Summary of the analysis of Jasper

Josué Gehring – Meteorologist at MeteoSwiss

Satellite animation: airmass RGB product available on Eumetview, for a legend, refer to the product documentation.
We can see multiple low pressure centers, in particular one over the Baltic sea, which is the extratropical cyclone Jasper.
There is a clear frontal boundary running west to east over Europe and is associated with deep clouds (white colors).

RGB Airmass / FF500 hPa
nov. 14 2023
mar. 08:00 UTC

SatRaster mar. 14.11.23 08:00 UTC   METEOSAT Europe-Atlantic - Airmass-RGB
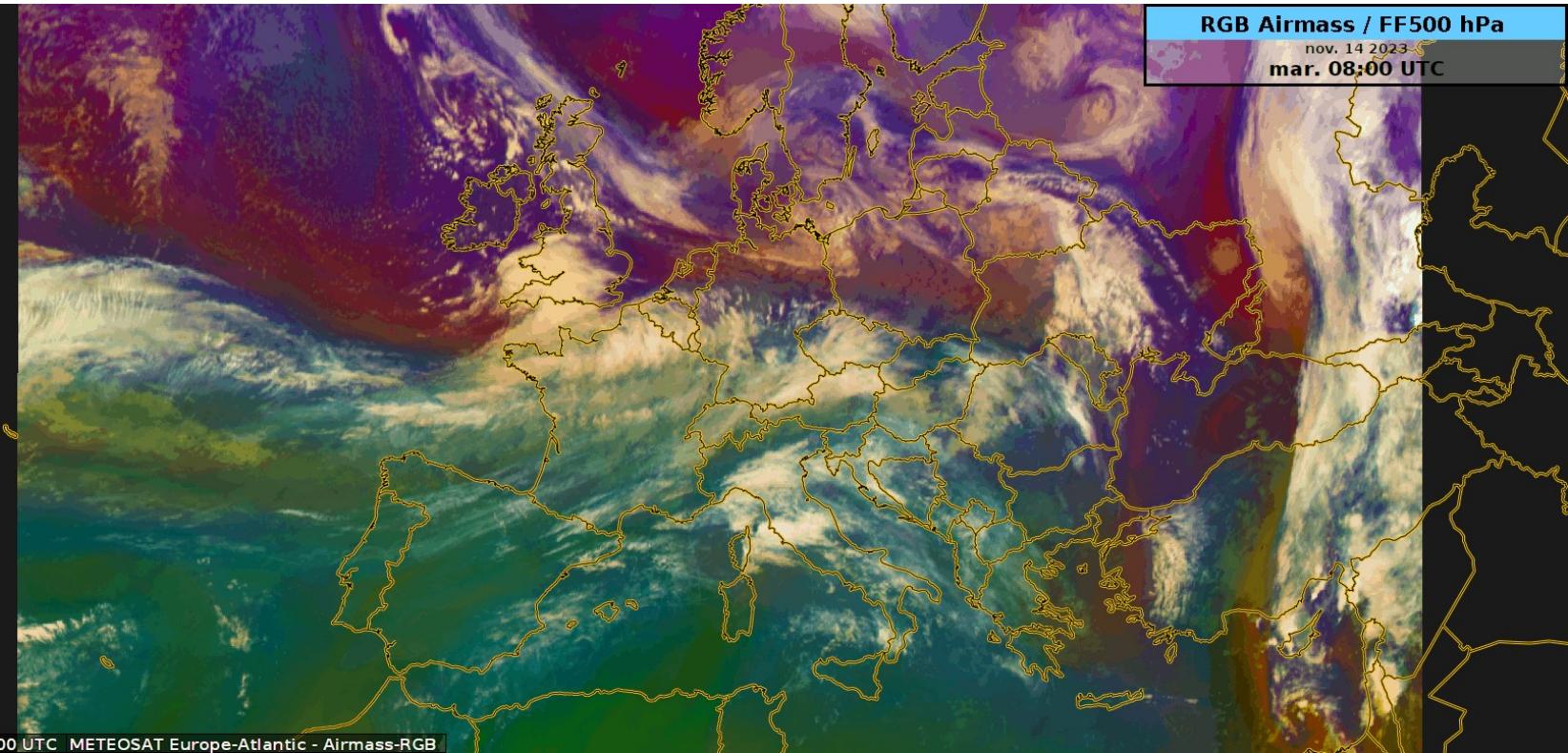
Mean sea level pressure (labels in hPa) and fronts on 14 Nov at 06 UTC.

