

# 201706 - Windstorm - N Atlantic

Status: Finalised Material from: Linus

## 1. Impact



Source: RWYC, Yellow Brick, Google. Note: tracking as of 15:45 BST, 10 June

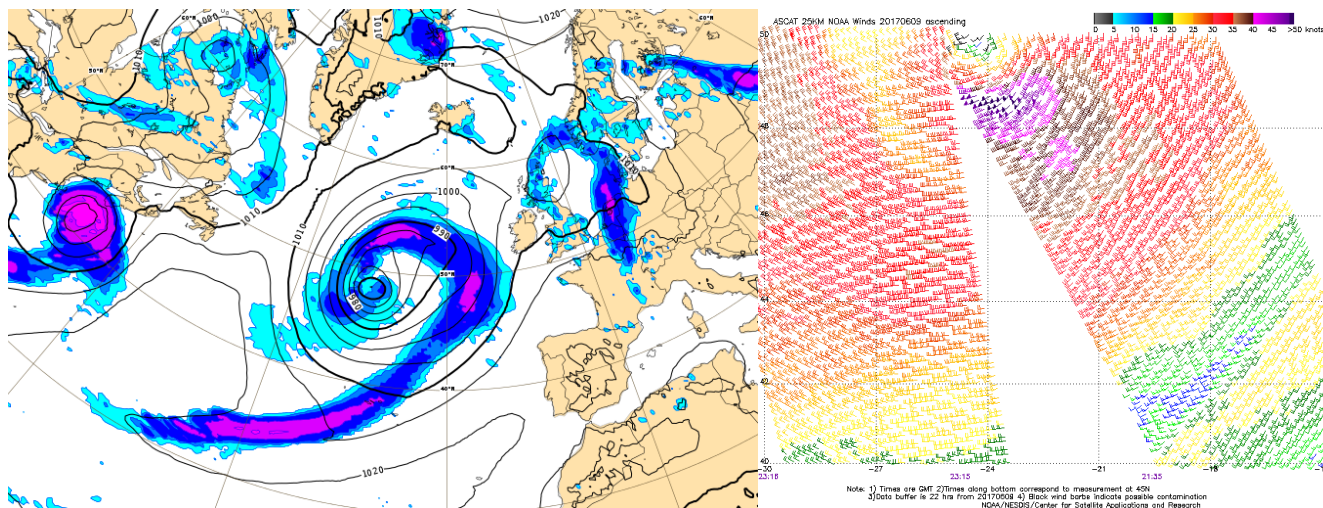
BBC

On the 9 June several sailing boats had to be rescued after being hit by a storm on the Atlantic. The boats participated in the race OSTAR 2017 (single-handed crossing of the Atlantic).

For more info, see <http://www.bbc.co.uk/news/uk-40234274>

## 2. Description of the event

The plots below show the MSLP and precipitation in a short forecast valid 12UTC on 9 June and ASCAT winds valid 22UTC on 9 June.



