

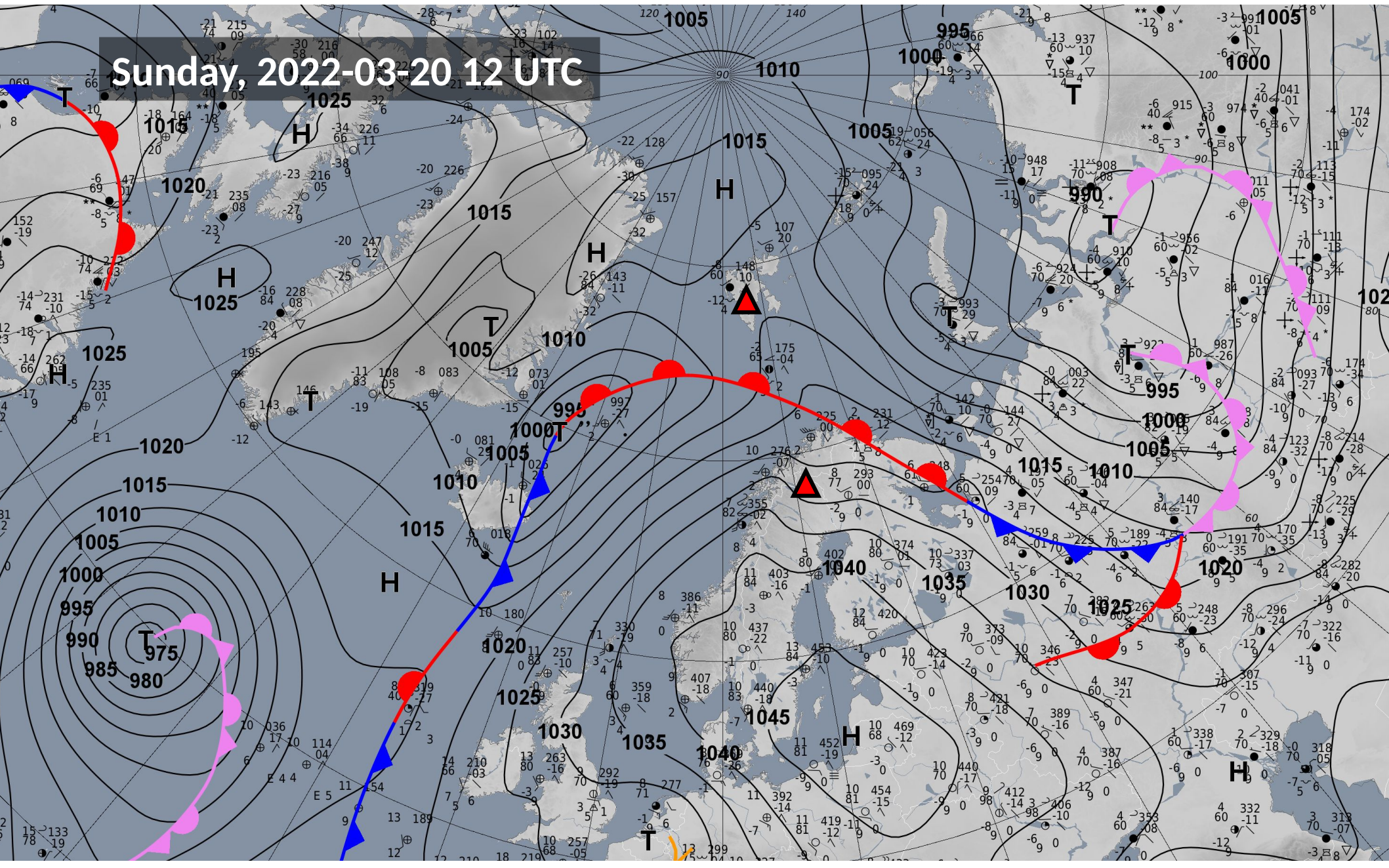
Weather briefing

HALO-(AC)³

Sunday, 2022-03-20, 17:00 LT

Surface Analysis
Sunday, 2022-03-20 12 UTC
DWD

Sunday, 2022-03-20 12 UTC



Surface wind development and precipitation

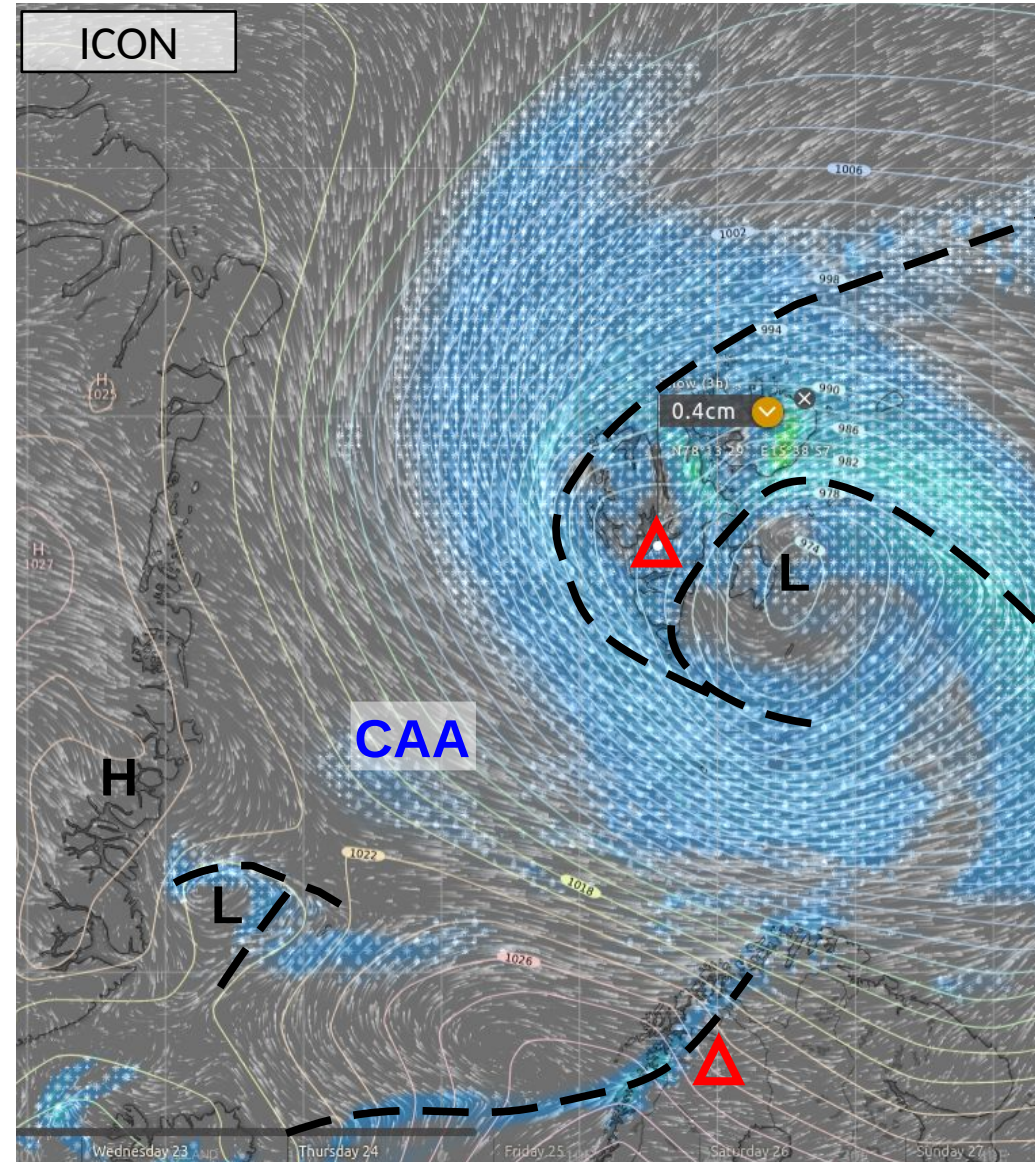
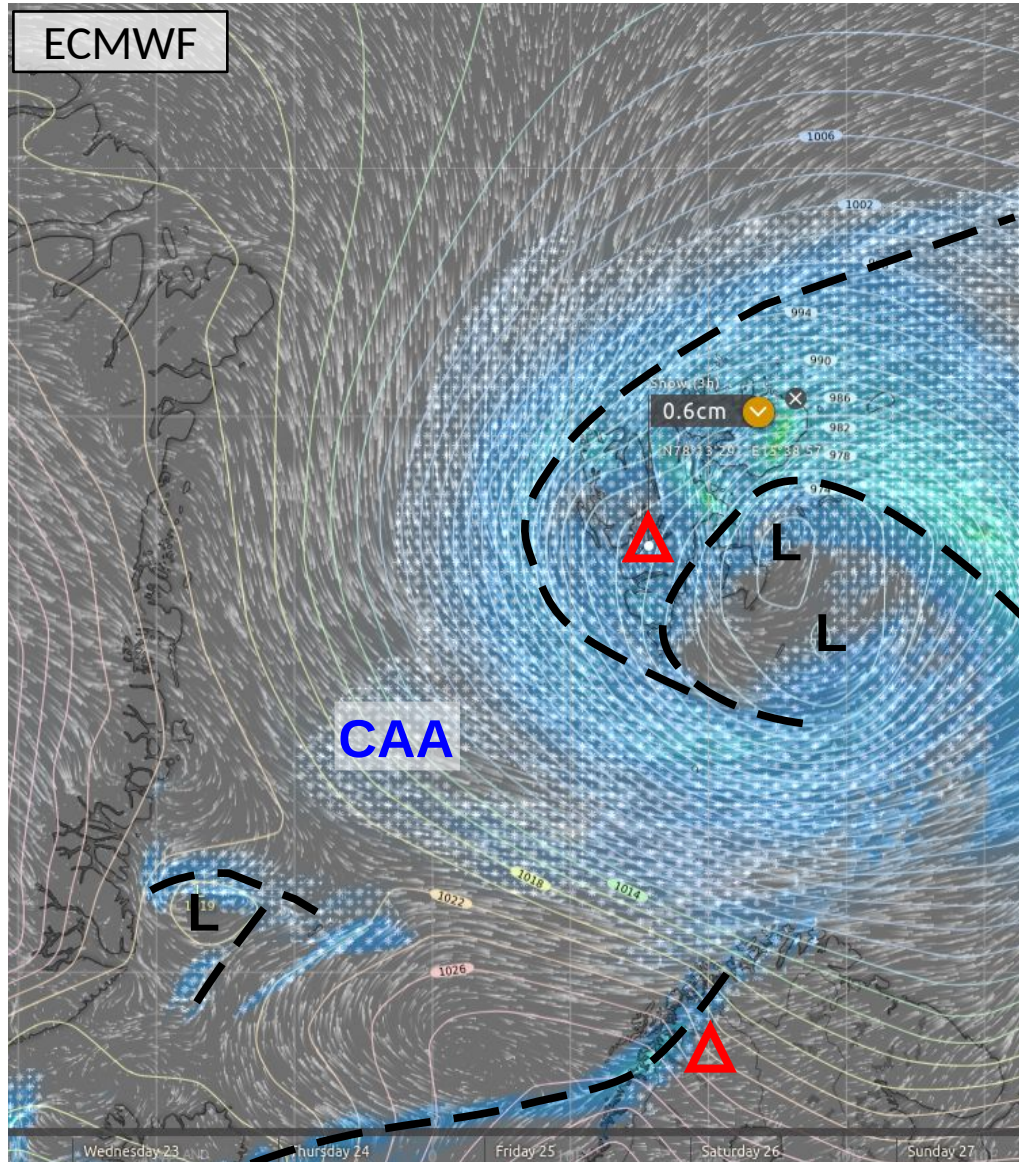
2022-03-20 00 UTC: 36 – 108h

