

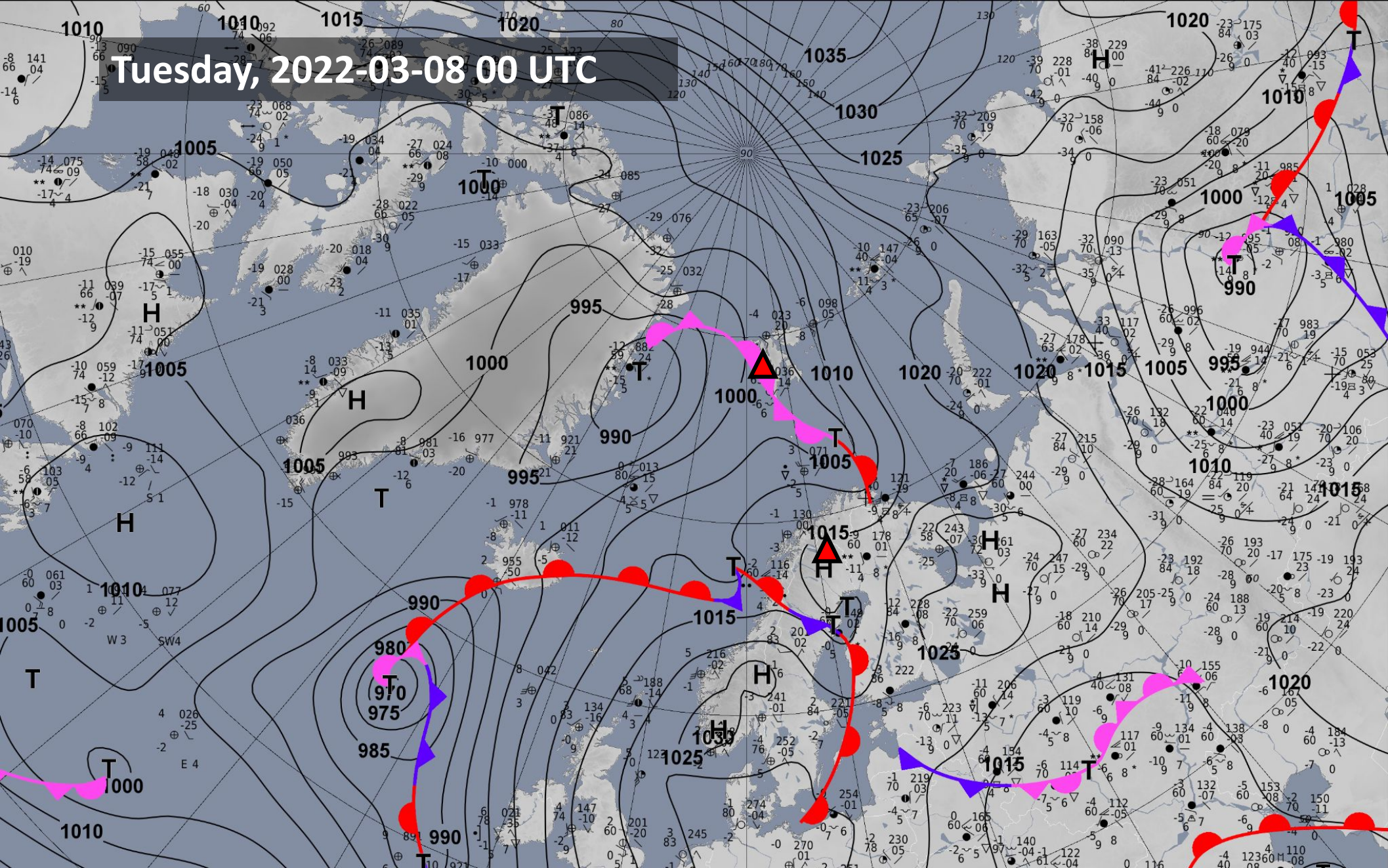
Weather briefing

HALO-(AC)³

Tuesday, 2022-03-08, 17:00 LT

Surface Analysis
Tuesday, 2022-03-08 00 UTC
DWD

Tuesday, 2022-03-08 00 UTC



Circulation pattern development

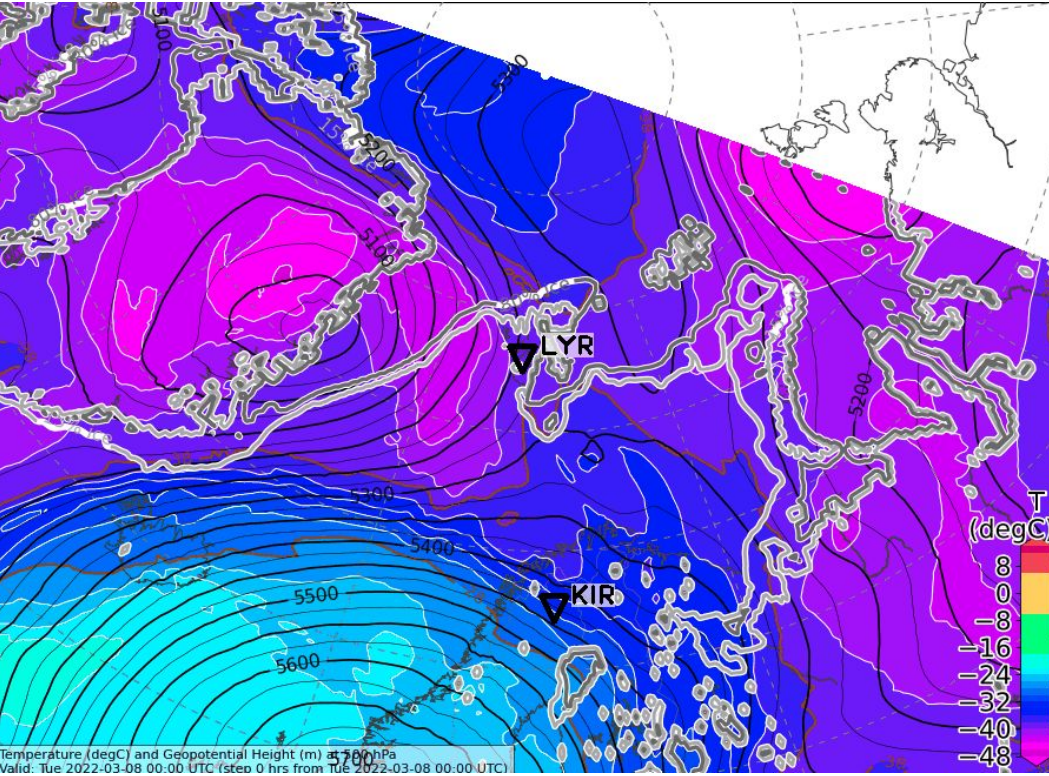
2022-03-08 00 UTC: 00 – 108h

500 hPa Geopot & T

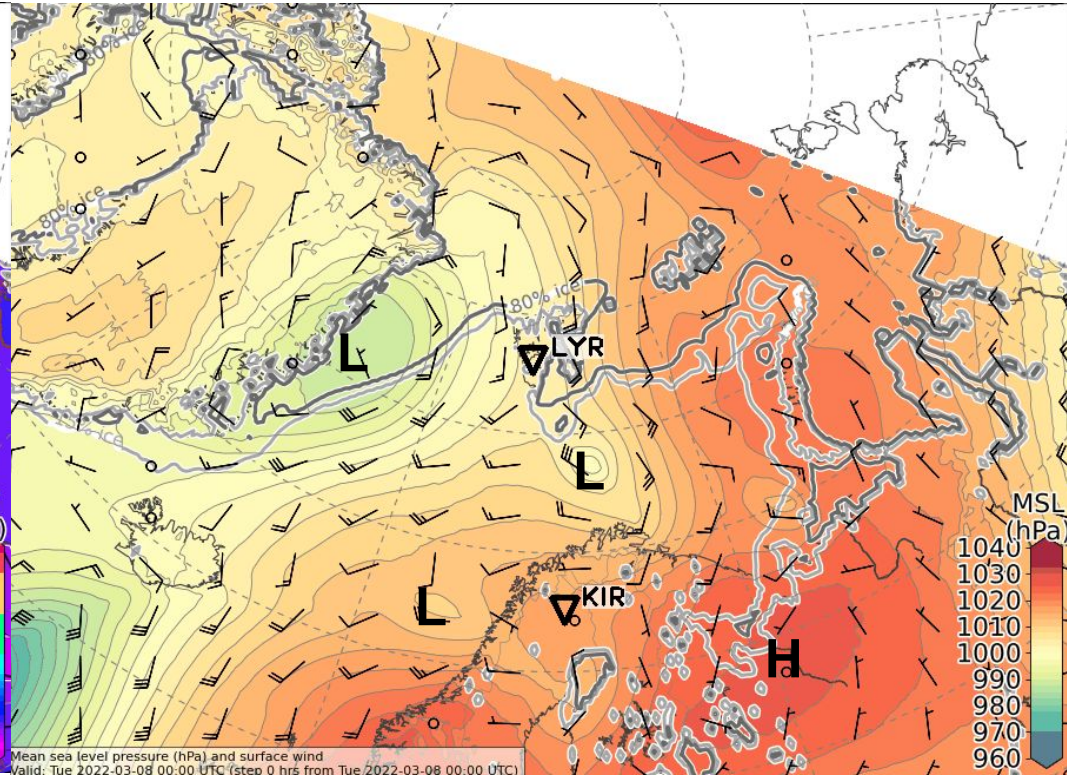
Sea level pressure

Tuesday, 2022-03-08 00 UTC (+00h)

500 hPa Geopot. (lines) & T (colours)



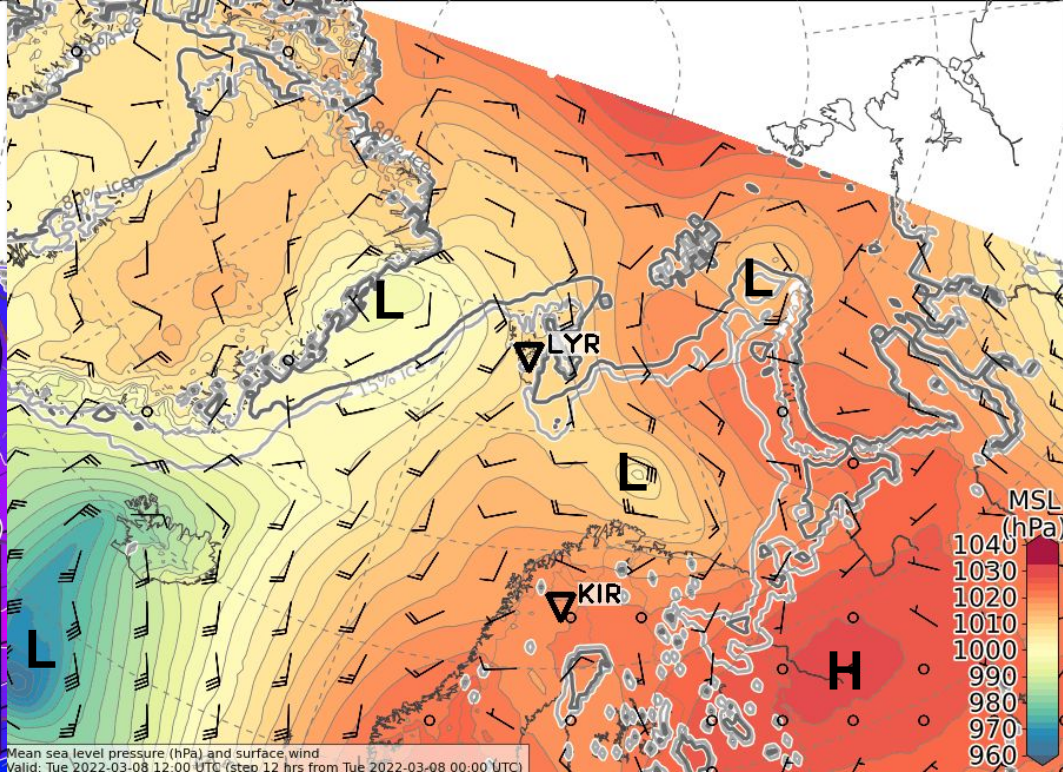
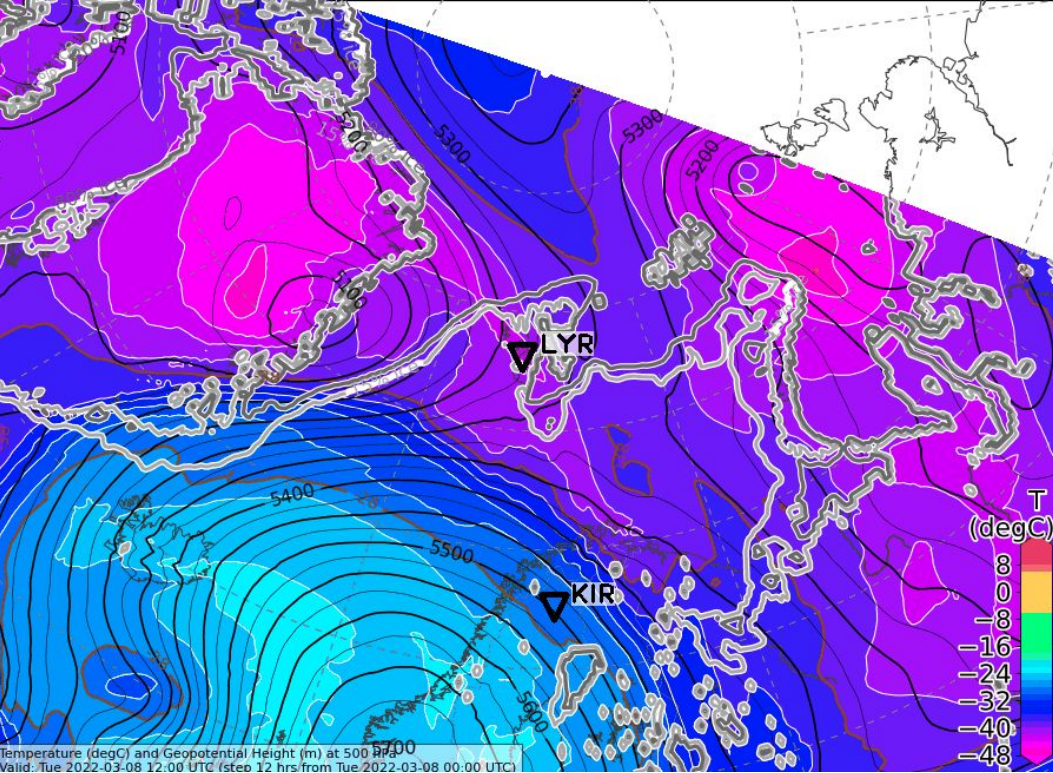
Sea level pressure



Tuesday, 2022-03-08 12 UTC (+12h)

500 hPa Geopot. & T

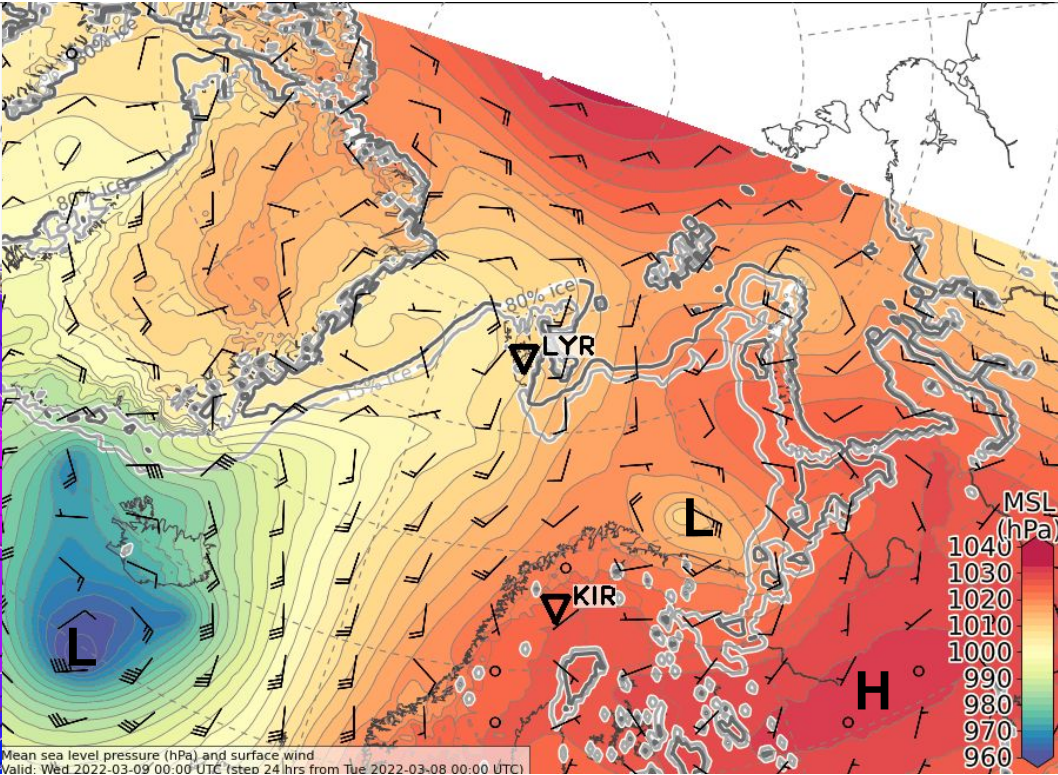
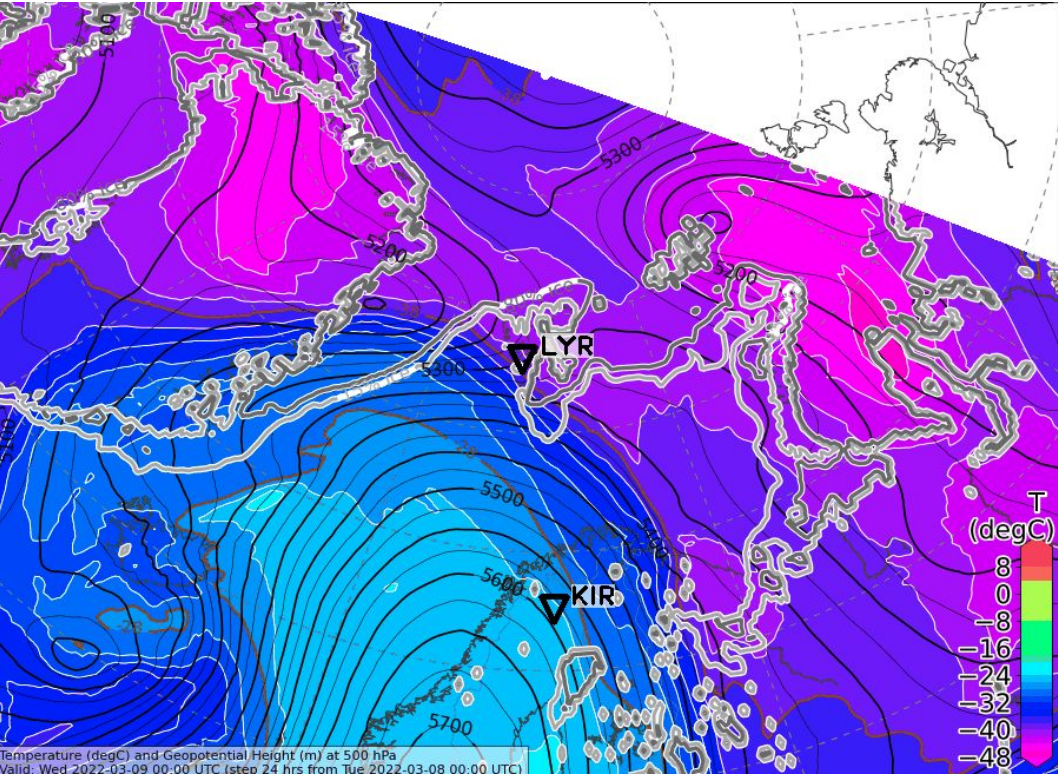
Sea level pressure



