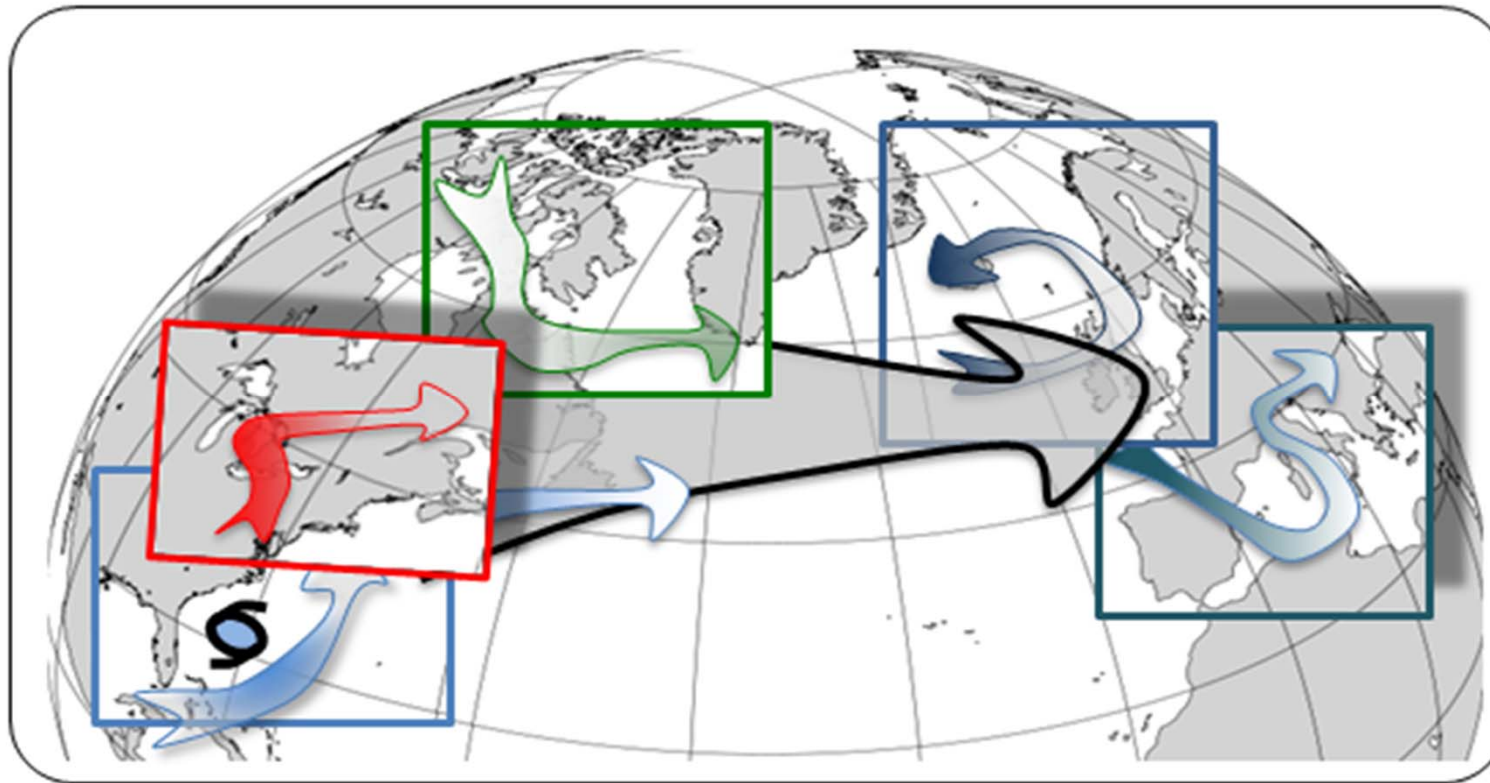


NAWDEX – General Meeting

17 September 2016



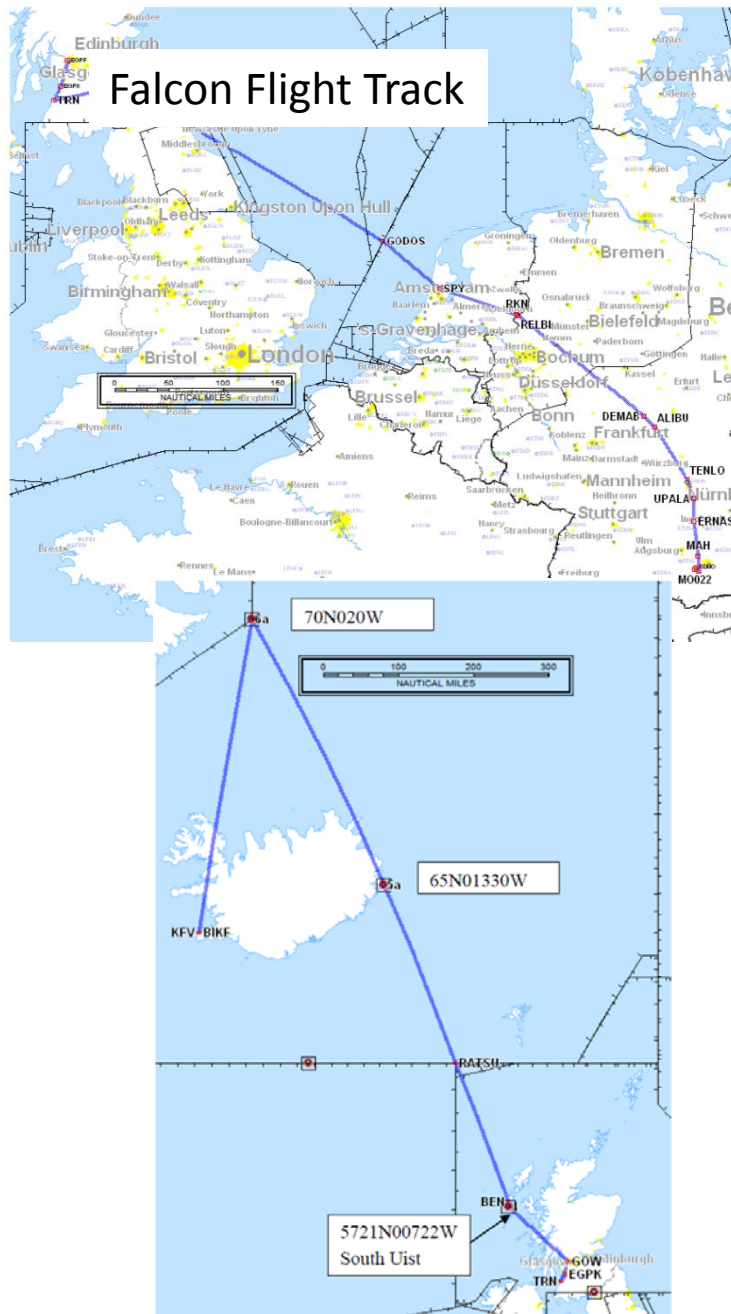
From Monday on we will have the following agenda

- Key information from previous flight (2 minutes)
- Aircraft status report by FX-Operations
- Instrument status report by Instrument Manager
- Short weather summary & Final discussion about flight pattern for next day (in case of 2 options)
- Announcement of tentative plans for Day+3
- Coordination with other aircraft (Input from other groups)
- Demand of ground-based obs (organized by Ground-Based Observation coordinator)

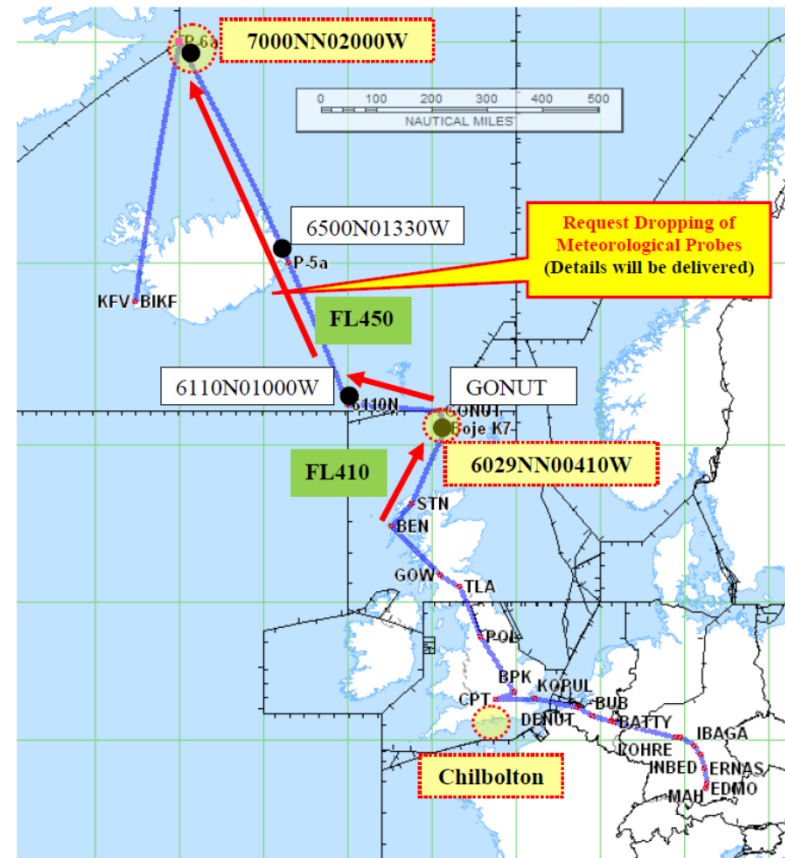
Today

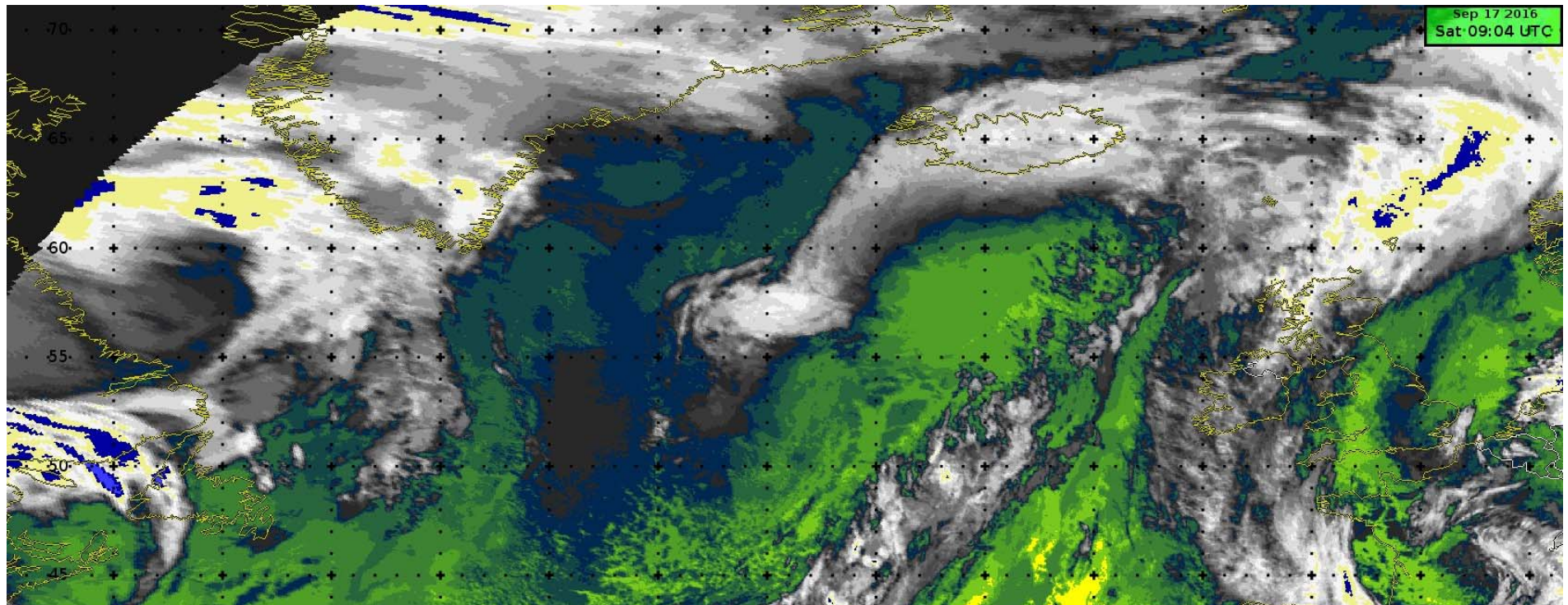
- Recent information about IOP 1 flights
- Outlook on next week
- Discussion on schedule for Monday