ECMWF & ICON

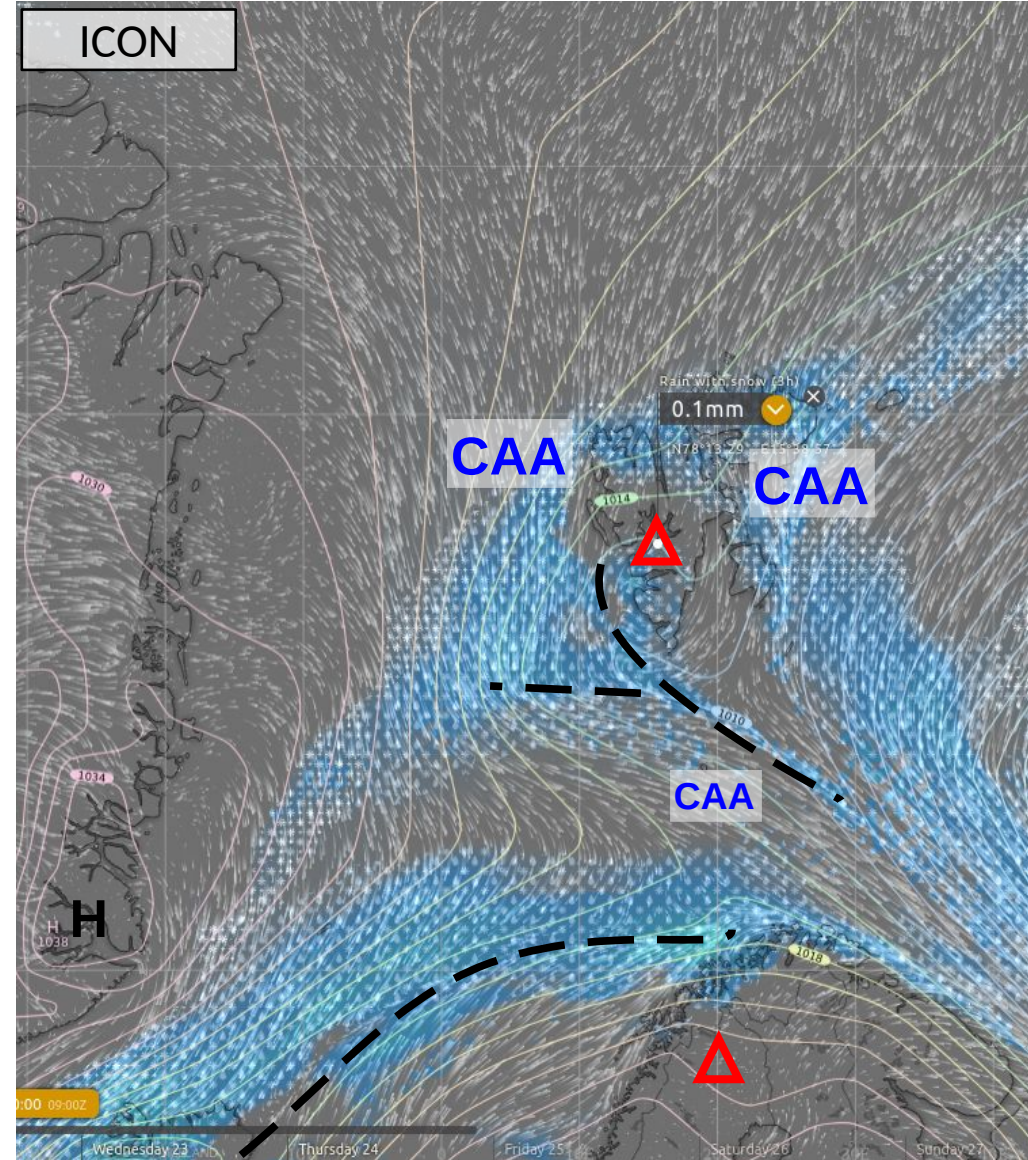
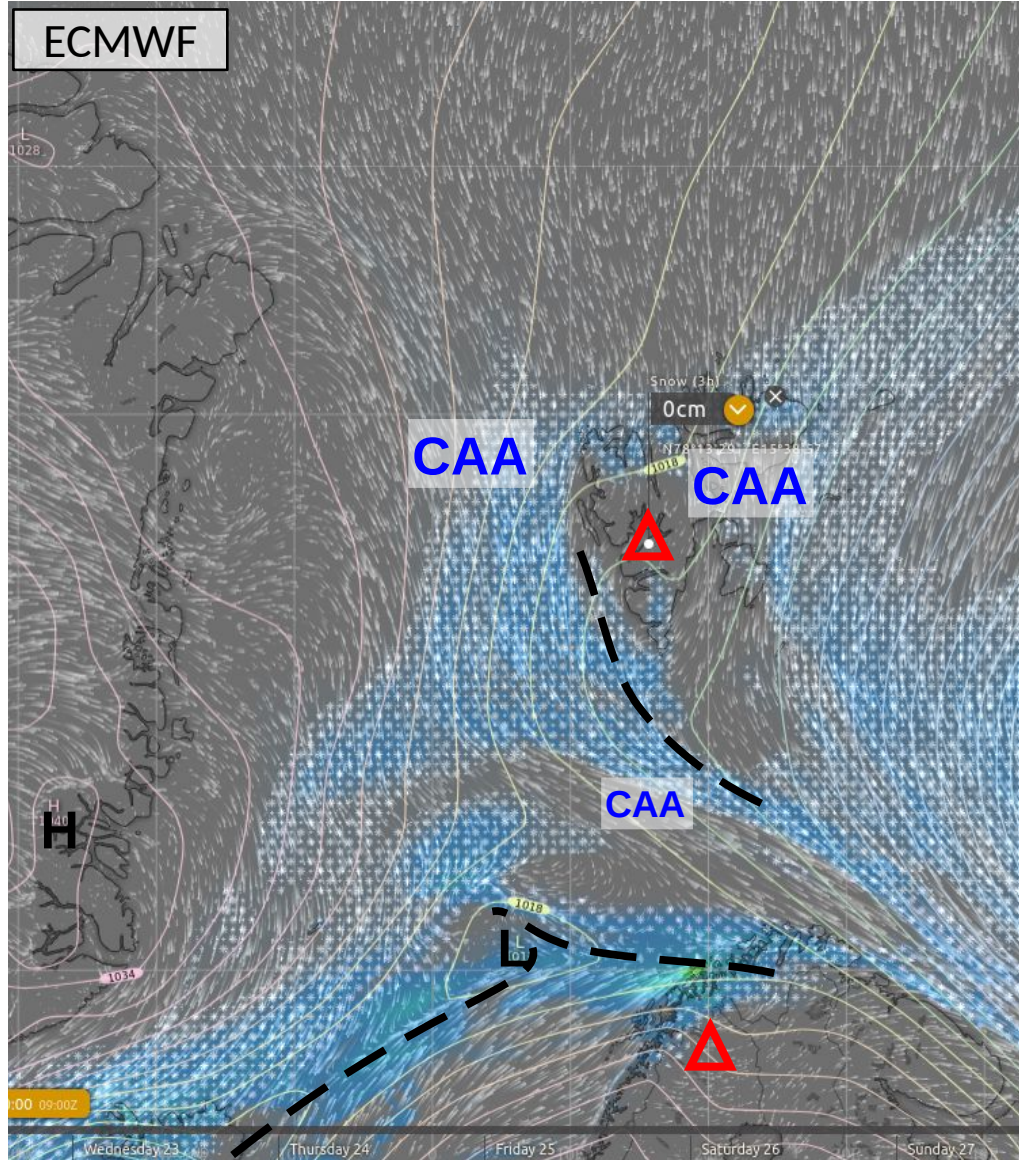
CAA: Cold Air Advection

WAA: Warm Air Advection

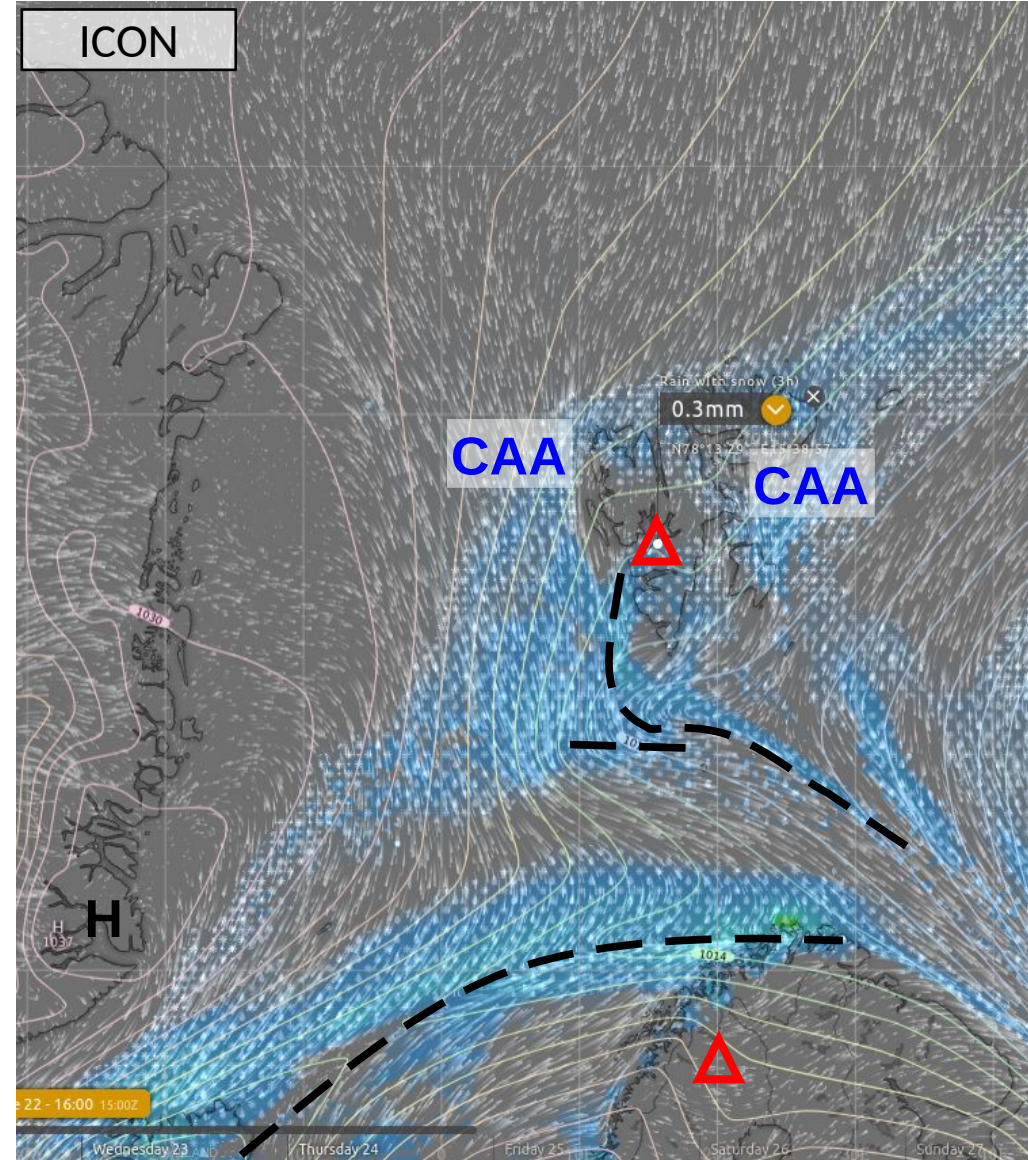
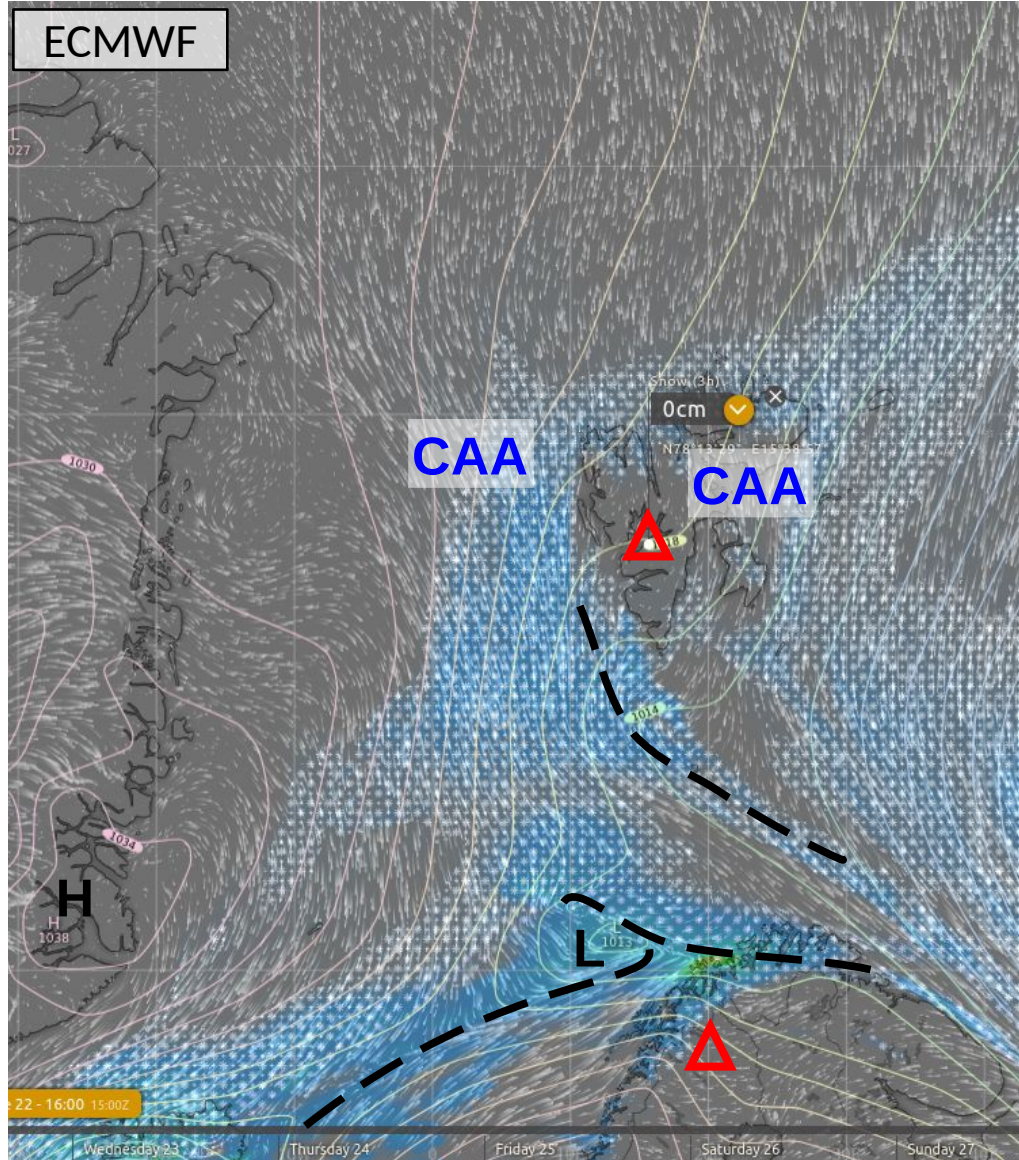
Monday, 2022-03-21 12 UTC (+36h)