Wednesday, 2022-03-09 00 UTC (+24h)

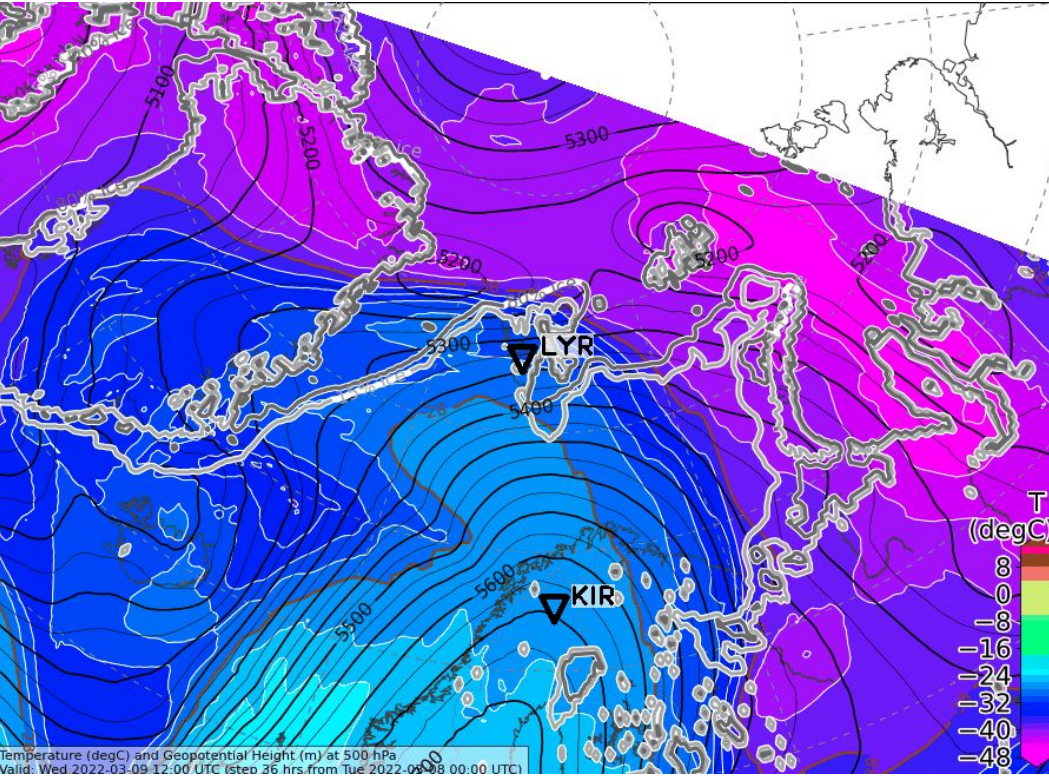
500 hPa Geopot. & T

Sea level pressure

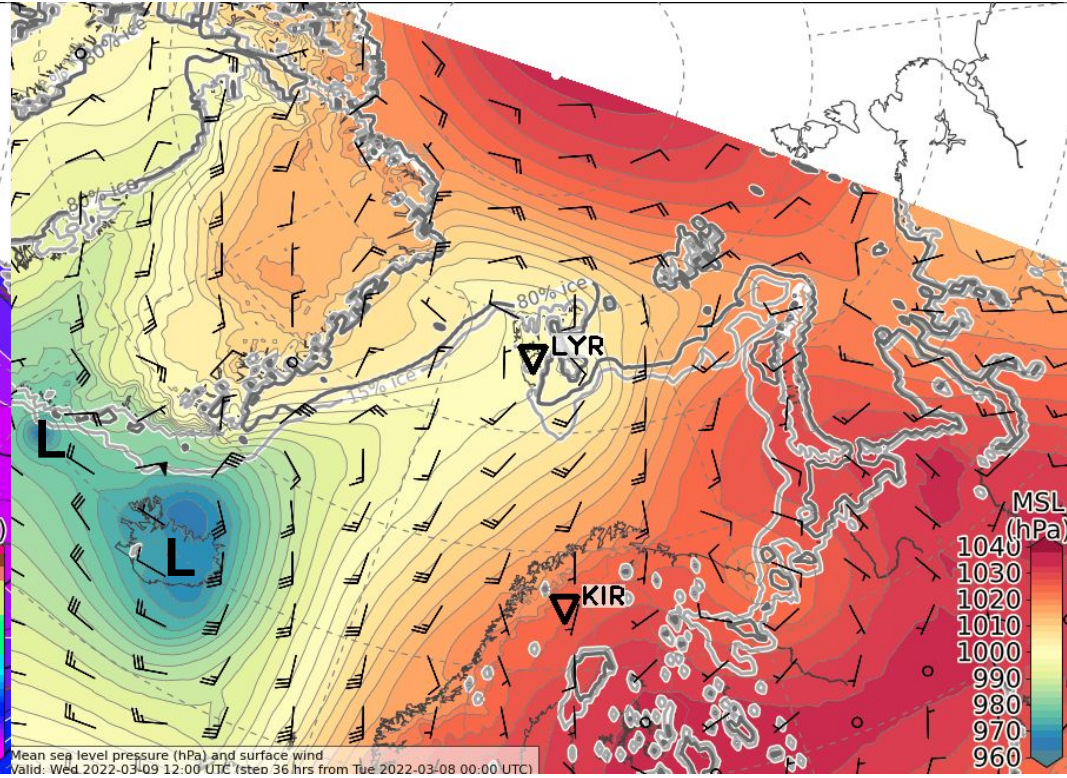


Wednesday, 2022-03-09 12 UTC (+36h)

500 hPa Geopot. & T



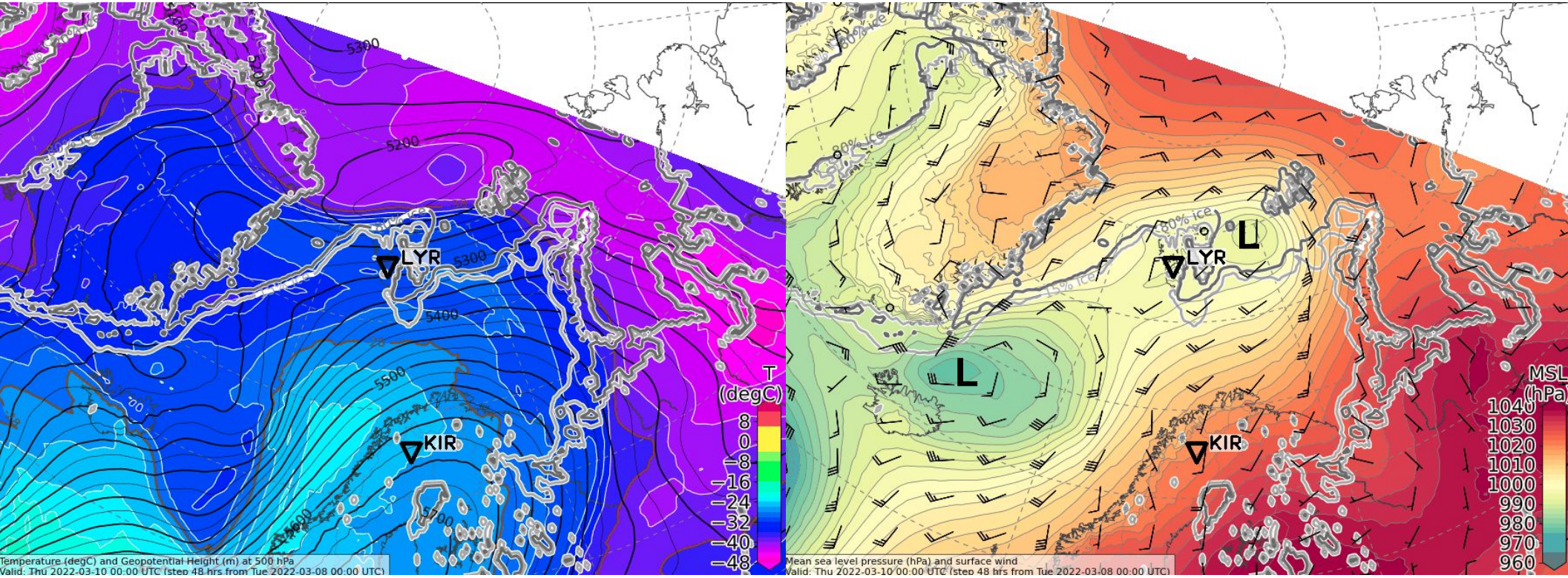
Sea level pressure



Thursday, 2022-03-10 00 UTC (+48h)

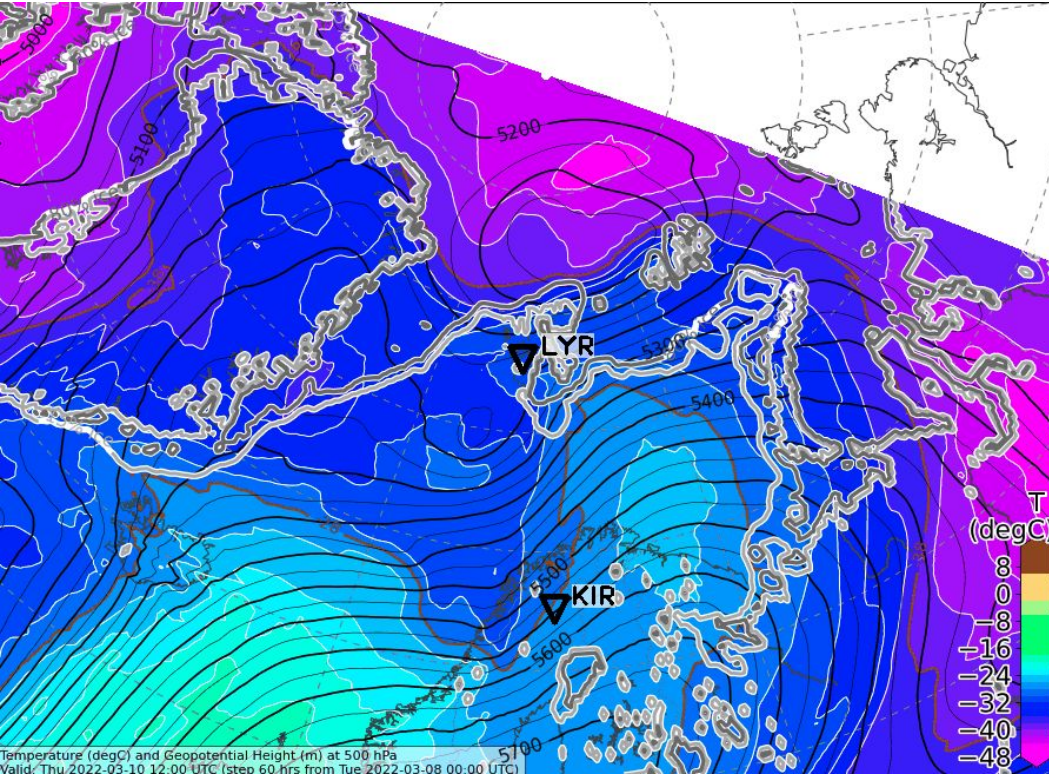
500 hPa Geopot. & T

Sea level pressure

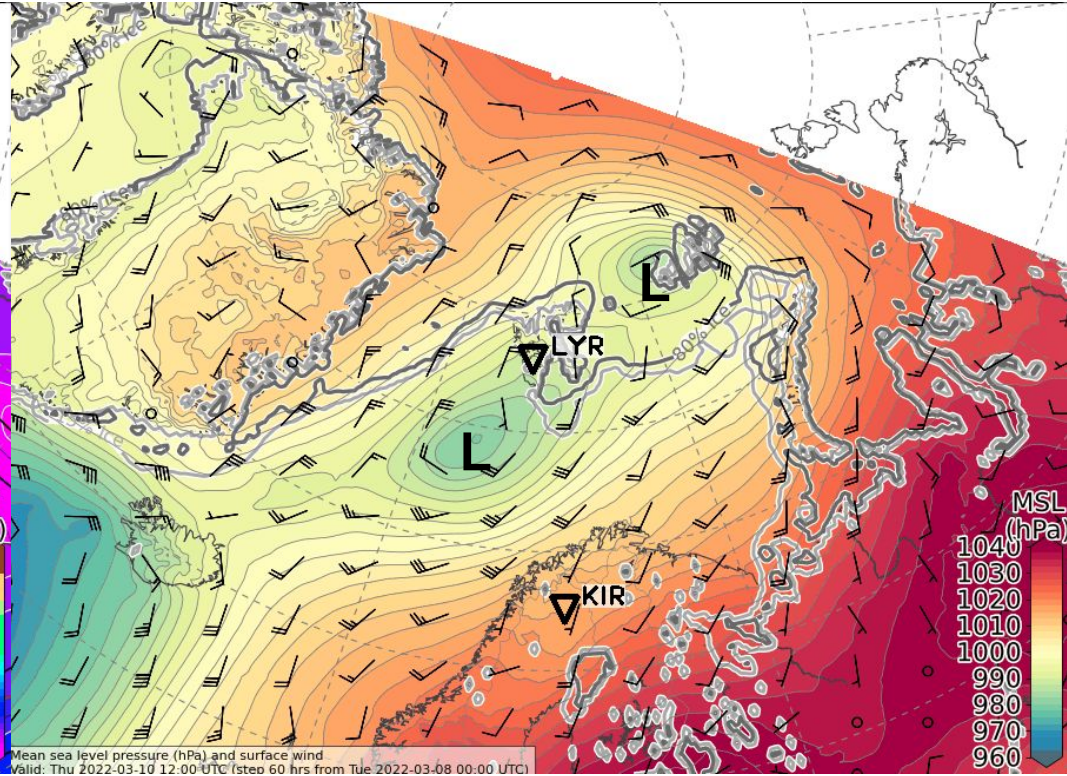


Thursday, 2022-03-10 12 UTC (+60h)

500 hPa Geopot. & T



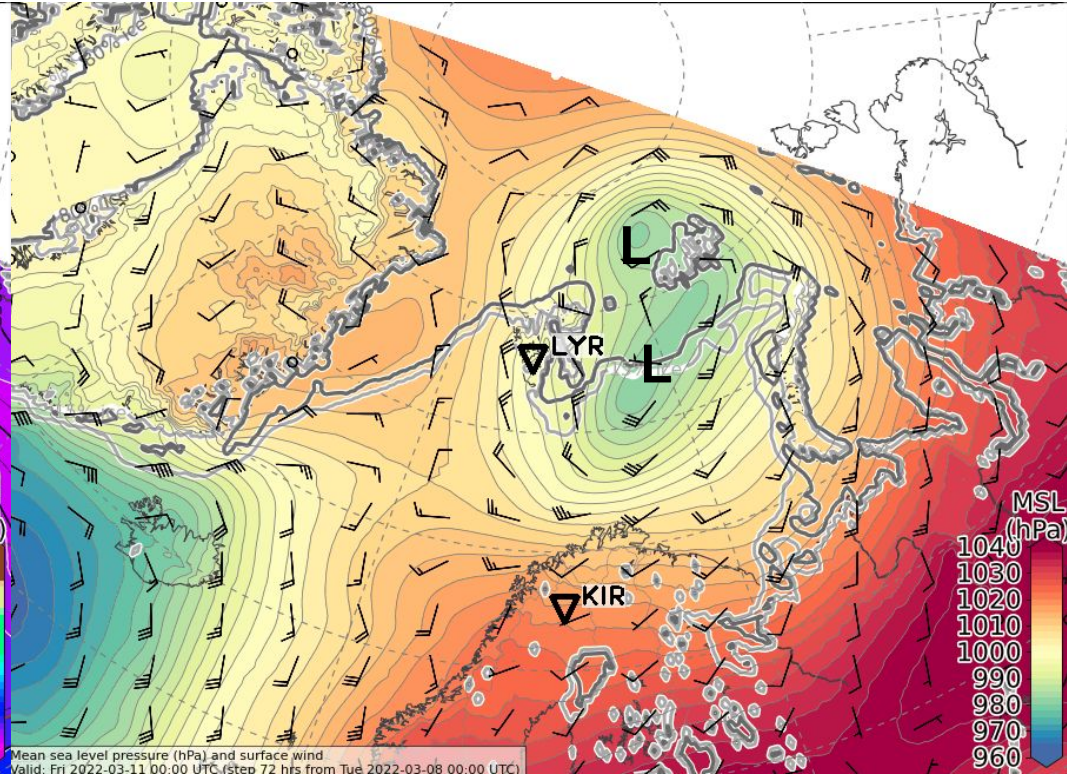
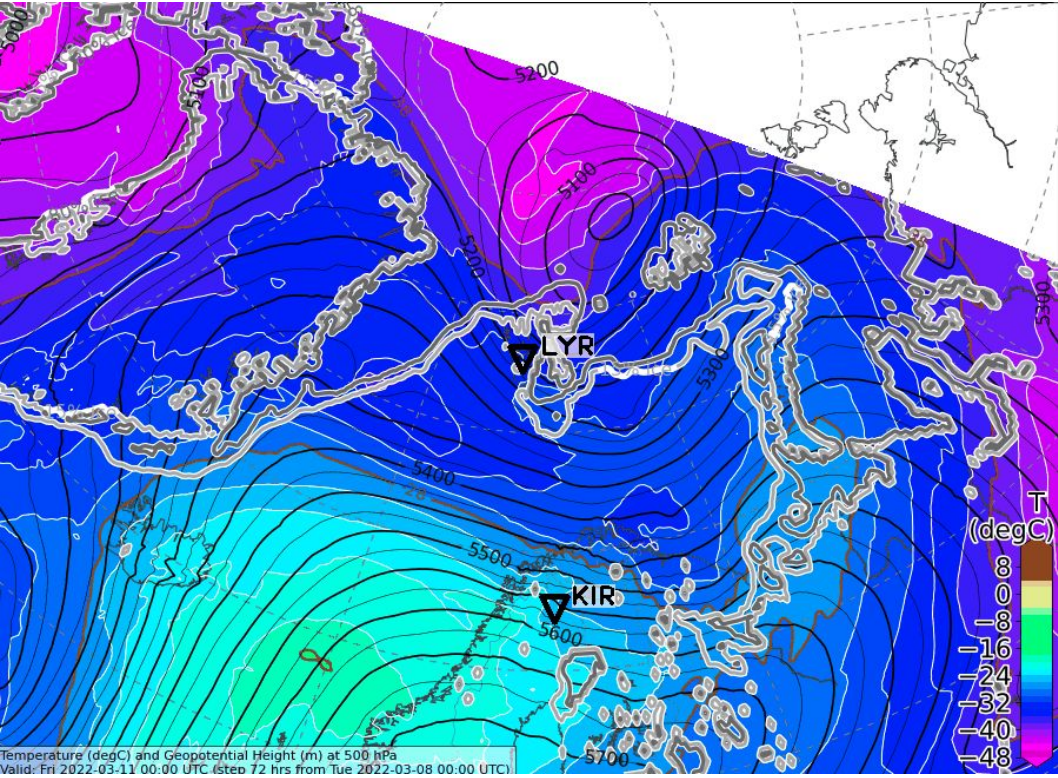
Sea level pressure