Falcon Flight Track



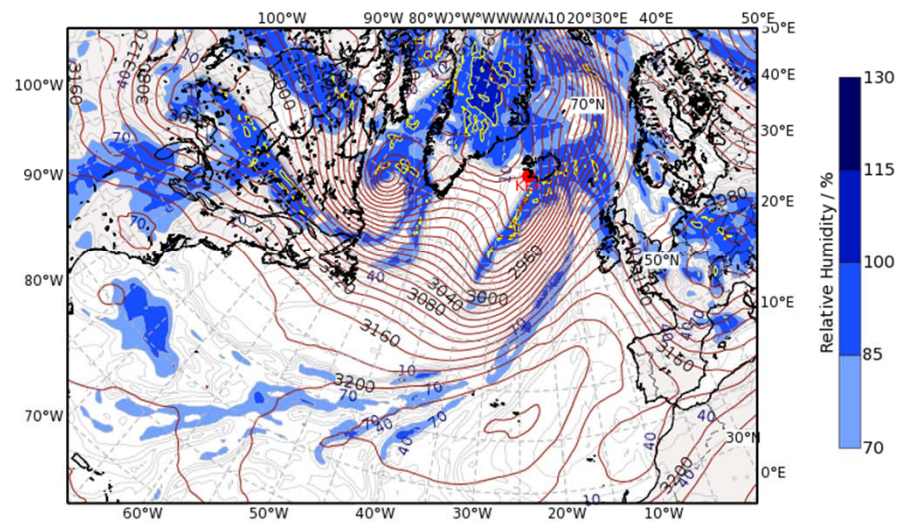
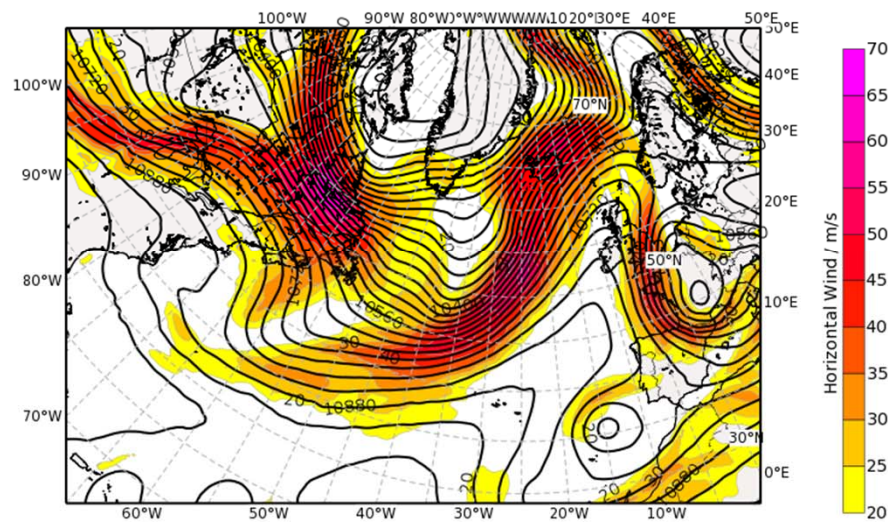
HALO Flight Track



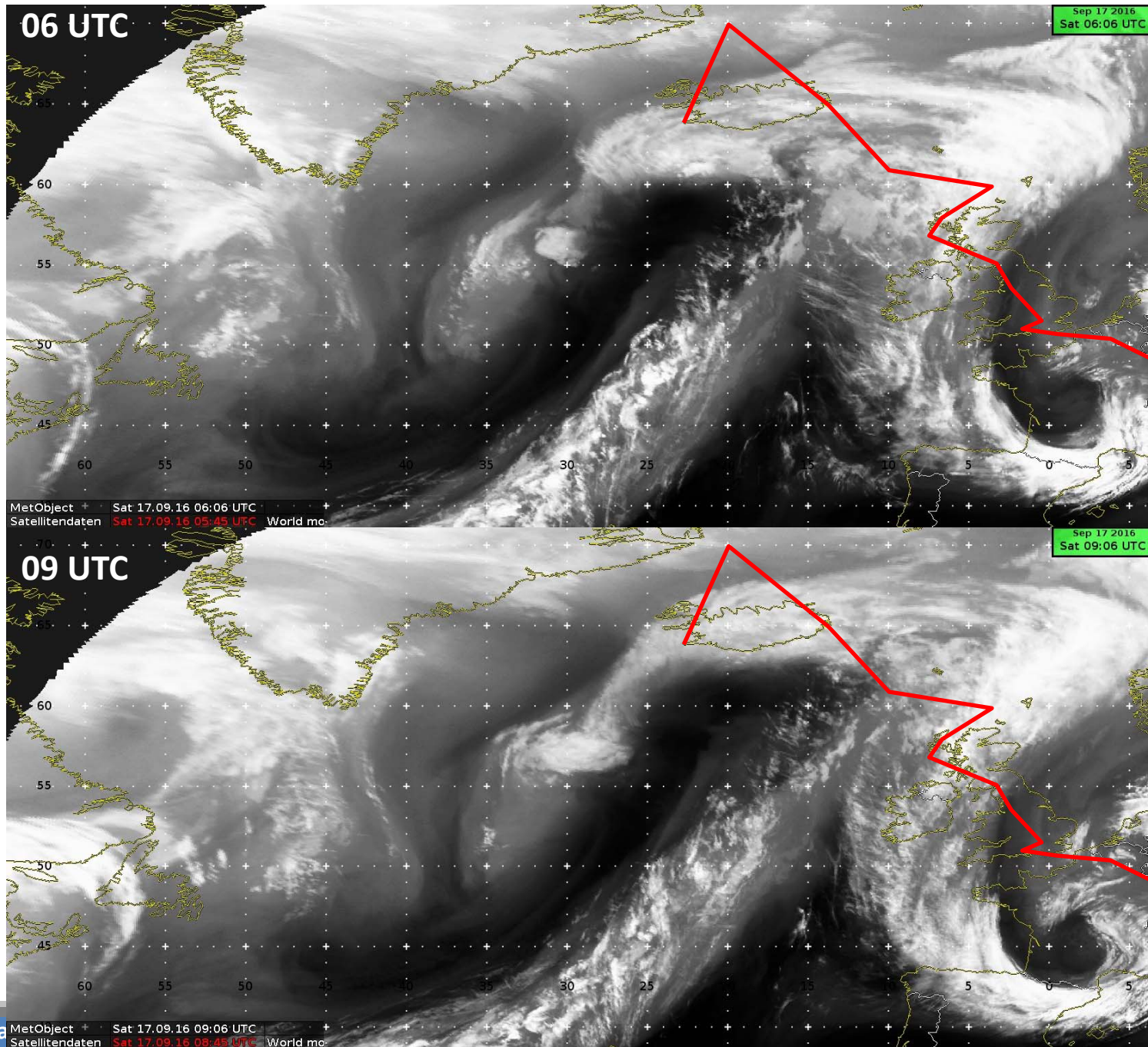


Geopotential Height (m) & Horizontal Wind (m/s) at 250 hPa
Valid: Sat, 17 Sep 2016, 09 UTC (step 009 h from Sat, 17 Sep 2016, 00 UTC)

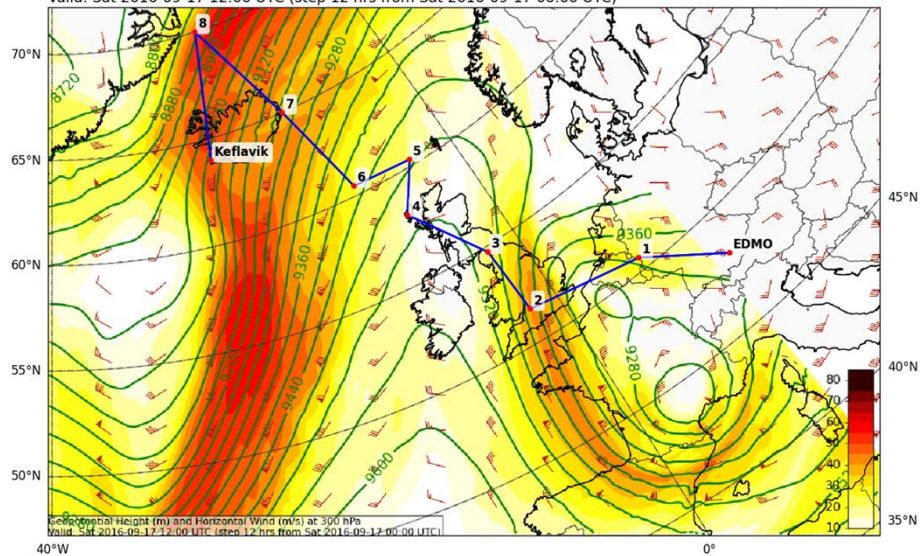
Relative Humidity (%) and Z (m) at 700 hPa
Valid: Sat, 17 Sep 2016, 09 UTC (step 009 h from Sat, 17 Sep 2016, 00 UTC)



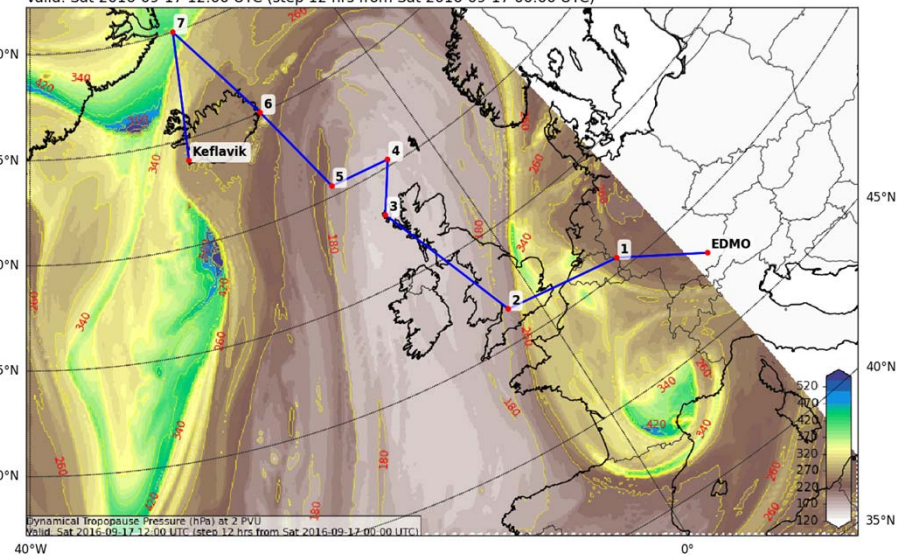
Water vapour channel



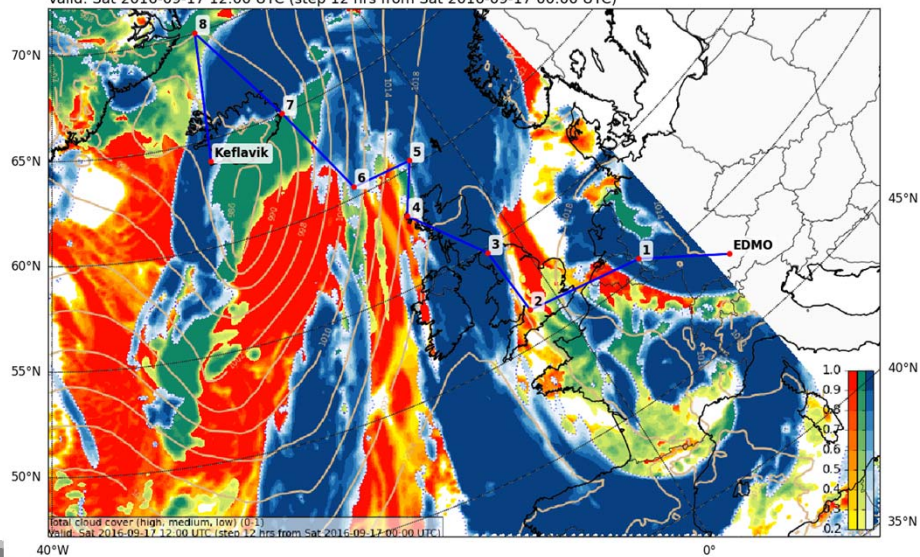
Geopotential Height (m) and Horizontal Wind (m/s) (Wind Speed 10-85 m/s) at 300 (hPa)
Valid: Sat 2016-09-17 12:00 UTC (step 12 hrs from Sat 2016-09-17 00:00 UTC)



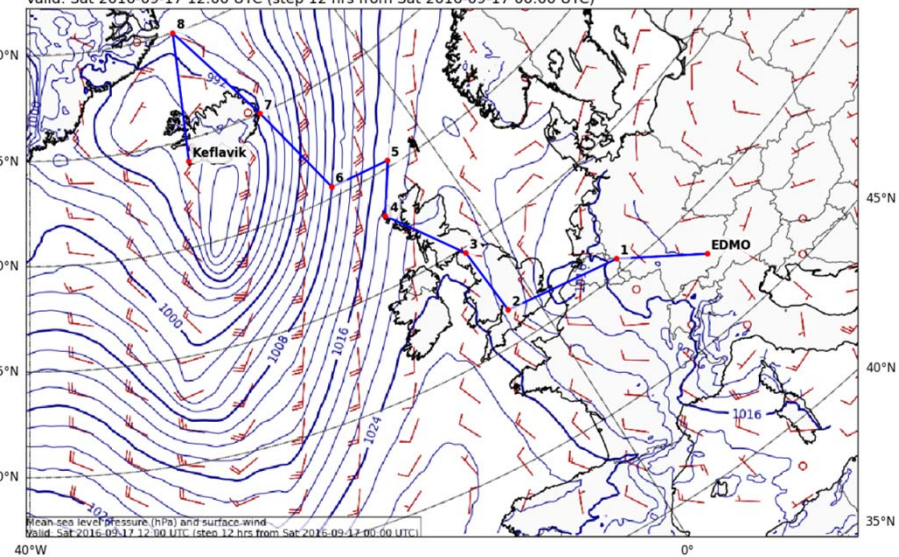
Dynamical Tropopause (Pressure (hPa)) at 2000 (10⁻³ PVU)
Valid: Sat 2016-09-17 12:00 UTC (step 12 hrs from Sat 2016-09-17 00:00 UTC)



