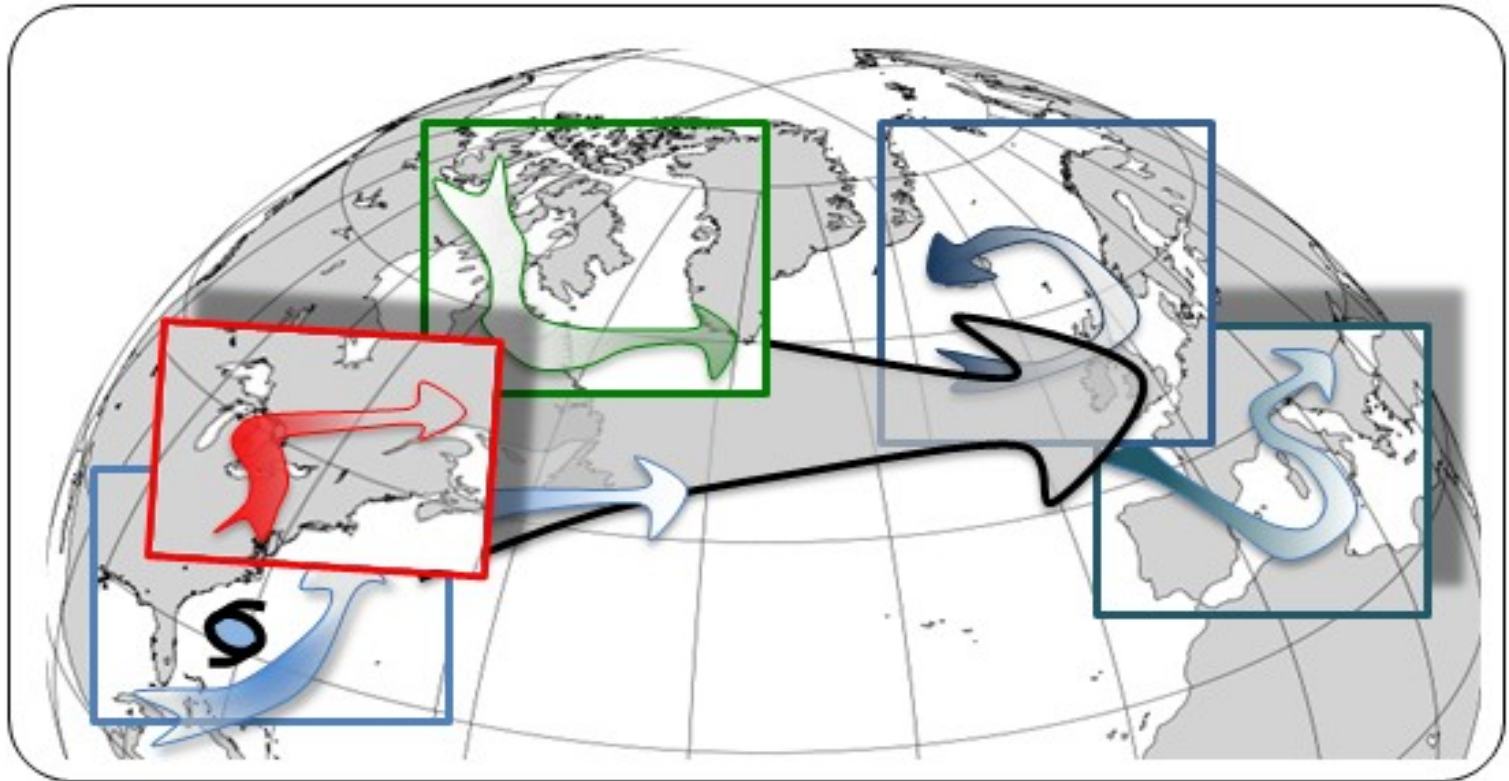


NAWDEX – General Planning Meeting

29 September 2016, Keflavik 11 UTC



NAWDEX – General Planning Meeting

29 September 2016, Keflavik 11 UTC

Key issues today

1. HALO/Falcon flights on Saturday/Sunday

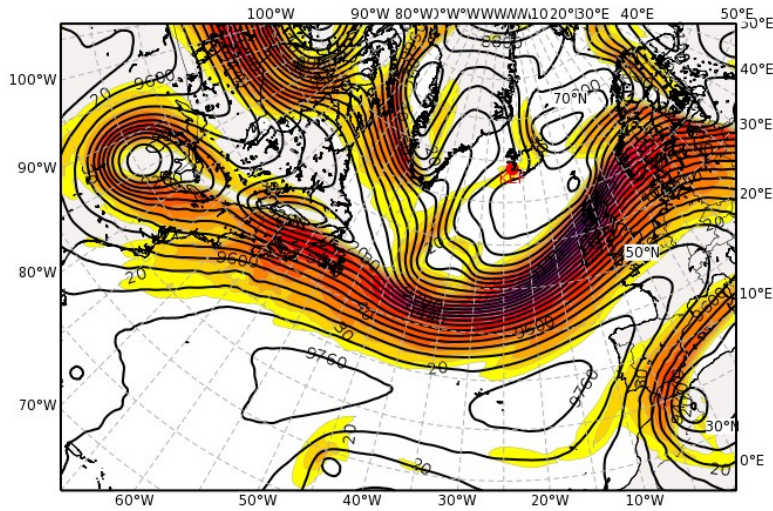
NAWDEX – General Planning Meeting

29 September 2016, Keflavik 11 UTC

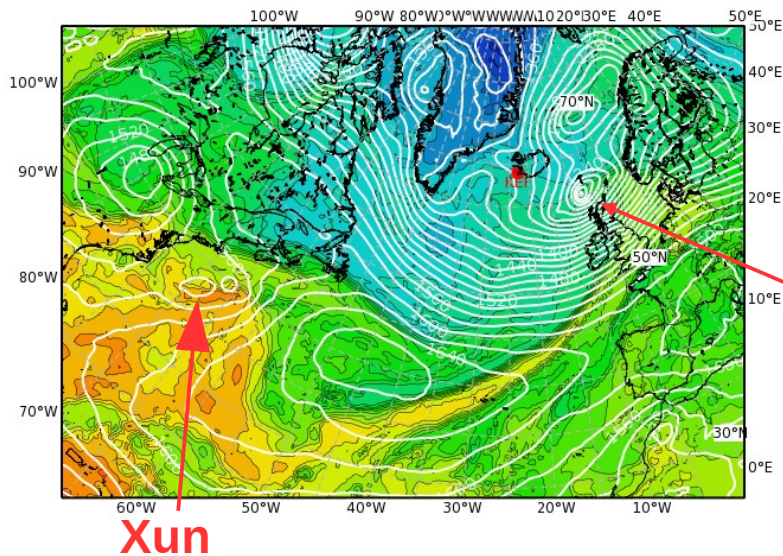
1. Report from Tuesday's Halo/Falcon flights
2. Report from Lidar calibration flight
3. Report from Radiosonde IOP
4. Aircraft status report by FX-Operations
5. Instrument status report by Instrument Manager
6. Short weather summary: information about flight options for Saturday/Sunday
7. Saturday Halo flight
8. Report of Ground-Based Observation coordinator
9. Coordination with other aircraft (Input from other groups)

Analysis – 29 Sep 2016, 00 UTC

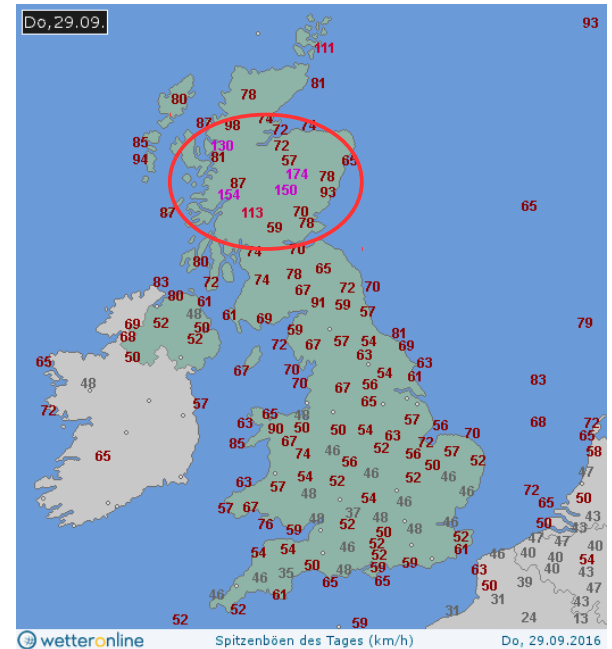
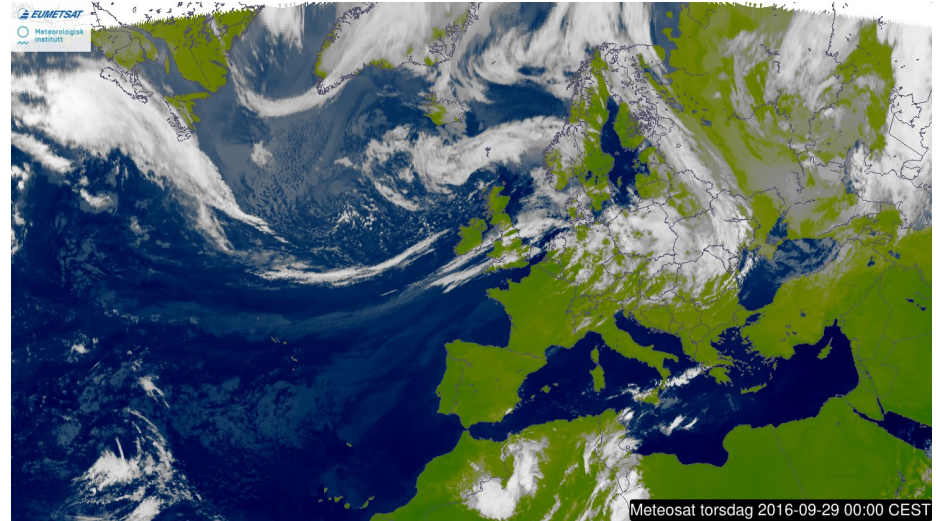
Geopotential Height (m) & Horizontal Wind (m/s) at 300 hPa
Valid: Thu, 29 Sep 2016, 00 UTC (step 000 h from Thu, 29 Sep 2016, 00 UTC)



Equivalent Potential Temperature (degC) & Streamlines at 850 hPa
Valid: Thu, 29 Sep 2016, 00 UTC (step 000 h from Thu, 29 Sep 2016, 00 UTC)

