

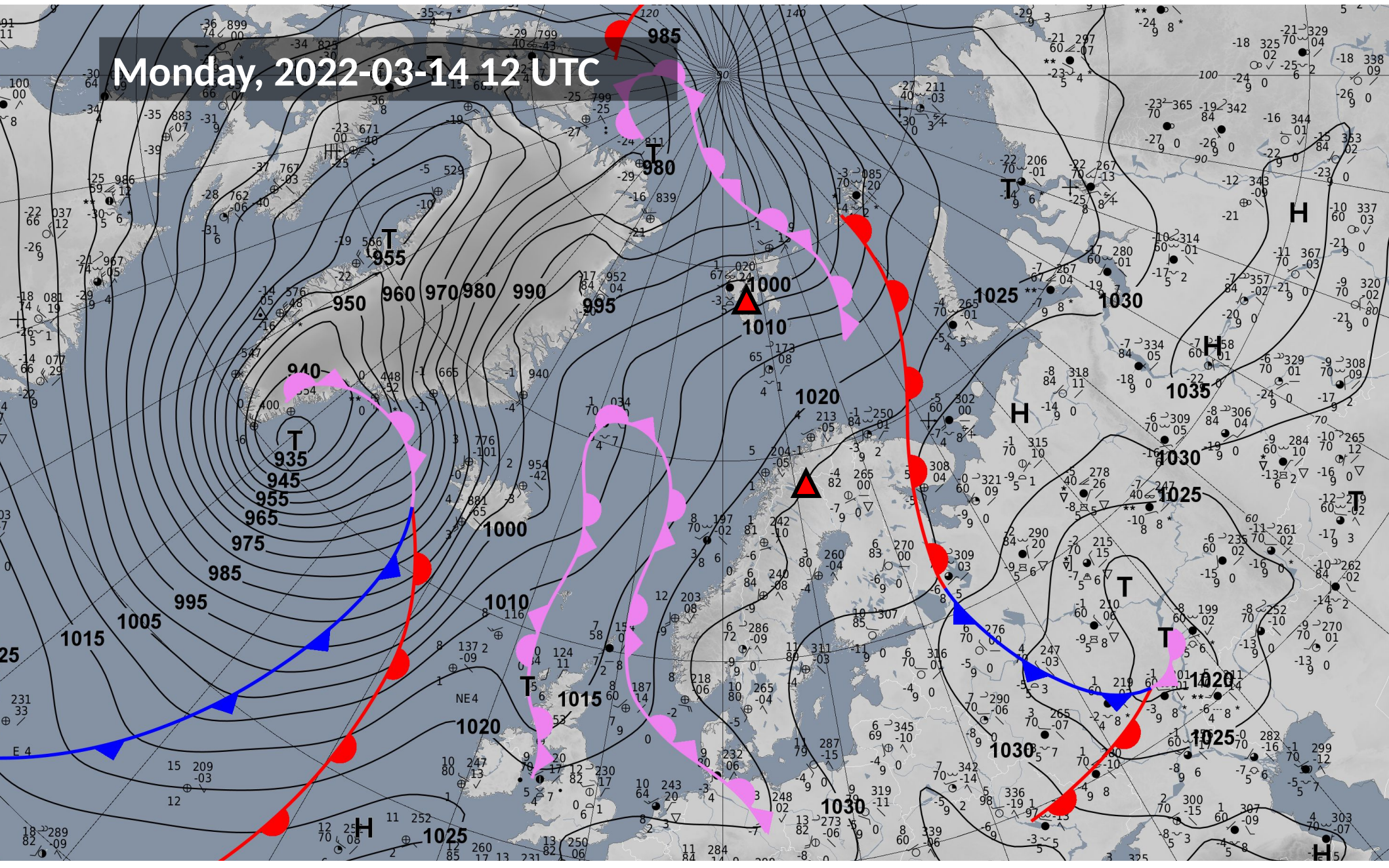
Weather briefing

HALO-(AC)³

Monday, 2022-03-14, 17:00 LT

Surface Analysis
Monday, 2022-03-14 12 UTC
DWD

Monday, 2022-03-14 12 UTC