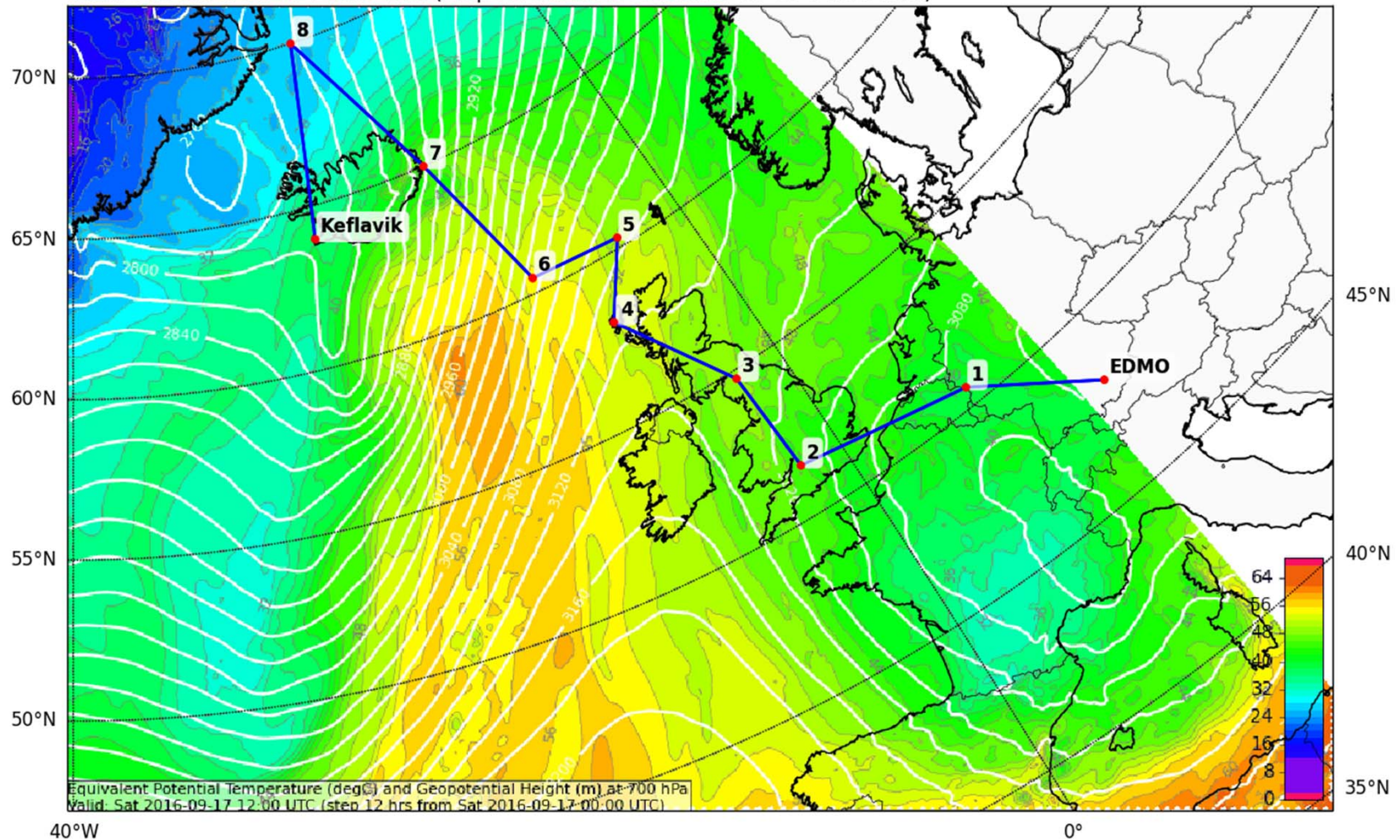
Cloud Cover (0-1) (Total Cloud Cover)
Valid: Sat 2016-09-17 12:00 UTC (step 12 hrs from Sat 2016-09-17 00:00 UTC)



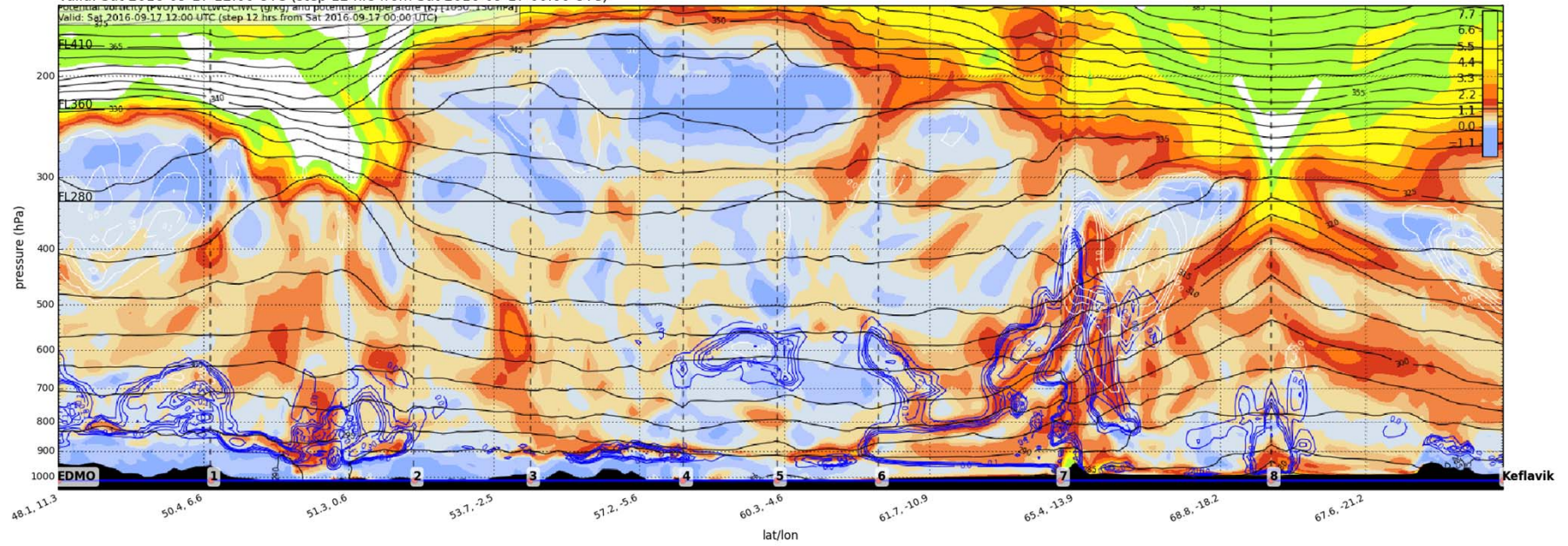
Mean Sea Level Pressure (hPa)
Valid: Sat 2016-09-17 12:00 UTC (step 12 hrs from Sat 2016-09-17 00:00 UTC)



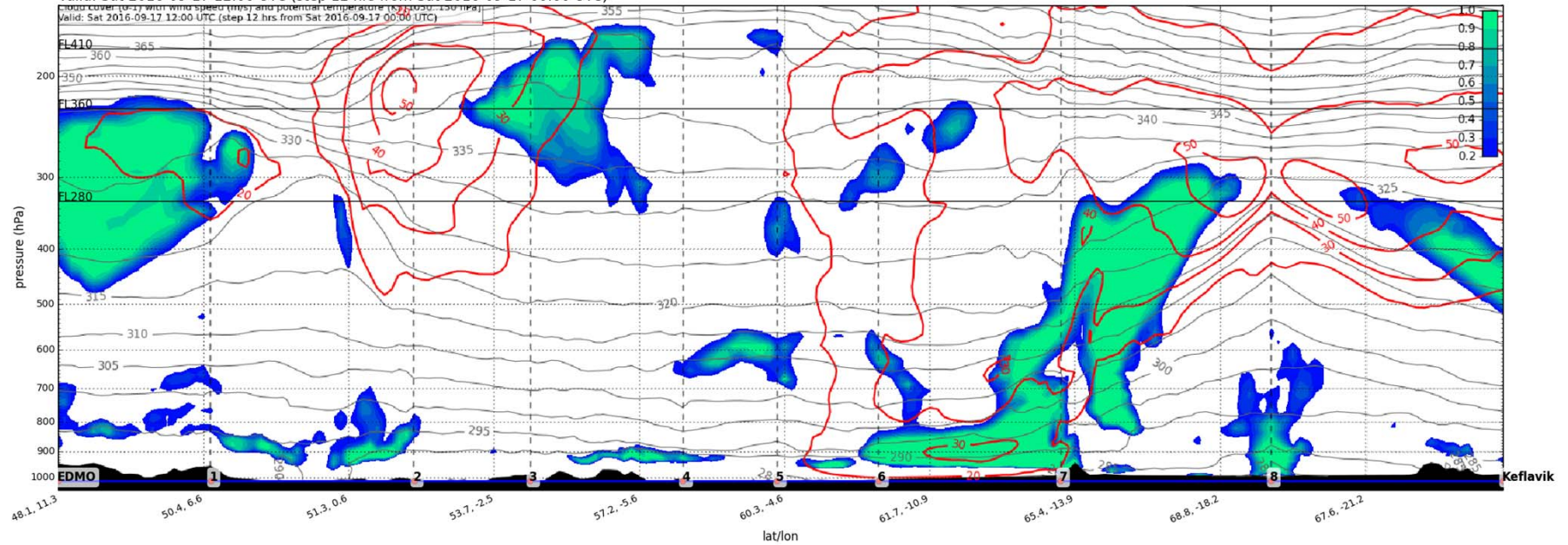
Equivalent Potential Temperature (degC) and Geopotential Height (m) at 700 (hPa)
 Valid: Sat 2016-09-17 12:00 UTC (step 12 hrs from Sat 2016-09-17 00:00 UTC)



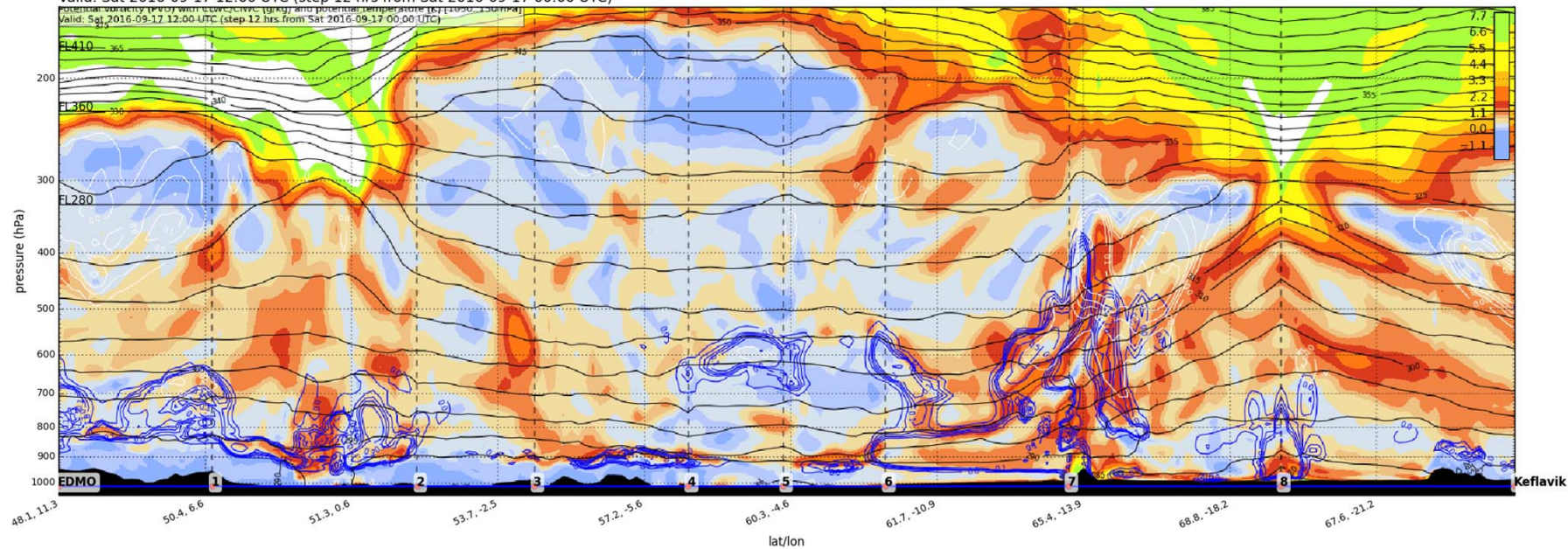
Potential Vorticity (PVU) Vertical Section (Northern Hemisphere)
Valid: Sat 2016-09-17 12:00 UTC (step 12 hrs from Sat 2016-09-17 00:00 UTC)



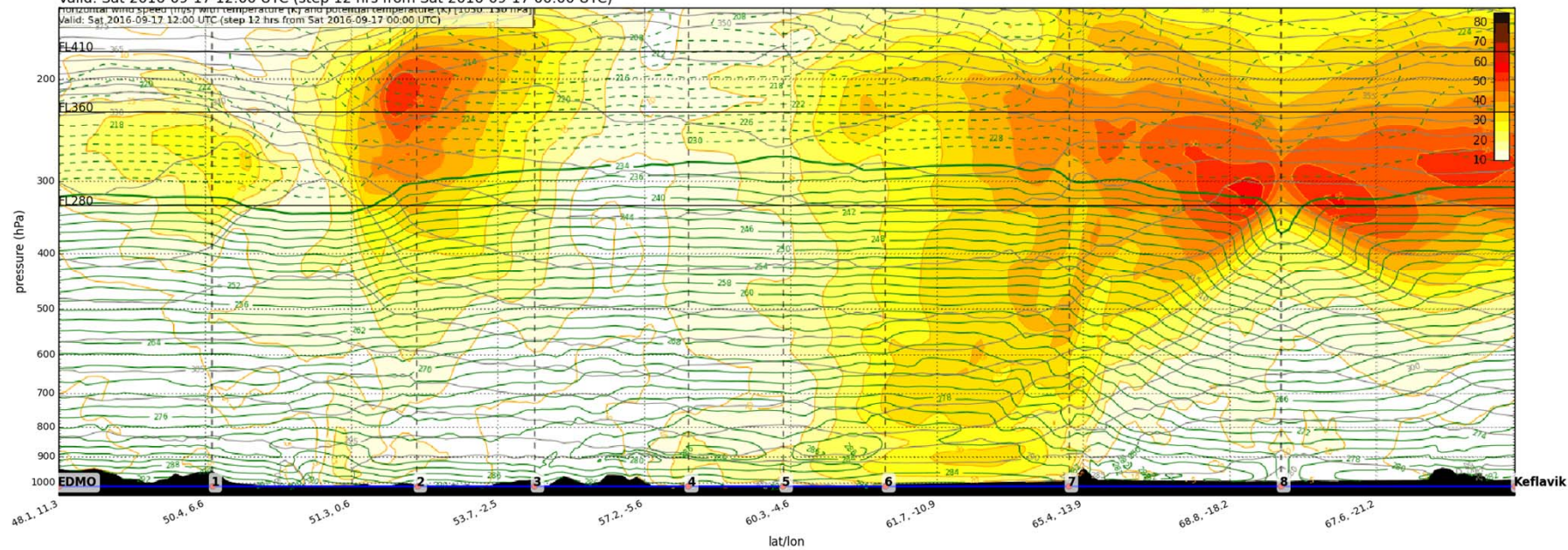
Cloud Cover (0-1) and wind speed (m/s) vertical section
Valid: Sat 2016-09-17 12:00 UTC (step 12 hrs from Sat 2016-09-17 00:00 UTC)



