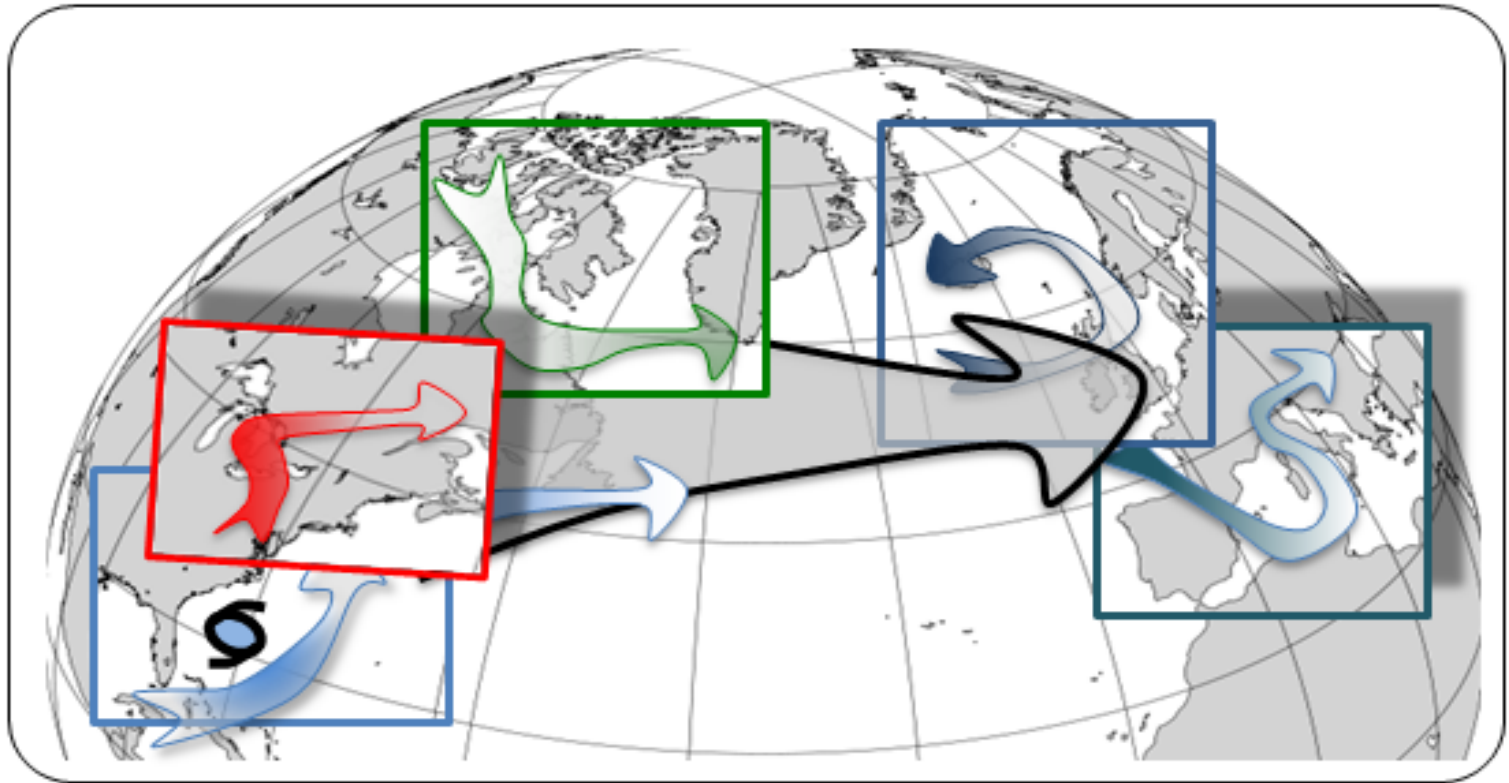


# NAWDEX – General Planning Meeting

22 September 2016, Keflavik 11 UTC



# NAWDEX – General Planning Meeting

22 September 2016, Keflavik 11 UTC

## **Key issues today**

1. Plan for coordinated flights of FAAM, HALO and Falcon for flight on Friday.
2. Day off on Saturday.
3. Outlook: Flights early next week.
4. Quicklook meeting today at 16.30 UTC.

# NAWDEX – General Planning Meeting

22 September 2016, Keflavik 11 UTC

1. Key information from previous flight (2 minutes)
2. Aircraft status report by FX-Operations
3. Instrument status report by Instrument Manager
4. Short weather summary
5. Final discussion about flight pattern for next day
6. Report of Ground-Based Observation coordinator
7. Announcement of tentative plans for Day+3
8. Coordination with other aircraft (Input from other groups)

# NAWDEX – General Planning Meeting

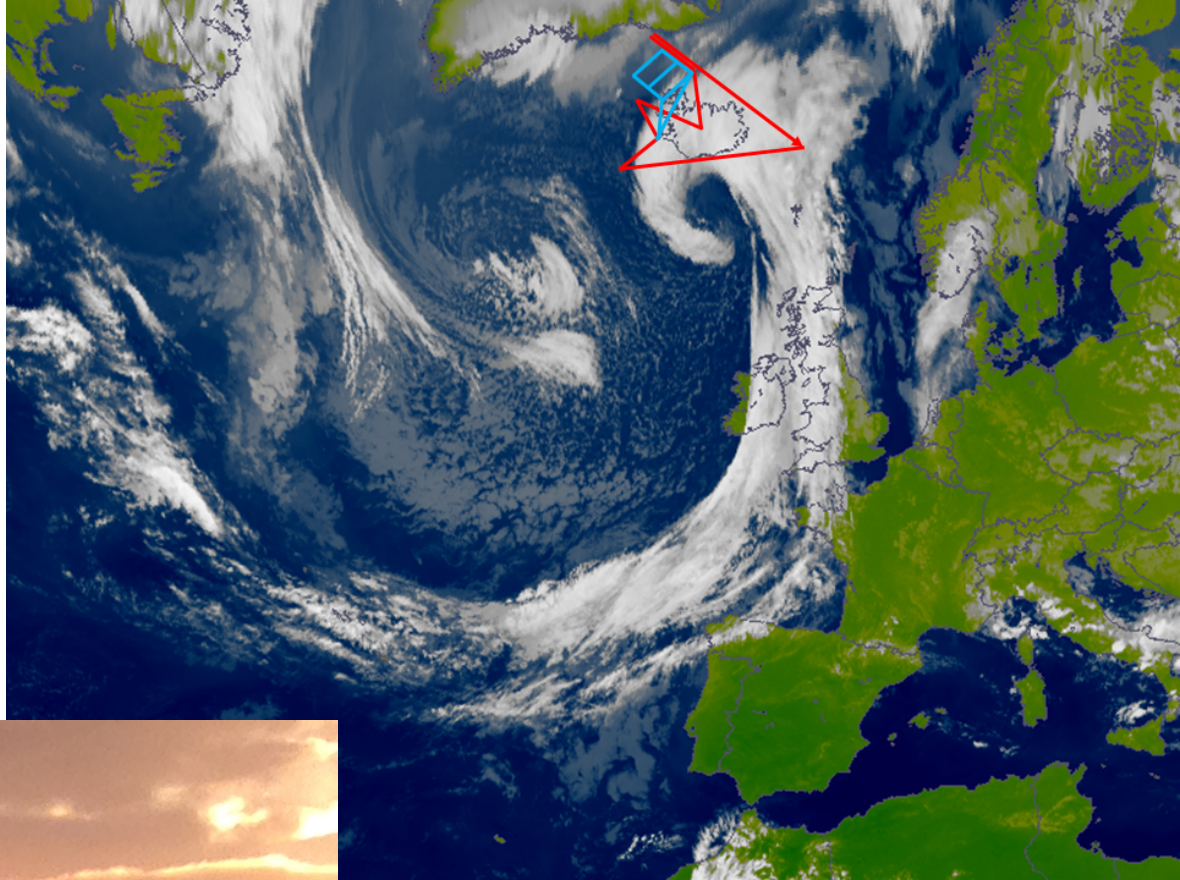
## WEATHER summary

22 September 2016, Keflavik 11 UTC

- **Yesterday's mission**
- Current situation & evolution until Monday 26 September
- **Mission Friday 23 September**
- Potential mission Monday-Wednesday



