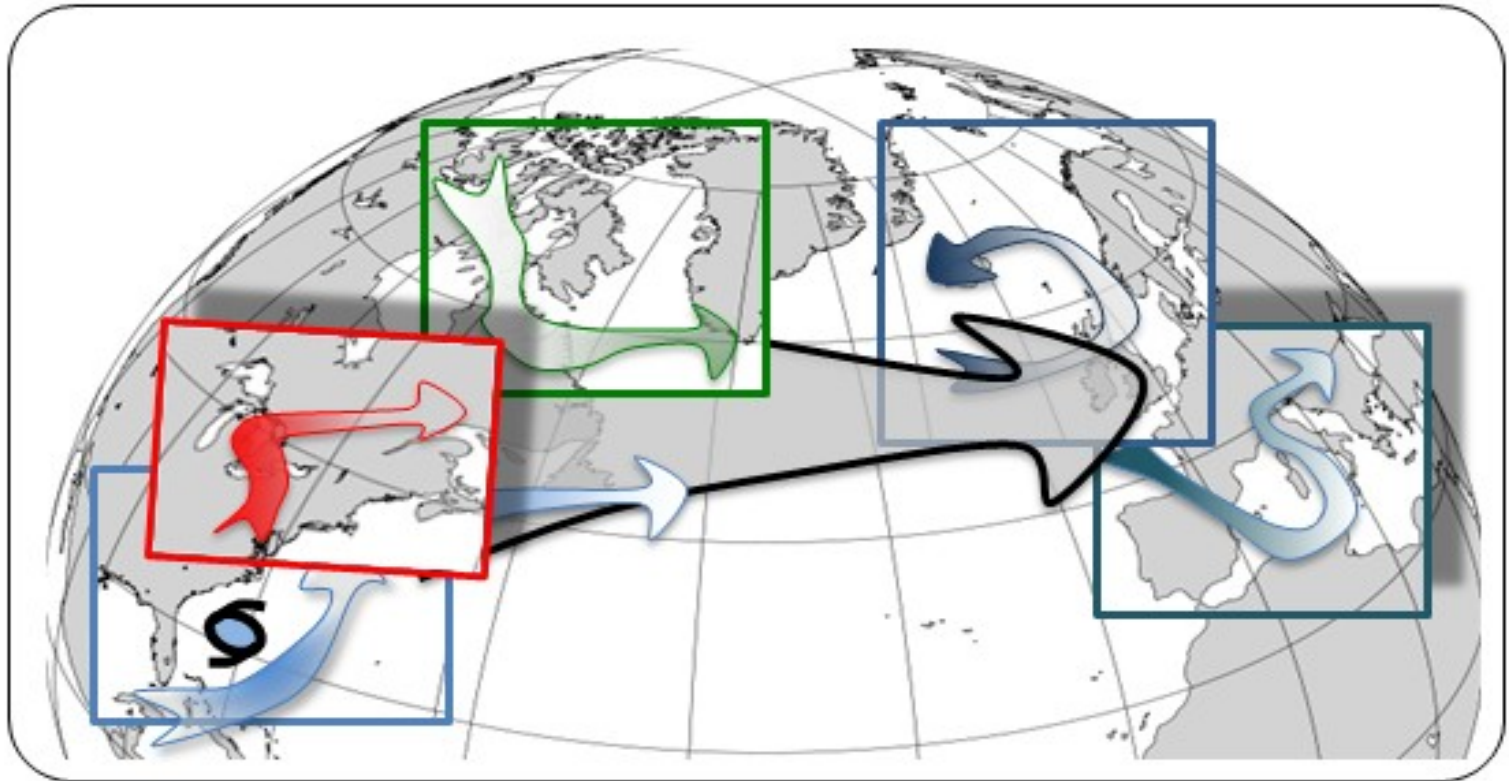


# NAWDEX – General Planning Meeting

09 October 2016, Keflavik 11 UTC



# NAWDEX – General Planning Meeting

09 October 2016, Keflavik 11 UTC

## Key issues today

### 1. Today's HALO/DLR-Falcon/Safire Falcon flights

- Safire-Falcon Take-off: 0955UTC
- HALO Take-off: 1005UTC
- DLR-Falcon Take-off: 1520UTC
- Safire-Falcon Take-off: 1630UTC

### 2. Monday HALO flight

- HALO Take-off: 1200UTC

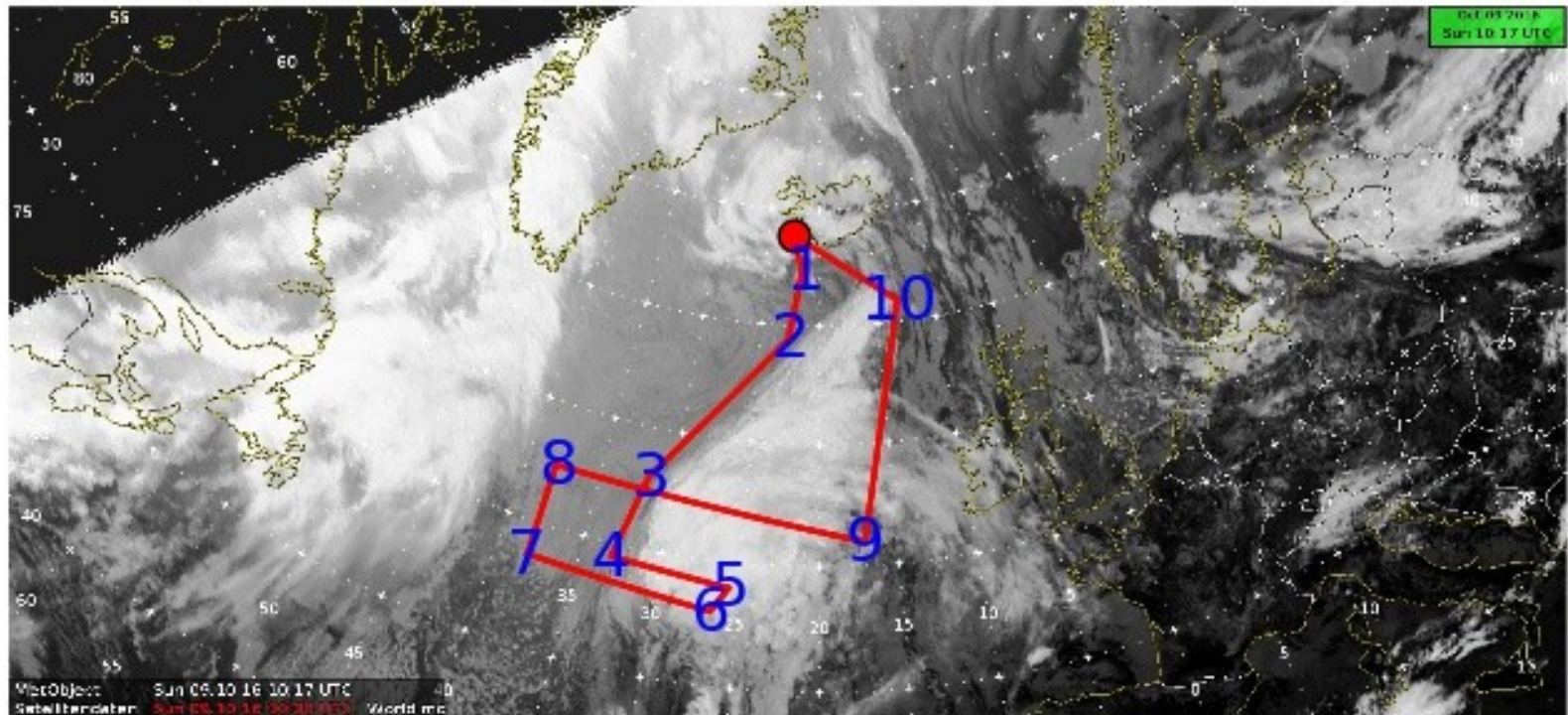
### 3. Coordinated flights of UK FAAM, HALO, Safire Falcon on Tuesday or coordinated flights of DLR-Falcon/Safire Falcon on Tuesday

# NAWDEX – General Planning Meeting

09 October 2016, Keflavik 11 UTC

1. Current HALO/Safire Falcon flights
2. Aircraft status report by FX-Operations
3. Instrument status report by Instrument Manager
4. Short weather summary: information about flight options for the next days and update for planning for the next day with the latest forecast
5. Report of Ground-Based Observation coordinator
6. Flights this afternoon of HALO, DLR Falcon, Safire Falcon
7. HALO flight tomorrow
8. Intercomparison on Tuesday?
9. Coordination with other aircraft (Input from other groups)

# Current HALO flight

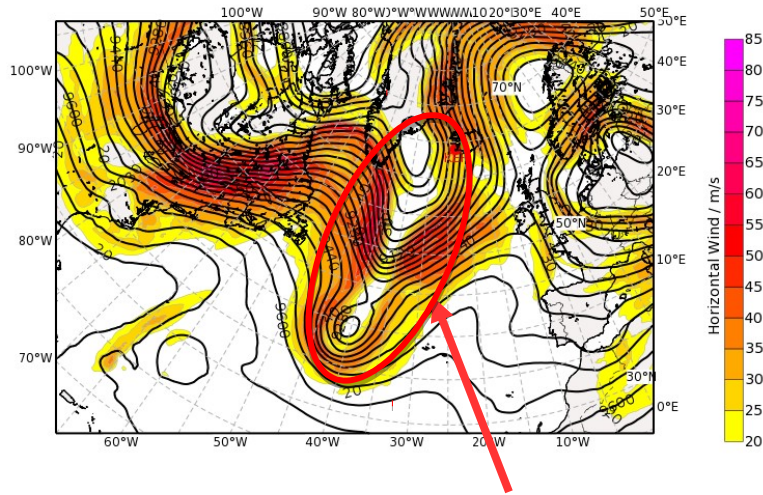




# Analysis – 09 Oct 2016, 00 UTC

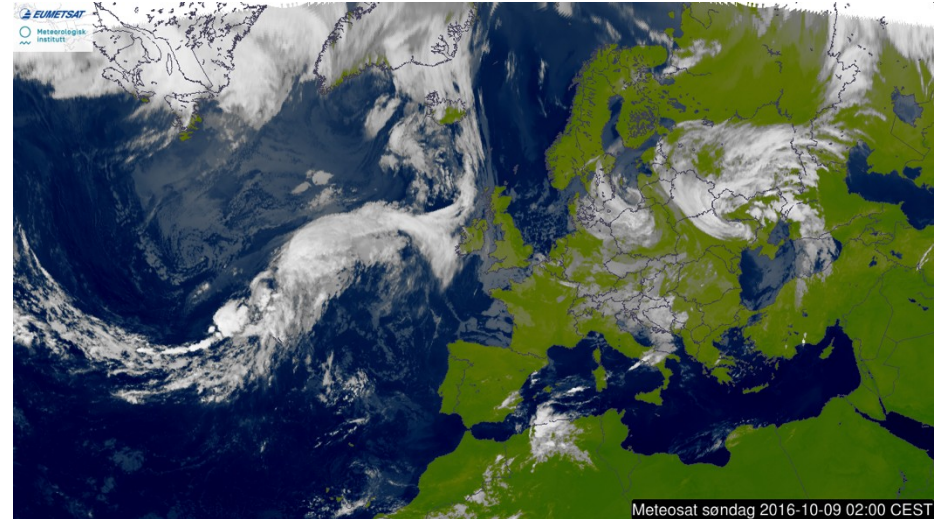
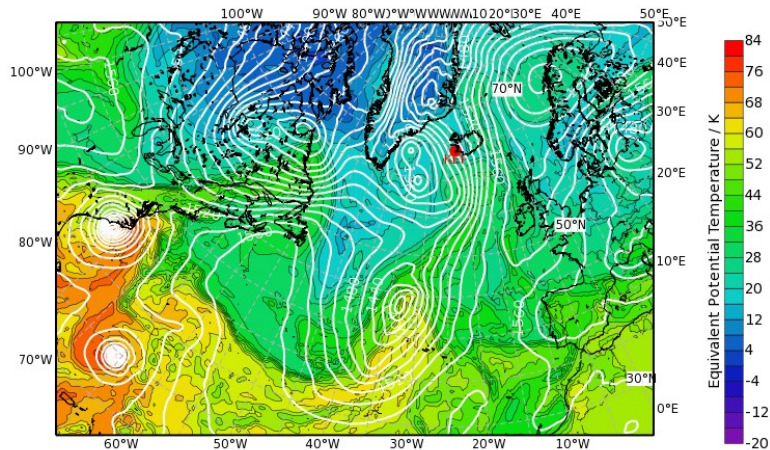
Z300, SAT  
THE850, RH700