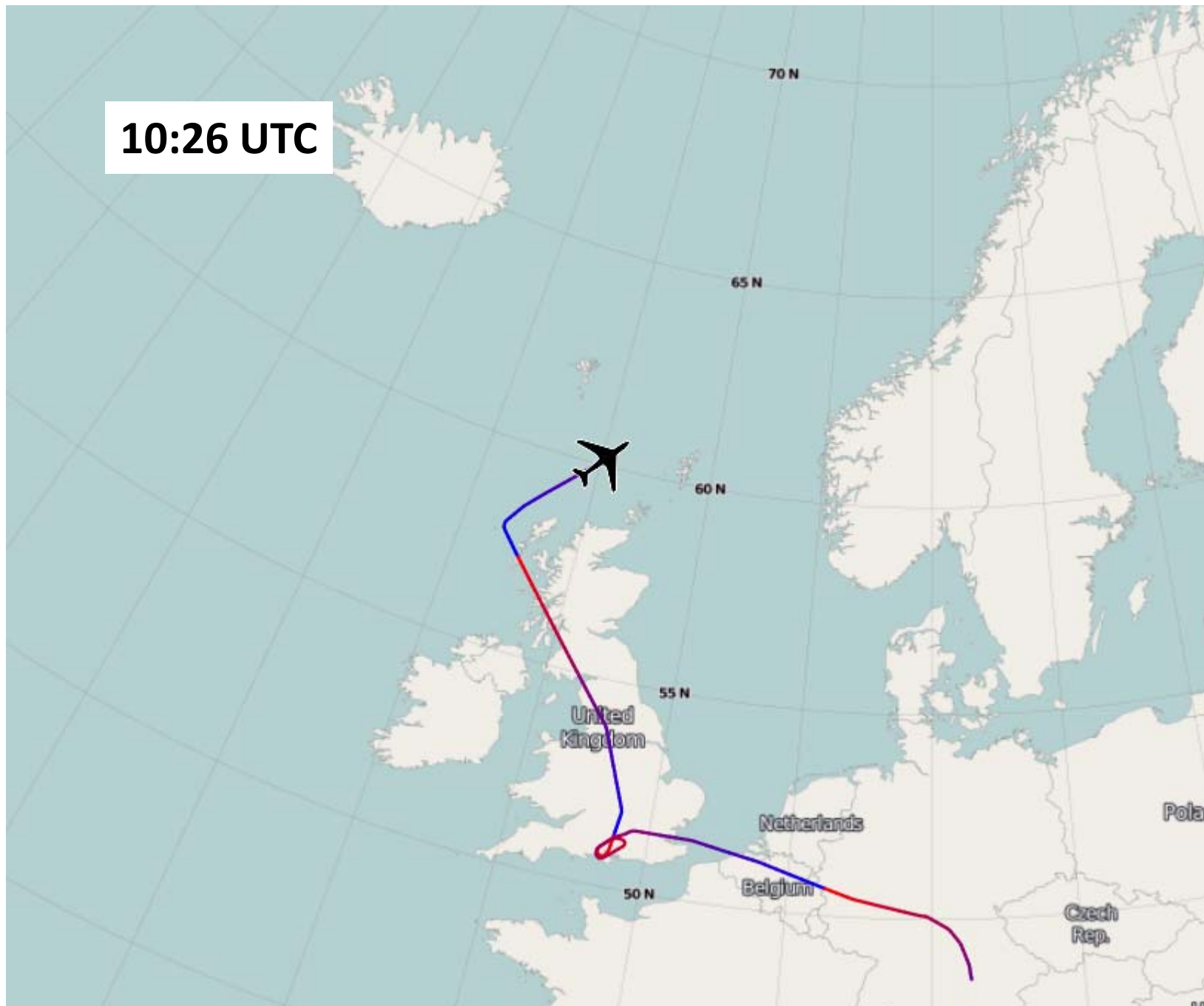
Potential Vorticity (PVU) Vertical Section (Northern Hemisphere)
Valid: Sat 2016-09-17 12:00 UTC (step 12 hrs from Sat 2016-09-17 00:00 UTC)



Horizontal Wind (m/s) Vertical Section
Valid: Sat 2016-09-17 12:00 UTC (step 12 hrs from Sat 2016-09-17 00:00 UTC)



