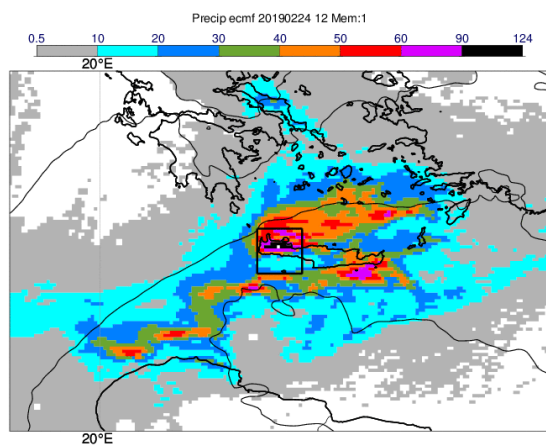
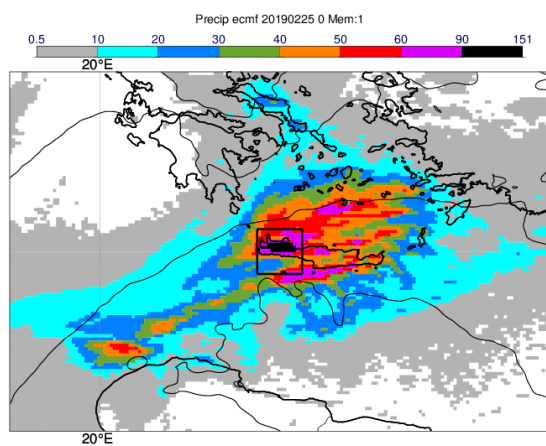
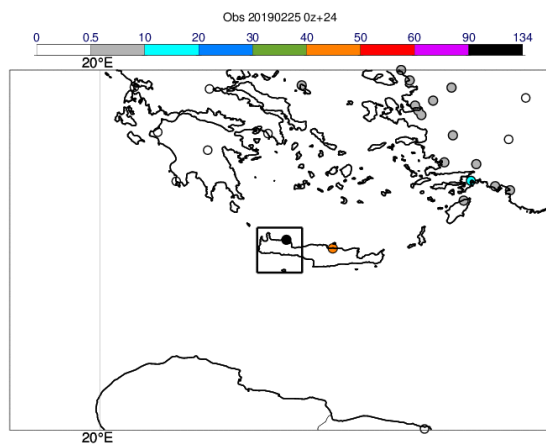


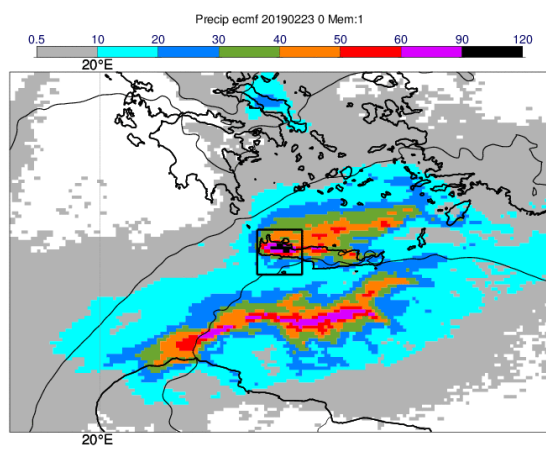
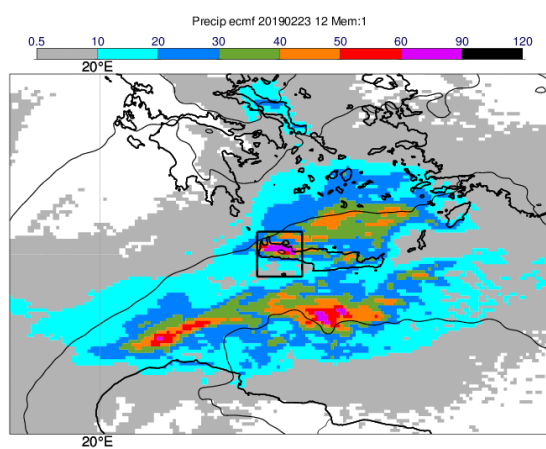
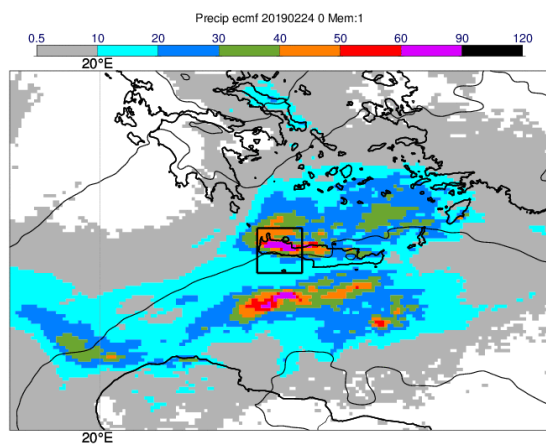
3. Predictability