Geopotential Height (m) & Horizontal Wind (m/s) at 300 hPa  
Valid: Sun, 09 Oct 2016, 00 UTC (step 000 h from Sun, 09 Oct 2016, 00 UTC)



Sunday Streamer

Equivalent Potential Temperature (degC) & Streamlines at 850 hPa  
Valid: Sun, 09 Oct 2016, 00 UTC (step 000 h from Sun, 09 Oct 2016, 00 UTC)

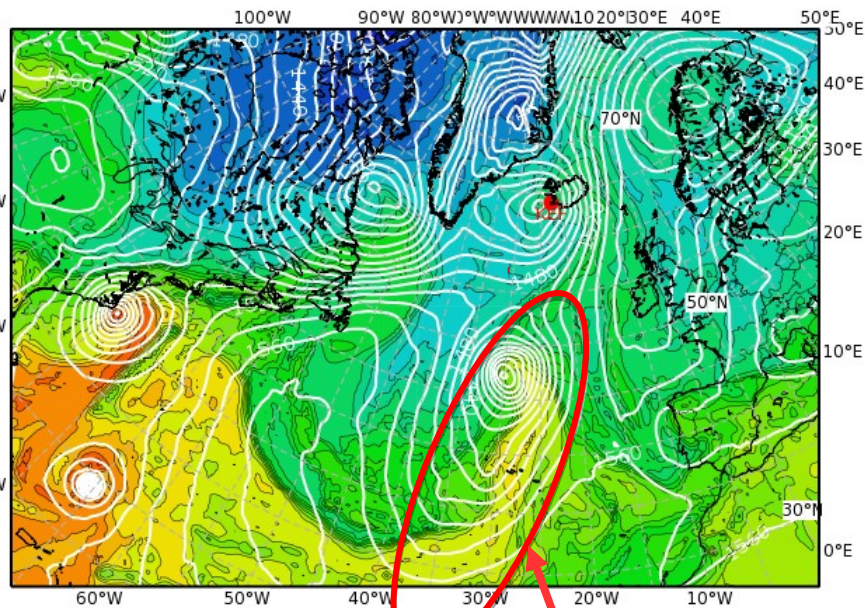




# Forecast for Sun, 09 Oct 2016 12 UTC

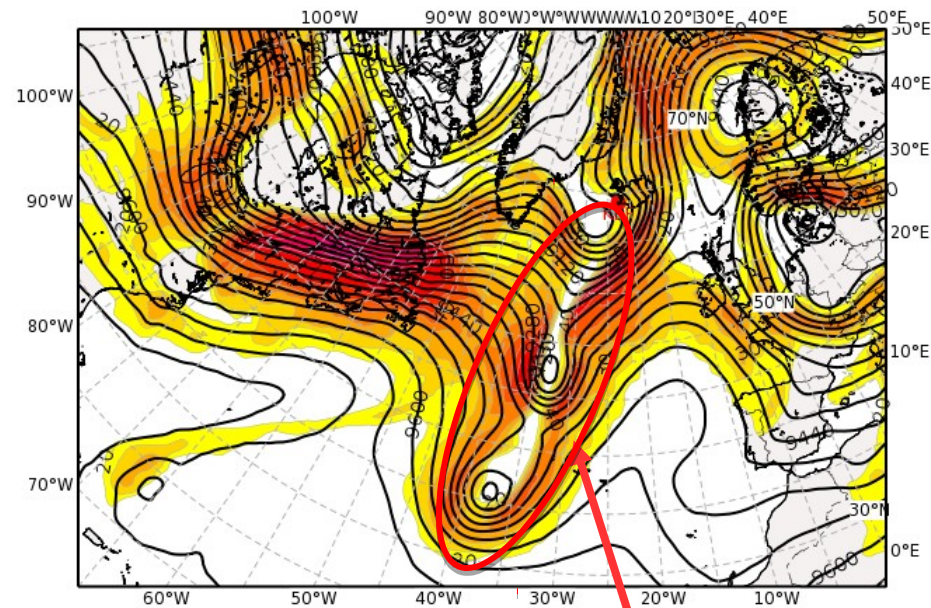
THE850, Z300 BT09/00Z

Equivalent Potential Temperature (degC) & Streamlines at 850 hPa  
Valid: Sun, 09 Oct 2016, 12 UTC (step 012 h from Sun, 09 Oct 2016, 00 UTC)



Moisture Transport

Geopotential Height (m) & Horizontal Wind (m/s) at 300 hPa  
Valid: Sun, 09 Oct 2016, 12 UTC (step 012 h from Sun, 09 Oct 2016, 00 UTC)

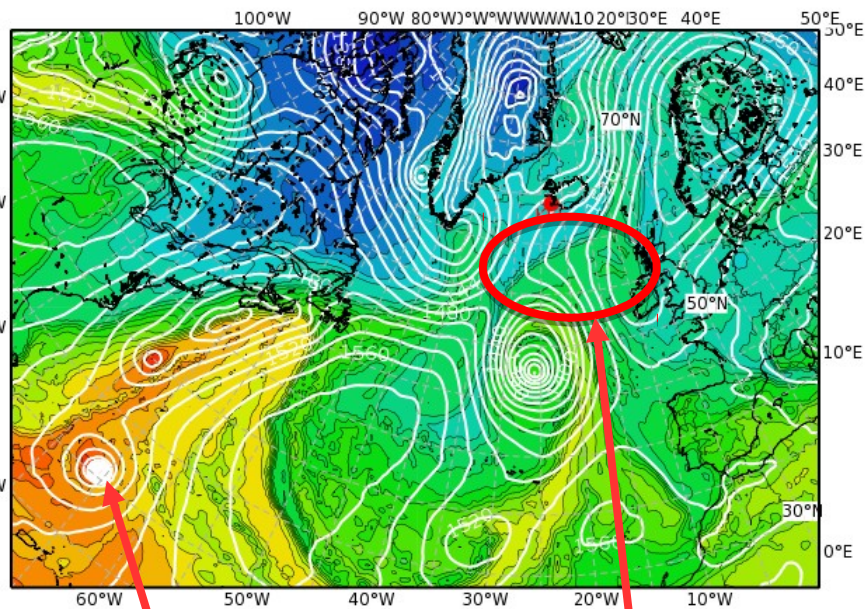


Sunday Streamer

# Forecast for Mon, 10 Oct 2016 12 UTC

THE850, Z300 BT09/00Z

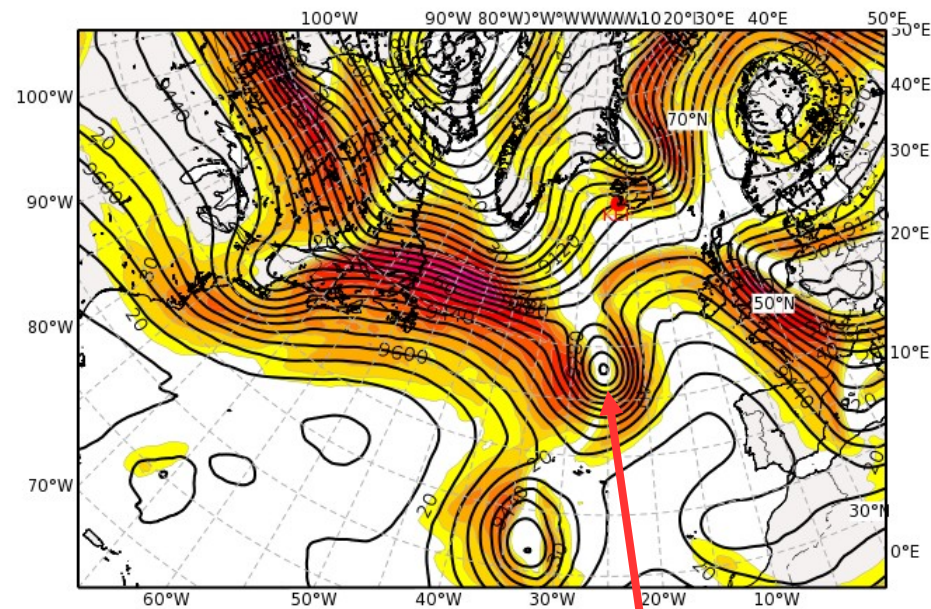
Equivalent Potential Temperature (degC) & Streamlines at 850 hPa  
Valid: Mon, 10 Oct 2016, 12 UTC (step 036 h from Sun, 09 Oct 2016, 00 UTC)



Nicole

WCB ascent

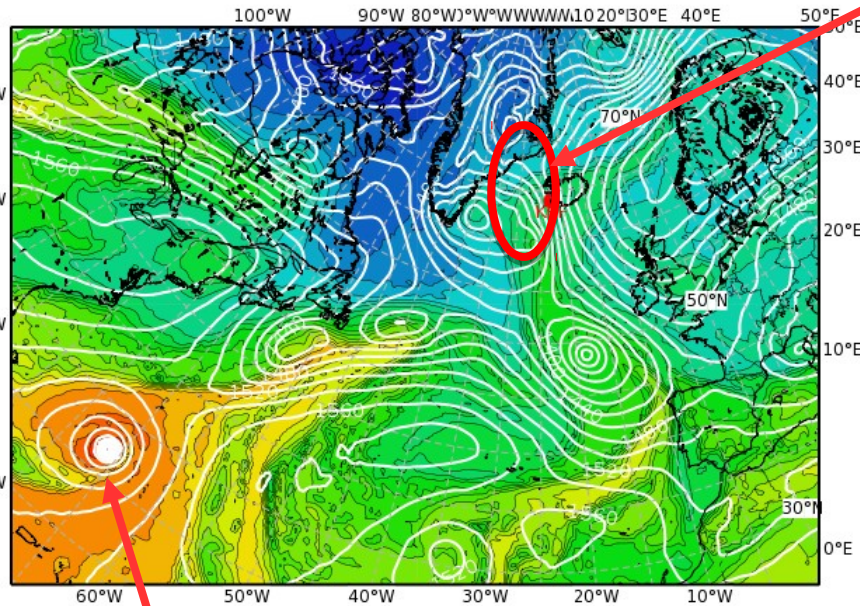
Geopotential Height (m) & Horizontal Wind (m/s) at 300 hPa  
Valid: Mon, 10 Oct 2016, 12 UTC (step 036 h from Sun, 09 Oct 2016, 00 UTC)



