

201810 - Tropical cyclone - Michael

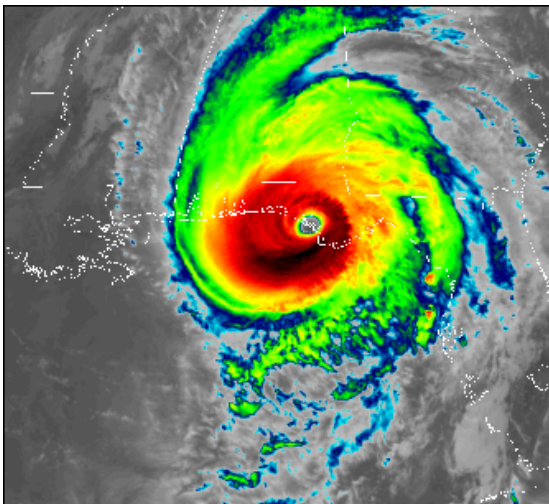
Status: Finalised Material from: Linus

1. Impact

On 10 October hurricane Michael made landfall close to Panama City in north-western Florida.

2. Description of the event

The plot below shows a satellite image at the point in time when the cyclone hit land.

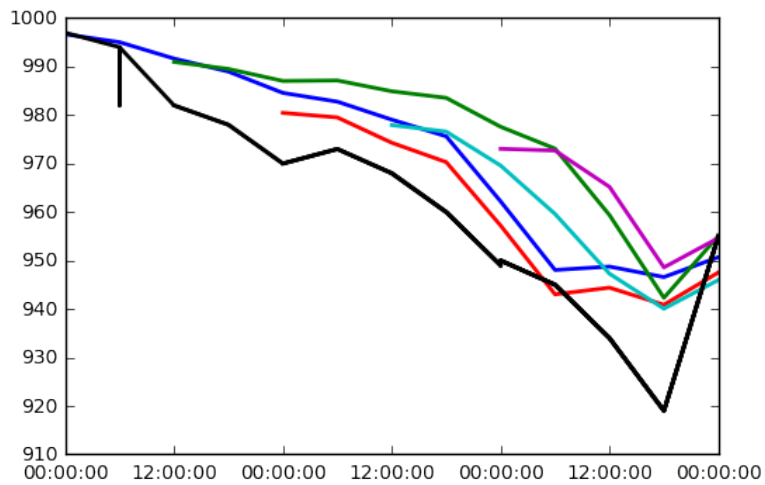


3. Predictability

3.1 Data assimilation

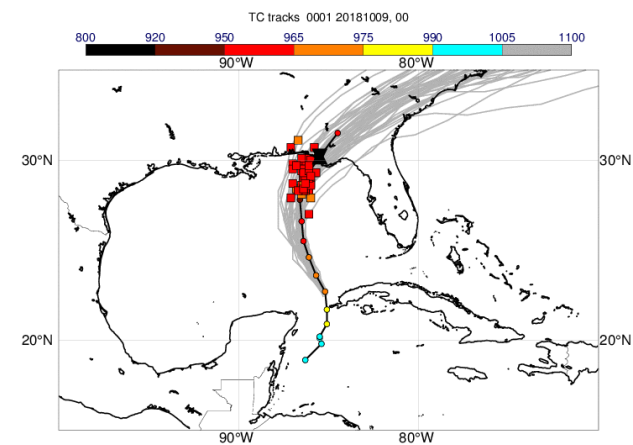
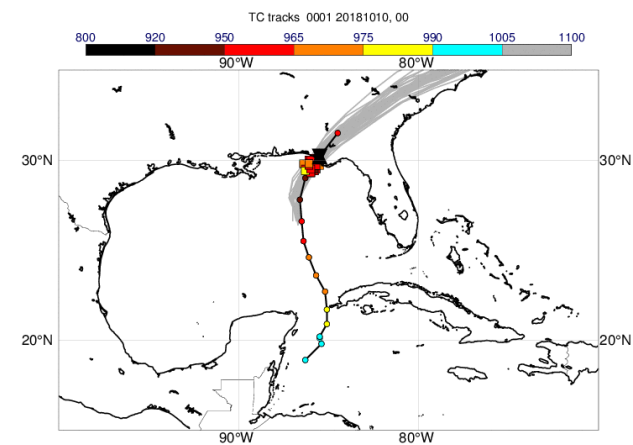
3.2 HRES

The plot below shows the central pressure for Michael from 8 October 00UTC to 11 October 00UTC from BestTrack (black) and HRES forecasts (coloured lines). Note that the last HRES forecast (10 October 00UTC), had a worse intensity forecast than earlier forecasts.