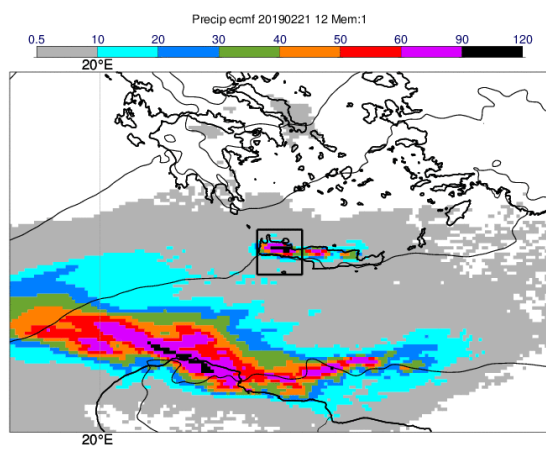
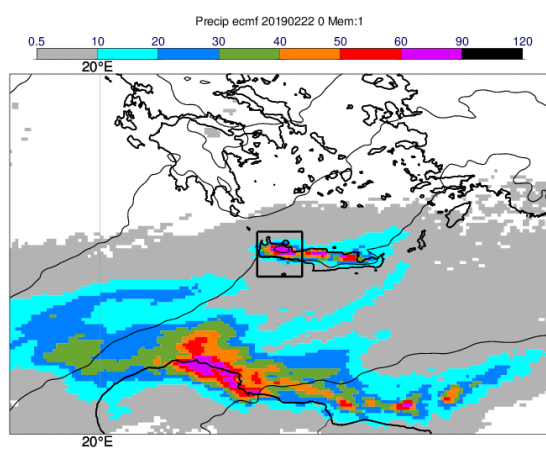
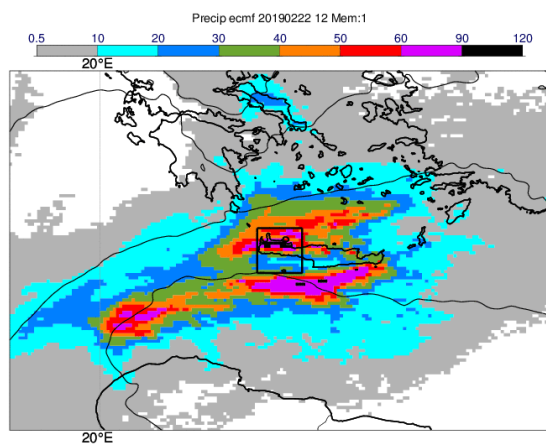
3.1 Data assimilation