Circulation pattern development

2022-03-14 00 UTC: 12 - 132h

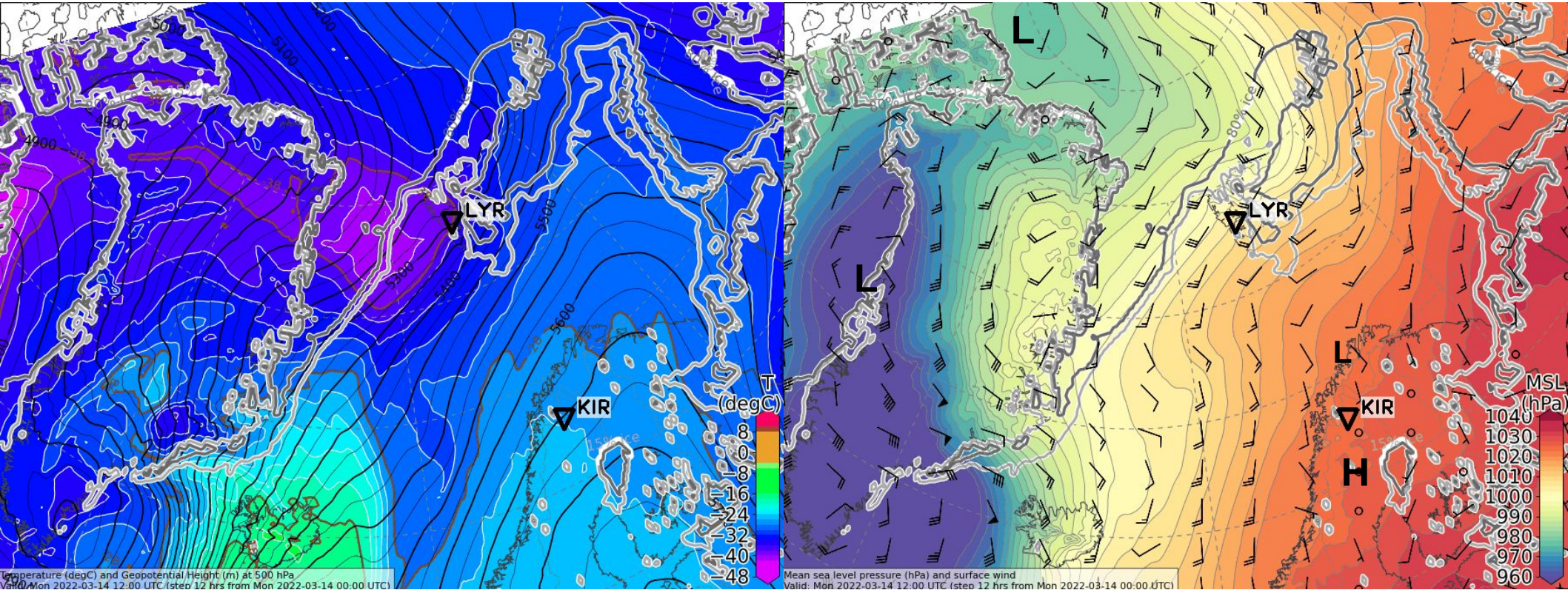
500 hPa Geopot & T

Sea level pressure

Monday, 2022-03-14 12 UTC (+12h)