Friday, 2022-03-11 00 UTC (+72h)

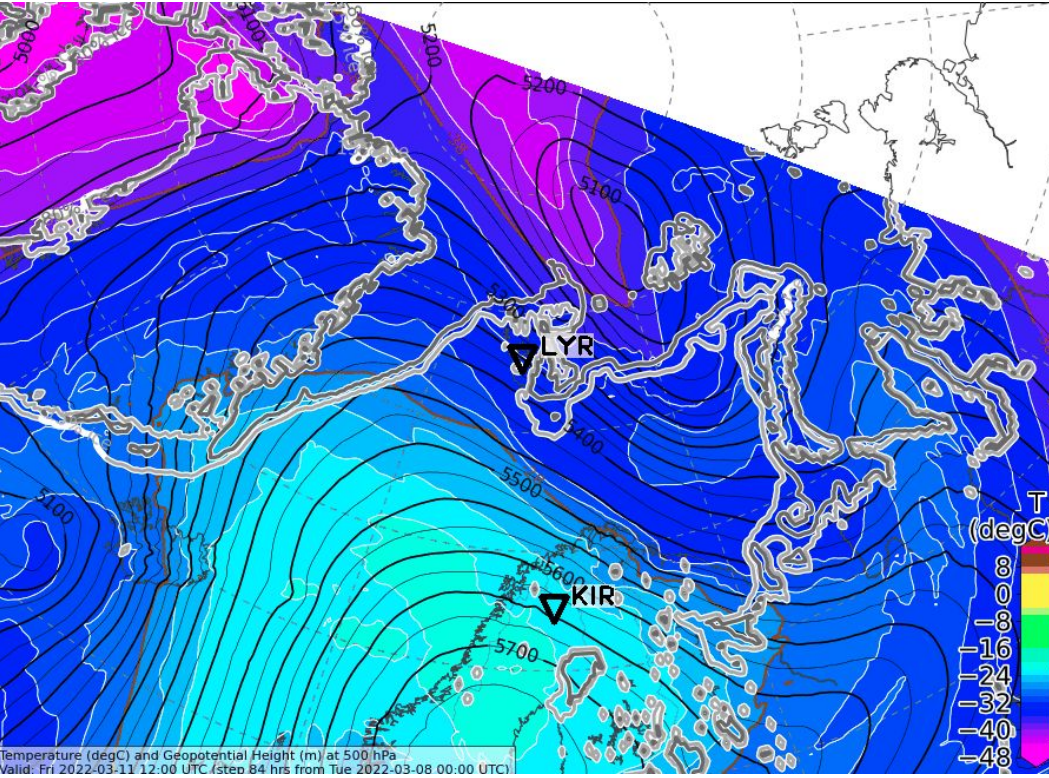
500 hPa Geopot. & T

Sea level pressure

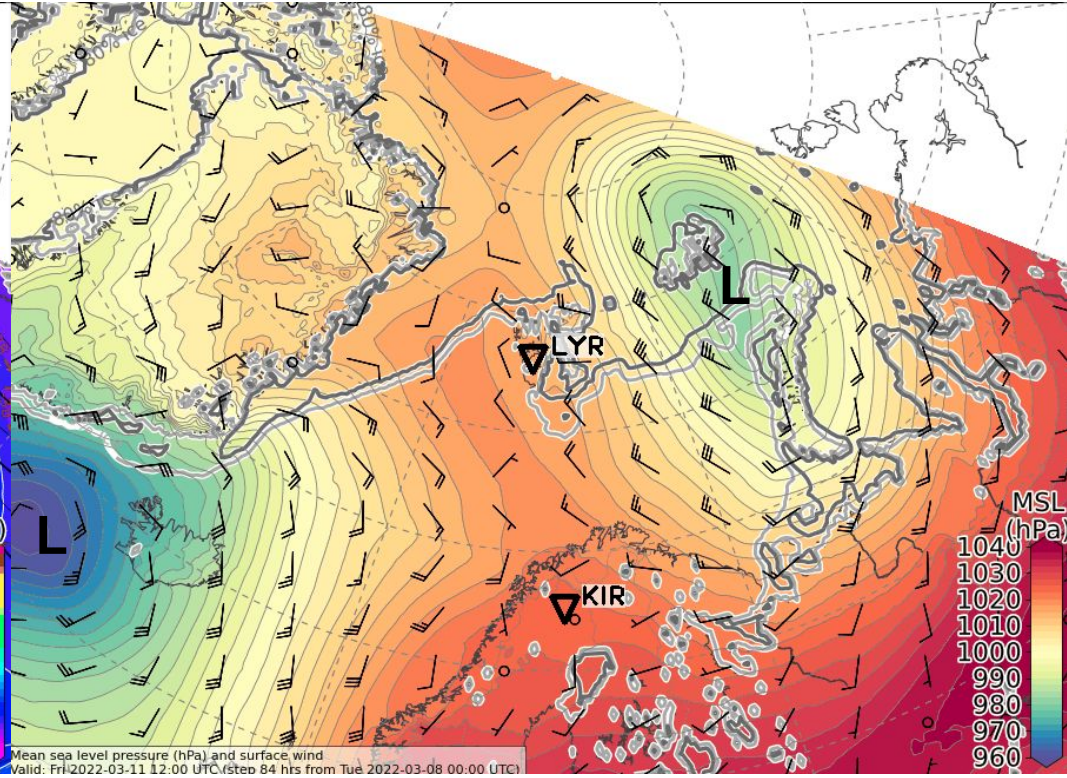


Friday, 2022-03-11 12 UTC (+84h)

500 hPa Geopot. & T



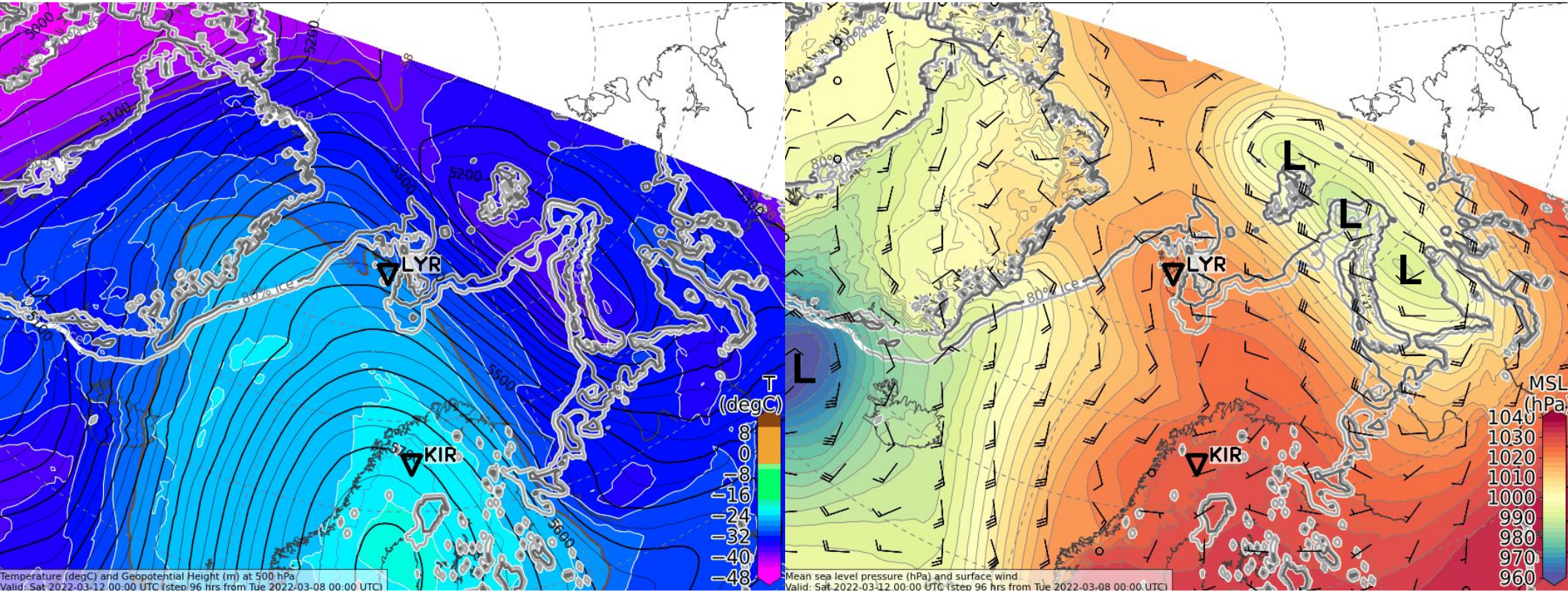
Sea level pressure



Saturday, 2022-03-12 00 UTC (+96h)

500 hPa Geopot. & T

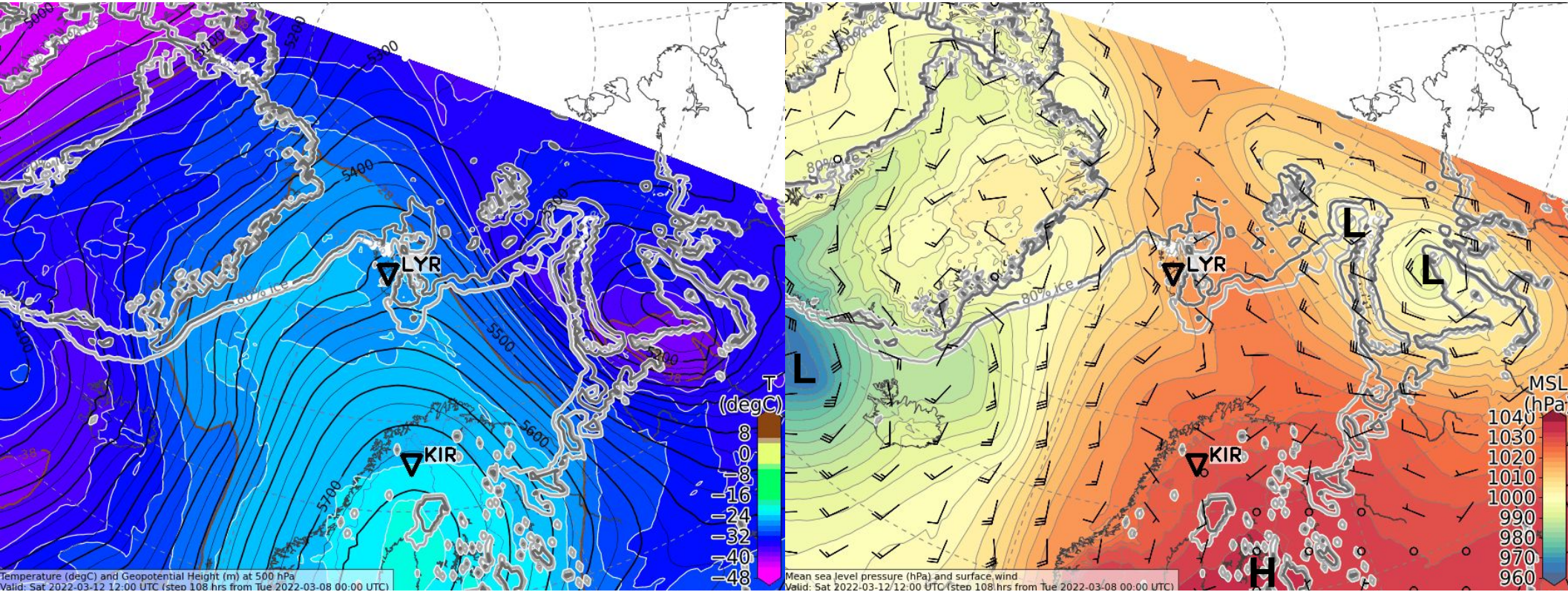
Sea level pressure



Saturday, 2022-03-12 12 UTC (+108h)