Cut-off "Sanchez"

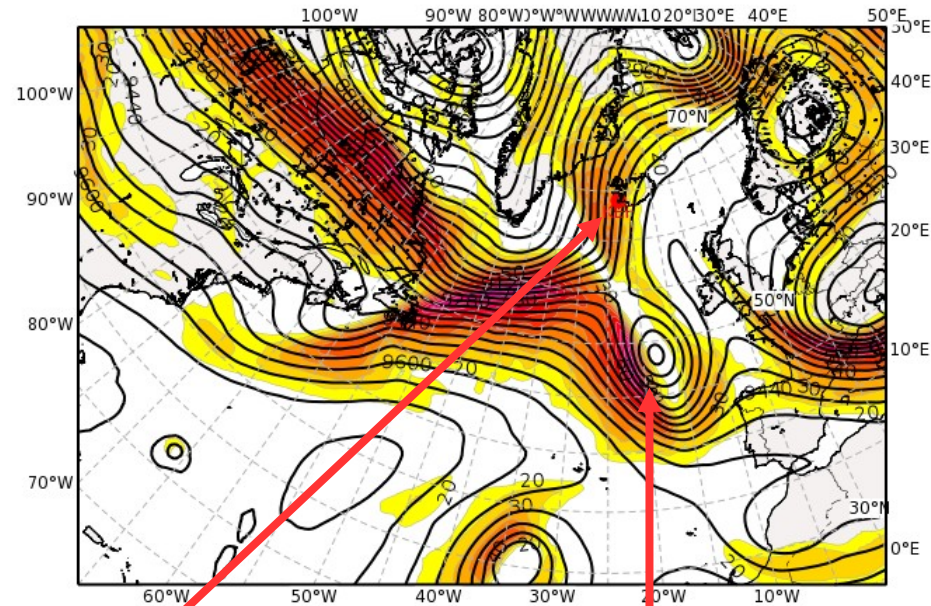


Equivalent Potential Temperature (degC) & Streamlines at 850 hPa  
Valid: Tue, 11 Oct 2016, 12 UTC (step 060 h from Sun, 09 Oct 2016, 00 UTC)



Nicole

Geopotential Height (m) & Horizontal Wind (m/s) at 300 hPa  
Valid: Tue, 11 Oct 2016, 12 UTC (step 060 h from Sun, 09 Oct 2016, 00 UTC)



jet streak

Cut-off "Sanchez"

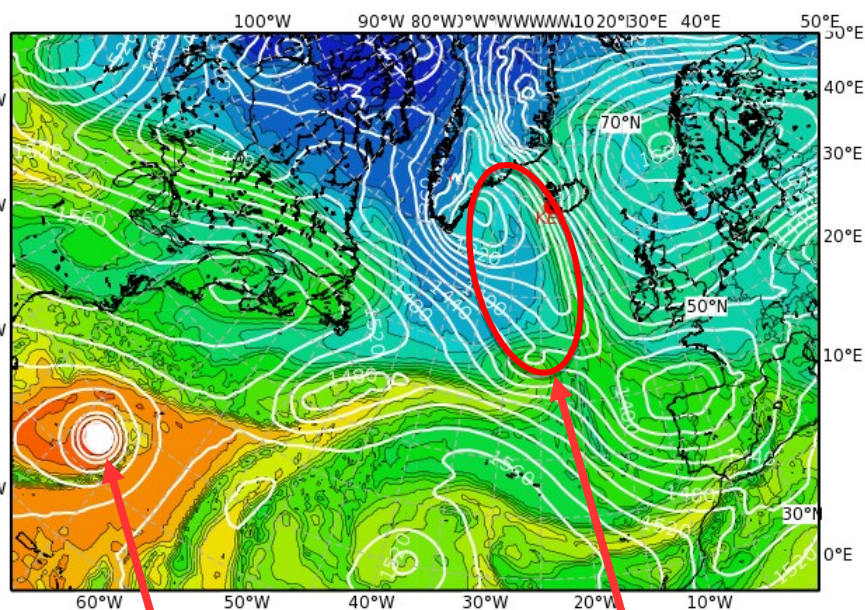


# Forecast for Wed, 12 Oct 2016 12 UTC

THE850, Z300 BT09/00Z

Considerable FC uncertainty

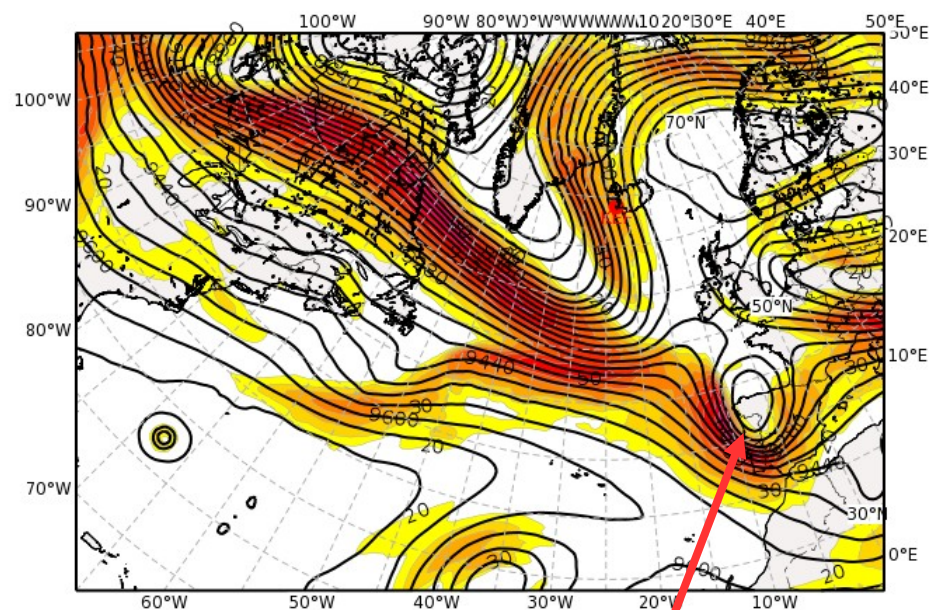
Equivalent Potential Temperature (degC) & Streamlines at 850 hPa  
Valid: Wed, 12 Oct 2016, 12 UTC (step 084 h from Sun, 09 Oct 2016, 00 UTC)



Nicole

WCB ascent

Geopotential Height (m) & Horizontal Wind (m/s) at 300 hPa  
Valid: Wed, 12 Oct 2016, 12 UTC (step 084 h from Sun, 09 Oct 2016, 00 UTC)



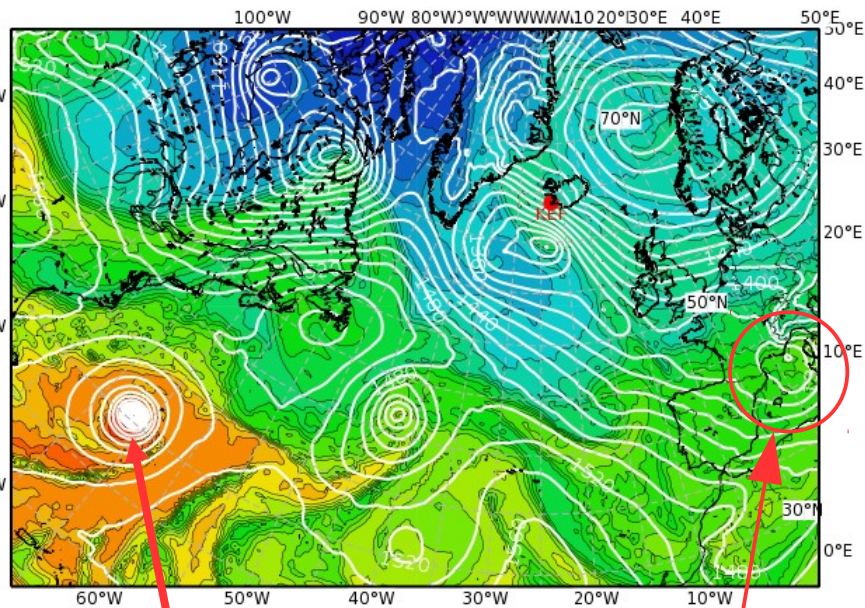
Cut-off "Sanchez"



# Forecast for Thu, 13 Oct 2016 12 UTC

THE850, Z300 BT09/00Z

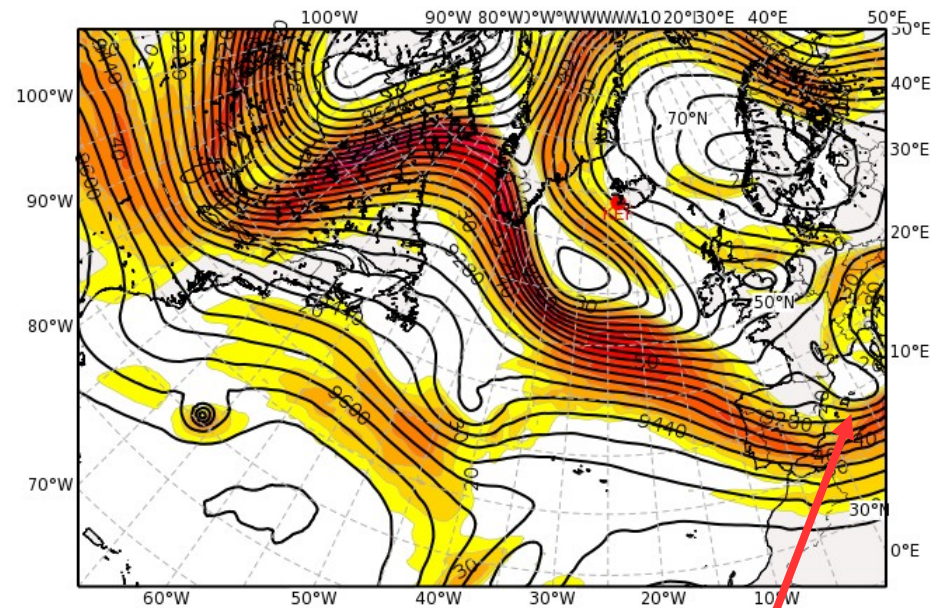
Equivalent Potential Temperature (degC) & Streamlines at 850 hPa  
Valid: Thu, 13 Oct 2016, 12 UTC (step 108 h from Sun, 09 Oct 2016, 00 UTC)



Nicole

Cyclogenesis over  
the Mediterranean

Geopotential Height (m) & Horizontal Wind (m/s) at 300 hPa  
Valid: Thu, 13 Oct 2016, 12 UTC (step 108 h from Sun, 09 Oct 2016, 00 UTC)

