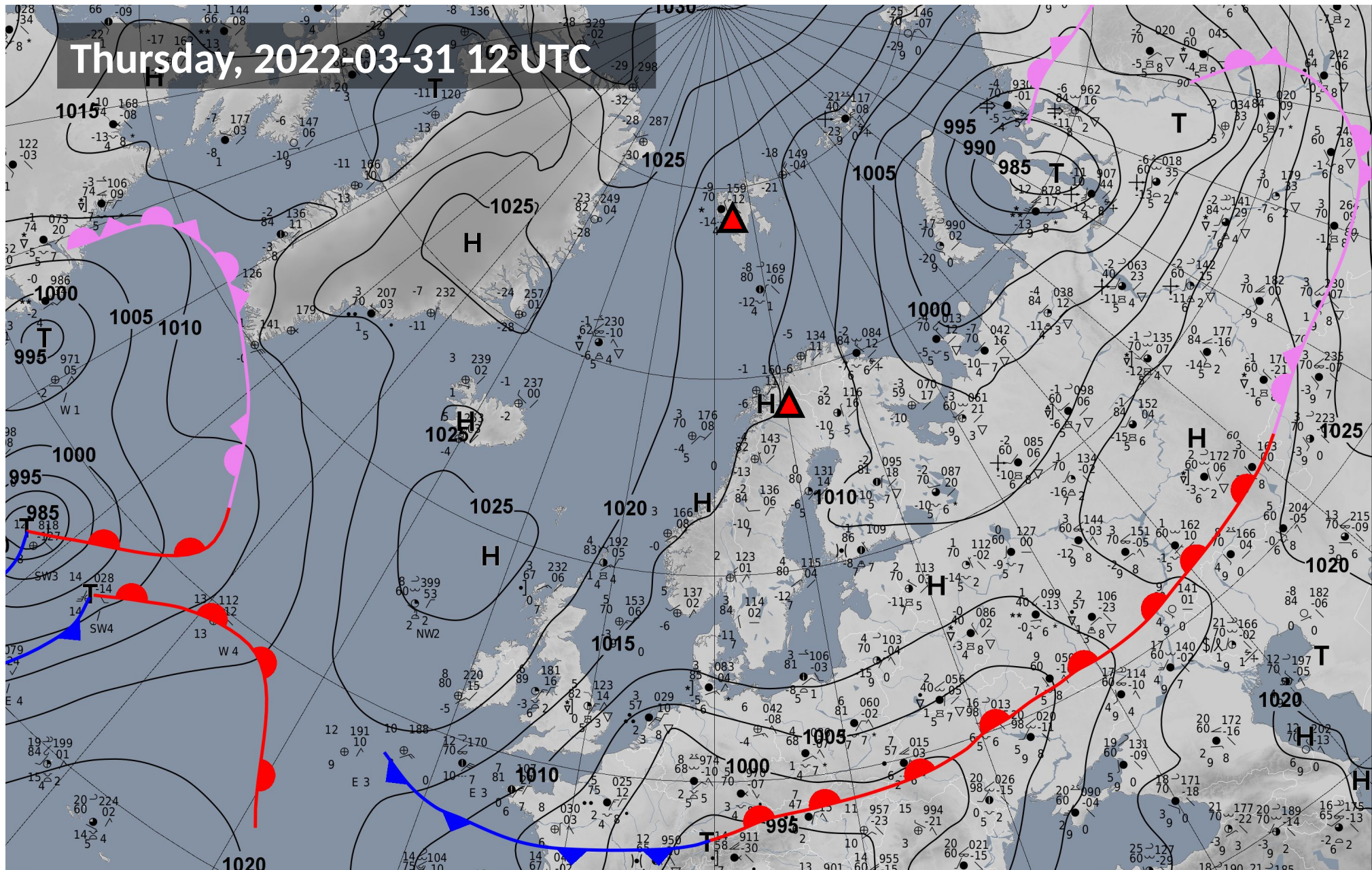


# Weather briefing HALO-(AC)<sup>3</sup>

Thursday, 2022-03-31, 17:00 LT

**Surface Analysis**  
Thursday, 2022-03-31 12 UTC  
DWD

Thursday, 2022-03-31 12 UTC



# Surface wind development and precipitation

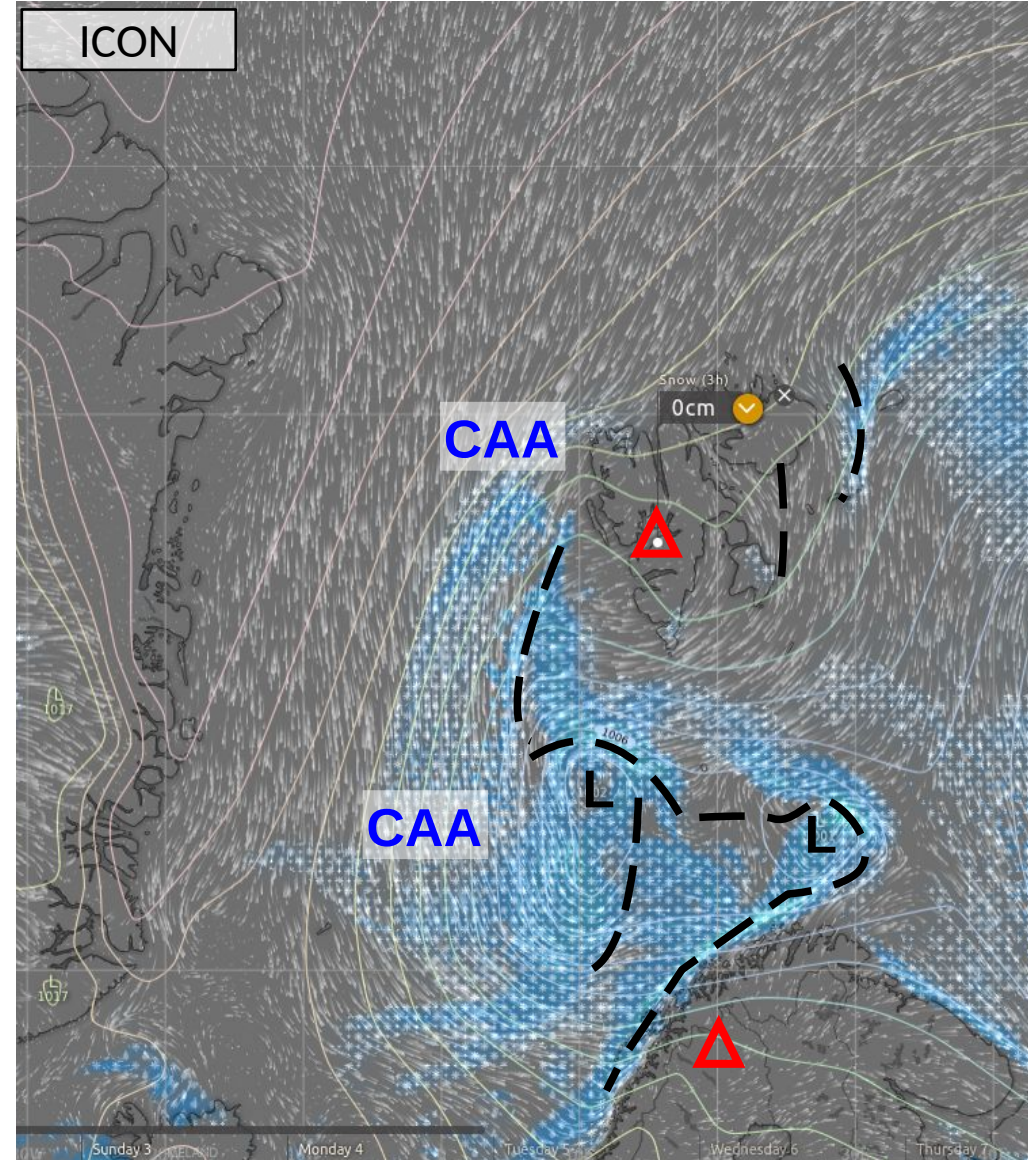
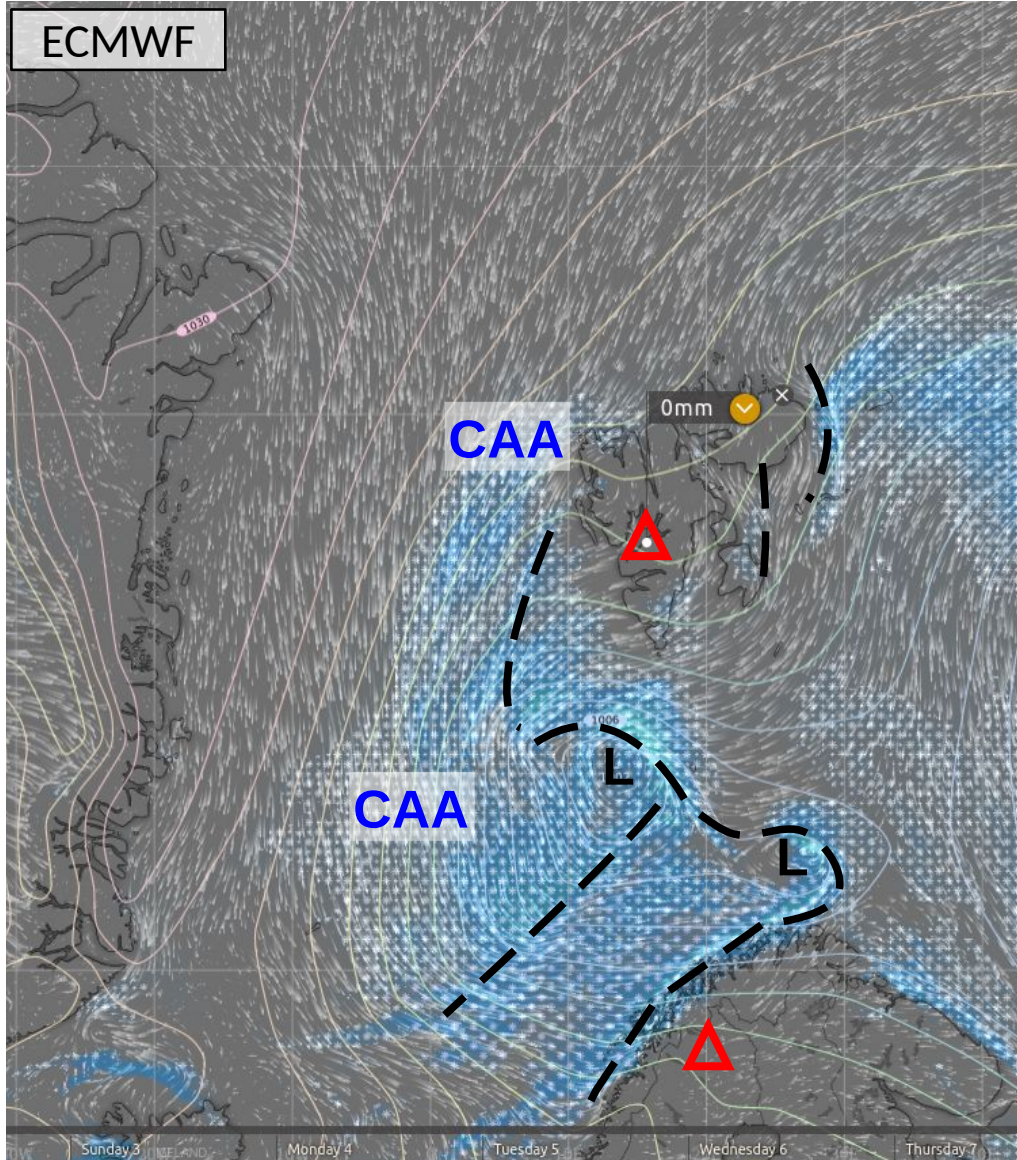
2022-03-31 00 UTC: 36 – 156h