500 hPa Geopot. & T

Sea level pressure

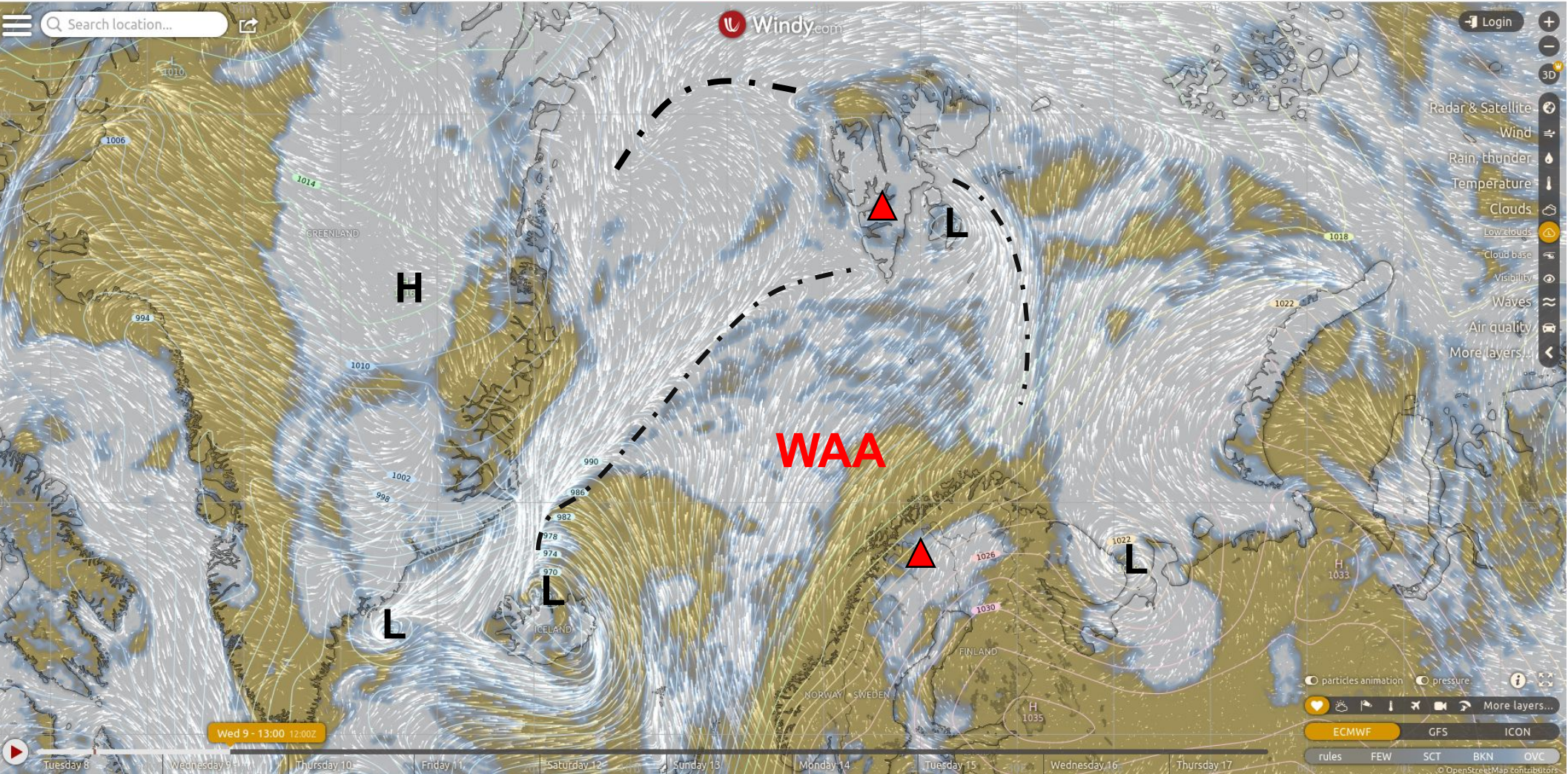


Surface wind development
2022-03-08 00 UTC: 36 – 108h
ECMWF

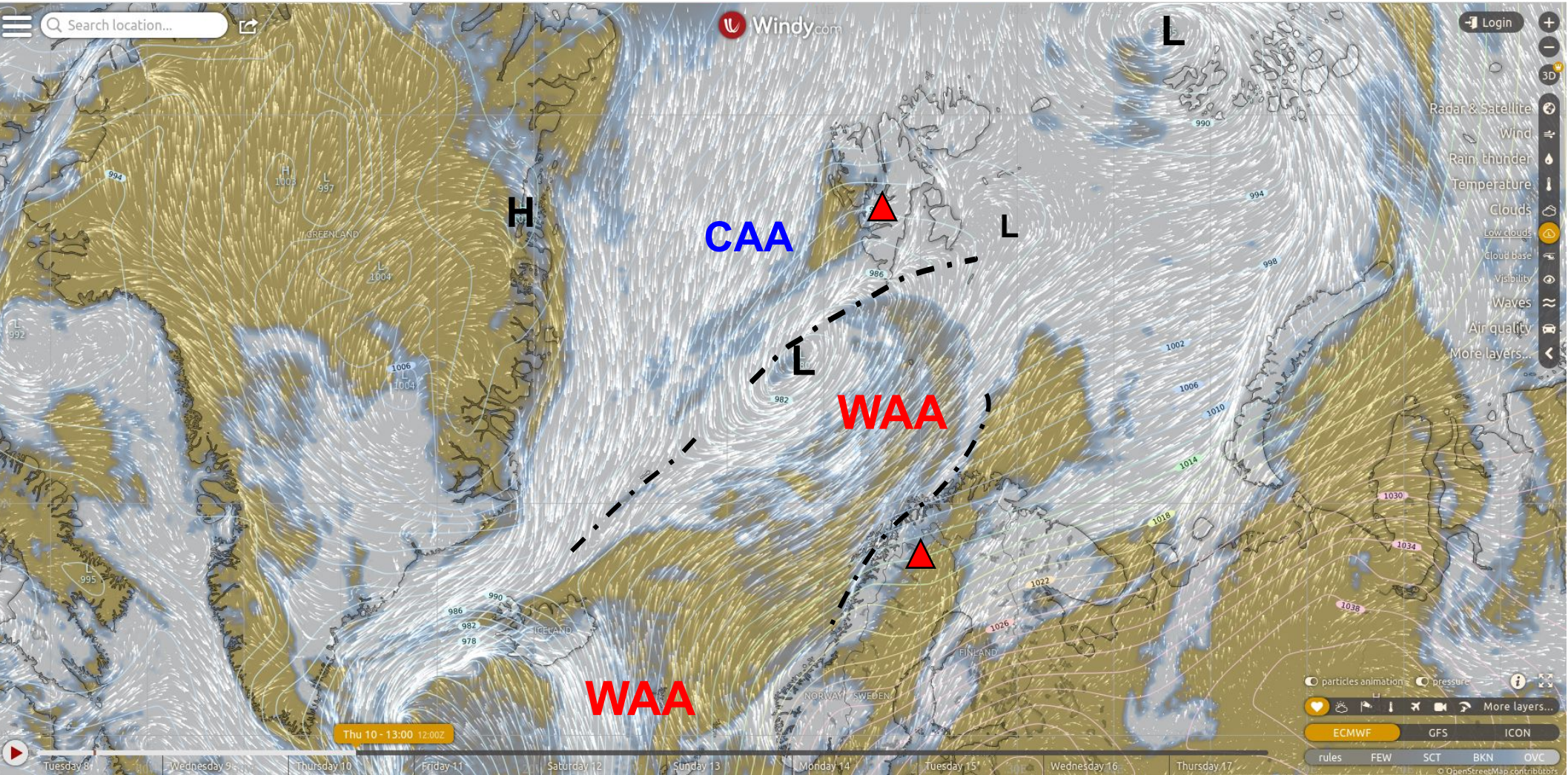
CAA: Cold Air Advection

WAA: Warm Air Advection

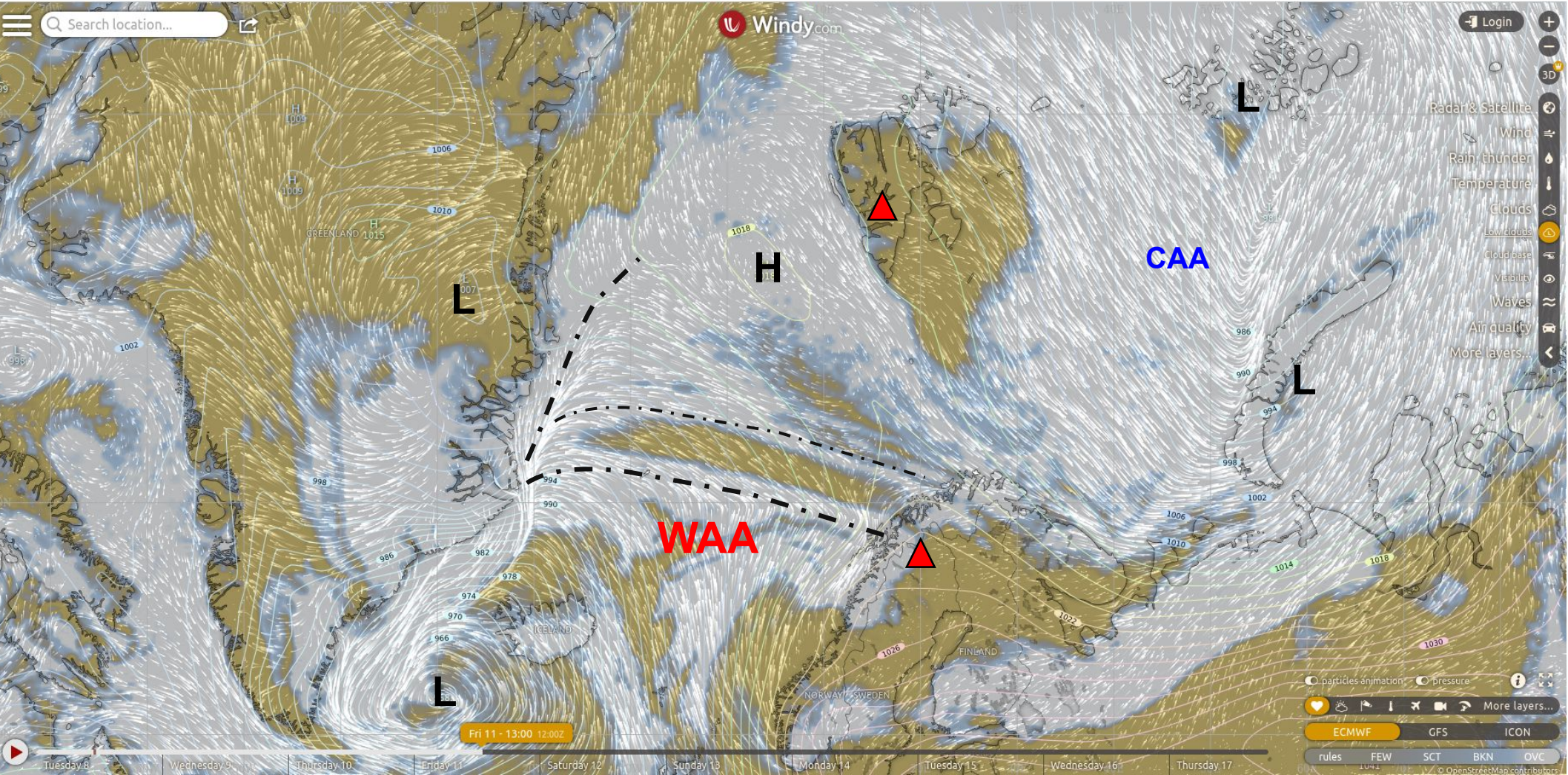
Wednesday, 2022-03-09 12 UTC (+36h)



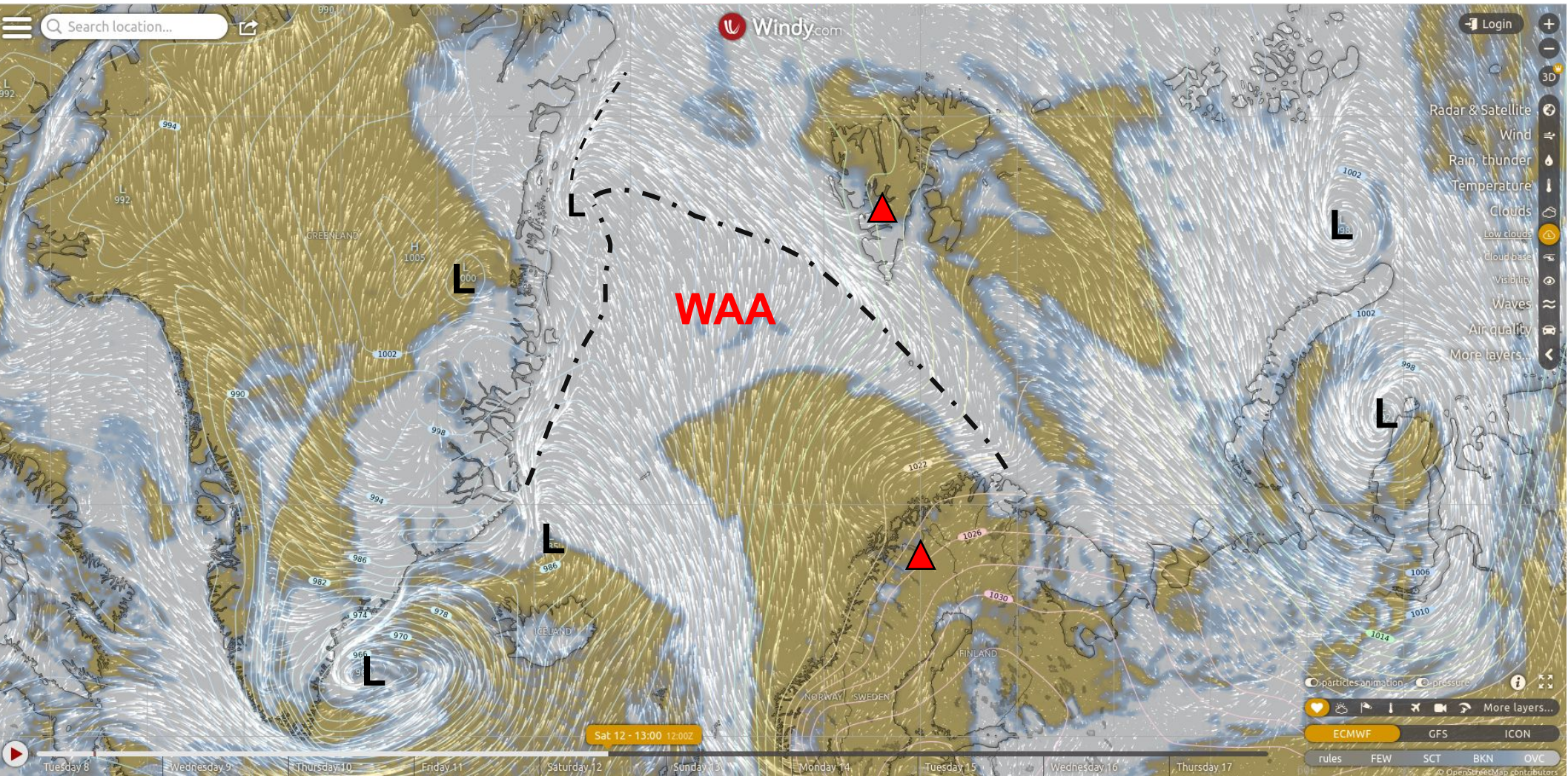
Thursday, 2022-03-10 12 UTC (+60h)



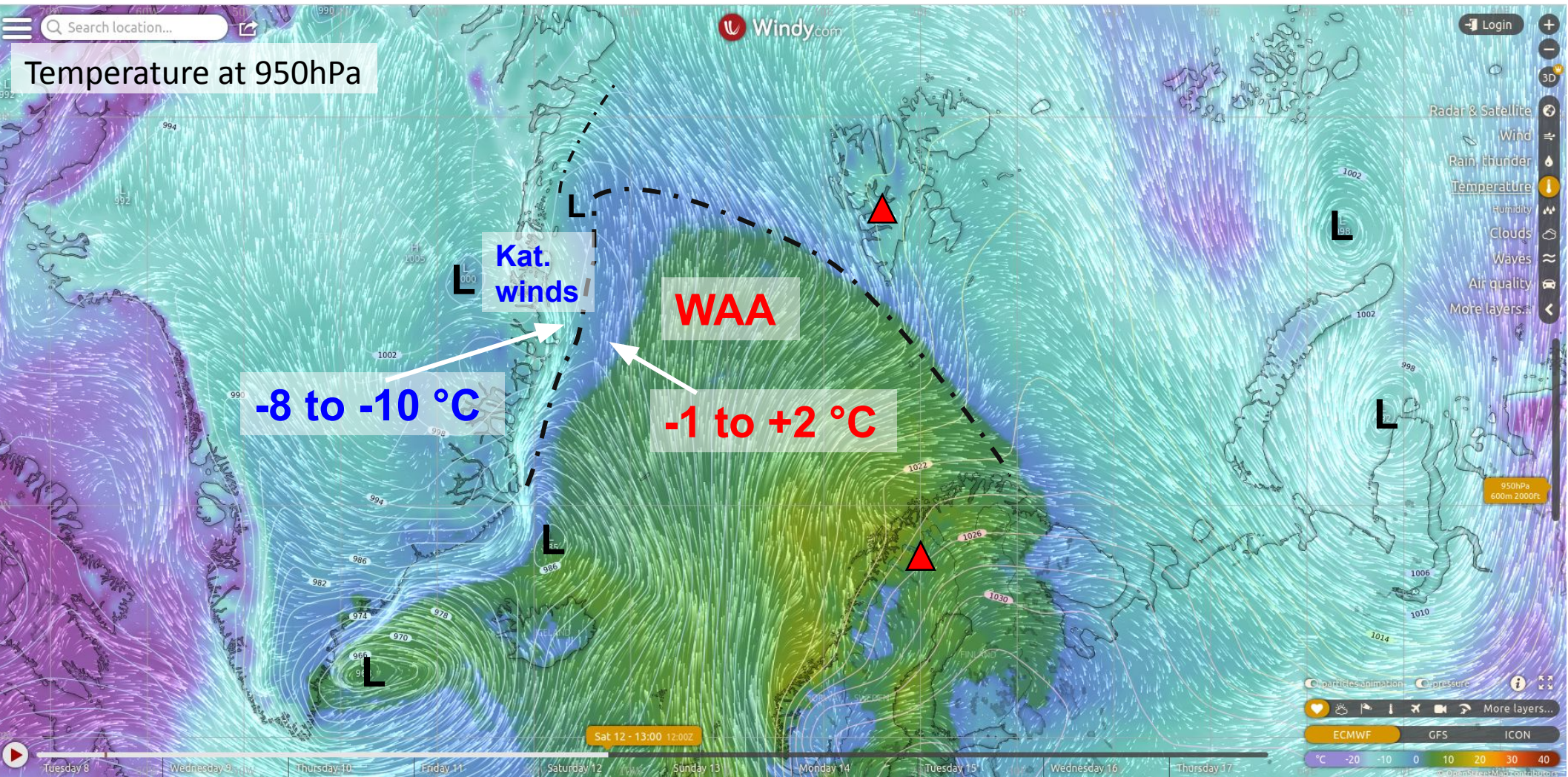
Friday, 2022-03-11 12 UTC (+84h)



Saturday, 2022-03-12 12 UTC (+108h)



Saturday, 2022-03-12 12 UTC (+108h)



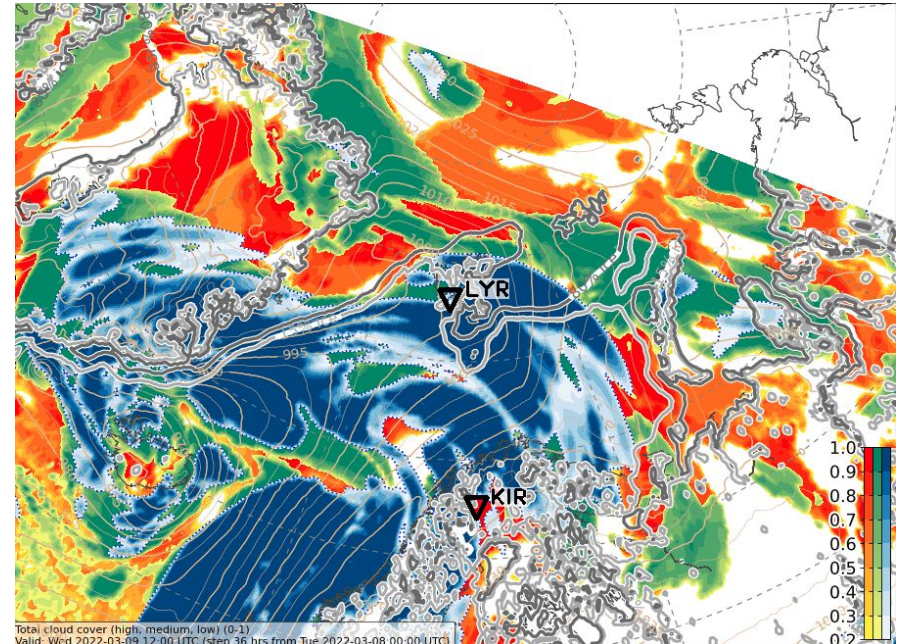
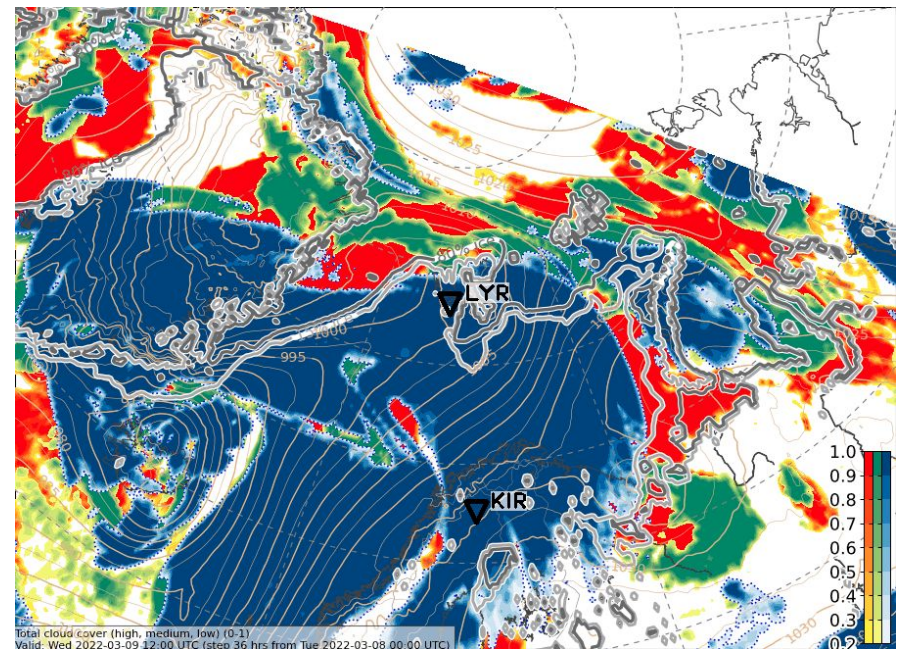
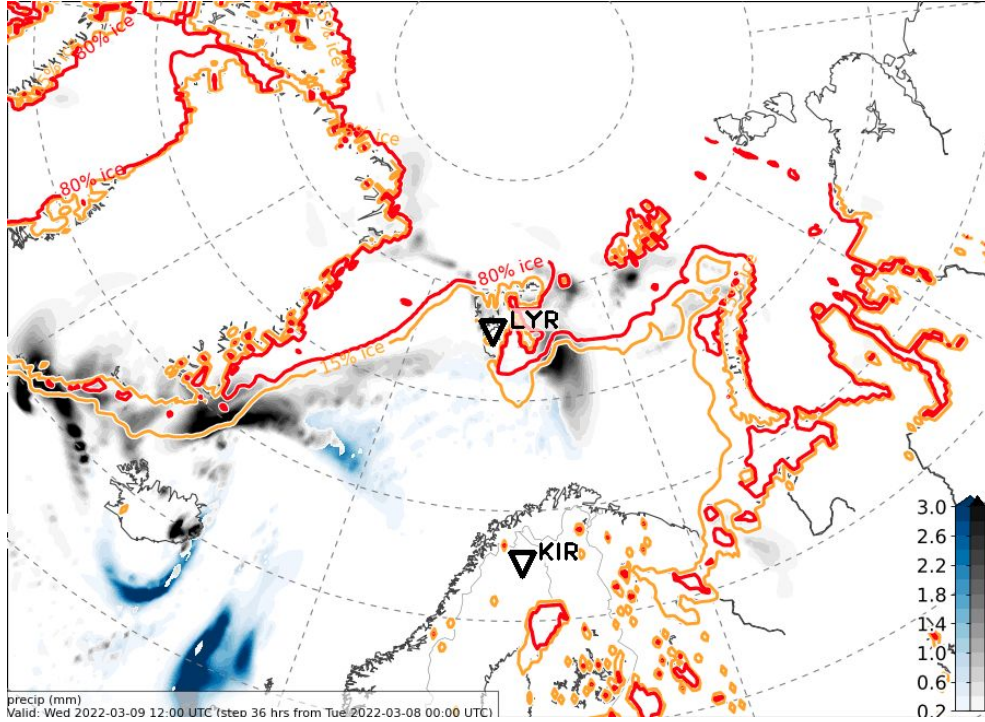
Cloud cover & precip development

