

T-NAWDEx Falcon 2012 Weather summary

Date (UTC): 20121009 12:30

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Synoptic Overview

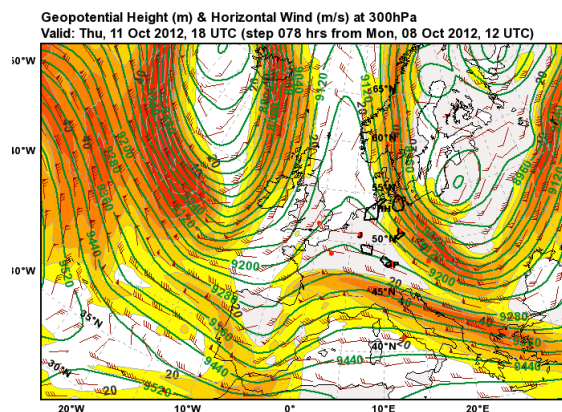
Two lows, one over Scandinavia and one over the Atlantic dominate the flow structure and lead to northwesterly flow in Central Europe and westerly flow in southern Europe. The low over Scandinavia brought rain and heavy wind gusts in northern Europe whereas the northwesterly flow against the Alps led to prolonged rain north of the Alps.

Tomorrow an upper-level ridge is located over the British Isles and the northwesterly flow prevails.

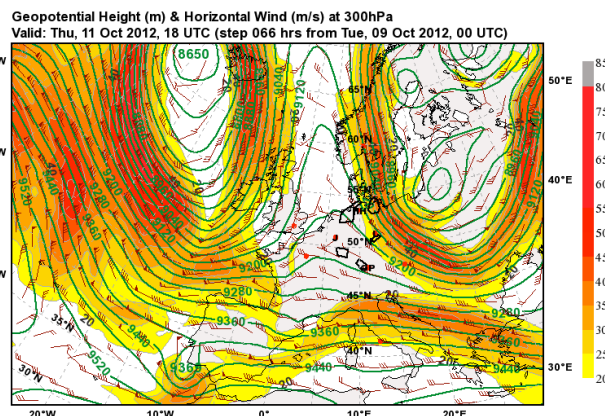
Forecast general situation

We concentrate on the trough over the Med Sea and the associated WCB on Thursday and Friday. On Sunday a promising trough bringing high WCB activity on Sunday and Monday is approaching.

Forecast Day 2-5 (Th 11 Oct- Sun 14 Oct)