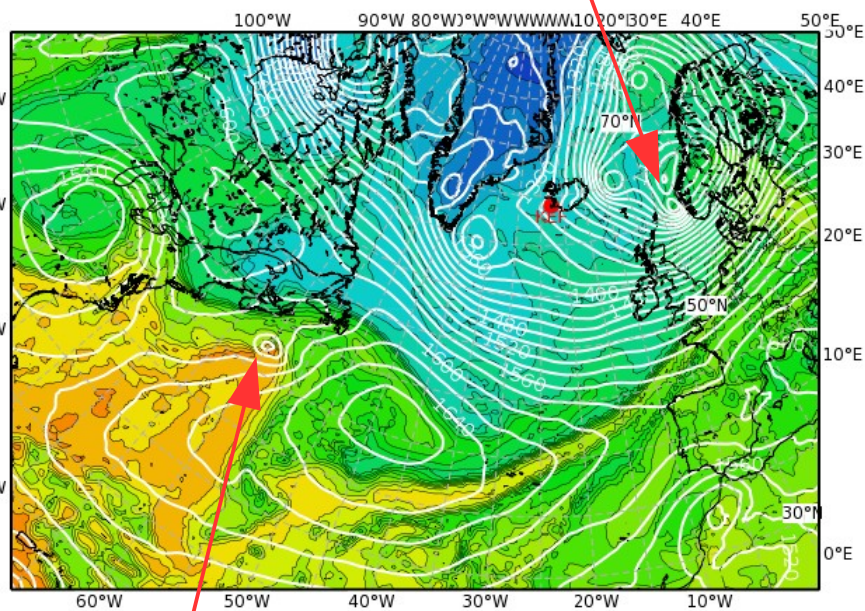


Z300, SAT
THE850



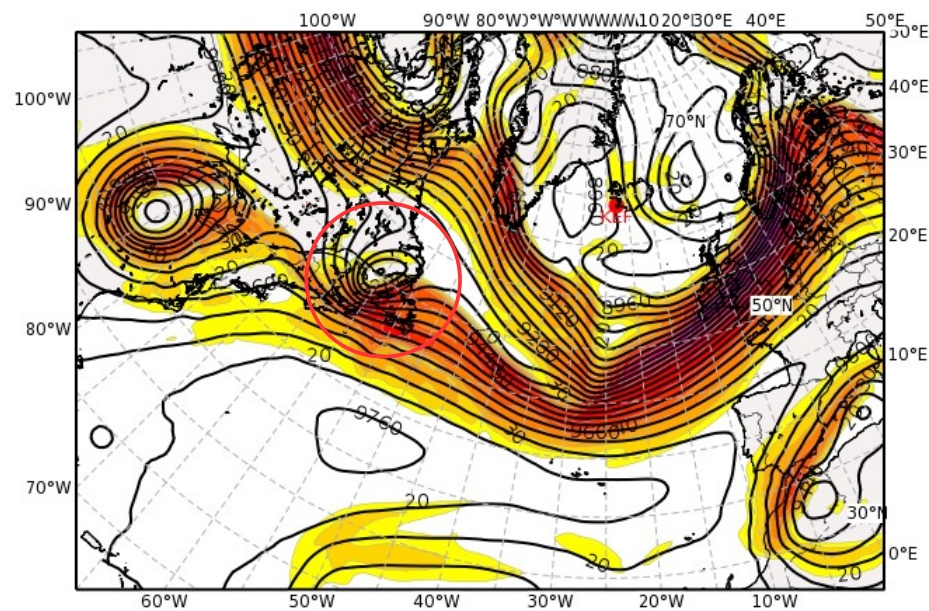
Walpurga

Equivalent Potential Temperature (degC) & Streamlines at 850 hPa
Valid: Thu, 29 Sep 2016, 12 UTC (step 012 h from Thu, 29 Sep 2016, 00 UTC)



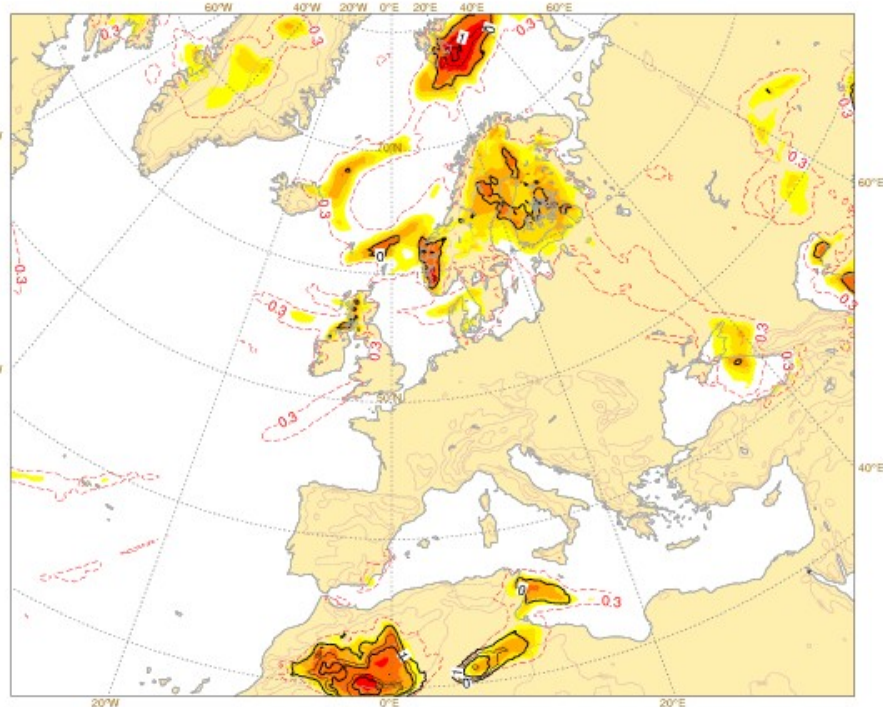
Xun

Geopotential Height (m) & Horizontal Wind (m/s) at 300 hPa
Valid: Thu, 29 Sep 2016, 12 UTC (step 012 h from Thu, 29 Sep 2016, 00 UTC)

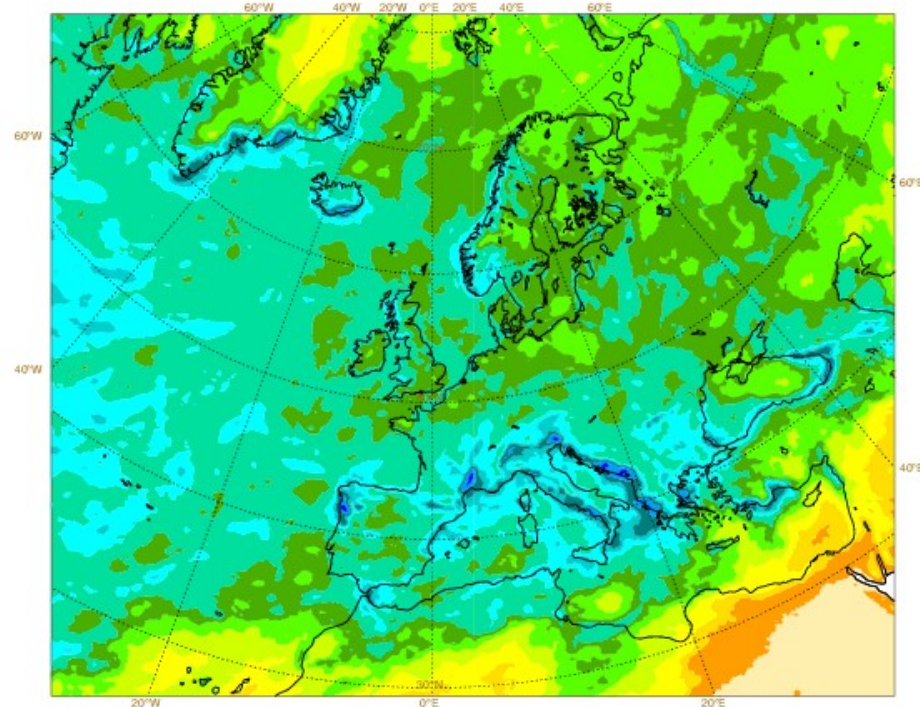
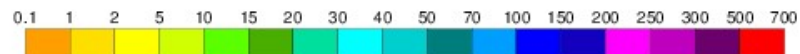


EFI precipitation for Thu 29/00Z to Fri 30/00Z

Thu 29 Sep 2016 00UTC ©ECMWF t+0-24h VT: Thu 29 Sep 2016 00UTC - Fri 30 Sep 2016 00UTC
Extreme forecast index and Shift of Tails (black contours 0,1,2,5,8) for total precipitation



Mon 26 Sep 2016 00UTC ©ECMWF VT: Thu 29 Sep 2016 00UTC - Fri 30 Sep 2016 00UTC 0-24h
total precipitation (in mm) Model climate Q99 (one in 100 occasions realises more than value shown)