10:26 UTC



View from Chilbolton Receive Cabin, recorded 2016-09-17 05:59:59

View from Chilbolton Receive Cabin, recorded 2016-09-17 06:59:59

Cloud camera Chilbolton

06 UTC

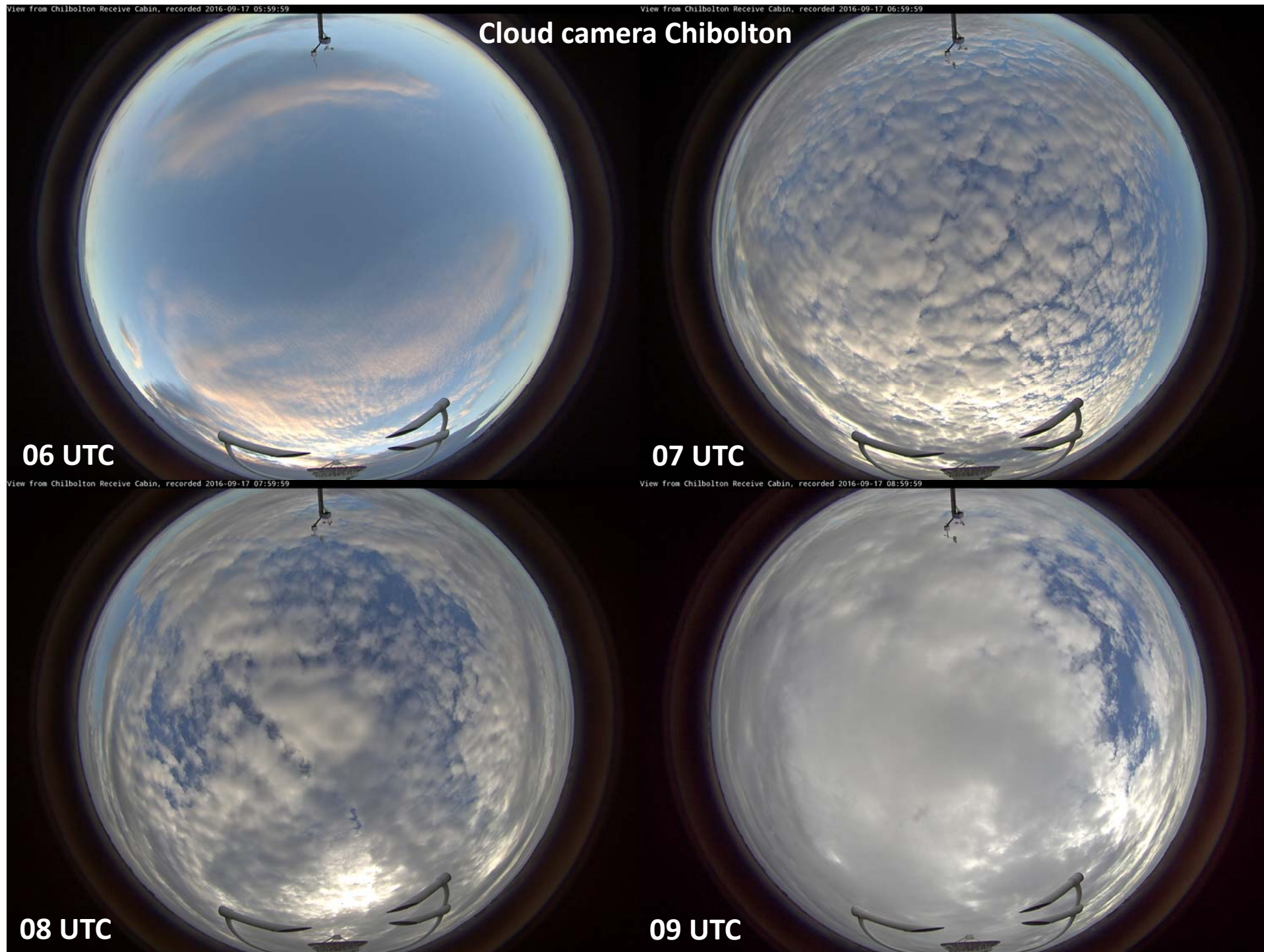
07 UTC

View from Chilbolton Receive Cabin, recorded 2016-09-17 07:59:59

View from Chilbolton Receive Cabin, recorded 2016-09-17 08:59:59

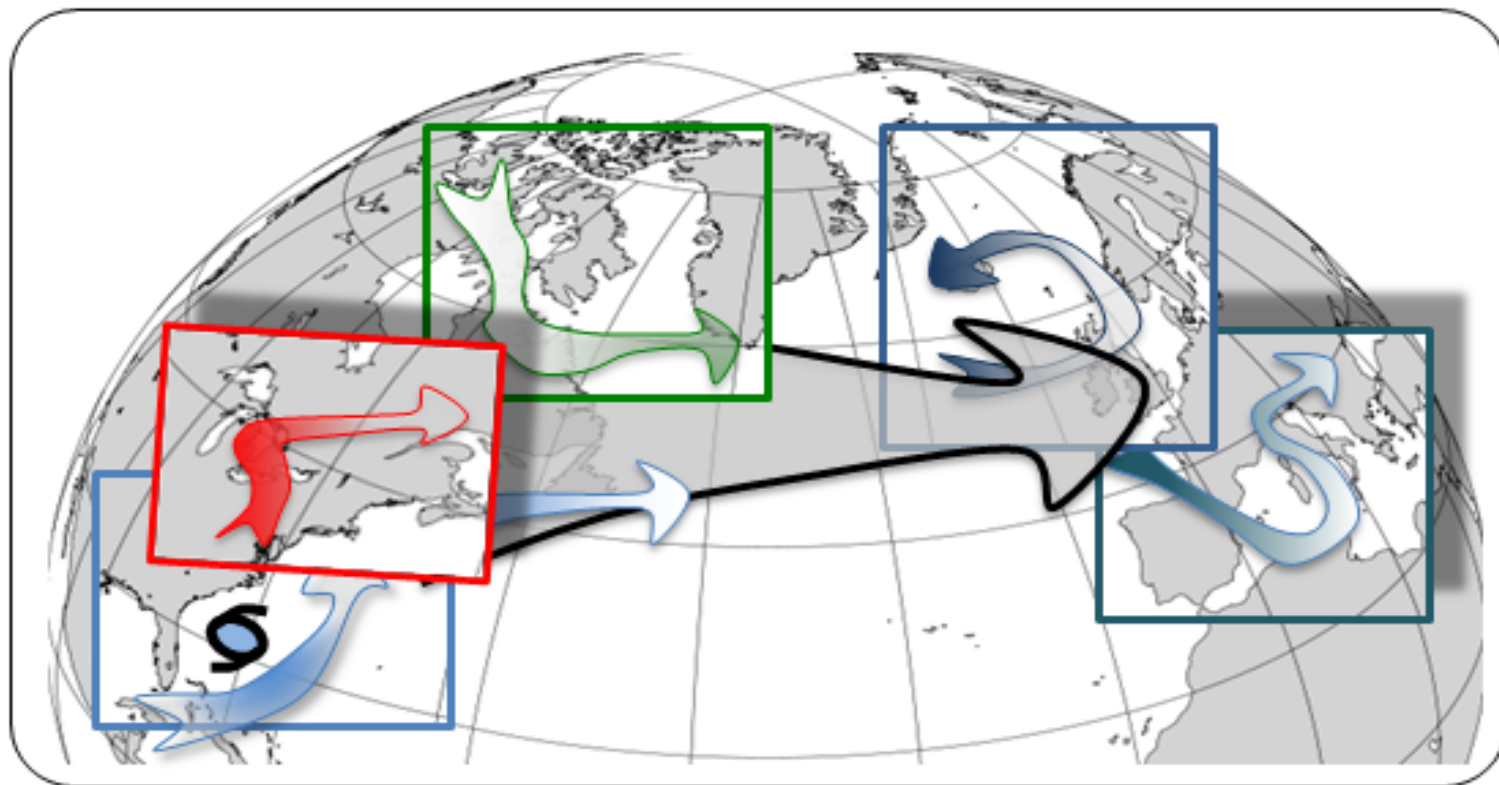
08 UTC

09 UTC



NAWDEX – Flight Planning Meeting

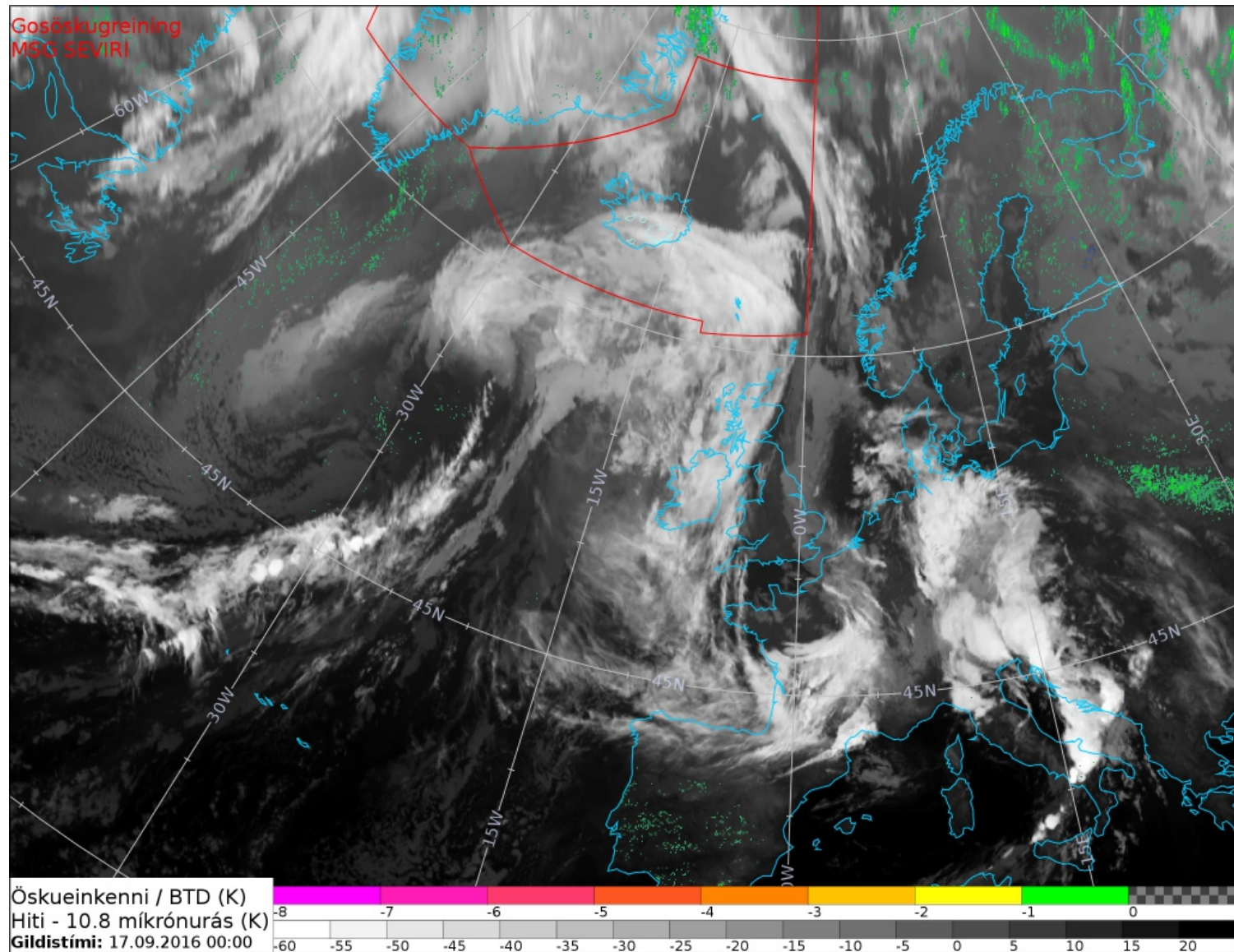
17 September 2016, Keflavik, Iceland



Outline

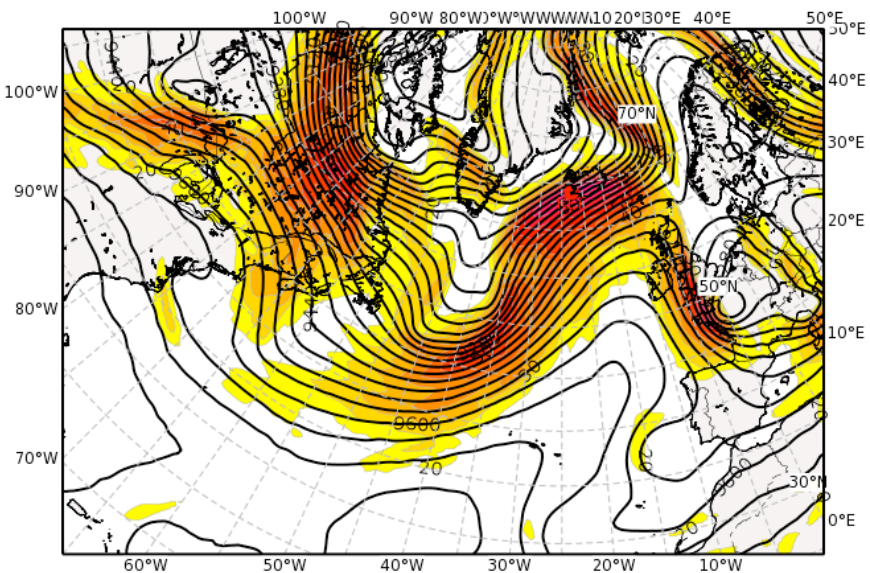
- Short overview of current synoptic situation
- Outlook for rest of week
 - Case I: Tuesday / Wednesday
 - Case II: Thursday / Friday

Synoptic situation – 17 Sep 2016, 00 UTC

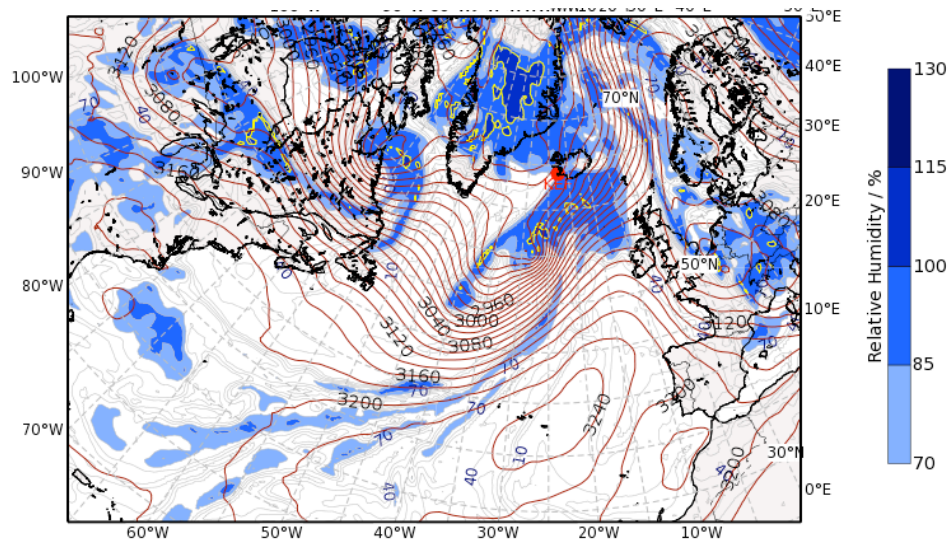
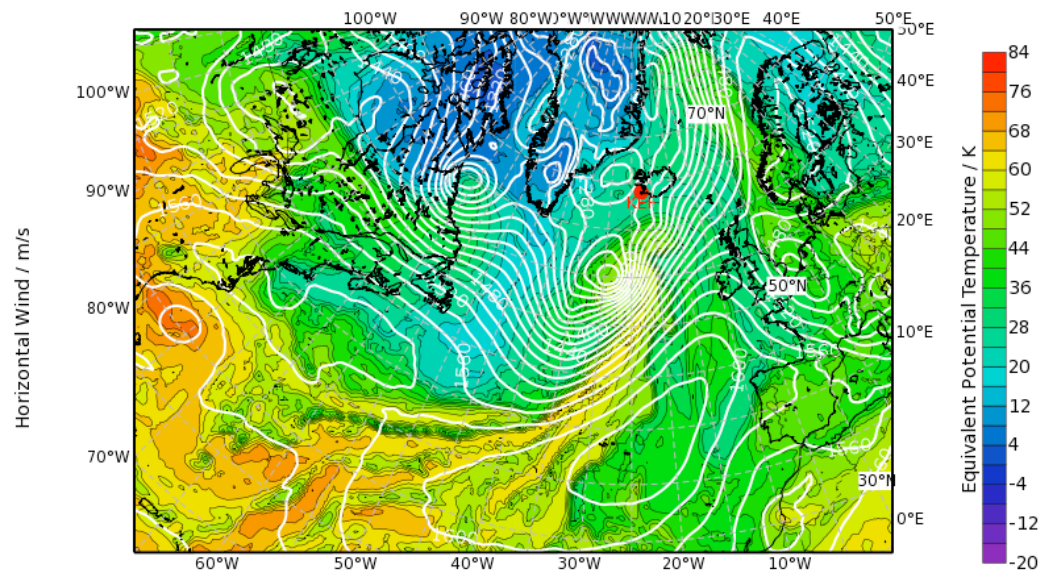


Analysis – 17 Sep 2016, 00 UTC

Geopotential Height (m) & Horizontal Wind (m/s) at 300 hPa
Valid: Sat, 17 Sep 2016, 00 UTC (step 000 h from Sat, 17 Sep 2016, 00 UTC)

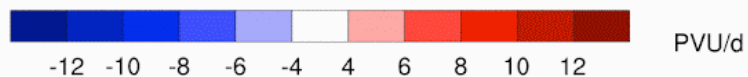
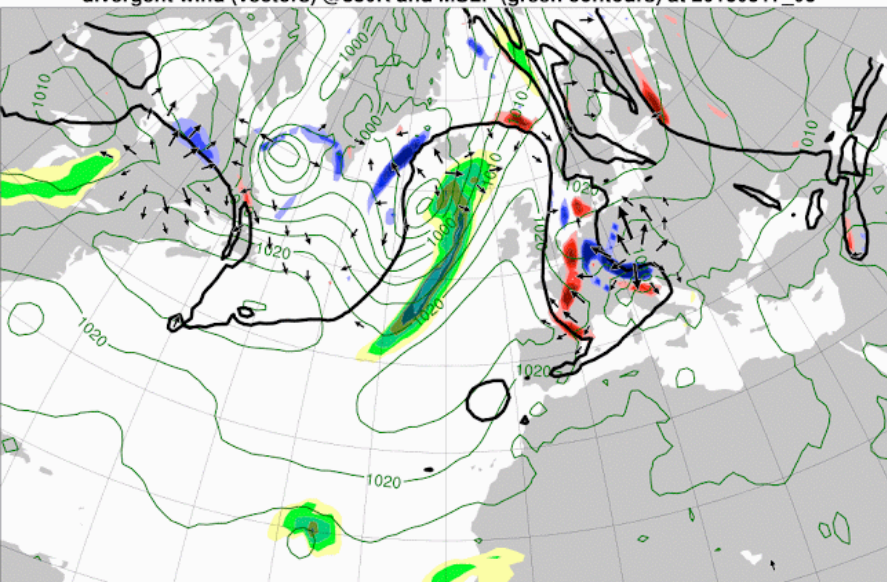


Equivalent Potential Temperature (degC) & Streamlines at 850 hPa
Valid: Sat, 17 Sep 2016, 00 UTC (step 000 h from Sat, 17 Sep 2016, 00 UTC)

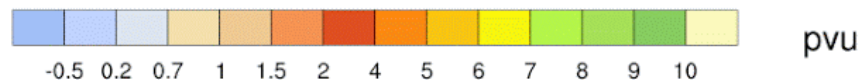
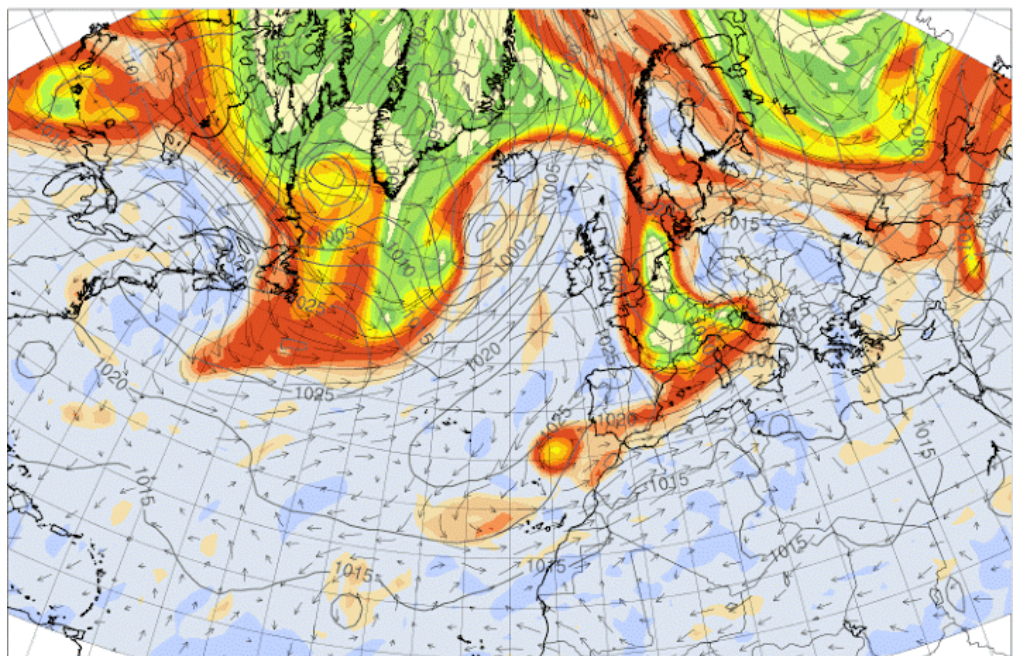