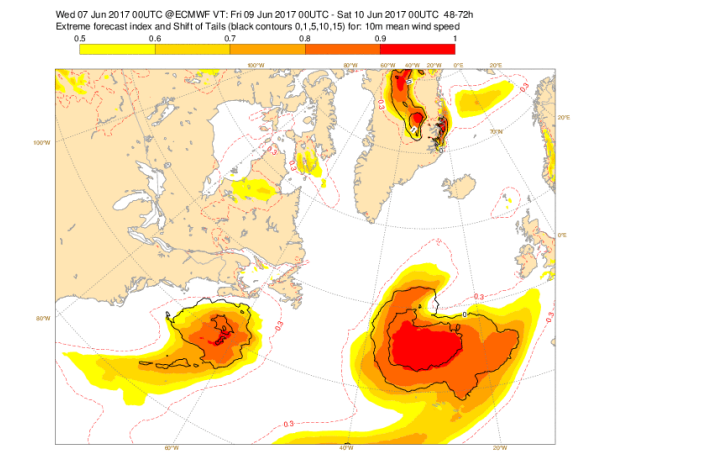
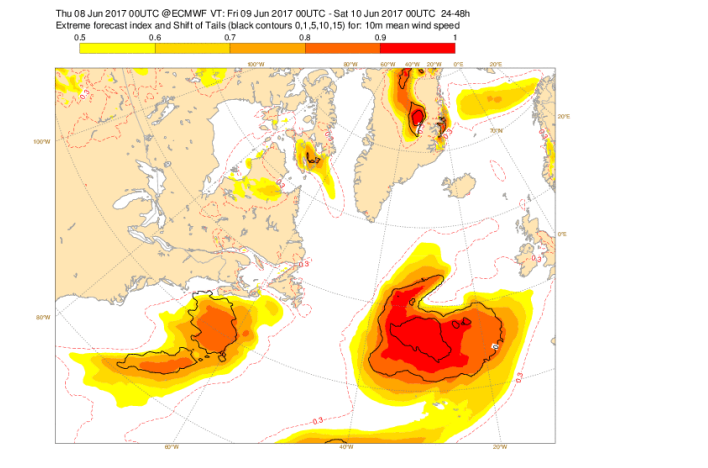
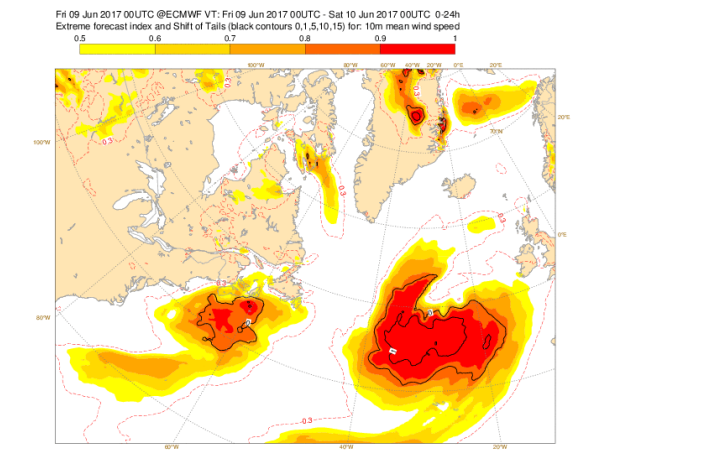
## 3. Predictability

### 3.1 Data assimilation

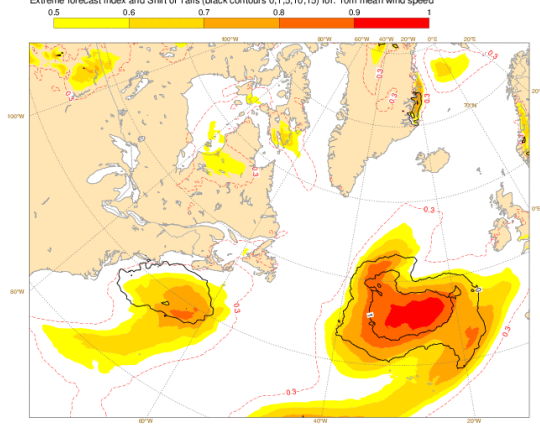
3.2 HRES

3.3 ENS

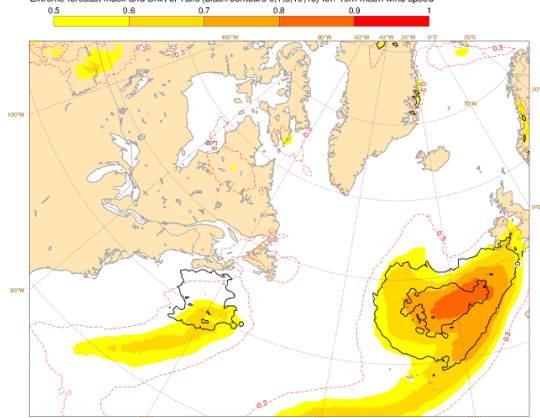
The plots below show the EFI and SOT for mean wind speed valid 9 June.