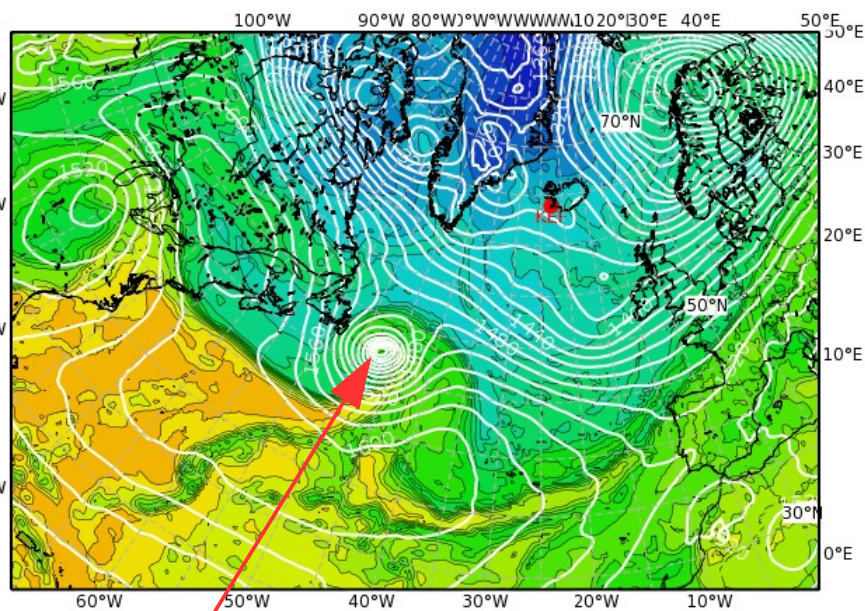


BT29/00Z

Forecast for Fri, 30 Sep 2016 12 UTC

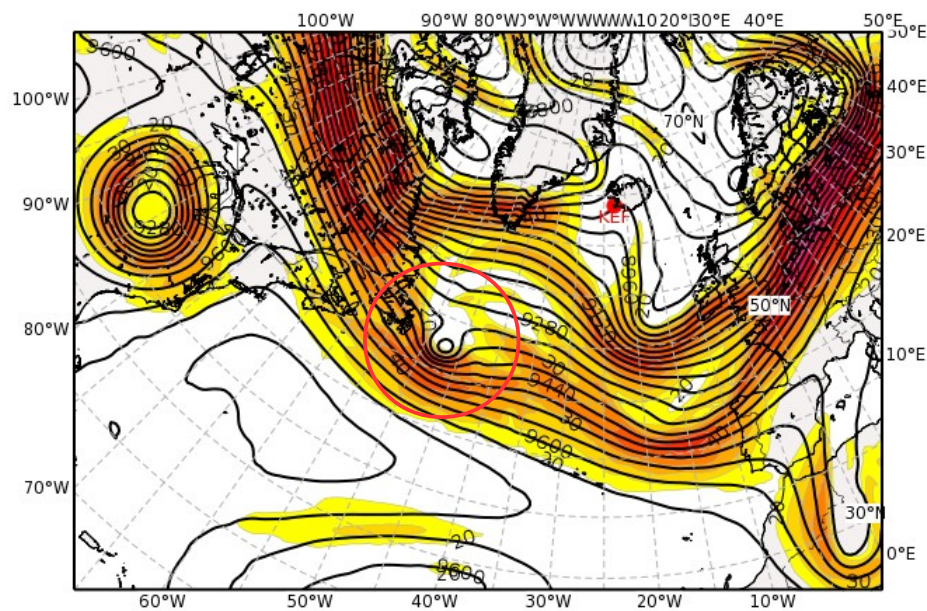
THE850, Z300 BT26/00Z

Equivalent Potential Temperature (degC) & Streamlines at 850 hPa
Valid: Fri, 30 Sep 2016, 12 UTC (step 036 h from Thu, 29 Sep 2016, 00 UTC)



Xun

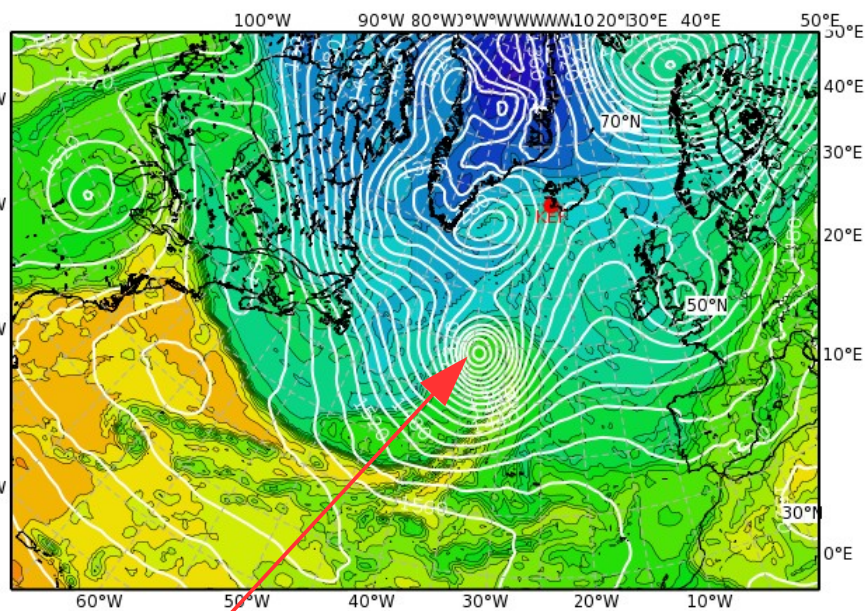
Geopotential Height (m) & Horizontal Wind (m/s) at 300 hPa
Valid: Fri, 30 Sep 2016, 12 UTC (step 036 h from Thu, 29 Sep 2016, 00 UTC)



Forecast for Sat, 01 Oct 2016 12 UTC

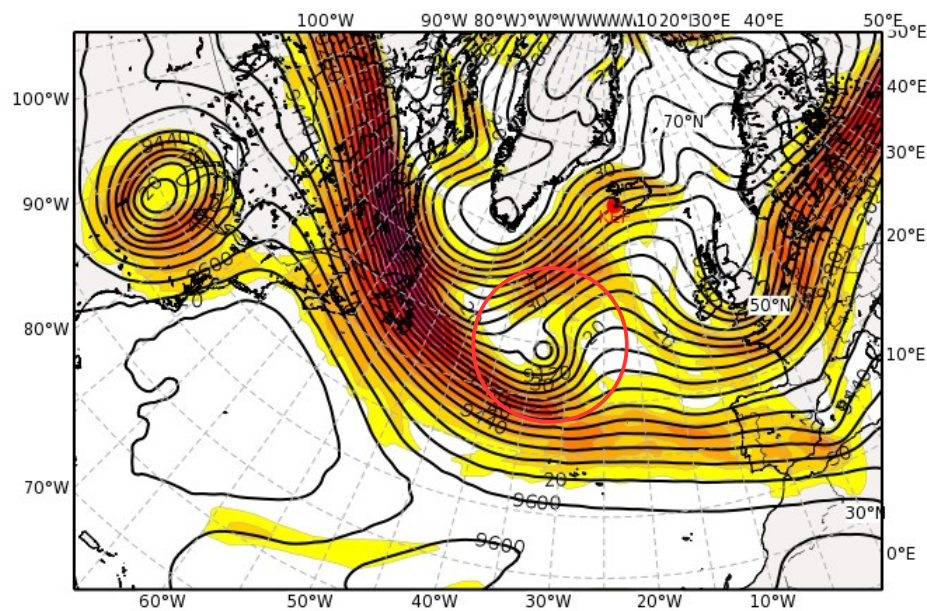
THE850, Z300 BT26/00Z

Equivalent Potential Temperature (degC) & Streamlines at 850 hPa
Valid: Sat, 01 Oct 2016, 12 UTC (step 060 h from Thu, 29 Sep 2016, 00 UTC)



Xun

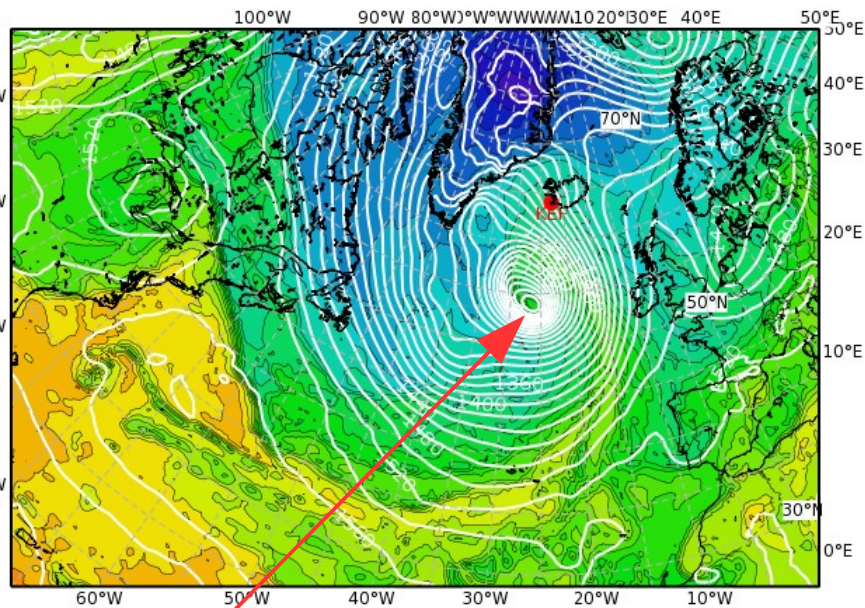
Geopotential Height (m) & Horizontal Wind (m/s) at 300 hPa
Valid: Sat, 01 Oct 2016, 12 UTC (step 060 h from Thu, 29 Sep 2016, 00 UTC)



Forecast for Sun, 02 Oct 2016 12 UTC

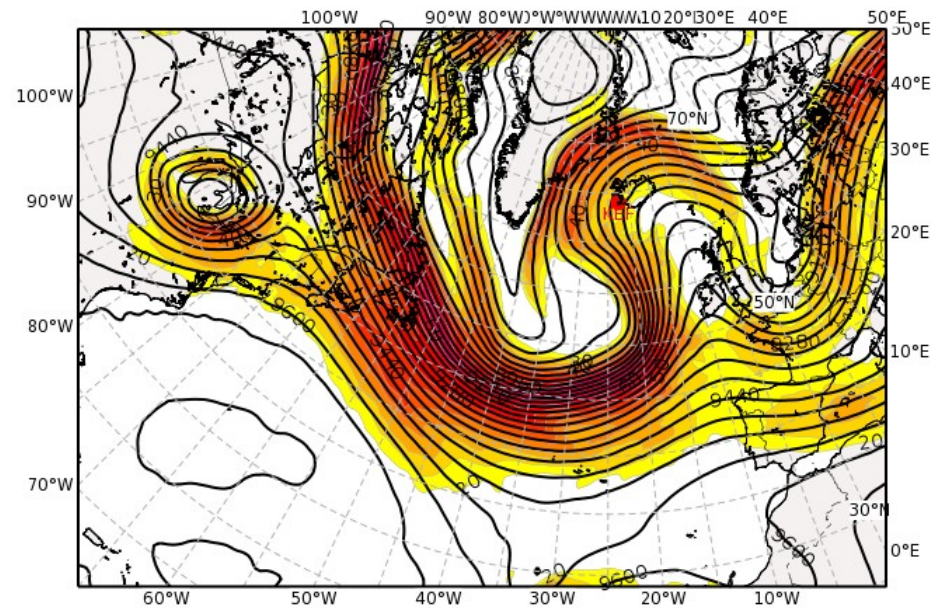
THE850, Z300 BT26/00Z

Equivalent Potential Temperature (degC) & Streamlines at 850 hPa
Valid: Sun, 02 Oct 2016, 12 UTC (step 084 h from Thu, 29 Sep 2016, 00 UTC)