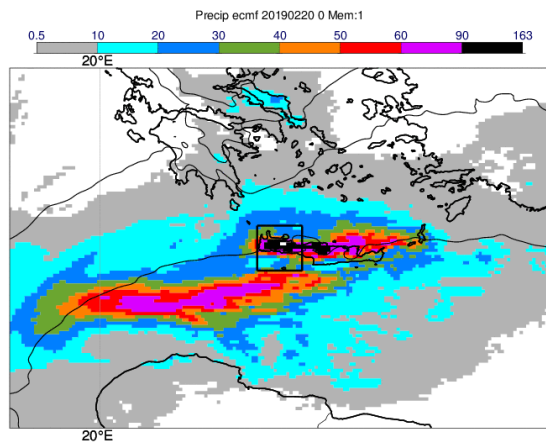
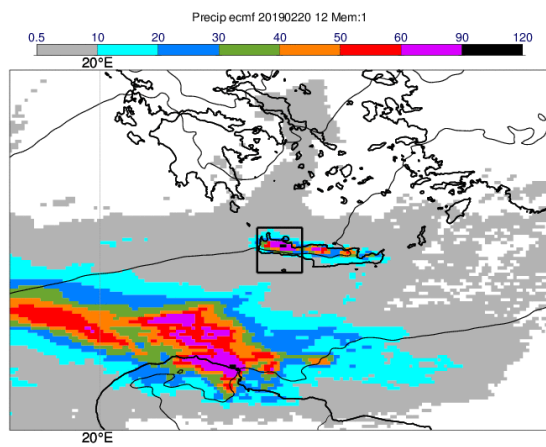
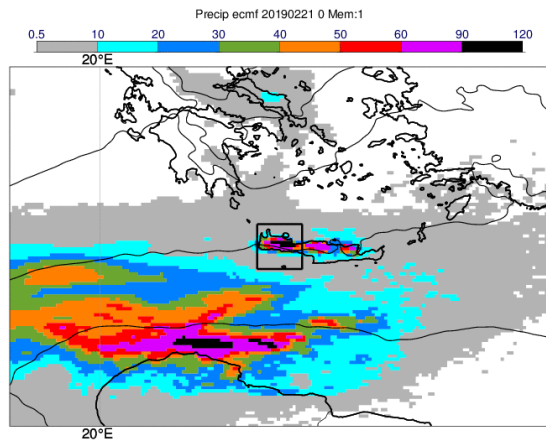
3.2 HRES

The plots below show observations and forecasts of 24-hour precipitation valid from 25 February 00UTC to 26 February 00UTC.





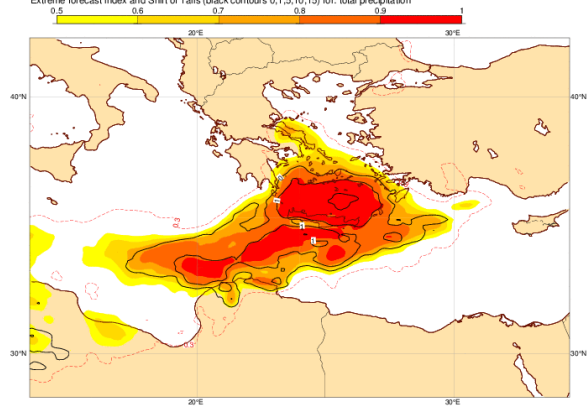




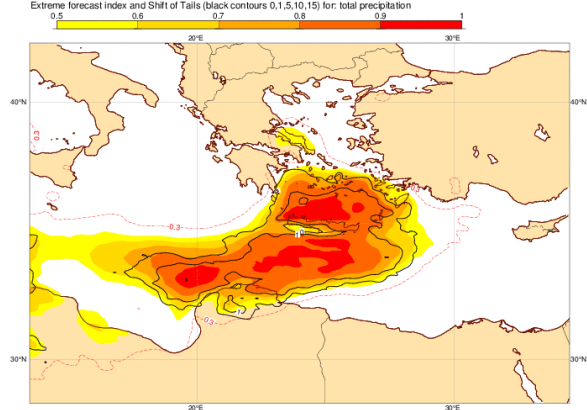
3.3 ENS

The plots below show EFI and SOT for total precipitation valid 25 February.