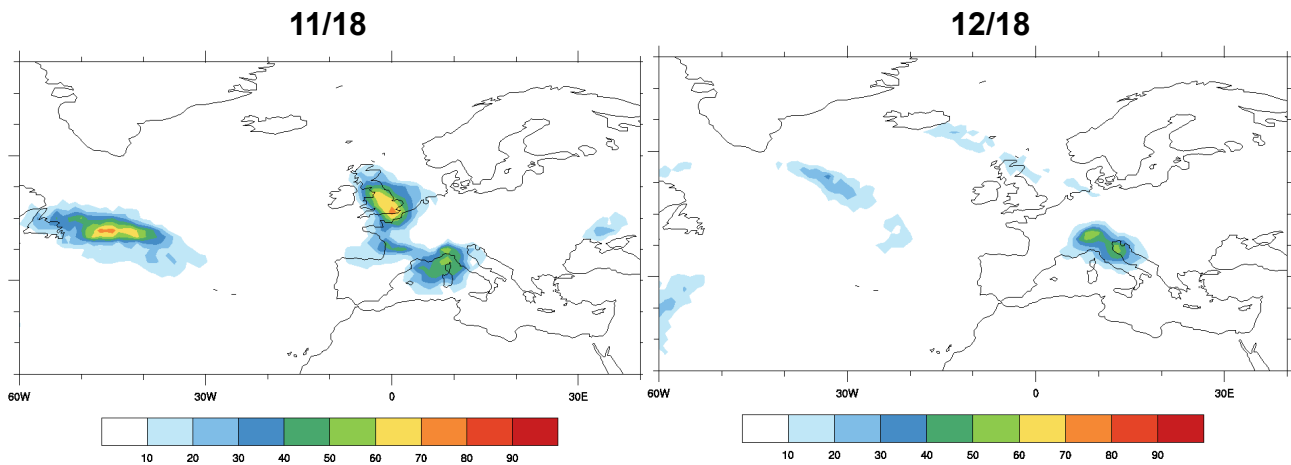
11/18



12/18

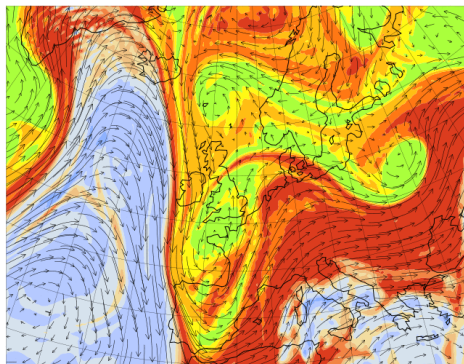
In the 08/12 deterministic forecast for Thursday 11/18 there is a trough-ridge couplet over the Med sea located which is associated WCB activity there. In the 09/00 forecast the situation changed. Now there are two small scale waves. One over Portugal and the other one over southern France which lead to two smaller WCBs located there.

However in the 09/00 ensemble forecast there is still probability of WCB occurrence with an inflow region over the Med sea and one day later during an ascent over Italy as seen in the previous (08/12) forecast.

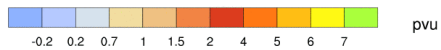


The probability of WCB occurrence. Left: > 800 hPa at 11/18. Right: 800<600 hPa at 12/18.

PV@330K at 20121015_00



On Sunday and Monday a quite promising trough is approaching. At the leading edge of the trough small and negative PV values are definitely associated with the outflow of WCBs. Starting region is the Med sea.

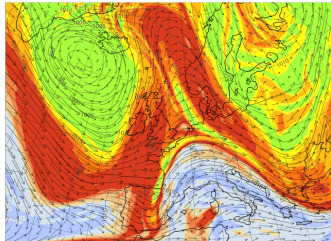


Discussing model consistency for Thursday 11th 18 UTC:

The difference in the deterministic IFS forecast is illustrated with PV @ 330K at valid time 18 UTC 11th October 2012. VT 11/18Z

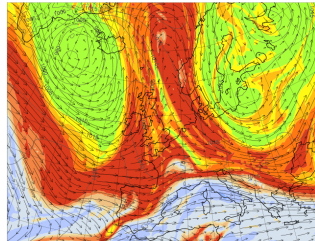
BT 07/12Z + 102h

PV@330K at 20121011_18



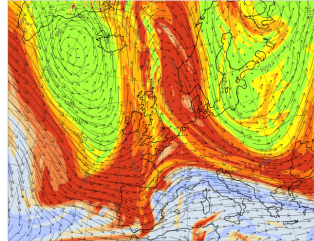
08/00Z + 90h

PV@330K at 20121011_18



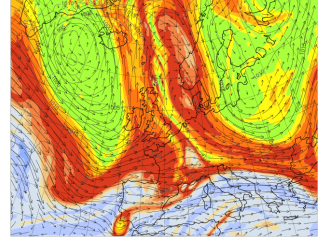
08/12Z + 78h

PV@330K at 20121011_18



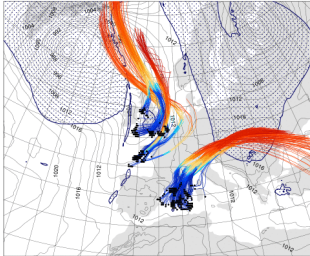
09/00Z + 66h

PV@330K at 20121011_18



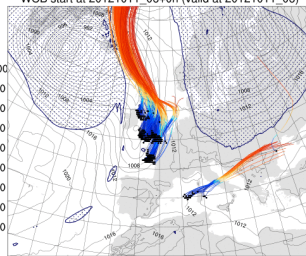
+ 90h

p along trajectories, position, 2pvu at 320K and SLP
at 20121011_06+0h



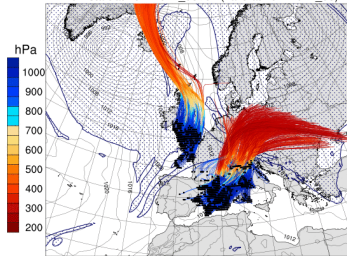
+ 78h

p along trajectories, position, 2pvu at 320K and SLP
WCB start at 20121011_06+0h (valid at 20121011_06)



+ 66h

p along trajectories, position, 2pvu at 325K and SLP
WCB start at 20121011_06+0h (valid at 20121011_06)



The forecasts of the IFS continue to alter the development of the trough-ridge couplet over the Med Sea. Both 07/12 and 08/12Z show the trough and therefore a pronounced WCB whereas in the 08/00 and 09/00 (not shown) almost no WCB develops. The alternating forecasts indicate uncertainties in the interaction between a low over the Atlantic and the upper-level trough propagating eastwards. We hope that the coming forecasts are more stable, when the upstream interaction is done.