2022-03-08 00 UTC: 36 – 84h

ECMWF + ICON

Wed, 2022-03-09 12 UTC (+36h) ECMWF

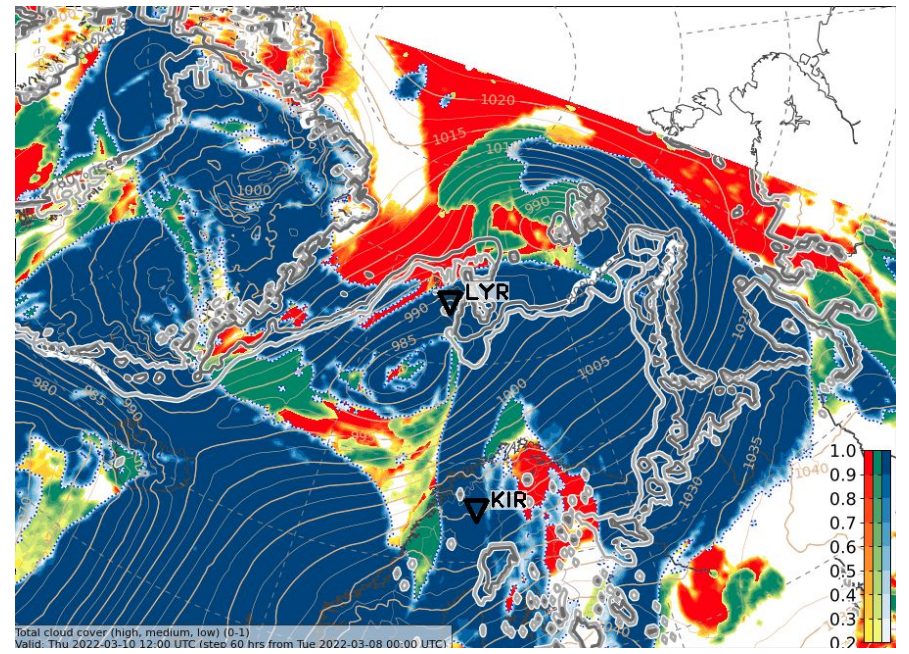
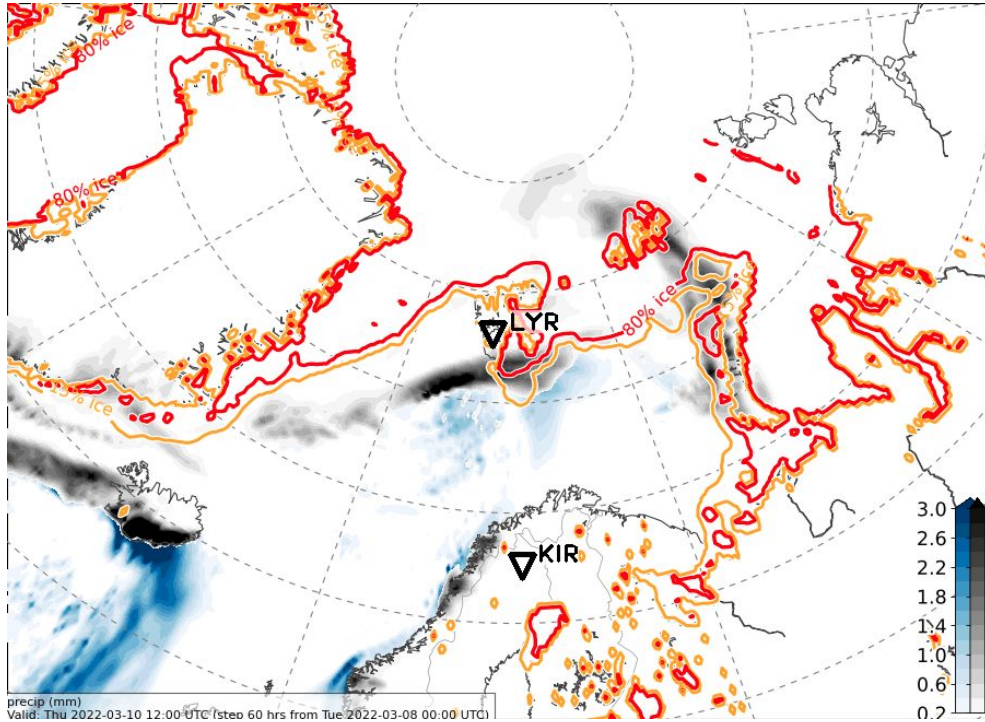
2h prec.



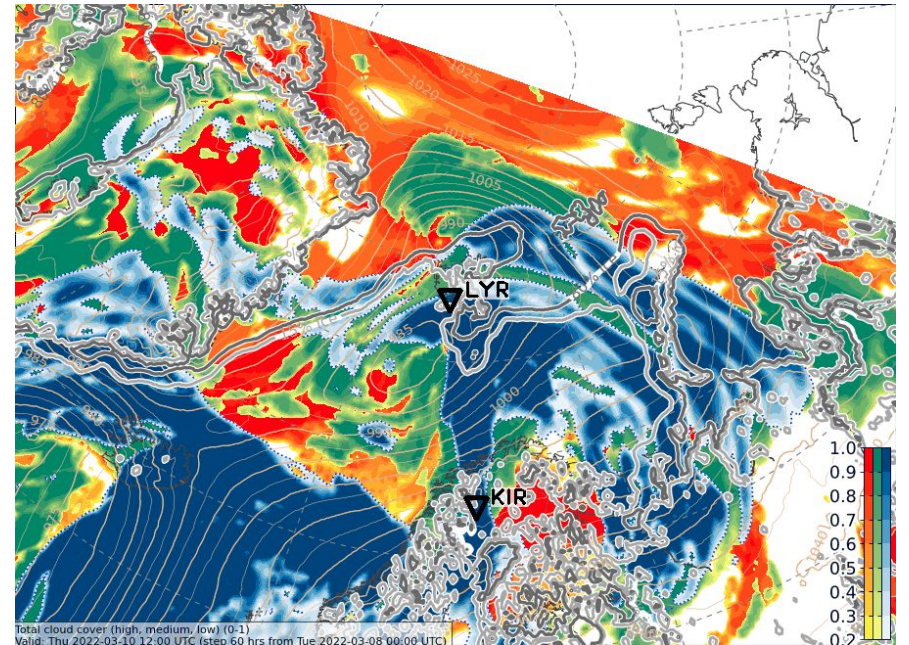
ICON

Thu, 2022-03-10 12 UTC (+60h) ECMWF

2h prec.

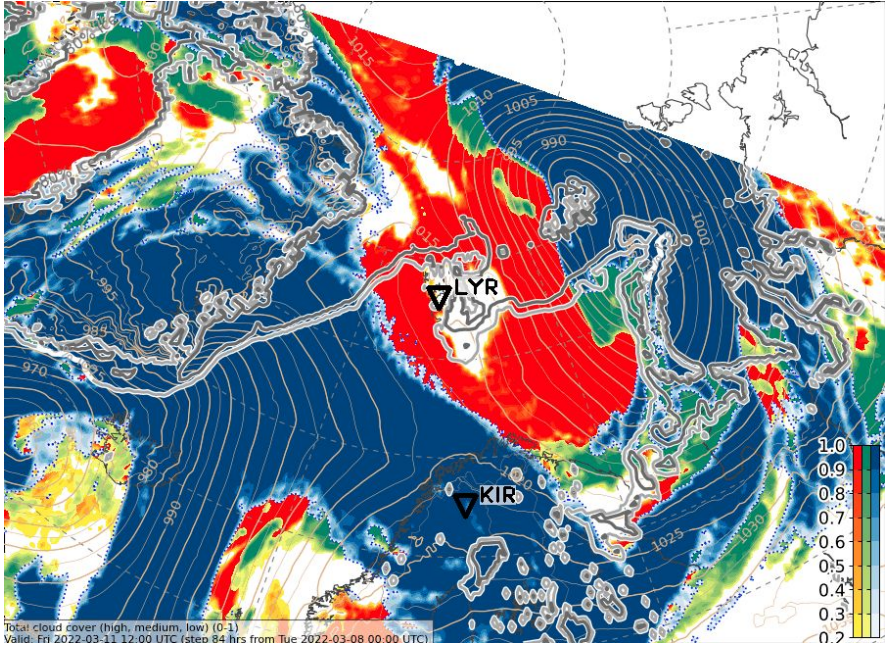
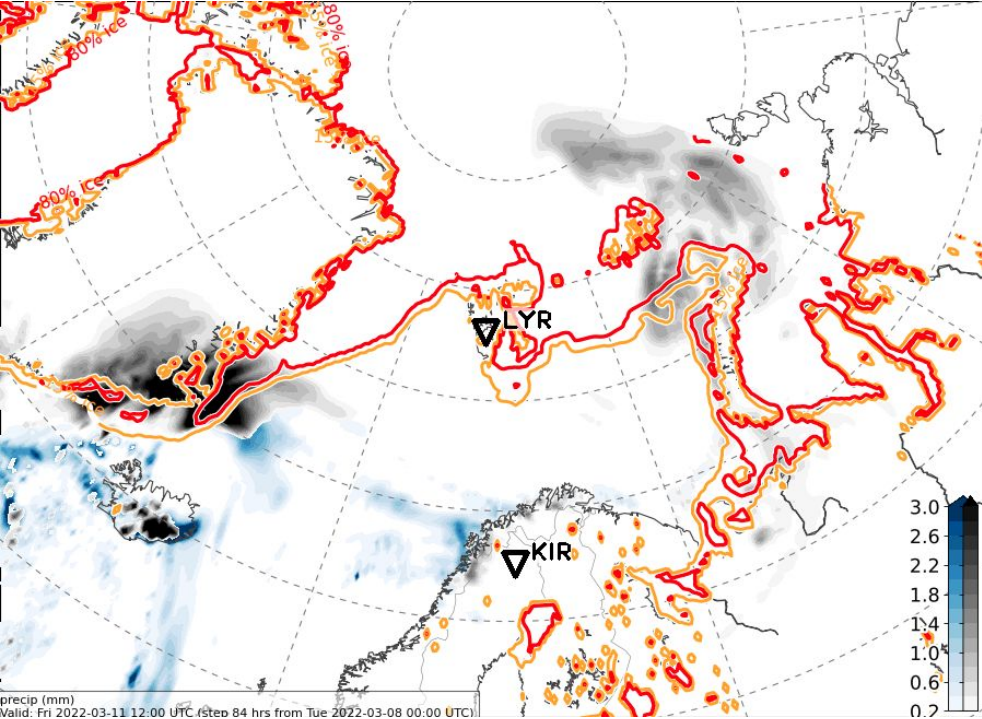


ICON



Fri, 2022-03-11 12 UTC (+84h) ECMWF

2h prec.

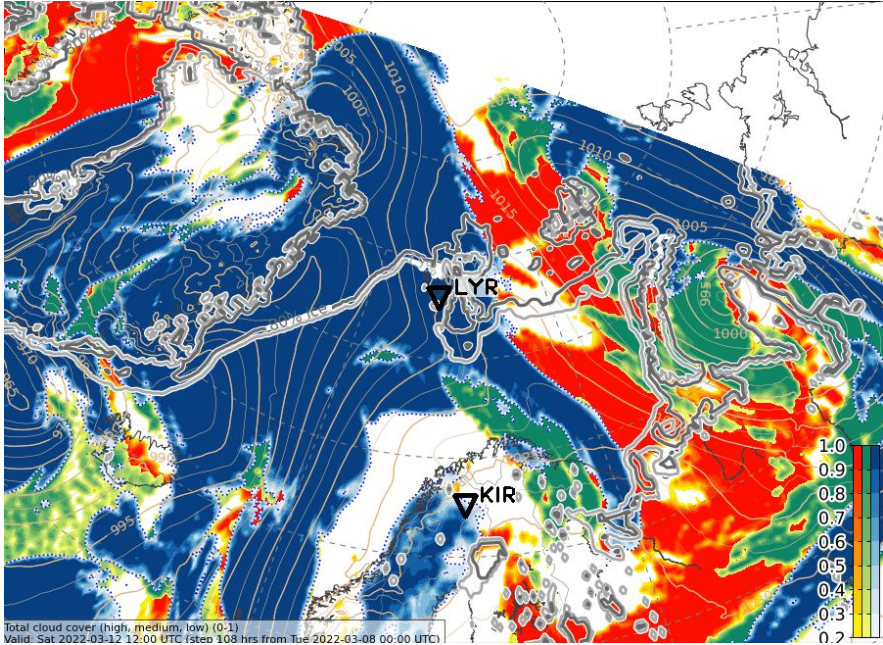
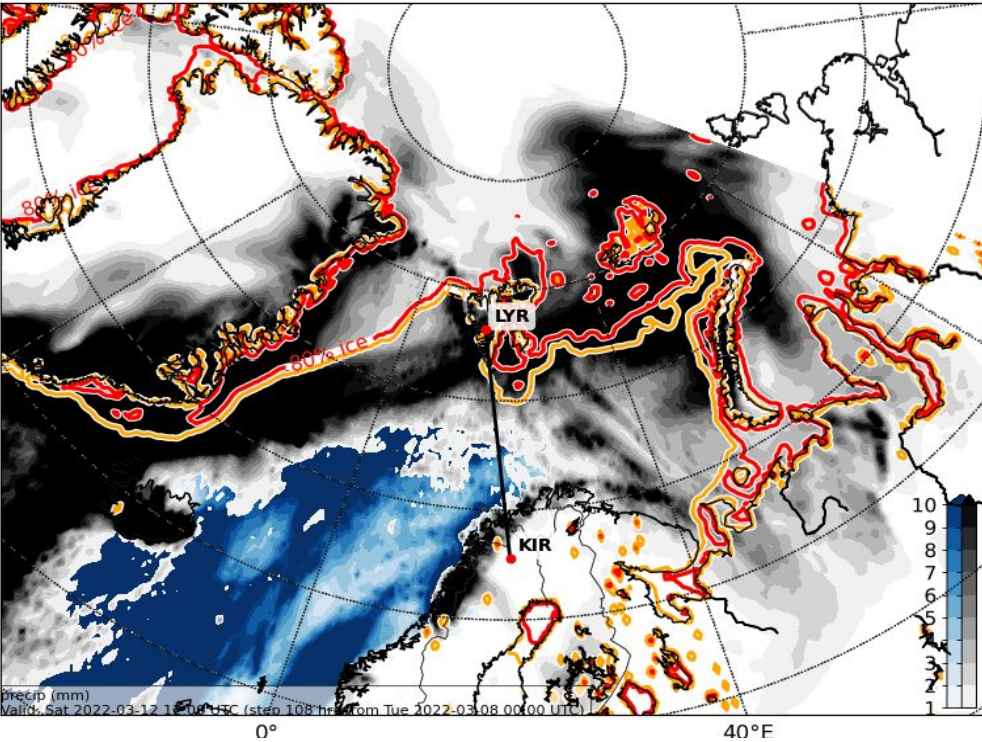


not available

ICON

Sat, 2022-03-12 12 UTC (+108h) ECMWF

ACC. prec.



not available

ICON

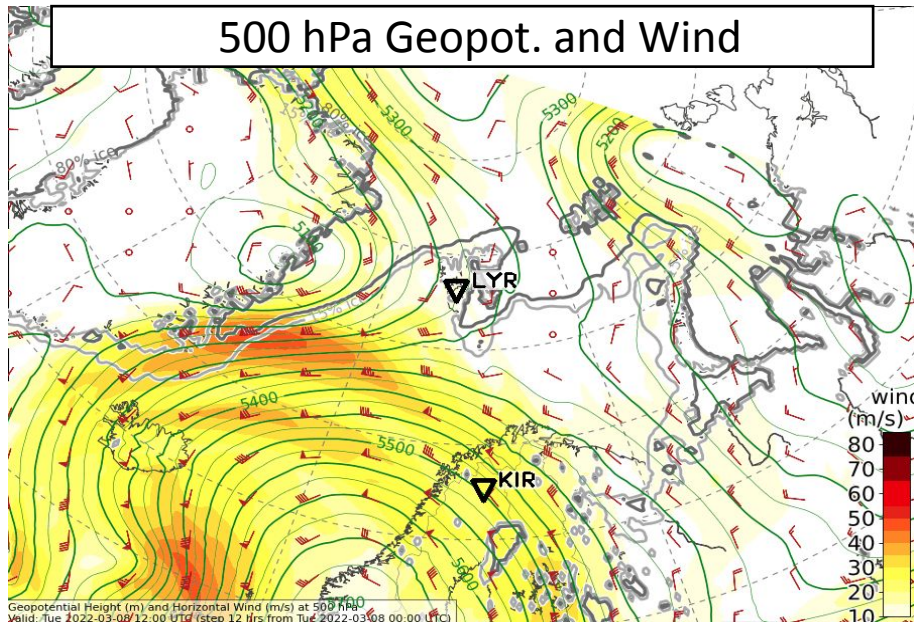
Extra variables

2022-03-08 00 UTC: 36 – 108h

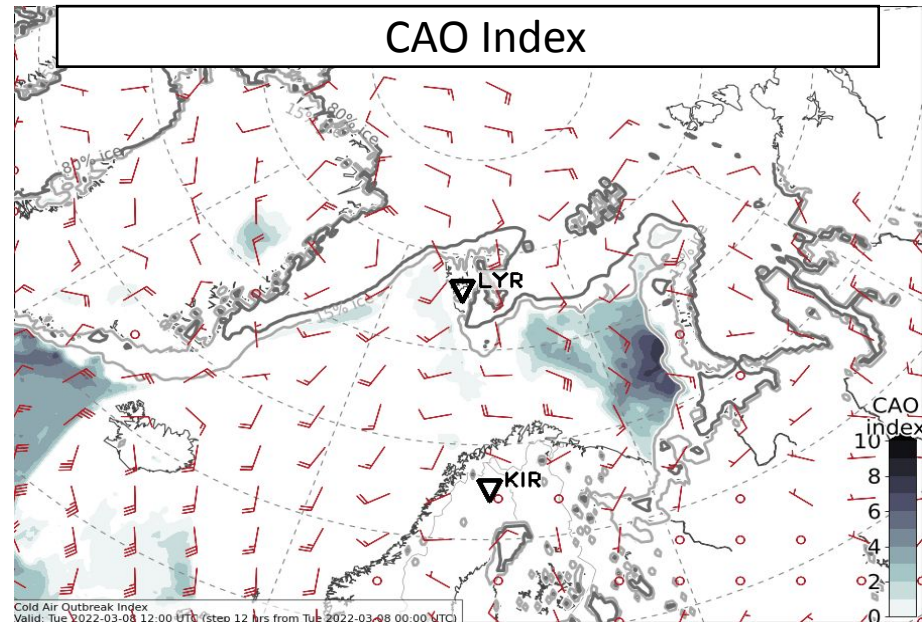
500 hPa wind & 850hPa θ_e & CAO & IVT

Tue, 2022-03-08 12 UTC (+12h)