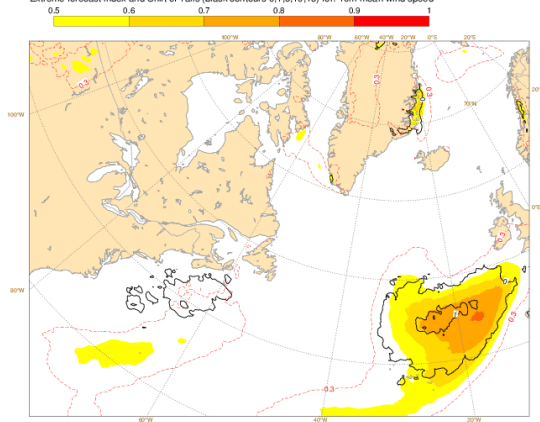
Tue 06 Jun 2017 00UTC @ECMWF VT: Fri 09 Jun 2017 00UTC - Sat 10 Jun 2017 00UTC 72-96h  
Extreme forecast index and Shift of Tails (black contours 0,1,5,10,15) for: 10m mean wind speed



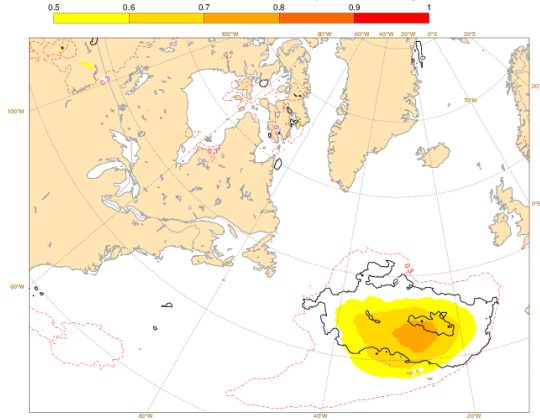
Mon 05 Jun 2017 00UTC @ECMWF VT: Fri 09 Jun 2017 00UTC - Sat 10 Jun 2017 00UTC 96-120h  
Extreme forecast index and Shift of Tails (black contours 0,1,5,10,15) for: 10m mean wind speed



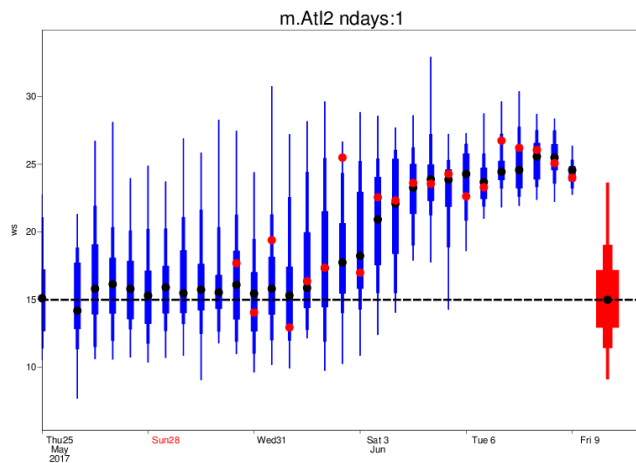
Sun 04 Jun 2017 00UTC @ECMWF VT: Fri 09 Jun 2017 00UTC - Sat 10 Jun 2017 00UTC 120-144h  
Extreme forecast index and Shift of Tails (black contours 0,1,5,10,15) for: 10m mean wind speed



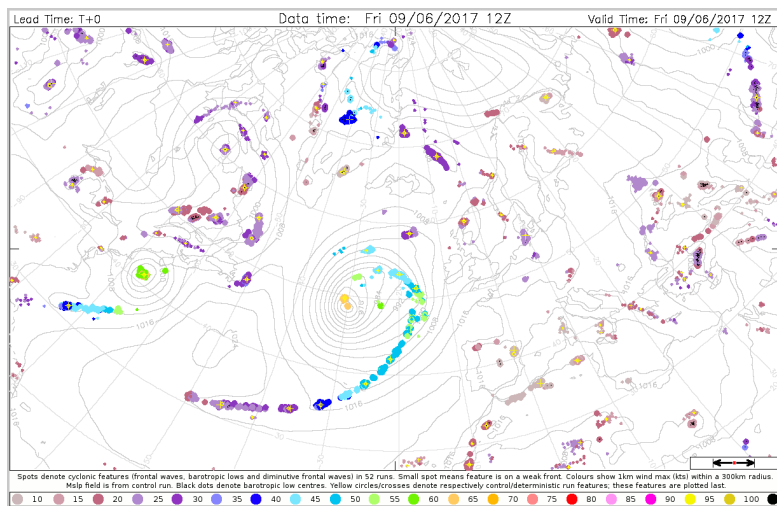
Sat 03 Jun 2017 00UTC @ECMWF VT: Fri 09 Jun 2017 00UTC - Sat 10 Jun 2017 00UTC 144-168h  
 Extreme forecast index and Shift of Tails (black contours 0.1, 5, 10, 15) for: 10m mean wind speed