ECMWF & ICON

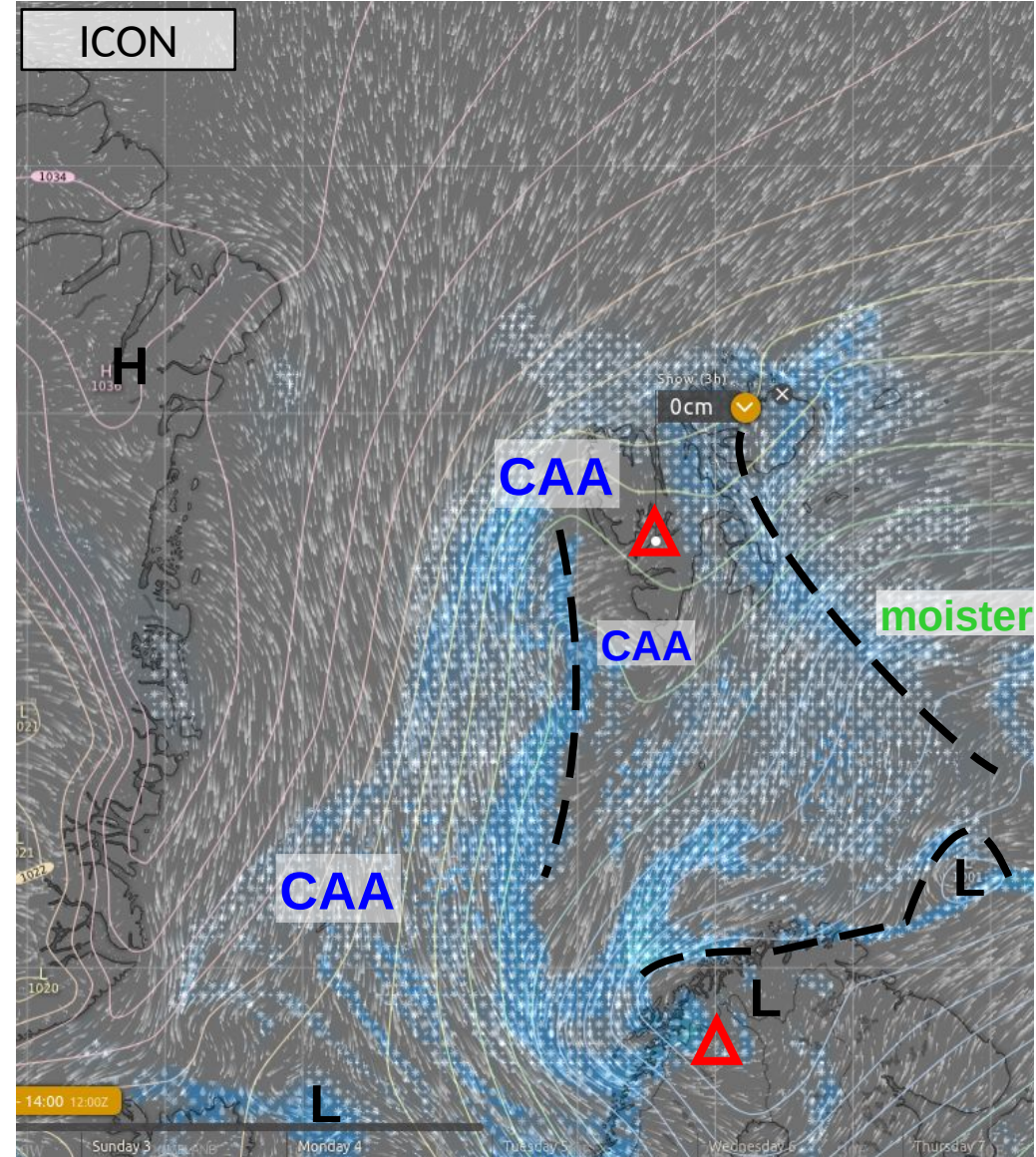
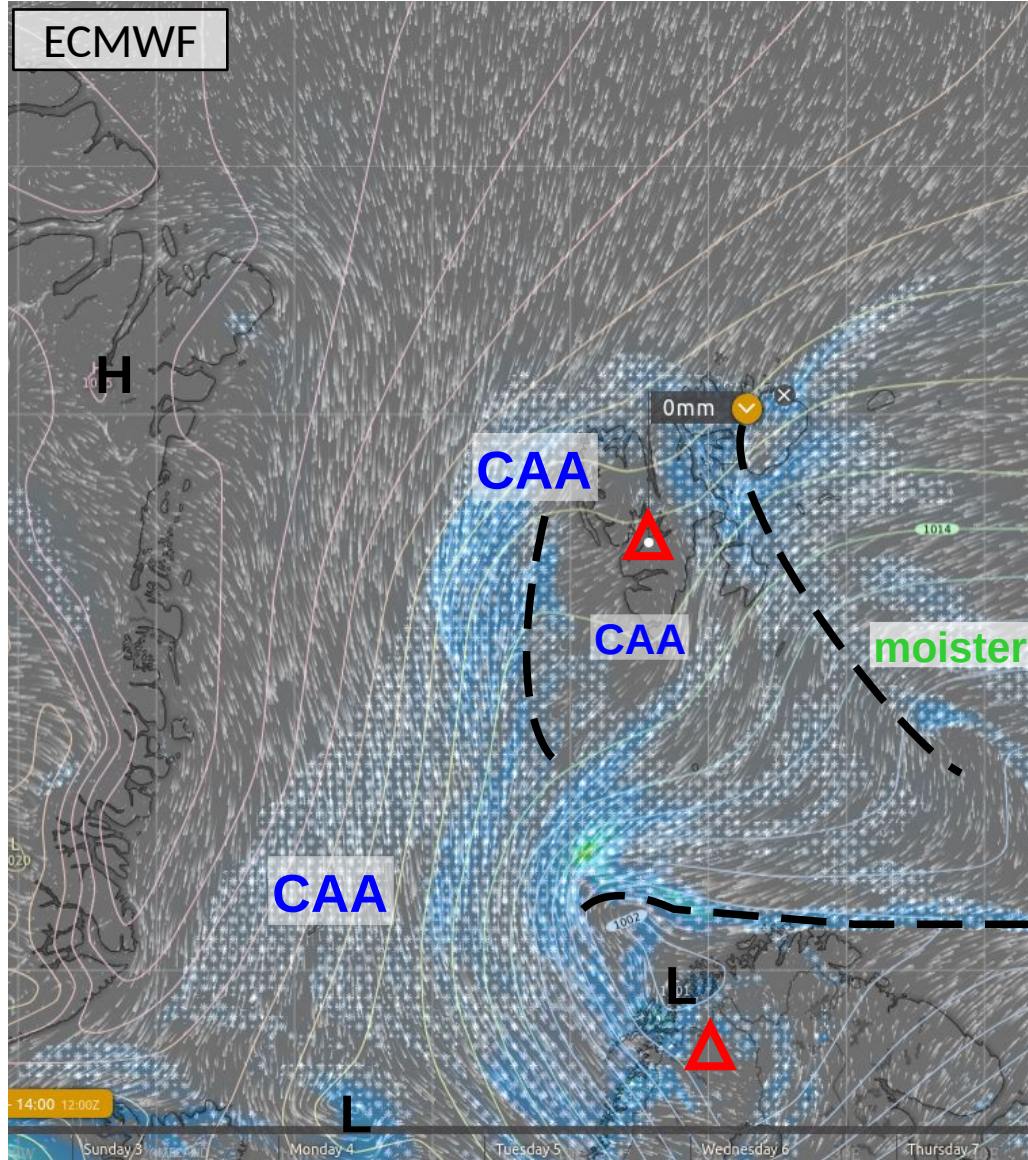
**CAA: Cold Air Advection**

**WAA: Warm Air Advection**

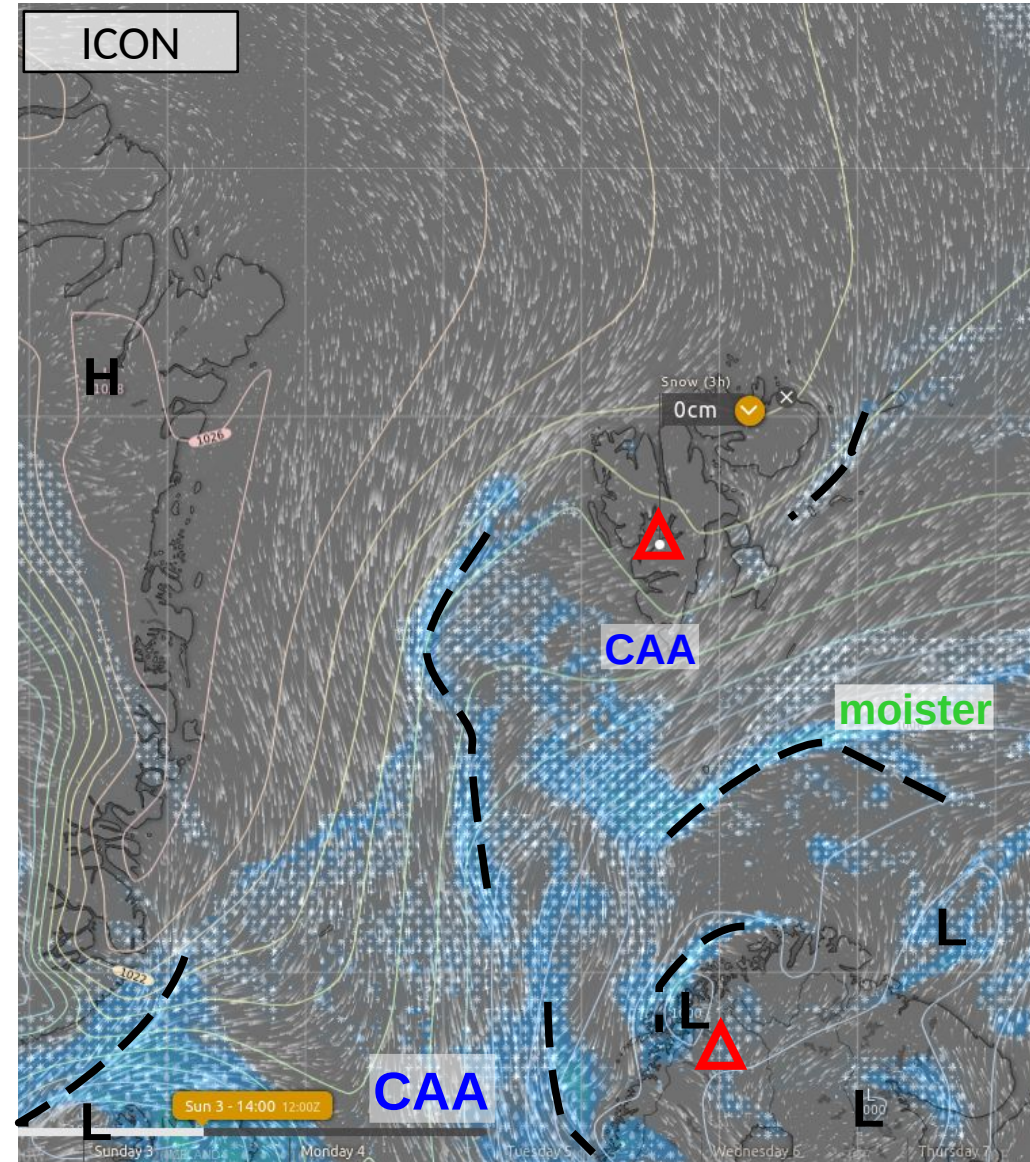
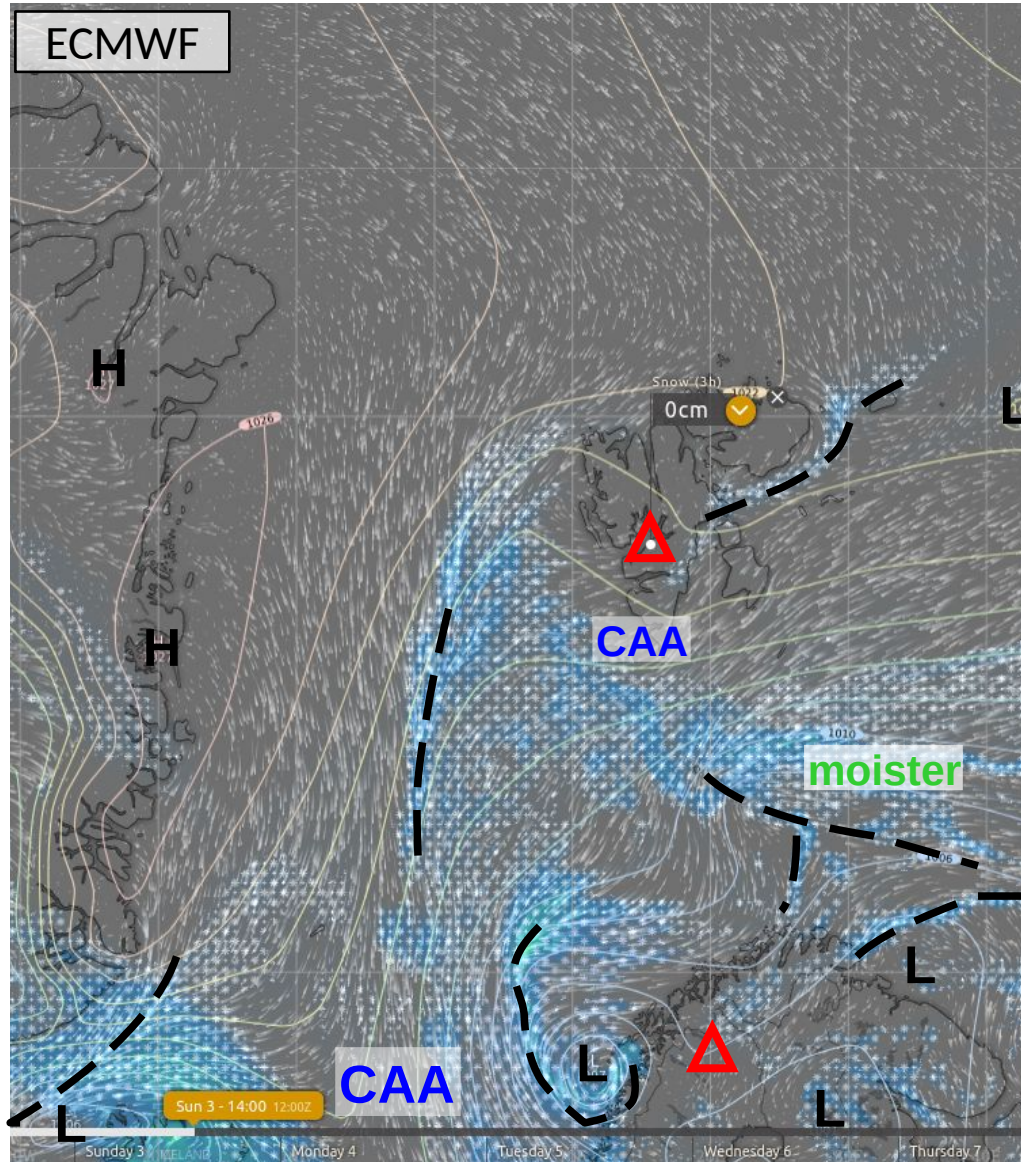
Friday, 2022-04-01 12 UTC (+36h)