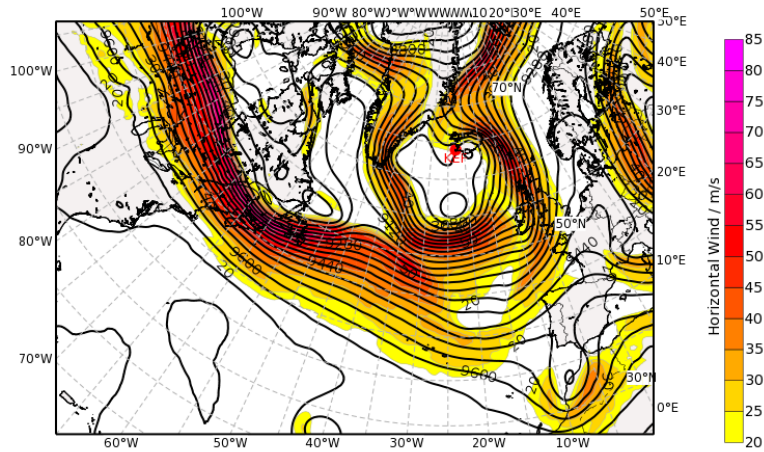
## Yesterday's flight



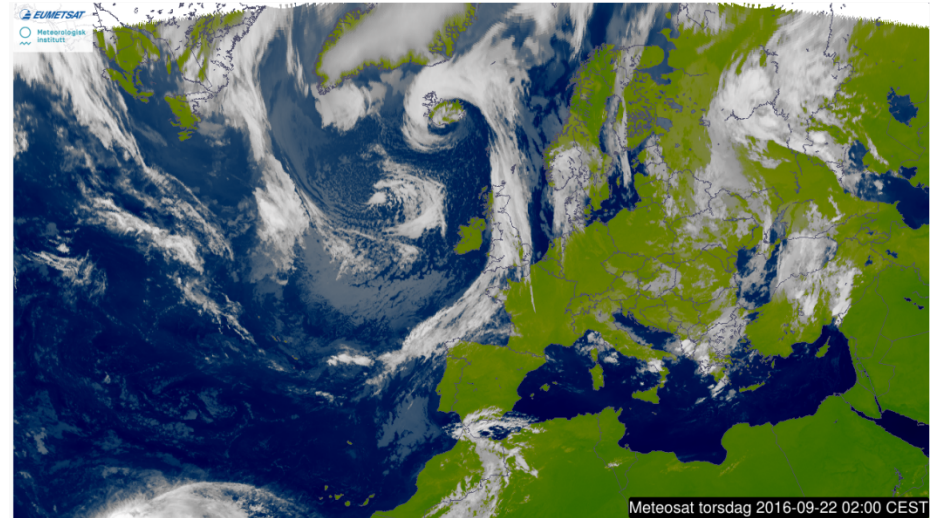


# Analysis – 22 Sep 2016, 00 UTC

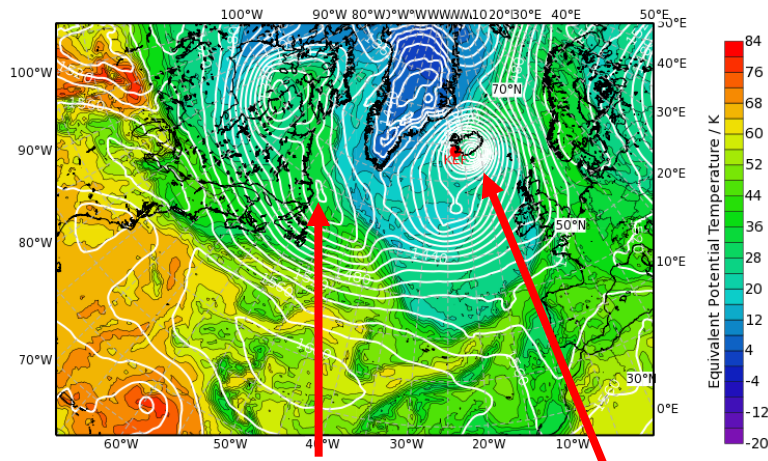
Geopotential Height (m) & Horizontal Wind (m/s) at 300 hPa  
Valid: Thu, 22 Sep 2016, 00 UTC (step 000 h from Thu, 22 Sep 2016, 00 UTC)



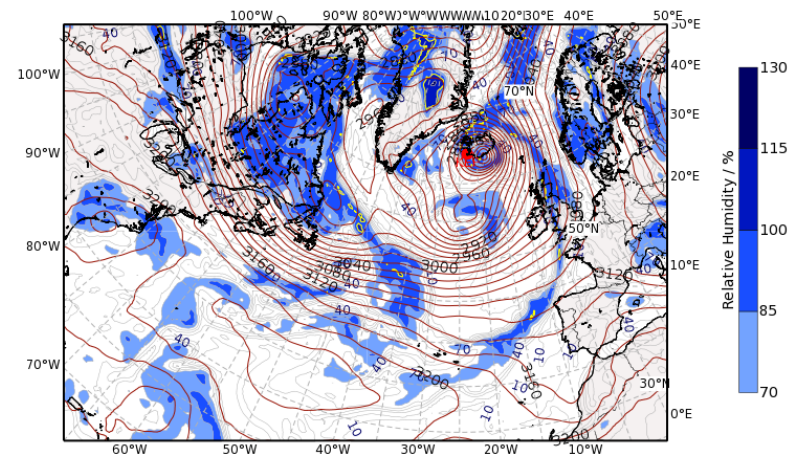
Z300, SAT  
THE850, RH700



Equivalent Potential Temperature (degC) & Streamlines at 850 hPa  
Valid: Thu, 22 Sep 2016, 00 UTC (step 000 h from Thu, 22 Sep 2016, 00 UTC)



Relative Humidity (%) and Z (m) at 700 hPa  
Valid: Thu, 22 Sep 2016, 00 UTC (step 000 h from Thu, 22 Sep 2016, 00 UTC)



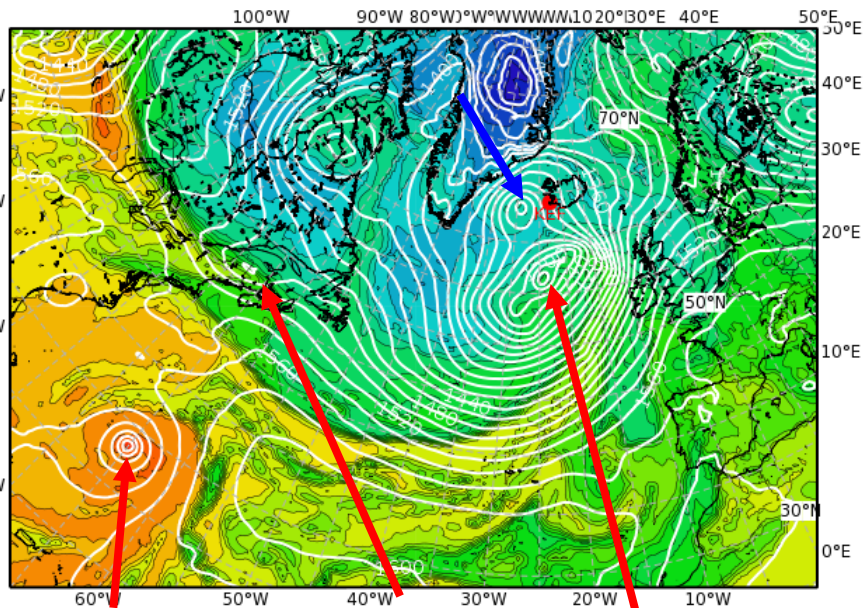
**“Friday” cyclone Ursula**



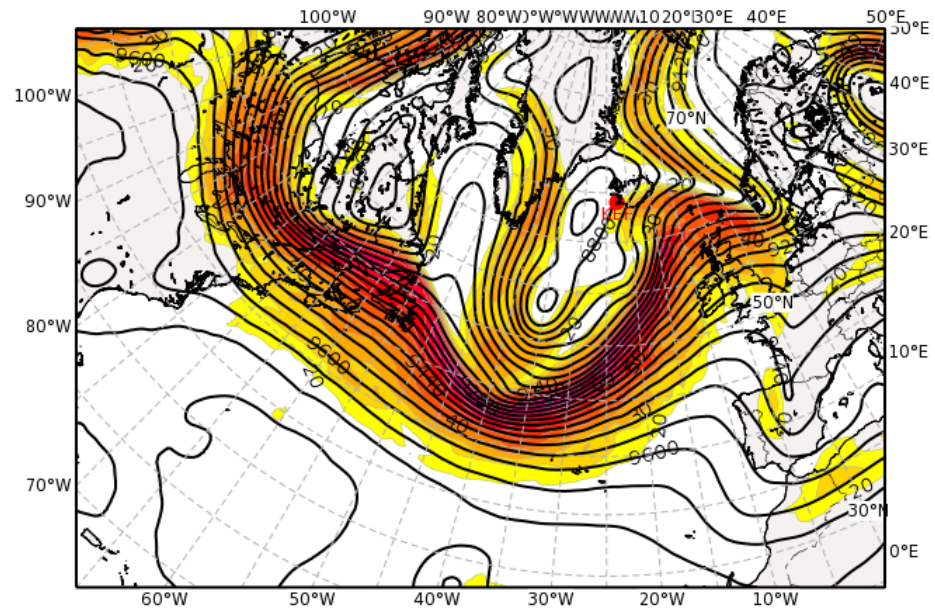
# Forecast for Fri, 23 Sep 2016 12 UTC

THE850, Z300 BT22/00Z

Equivalent Potential Temperature (degC) & Streamlines at 850 hPa  
Valid: Fri, 23 Sep 2016, 12 UTC (step 036 h from Thu, 22 Sep 2016, 00 UTC)



Geopotential Height (m) & Horizontal Wind (m/s) at 300 hPa  
Valid: Fri, 23 Sep 2016, 12 UTC (step 036 h from Thu, 22 Sep 2016, 00 UTC)



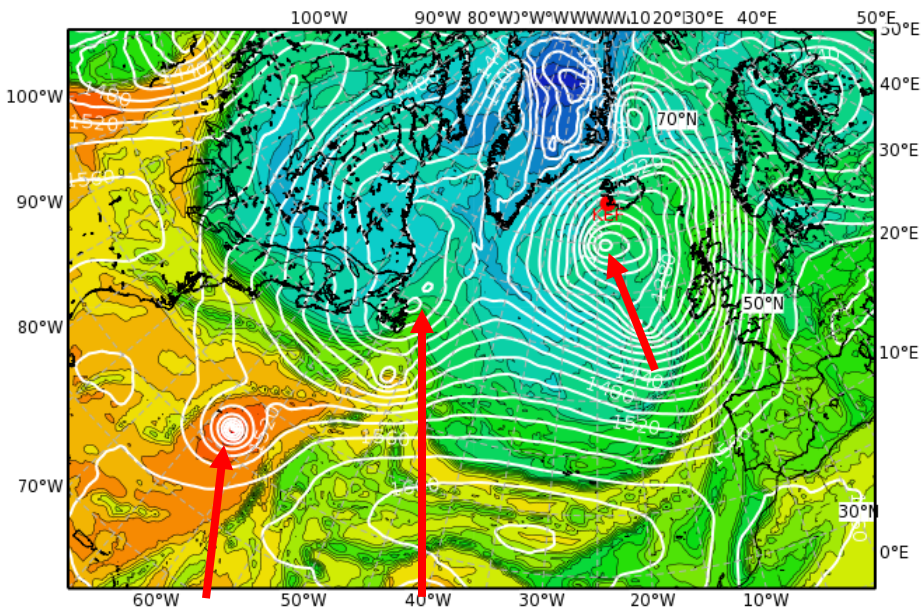
TC Karl DS cyclone

“Friday” cyclone

# Forecast for Sat, 24 Sep 2016 12 UTC

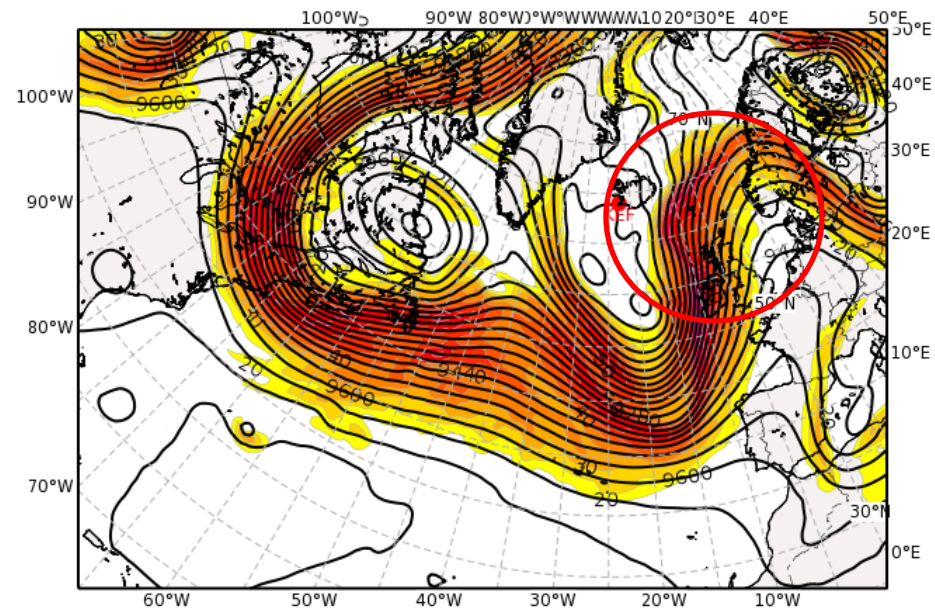
THE850, Z300 BT22/00Z

Equivalent Potential Temperature (degC) & Streamlines at 850 hPa  
Valid: Sat, 24 Sep 2016, 12 UTC (step 060 h from Thu, 22 Sep 2016, 00 UTC)