Xun

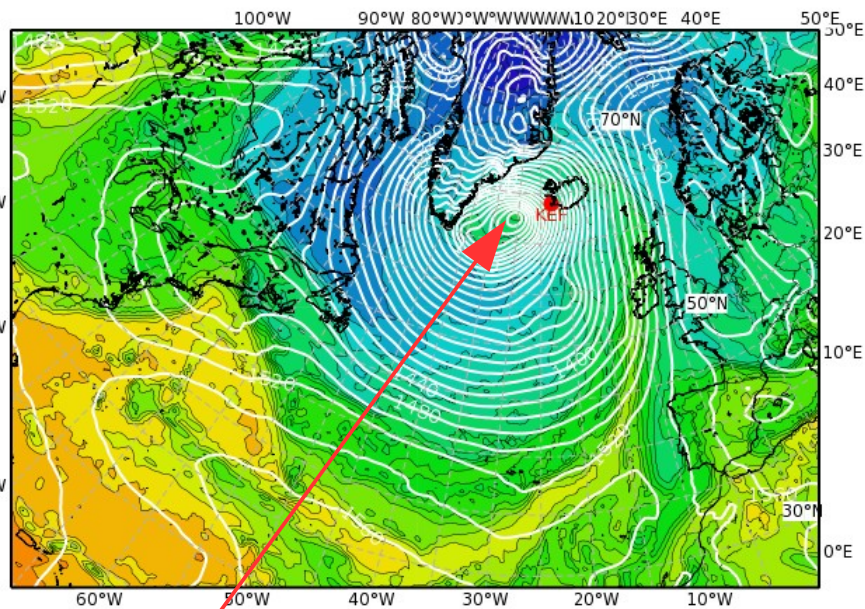
Geopotential Height (m) & Horizontal Wind (m/s) at 300 hPa
Valid: Sun, 02 Oct 2016, 12 UTC (step 084 h from Thu, 29 Sep 2016, 00 UTC)



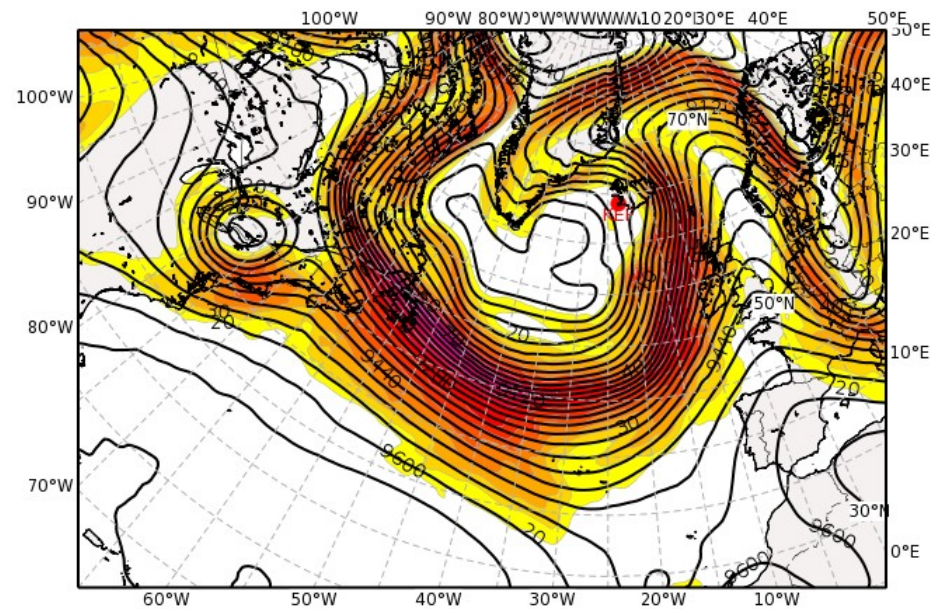
Forecast for Mon, 03 Oct 2016 12 UTC

THE850, Z300 BT26/00Z

Equivalent Potential Temperature (degC) & Streamlines at 850 hPa
Valid: Mon, 03 Oct 2016, 12 UTC (step 108 h from Thu, 29 Sep 2016, 00 UTC)



Geopotential Height (m) & Horizontal Wind (m/s) at 300 hPa
Valid: Mon, 03 Oct 2016, 12 UTC (step 108 h from Thu, 29 Sep 2016, 00 UTC)

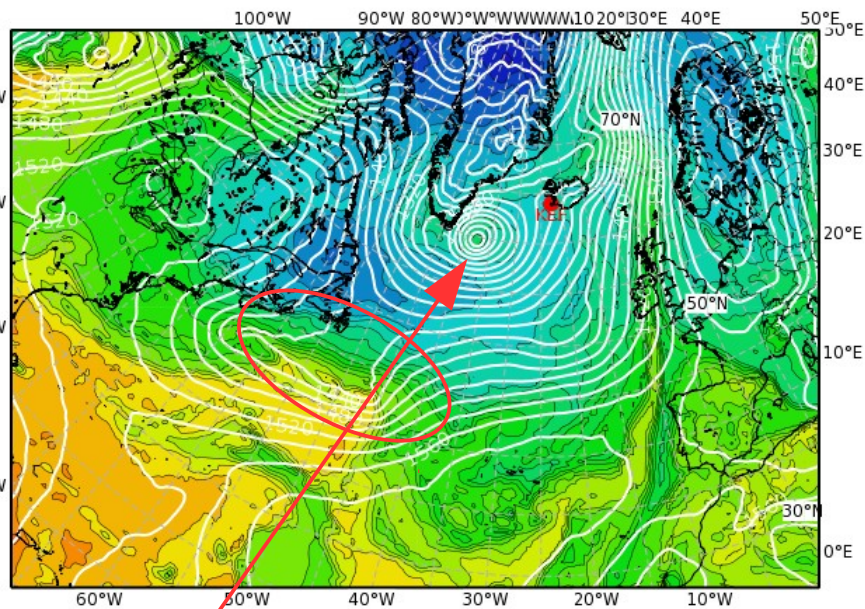


Xun

Forecast for Tue, 04 Oct 2016 12 UTC

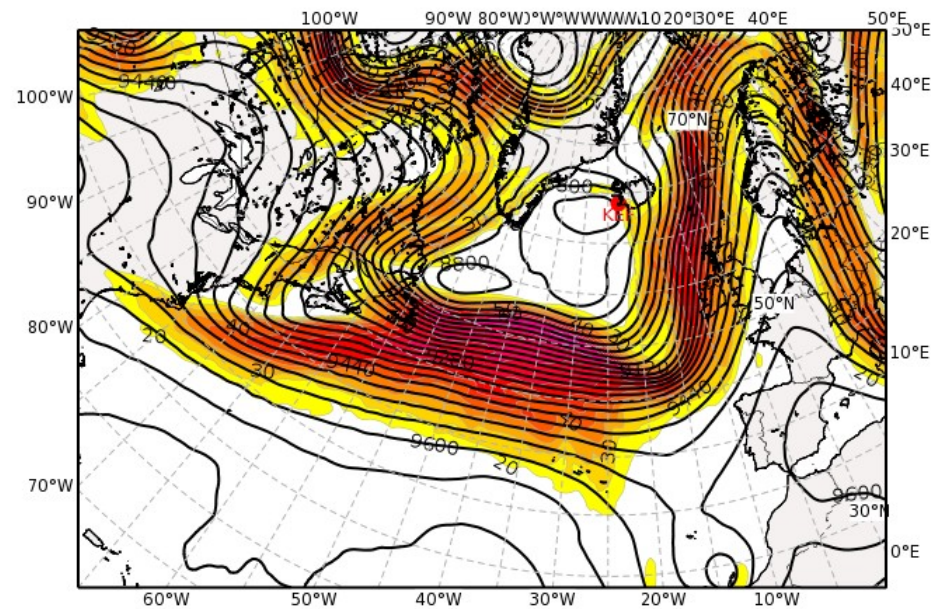
THE850, Z300 BT26/00Z

Equivalent Potential Temperature (degC) & Streamlines at 850 hPa
Valid: Tue, 04 Oct 2016, 12 UTC (step 132 h from Thu, 29 Sep 2016, 00 UTC)



Xun

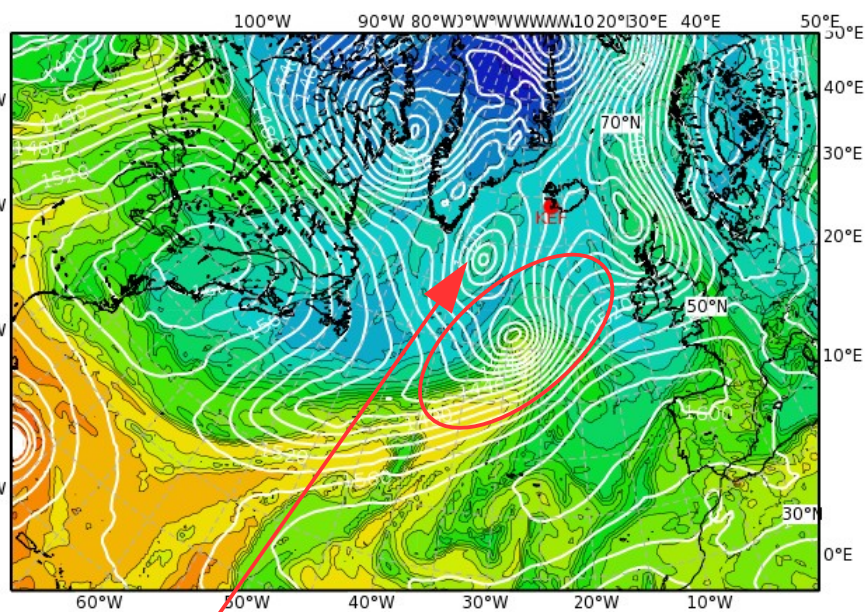
Geopotential Height (m) & Horizontal Wind (m/s) at 300 hPa
Valid: Tue, 04 Oct 2016, 12 UTC (step 132 h from Thu, 29 Sep 2016, 00 UTC)