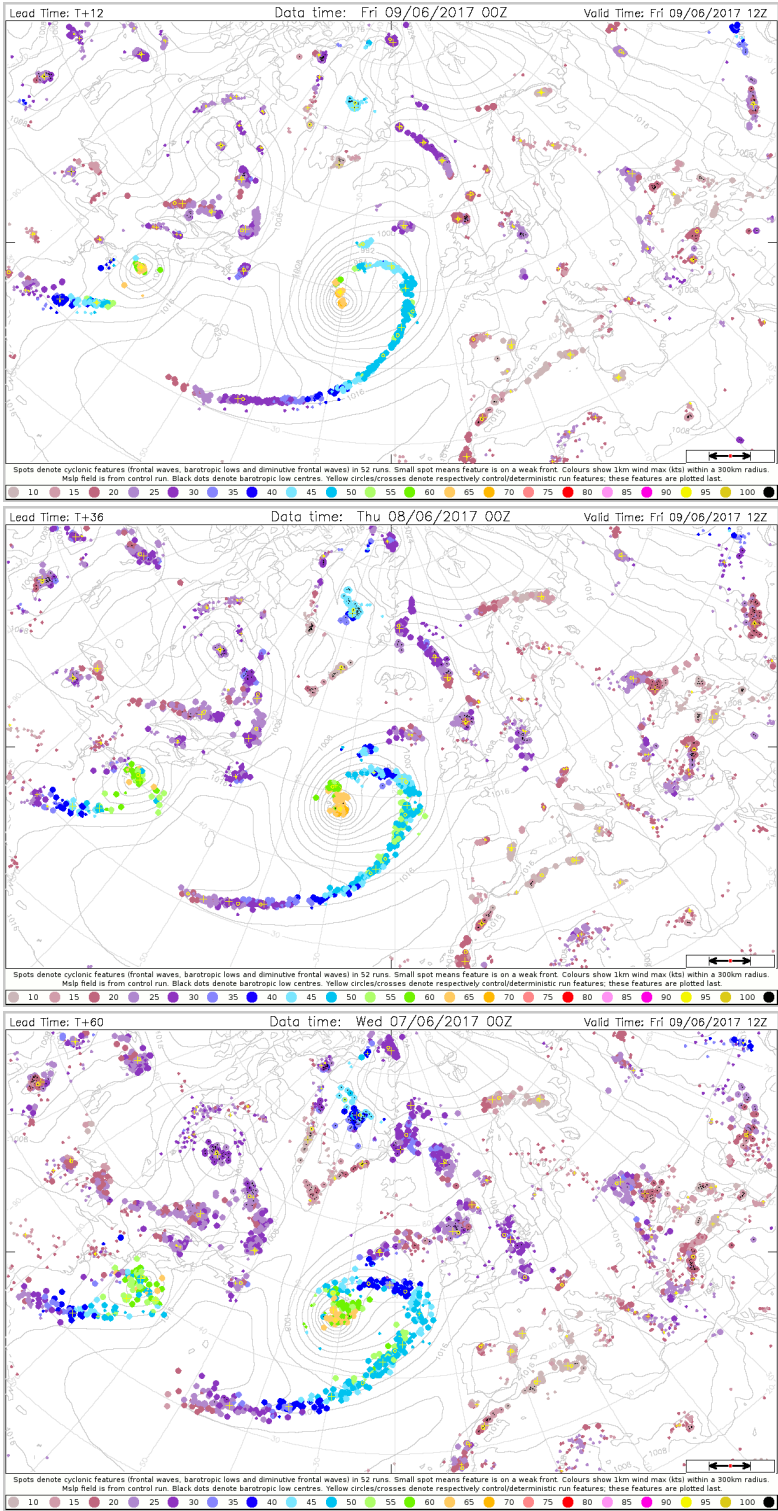


The plot below shows the ensemble evolution for the 24-hour maximum mean wind speed on 9 June in the box 45-55N, 20W-30W. The ensemble distribution is shown in blue, HREs as red dots, and the model climate valid for June in red box-and-whisker. From 4 June and onwards the ensemble median was above the 99th percentile of the model climate.