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

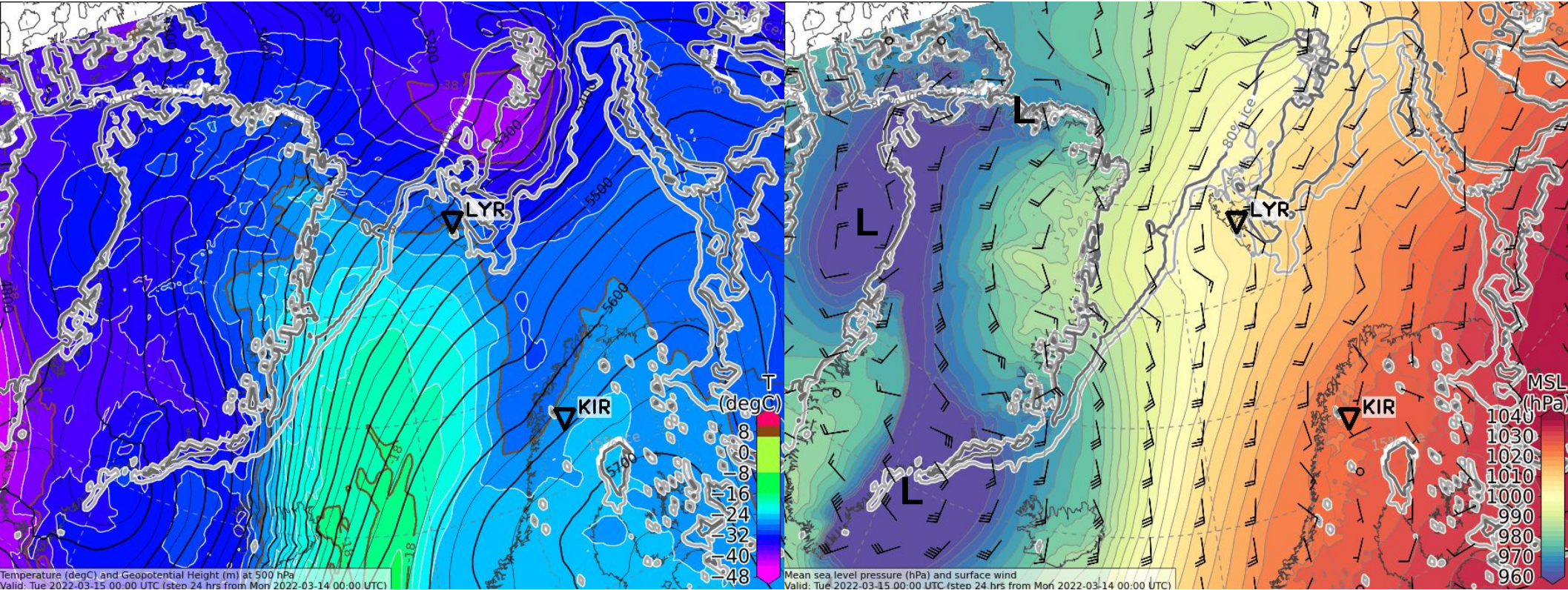
Sea level pressure



Tuesday, 2022-03-15 00 UTC (+24h)