**TC Karl DS cyclone**

Geopotential Height (m) & Horizontal Wind (m/s) at 300 hPa  
Valid: Sat, 24 Sep 2016, 12 UTC (step 060 h from Thu, 22 Sep 2016, 00 UTC)



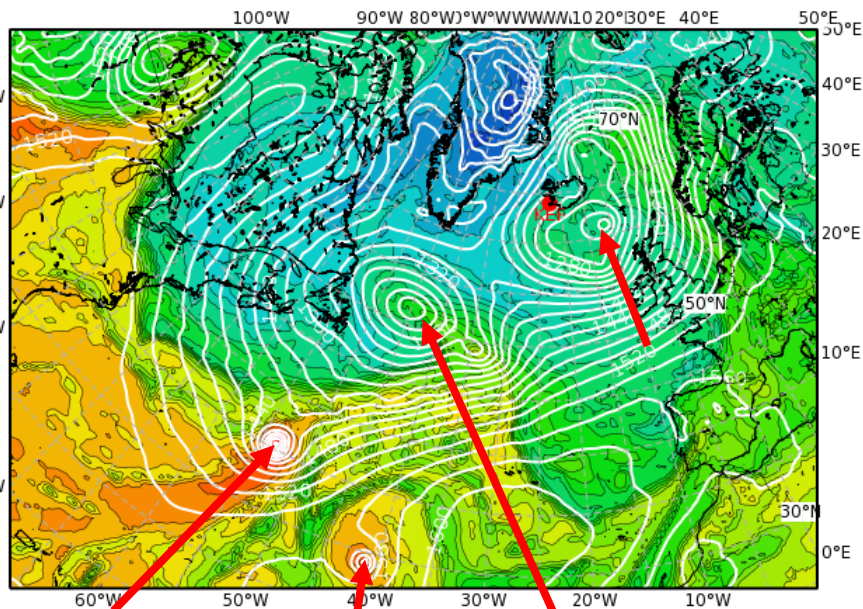
- Heavy precipitation & windy conditions in UK and Ireland



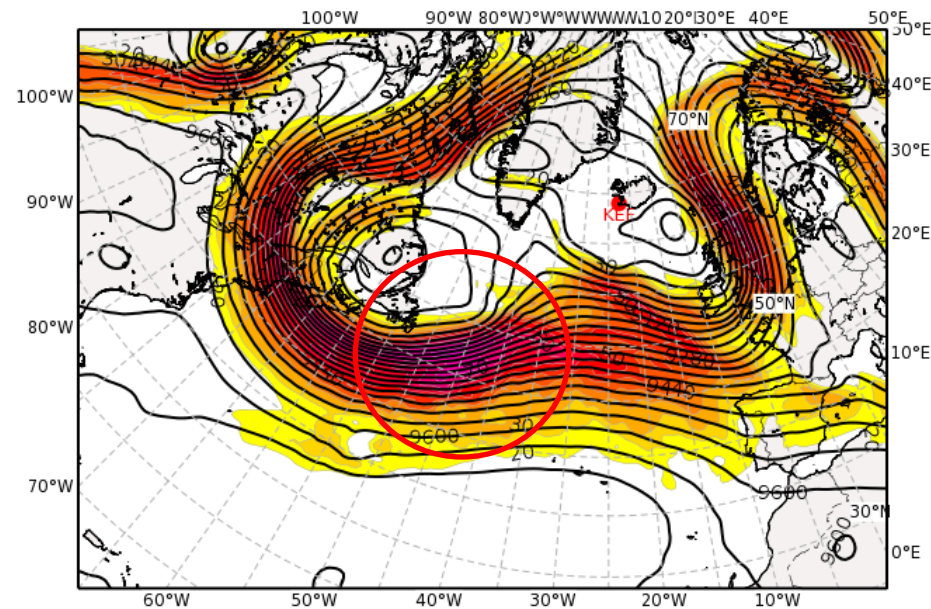
# Forecast for Sun, 25 Sep 2016 12 UTC

THE850, Z300 BT22/00Z

Equivalent Potential Temperature (degC) & Streamlines at 850 hPa  
Valid: Sun, 25 Sep 2016, 12 UTC (step 084 h from Thu, 22 Sep 2016, 00 UTC)



Geopotential Height (m) & Horizontal Wind (m/s) at 300 hPa  
Valid: Sun, 25 Sep 2016, 12 UTC (step 084 h from Thu, 22 Sep 2016, 00 UTC)



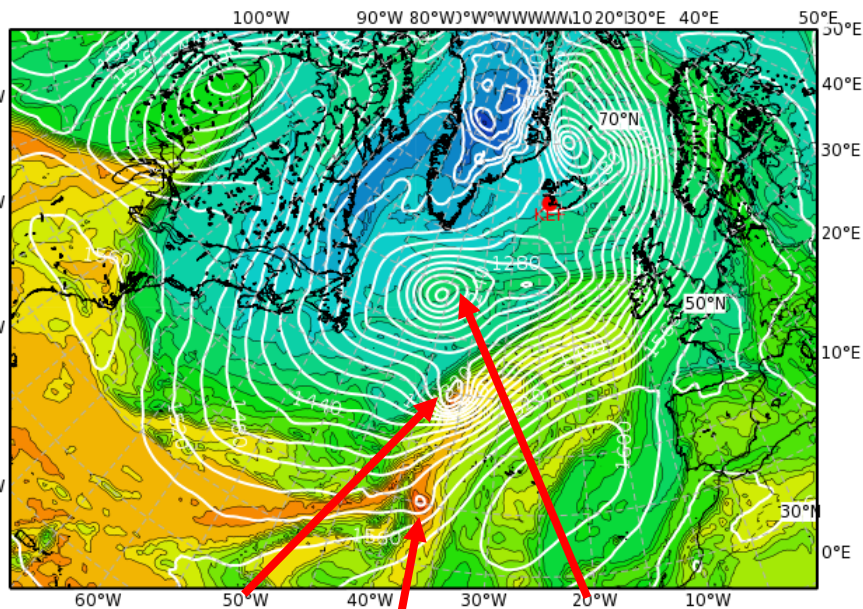
**TC Karl**  
**TC Lisa**  
**DS cyclone**

- Heavy precipitation & windy conditions in UK and Ireland

# Forecast for Mon, 26 Sep 2016 12 UTC

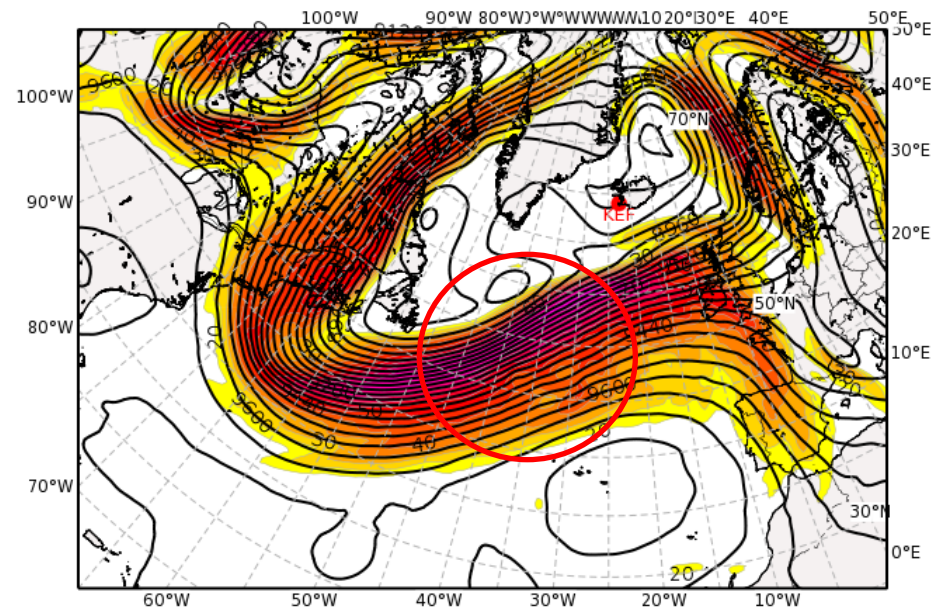
THE850, Z300 BT22/00Z

Equivalent Potential Temperature (degC) & Streamlines at 850 hPa  
Valid: Mon, 26 Sep 2016, 12 UTC (step 108 h from Thu, 22 Sep 2016, 00 UTC)