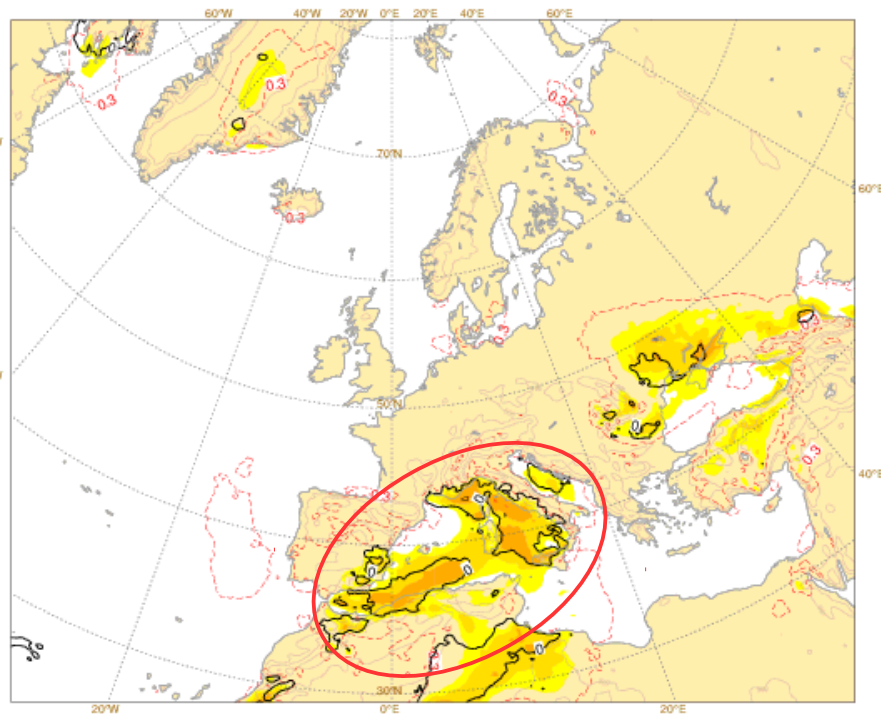


Cut-off "Sanchez"



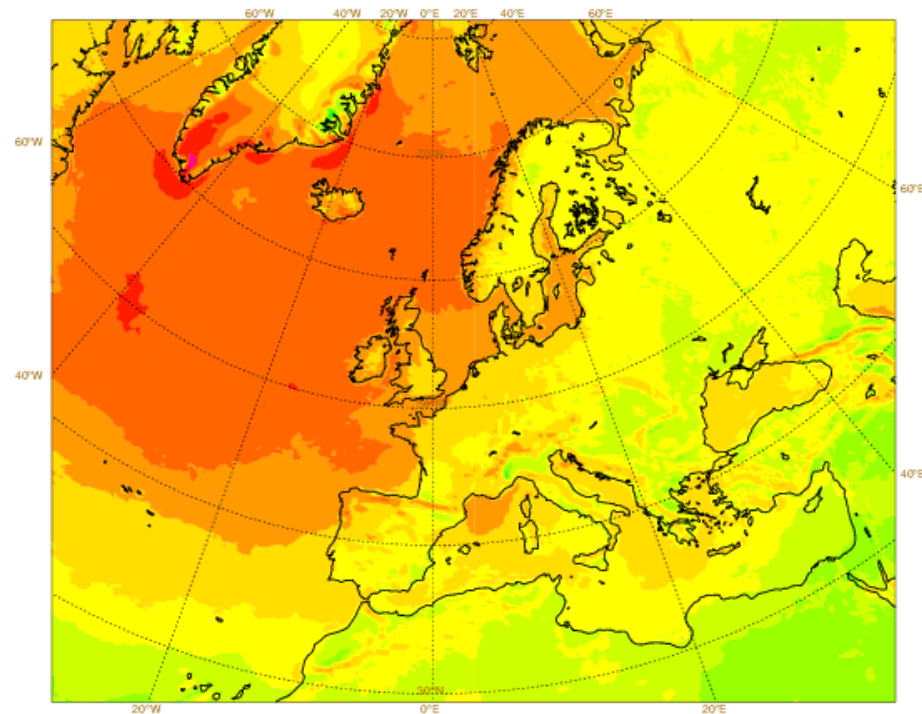
# Forecast for Thu, 13 Oct 2016 12 UTC

Sun 09 Oct 2016 00UTC @ECMWF t+96-120h VT: Thu 13 Oct 2016 00UTC - Fri 14 Oct 2016 00UTC  
Extreme forecast index and Shift of Tails (black contours 0,1,2,5,8) for 10m wind gusts



High winds

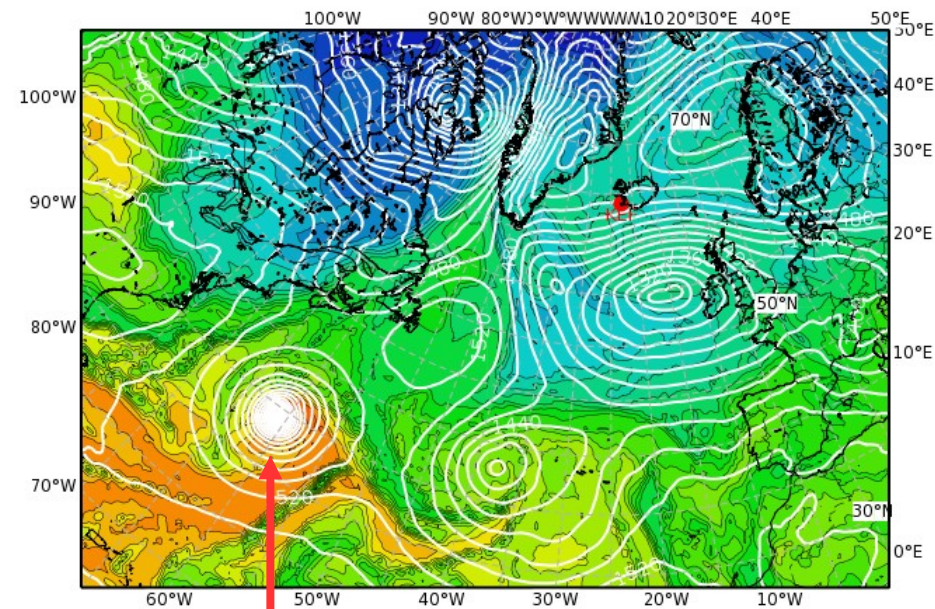
Thu 06 Oct 2016 00UTC @ECMWF VT: Thu 13 Oct 2016 00UTC - Fri 14 Oct 2016 00UTC 96-120h  
10m wind gusts (in m/s) Model climate Q99 (one in 100 occasions realises more than value shown)



# Forecast for Fri, 14 Oct 2016 12 UTC

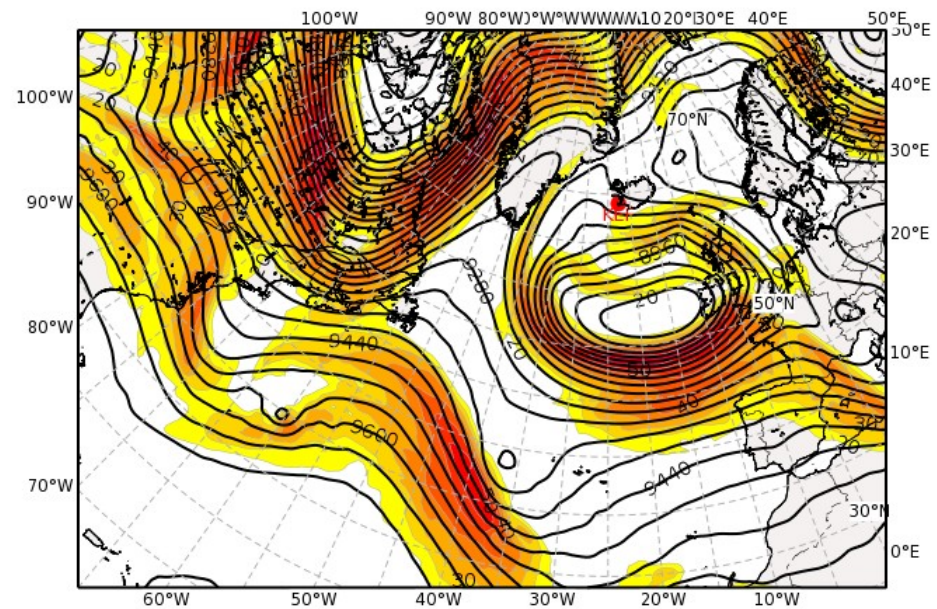
THE850, Z300 BT09/00Z

Equivalent Potential Temperature (degC) & Streamlines at 850 hPa  
Valid: Fri, 14 Oct 2016, 12 UTC (step 132 h from Sun, 09 Oct 2016, 00 UTC)



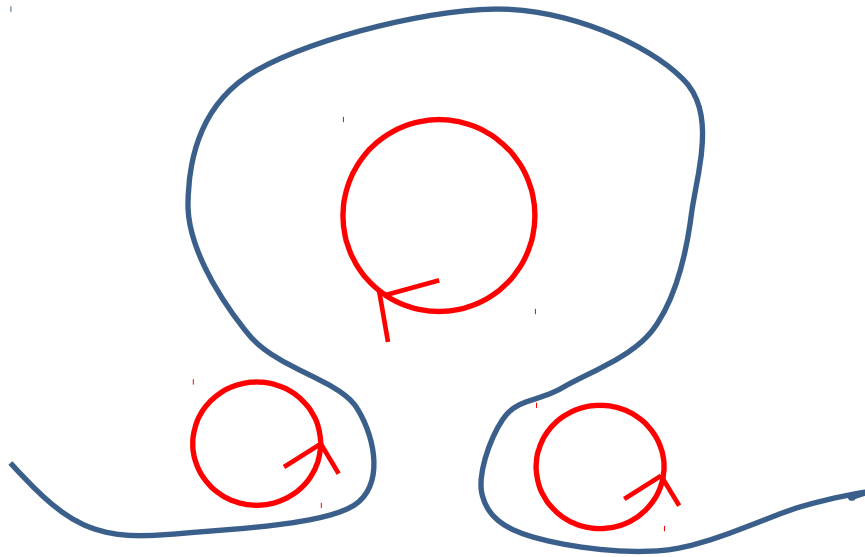
Nicole

Geopotential Height (m) & Horizontal Wind (m/s) at 300 hPa  
Valid: Fri, 14 Oct 2016, 12 UTC (step 132 h from Sun, 09 Oct 2016, 00 UTC)