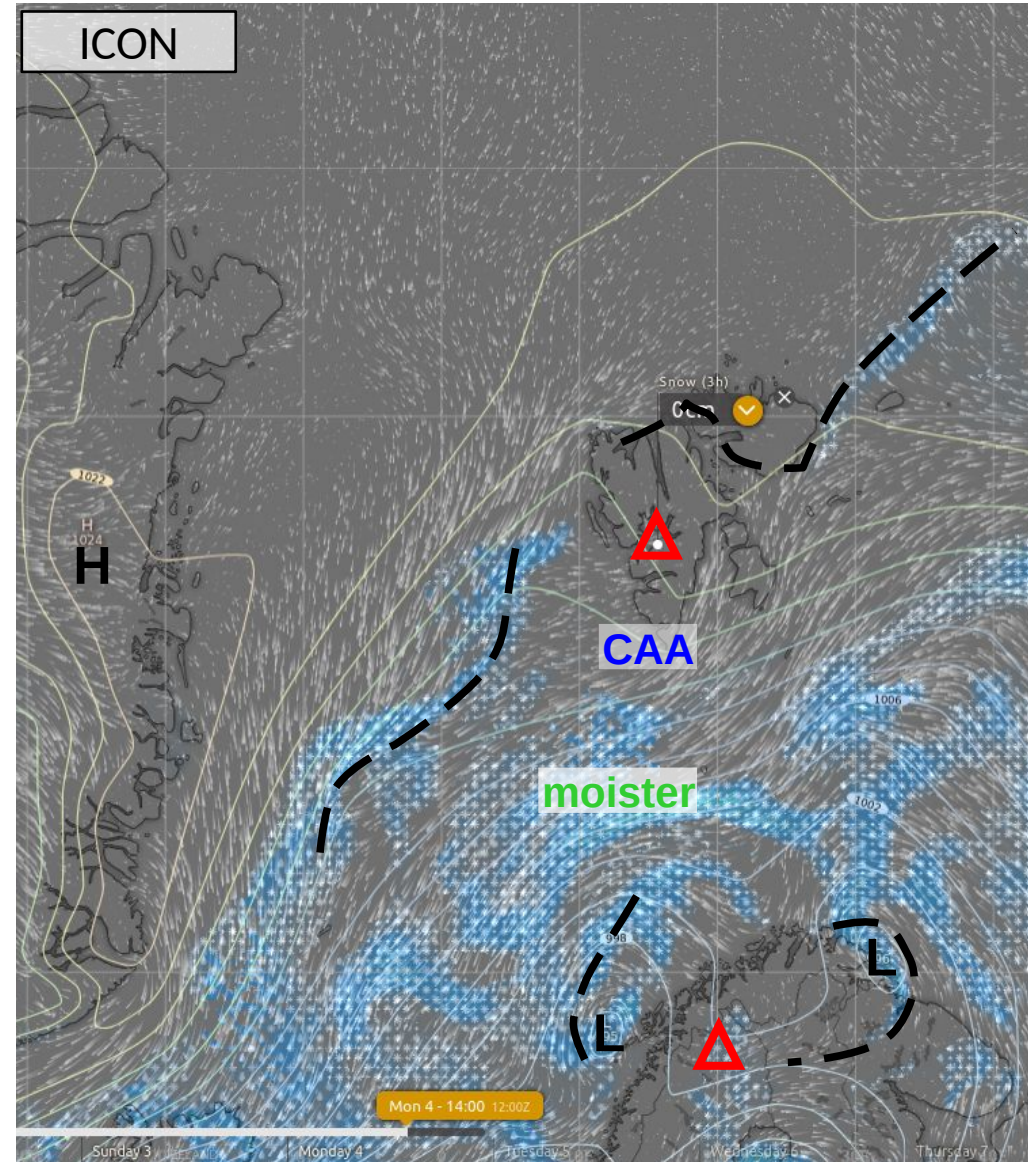
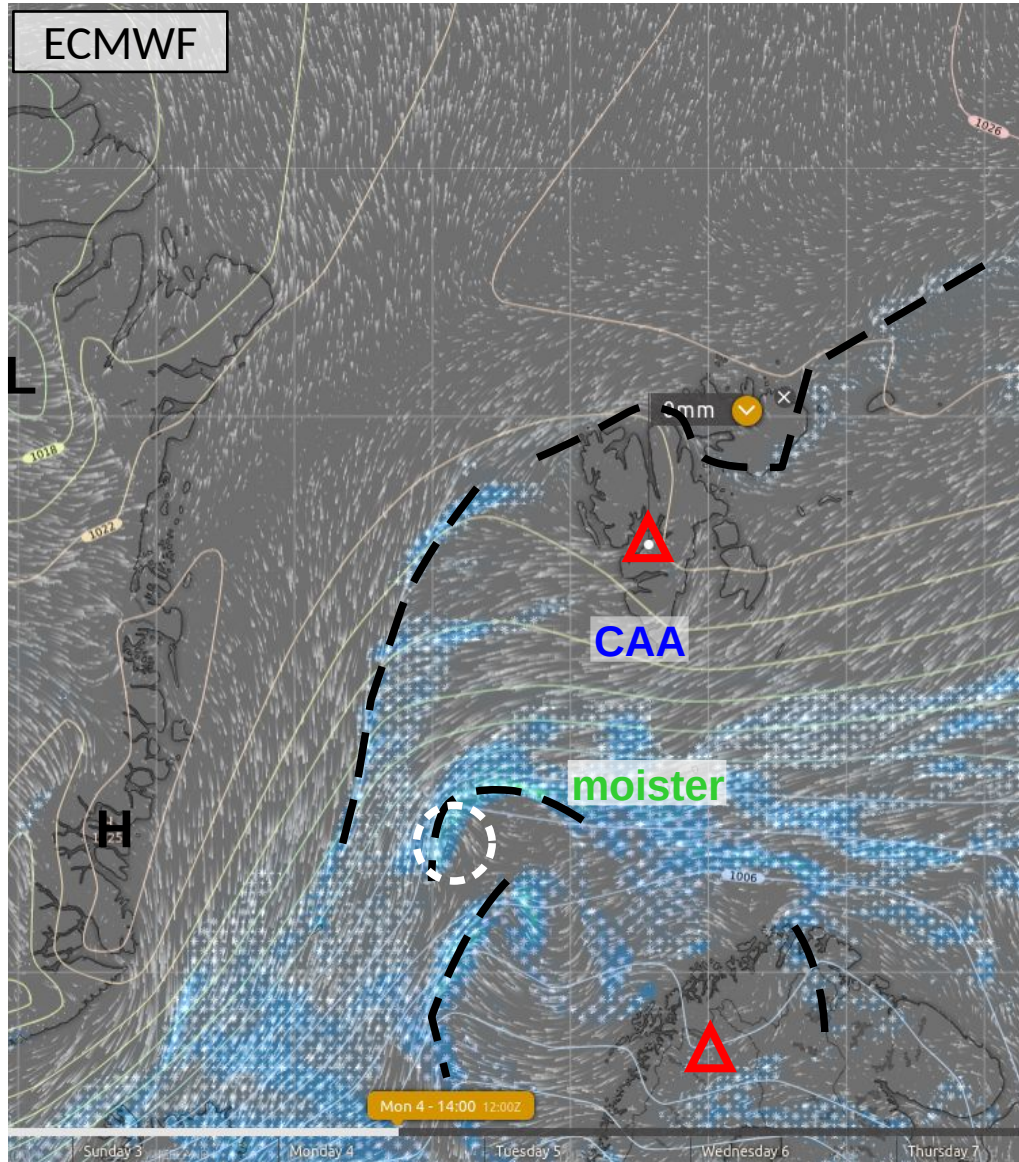
Saturday, 2022-04-02 12 UTC (+60h)



Sunday, 2022-04-03 12 UTC (+84h)

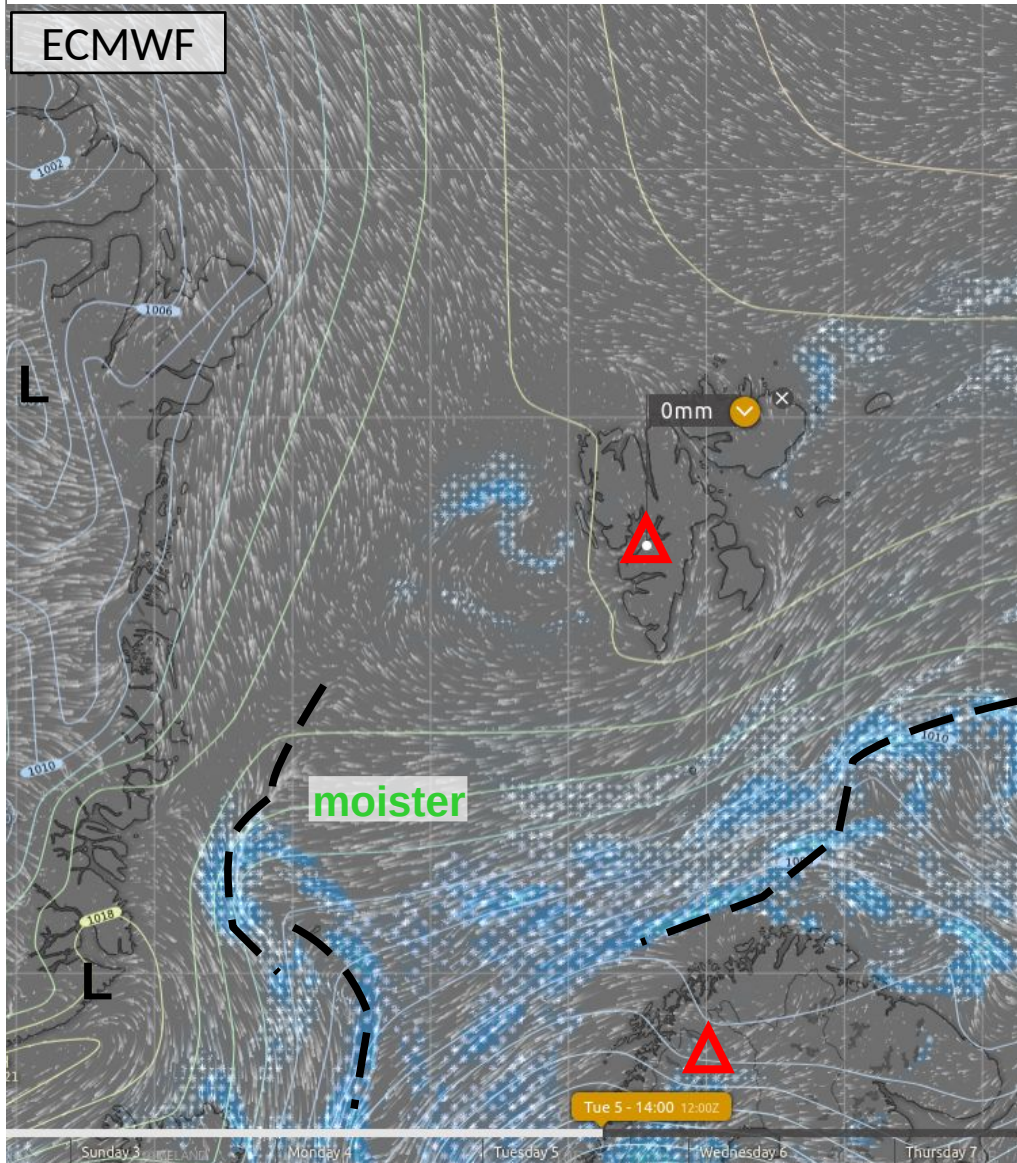


Monday, 2022-04-04 12 UTC (+108h)