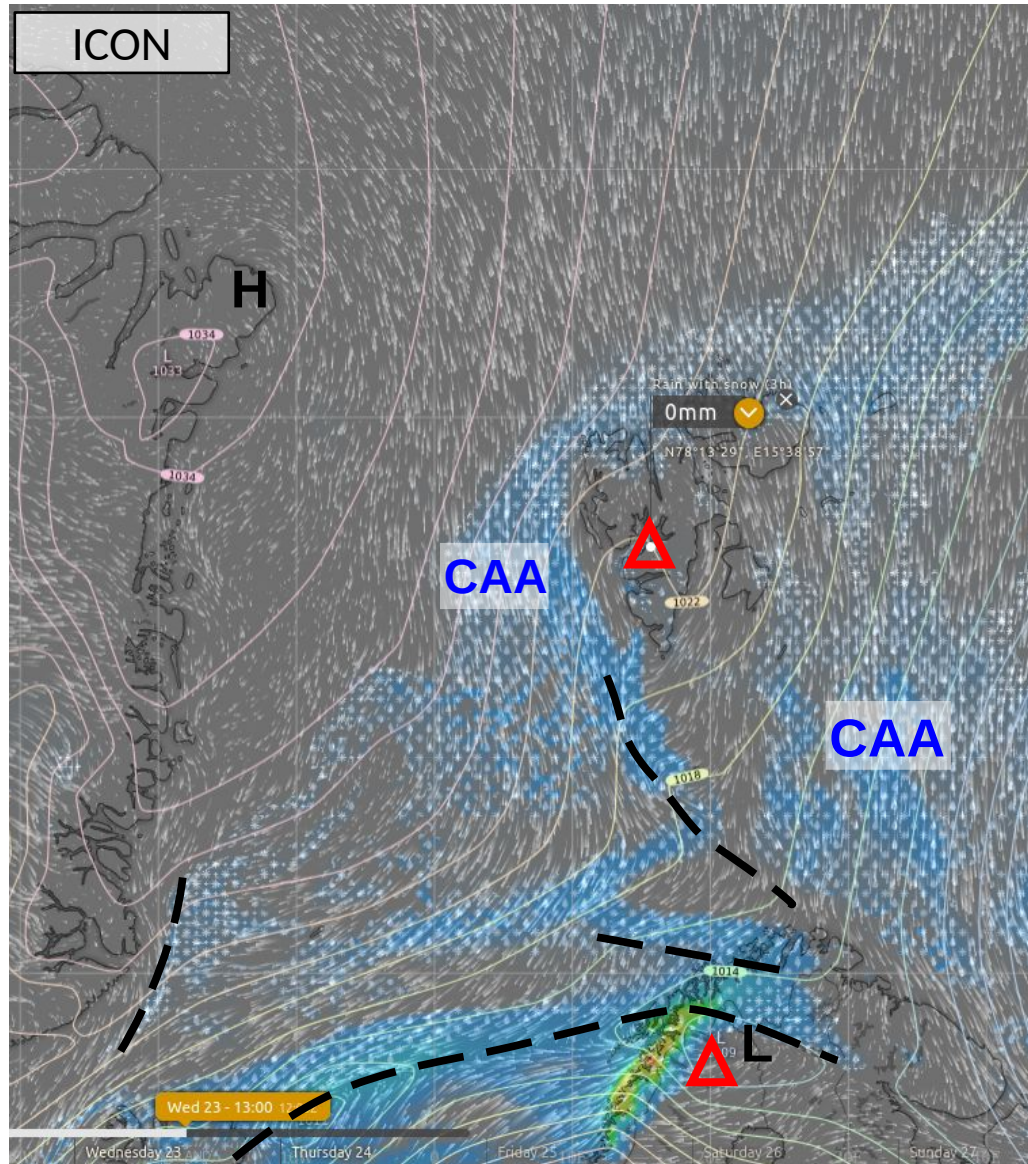
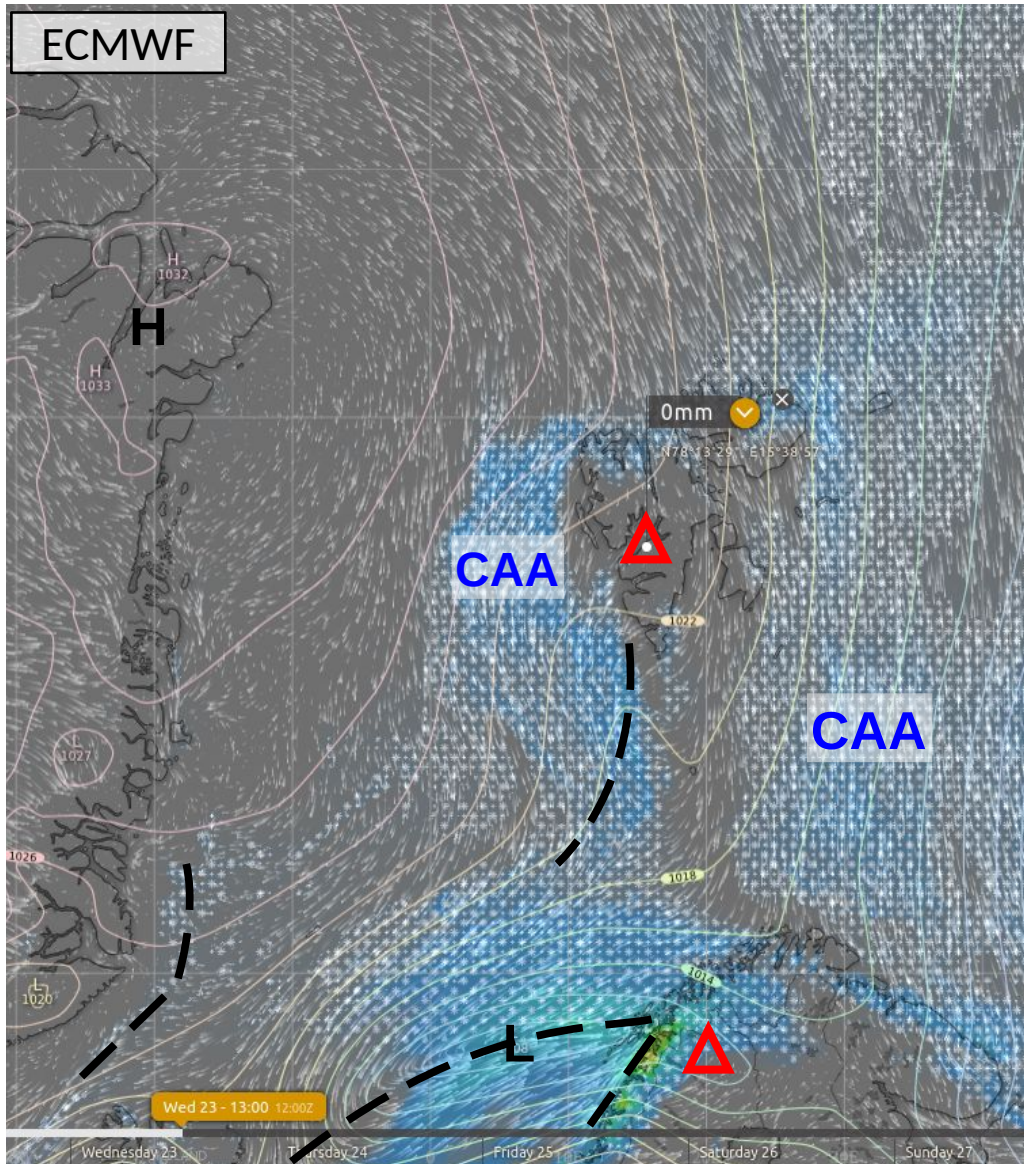
Tuesday, 2022-03-22 09 UTC (+57h)



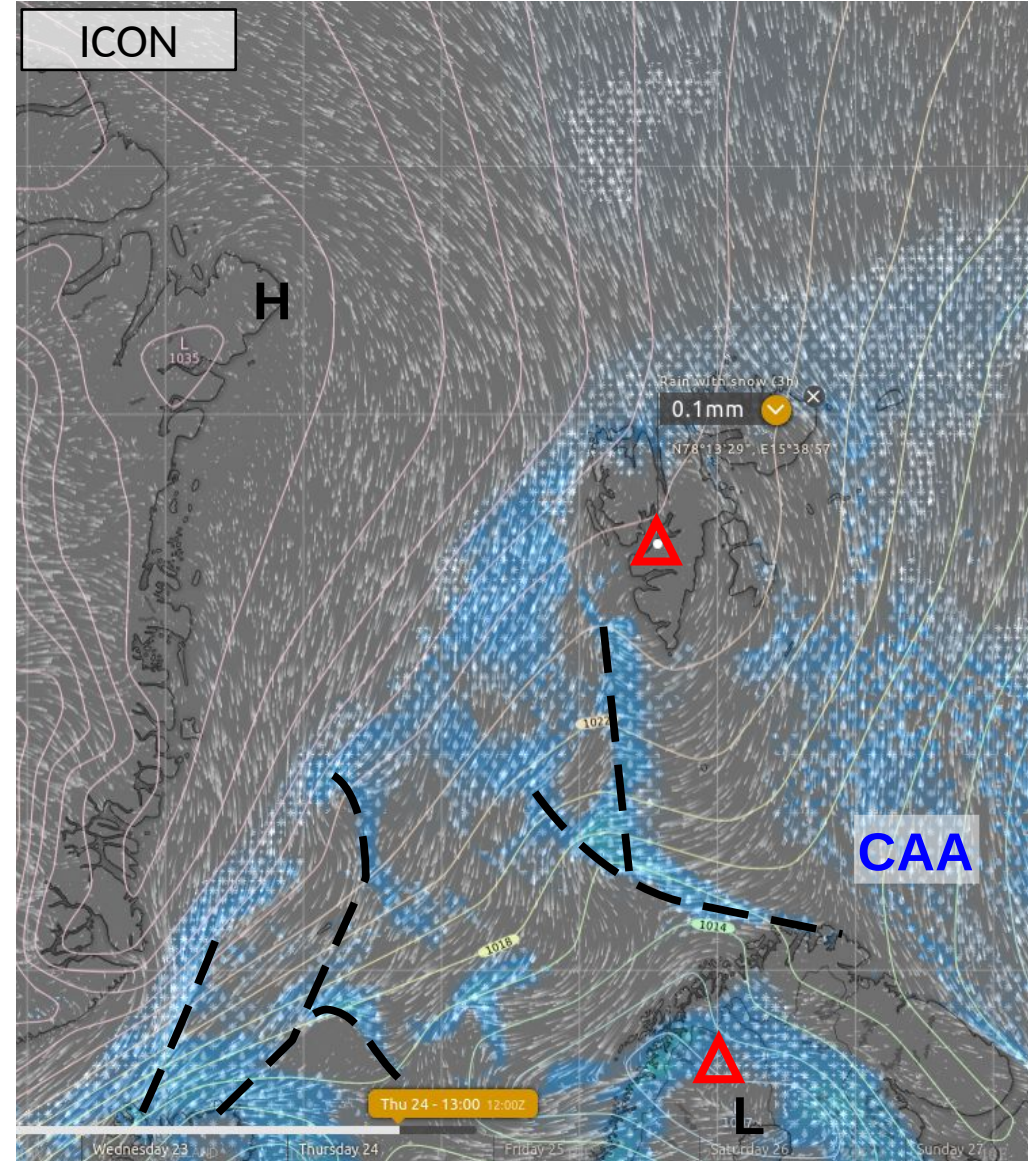
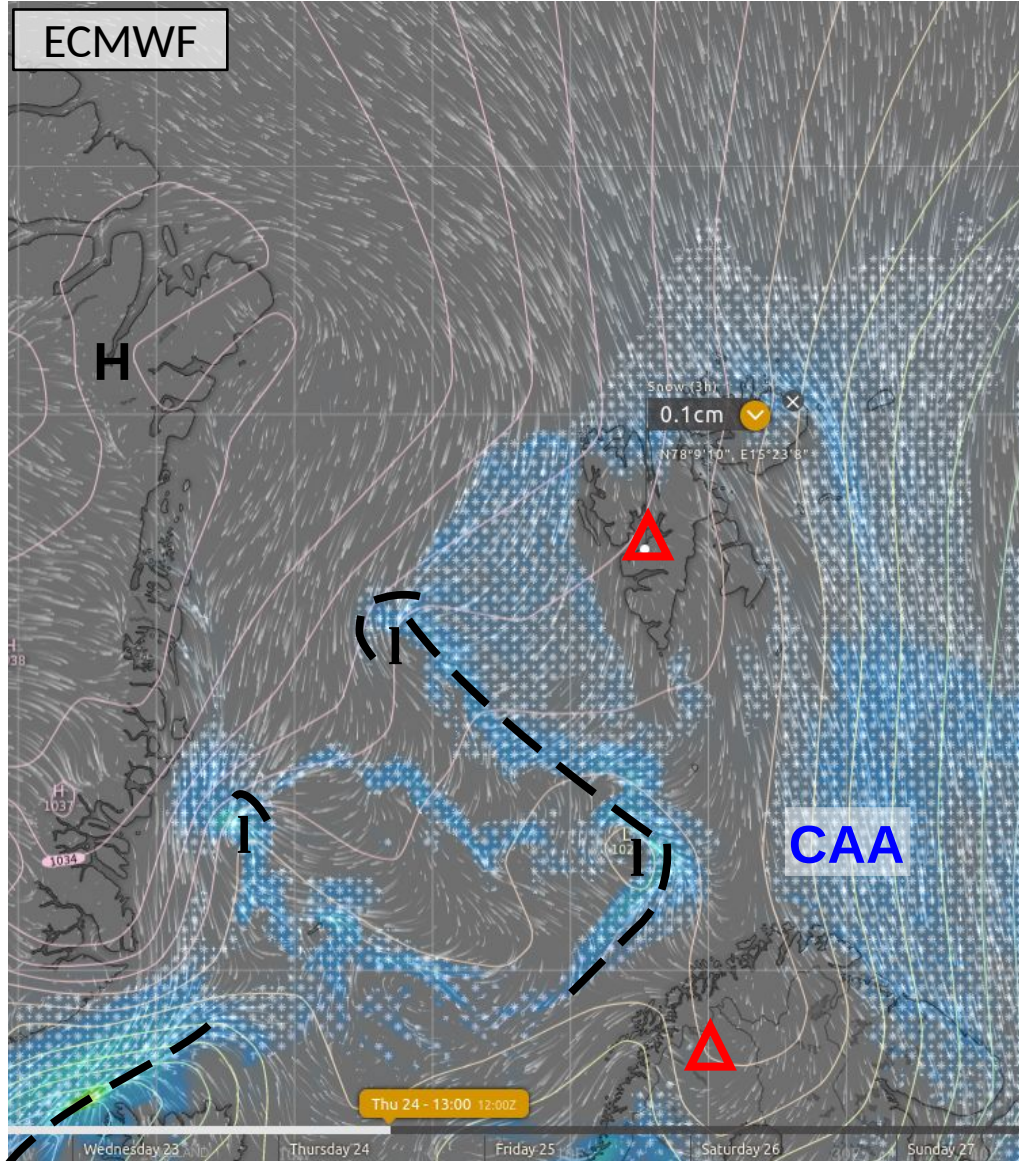
Tuesday, 2022-03-22 15 UTC (+63h)