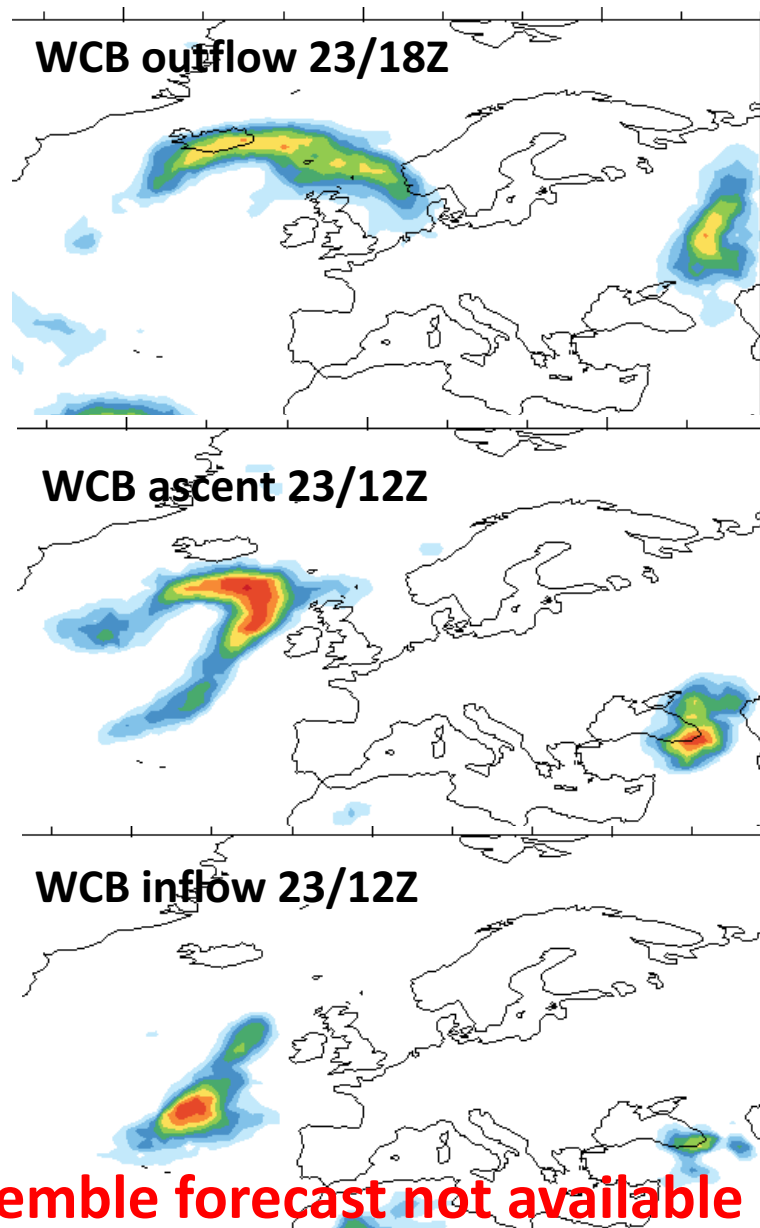
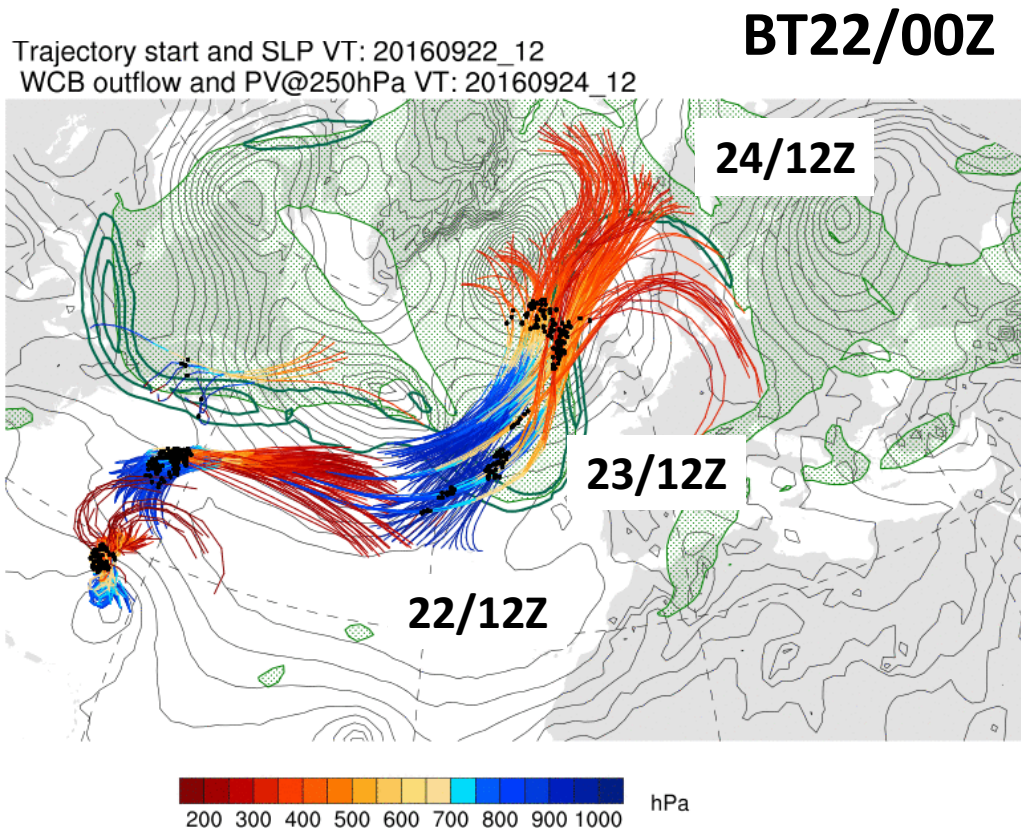
**TC Karl**  
**TC Lisa**  
**DS cyclone**

Geopotential Height (m) & Horizontal Wind (m/s) at 300 hPa  
Valid: Mon, 26 Sep 2016, 12 UTC (step 108 h from Thu, 22 Sep 2016, 00 UTC)



- Heavy precipitation & windy conditions in UK and Ireland

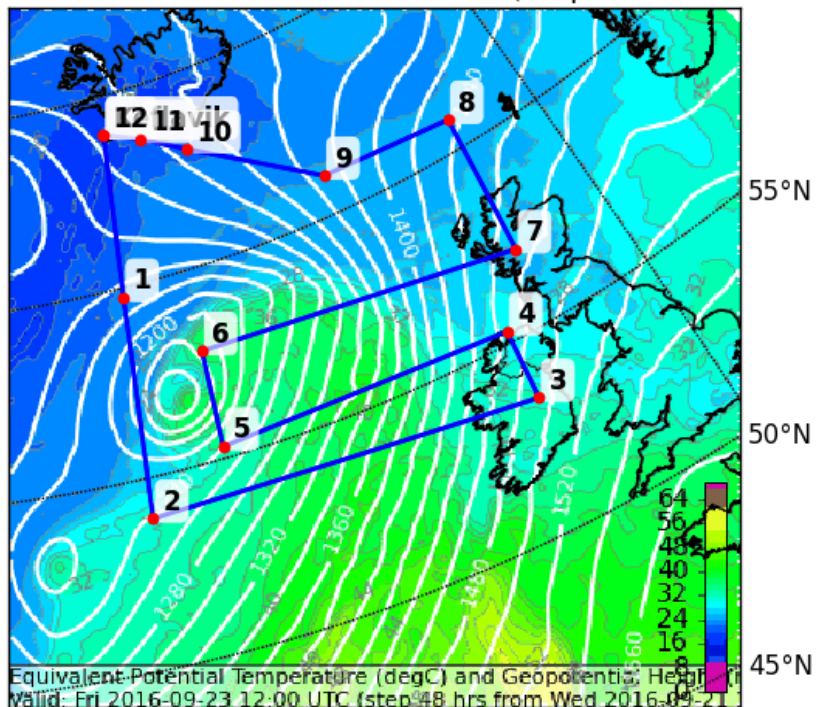




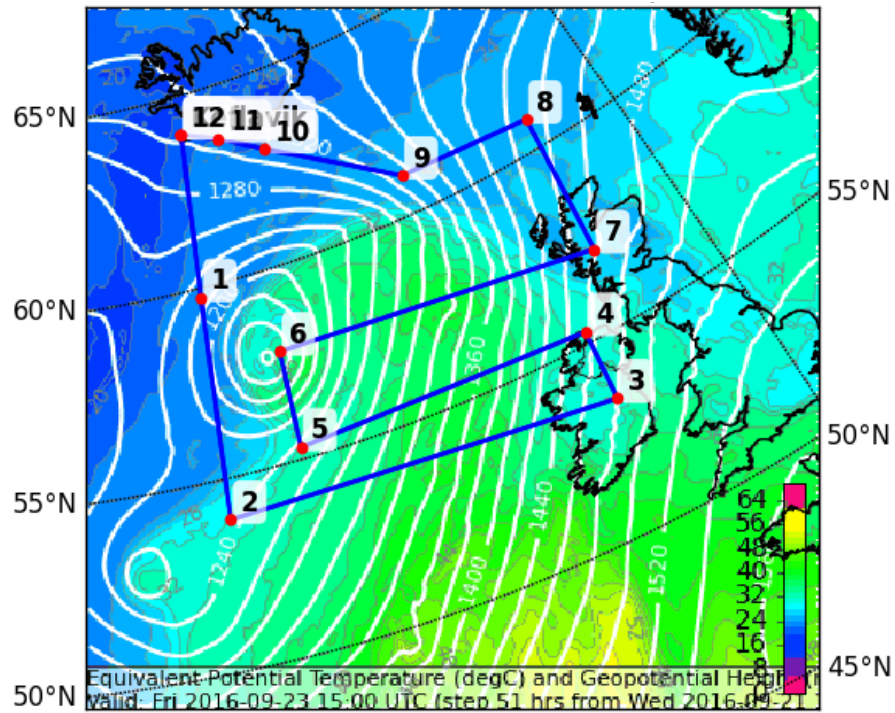
**Newest WCB ensemble forecast not available**