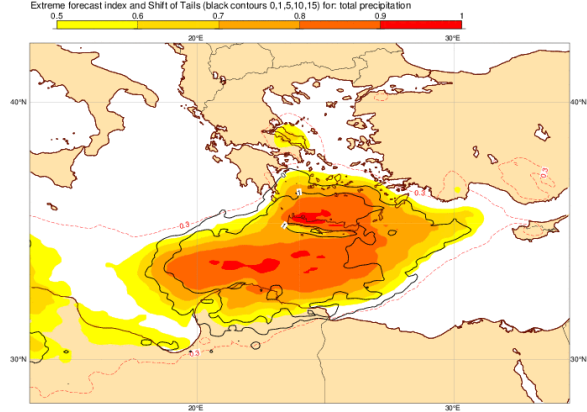
Mon 25 Feb 2019 00UTC @ECMWF VT: Mon 25 Feb 2019 00UTC - Tue 26 Feb 2019 00UTC 0-24h
Extreme forecast index and Shift of Tails (black contours 0,1,5,10,15) for: total precipitation



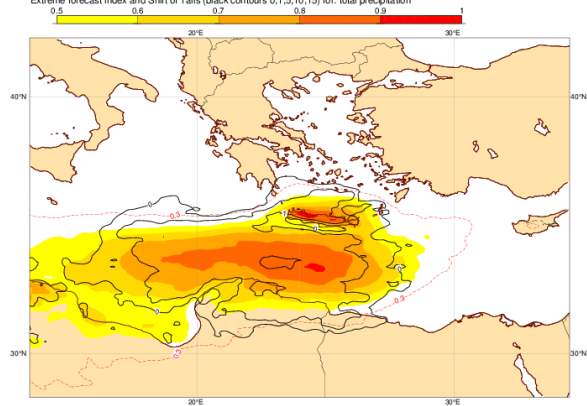
Sun 24 Feb 2019 00UTC @ECMWF VT: Mon 25 Feb 2019 00UTC - Tue 26 Feb 2019 00UTC 24-48h
Extreme forecast index and Shift of Tails (black contours 0,1,5,10,15) for: total precipitation



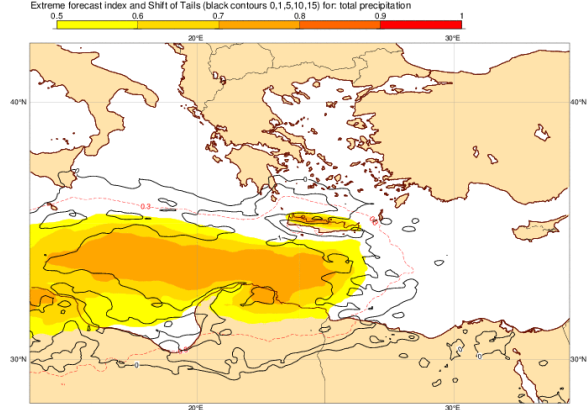
Sat 23 Feb 2019 00UTC @ECMWF VT: Mon 25 Feb 2019 00UTC - Tue 26 Feb 2019 00UTC 48-72h
Extreme forecast index and Shift of Tails (black contours 0,1,5,10,15) for: total precipitation



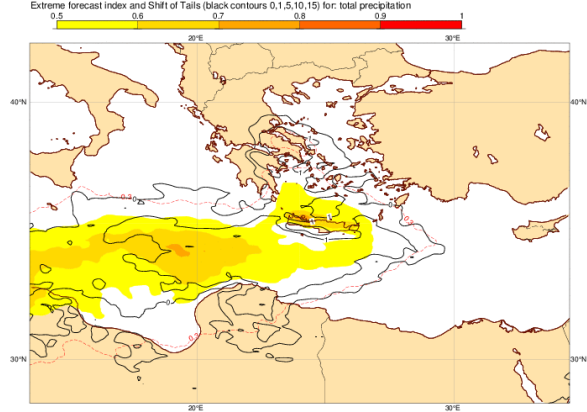
Fri 22 Feb 2019 00UTC @ECMWF VT: Mon 25 Feb 2019 00UTC - Tue 26 Feb 2019 00UTC 72-96h
Extreme forecast index and Shift of Tails (black contours 0,1,5,10,15) for: total precipitation