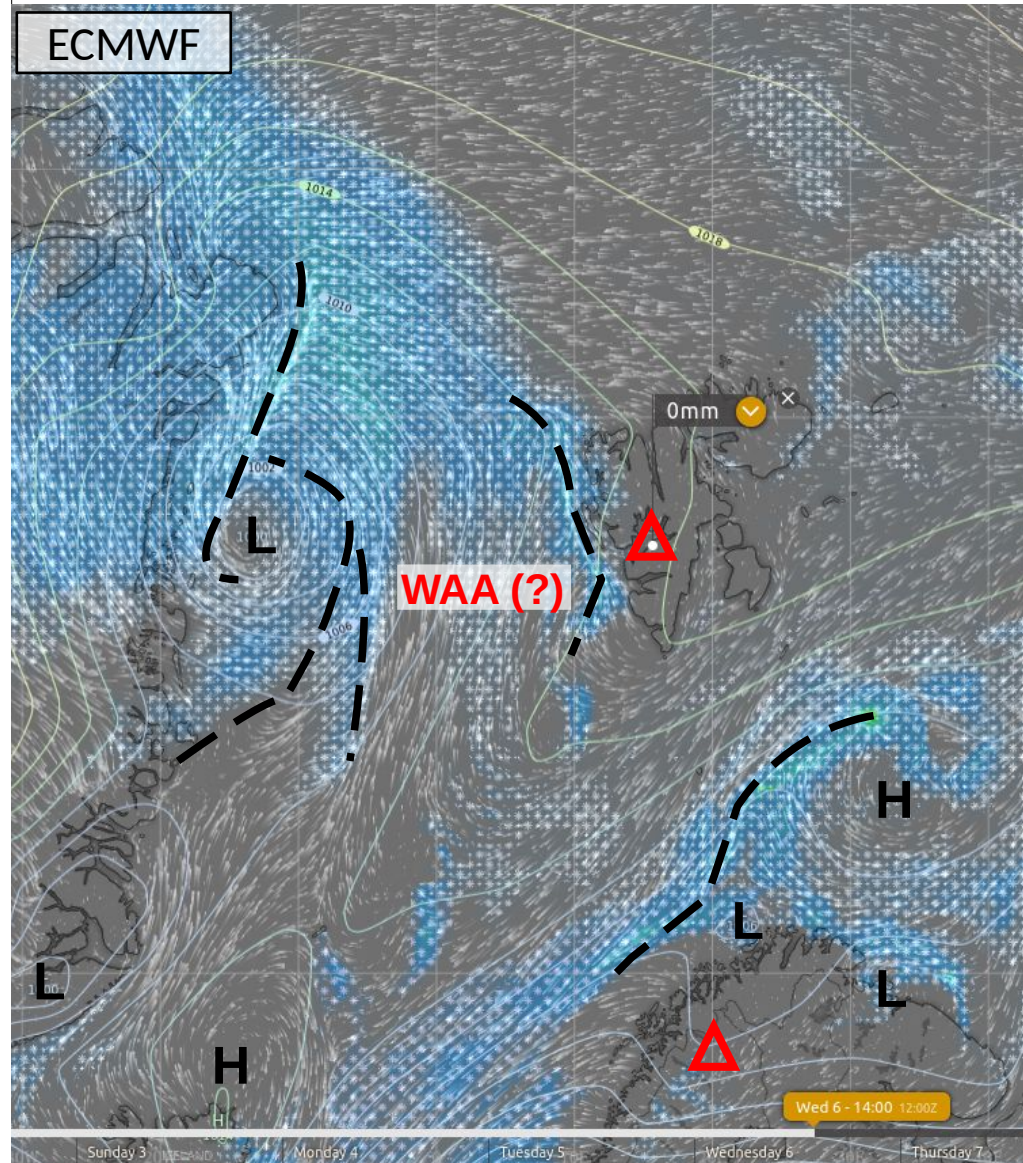




Tuesday, 2022-04-05 12 UTC (+132h)

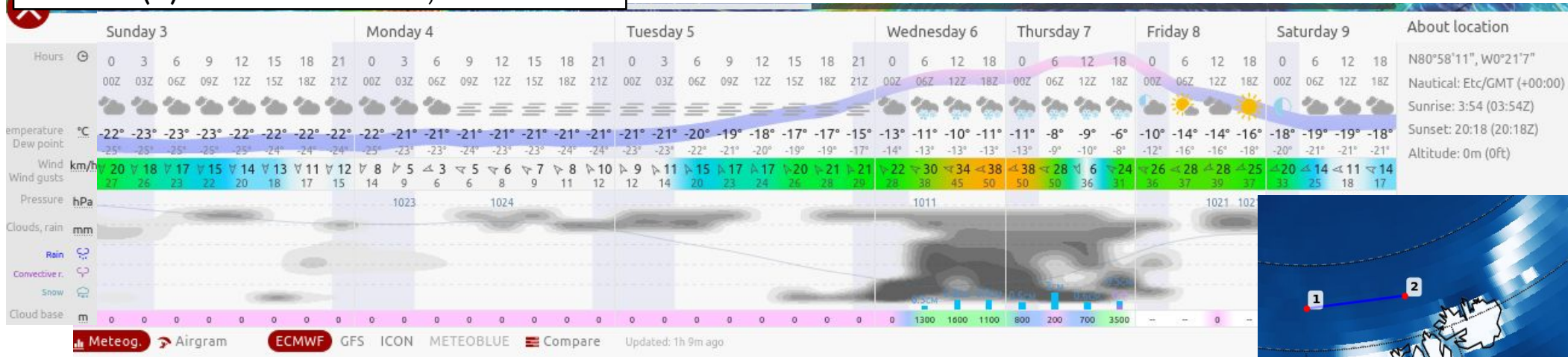


Wednesday, 2022-04-06 12 UTC (+156h)

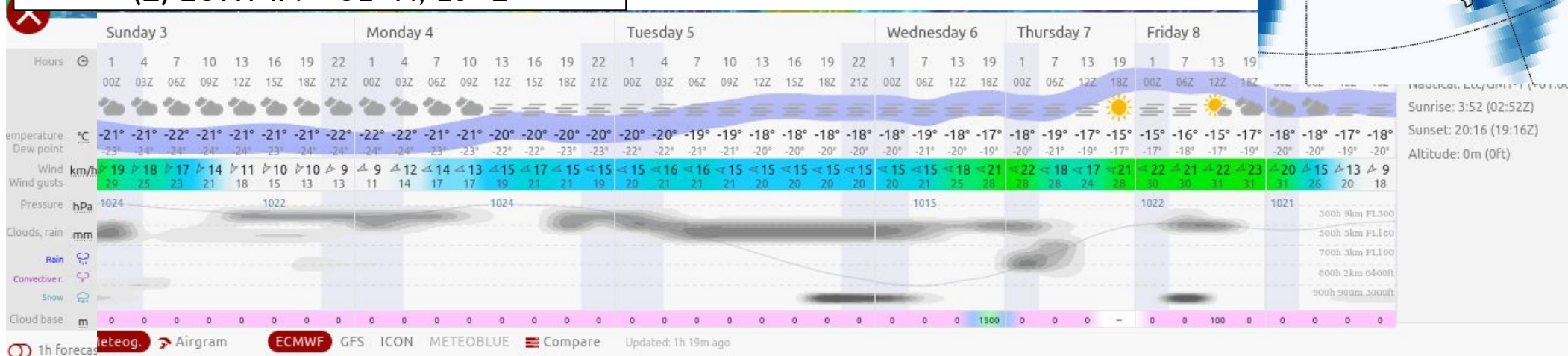


# Meteograms over sea ice:

(1) ECWMF: ~ 81° N, 0° E



(2) ECWMF: ~ 81° N, 15° E

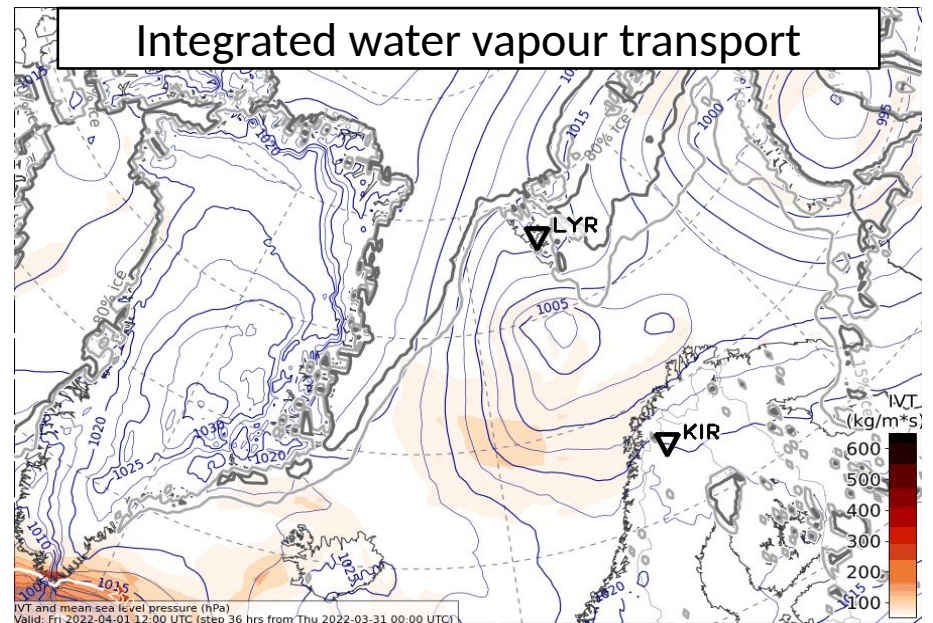
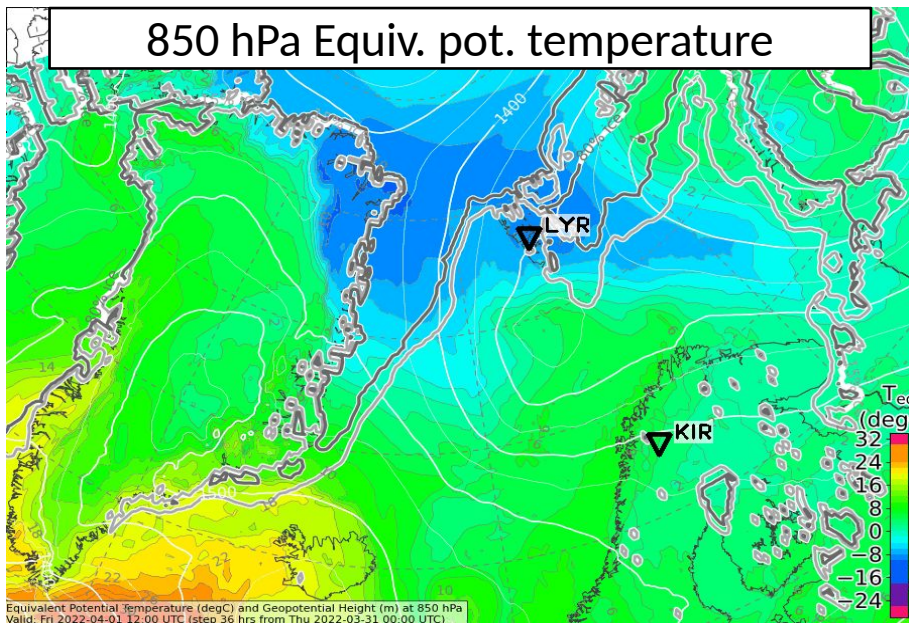
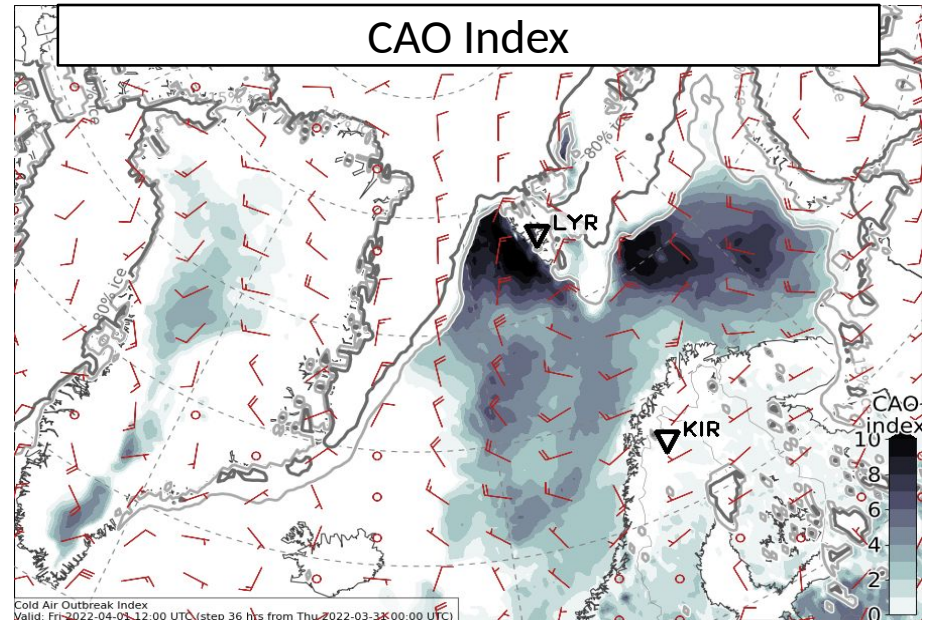
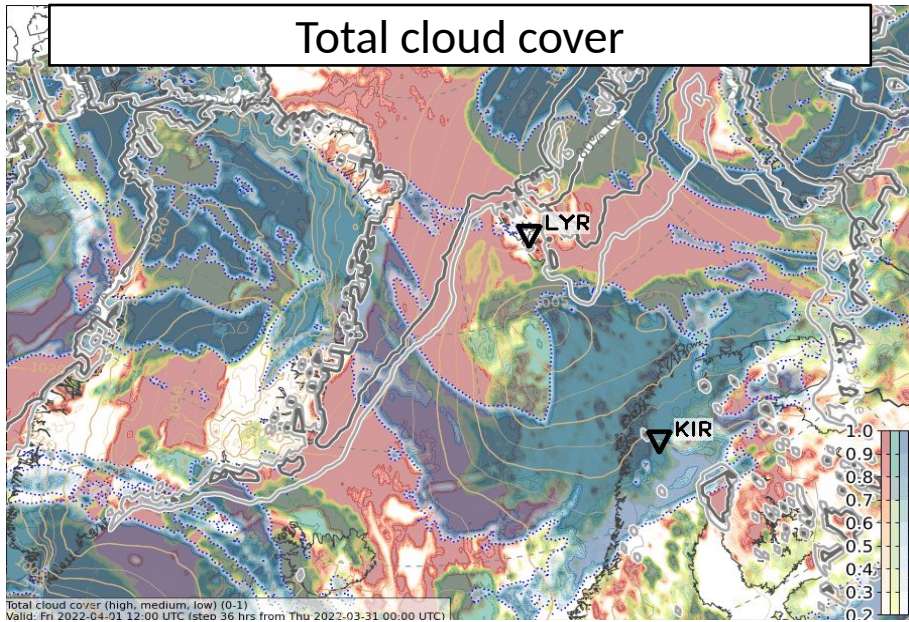