## Flight planning for Friday, 23 September 2016: HALO

12 UTC



15 UTC

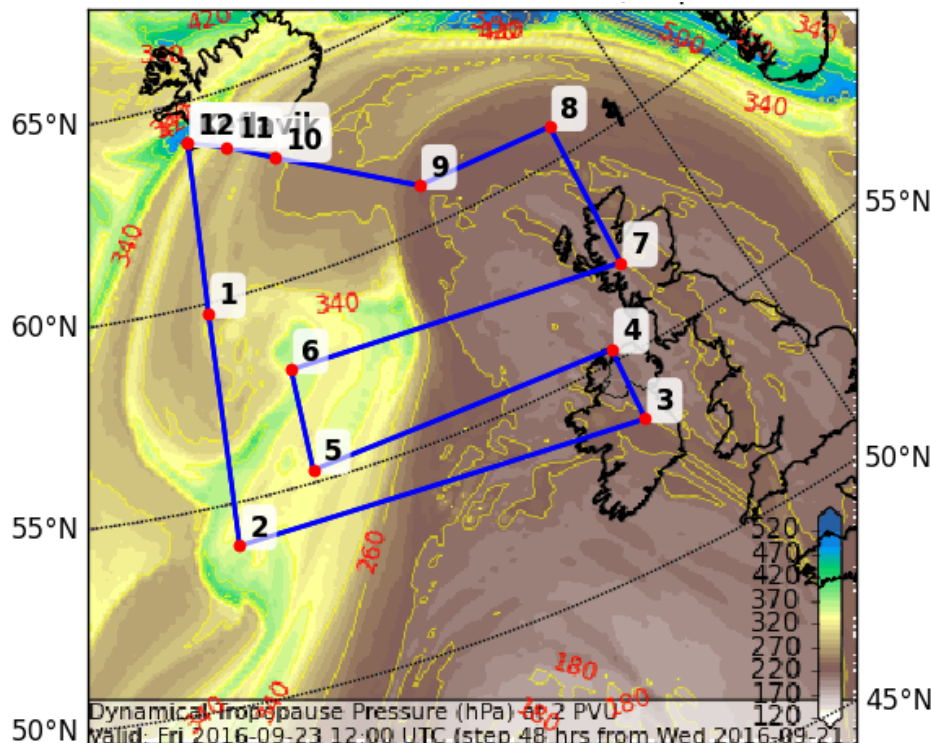


- Coordinated flight with FAAM leg 4-5  
→ FAAM flies several legs at 8-13°W from 12-15 UTC
- Coordinated flight with FALCON leg 9-12 in early afternoon

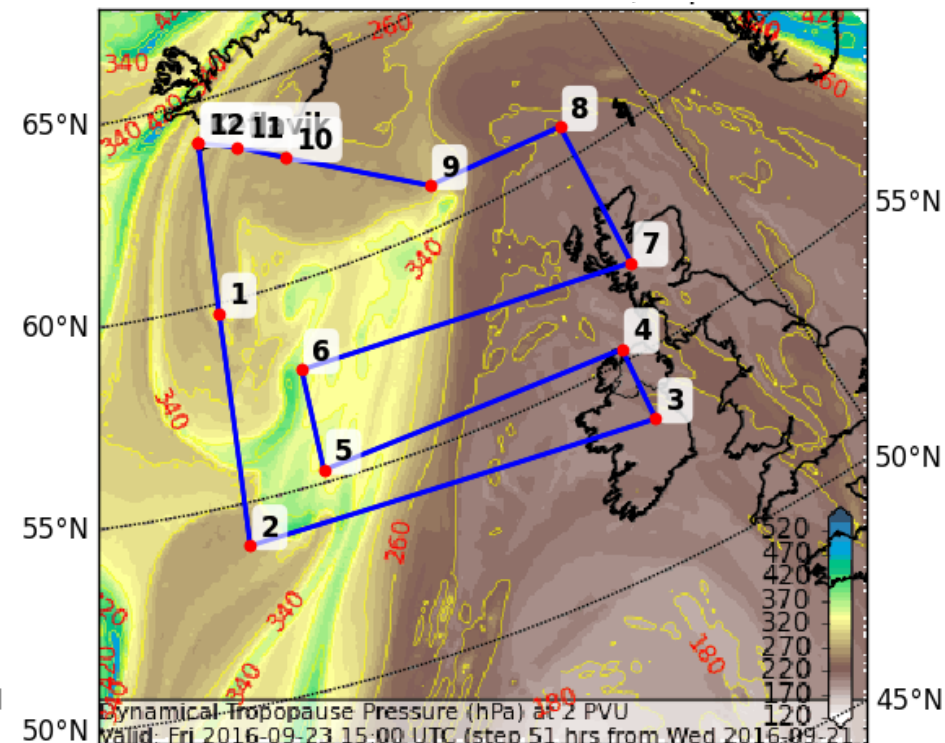


# Flight planning for Friday, 23 September 2016: HALO

12 UTC



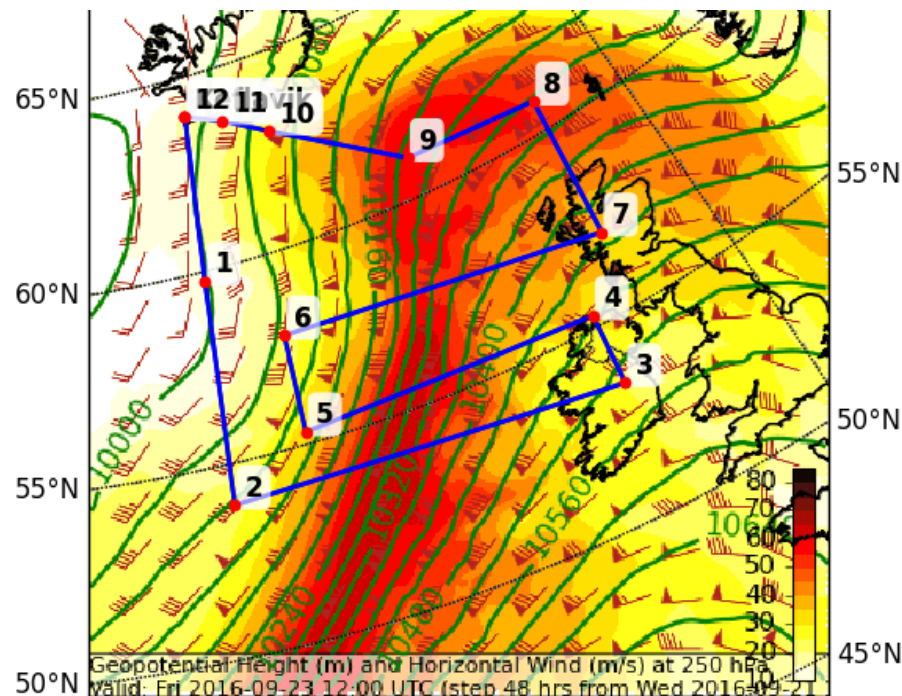
15 UTC



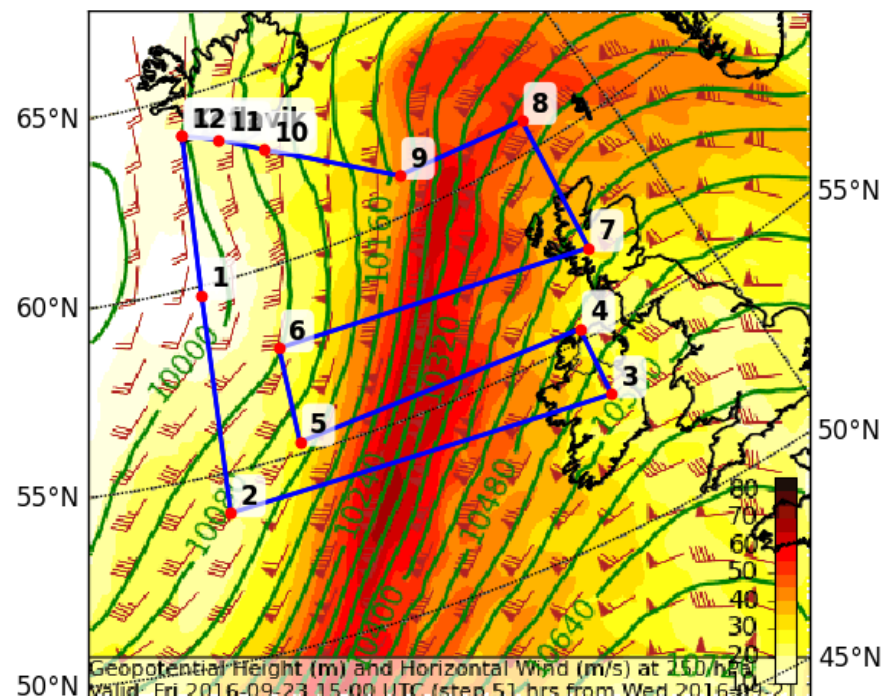
- Coordinated flight with FAAM leg 4-5  
→ FAAM flies several legs at 8-13°W from 12-15 UTC
- Coordinated flight with FALCON leg 9-12 in early afternoon

# Flight planning for Friday, 23 September 2016: HALO

12 UTC



15 UTC



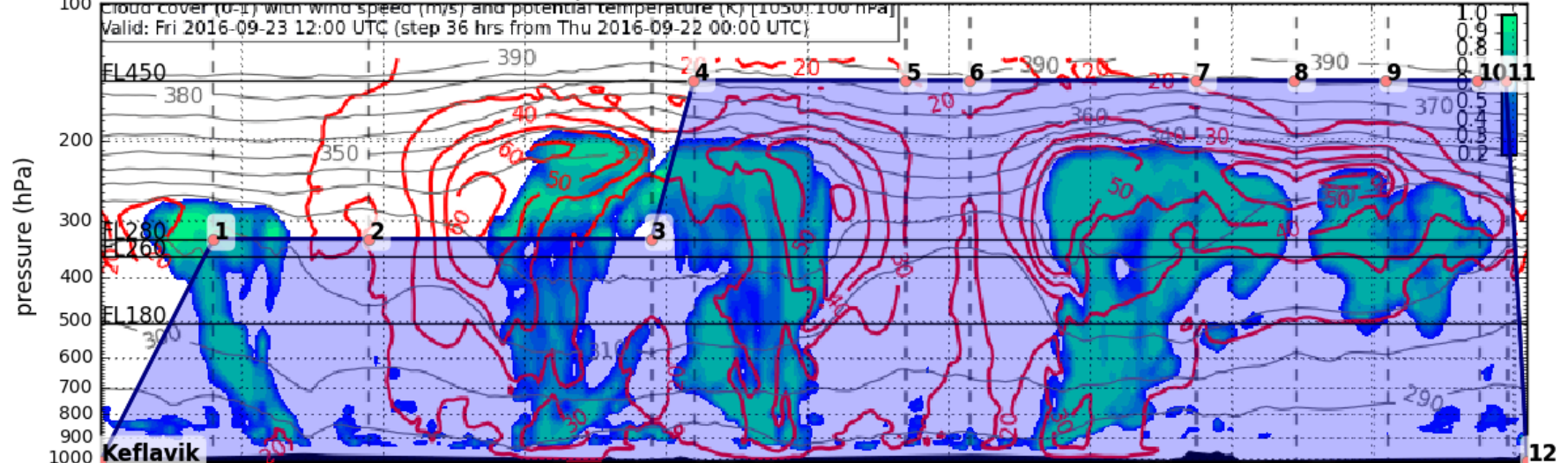
- Coordinated flight with FAAM leg 4-5  
→ FAAM flies several legs at 8-13°W from 12-15 UTC
- Coordinated flight with FALCON leg 9-12 in early afternoon