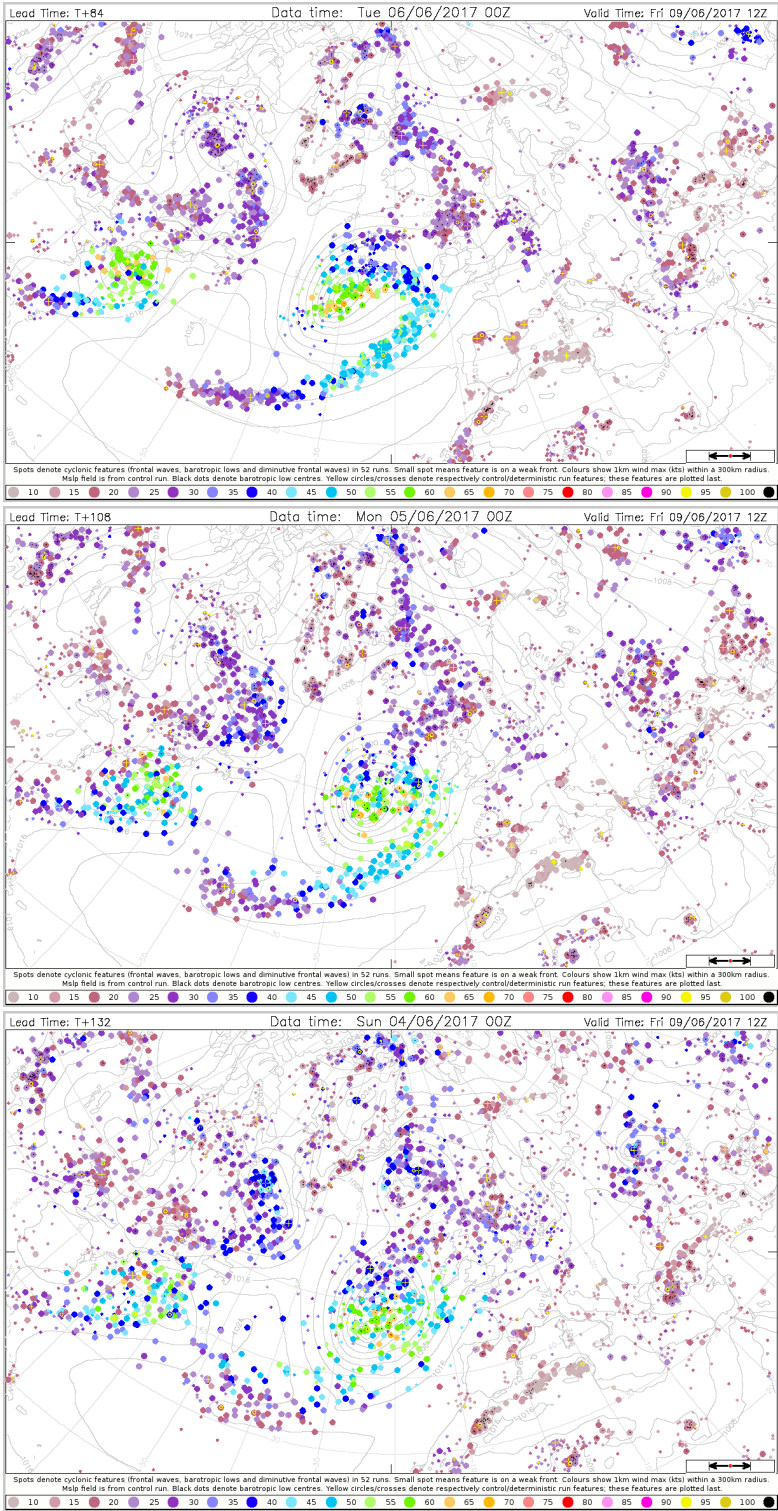


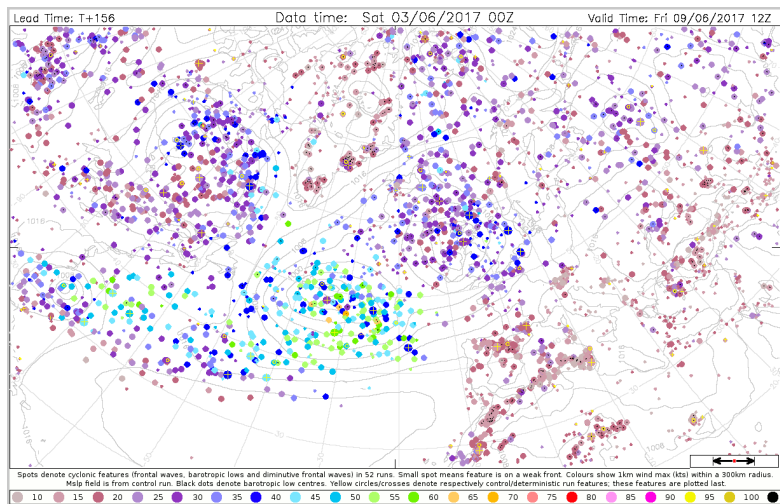
The plots below show the cyclone features in forecasts valid 12UTC on 9 June.









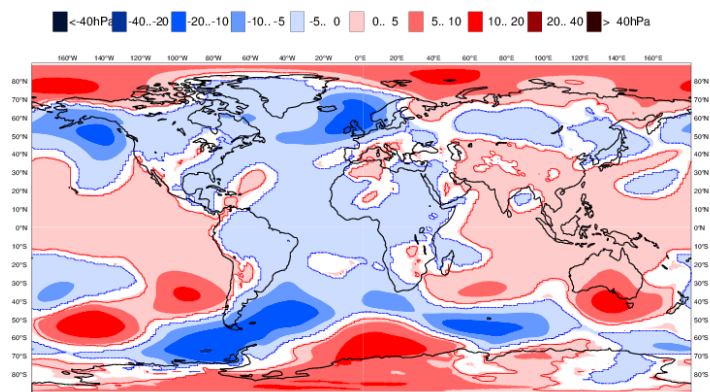


### 3.4 Monthly forecasts

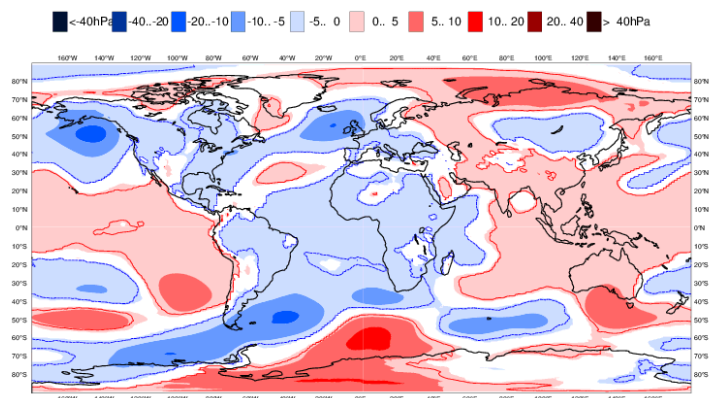
The plots below show MSLP anomalies for the week of 5-11 June. The negative anomaly over the north-eastern Atlantic was captured 2 weeks in advance.