# **Cloud cover, CAO index, Airmasses, IVT**

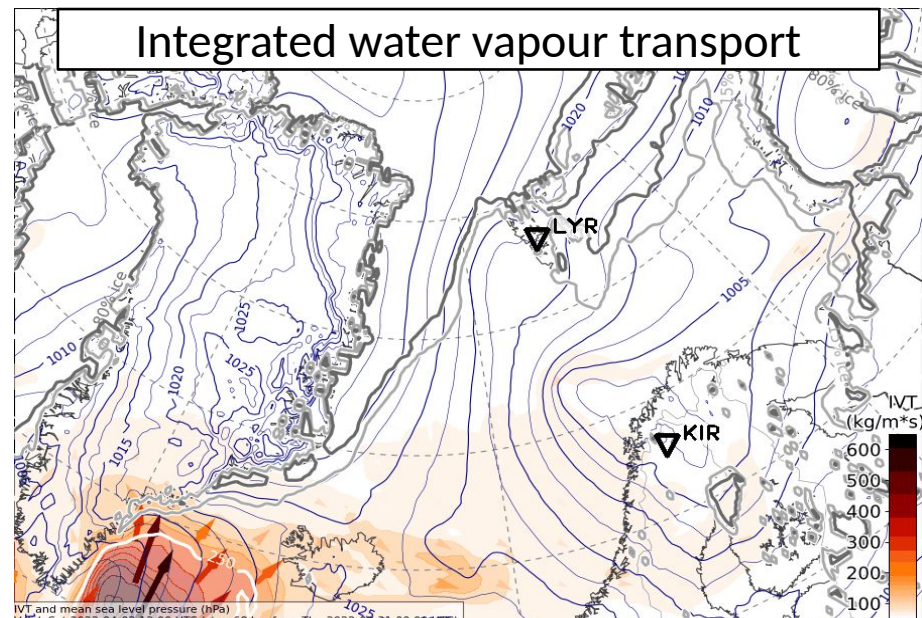
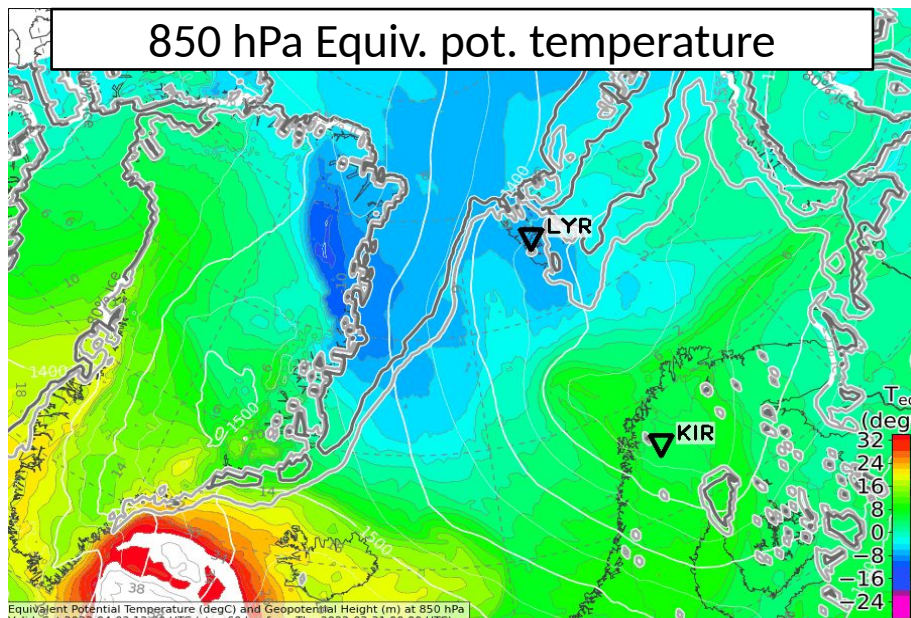
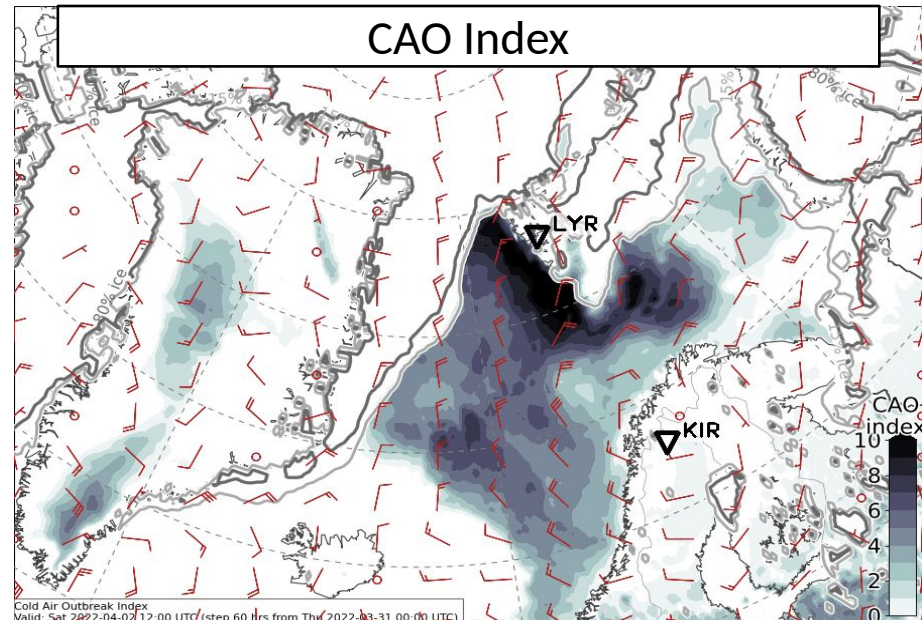
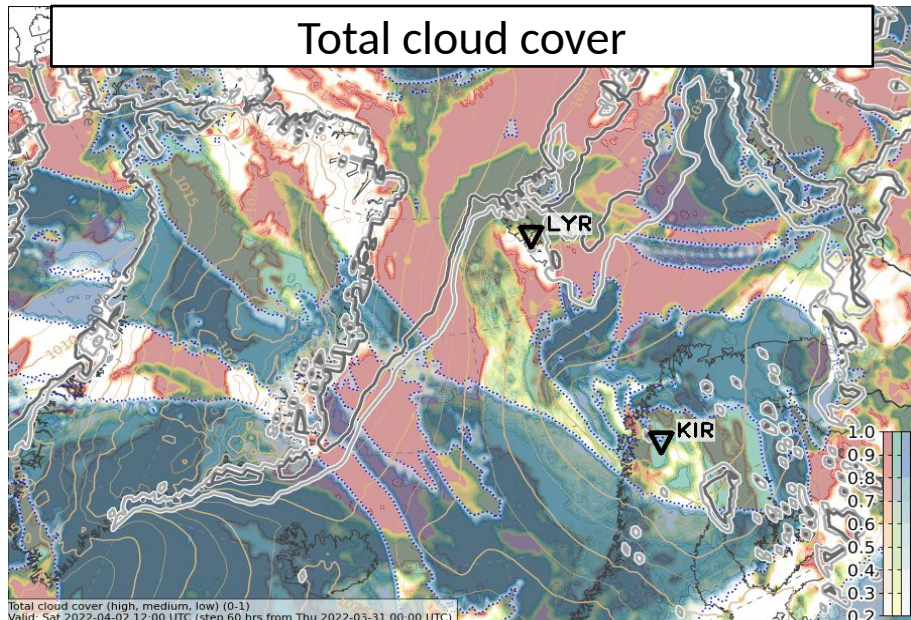
2022-03-31 00 UTC: 36 – 132h

Cloud cover & 850hPa  $\theta_e$  & CAO & IVT

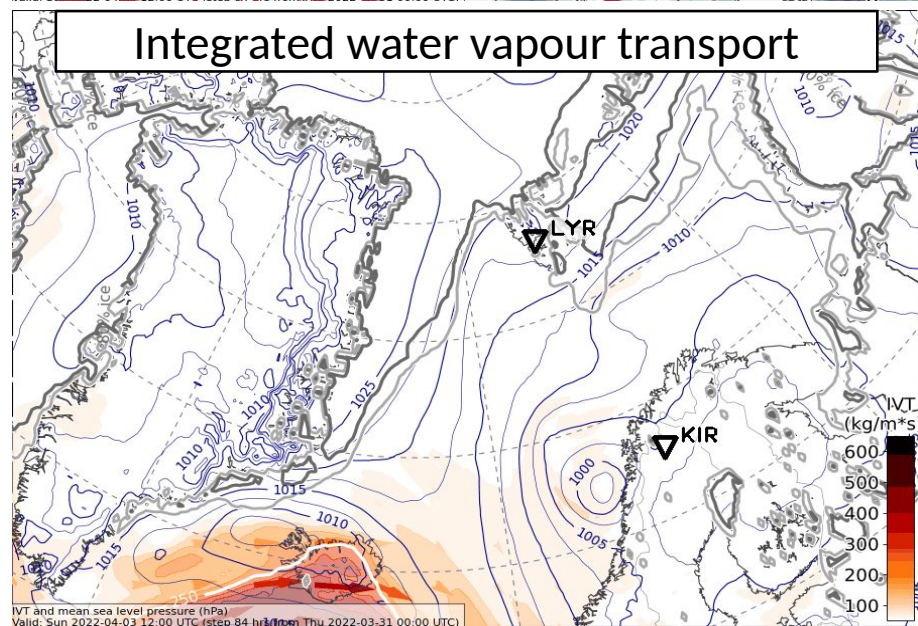
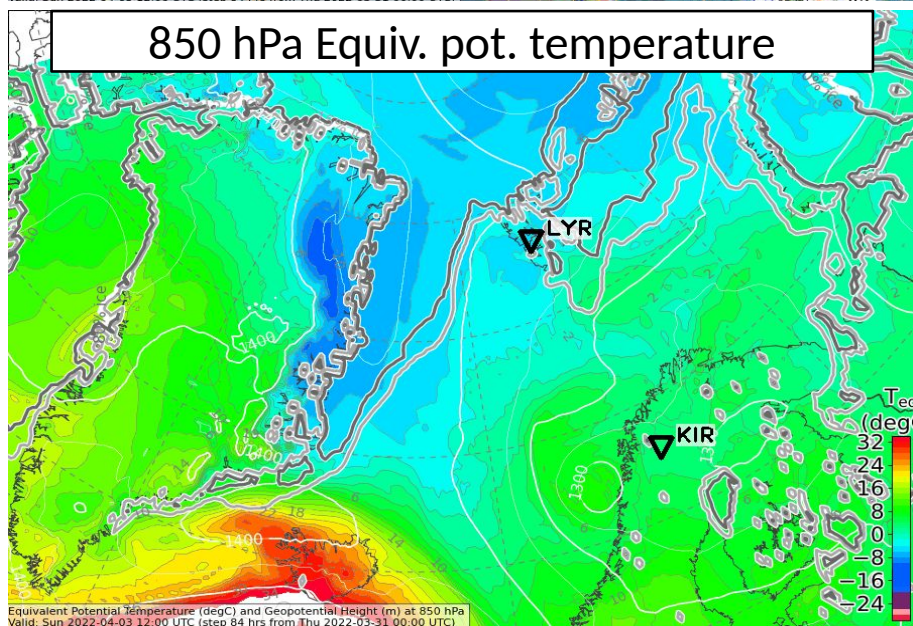
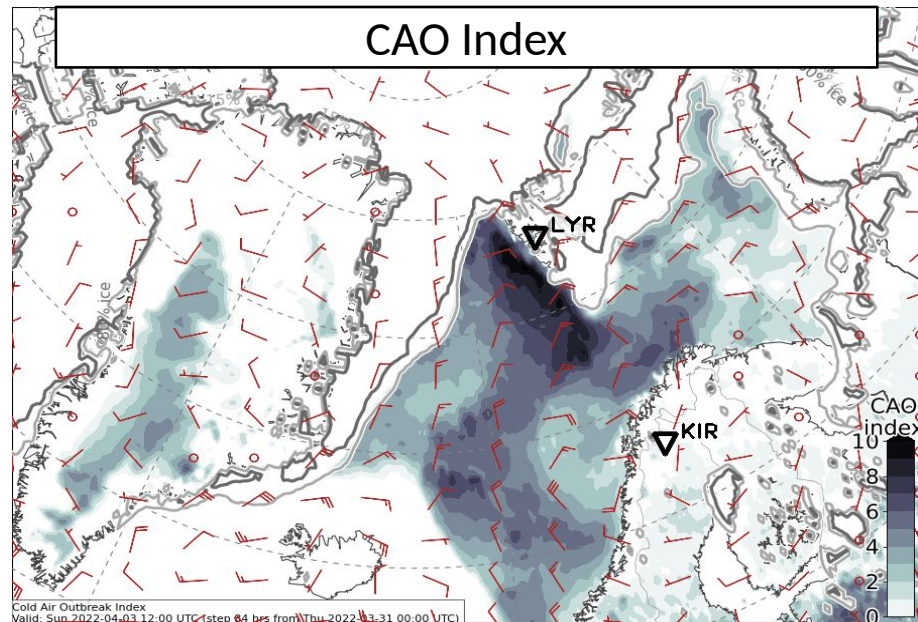
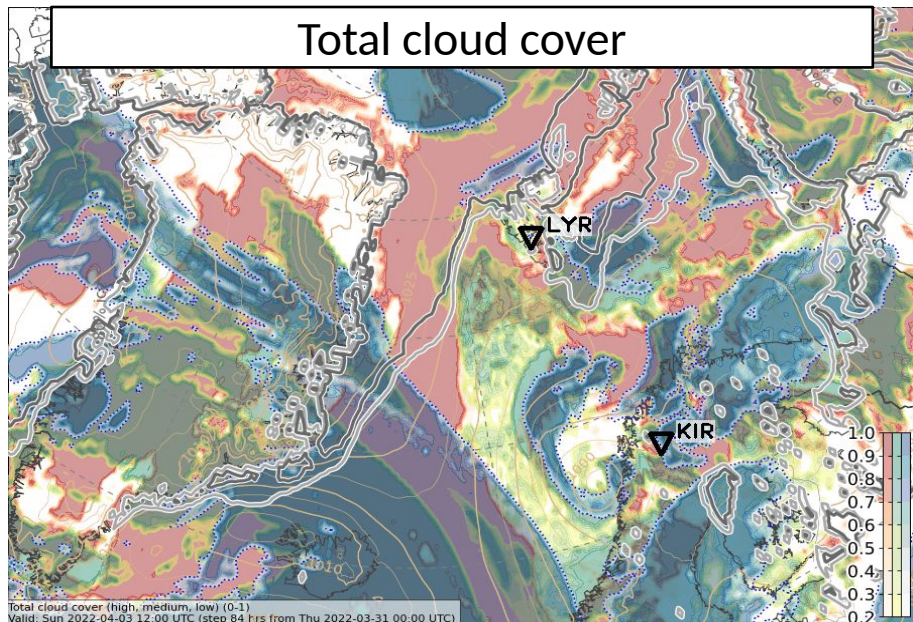
Fri, 2022-04-01 12 UTC (+36h)