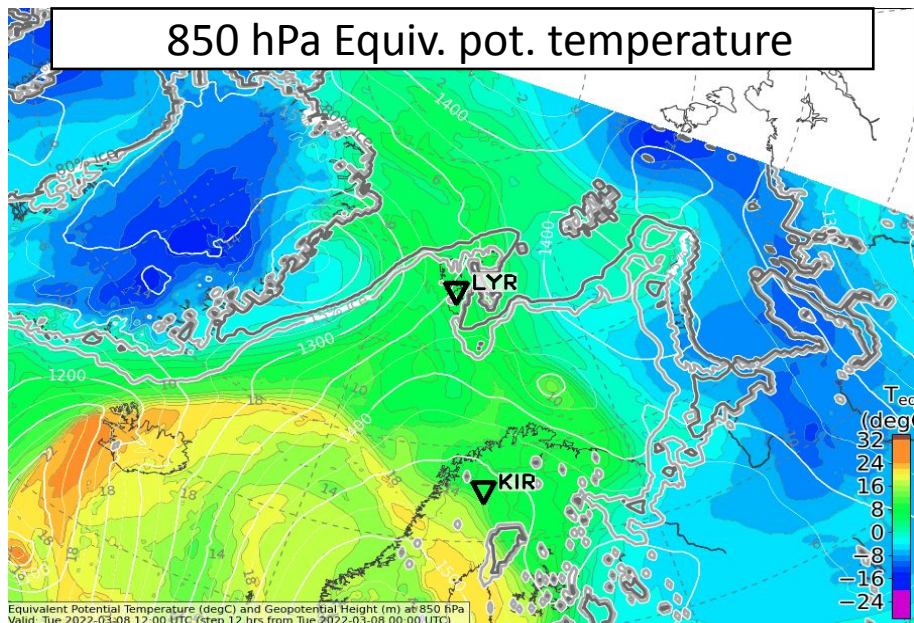
500 hPa Geopot. and Wind



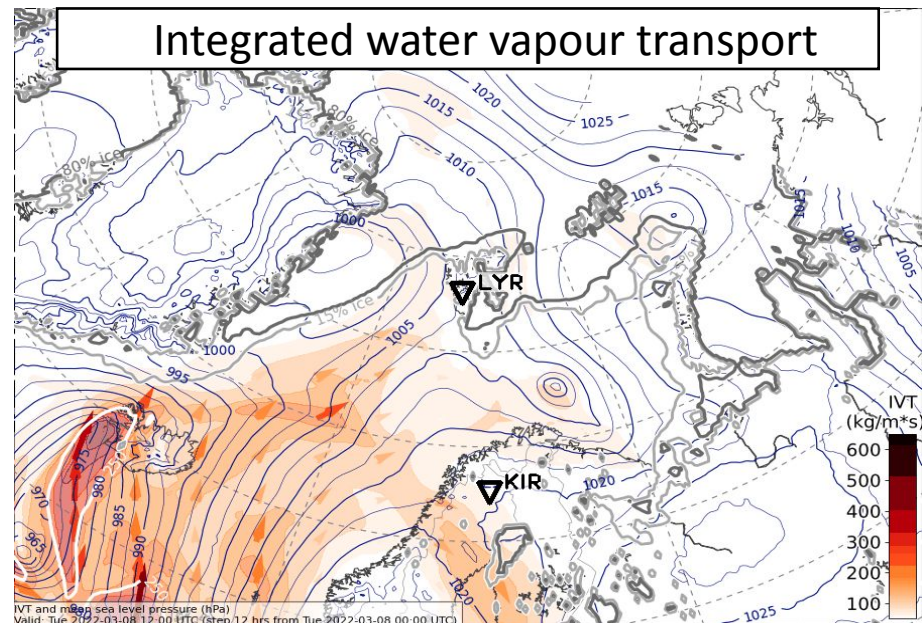
CAO Index



850 hPa Equiv. pot. temperature

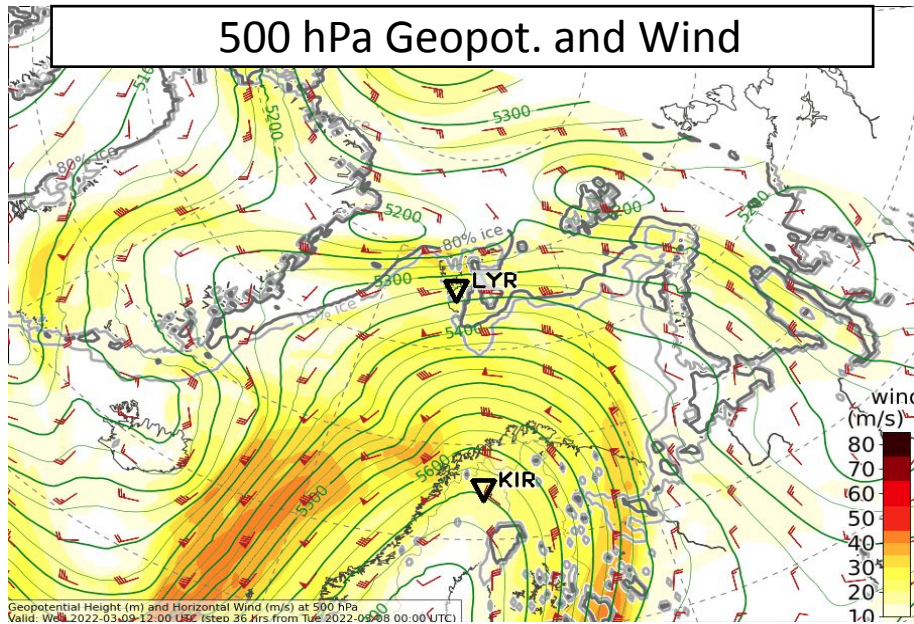


Integrated water vapour transport

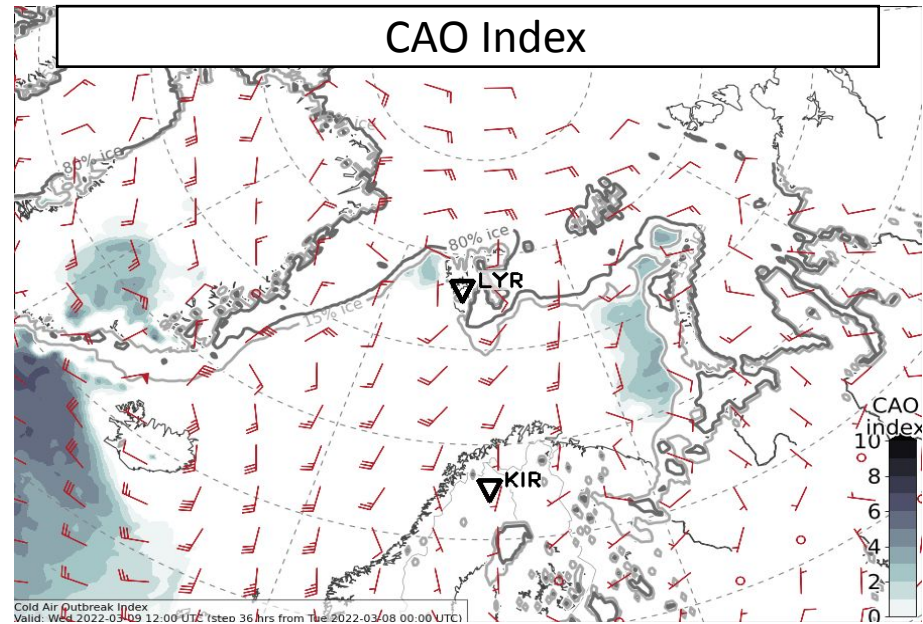


Wed, 2022-03-09 12 UTC (+36h)

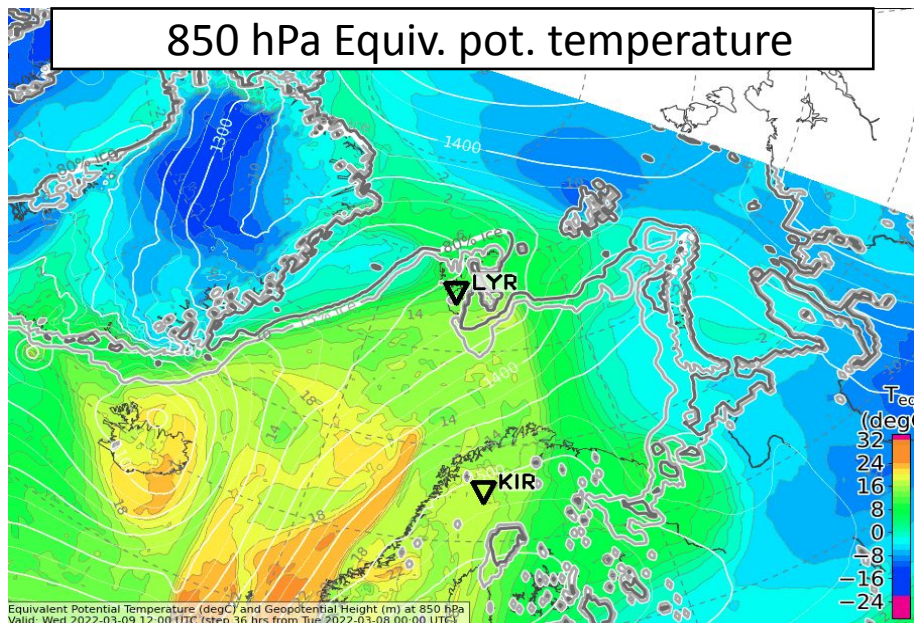
500 hPa Geopot. and Wind



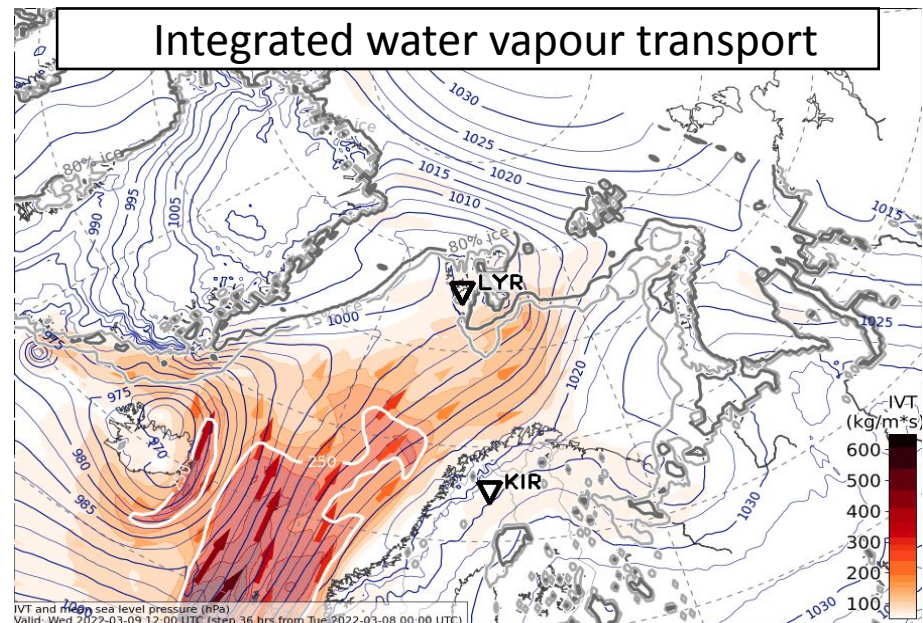
CAO Index



850 hPa Equiv. pot. temperature

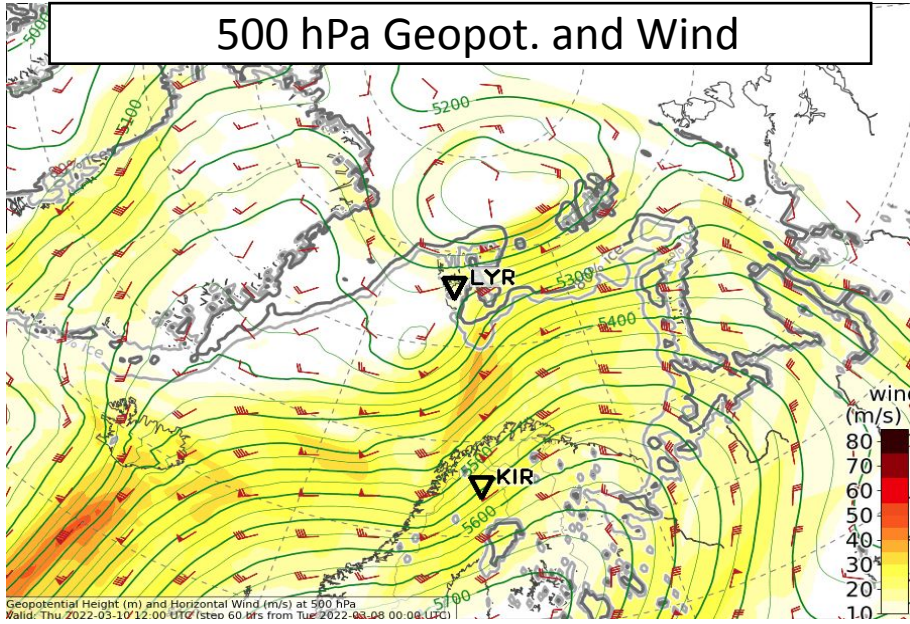


Integrated water vapour transport

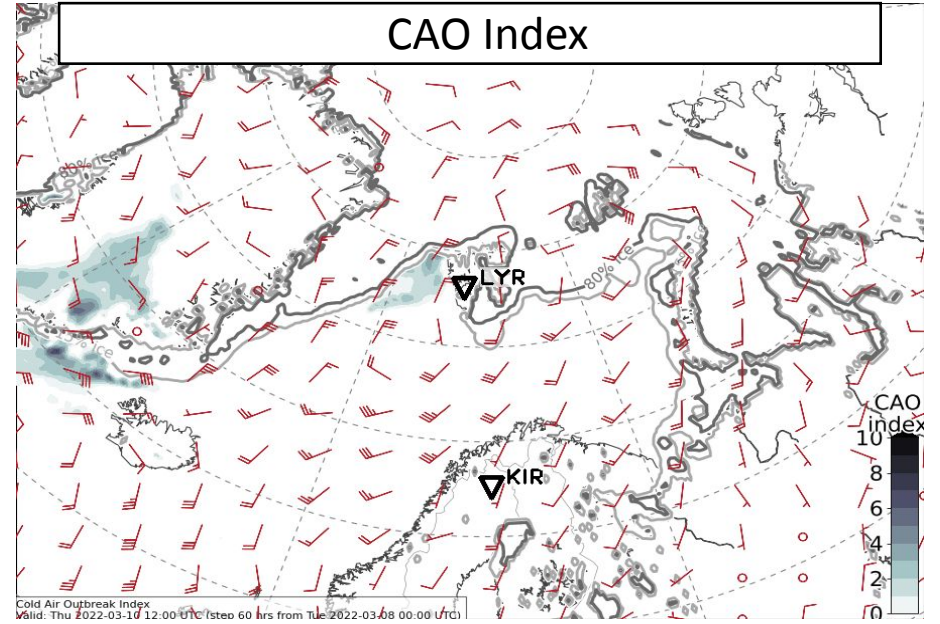


Thu, 2022-03-10 12 UTC (+60h)