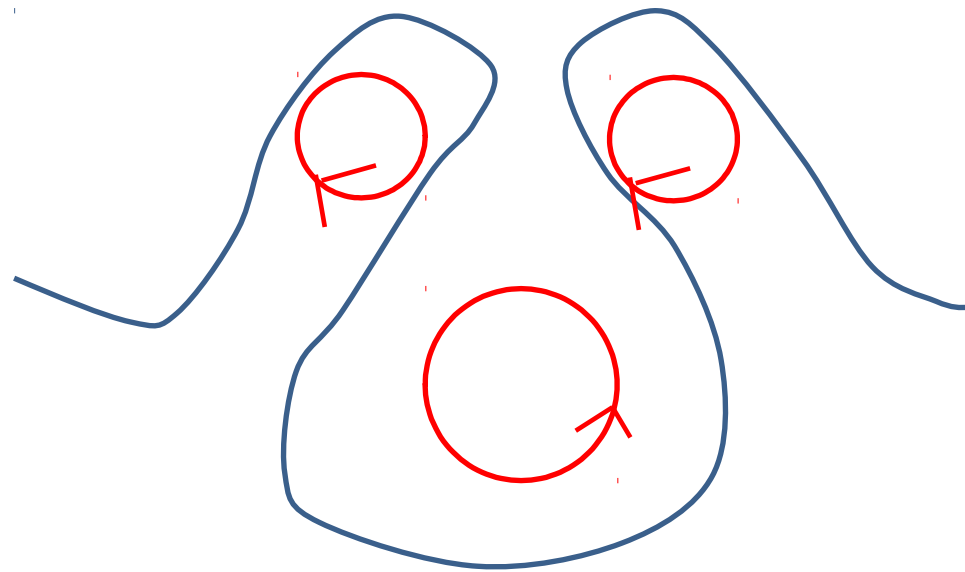




# Maintenance of block?



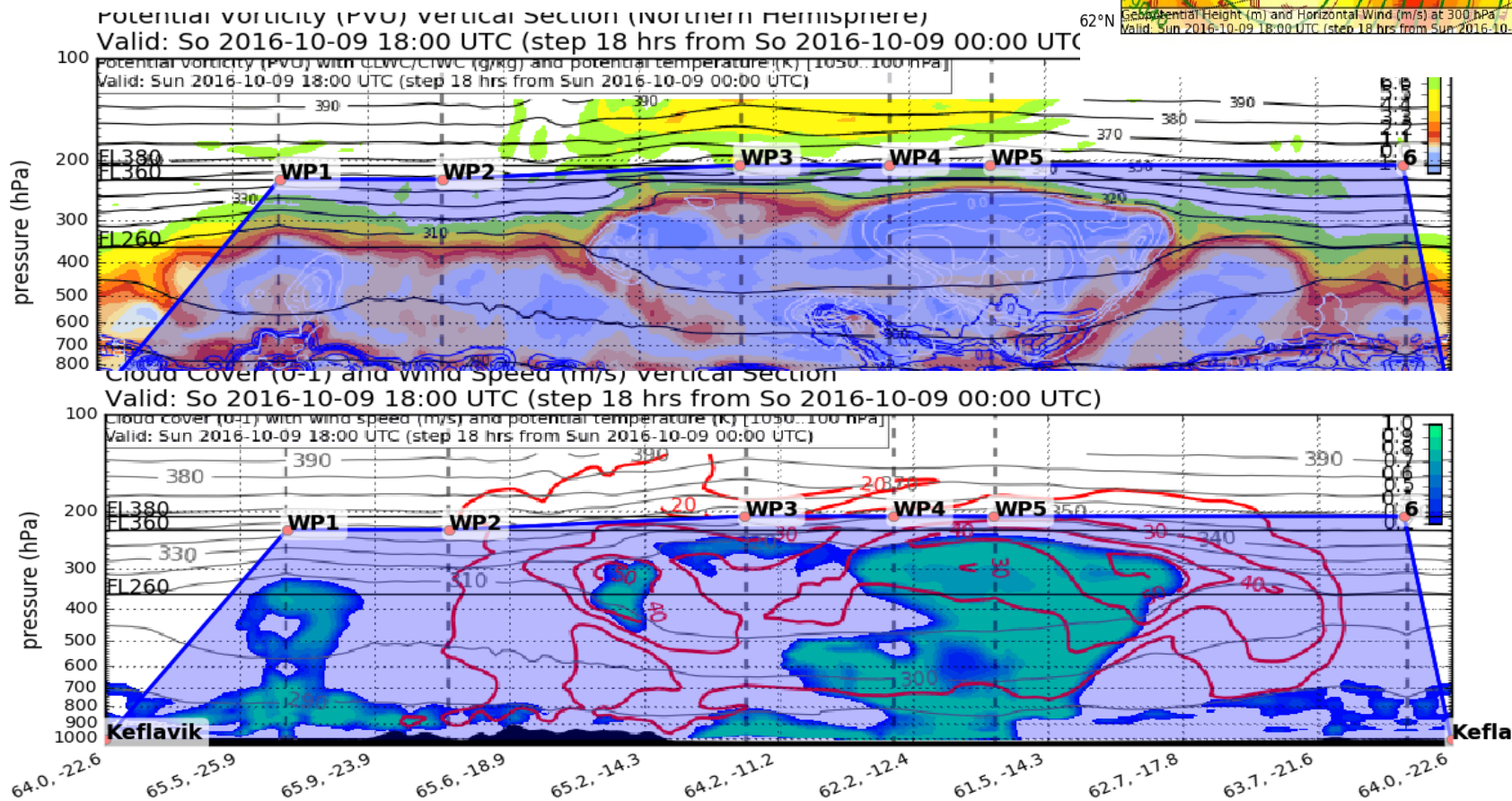
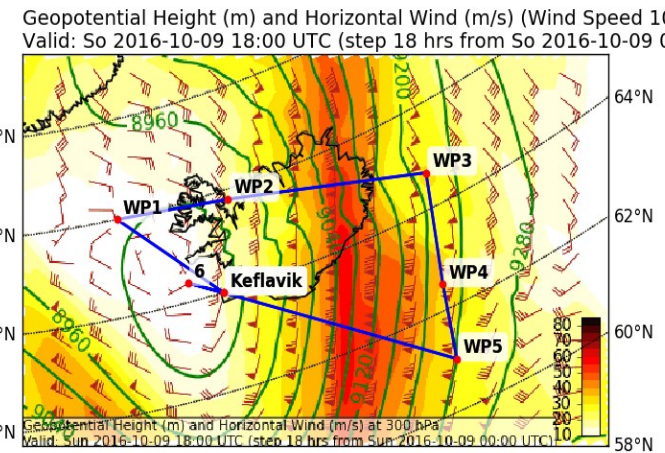
Omega-block



Saturday 15/10/16?

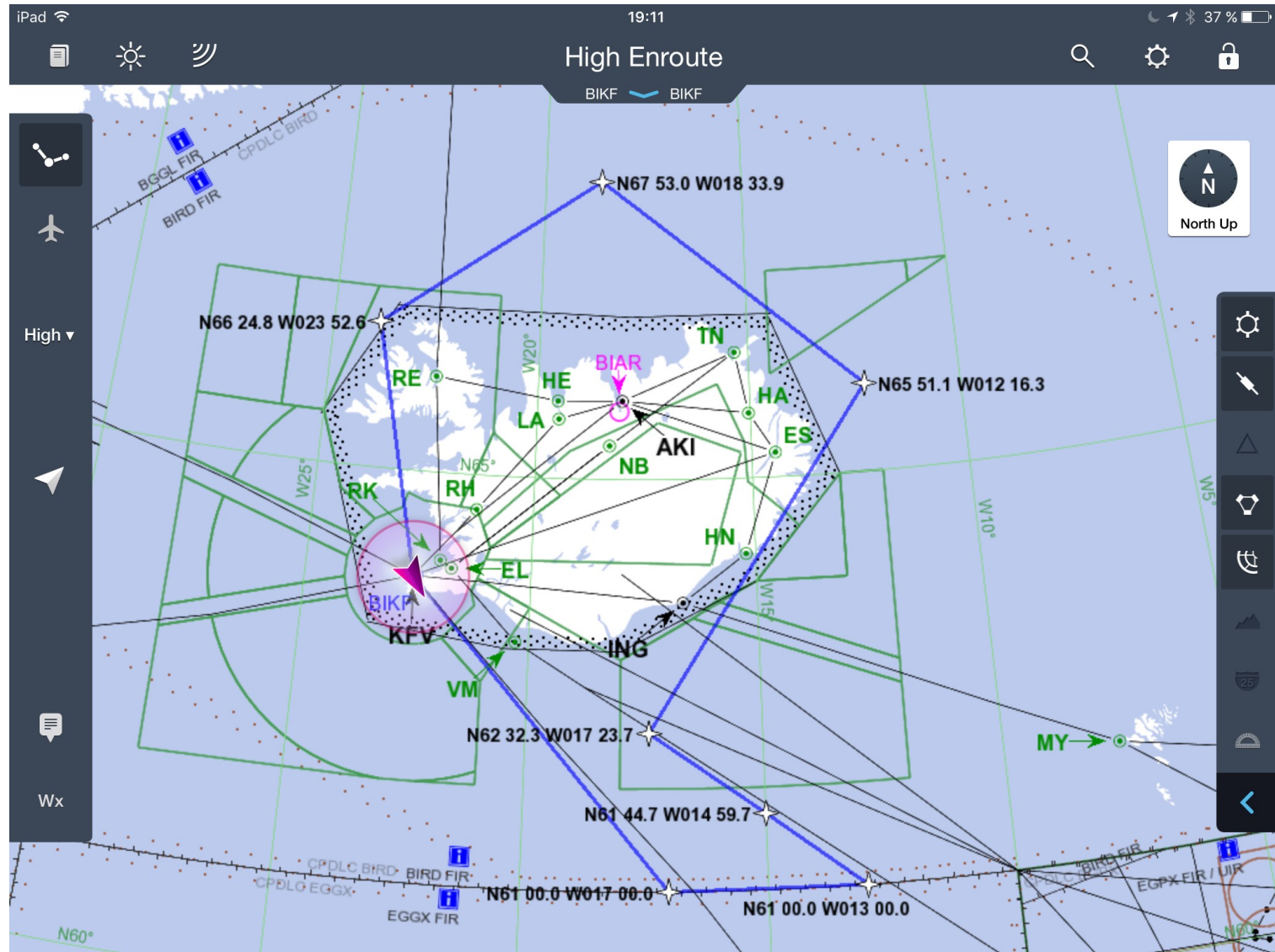
# Sunday DLR-Falcon Flight

- Coordination with HALO & SAFIRE on leg WP5-6, meeting point @ WP5, 17.45UTC
- Across Jet legs WP2-3 and WP5-6
- Take off 15.20UTC, landing 18.35UTC, expected flight time: 3h 15min





# Sunday Safire-Falcon Flight



# HALO flight Mon 10 Oct

**System under investigation:**

**Cut-off „Sanchez“**

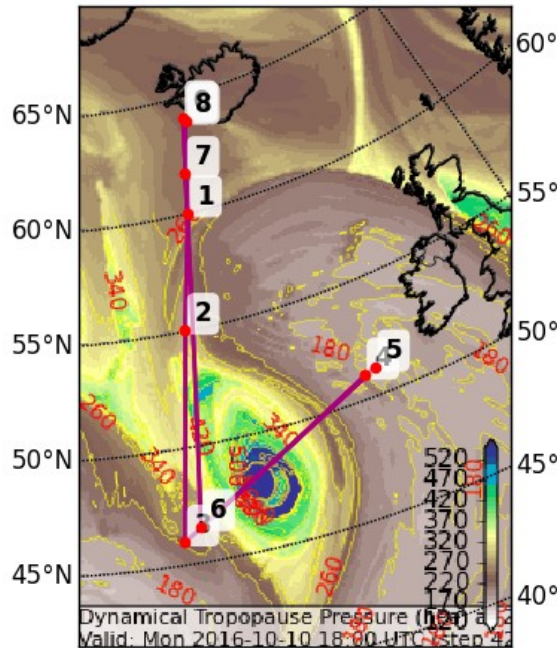
**Main objectives:**

- Moisture and wind structure of PV cut-off
- WCB inflow and ascent
- Structure of tropopause