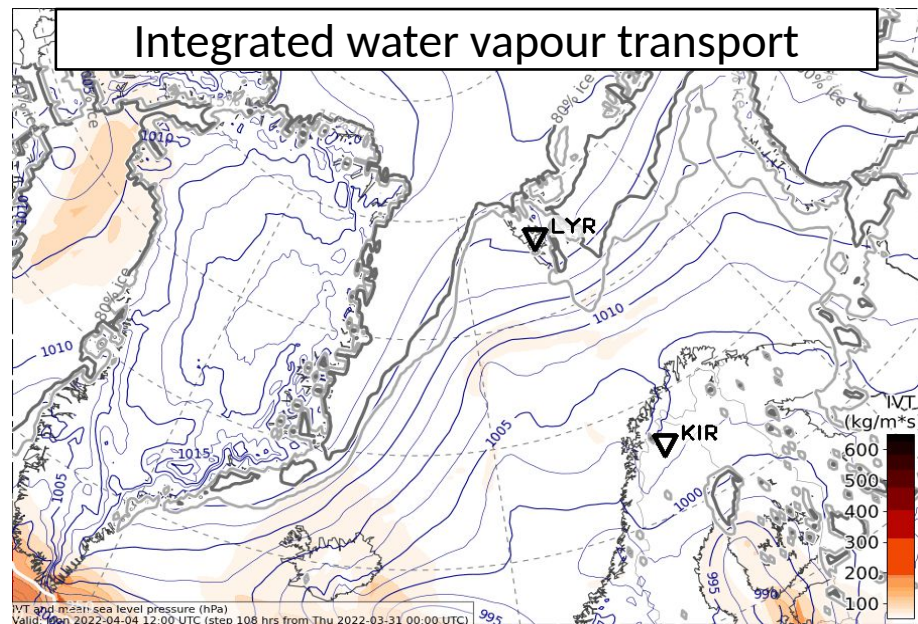
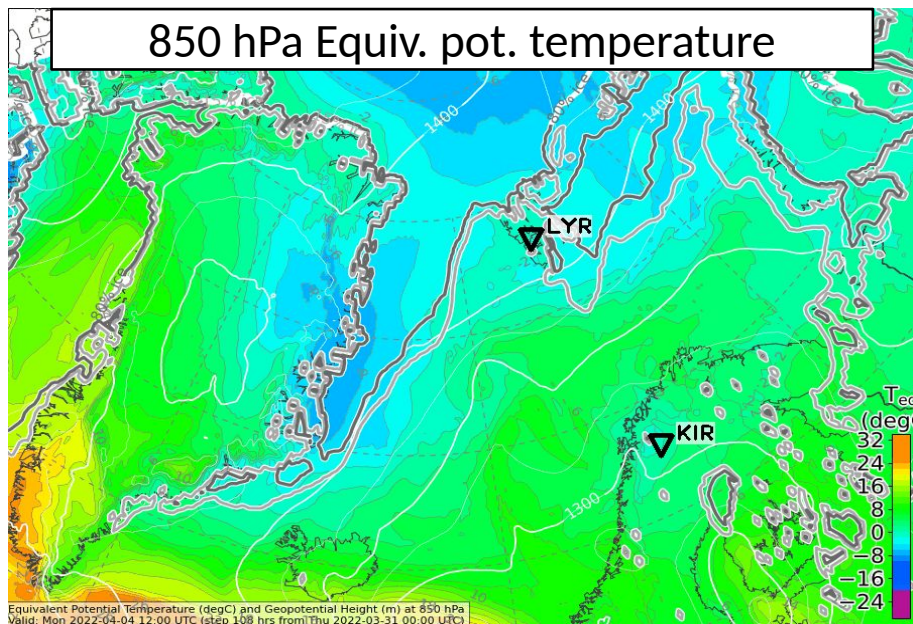
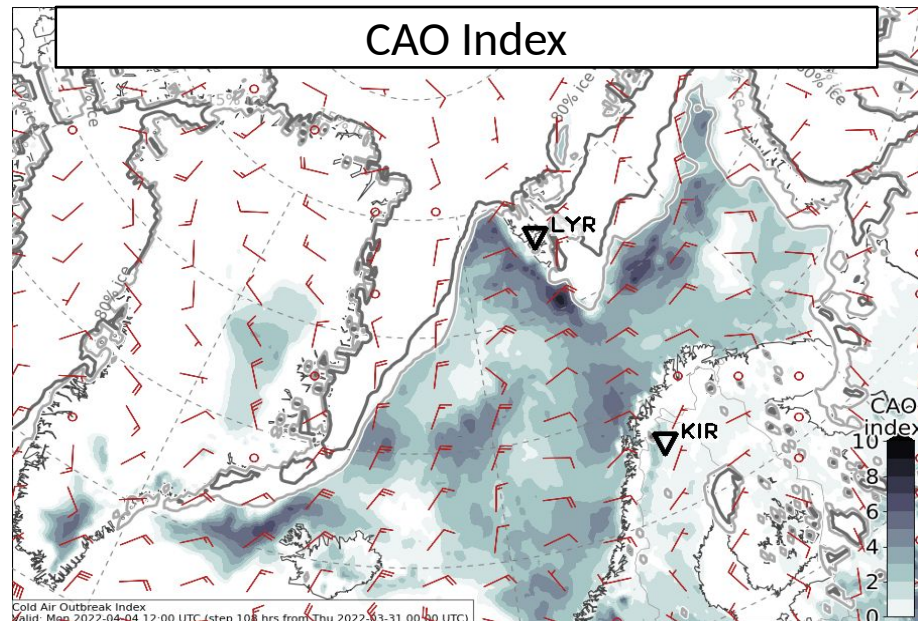
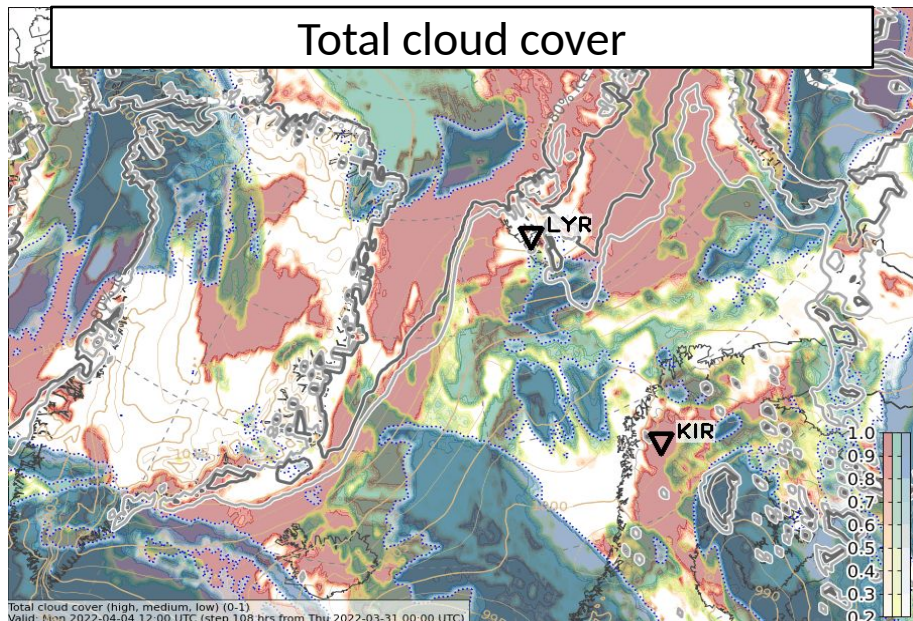
Sat, 2022-04-02 12 UTC (+60h)



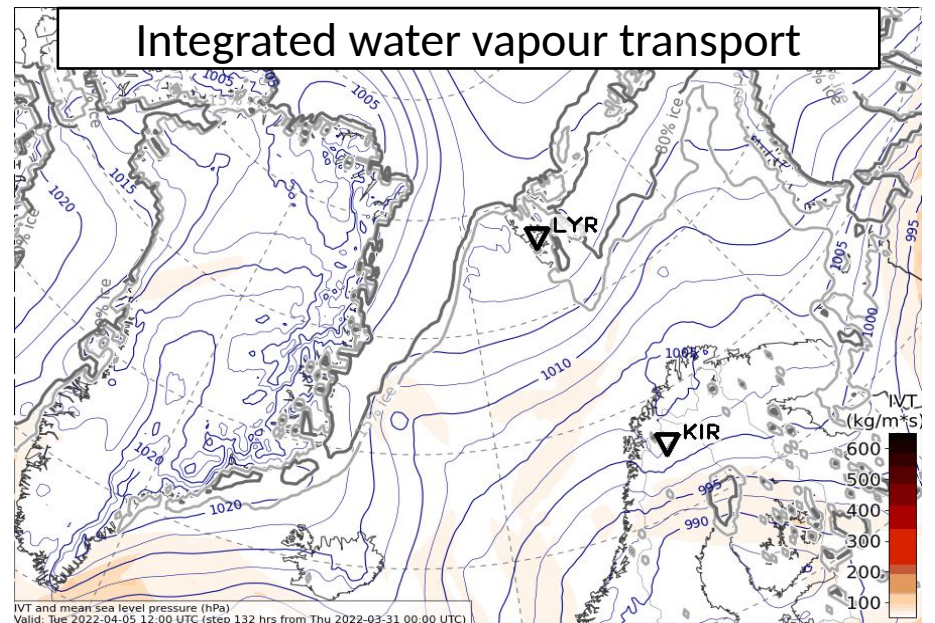
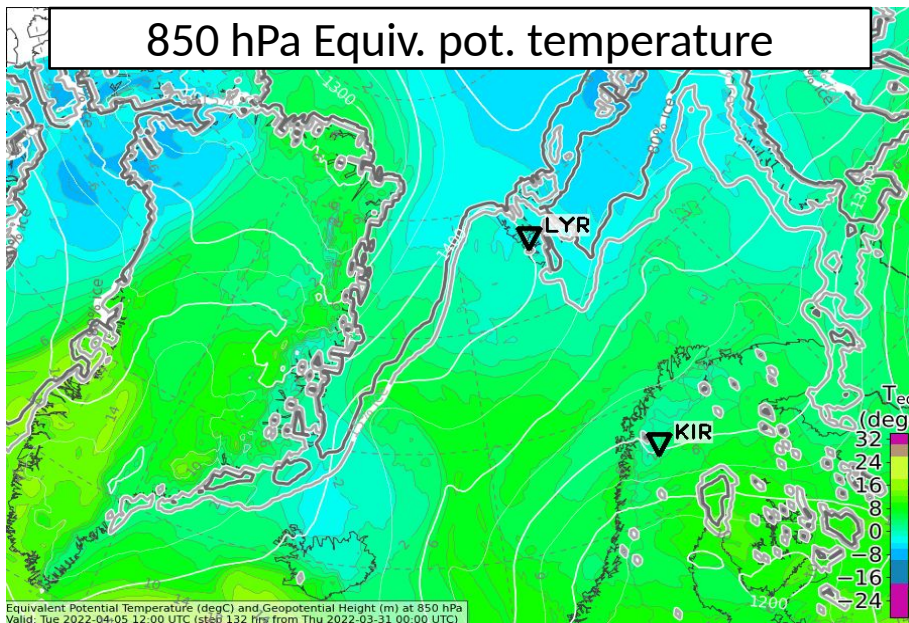
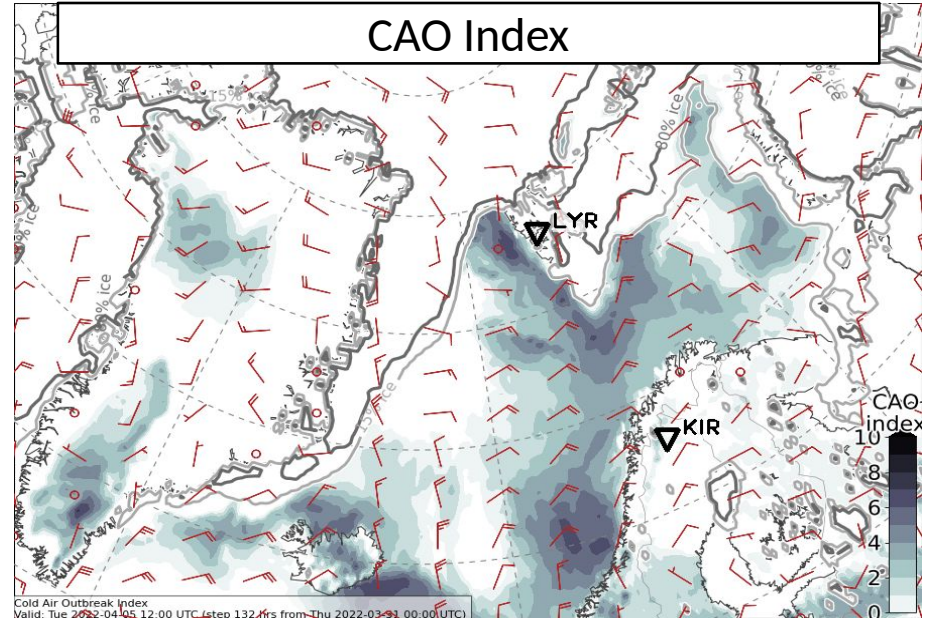
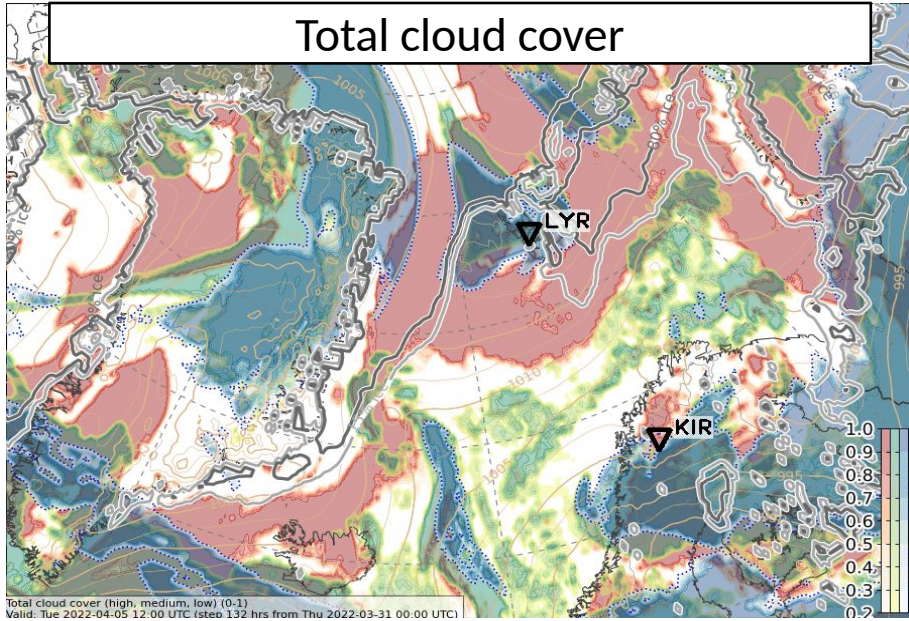
Sun, 2022-04-03 12 UTC (+84h)