Jasper is the extratropical cyclone located over Danemark and one can see the fronts associated with it, which were clearly visible on the satellite animation.

Such analysis are available on the website of the German weather service

MétéoSuisse
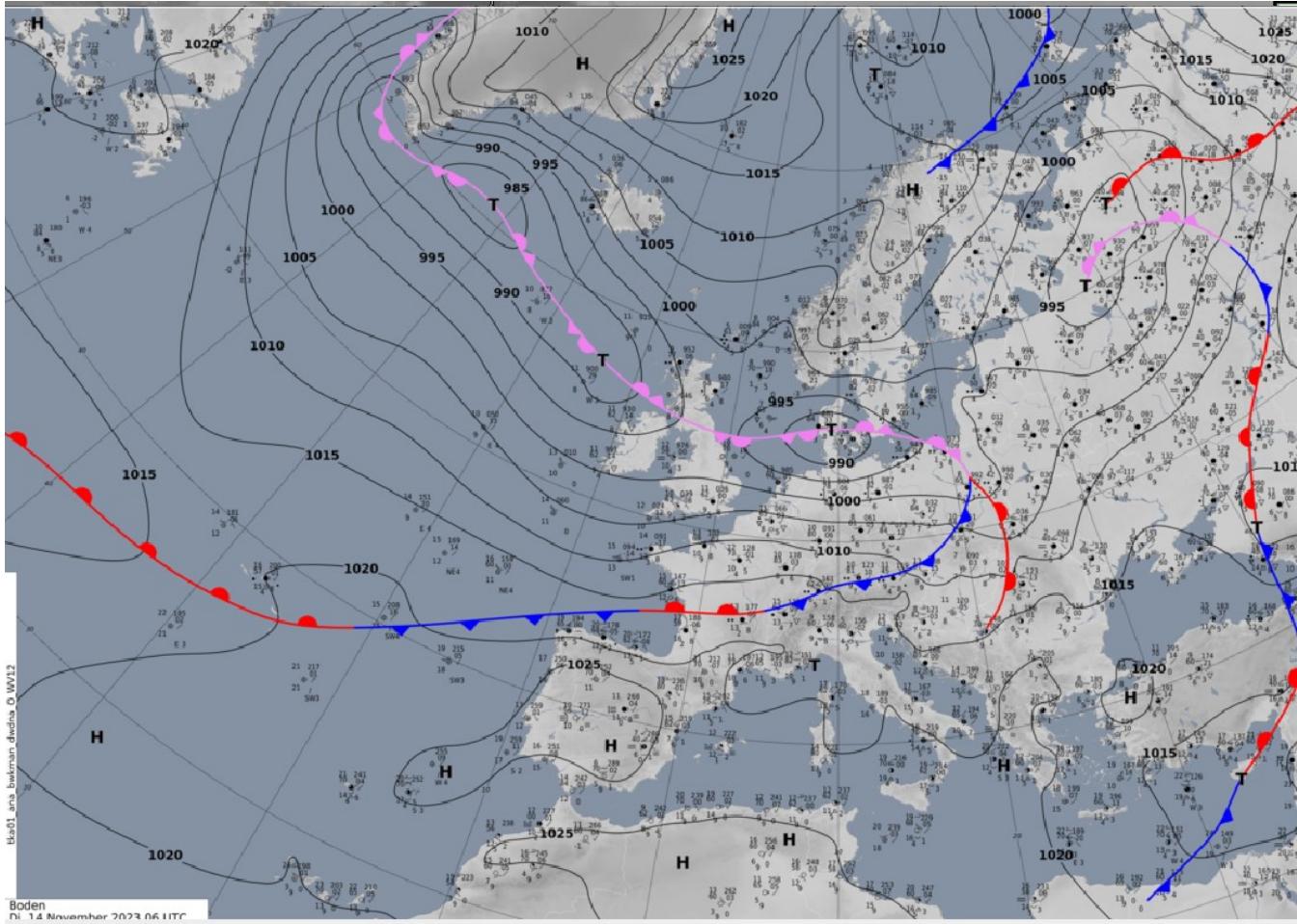
Equivalent potential temperature at 850 hPa (colours) and mean sea level pressure (contours, labels in hPa) between 13 Nov 00 UTC and 14 Nov 12 UTC from the <u>IFS model of ECMWF</u>.
We can clearly see the fronts associated with "Jasper" and how the warm sector is getting narrower as the cold front catches the wam front. By 14 Nov 12 UTC the center of Jasper is in the cold air and there is a clear occluded front, as shown in the previous analysis.