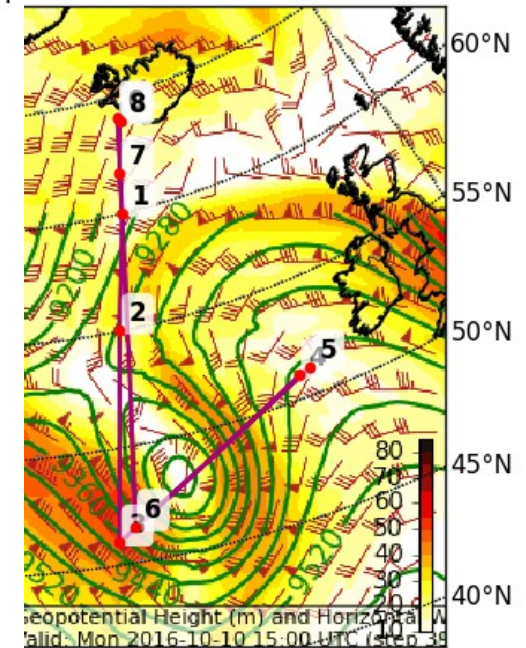
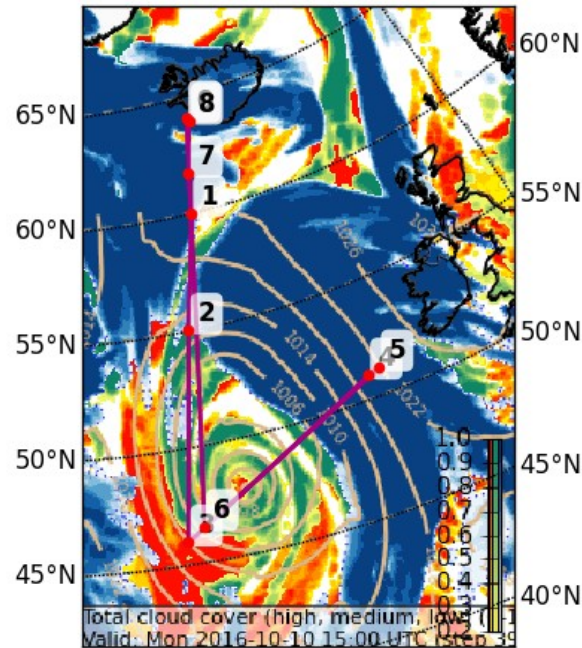
# HALO flight Mon 10 Oct

15 UTC

Dynamical Tropopause (Pressure)  
Valid: Mon 2016-10-10 18:00 UTC



Cloud Cover (0-1) (Total Cloud Cover) Geopotential Height (m) and Horizontal W  
Valid: Mon 2016-10-10 15:00 UTC (step/valid: Mon 2016-10-10 15:00 UTC (ste

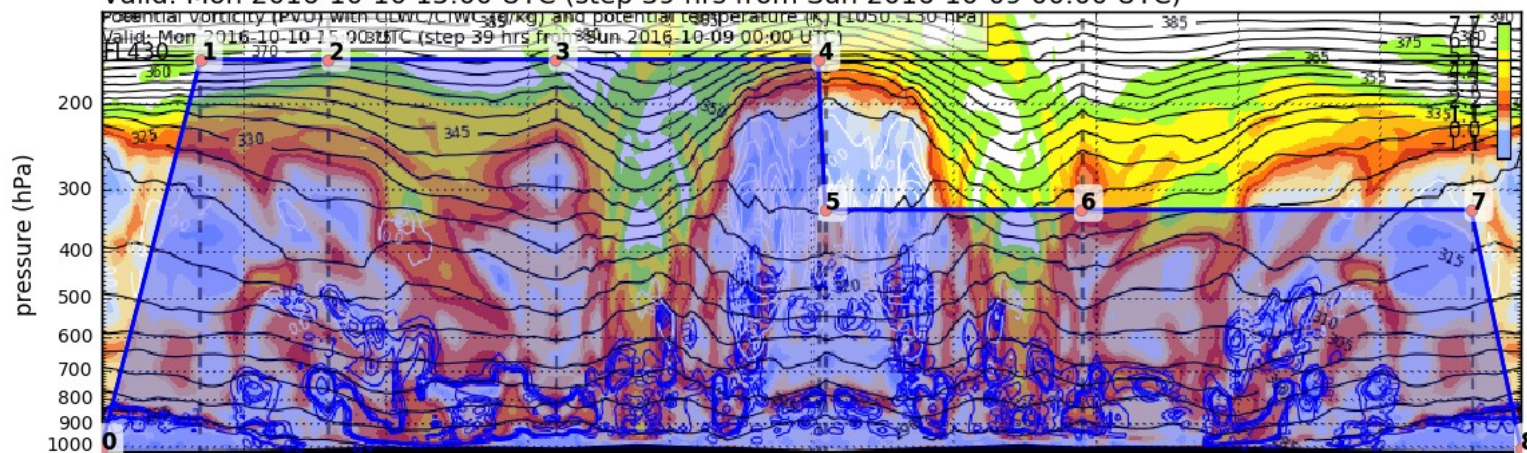




# HALO flight Mon 10 Oct

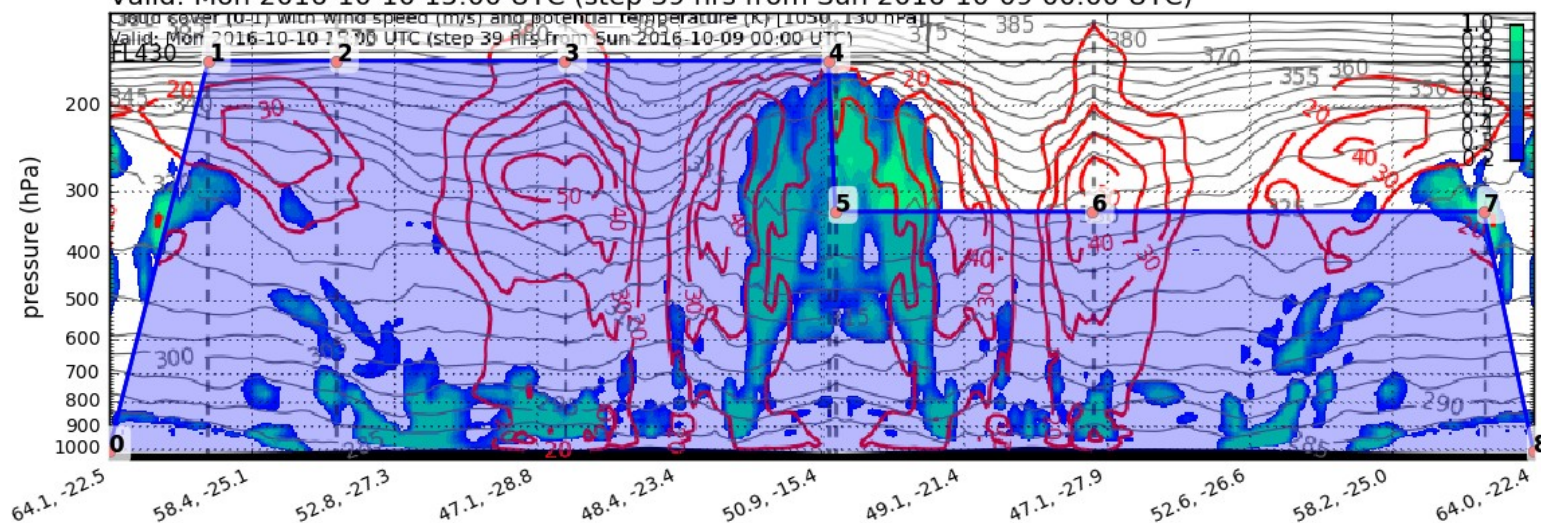
Potential Vorticity (PVU) Vertical Section (Northern Hemisphere)

Valid: Mon 2016-10-10 15:00 UTC (step 39 hrs from Sun 2016-10-09 00:00 UTC)



Cloud Cover (0-1) and Wind Speed (m/s) Vertical Section

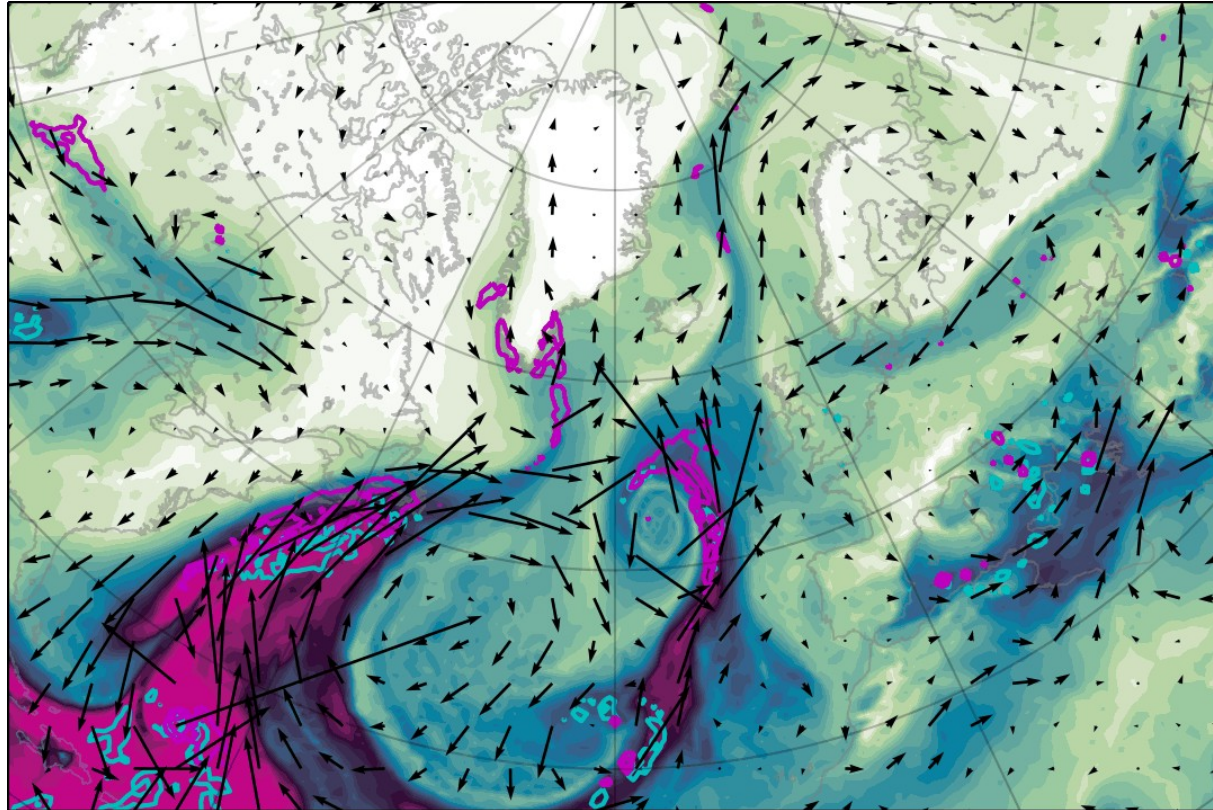
Valid: Mon 2016-10-10 15:00 UTC (step 39 hrs from Sun 2016-10-09 00:00 UTC)