Mon, 2022-04-04 12 UTC (+108h)



Tue, 2022-04-05 12 UTC (+132h)

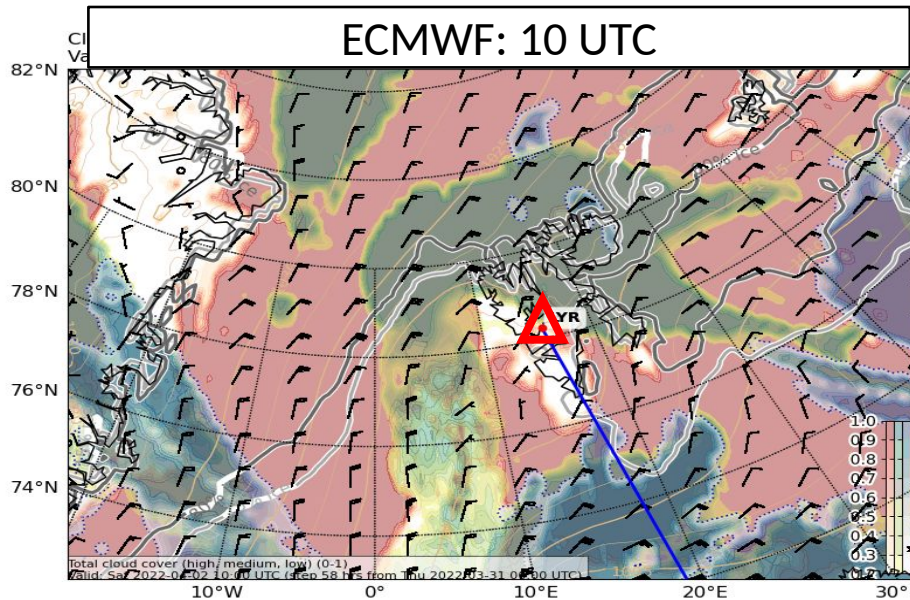




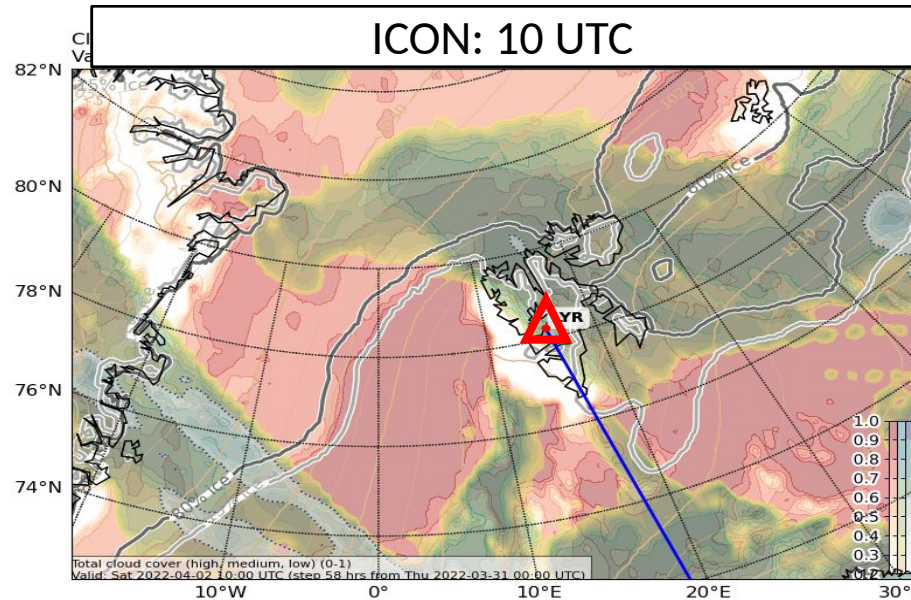
**Cloud cover Fram Strait**  
2022-03-31 UTC: 58 – 88h  
ECMWF & ICON