4
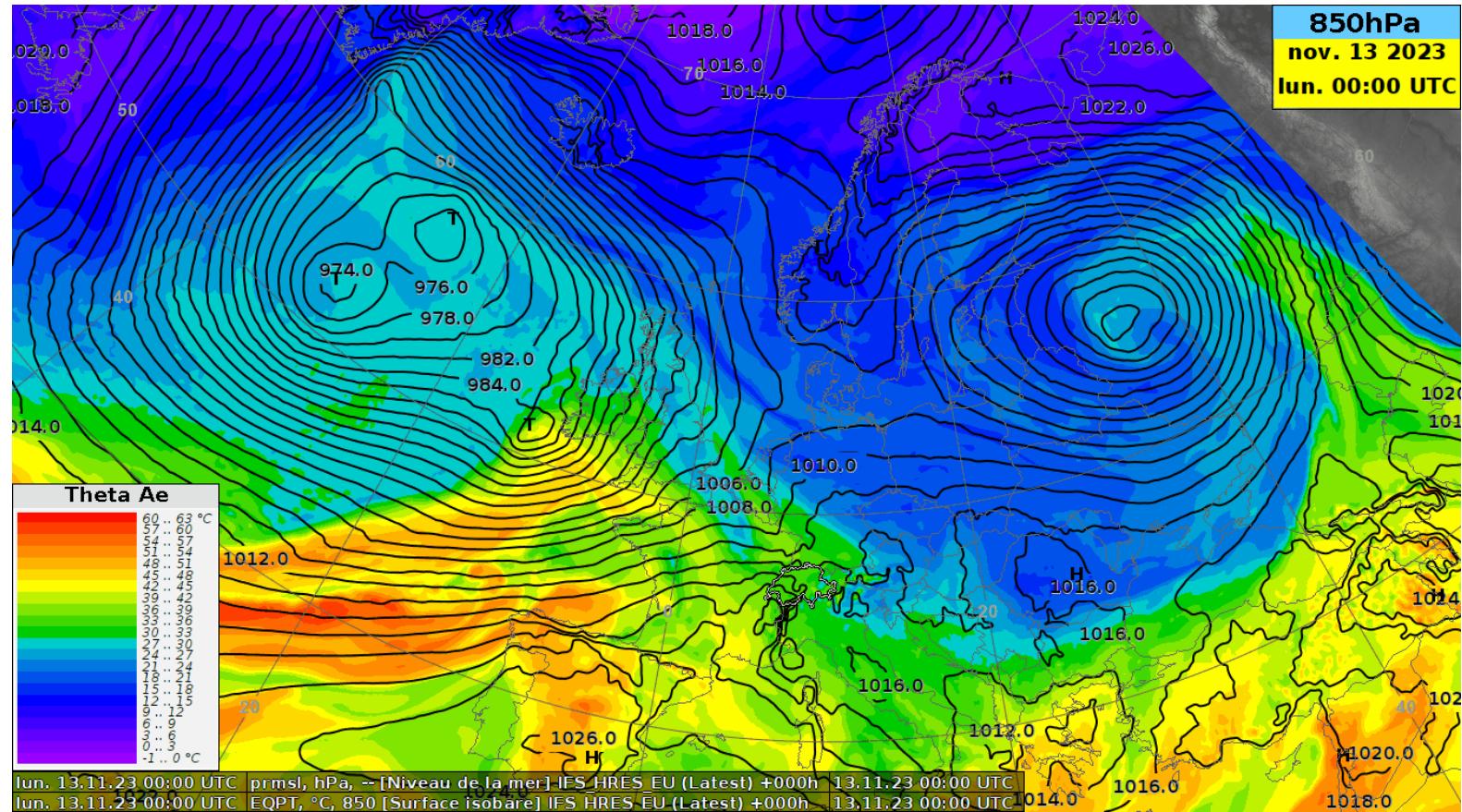
Win speed at 300 hPa (colours, only values above 60 knots are shown) and mean sea level pressure (contours, labels in hPa) between 13 Nov 00 UTC and 14 Nov 12 UTC from the IFS model of ECMWF.

"Jasper" started as a small perturbation over the North Atlantic to the left exit of a jet streak and intensified due to the upper-level divergence found at this location.