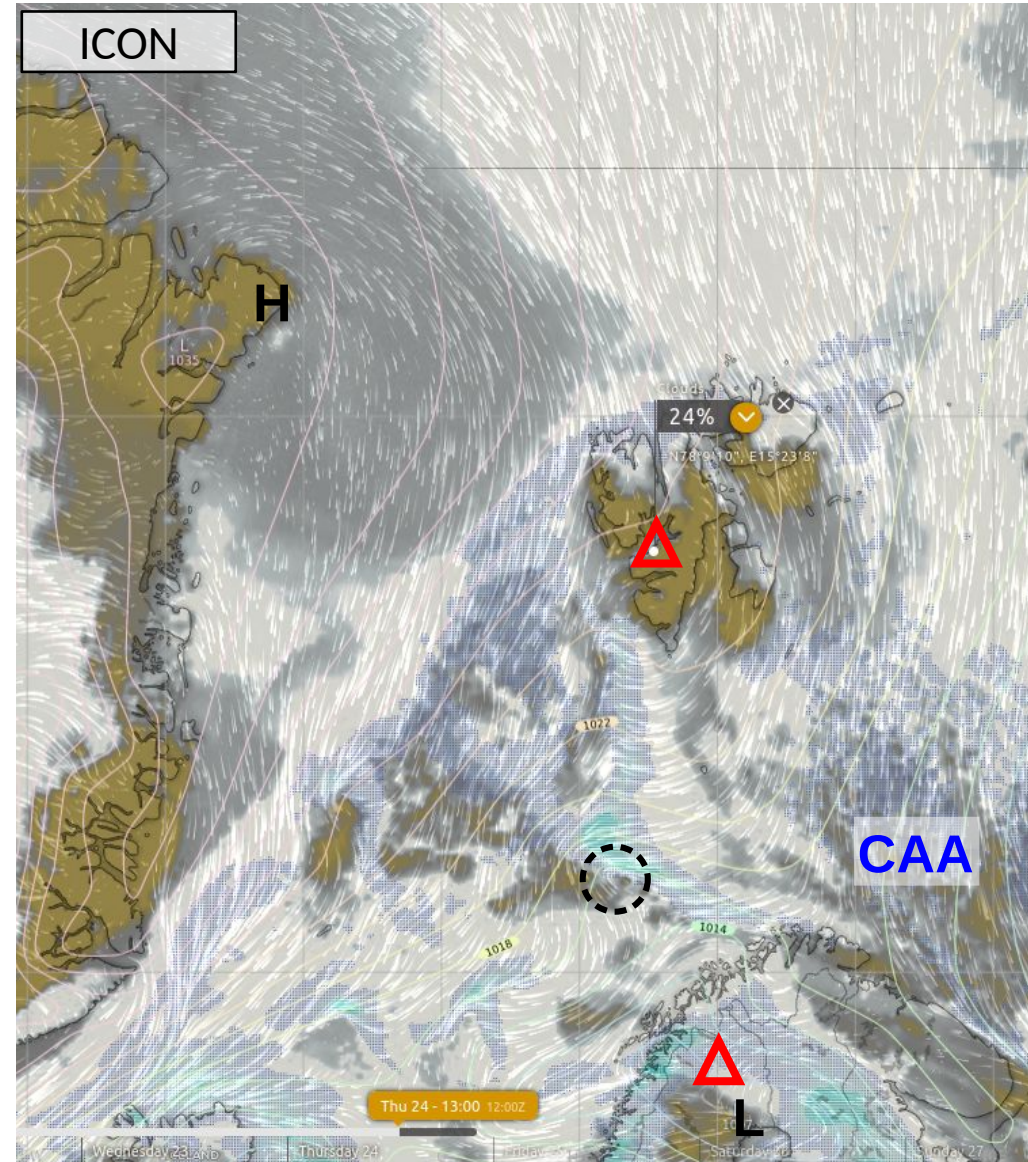
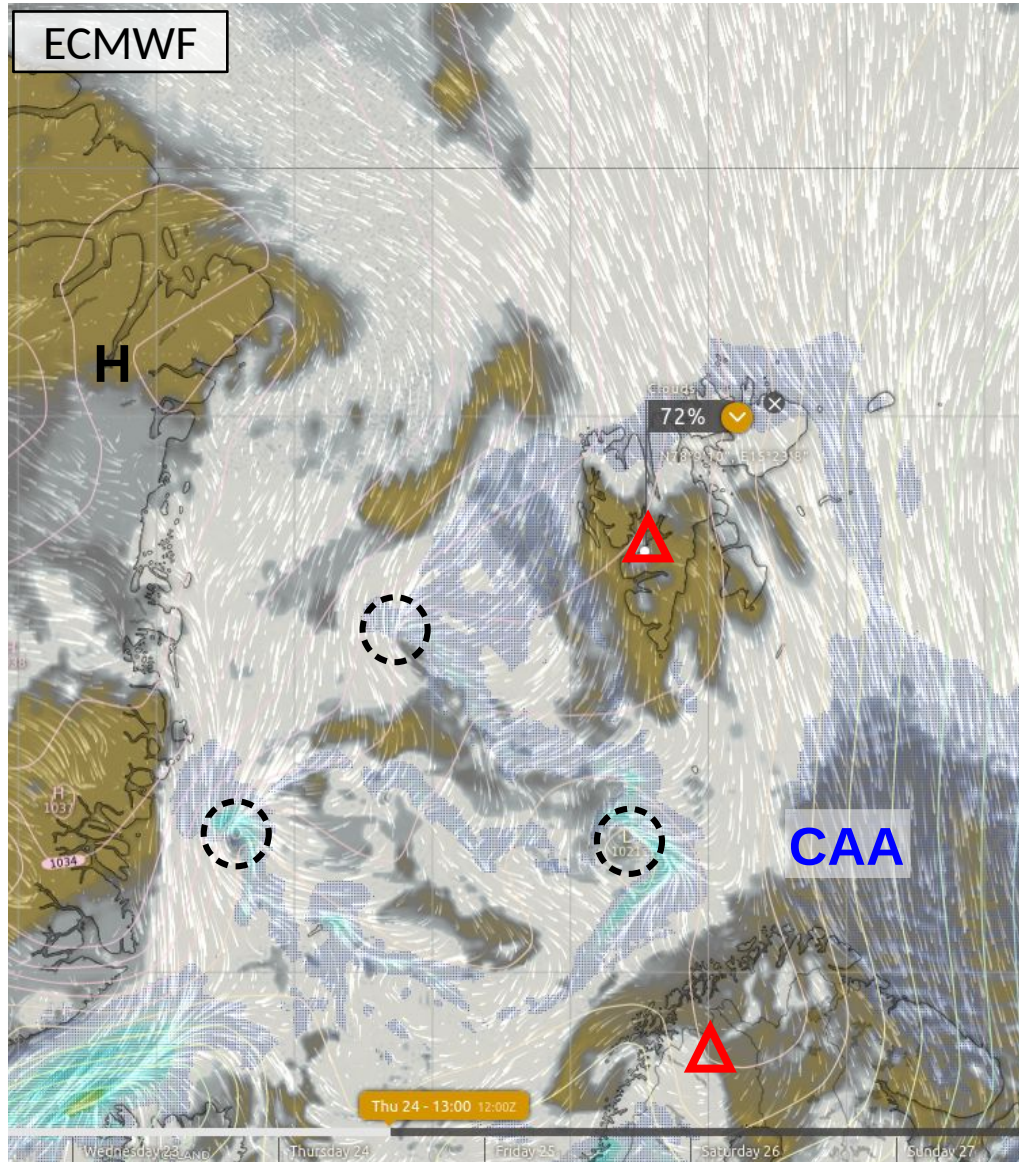
Wednesday, 2022-03-23 12 UTC (+84h)



Thursday, 2022-03-24 12 UTC (+108h)



Thursday, 2022-03-24 12 UTC (+108h) → Polar lows (?)



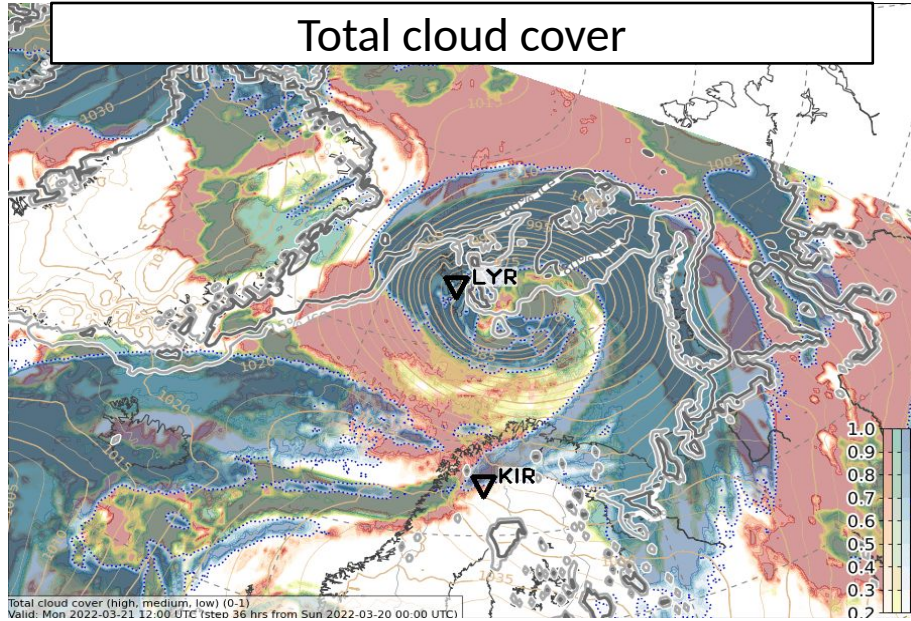
Cloud cover, CAO index, Airmasses, IVT

2022-03-20 00 UTC: 36 – 108h

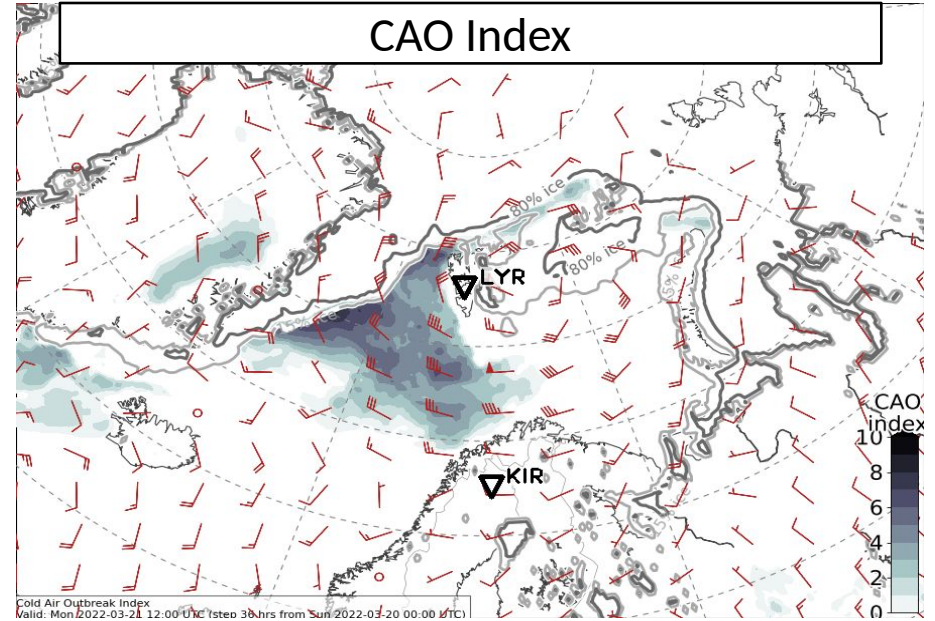
Cloud cover & 850hPa θ_e & CAO & IVT

Mon, 2022-03-21 12 UTC (+36h)