Forecast for Wed, 05 Oct 2016 12 UTC

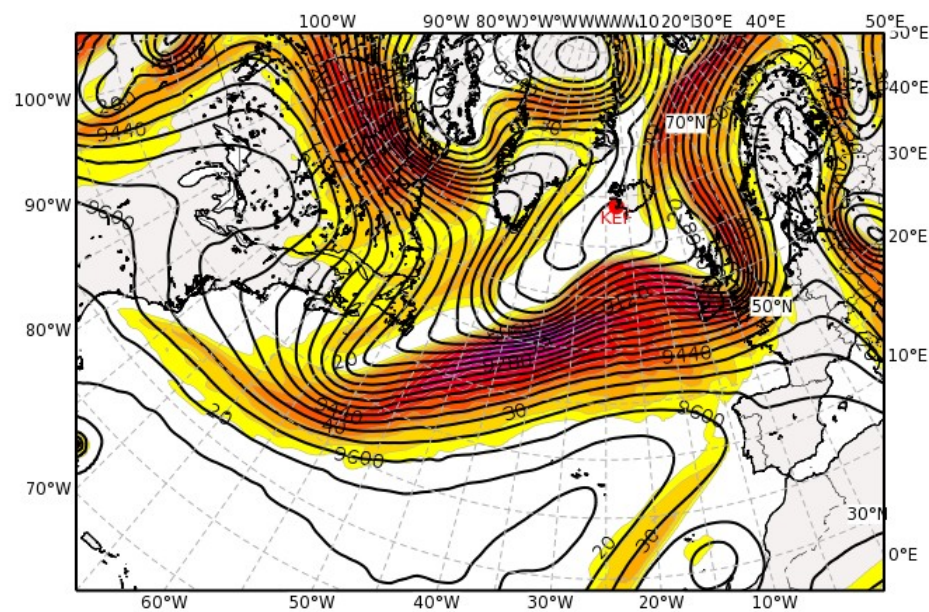
THE850, Z300 BT26/00Z

Equivalent Potential Temperature (degC) & Streamlines at 850 hPa
Valid: Wed, 05 Oct 2016, 12 UTC (step 156 h from Thu, 29 Sep 2016, 00 UTC)

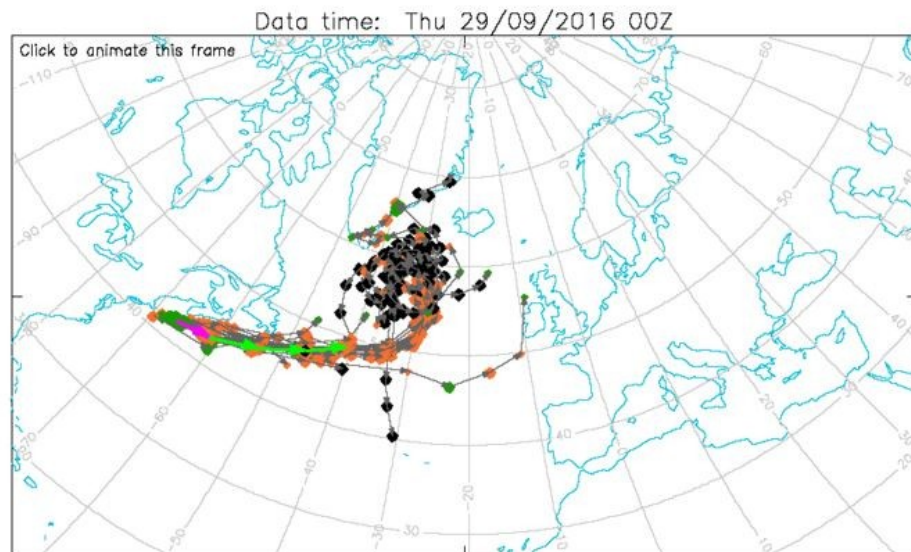


Xun

Geopotential Height (m) & Horizontal Wind (m/s) at 300 hPa
Valid: Wed, 05 Oct 2016, 12 UTC (step 156 h from Thu, 29 Sep 2016, 00 UTC)

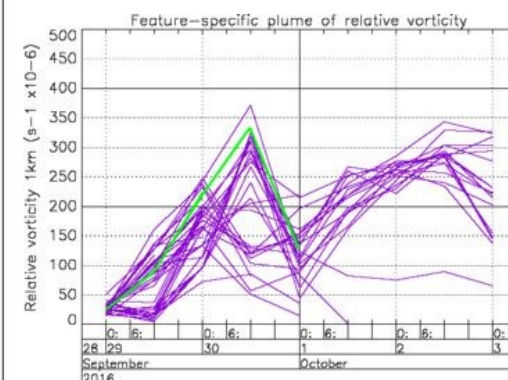
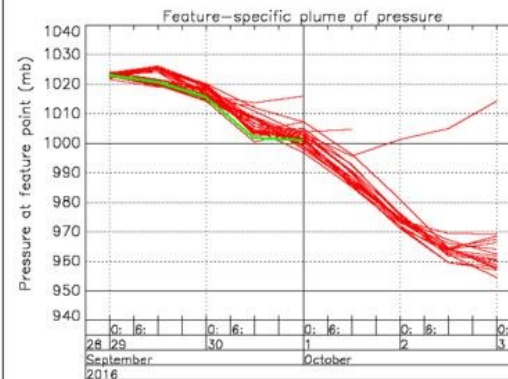
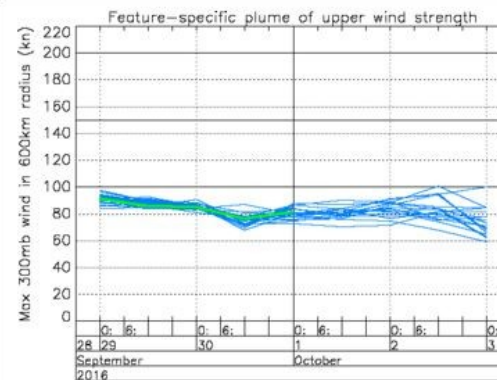
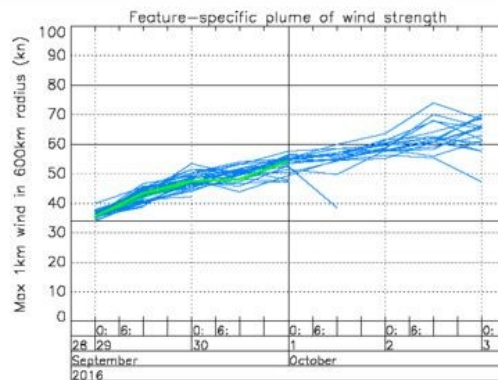
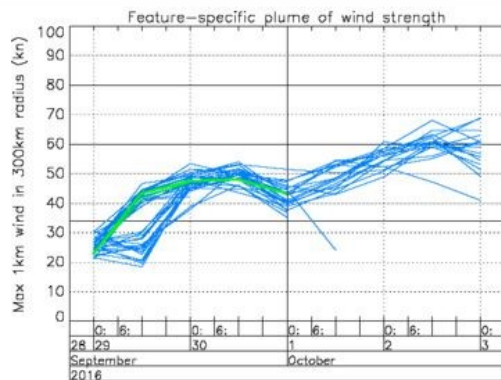


Cyclone Xun track forecast BT 29/00Z



Percentage of members in track, and a list of the member numbers:

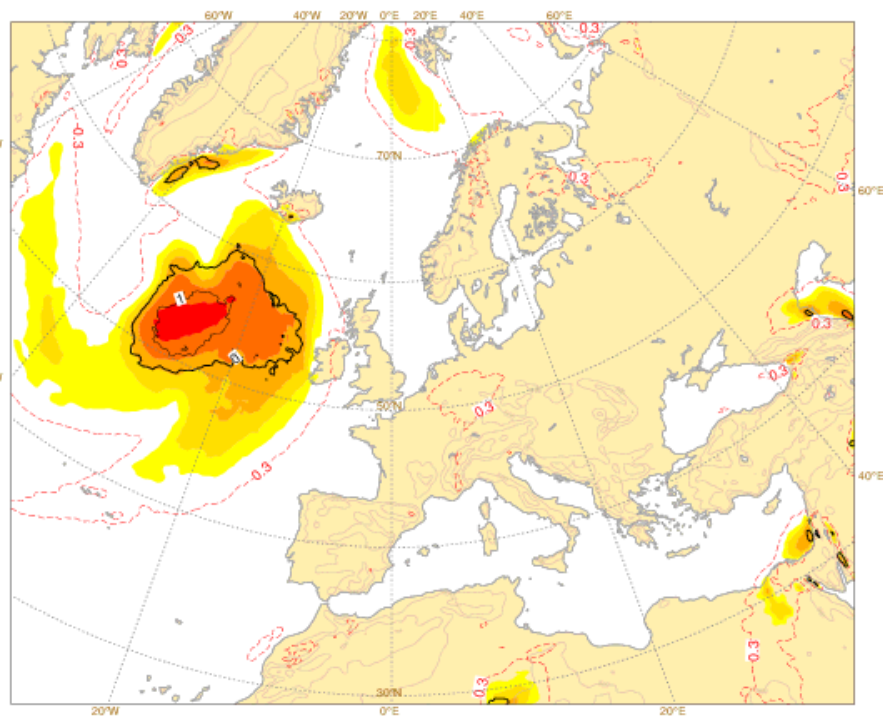
T+ 0: 84%	Det. 0,1,2,3,4,5,7,8,9,10,11,12,14,15,16,17,18,22,23,24,25,26,27,30,31,32,33,34,35,36,38,39,40,41,42,43,44,45,46,47,48,49,50
T+ 12: 73%	Det. 0,1,2,4,5,9,10,11,12,14,15,16,17,18,22,23,24,26,27,30,31,32,33,34,35,36,38,39,40,41,42,45,46,47,48,49,50
T+ 24: 80%	Det. 0,1,2,4,5,9,10,11,12,14,15,16,17,18,22,23,24,26,30,31,32,33,34,35,39,40,41,42,45,46,47,48,50
T+ 36: 51%	Det. 1,2,4,5,9,10,11,14,16,17,22,23,24,26,30,31,32,33,34,35,40,41,42,45,46,48,50
T+ 48: 49%	Det. 1,2,4,9,10,11,14,16,17,22,23,24,26,30,31,32,33,34,35,40,41,42,45,46,50
T+ 60: 35%	11,14,16,22,24,26,30,31,32,33,34,35,40,41,42,45,46,50
T+ 72: 33%	11,14,16,22,24,26,30,31,32,34,35,40,41,42,45,46,50
T+ 84: 33%	11,14,16,22,24,26,30,31,32,34,35,40,41,42,45,46,50
T+ 96: 33%	11,14,16,22,24,26,30,31,32,34,35,40,41,42,45,46,50