ECMWF EPS-Monthly Forecasting System  
mean SLP anomaly  
Forecast start reference is 05-06-2017  
ensemble size = 51 , climate size = 660

Day 1-7  
05-06-2017/TO/11-06-2017  
Shaded areas significant at 10% level  
Contours at 1% level

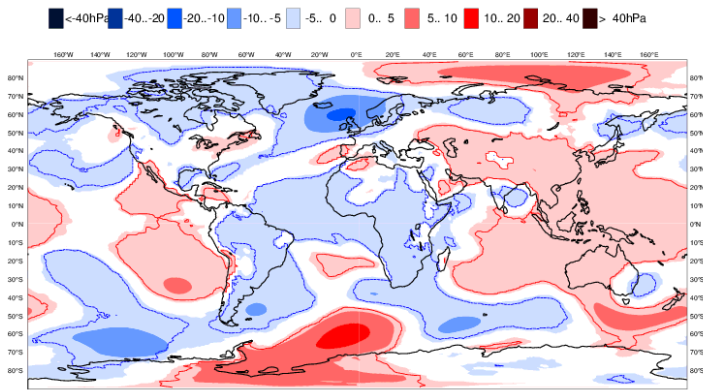


Day 5-11  
05-06-2017/TO/11-06-2017  
Shaded areas significant at 10% level  
Contours at 1% level



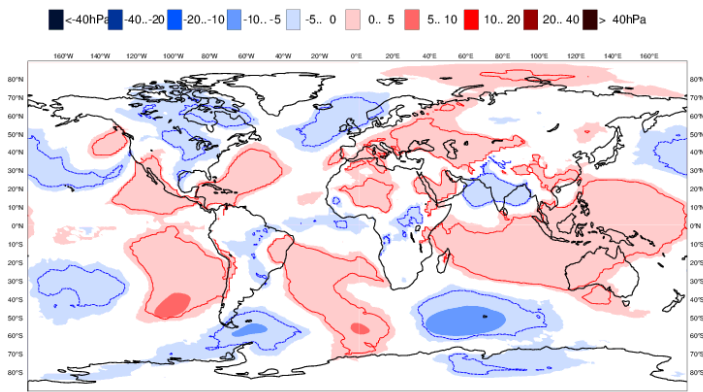
ECMWF EPS-Monthly Forecasting System  
 mean SLP anomaly  
 Forecast start reference is 25-05-2017  
 ensemble size = 51 , climate size = 660

Day 8-14  
 05-06-2017/TO/11-06-2017  
 Shaded areas significant at 10% level  
 Contours at 1% level



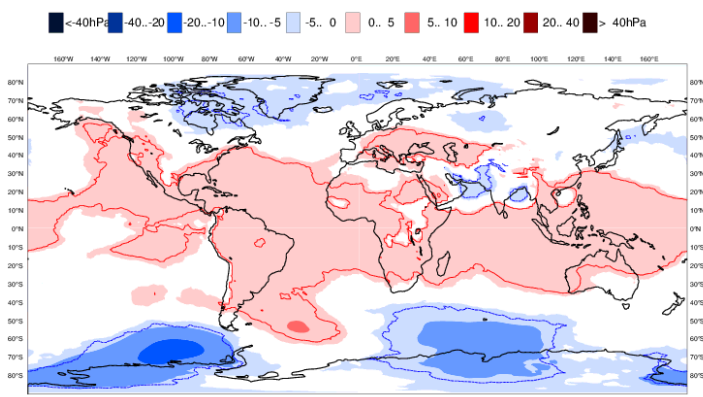
ECMWF EPS-Monthly Forecasting System  
 mean SLP anomaly  
 Forecast start reference is 25-05-2017  
 ensemble size = 51 , climate size = 660

Day 12-18  
 05-06-2017/TO/11-06-2017  
 Shaded areas significant at 10% level  
 Contours at 1% level



ECMWF EPS-Monthly Forecasting System  
 mean SLP anomaly  
 Forecast start reference is 25-05-2017  
 ensemble size = 51 , climate size = 660

Day 15-21  
 05-06-2017/TO/11-06-2017  
 Shaded areas significant at 10% level  
 Contours at 1% level



### 3.5 Comparison with other centres

## 4. Experience from general performance/other cases

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



- High probability for a storm was captured 5 days in advance
- Cyclonic dominated weather was detected 2 weeks in advance

## **6. Additional material**