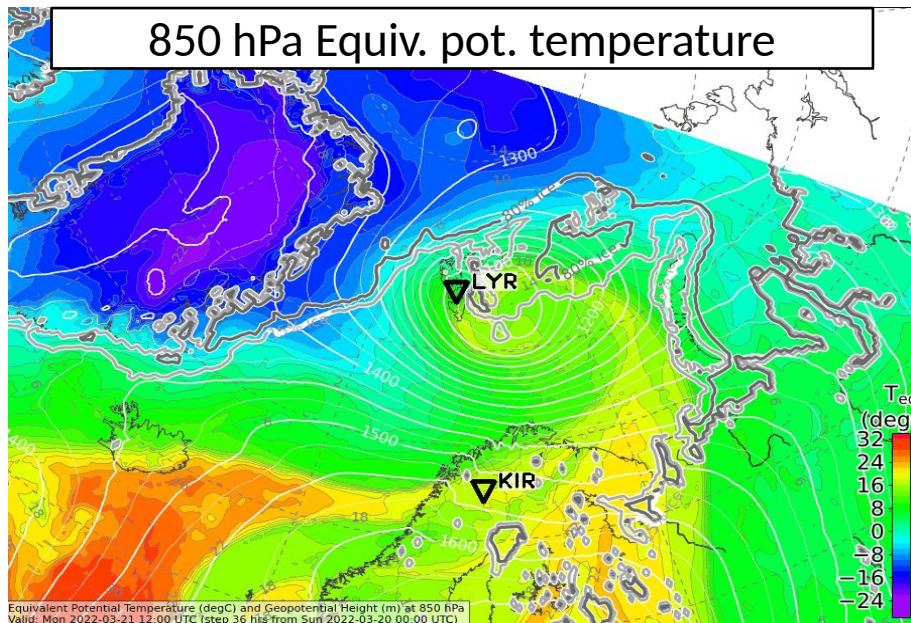
Total cloud cover



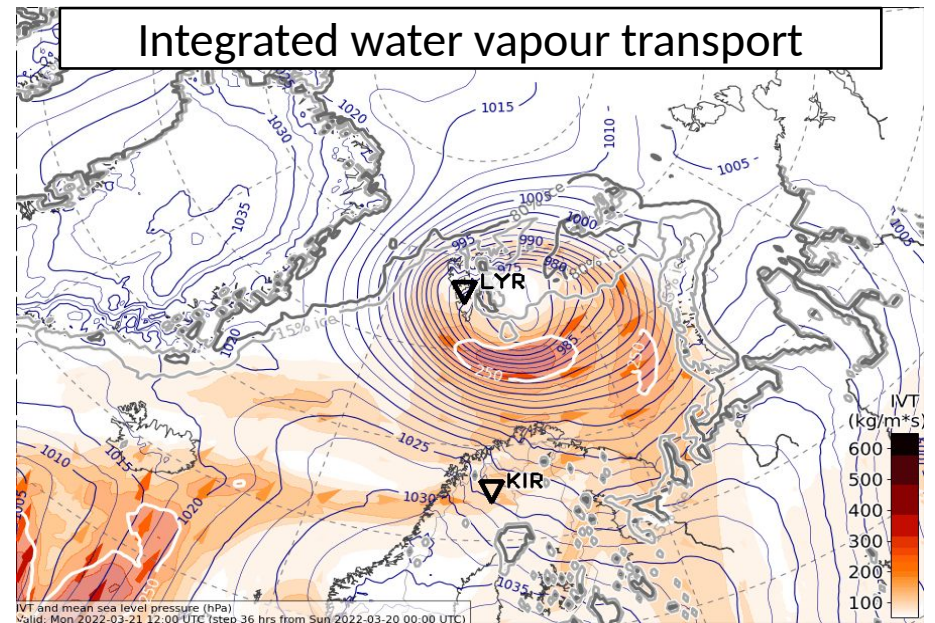
CAO Index



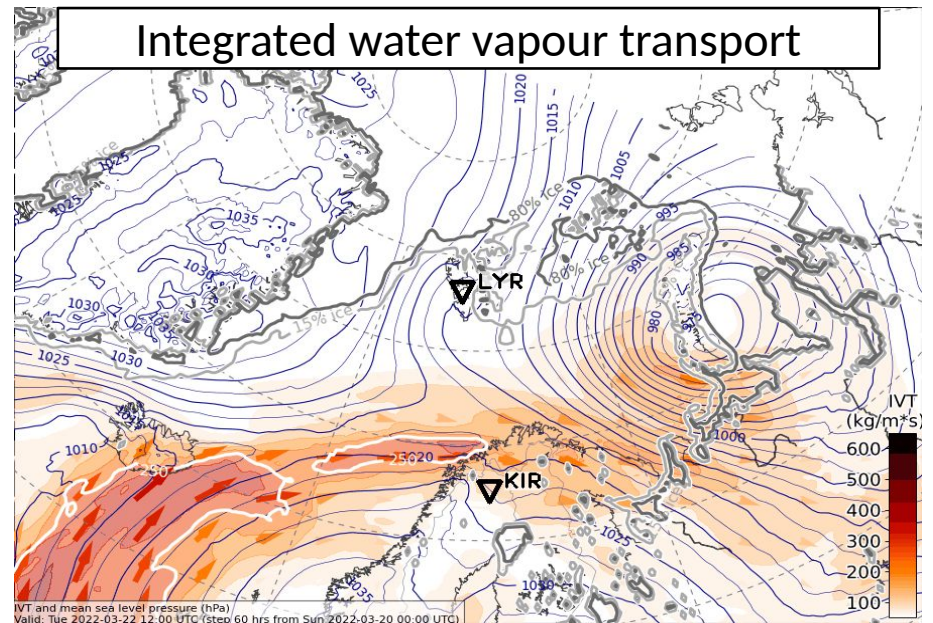
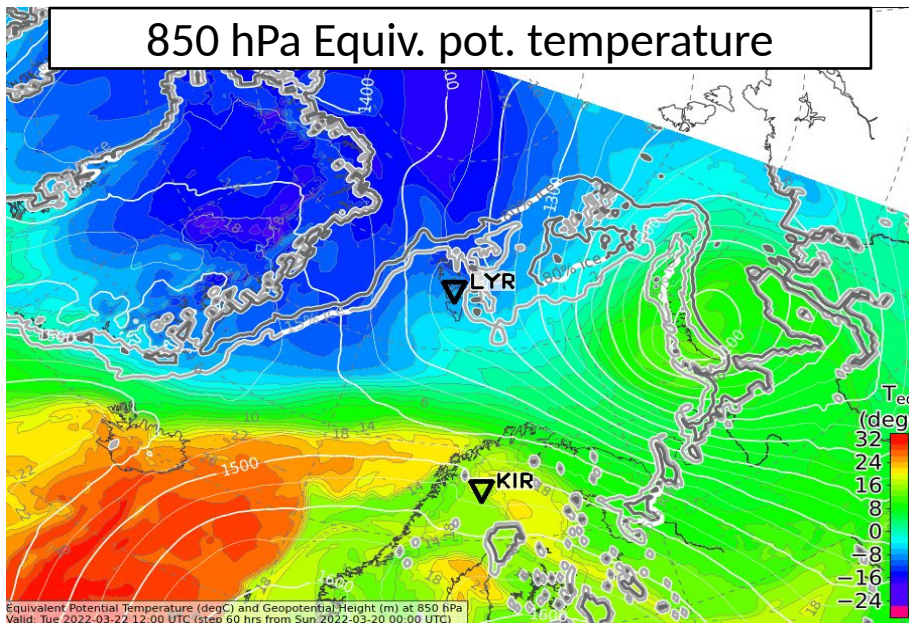
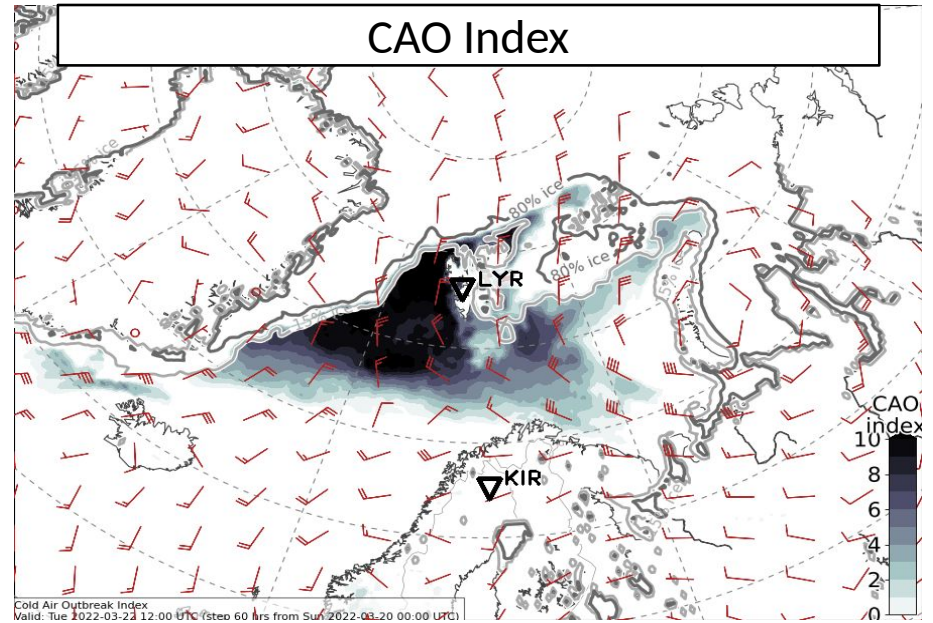
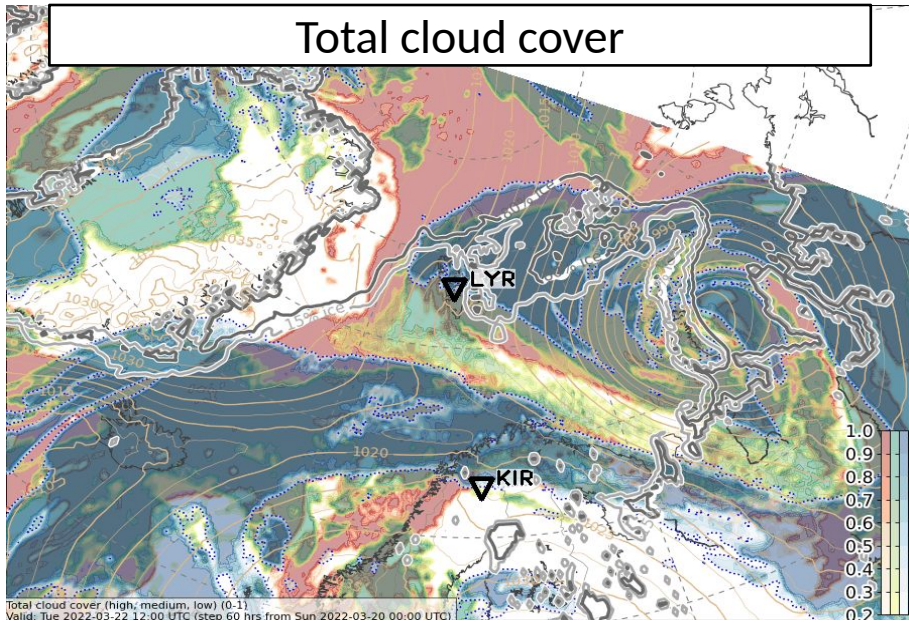
850 hPa Equiv. pot. temperature



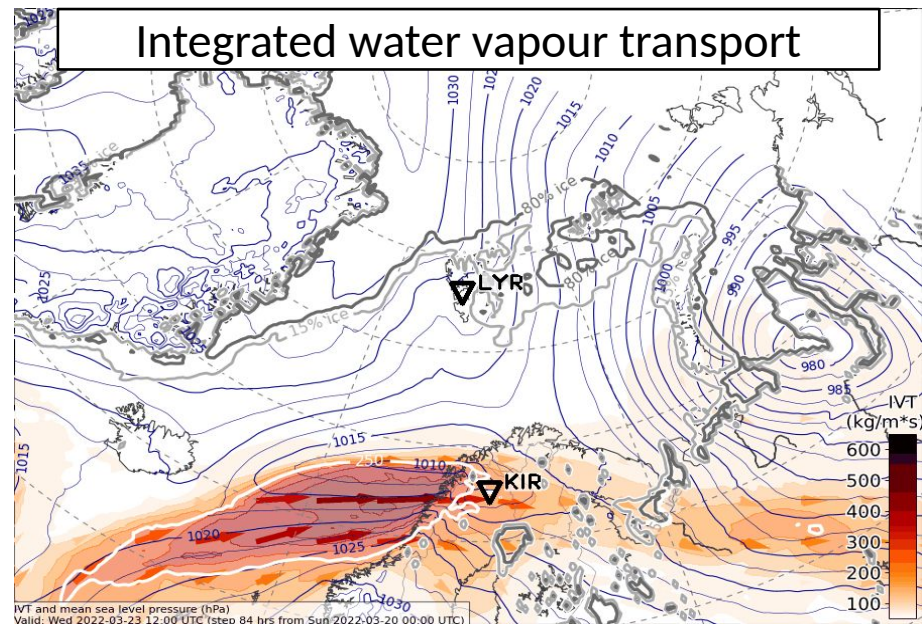
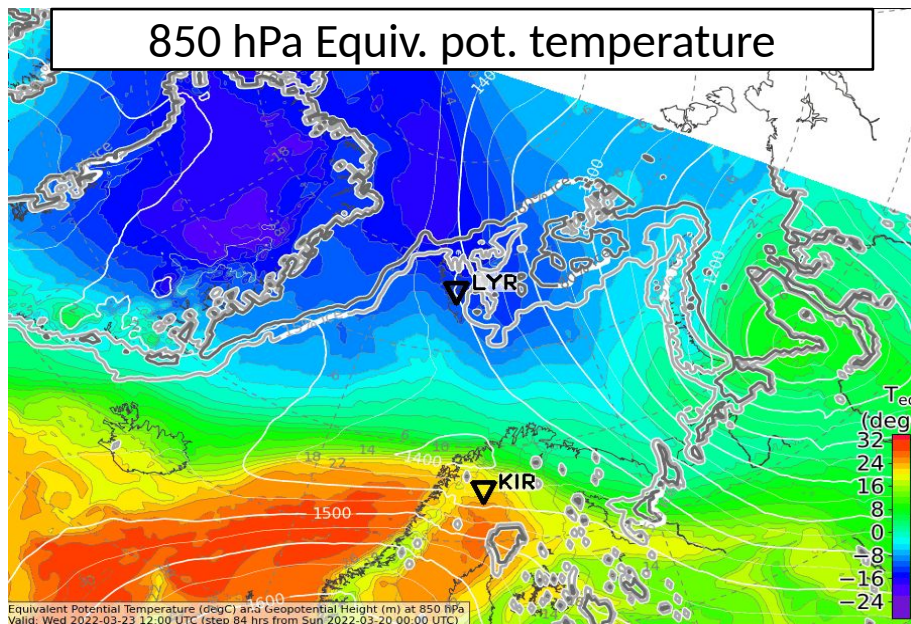
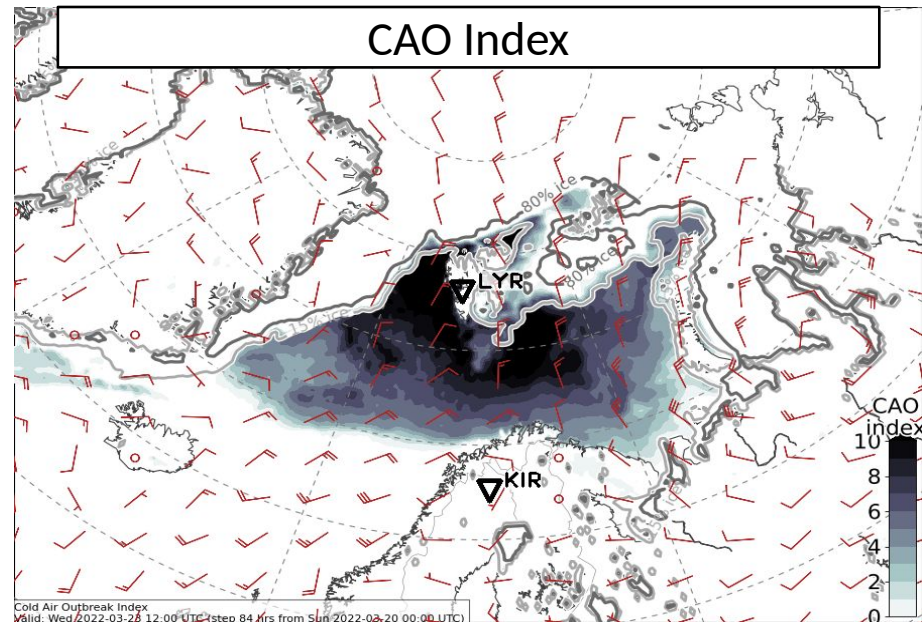
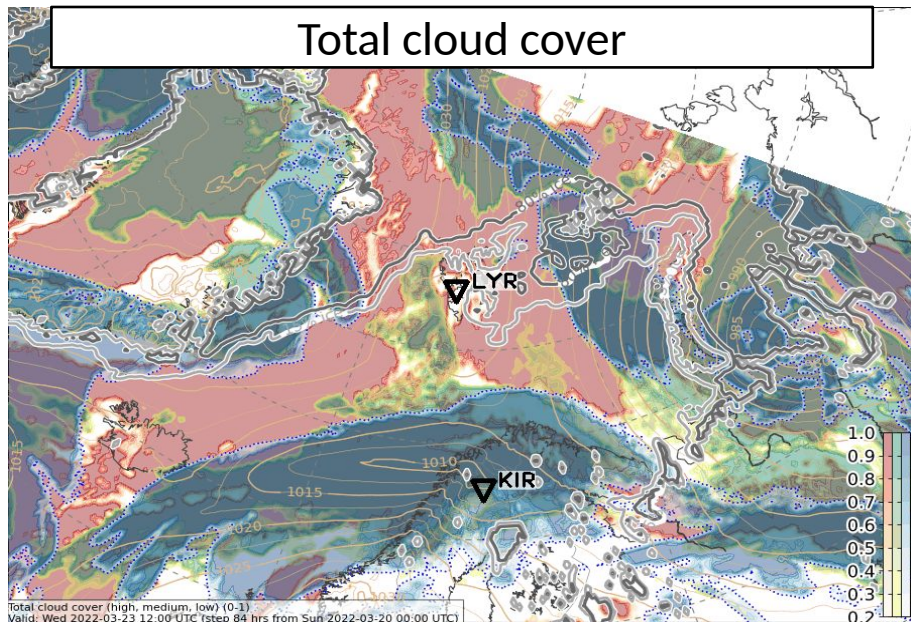
Integrated water vapour transport