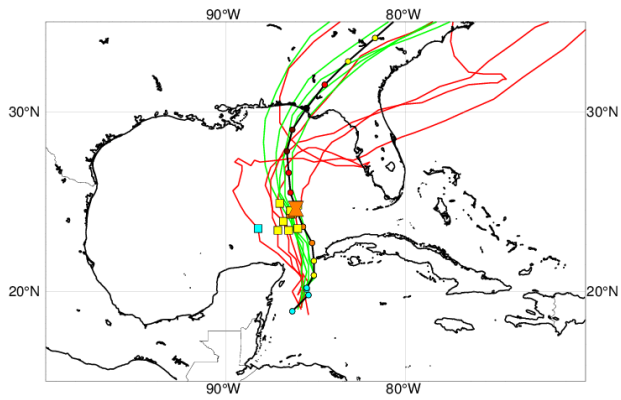


3.3 ENS

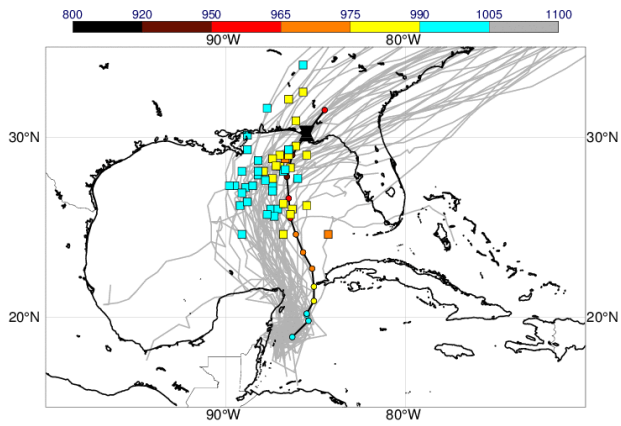
The plots below show the tracks (ensemble - grey, best track - black), position and intensity on 10 October 18UTC (ensemble - squares, best track - hourglass) in forecasts from 10 October 00UTC (first plot) to 4 October 00UTC (last plot).



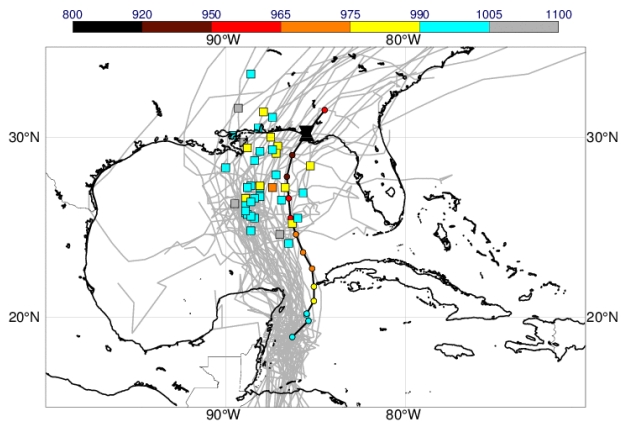
TC tracks 0001 20181008, 00

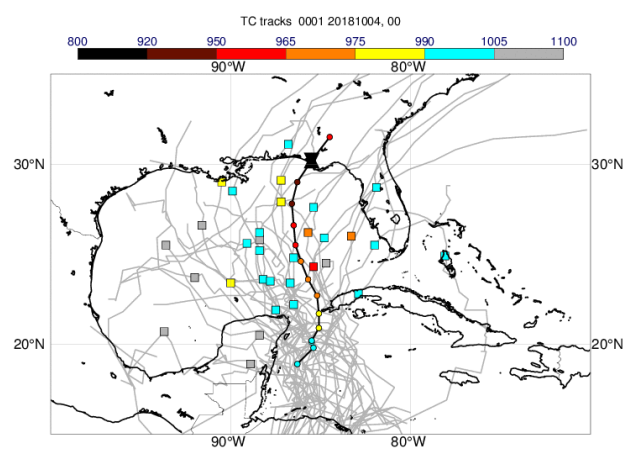
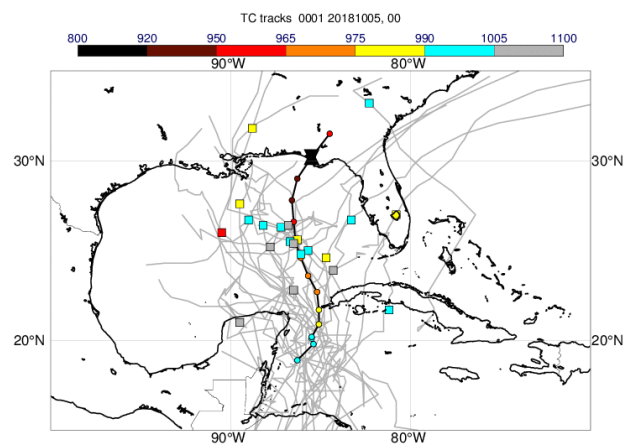


