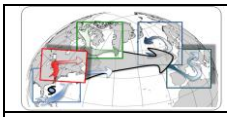	**NAWDEX 2016** **Weather summary**	**Date: 06 October 2016** **Author: B. Crezee, J.Riboldi**

Synoptic analysis

A broad upper-level trough approaches Iceland from the west. Embedded within this trough is a TPV, of which the structure has been observed today. The ridge downstream of the trough, lies over Scandinavia and is characterized by a strong high pressure area at the surface of over 1045 hPa. A cut-off sits over central Europe, bringing heavy rain and strong winds to the Baltic states and eastern Europe.

Forecast Day 1 (Friday 7 Oct)

The TPV gets absorbed into the broad trough and merges its coherent core into the PV streamer west of Iceland. The PV streamer tends to wrap up cyclonically during the day, together with some weak WCB activity. In front of the trough rather strong northward moisture transport occurs. The strong anticyclone to the west of Iceland leads to strong winds from SE winds over Keflavik, with gusts possibly exceeding 20 m/s.

Forecast Day 2 (Saturday 8 Oct)

The blocking anticyclone persists over Scandinavia. The upper-level trough with embedded ex-TPV is being stretched southward by the confluence between westerly flow and the easterly flow related to the Scandinavian anticyclone. To the south of the upper-level trough (at 320K) at around 40N there exists a weak surface low, in a warm and moist environment. This low interacts during the day with the cited PV streamer, deepens to 1005hPa and spawns a broad WCB in the direction of Europe.

Forecast Outlook

On Sunday the upper-level trough is further stretched, and the southern part becomes a PV filament. Rather strong precipitation occurs surrounding the surface low at 40N extending further northwards along the PV filament. There is a high probability of WCB ascent in this region.

On Monday the outflow of this WCB activity is probably located to the west of Ireland. A larger outflow region is located further south, and is related to a WCB having its inflow close to the surface low. To the west of these systems a high pressure ridge is building, in the outflow of hurricane Matthew and tropical cyclone Nicole. A potential ET of Matthew has become less likely.

Scientific discussion

- The strong anticyclone over Scandinavia promotes a blocked situation over Europe, with fair weather over the North Europe and persisting bad weather and precipitations over the South and the East of Europe.
- A PV streamer to the west of Iceland maintains a strong southerly moist flow, embedded in a region with weak forcing for ascent. The stretching of this structure to the south, in regions where more moisture is present, leads to occasional WCB bursts over Europe and the North Atlantic.
- The evolution of the tropical systems over the North Atlantic is monitored.