Analysis – 17 Sep 2016, 00 UTC

2 PVU (black contour), PV advection through divergent wind (shading),
divergent wind (vectors) @330K and MSLP (green contours) at 20160917_06



PV@330K at 20160917_06

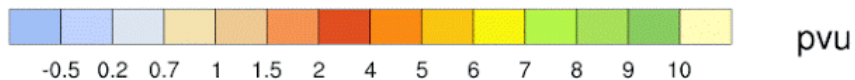
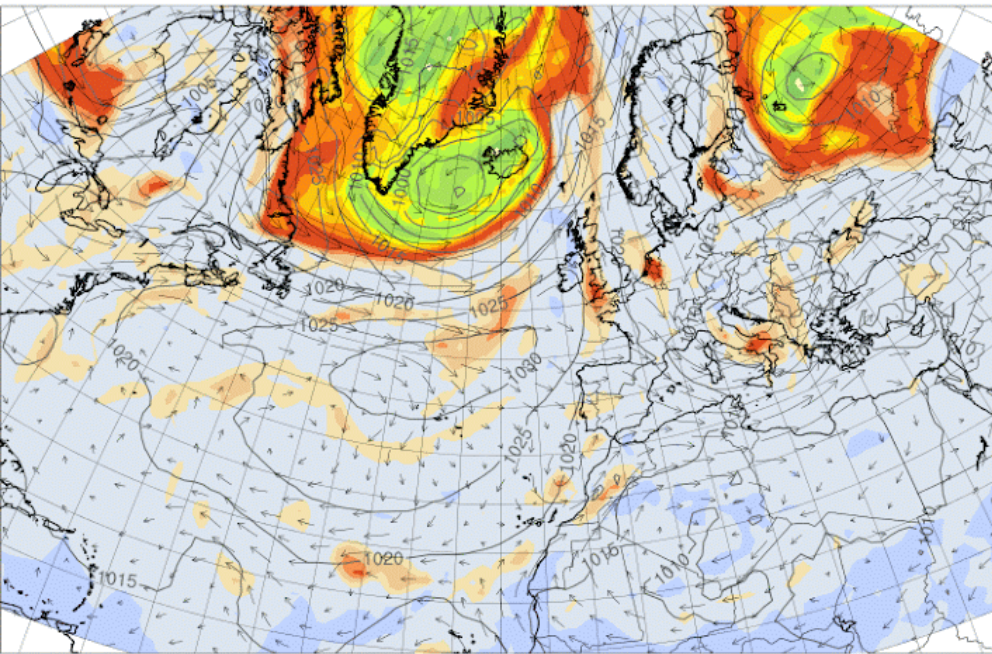


CASE I

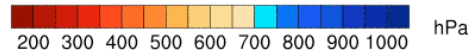
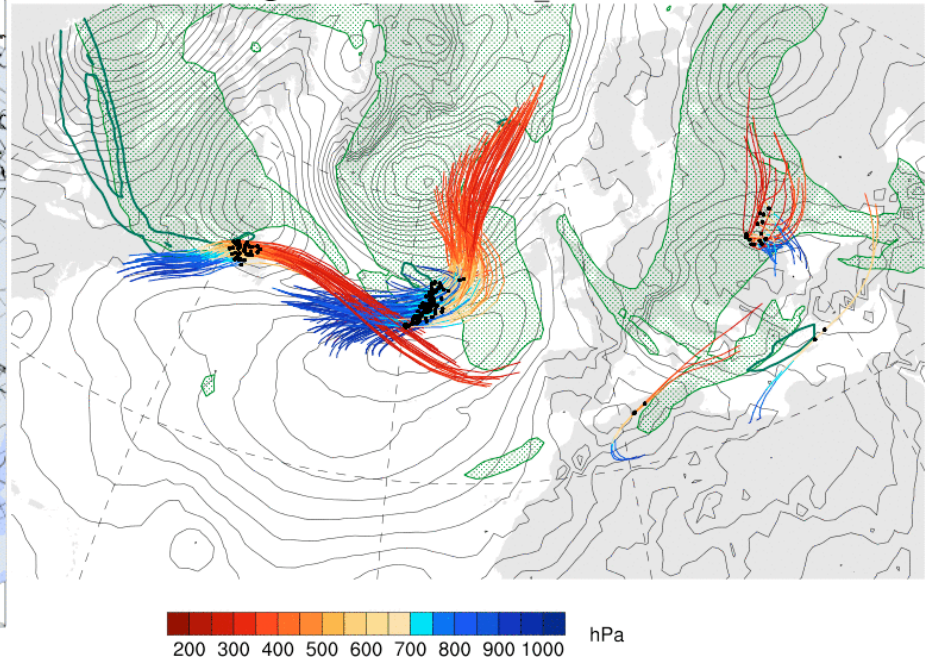
Case I: Forecast Monday (Sept. 19) to Wednesday (Sept. 21)

Monday 19/09 12 UTC

PV@320K at 20160919_12



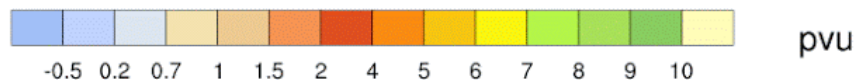
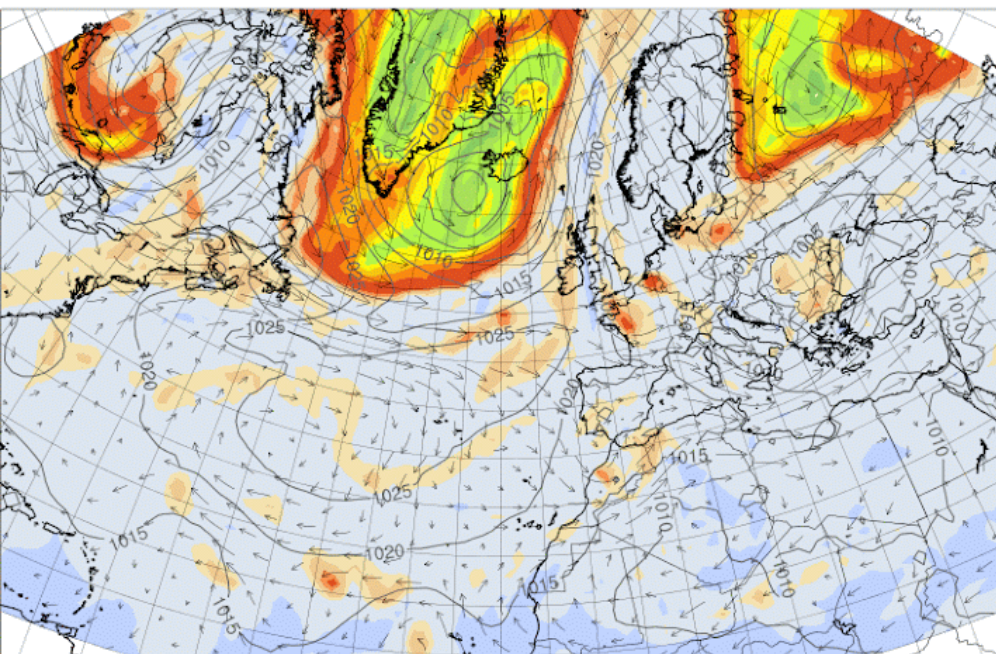
Trajectory start and SLP VT: 20160919_12
WCB outflow and PV@250hPa VT: 20160921_12



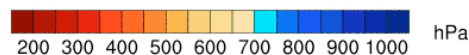
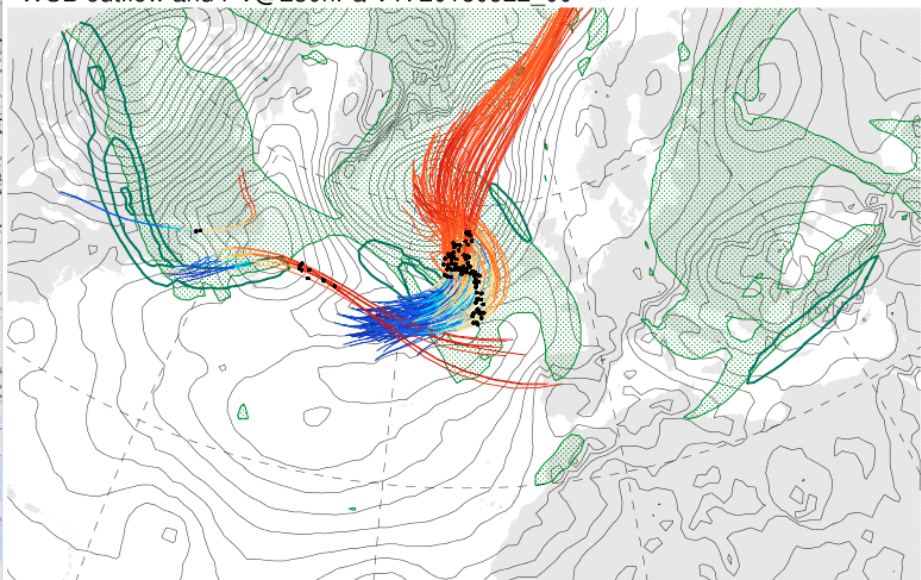
Case I: Forecast Monday (Sept. 19) to Wednesday (Sept. 21)

Tuesday 20/09 00 UTC

PV@320K at 20160920_00



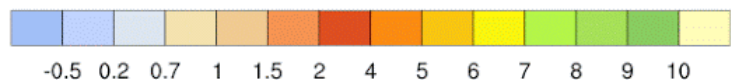
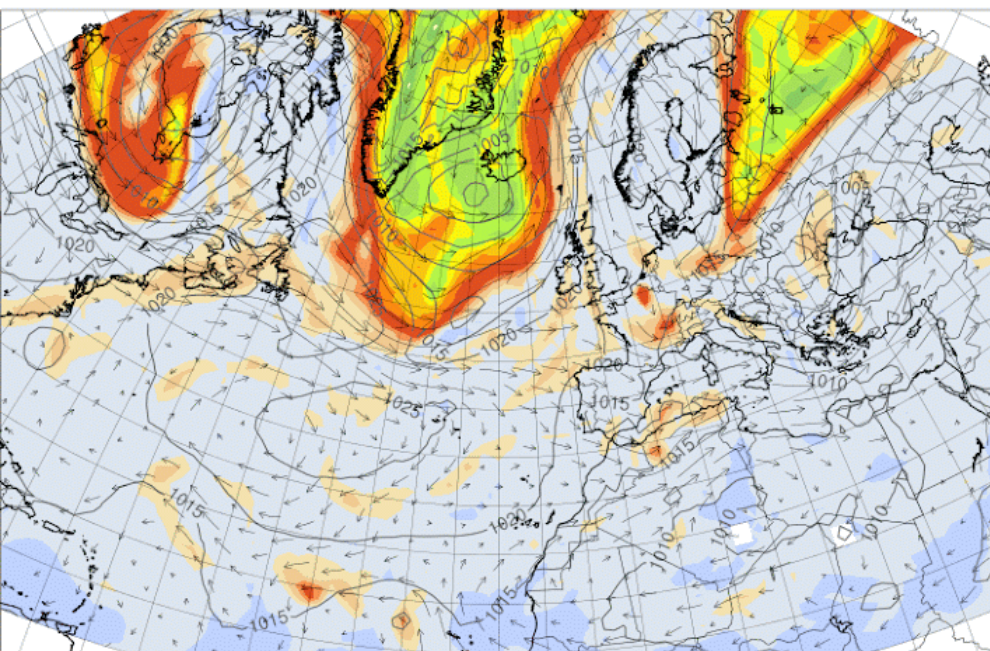
Trajectory start and SLP VT: 20160920_00
WCB outflow and PV@250hPa VT: 20160922_00



Case I: Forecast Monday (Sept. 19) to Wednesday (Sept. 21)

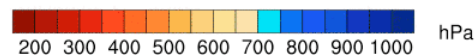
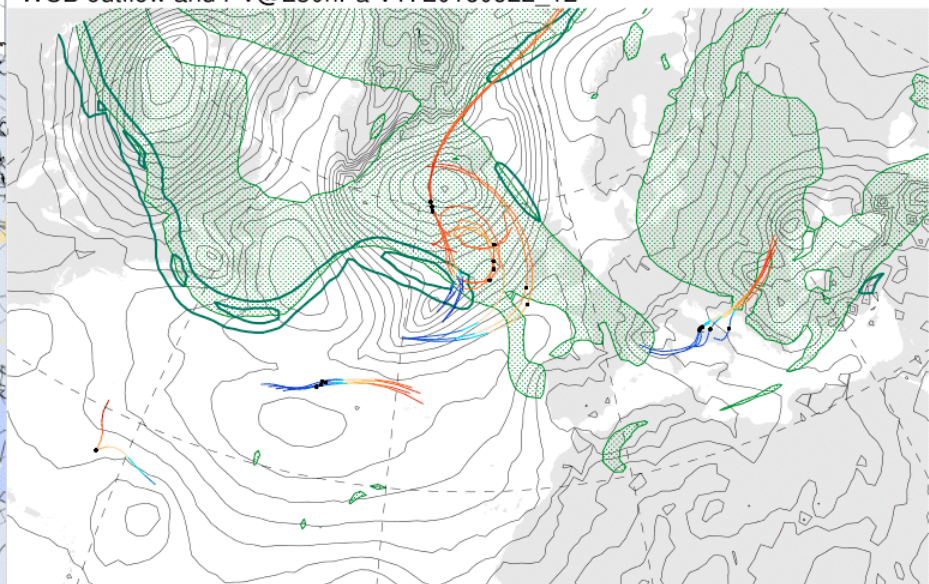
Tuesday 20/09 12 UTC