# Flight planning for Friday, 23 September 2016 12 UTC: HALO

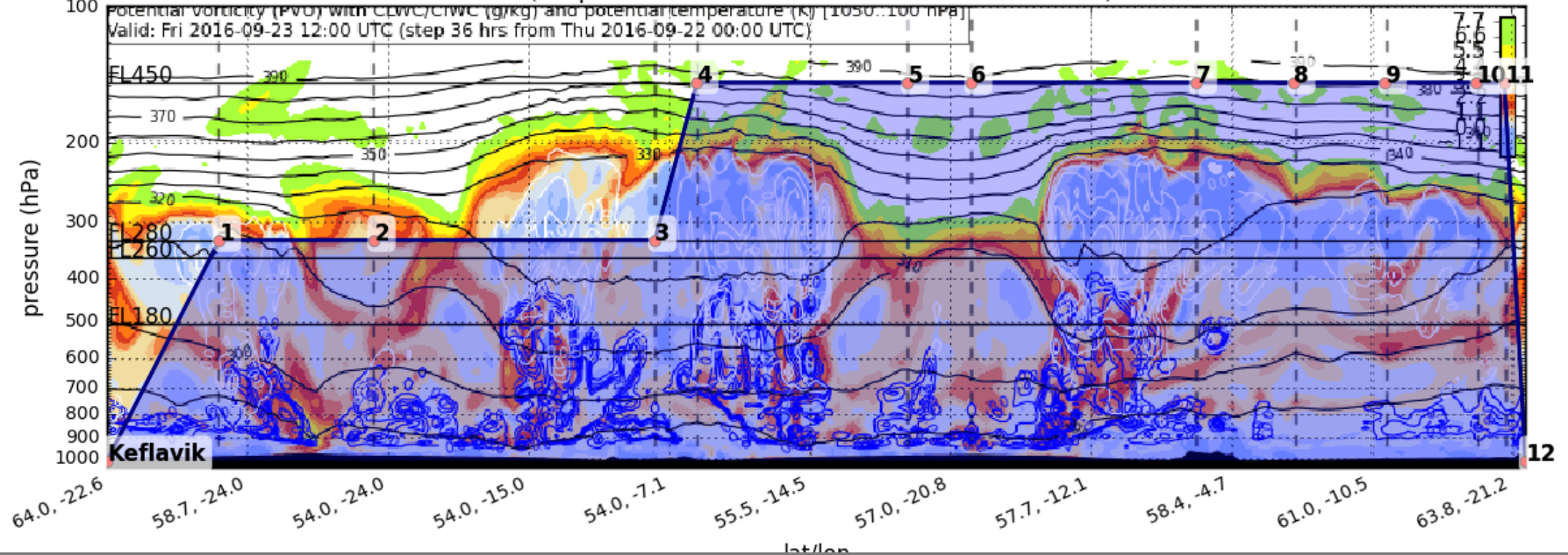
Cloud Cover (0-1) and Wind Speed (m/s) Vertical Section

Valid: Fr 2016-09-23 12:00 UTC (step 36 hrs from Do 2016-09-22 00:00 UTC)



Potential Vorticity (PVU) Vertical Section (Northern Hemisphere)

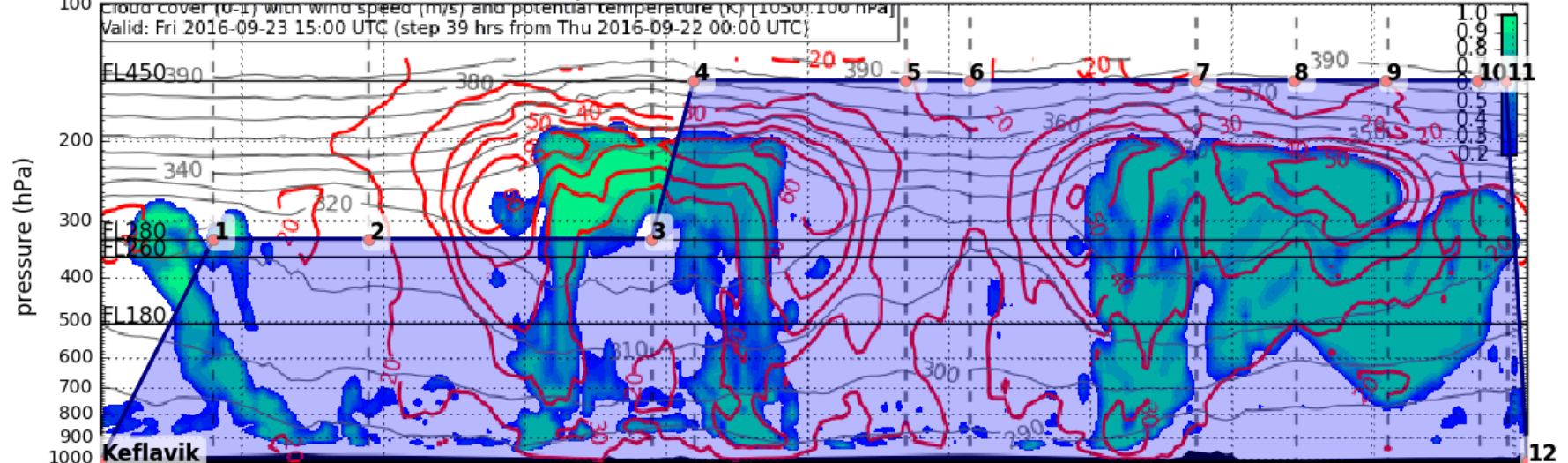
Valid: Fr 2016-09-23 12:00 UTC (step 36 hrs from Do 2016-09-22 00:00 UTC)



# Flight planning for Friday, 23 September 2016 15 UTC: HALO

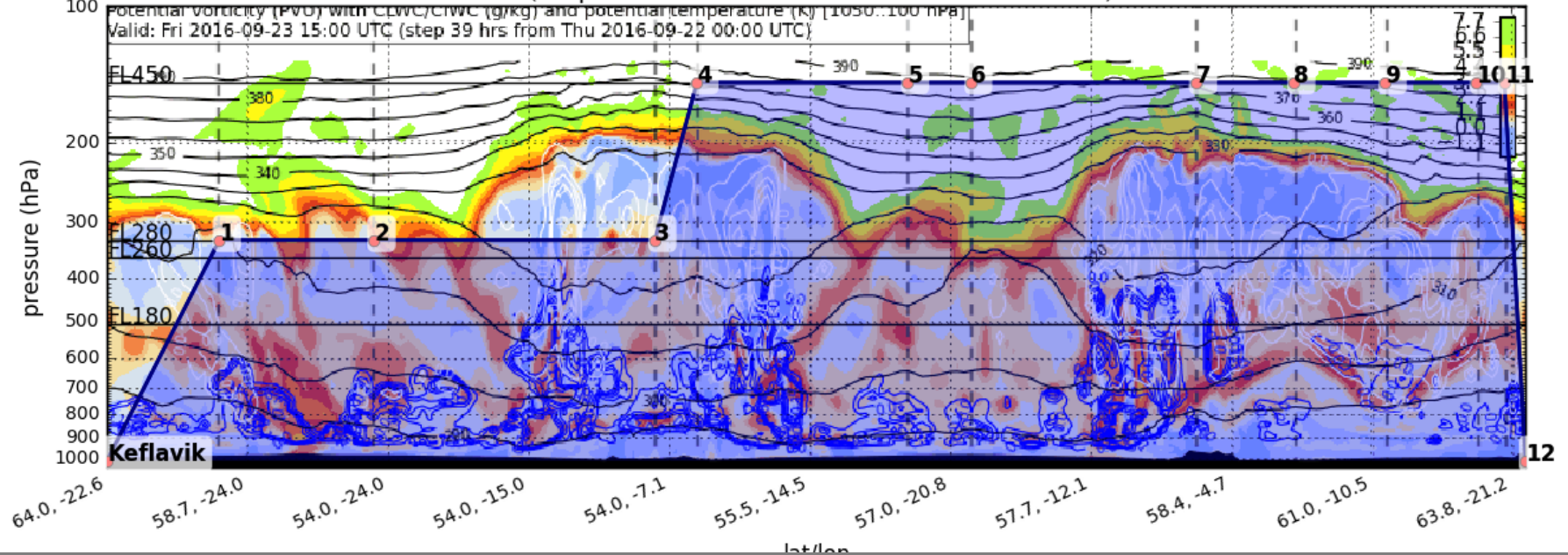
Cloud Cover (0-1) and Wind Speed (m/s) Vertical Section

Valid: Fr 2016-09-23 15:00 UTC (step 39 hrs from Do 2016-09-22 00:00 UTC)



Potential Vorticity (PVU) Vertical Section (Northern Hemisphere)

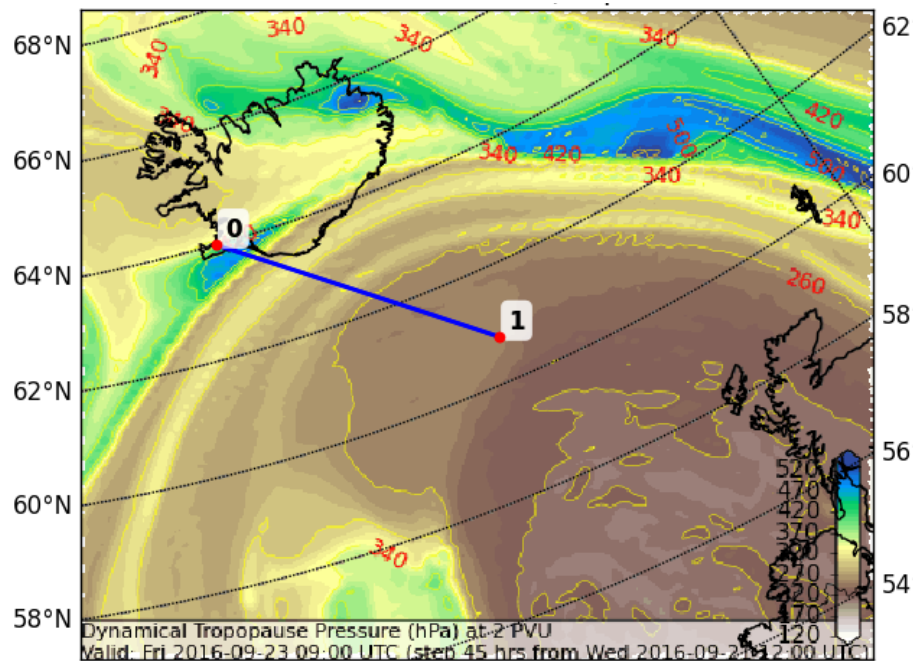
Valid: Fr 2016-09-23 15:00 UTC (step 39 hrs from Do 2016-09-22 00:00 UTC)