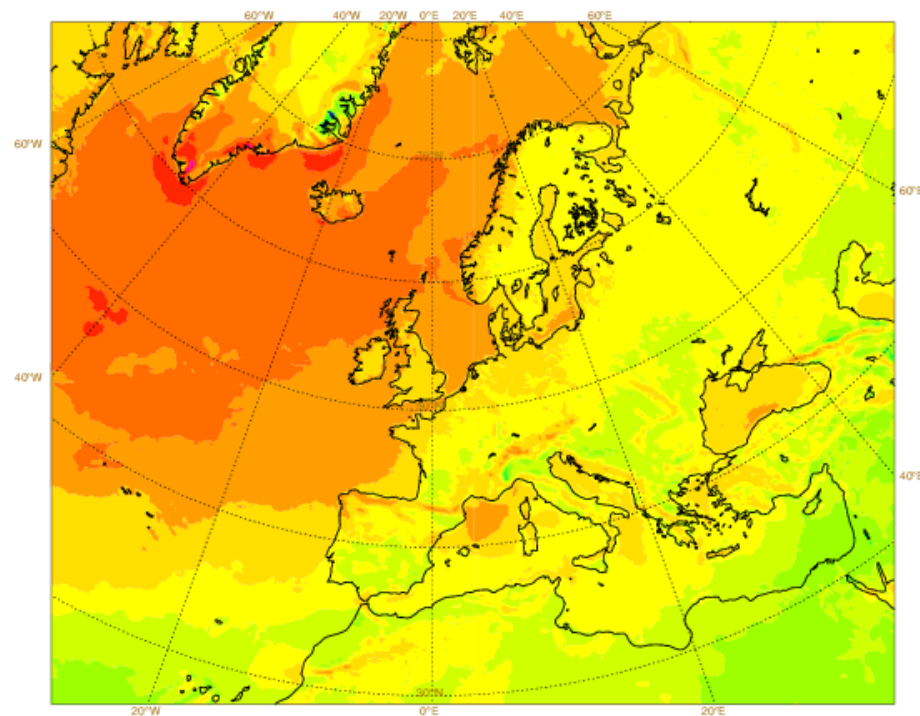
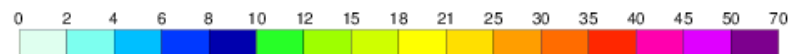
BT29/00Z

EFI wind for Sun 02/00Z to Mon 03/00Z

Thu 29 Sep 2016 00UTC @ECMWF t+72-96h VT: Sun 02 Oct 2016 00UTC - Mon 03 Oct 2016 00UTC
Extreme forecast index and Shift of Tails (black contours 0,1,2,5,8) for 10m wind gusts



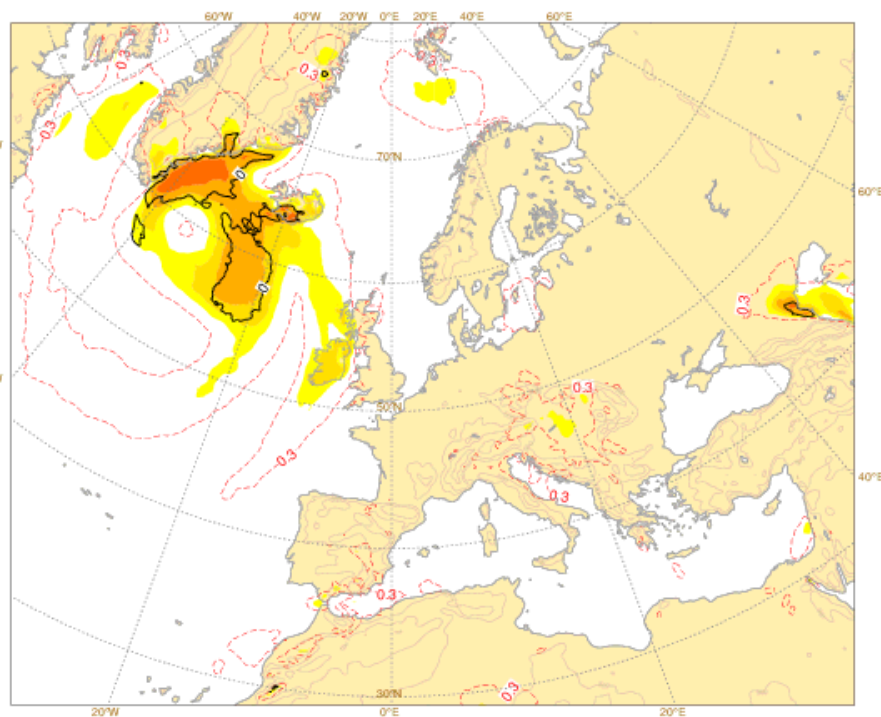
Mon 26 Sep 2016 00UTC @ECMWF VT: Sun 02 Oct 2016 00UTC - Mon 03 Oct 2016 00UTC 72-96h
10m wind gusts (in m/s) Model climate Q99 (one in 100 occasions realises more than value shown)



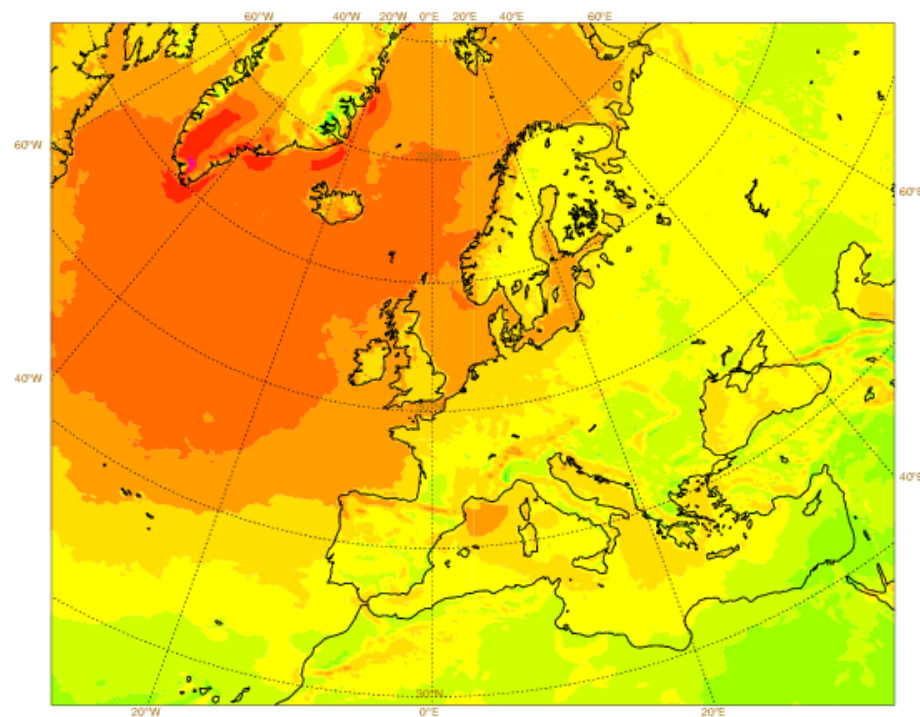
BT29/00Z

EFI wind for Mon 03/00Z to Tue 03/00Z

Thu 29 Sep 2016 00UTC @ECMWF t+96-120h VT: Mon 03 Oct 2016 00UTC - Tue 04 Oct 2016 00UTC
Extreme forecast index and Shift of Tails (black contours 0,1,2,5,8) for 10m wind gusts



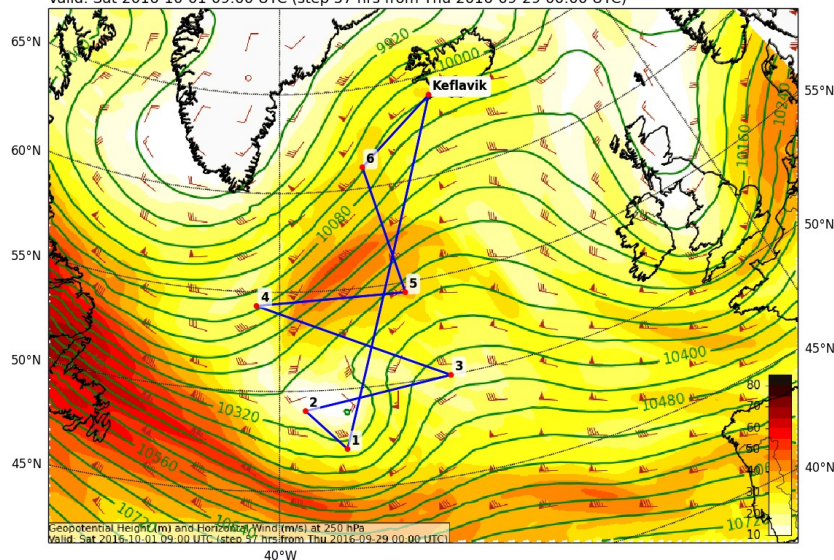
Mon 26 Sep 2016 00UTC @ECMWF VT: Mon 03 Oct 2016 00UTC - Tue 04 Oct 2016 00UTC 96-120h
10m wind gusts (in m/s) Model climate Q99 (one in 100 occasions realises more than value shown)



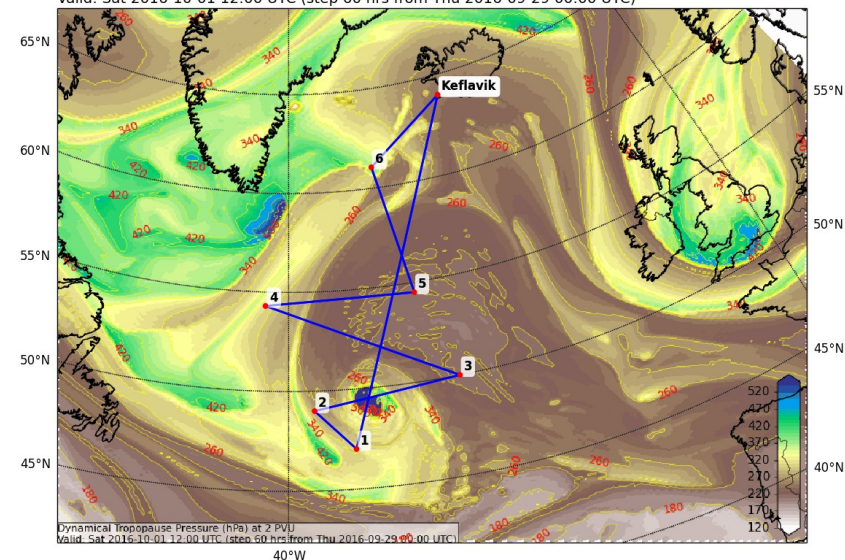
BT29/00Z

Saturday HALO flight

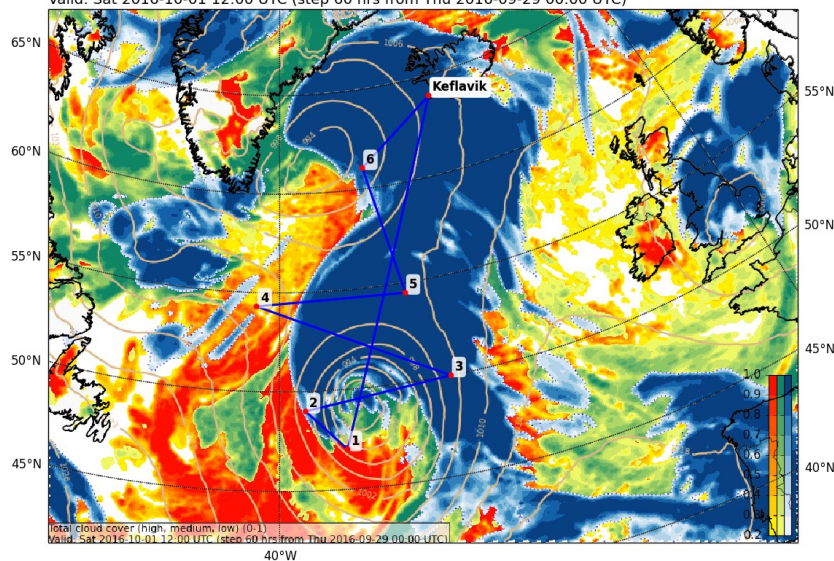
Geopotential Height (m) and Horizontal Wind (m/s) (Wind Speed 10-85 m/s) at 250 (hPa)
Valid: Sat 2016-10-01 09:00 UTC (step 57 hrs from Thu 2016-09-29 00:00 UTC)