PV@320K at 20160920_12



pvu

Trajectory start and SLP VT: 20160920_12
WCB outflow and PV@250hPa VT: 20160922_12

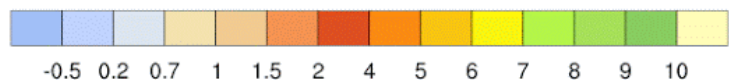
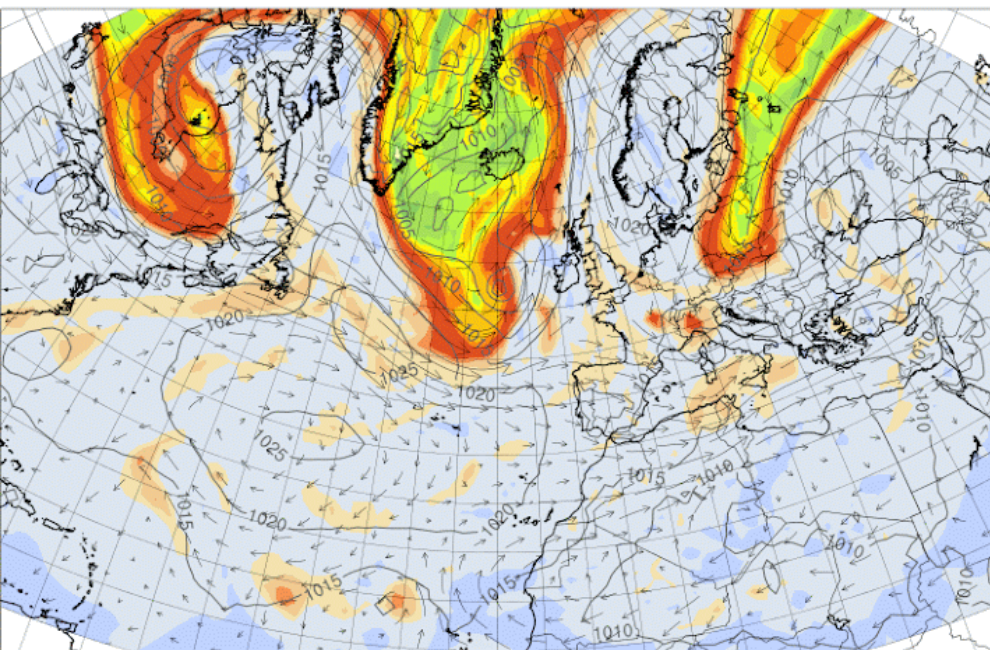


hPa

Case I: Forecast Monday (Sept. 19) to Wednesday (Sept. 21)

Wednesday 21/09 00 UTC

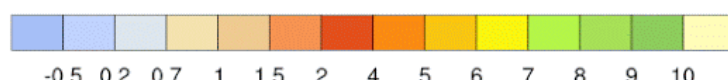
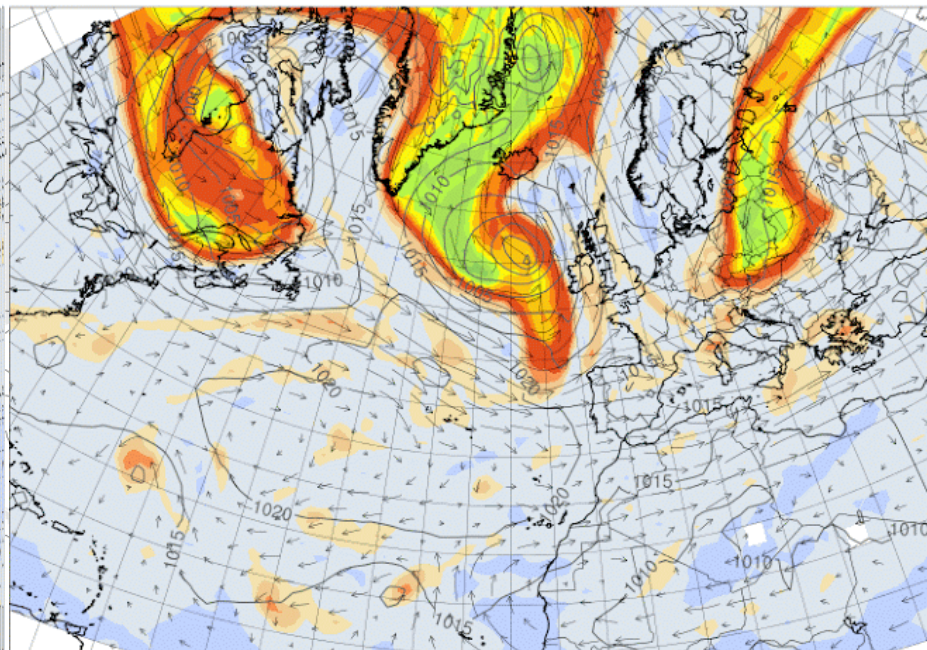
PV@320K at 20160921_00



pvu

Wednesday 21/09 12 UTC

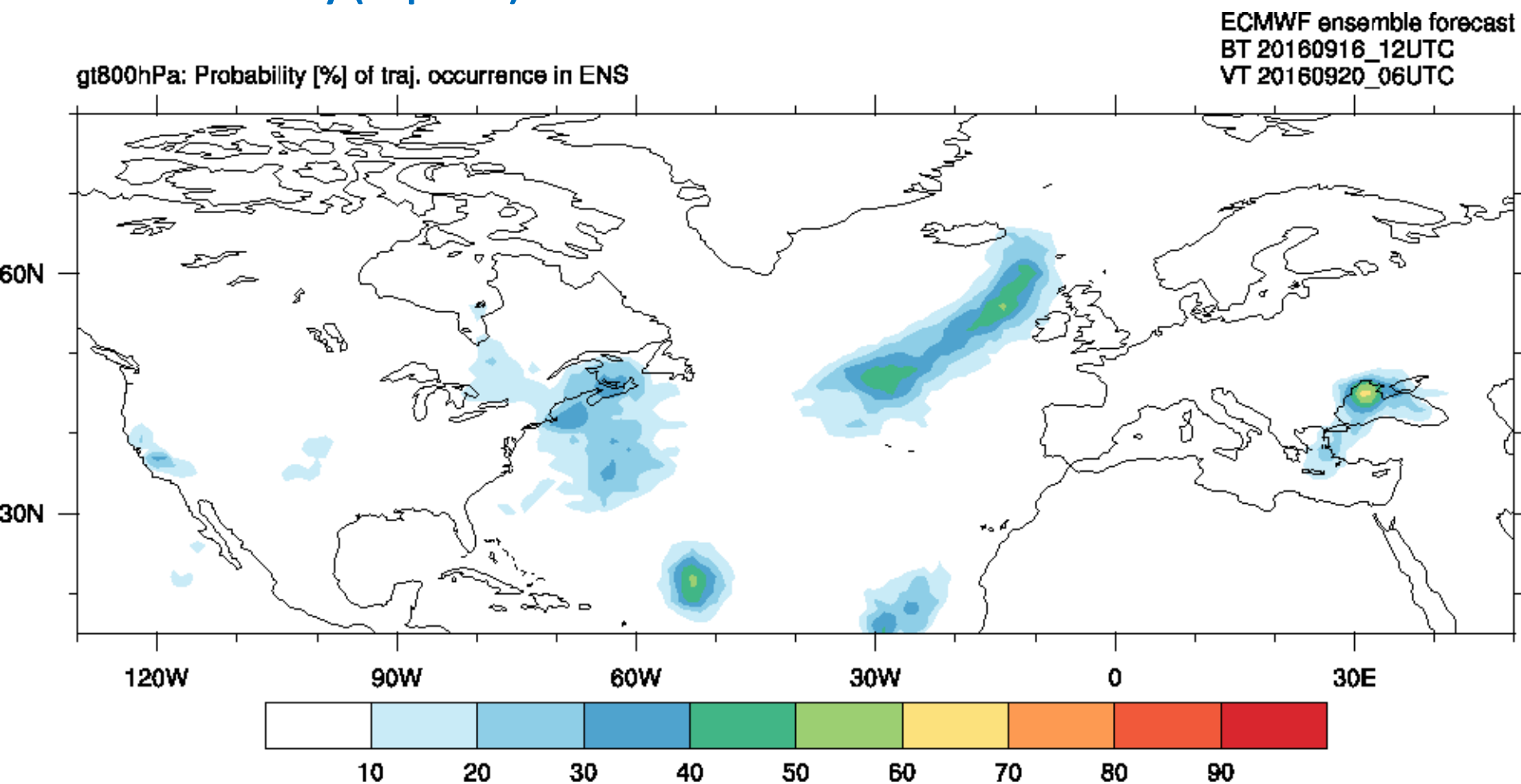
PV@320K at 20160921_12



pvu

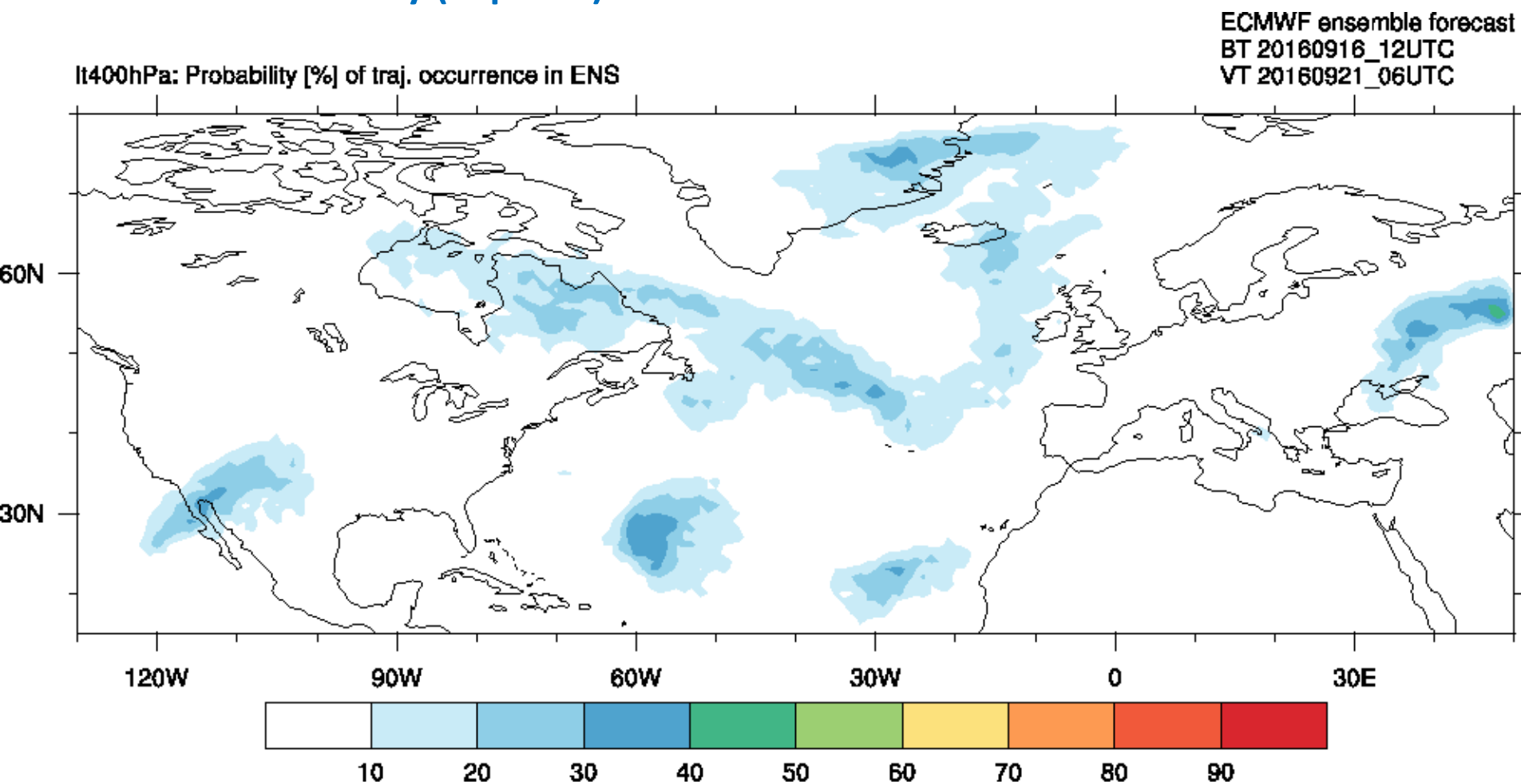
Case I: WCB probability

Inflow – Tuesday (Sept. 20) 06 UTC



Case I: WCB probability

Outflow– Wednesday (Sept. 21) 06 UTC

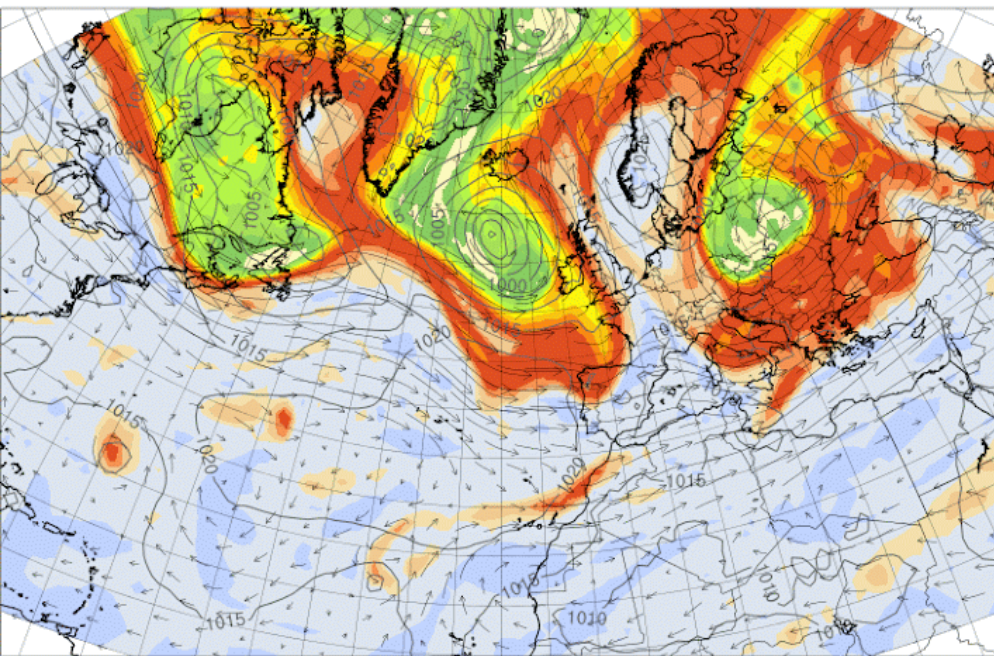


CASE II

Case II: Forecast Thursday (Sept. 22) to Saturday (Sept. 24)