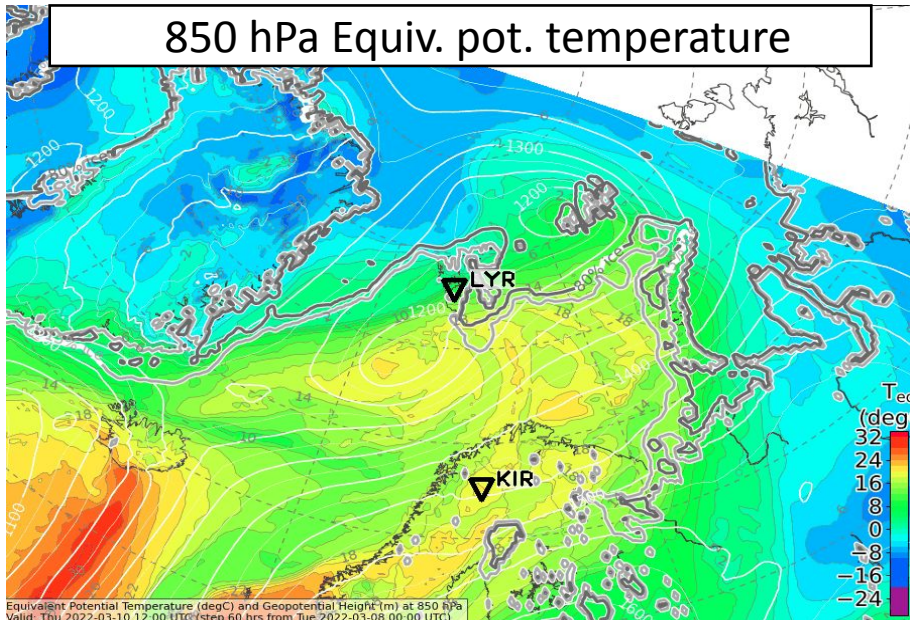
500 hPa Geopot. and Wind



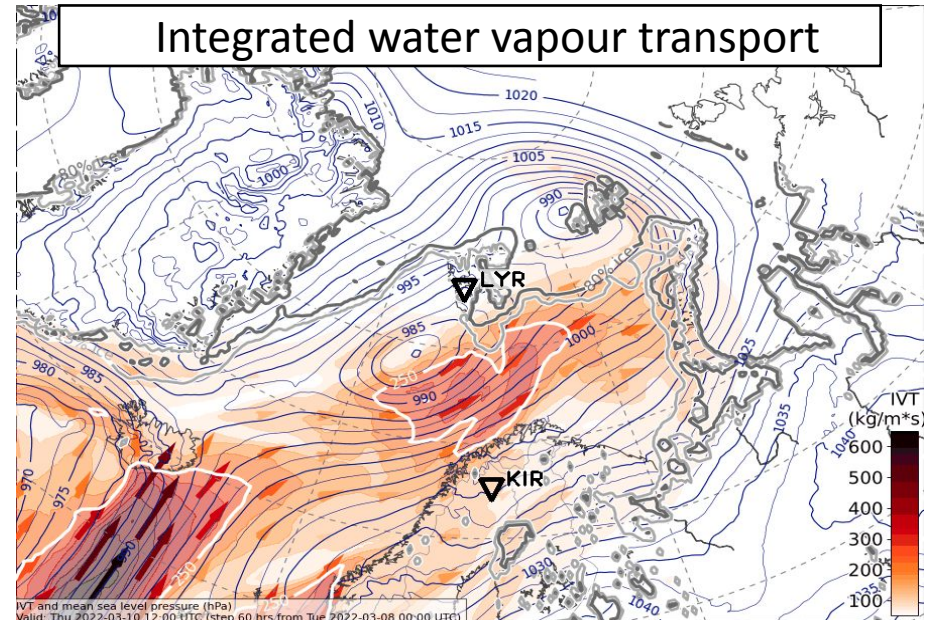
CAO Index



850 hPa Equiv. pot. temperature

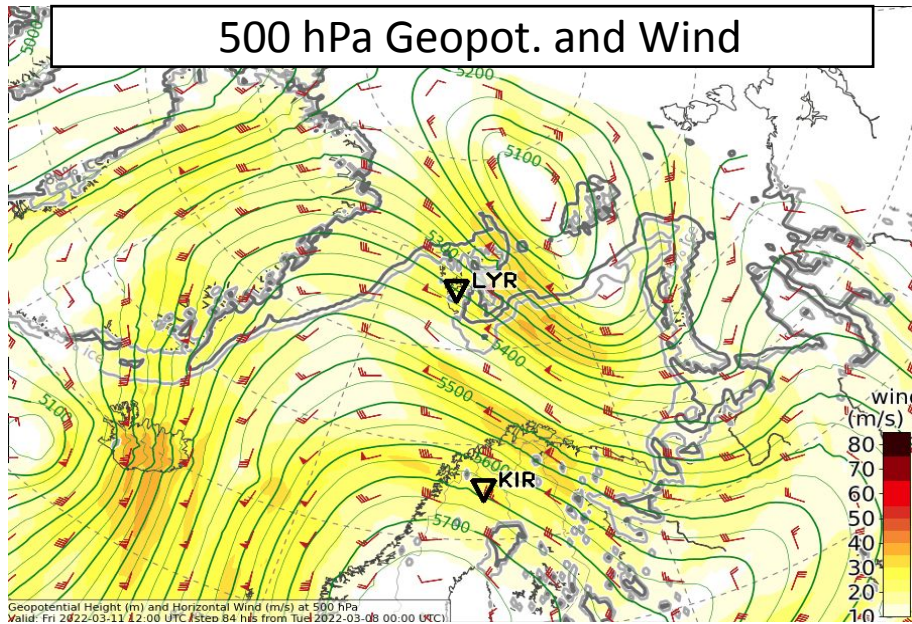


Integrated water vapour transport

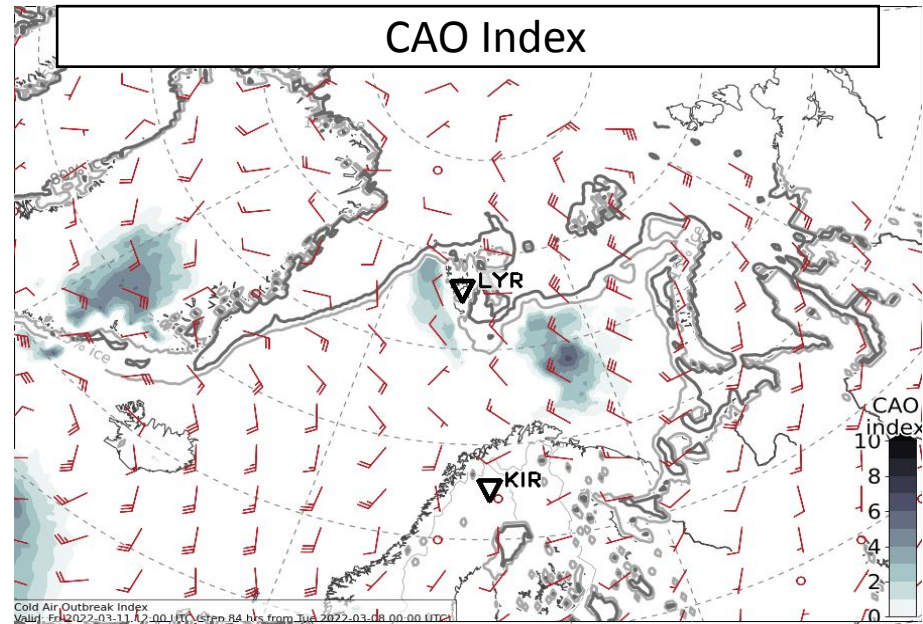


Fri, 2022-03-11 12 UTC (+84h)

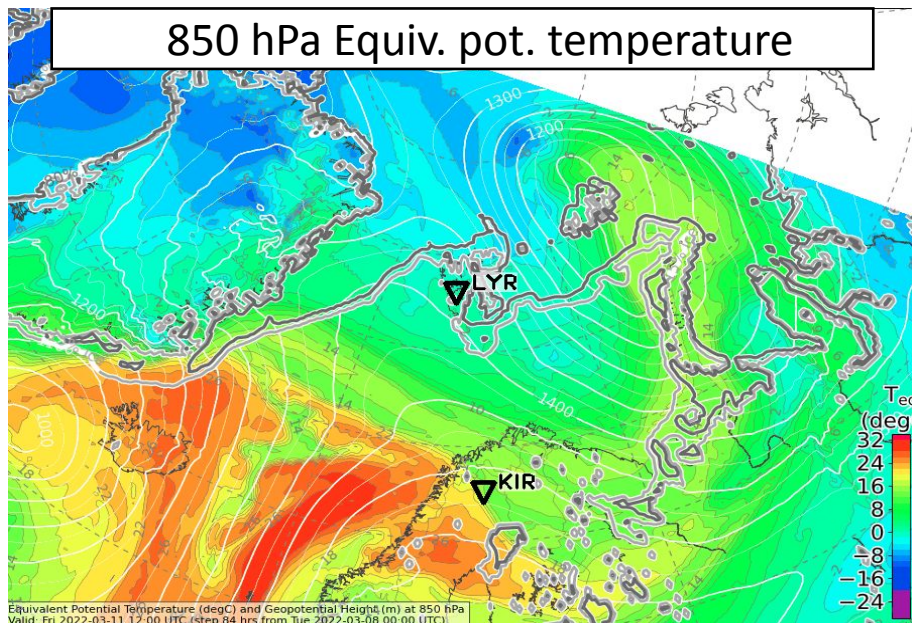
500 hPa Geopot. and Wind



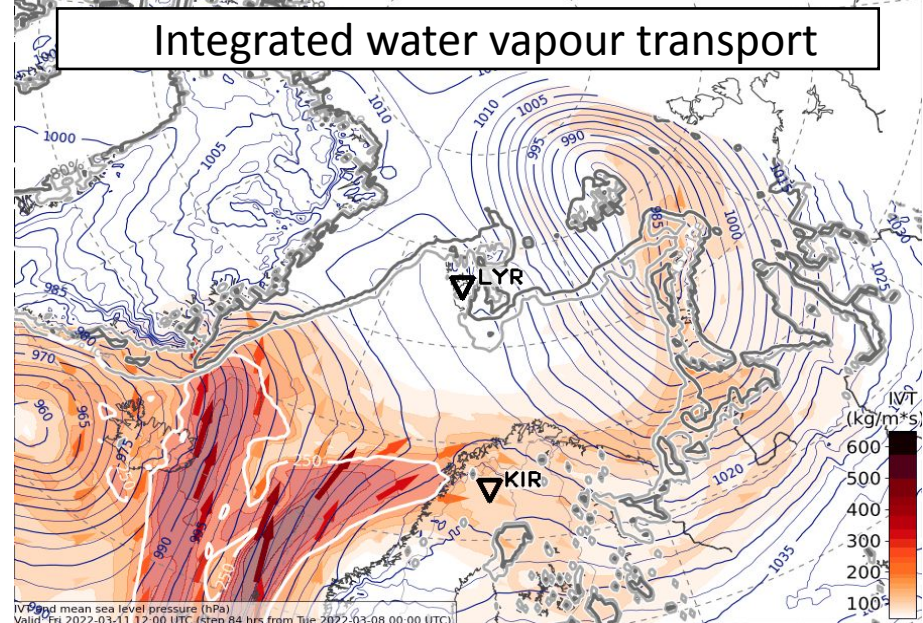
CAO Index



850 hPa Equiv. pot. temperature

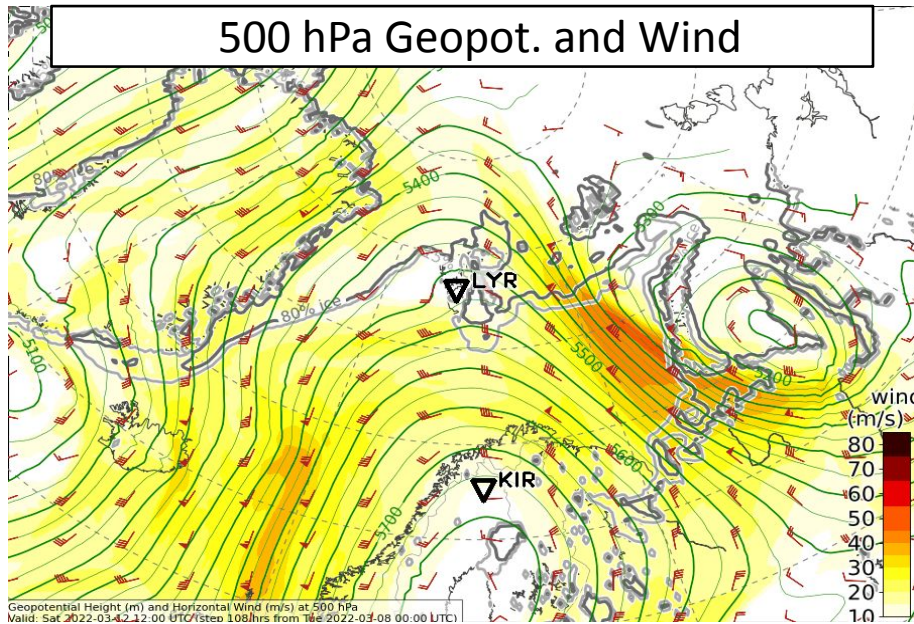


Integrated water vapour transport

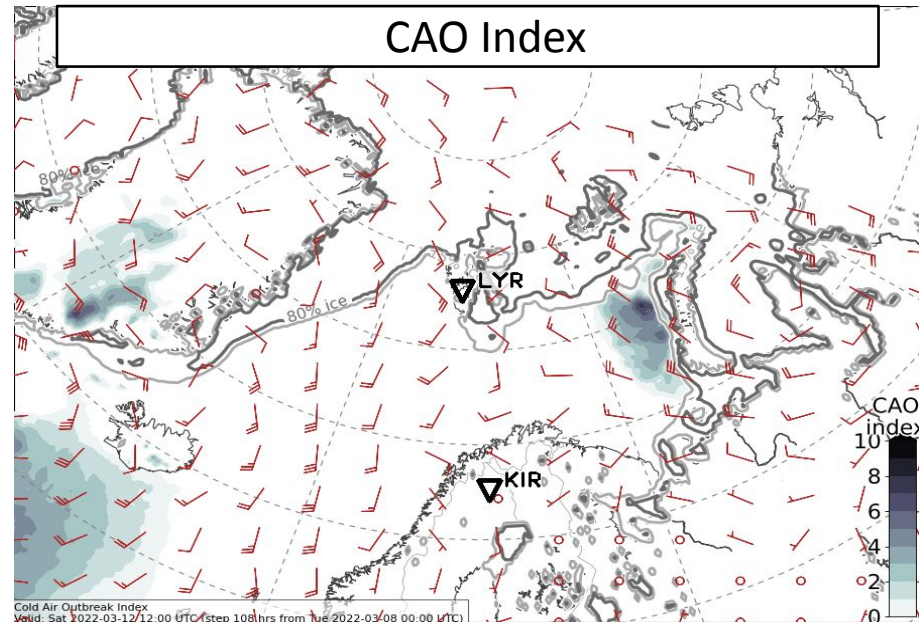


Sat, 2022-03-12 12 UTC (+108h)

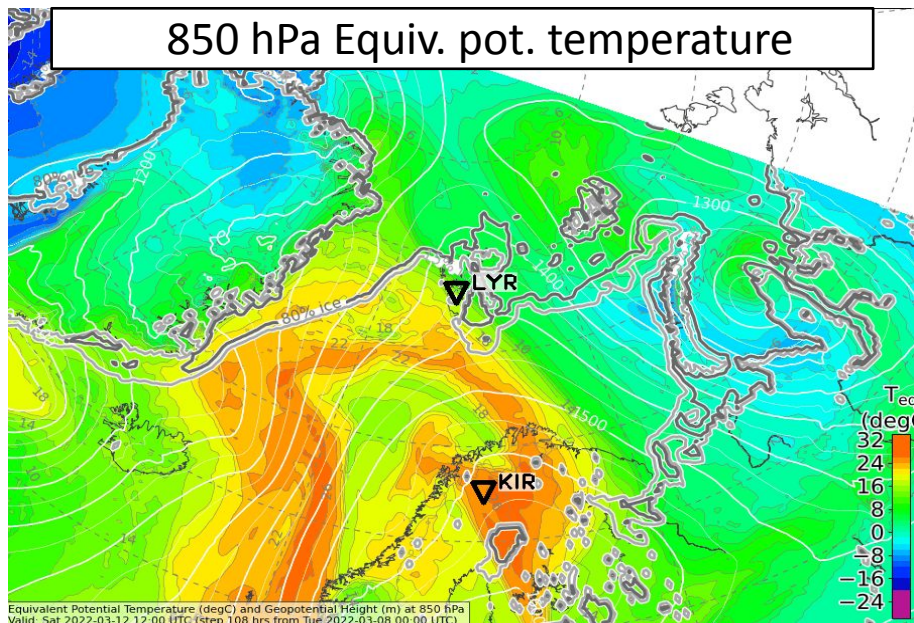
500 hPa Geopot. and Wind



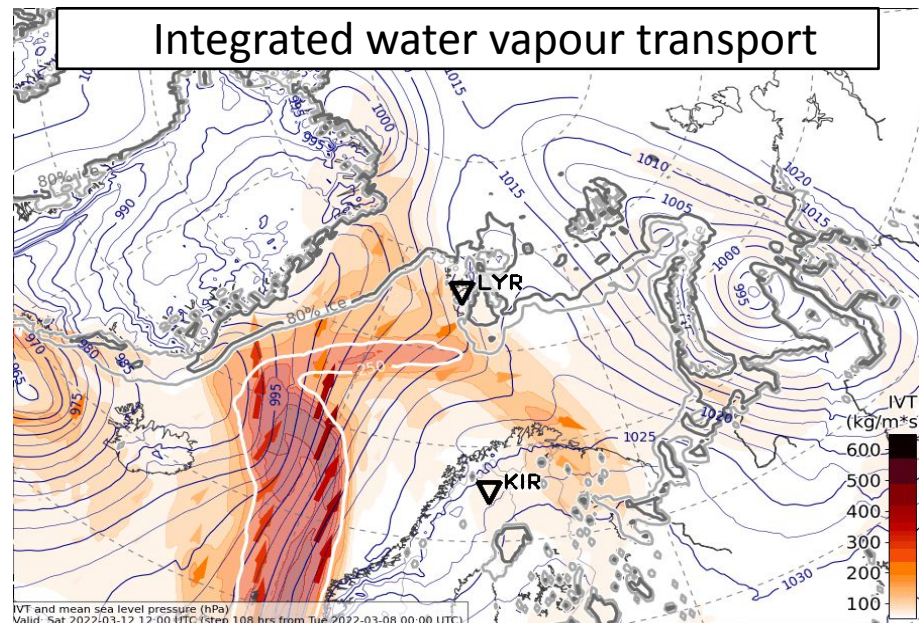
CAO Index



850 hPa Equiv. pot. temperature

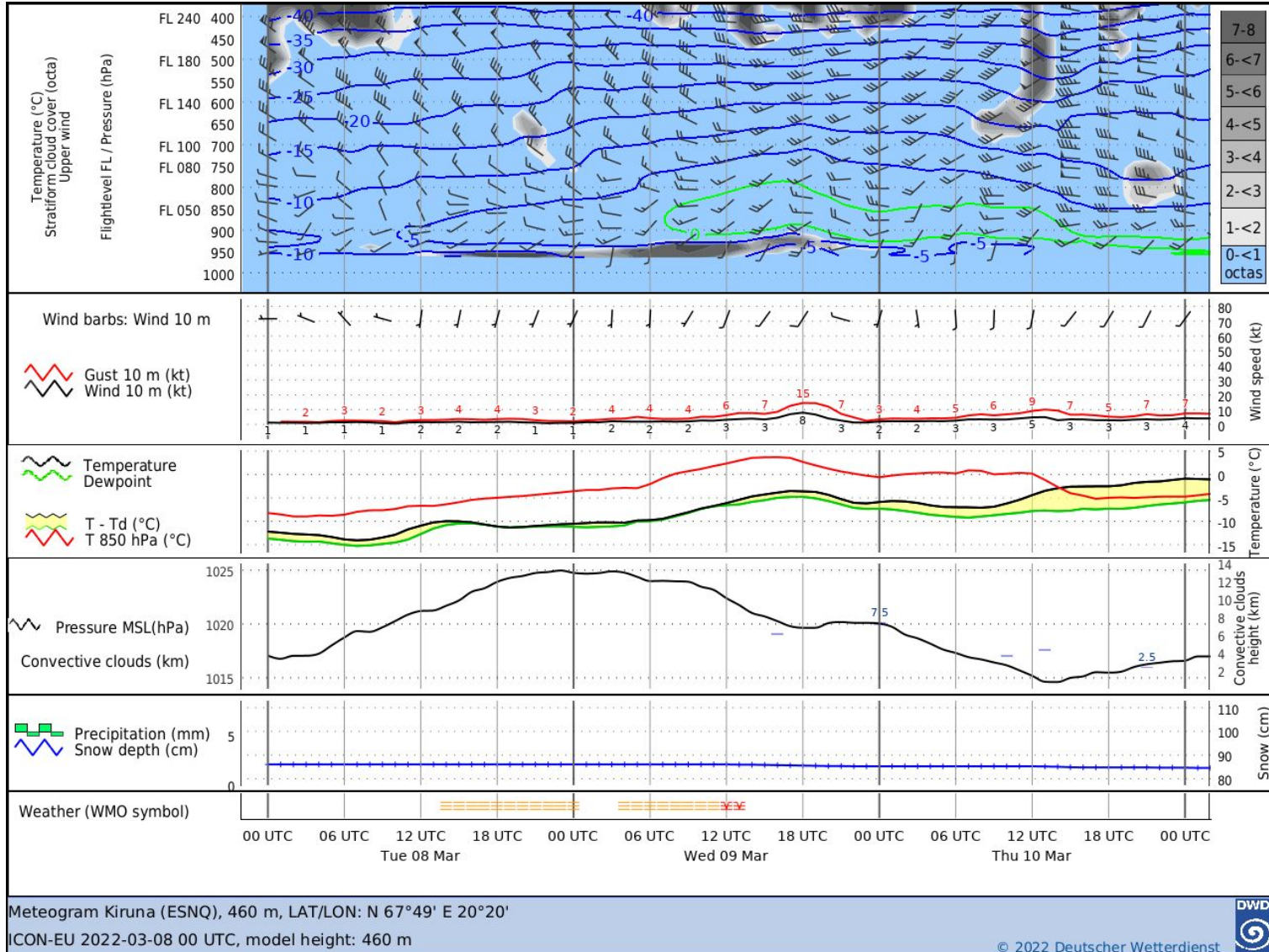


Integrated water vapour transport



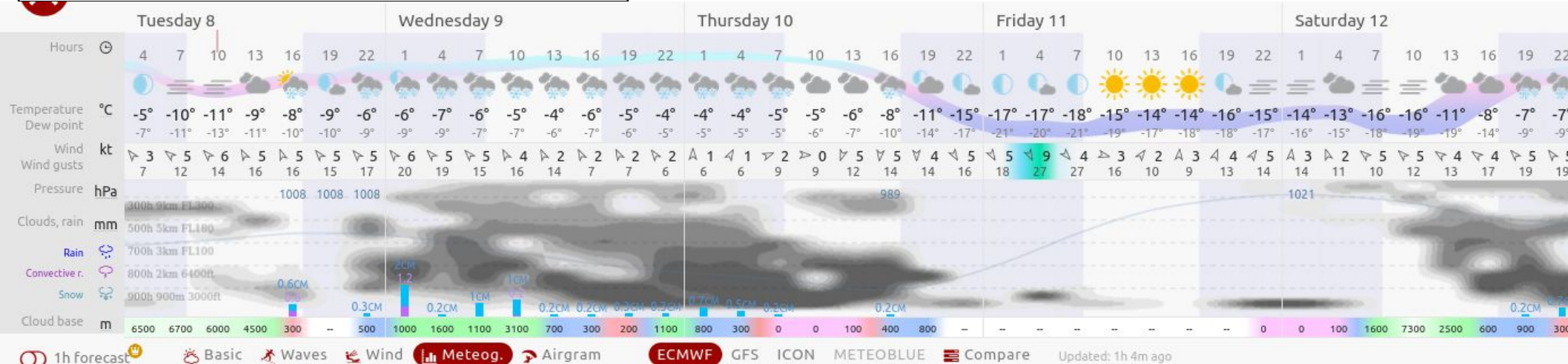
Airport meteograms

Kiruna:



Longyearbyen:

ECWMF



ICON

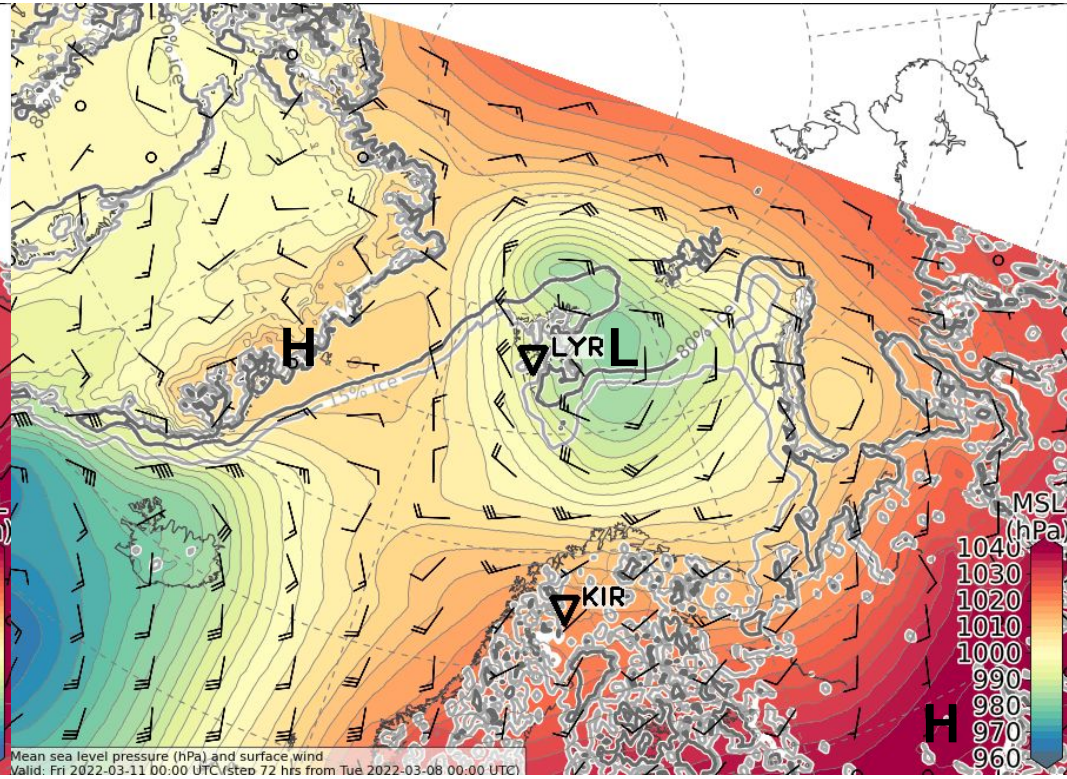
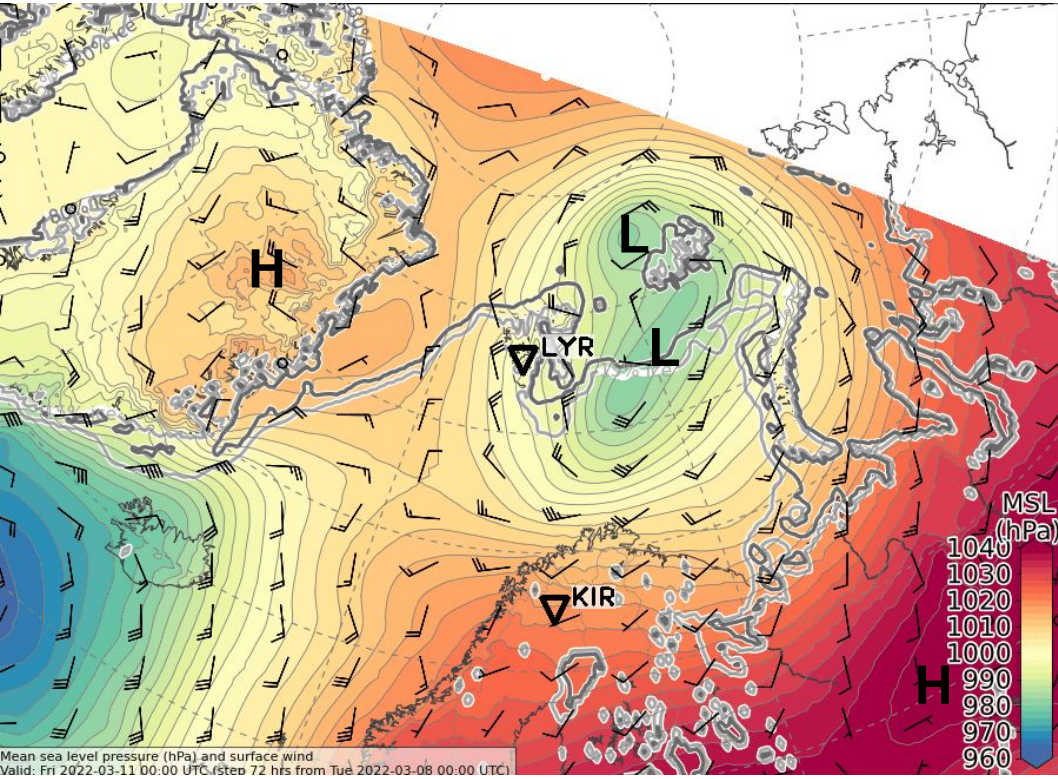


Forecast uncertainty
2022-03-08 00 UTC: 72 – 96h

Friday, 2022-03-11 00 UTC (+72h)

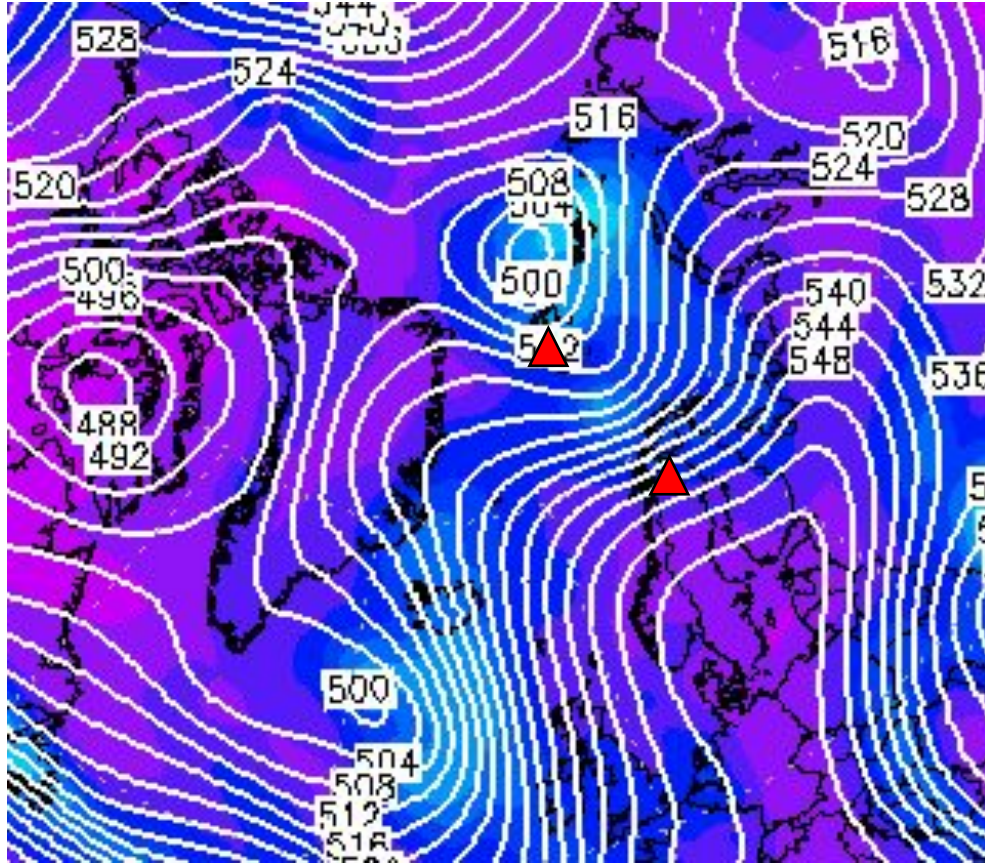
ECMWF – Sea level pressure

ICON - Sea level pressure



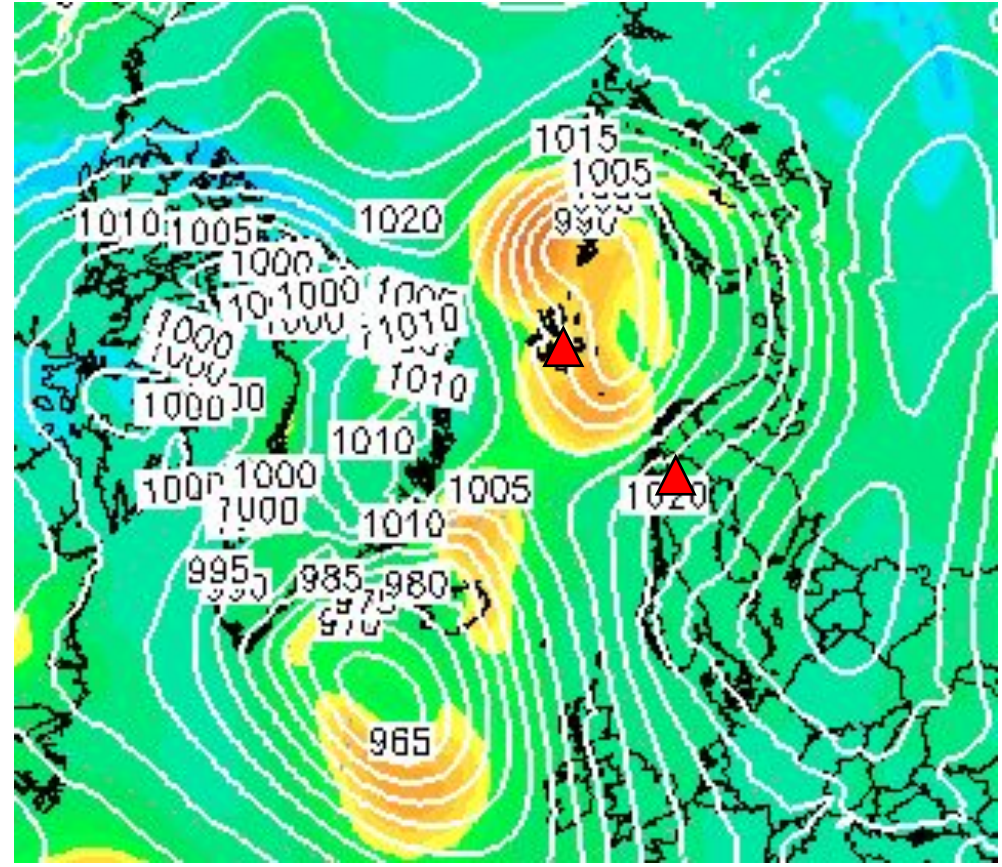
Friday, 2022-03-11 00 UTC (+72h)

500 hPa Geopot.



gpdam

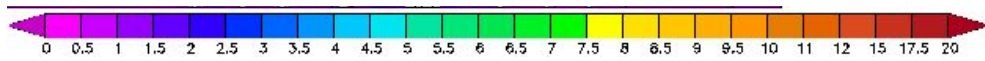
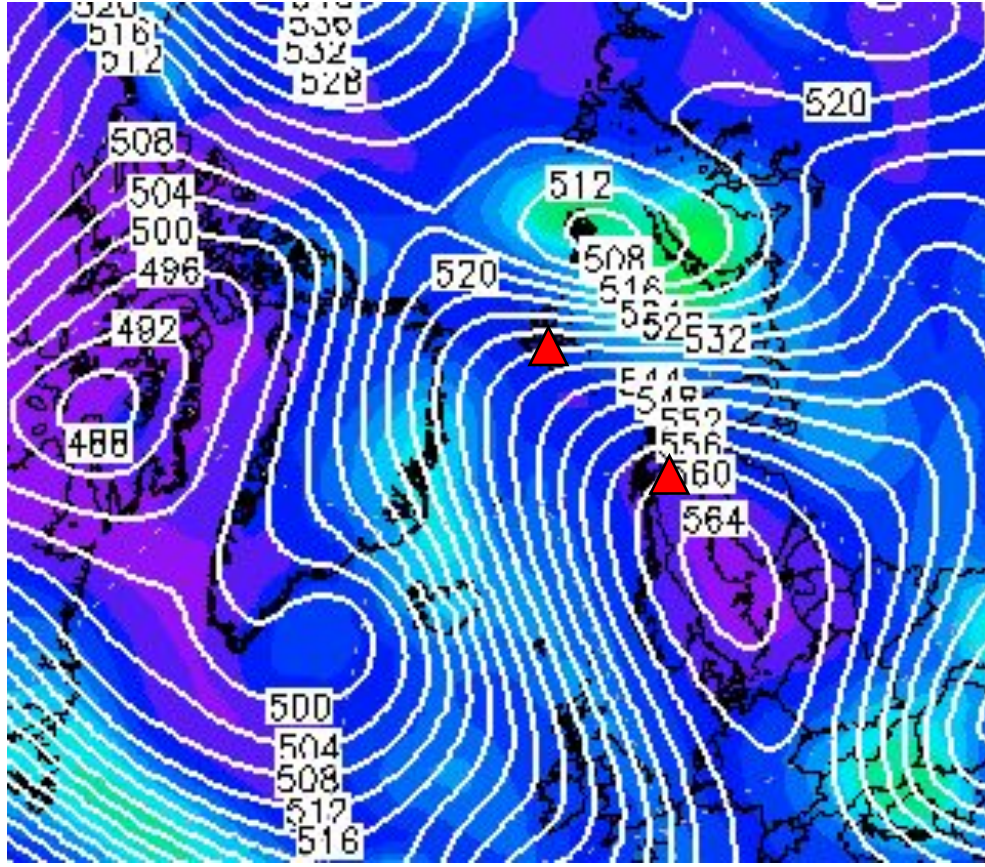
Sea level pressure



hPa

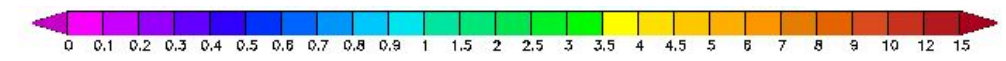
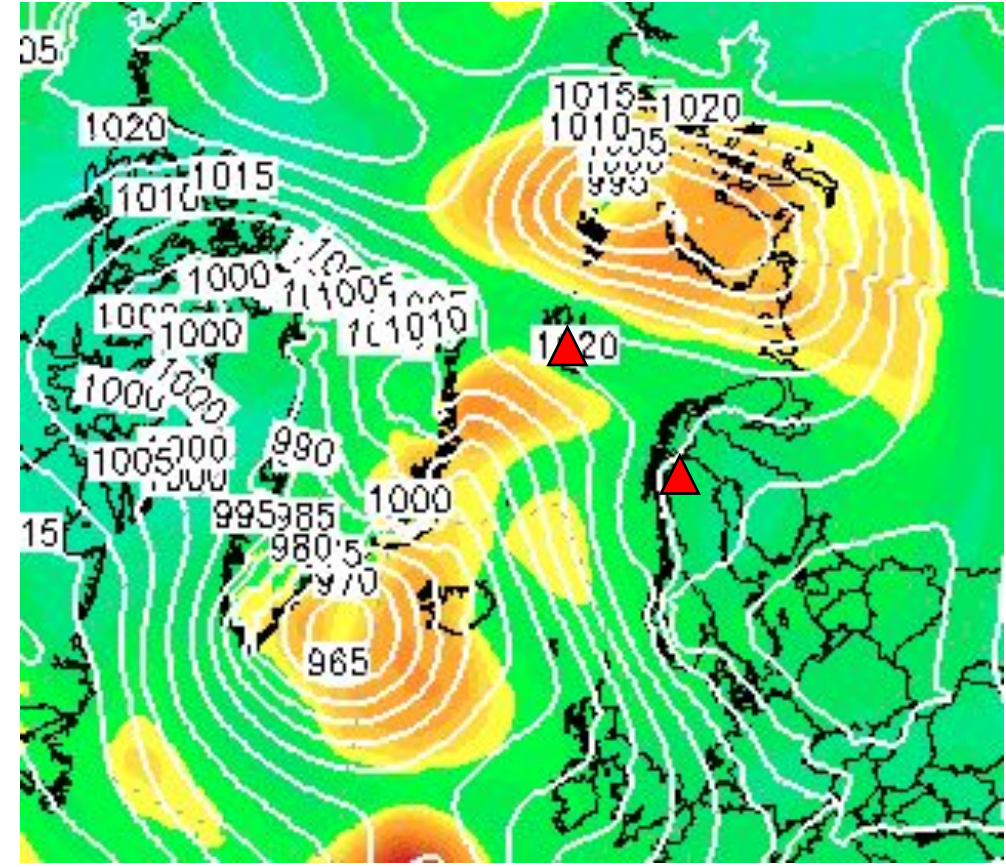
Saturday, 2022-03-12 00 UTC (+96h)

500 hPa Geopot.



gpdam

Sea level pressure



hPa

Summary

Summary: Weather Briefing 2022-03-07, 17:00 LT

- **Overall**
 - **Blocking pattern** → **Strong SW flow towards Norwegian Sea/Barents Sea**
- **Wednesday, 2022-03-09:**
 - Warm/moist air advection intensifies and reaches Barents Sea
 - Precipitation with rain between Kiruna and Svalbard
 - $T > 0^{\circ}\text{C}$ & freezing fog at Kiruna airport
- **Thursday, 2022-03-10:**
 - Peak of warm/moist air intrusion over Barents Sea
 - Weak cold-air outbreak NW of Svalbard with low clouds
- **Friday, 2022-03-11:**
 - High moves to Fram Strait → weak cold-air outbreak dissolves
 - New warm/moist air intrusion forms between Iceland and Norway
 - split: one part towards Barents Sea, other towards Fram Strait
- **Saturday, 2022-03-12:**
 - Warm and moist air intrusion reaches Fram Strait
 - Increased values of IVT also over sea ice in Fram Strait, also North of 80°N
 - Katabatic winds from Greenland & WAA → Convergence and strong T-difference
 - Slight uncertainties in surface pressure over Fram Strait