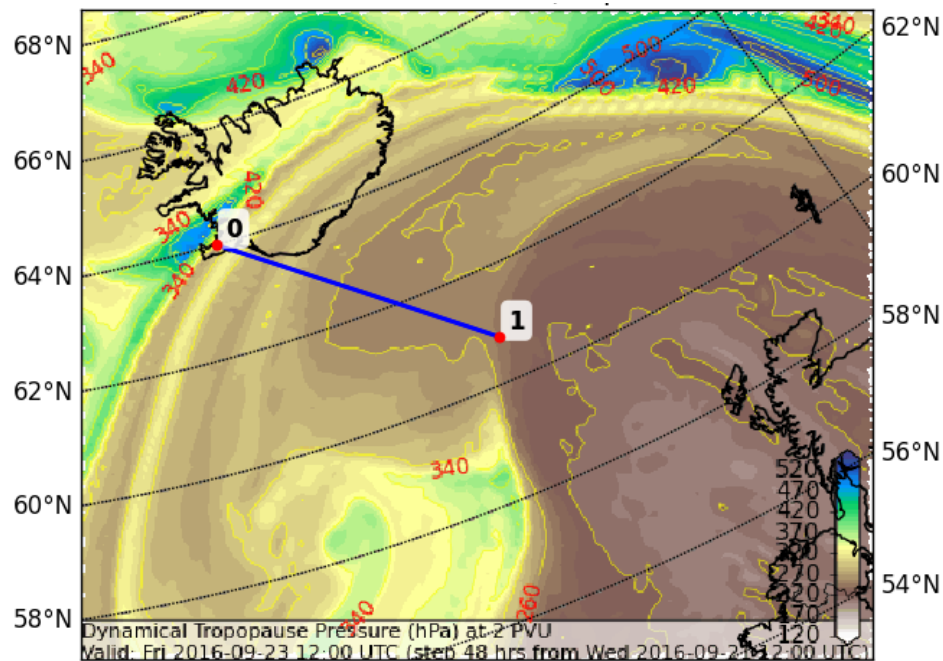


# Flight planning for Friday, 23 September 2016: FALCON

09 UTC



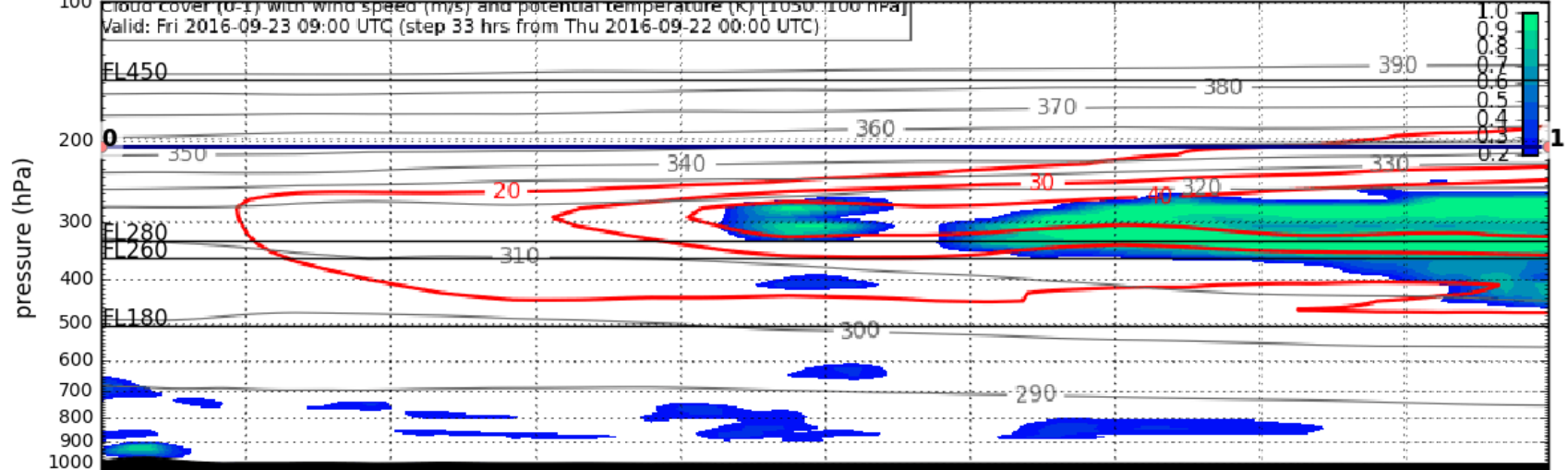
12 UTC



# Flight planning for Friday, 23 September 2016 09 UTC: FALCON

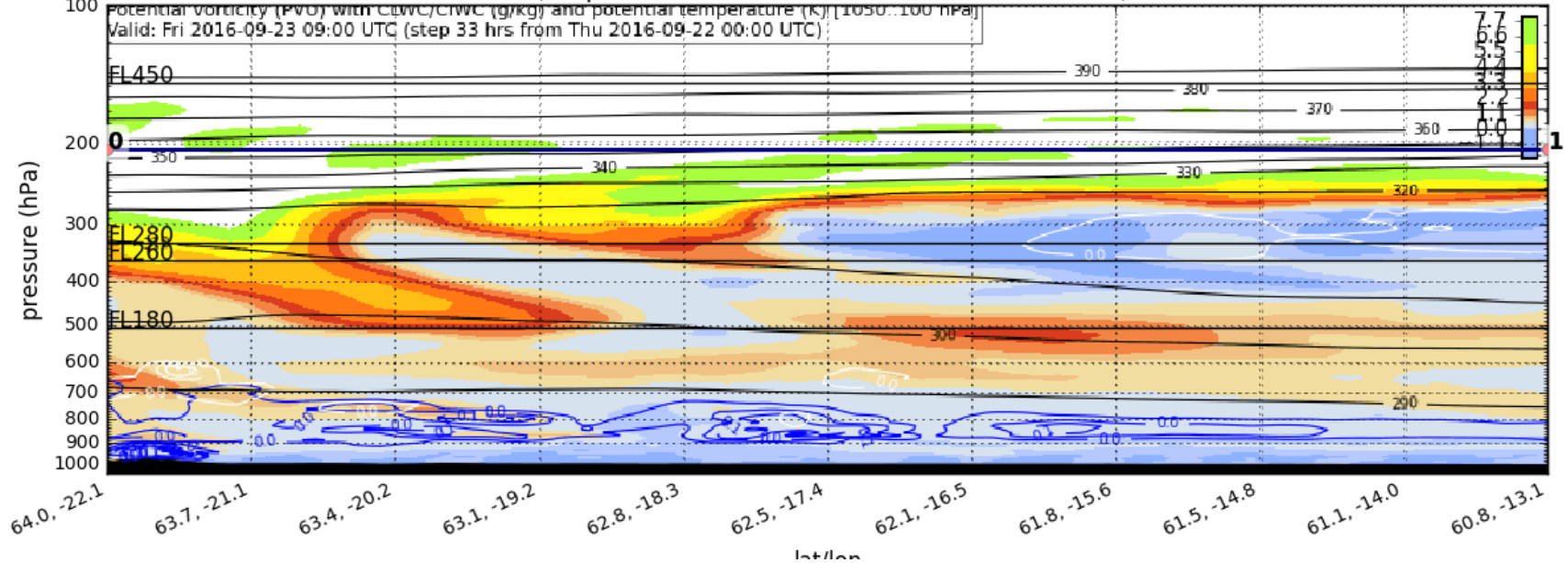
Cloud Cover (0-1) and Wind Speed (m/s) Vertical Section

Valid: Fr 2016-09-23 09:00 UTC (step 33 hrs from Do 2016-09-22 00:00 UTC)



Potential Vorticity (PVU) Vertical Section (Northern Hemisphere)

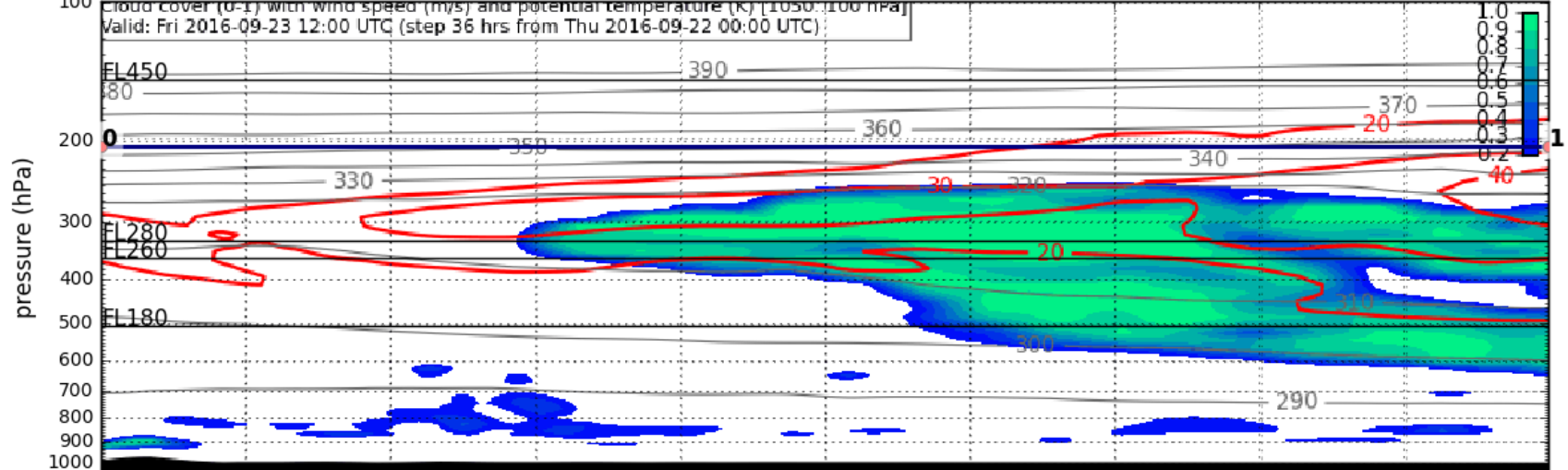
Valid: Fr 2016-09-23 09:00 UTC (step 33 hrs from Do 2016-09-22 00:00 UTC)