# Sat, 2022-04-02, Total cloud cover

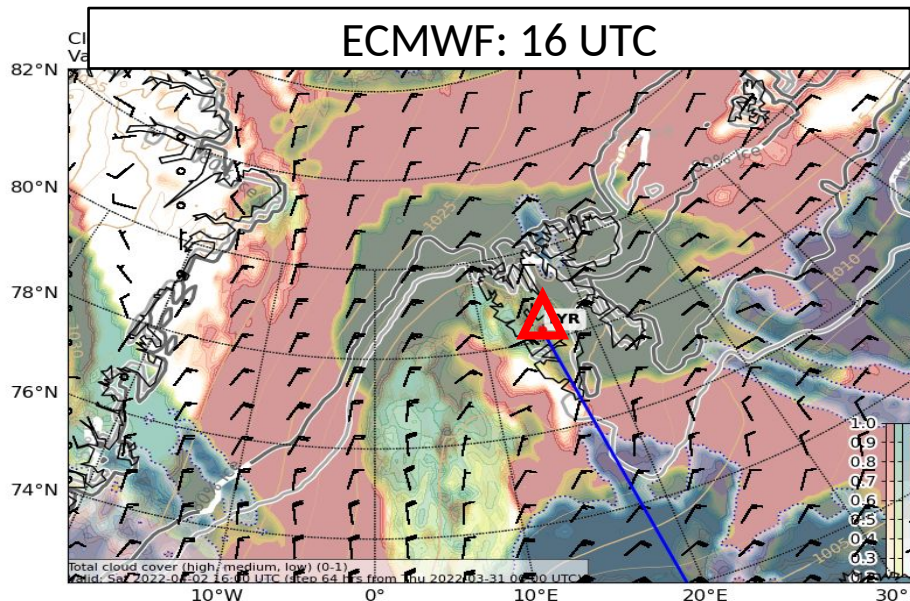
## ECMWF: 10 UTC



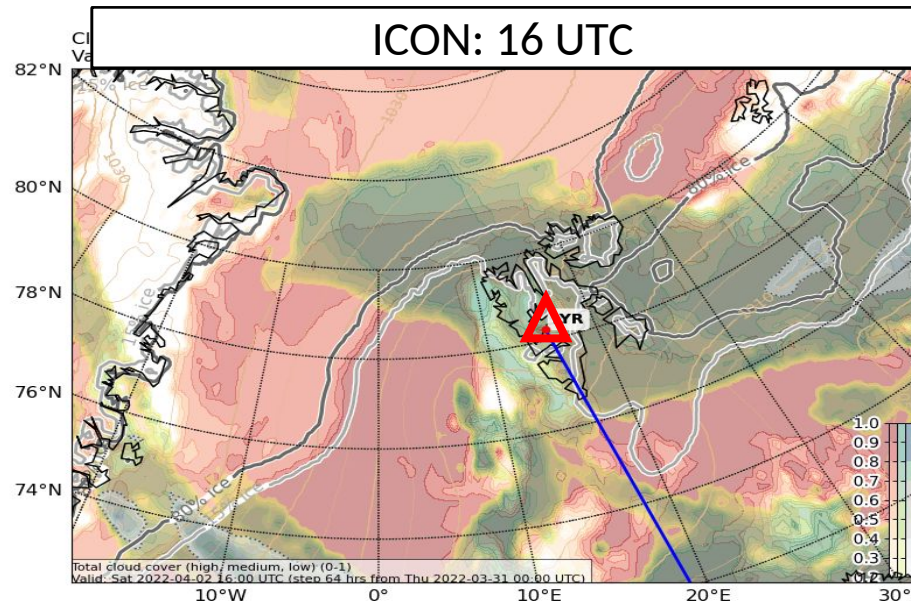
## ICON: 10 UTC



## ECMWF: 16 UTC

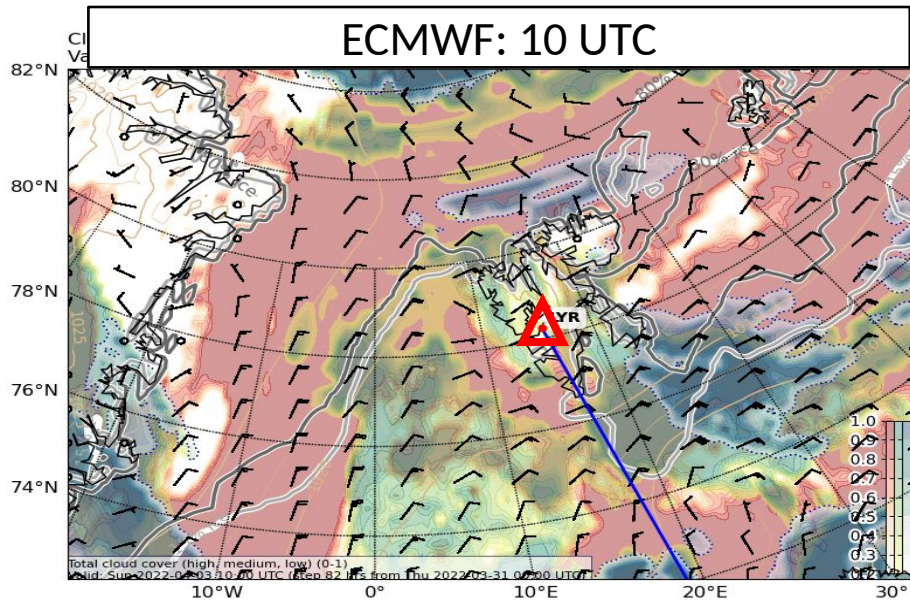


## ICON: 16 UTC

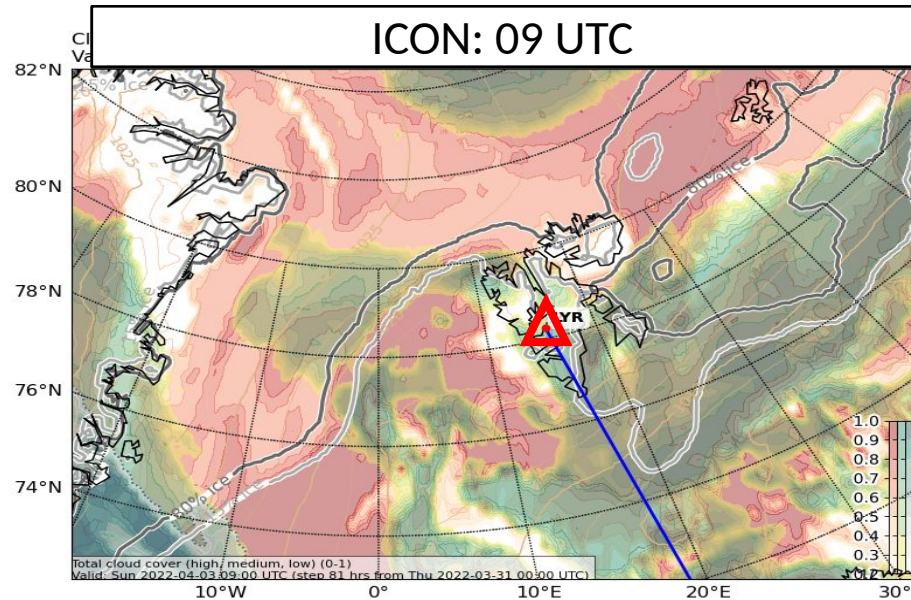


# Sun, 2022-04-03, Total cloud cover

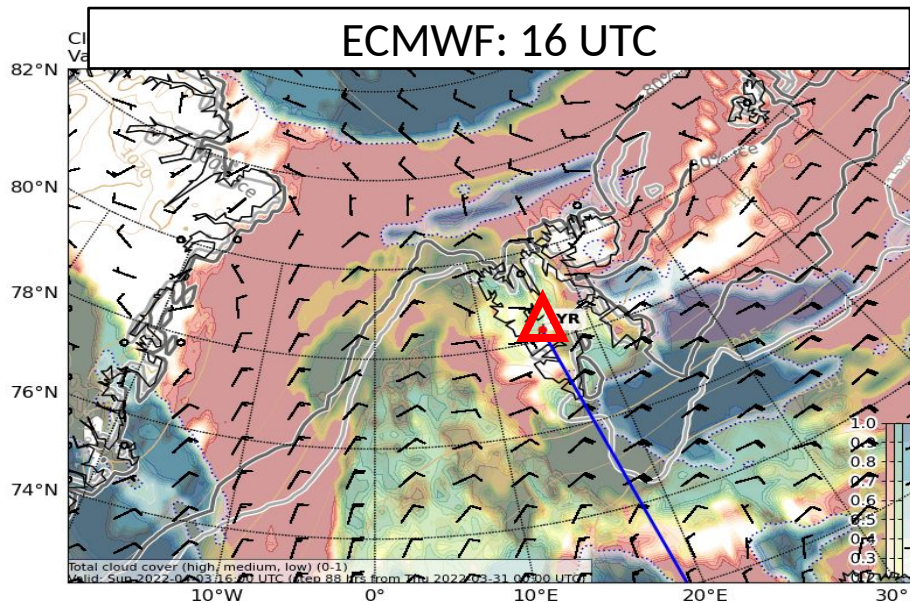
## ECMWF: 10 UTC



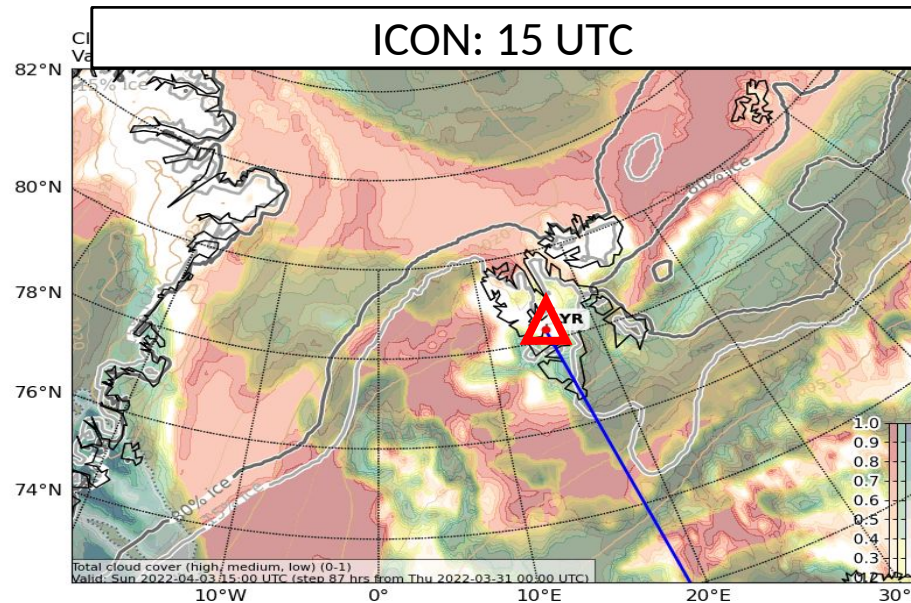
## ICON: 09 UTC



## ECMWF: 16 UTC



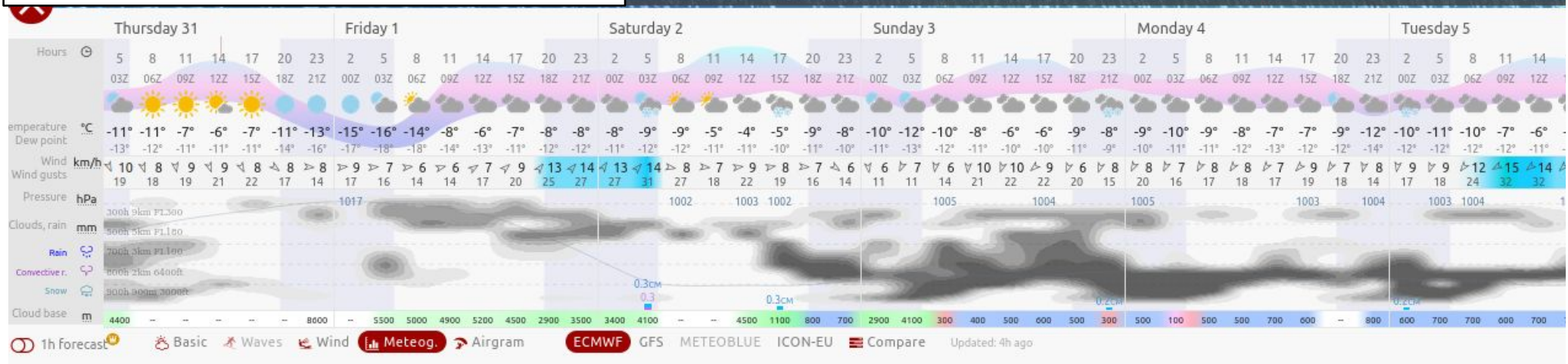
## ICON: 15 UTC



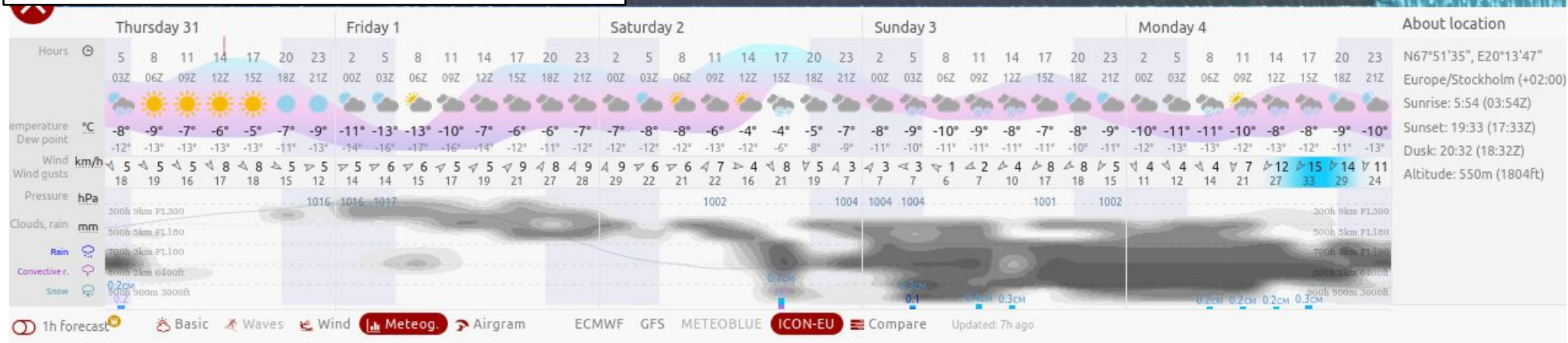
## **Airport meteograms & local weather at Svalbard**

# Kiruna:

## ECWWMF

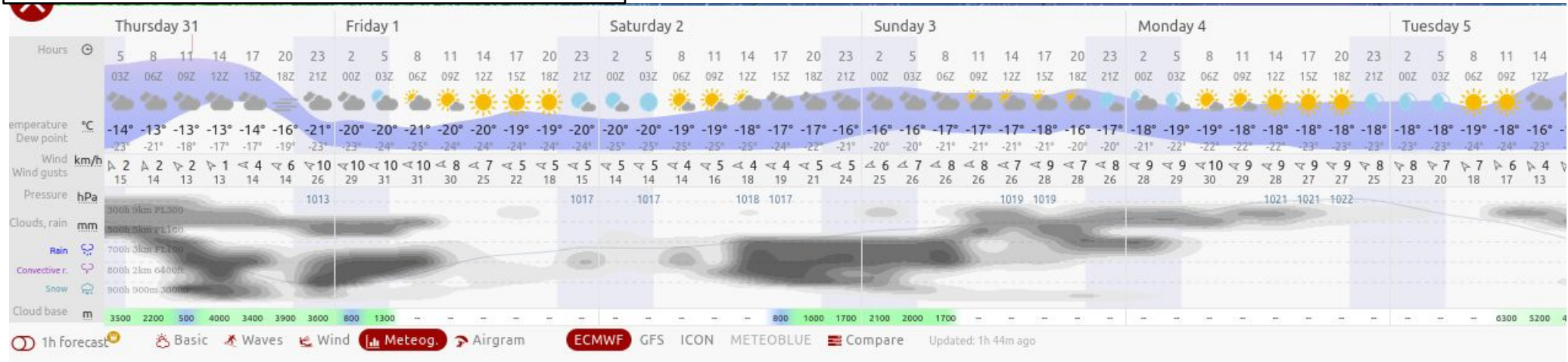


## ICON

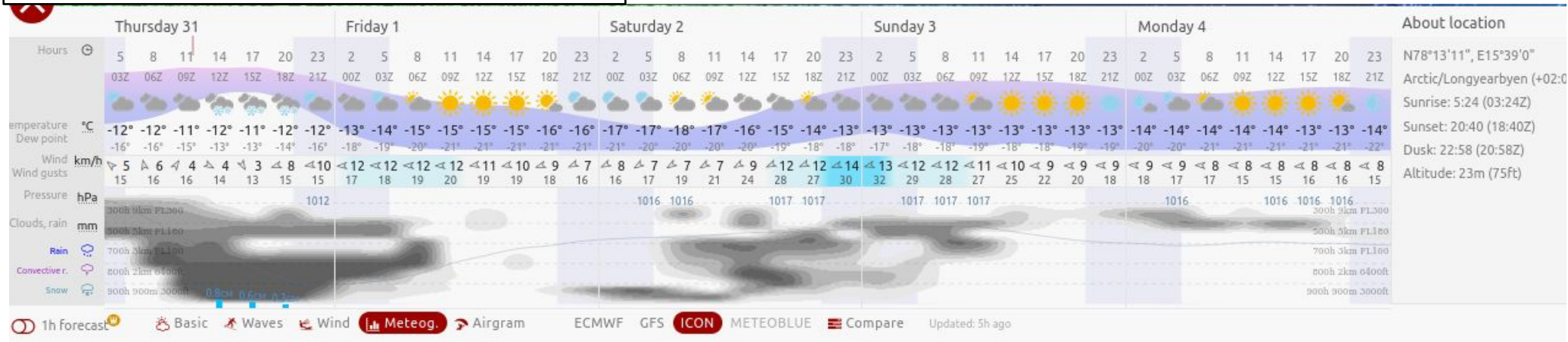


# Longyearbyen:

## ECWWMF



## ICON



# Summary

## Summary: Weather Briefing 2022-03-31, 17:00 LT

- **Friday, 2022-04-01:**
  - Intensified CAO conditions especially over Northern Fram Strait with northerly winds
  - Convergent flow West to Southwest of Svalbard
- **Saturday, 2022-04-02:**
  - Strongest CAO index along W coast Svalbard and sea ice region in the South
  - Maybe few mid-level clouds over Fram Strait with tops near 10 000ft (ECMWF)
  - Light snowfall at Kiruna possible in the afternoon
- **Sunday, 2022-04-03:**
  - More easterly flow over Svalbard and the sea ice region in the South
  - Temporally: precipitation and low cloud base near Kiruna
- **Monday, 2022-04-04:**
  - Slightly moister air advected from Barents Sea towards Fram Strait
  - Convergence nearly along the sea ice edge over Fram Strait
- **Outlook:**
  - Easterly flow and slightly moister air reaches sea ice in Fram Strait (Tue)
  - Strong low over Fram Strait with strongly increased southerly flow and precipitation over sea ice (Wed)