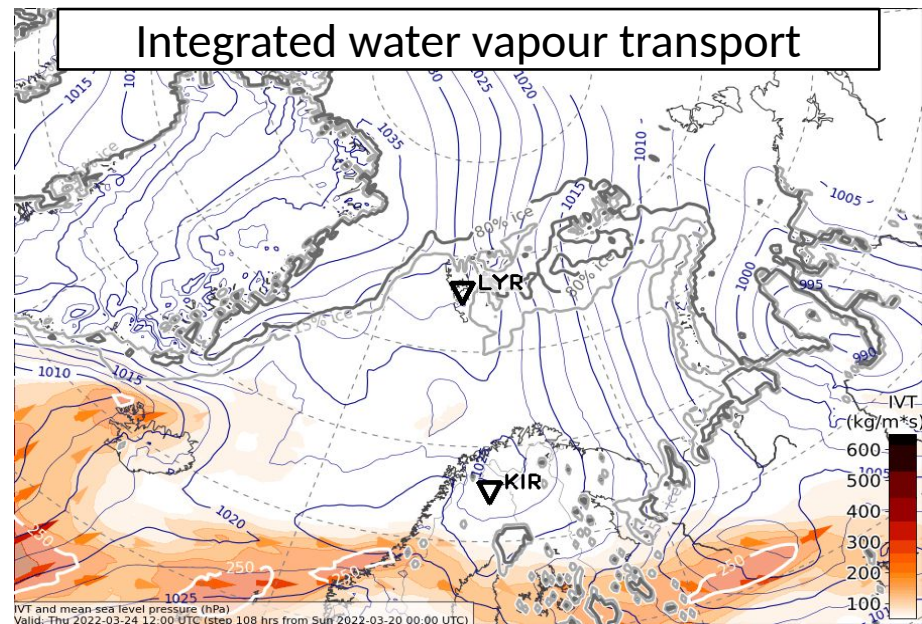
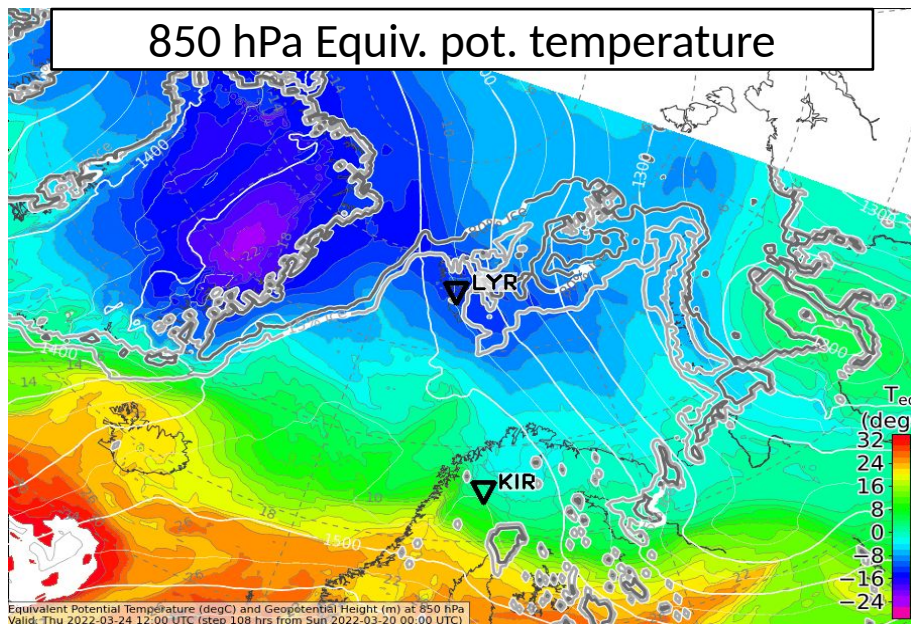
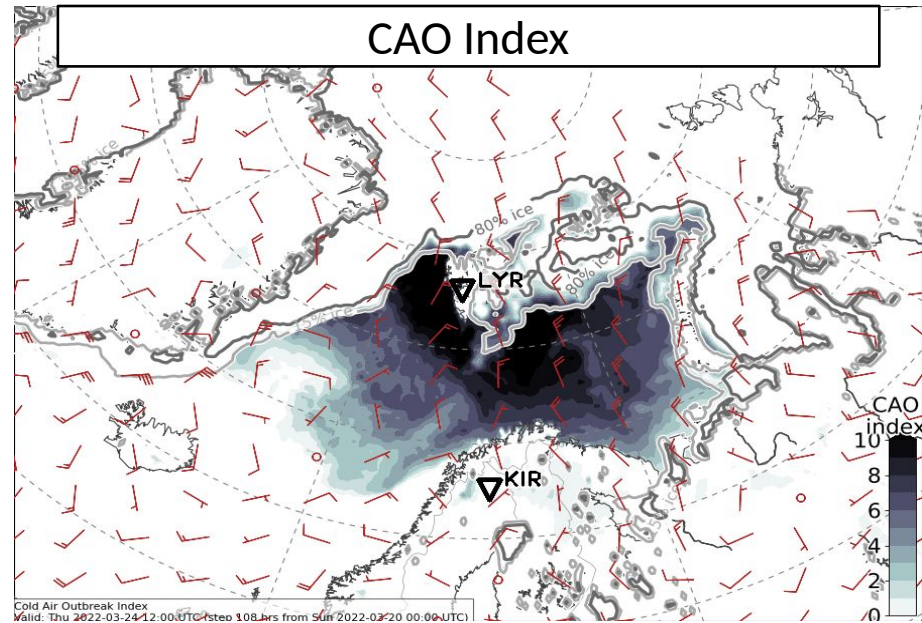
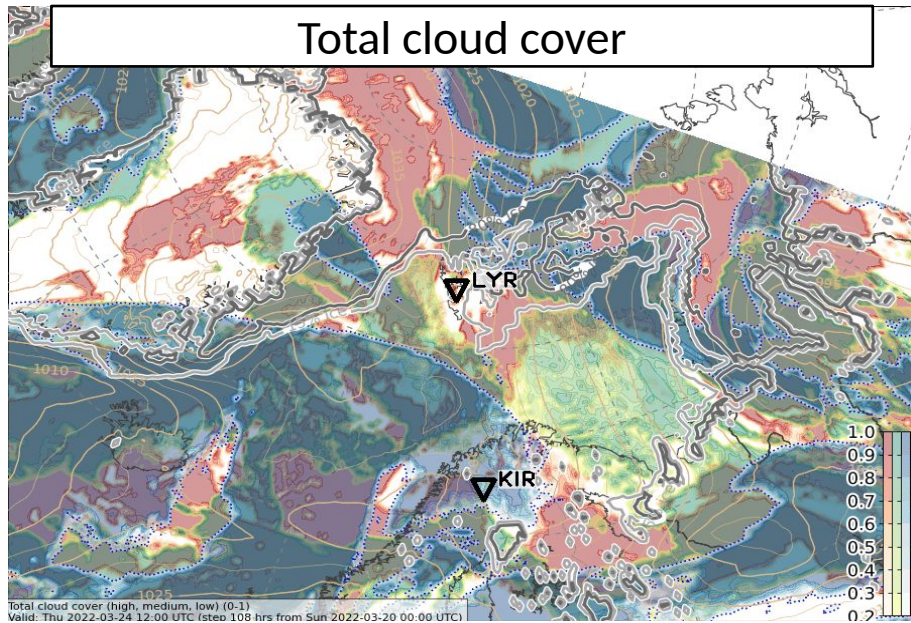
Tue, 2022-03-22 12 UTC (+60h)



Wed, 2022-03-23 12 UTC (+84h)



Thu, 2022-03-24 12 UTC (+108h)

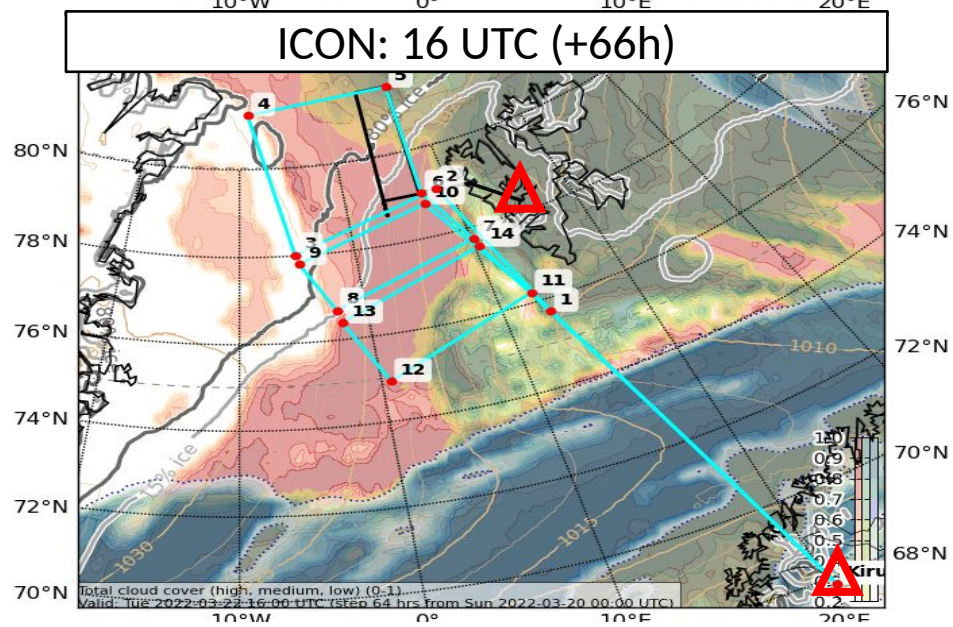
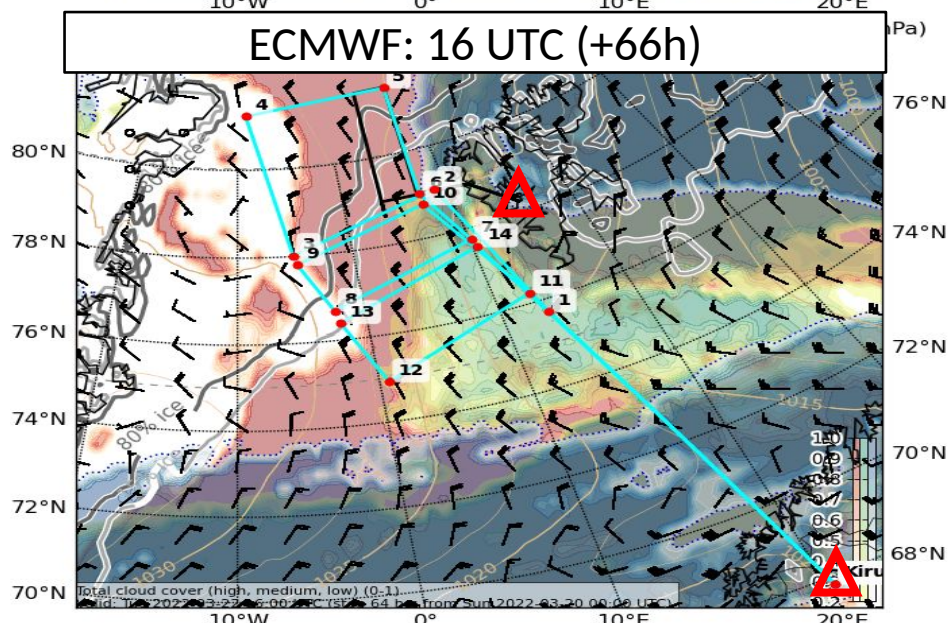
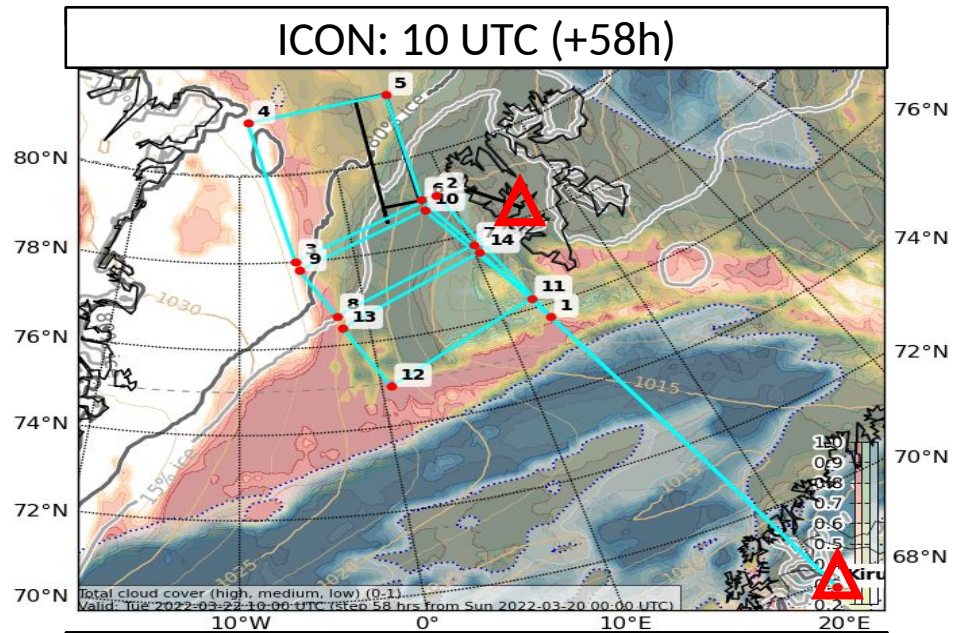
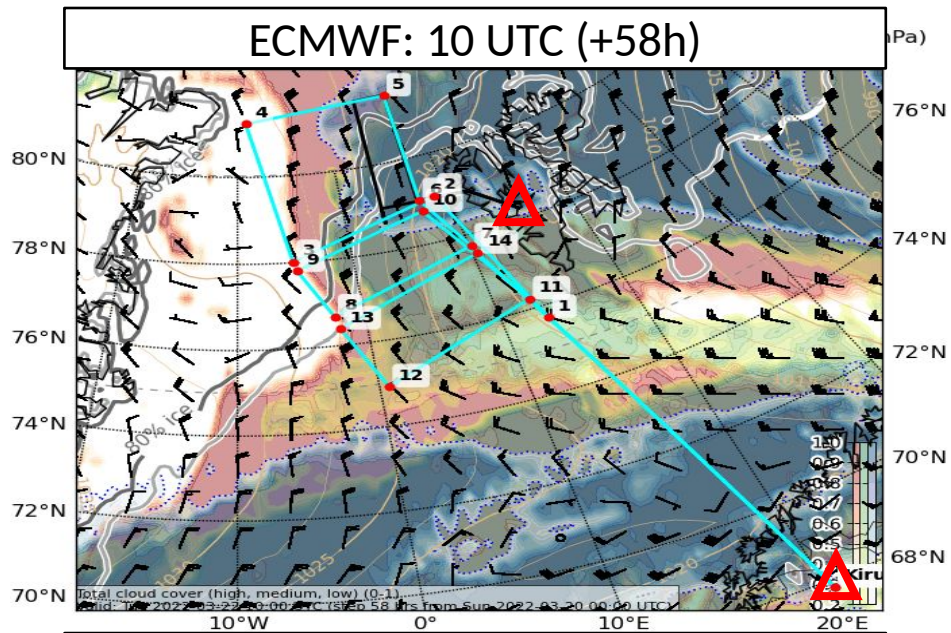