# Flight planning for Friday, 23 September 2016 12 UTC: FALCON

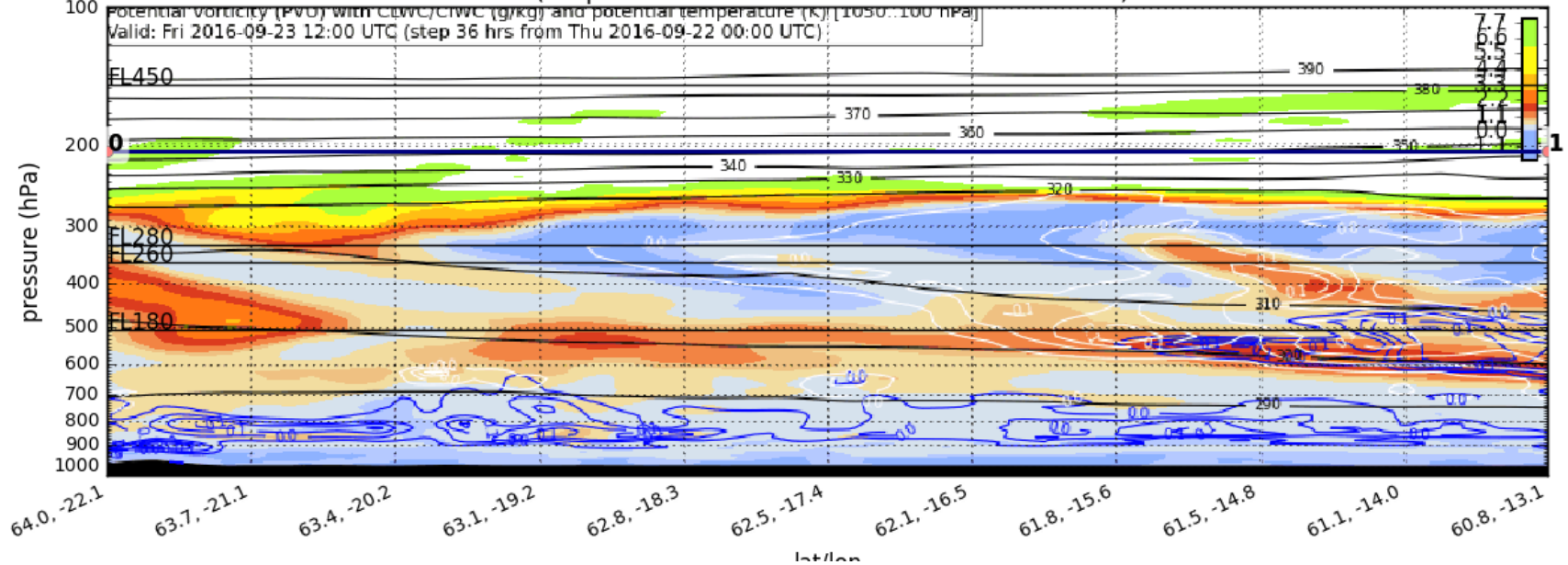
Cloud Cover (0-1) and Wind Speed (m/s) Vertical Section

Valid: Fr 2016-09-23 12:00 UTC (step 36 hrs from Do 2016-09-22 00:00 UTC)



Potential Vorticity (PVU) Vertical Section (Northern Hemisphere)

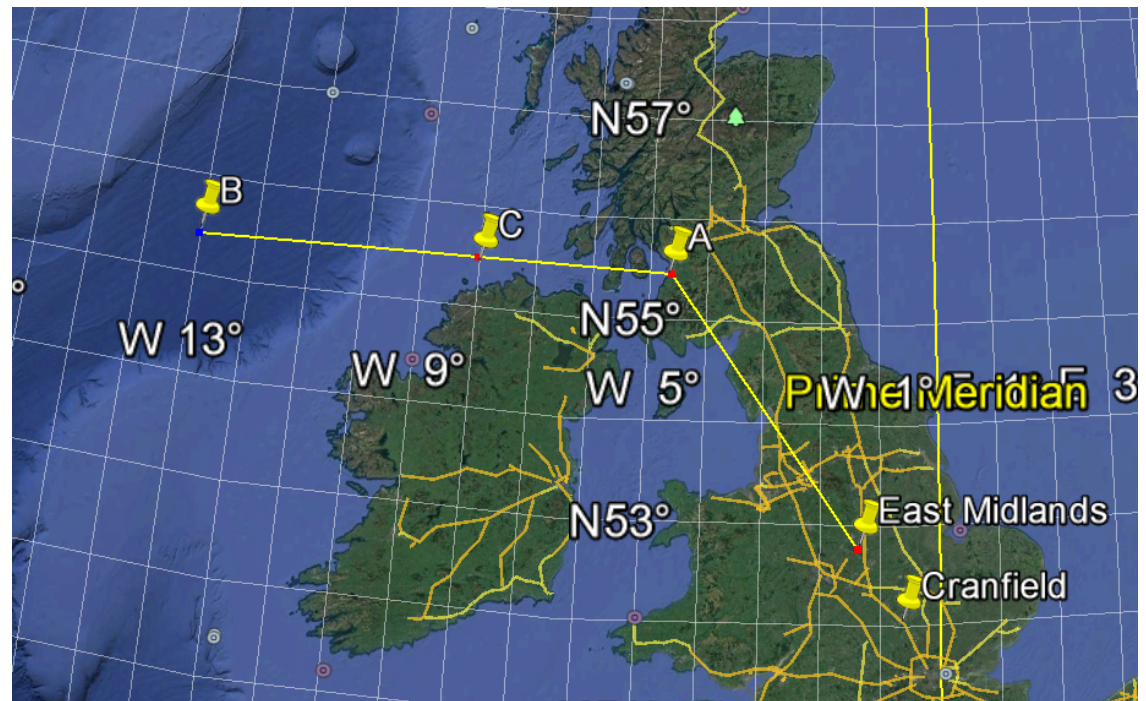
Valid: Fr 2016-09-23 12:00 UTC (step 36 hrs from Do 2016-09-22 00:00 UTC)



# Proposed FAAM flight

4 transects along 55.5N between 8W (C) and 13W (B)

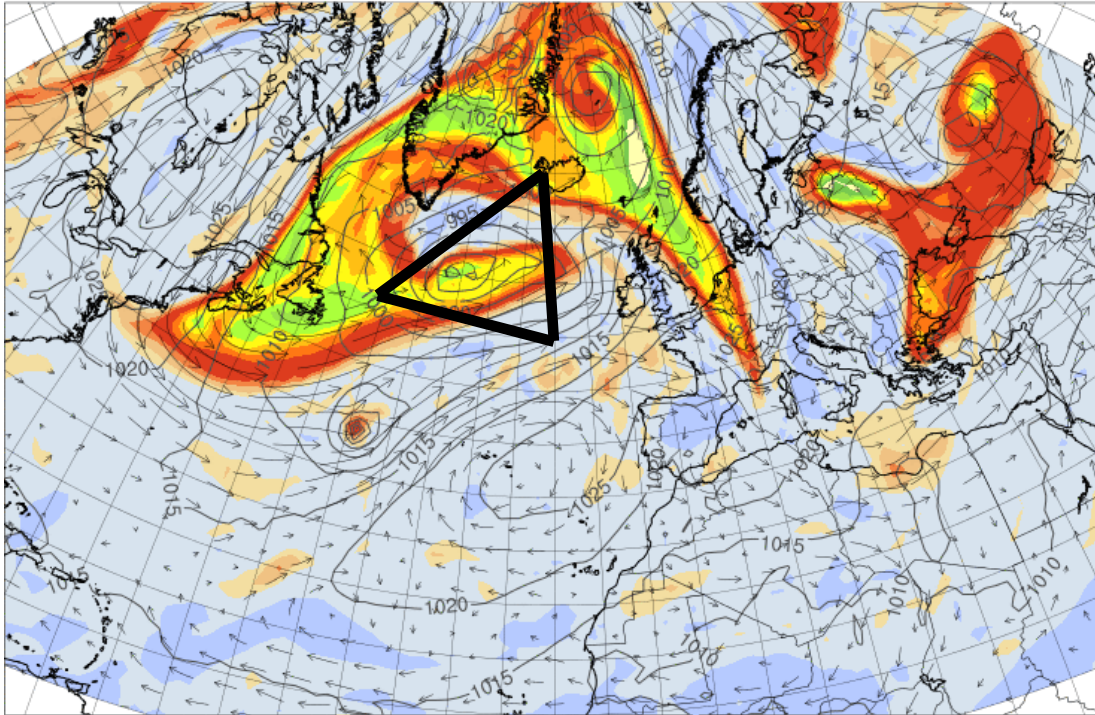
Times: C at 1210 UTC  
B at 1256 UTC  
C at 1340 UTC  
B at 1423 UTC  
C at 1510 UTC



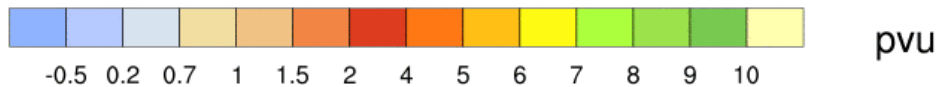


# Outlook for Monday, 26 September

PV@320K at 20160926\_12



- Monday looks promising
- Preliminary flight plan on Friday
- Detailed flight plan needed on Sunday
- Mission scientists: George and Volkmar



# Summary plans

- **Next mission tomorrow, Friday 23 September: HALO**  
measurements of WCB ascent in NOTAM region, dropsondes,  
**meet UK FAAM BAE 146** west of Ireland
  - **FALCON** measurements of jet structure
- **Saturday day off**
- **Outlook Monday– Wednesday :**
  - 2 Systems: DS cyclone and TC Karl, strong WCB activity
  - Most likely missions on Monday and Tuesday