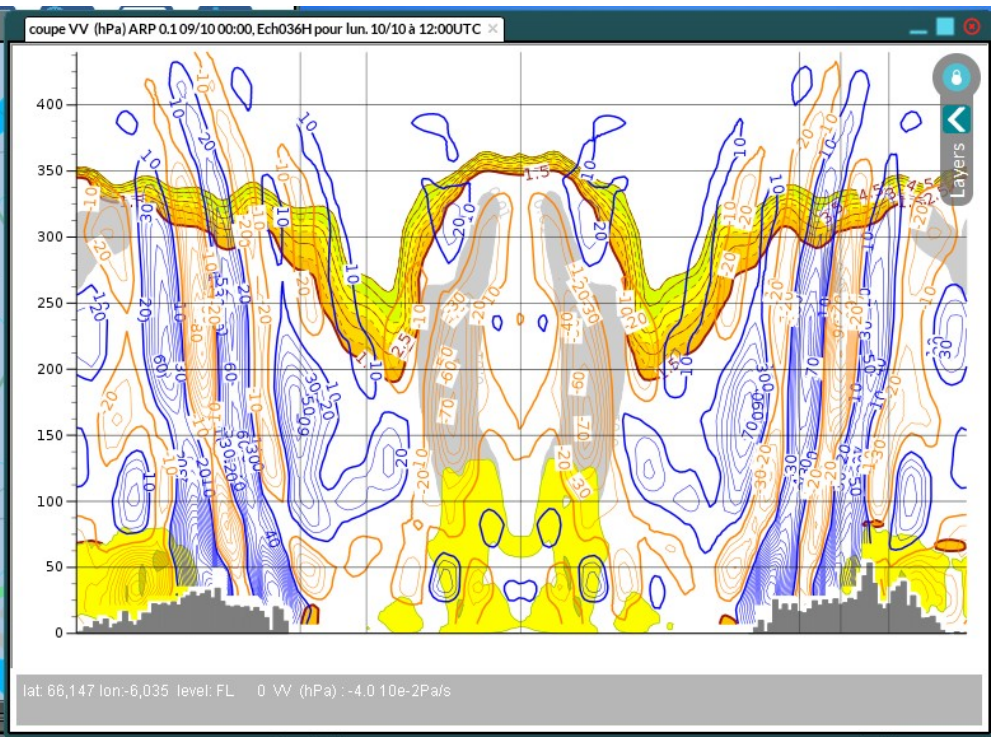
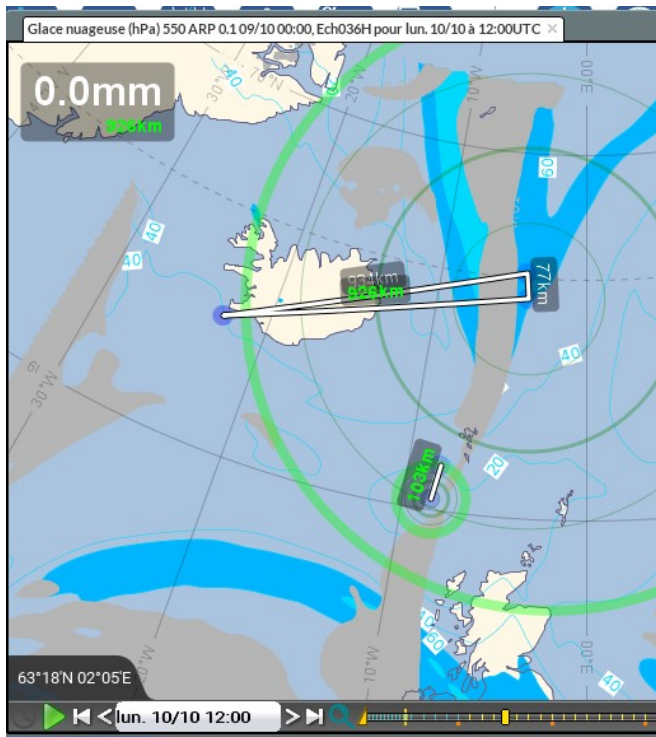


# EPATAN/NEAREX plans for 10/11/12 Oct 2016

## Monday NEAREX flight

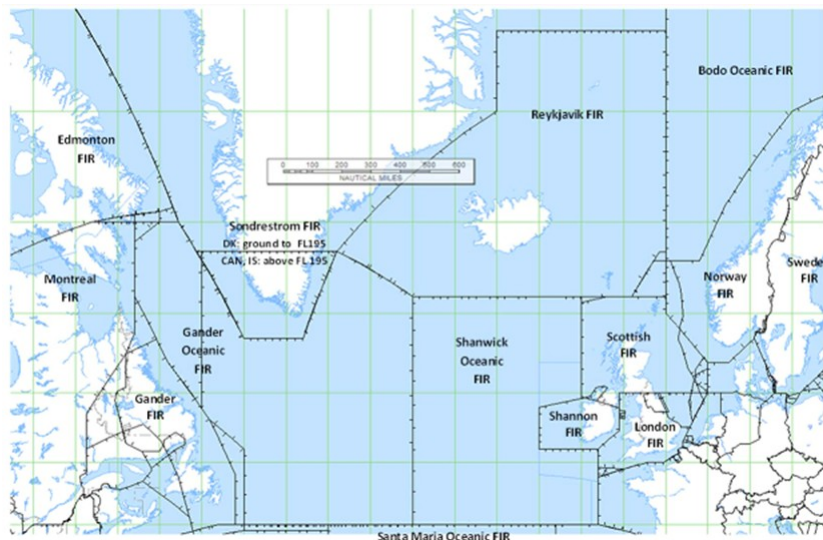


**ARPEGE det, base time 20161009\_00**

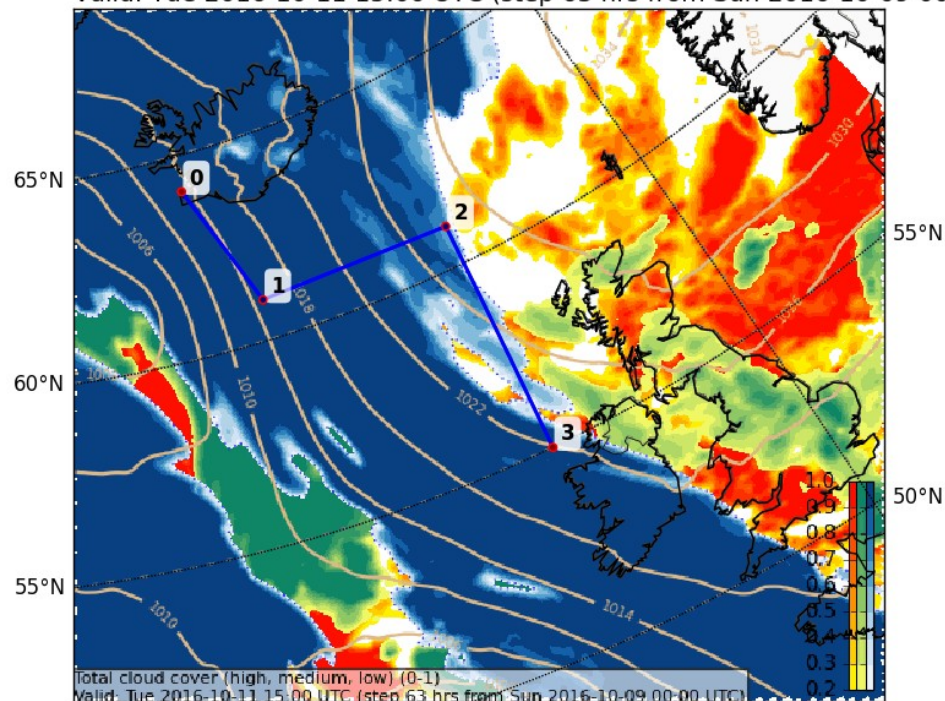




# Tue 11 Oct – Cloud Cover

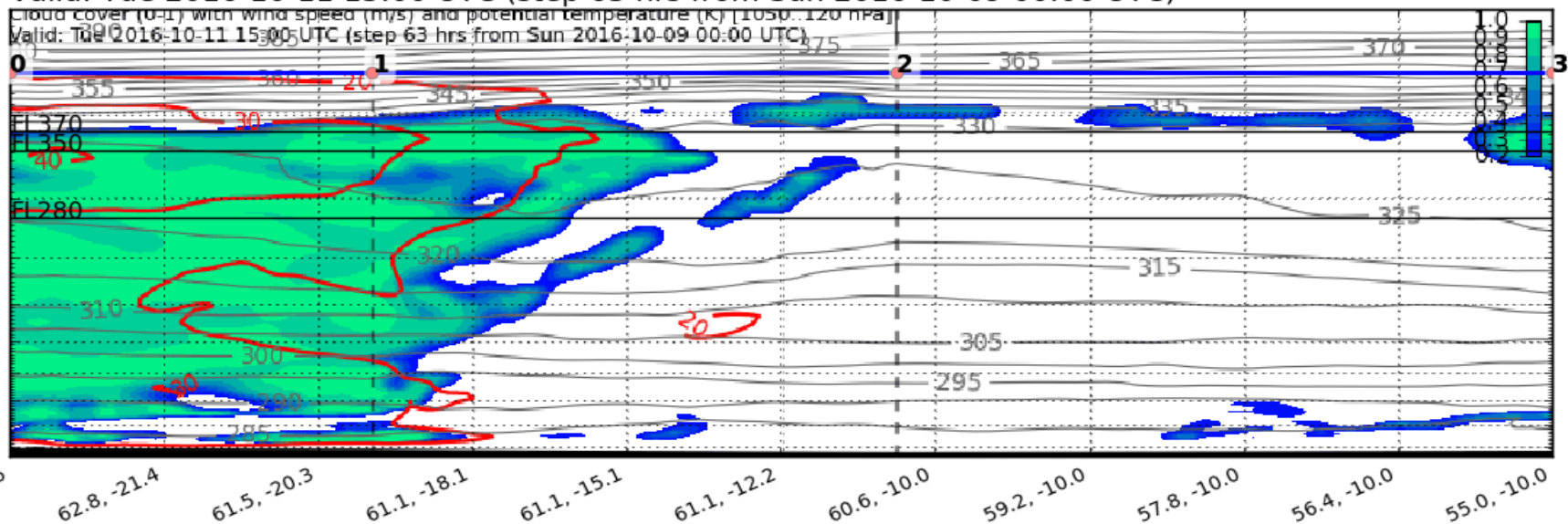


Cloud Cover (0-1) (Total Cloud Cover)  
Valid: Tue 2016-10-11 15:00 UTC (step 63 hrs from Sun 2016-10-09 00:00 UTC)