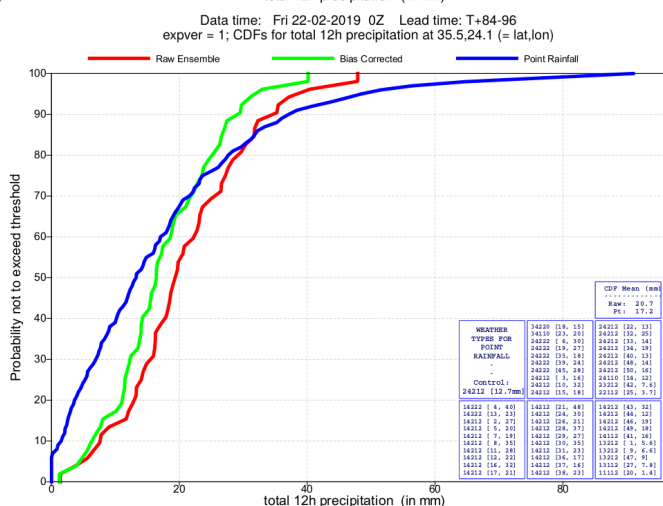
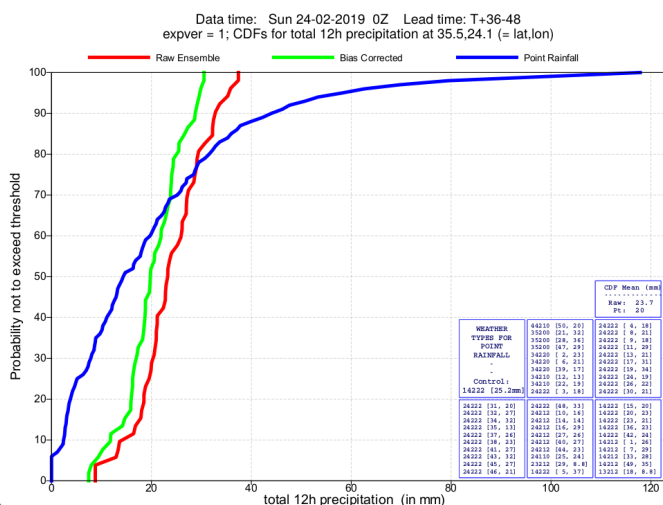


Thu 21 Feb 2019 00UTC @ECMWF VT: Mon 25 Feb 2019 00UTC - Tue 26 Feb 2019 00UTC 96-120h
Extreme forecast index and Shift of Tails (black contours 0,1,5,10,15) for: total precipitation

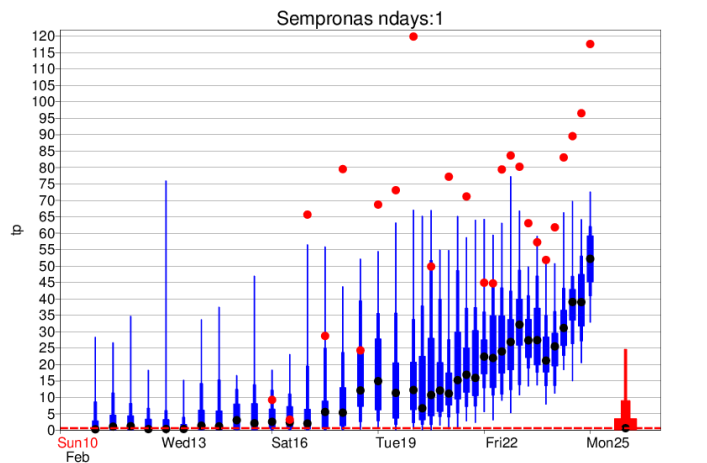


Wed 20 Feb 2019 00UTC @ECMWF VT: Mon 25 Feb 2019 00UTC - Tue 26 Feb 2019 00UTC 120-144h
Extreme forecast index and Shift of Tails (black contours 0,1,5,10,15) for: total precipitation





The plot below shows the evolution of forecast for the 24-hour precipitation valid 20 August for Sempronas (35.4N,23.8E). The plot includes ensemble (blue box-and-whisker), HRES (red dot) and model climate (red box-and-whisker).



3.4 Monthly forecasts

3.5 Comparison with other centres

4. Experience from general performance/other cases

5. Good and bad aspects of the forecasts for the event

6. Additional material