Cloud cover Fram Strait during CAO conditions

2022-03-20 00 UTC: 58 – 88h

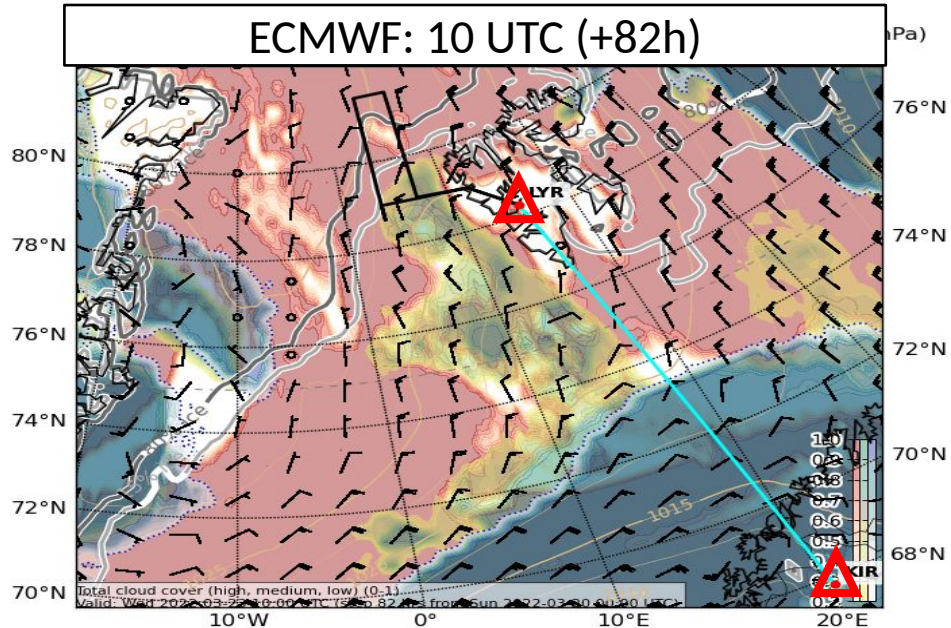
ECMWF & ICON

Tue, 2022-03-22 UTC, Total cloud cover

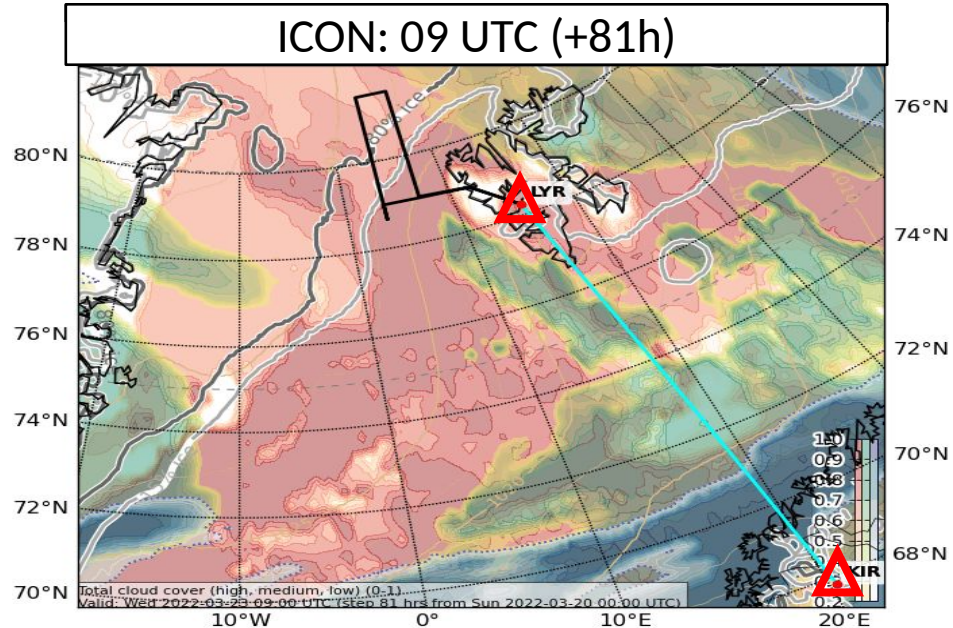


Wed, 2022-03-23 UTC, Total cloud cover

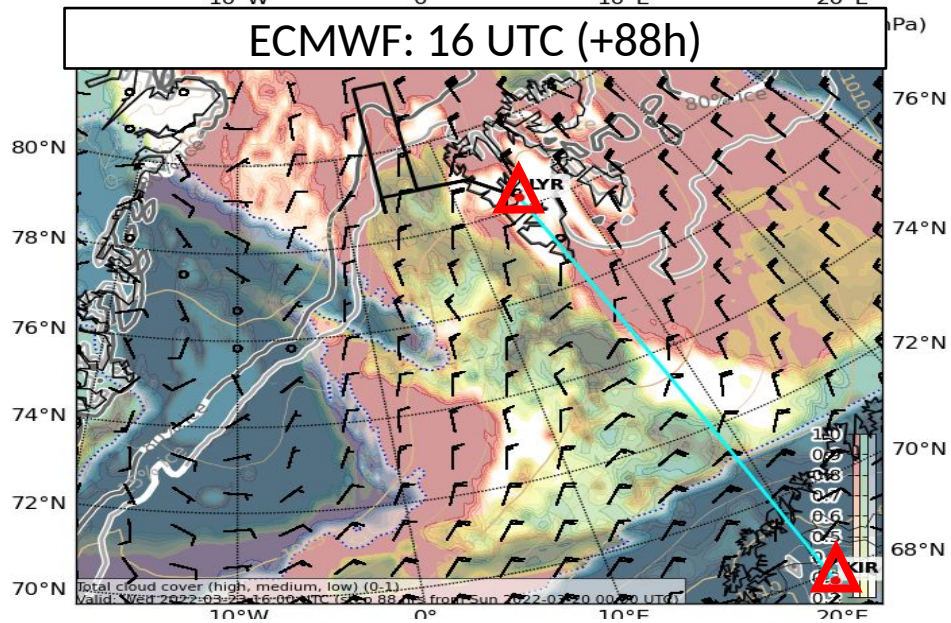
ECMWF: 10 UTC (+82h)



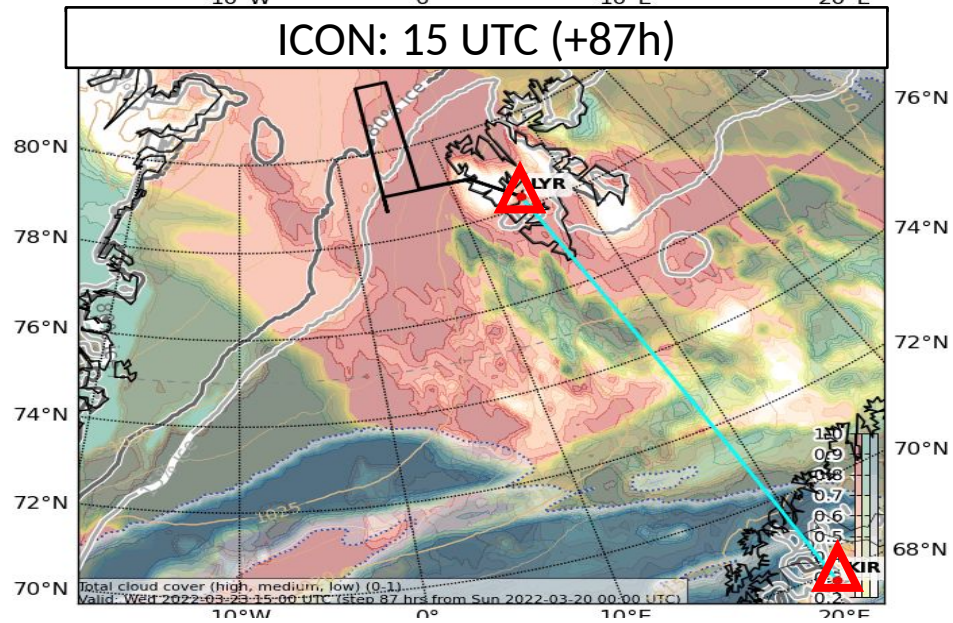
ICON: 09 UTC (+81h)



ECMWF: 16 UTC (+88h)

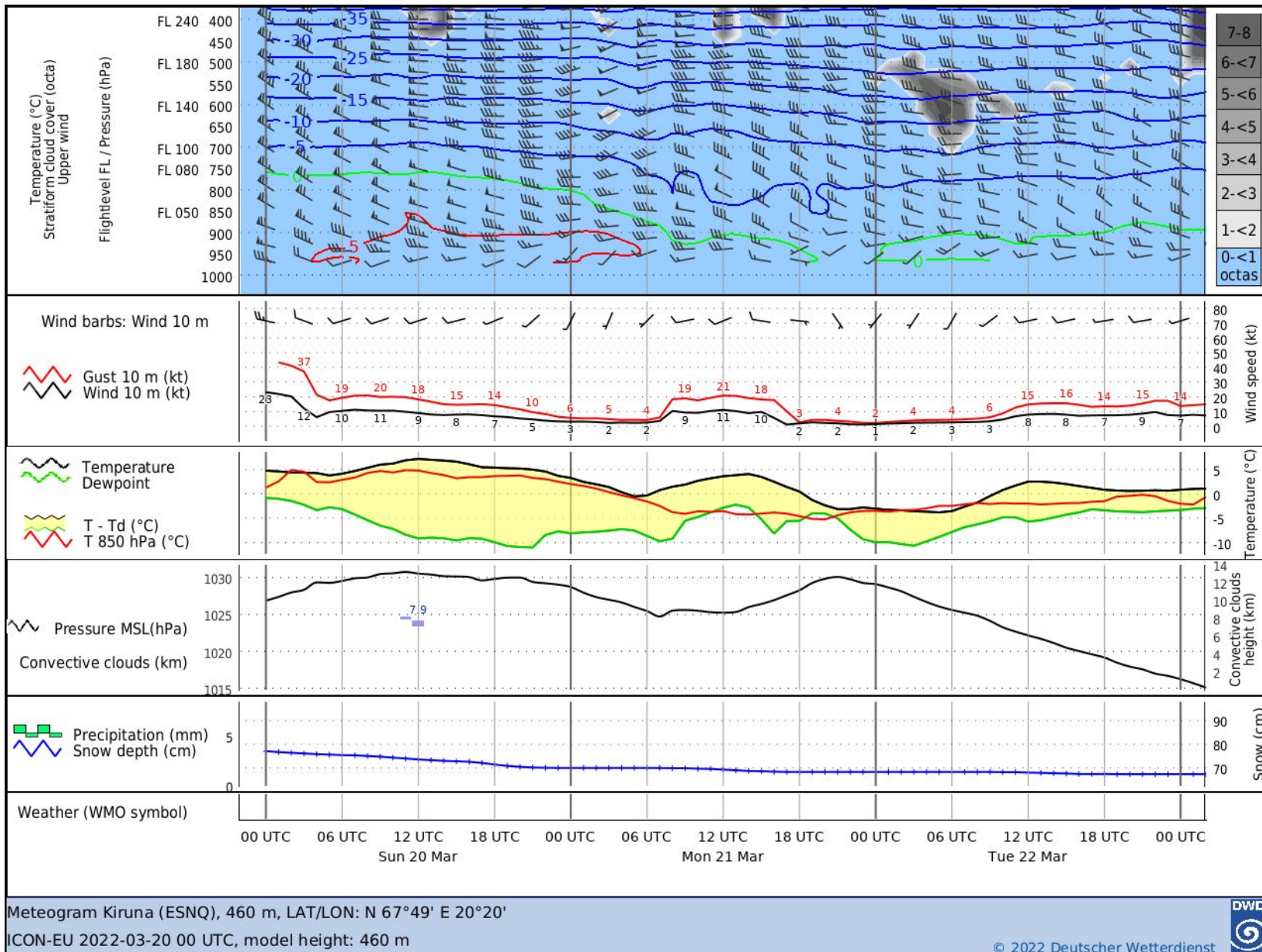


ICON: 15 UTC (+87h)



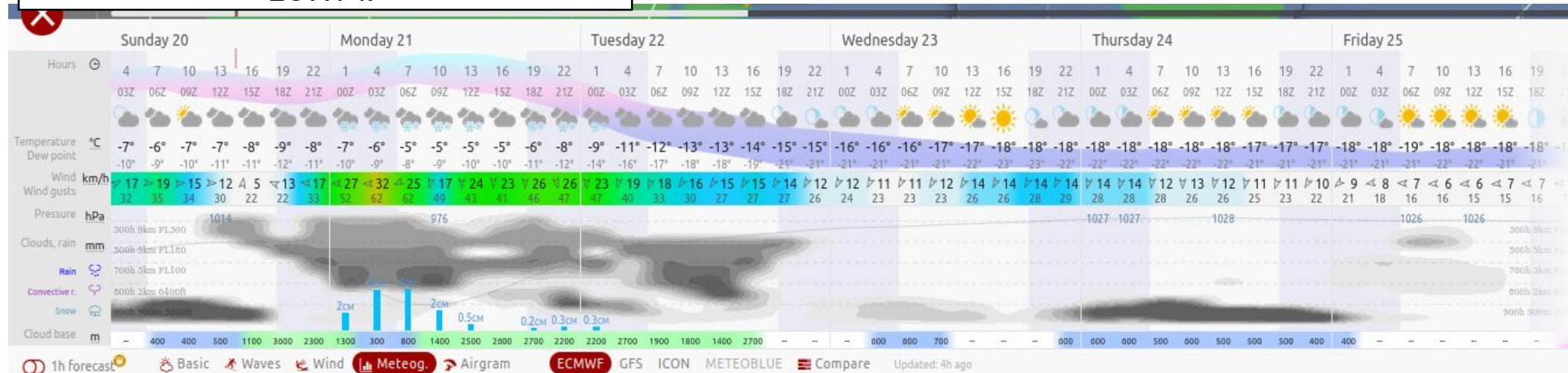
Airport meteograms & local weather at Svalbard

Kiruna:

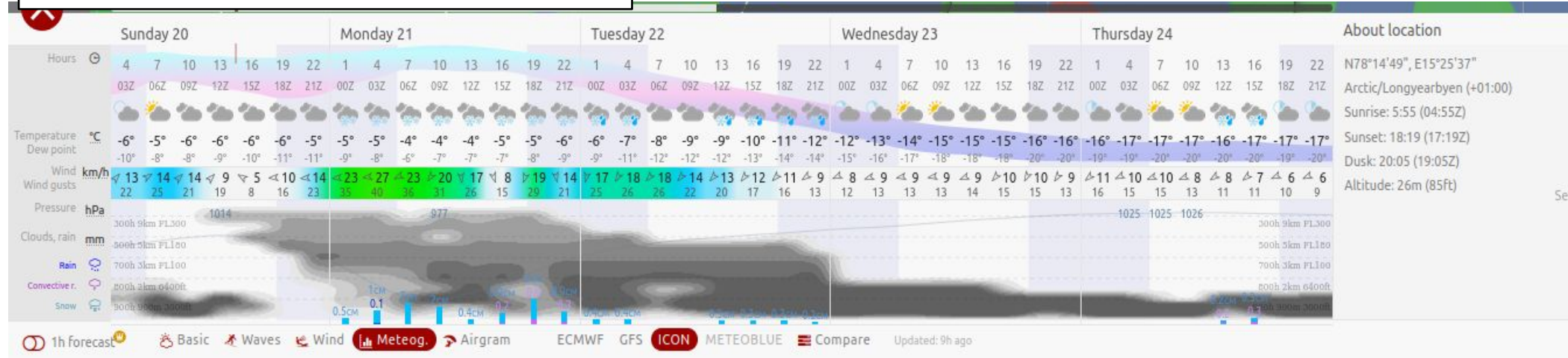


Longyearbyen:

ECWMF



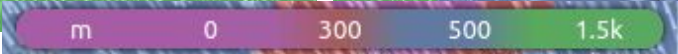
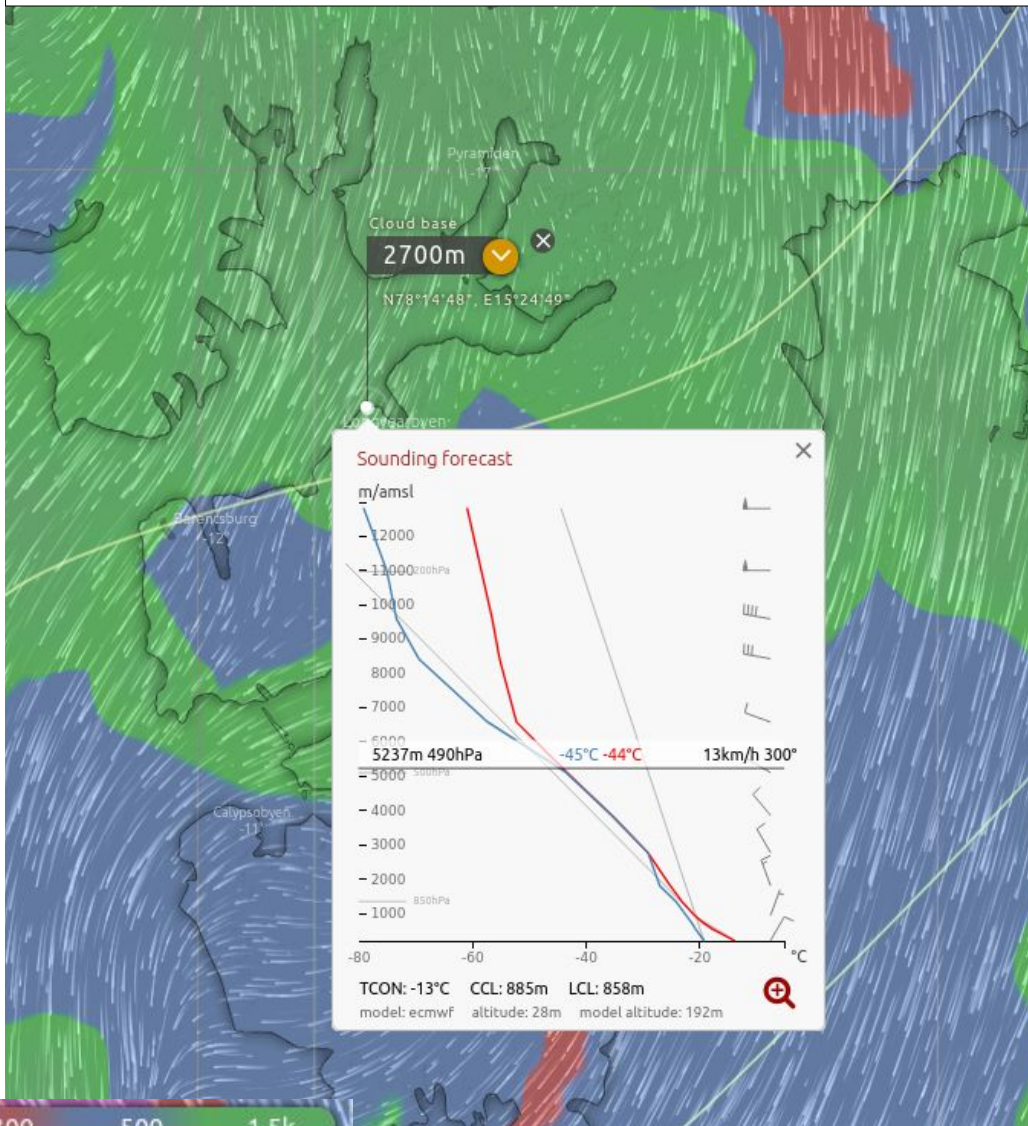
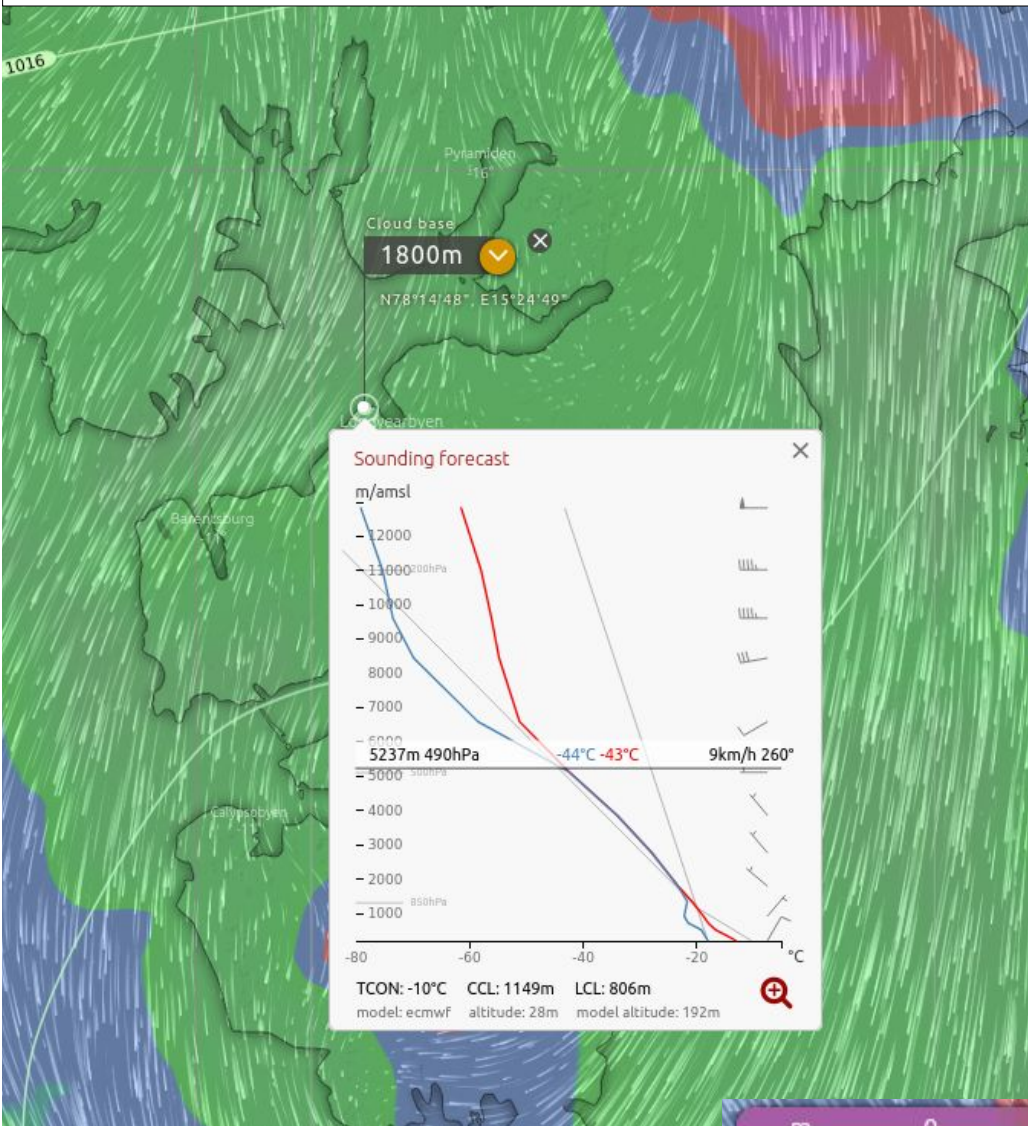
ICON



Tue, 2022-03-22, Clouds base height & predicted soundings (ECMWF)

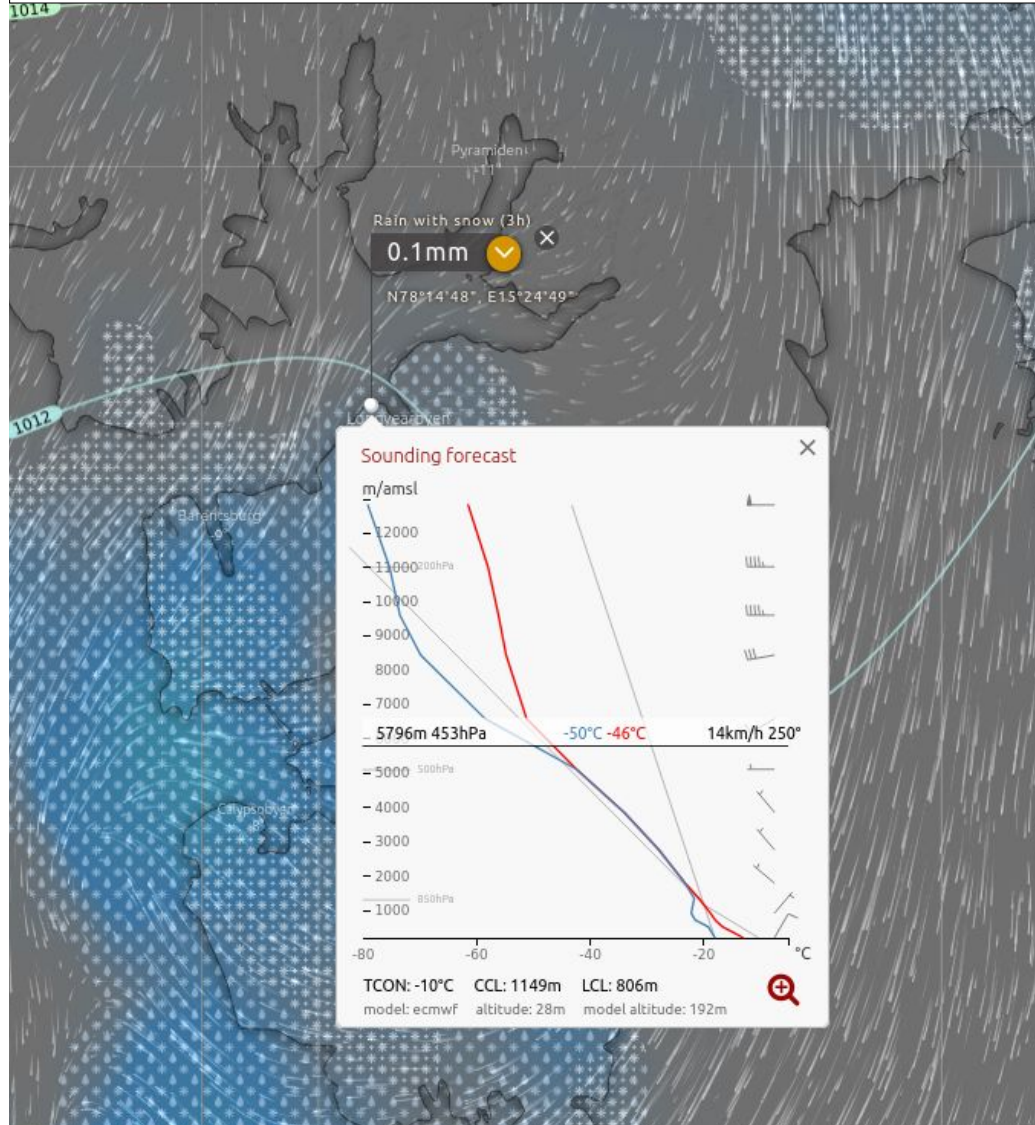
09 UTC

15 UTC

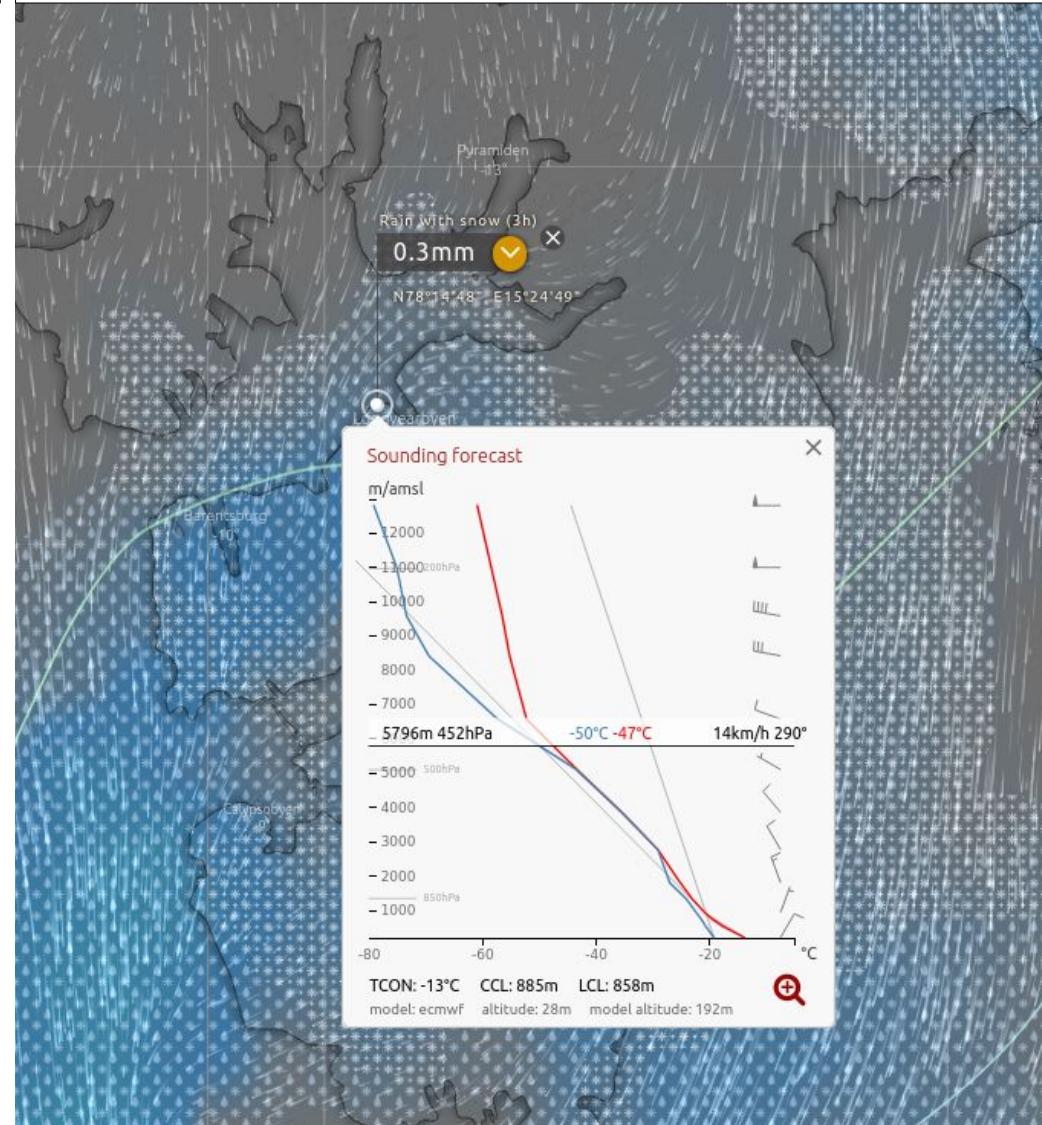


Tue, 2022-03-22, Precipitation (ICON) & predicted soundings (ECMWF)

09 UTC



15 UTC



Summary

Summary: Weather Briefing 2022-03-20, 17:00 LT

- **Monday, 2022-03-21:**
 - Strong low pressure system SE of Svalbard with snowfall and multilayered clouds
 - CAO conditions especially over southern Fram Strait with large area of only low-level clouds
- **Tuesday, 2022-03-22:**
 - Low moves SE so that its influence on LYR weakens, but maybe still some precipitation
 - Cold air advection over rest of Fram Strait and also over Svalbard with northerly flow
- **Wednesday, 2022-03-23:**
 - Region of strongest cold air advection directly over Svalbard and further East
 - Wind in CAO over Fram strait turns slightly NE
 - Northerly flow but still low clouds possible near LYR
- **Thursday, 2022-03-24:**
 - Cold air advection now especially over Barents Sea
 - Over western Fram Strait, more diffusive flow, maybe formation of Polar low(s)
 - Low pressure system near Kiruna (ICON)