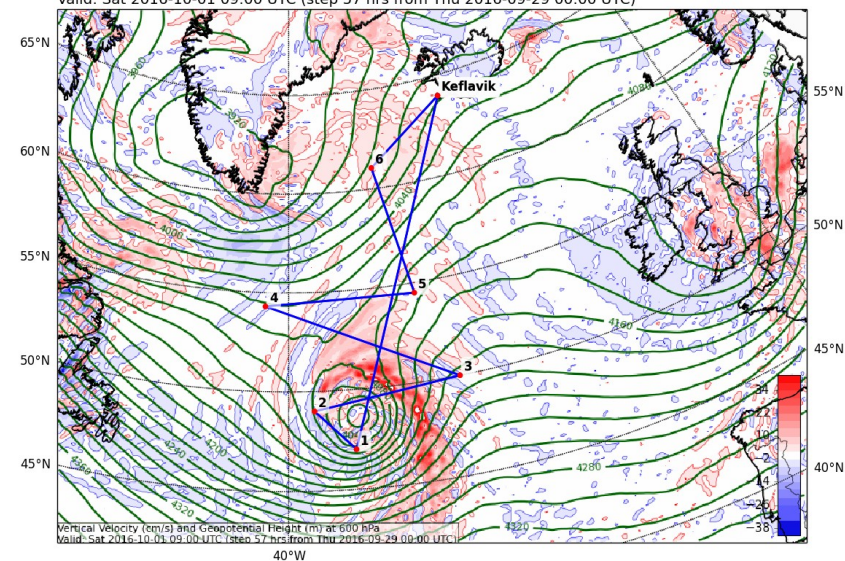
Dynamical Tropopause (Pressure (hPa)) at 2000 (10^{-3} PVU)
Valid: Sat 2016-10-01 12:00 UTC (step 60 hrs from Thu 2016-09-29 00:00 UTC)



Cloud Cover (0-1) (Total Cloud Cover)
Valid: Sat 2016-10-01 12:00 UTC (step 60 hrs from Thu 2016-09-29 00:00 UTC)

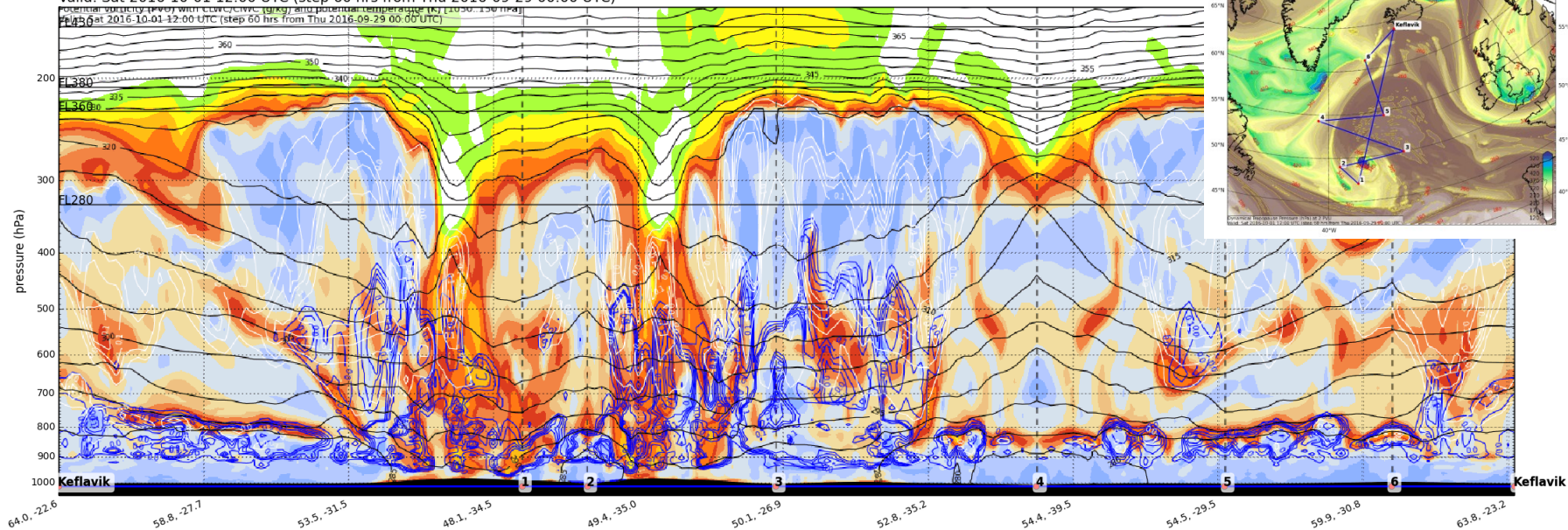


Vertical Velocity (cm/s) and Geopotential Height (m) at 600 (hPa)
Valid: Sat 2016-10-01 09:00 UTC (step 57 hrs from Thu 2016-09-29 00:00 UTC)



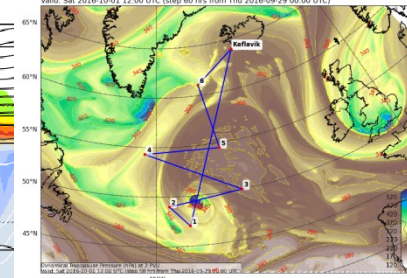
Potential Vorticity (PVU) Vertical Section (Northern Hemisphere)

Valid: Sat 2016-10-01 12:00 UTC (step 60 hrs from Thu 2016-09-29 00:00 UTC)



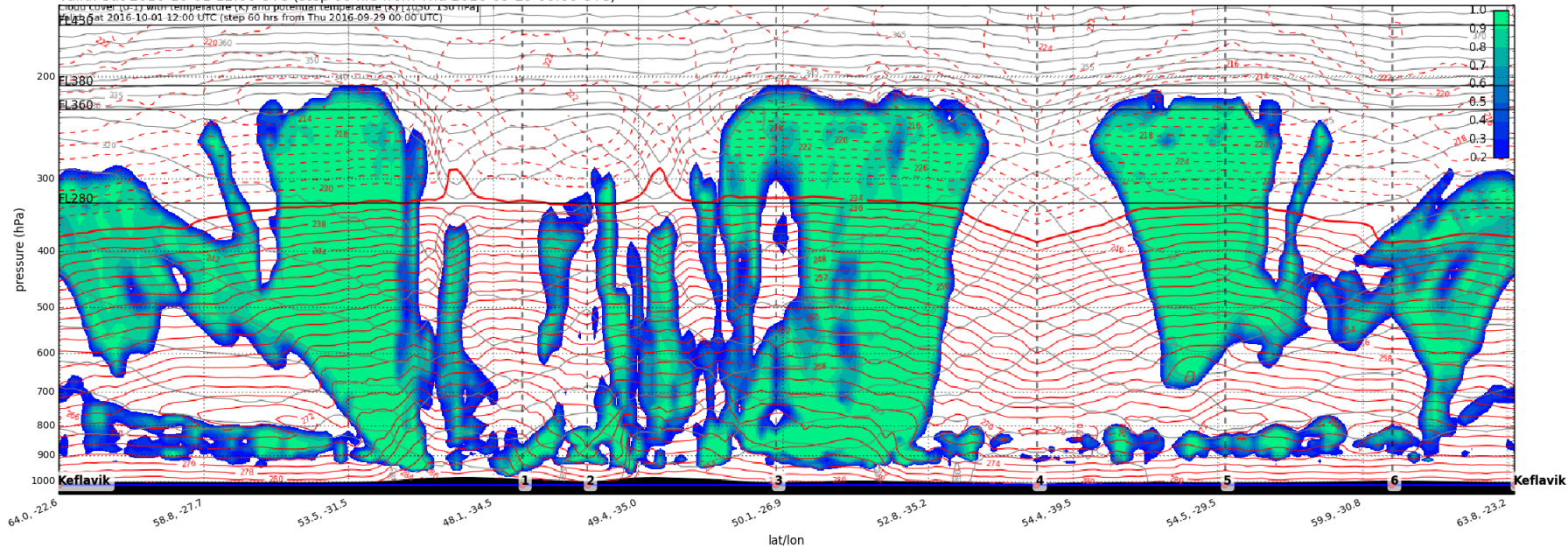
Dynamical Tropopause (Pressure (hPa) at 2000 (10⁻³ PVU)

Valid: Sat 2016-10-01 12:00 UTC (step 60 hrs from Thu 2016-09-29 00:00 UTC)