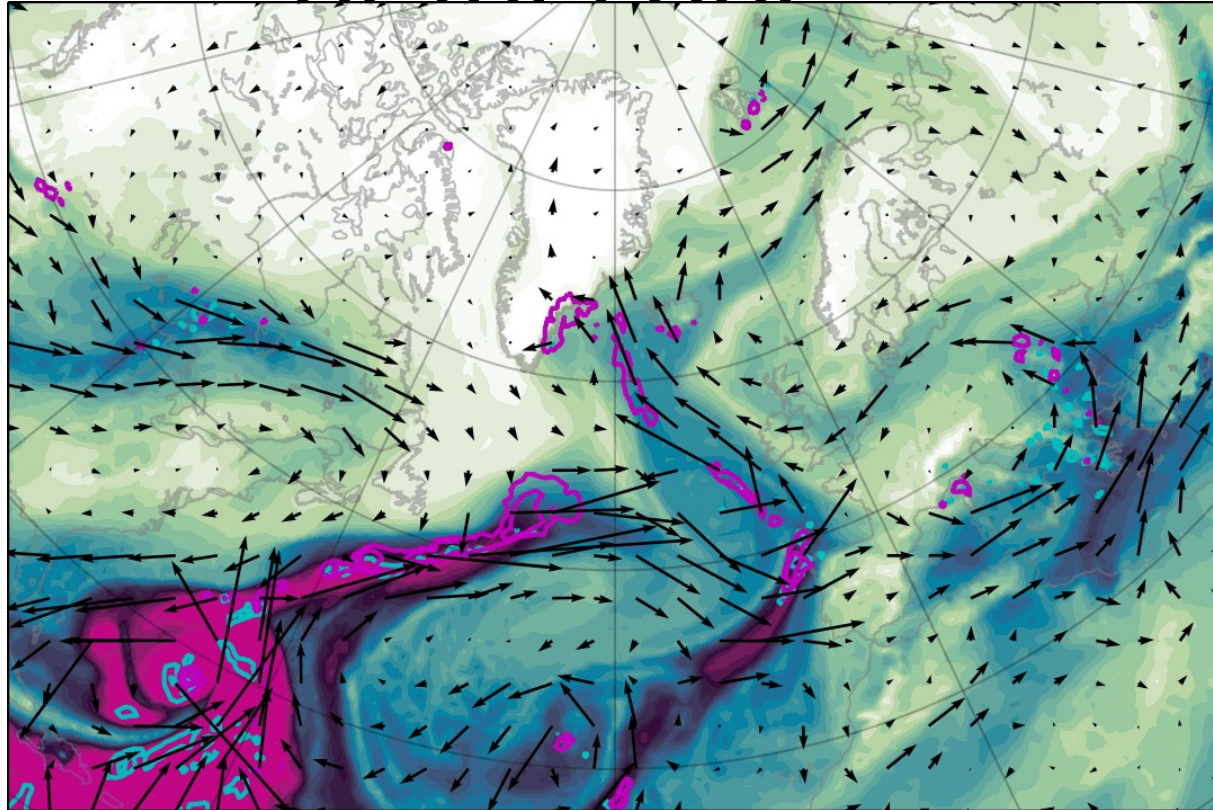


## Cloud Cover (0-1) and Wind Speed (m/s) Vertical Section

Valid: Tue 2016-10-11 15:00 UTC (step 63 hrs from Sun 2016-10-09 00:00 UTC)



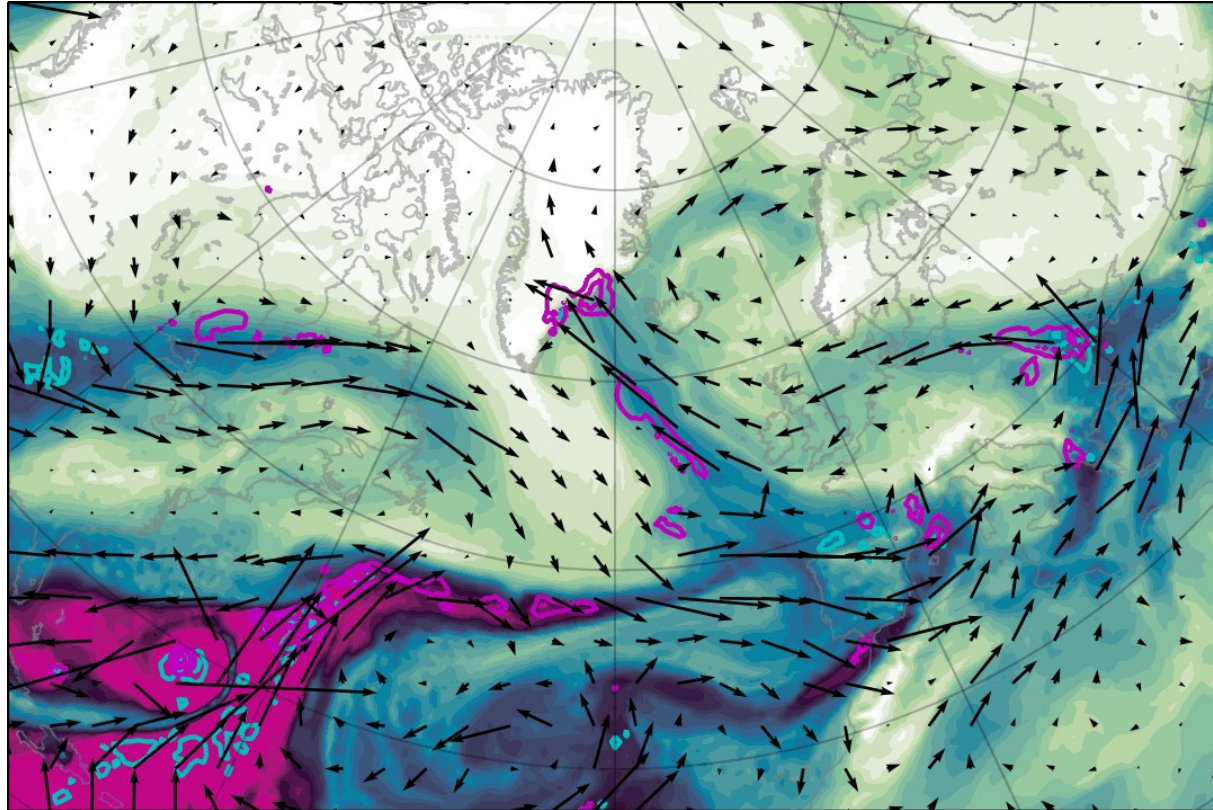
# Either FAAM/HALO/FALCON or this one :



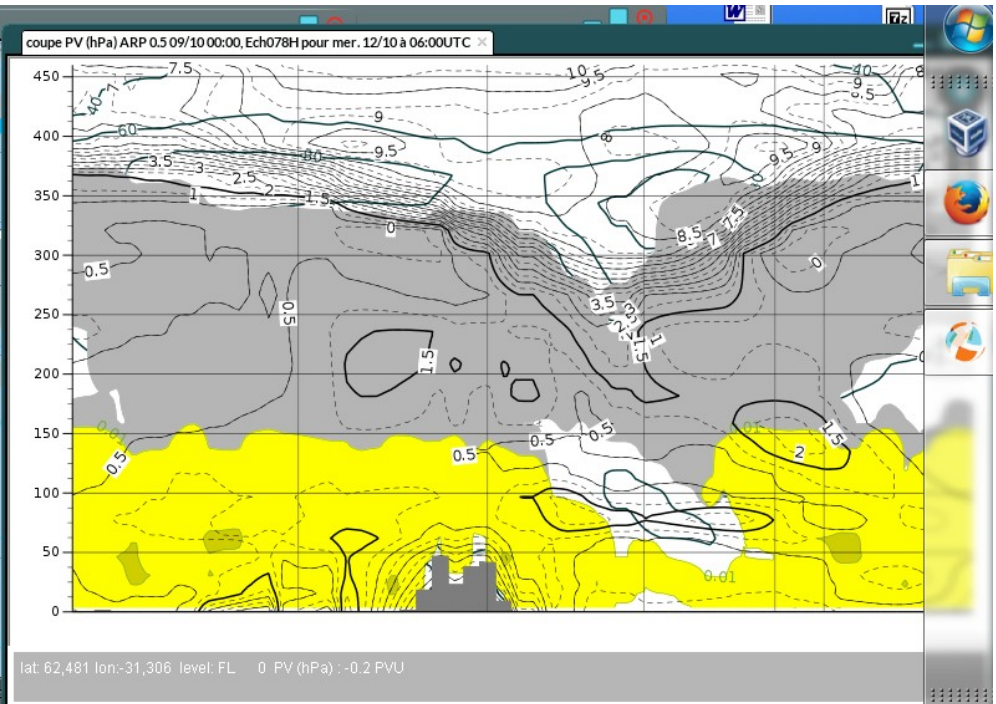
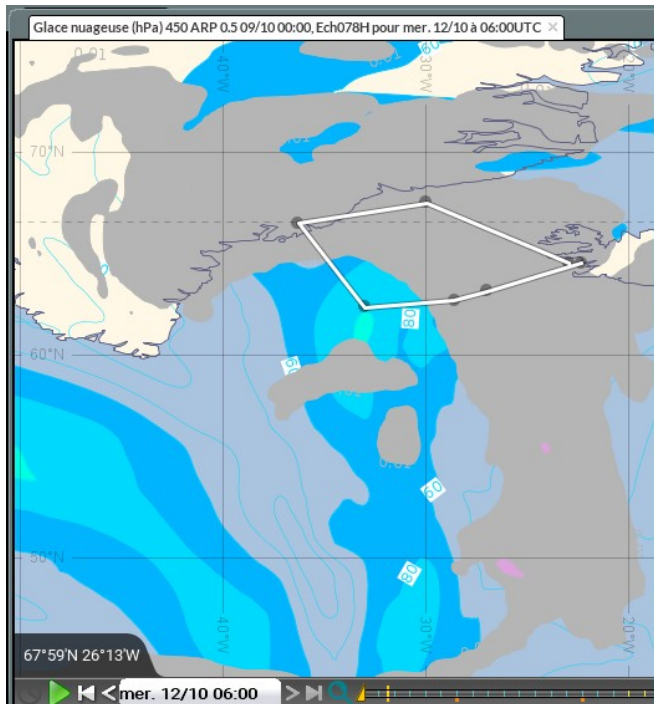




# EPATAN proposal for Wed







# Summary

- HALO flight on Monday, Take-off 12UTC
- No Falcon flight on Monday
- Radiometer intercomparison of UK FAAM, Safire Falcon, HALO on Tuesday between Faroes and Scotland (decision until tomorrow morning)  
**or** coordinated flights of Safire Falcon/DLR Falcon on Tuesday west of Iceland
- Wednesday: coordinated flights of Safire Falcon/DLR Falcon on Tuesday west of Iceland
- Thursday: last possible day for Radiometer intercomparison

# Summary

## Plans and options for the coming days

	HALO	SAFIRE	FALCON	FAAM
Sun	X	XX	X	
Mon	X			
Tue	X	X		X
	coordinated flight near Scotland			
	X	X	X	
	coordinated flight for radar, lidar, winds in AR and jet			
Wed	X	X	X	
	coordinated flight for radar, lidar, winds in AR and jet			
Thu	X	X		X
	coordinated flight near Scotland			