TC tracks 0001 20181007, 00

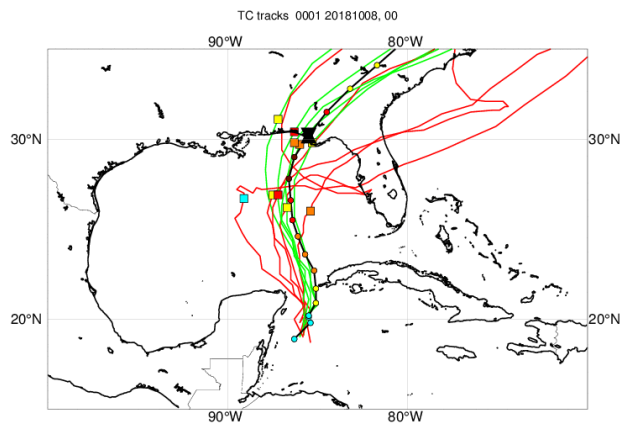
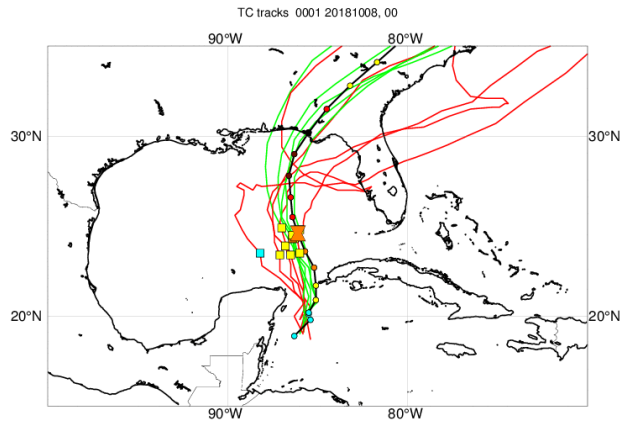


TC tracks 0001 20181006, 00

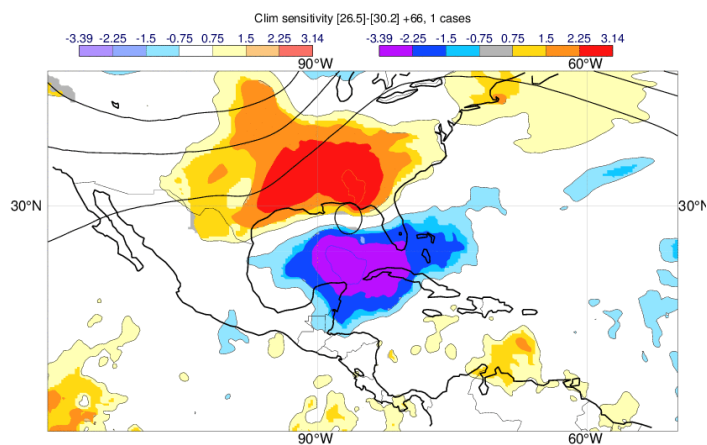
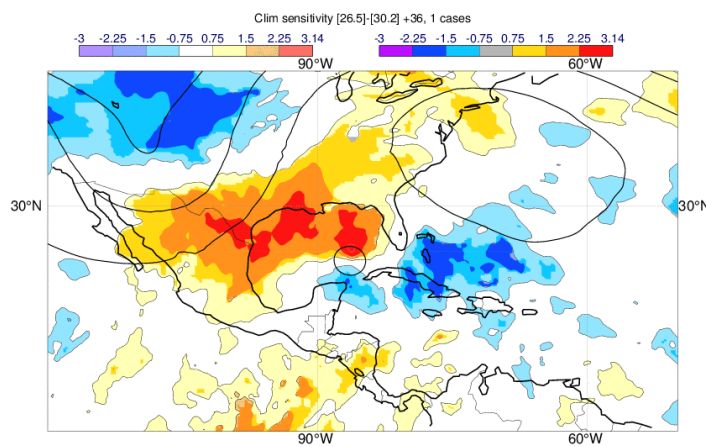
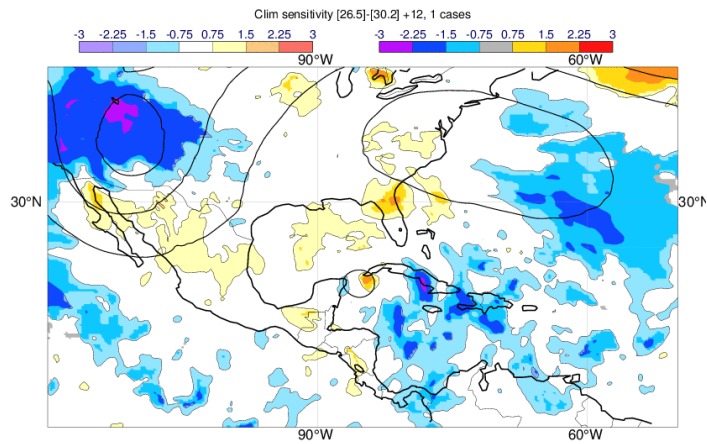




Looking further into the forecast from 8 October 00UTC, the plots below show the tracks and positions at three different steps (36h and 66h) for the 5 fastest and 5 slowest forecasts. Already after 36h the slow members were behind the fast group.



The plots below show the ensemble sensitivity (slow minus fast members) for z500 at 12h, 36h and 66h.



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