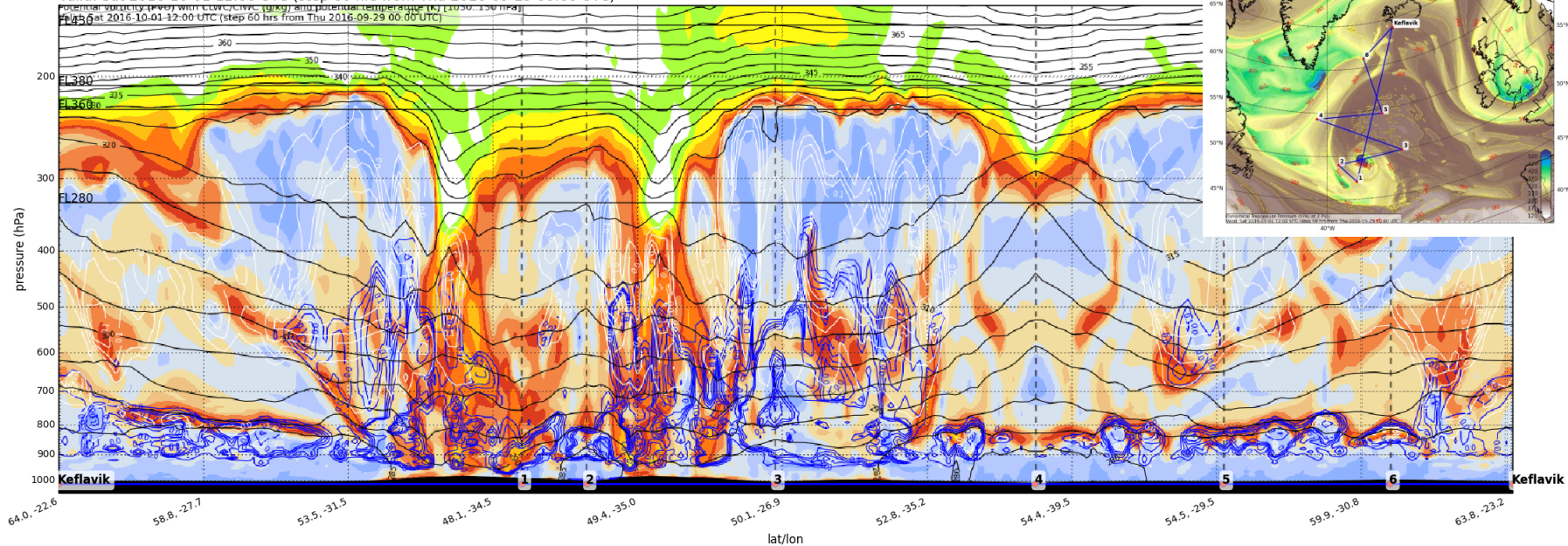


Cloud Cover (0-1) Vertical Section

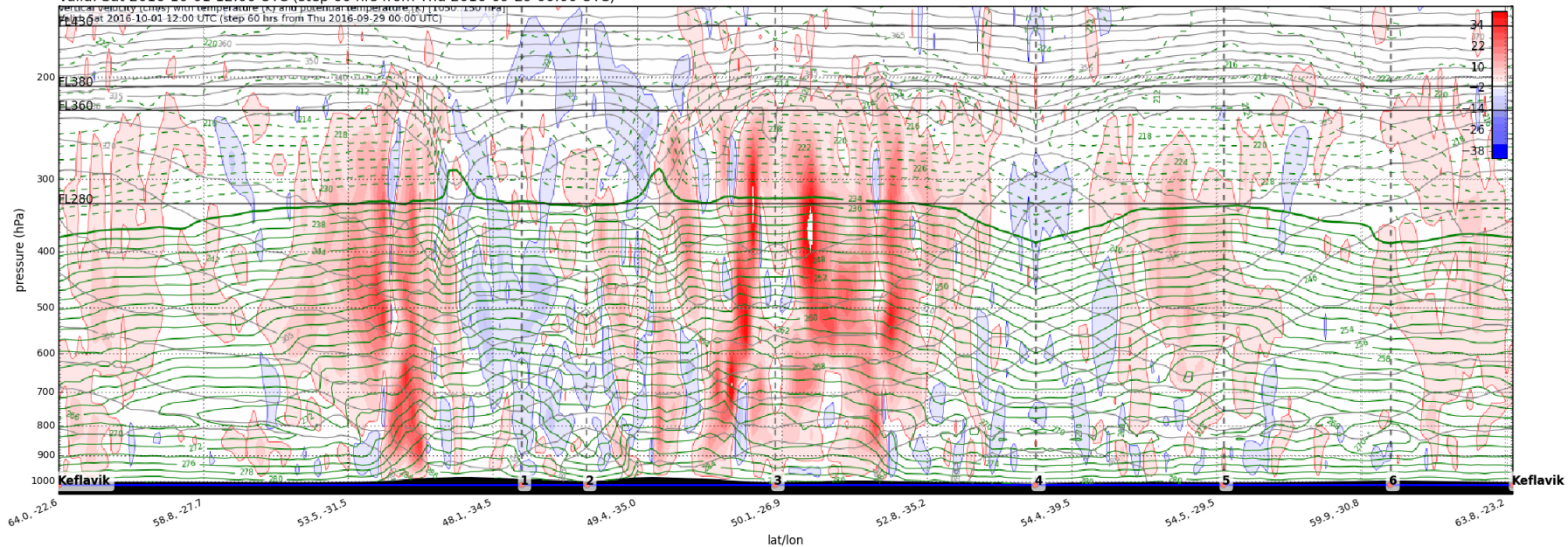
Valid: Sat 2016-10-01 12:00 UTC (step 60 hrs from Thu 2016-09-29 00:00 UTC)



Potential Vorticity (PVU) Vertical Section (Northern Hemisphere)
Valid: Sat 2016-10-01 12:00 UTC (step 60 hrs from Thu 2016-09-29 00:00 UTC)



Vertical Velocity (cm/s) Vertical Section
Valid: Sat 2016-10-01 12:00 UTC (step 60 hrs from Thu 2016-09-29 00:00 UTC)



Summary

- Quick-look meeting for IOP4/5 today at 4pm
- Short overview of French project
- NAWDEX party today at 7.30pm
- HALO flight on Saturday
- Probable HALO/Falcon flight on Sunday

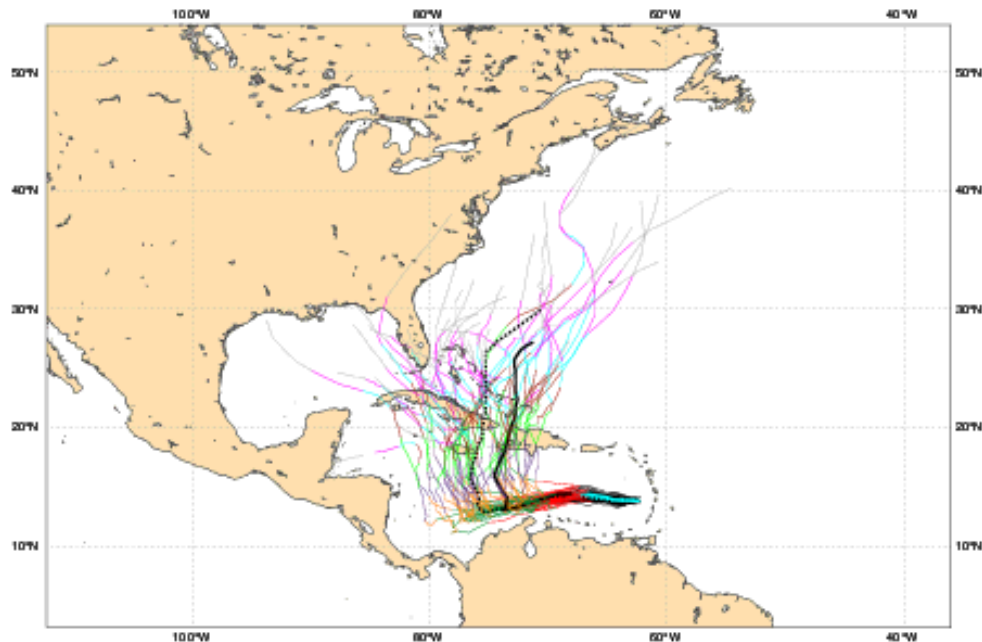
TC Matthew track forecast BT 29/00Z

Date 20160929 00 UTC @ECMWF

Individual trajectories for **MATTHEW** during the next 240 hours

tracks: **thick solid**=HRES; **thick dot**=CTRL; **thin solid**=EPS members [coloured]

0-24h 24-48h 48-72h 72-96h 96-120h 120-144h 144-168h 168-192h 192-216h 216-240h



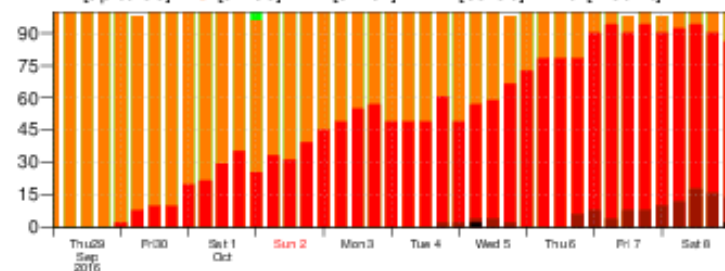
List of ensemble members numbers forecast Tropical Cyclone

Intensity category in colours: **TD**[up to 33] **TS**[34-63] **HR1**[64-82] **HR2**[83-95] **HR3**[> 95 kt]

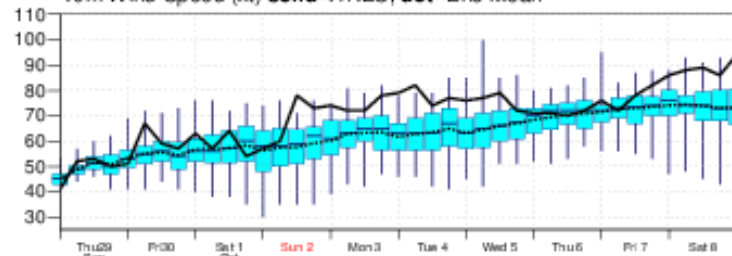
+024 h - hr: 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
 +048 h - hr: 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
 +072 h - hr: 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
 +096 h - hr: 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
 +120 h - hr: 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
 +144 h - hr: 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
 +168 h - hr: 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
 +192 h - hr: 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
 +216 h - hr: 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
 +240 h - hr: 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

Probability (%) of Tropical Cyclone Intensity falling in each category

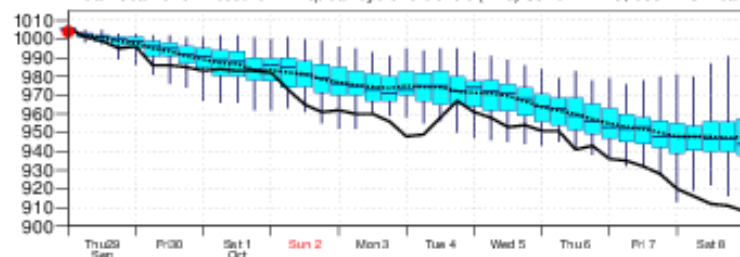
TD[up to 33] **TS** [34-63] **HR1**[64-82] **HR2** [83-95] **HR3** [> 95 kt]



10m Wind Speed (kt) **solid**=HRES; **dot**=Ens Mean



Mean Sea Level Pressure in Tropical Cyclone Centre (hPa) **solid**=HRES; **dot**=Ens Mean



BT29/00Z