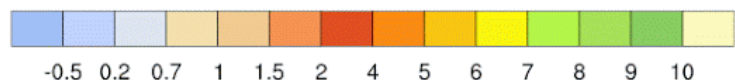
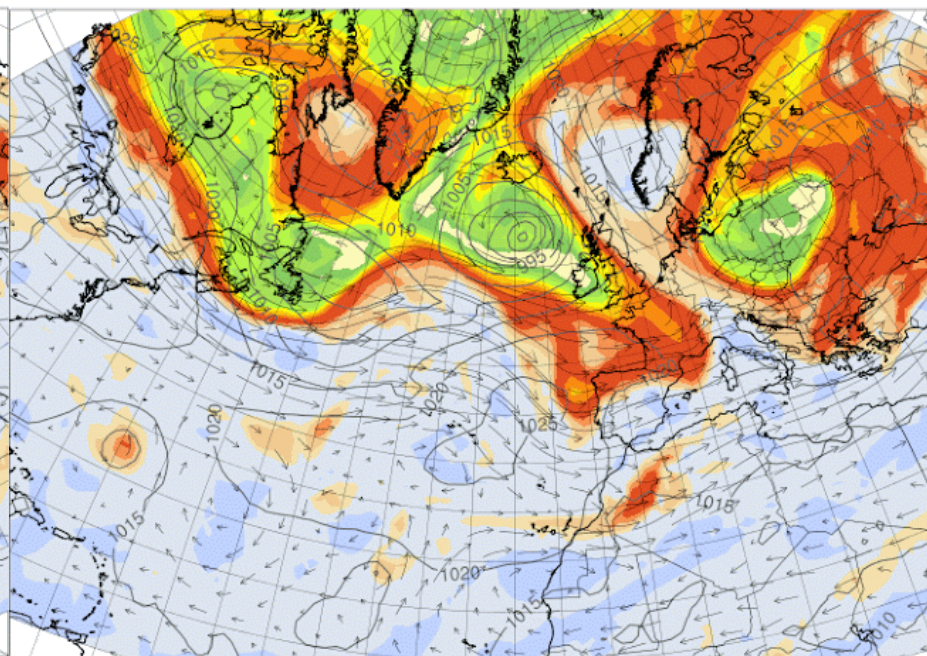
Thursday 22/09 00 UTC

PV@330K at 20160922_00



Thursday 22/09 12 UTC

PV@330K at 20160922_12



pvu

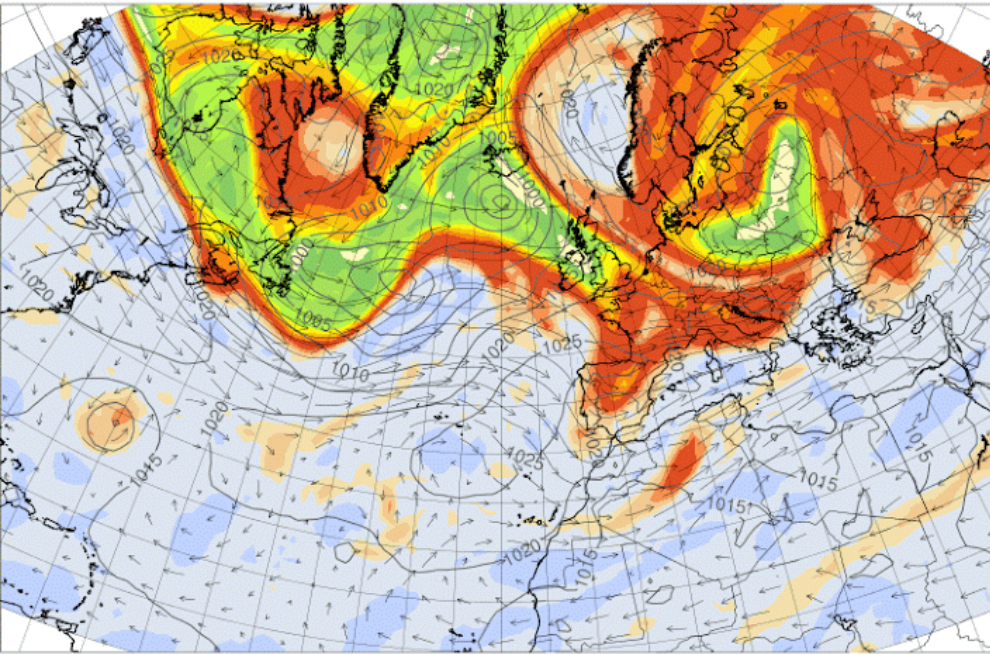


pvu

Case II: Forecast Thursday (Sept. 22) to Saturday (Sept. 24)

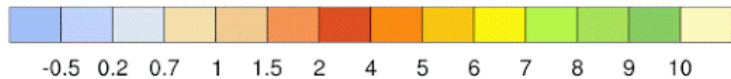
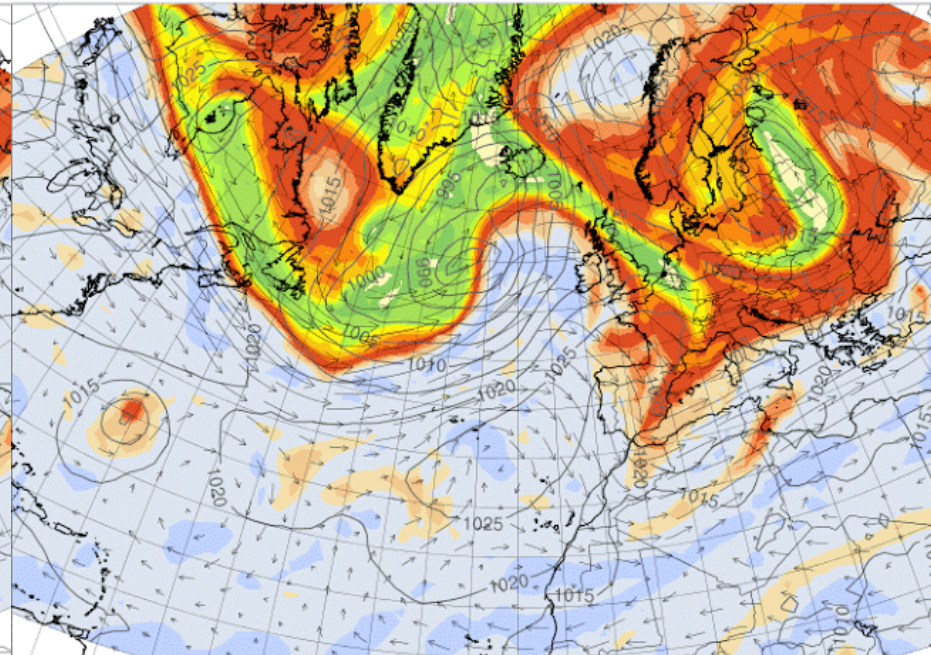
Friday 23/09 00 UTC

PV@330K at 20160923_00



Friday 23/09 12 UTC

PV@330K at 20160923_12



p.u.

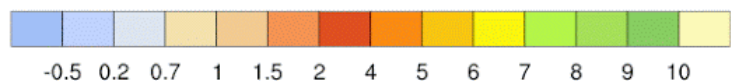
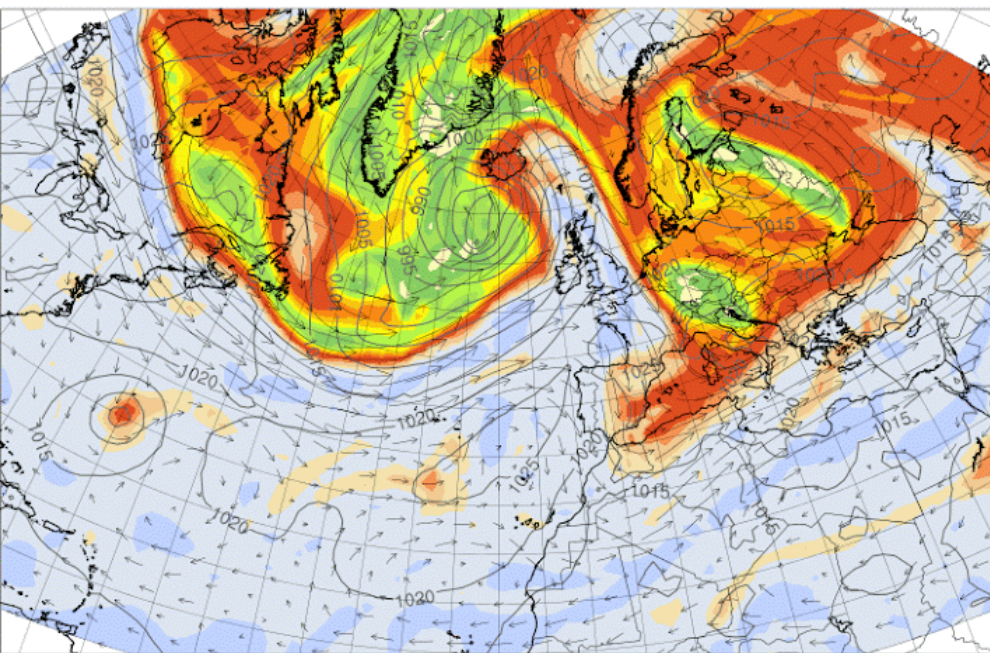


p.u.

Case II: Forecast Thursday (Sept. 22) to Saturday (Sept. 24)

Saturday 24/09 00 UTC

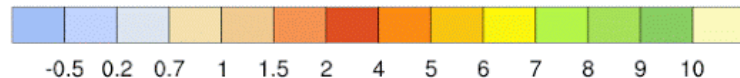
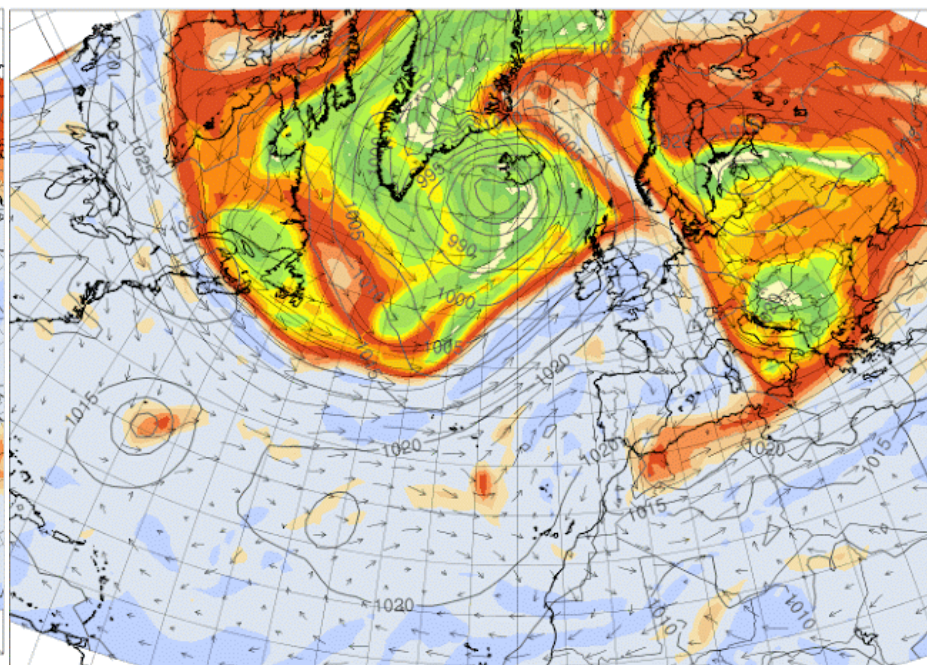
PV@330K at 20160924_00



pvu

Saturday 24/09 12 UTC

PV@330K at 20160924_12



pvu

Summary

- Two rapid cyclogenesis as possible objectives
- CASE I: Tuesday / Wednesday
 - WCB inflow on Tuesday (06/12 UTC) east of Ireland
 - WCB outflow Wednesday north of Iceland
- CASE II: Thursday / Friday
 - High uncertainty originating from upstream (Canada)
 - Outflow south of Iceland
- Detailed meteorological discussion this afternoon