500 hPa Geopot. & T

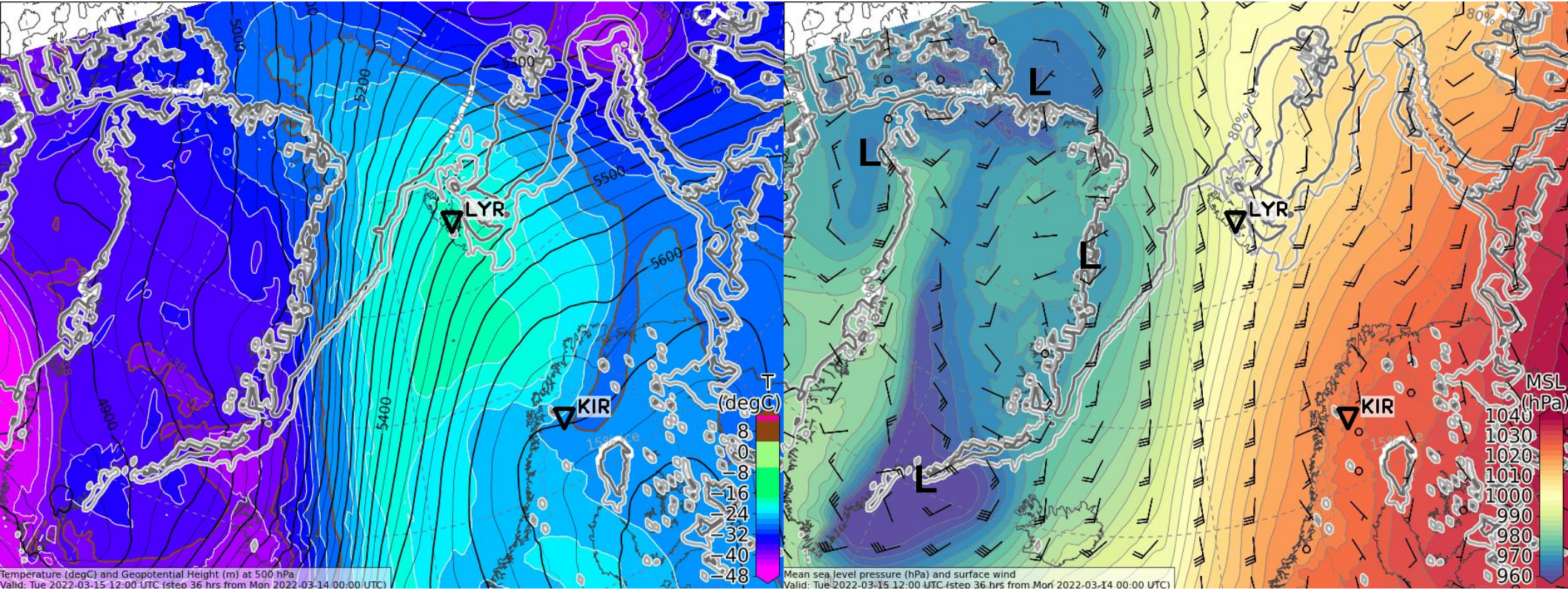
Sea level pressure



Tuesday, 2022-03-15 12 UTC (+36h)

500 hPa Geopot. & T

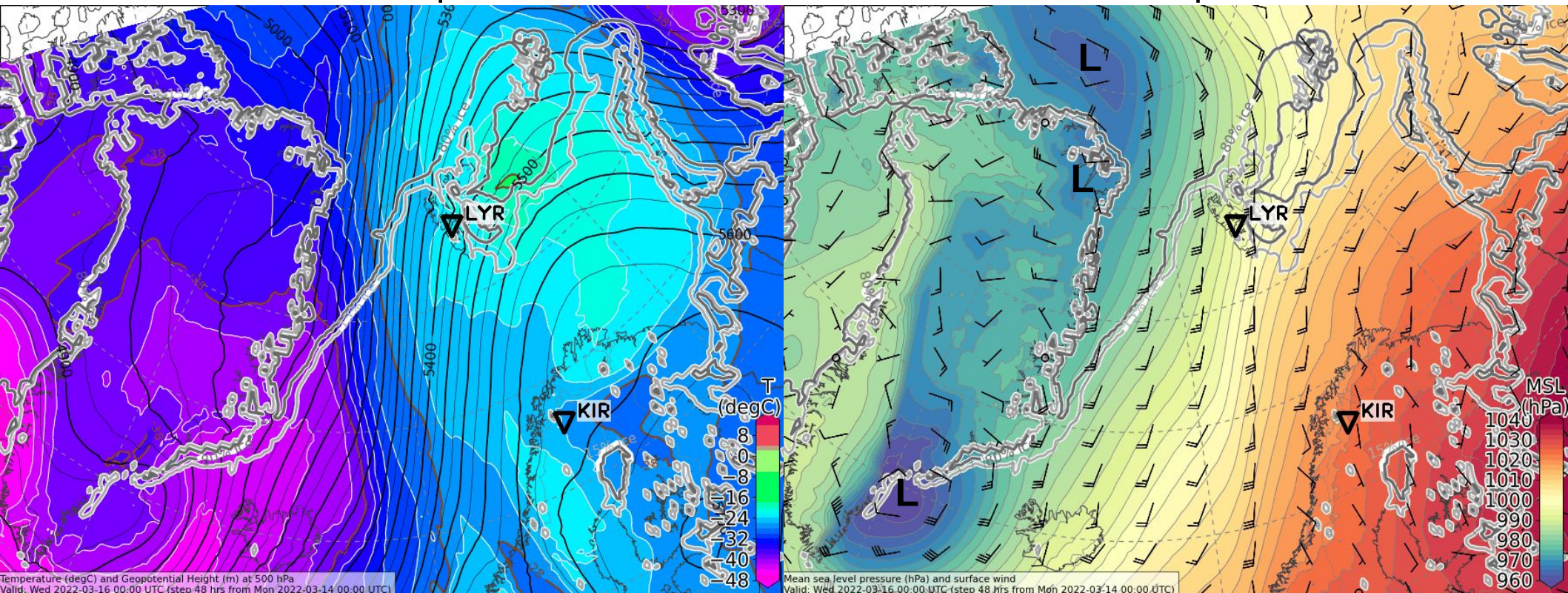
Sea level pressure



Wednesday, 2022-03-16 00 UTC (+48h)

500 hPa Geopot. & T

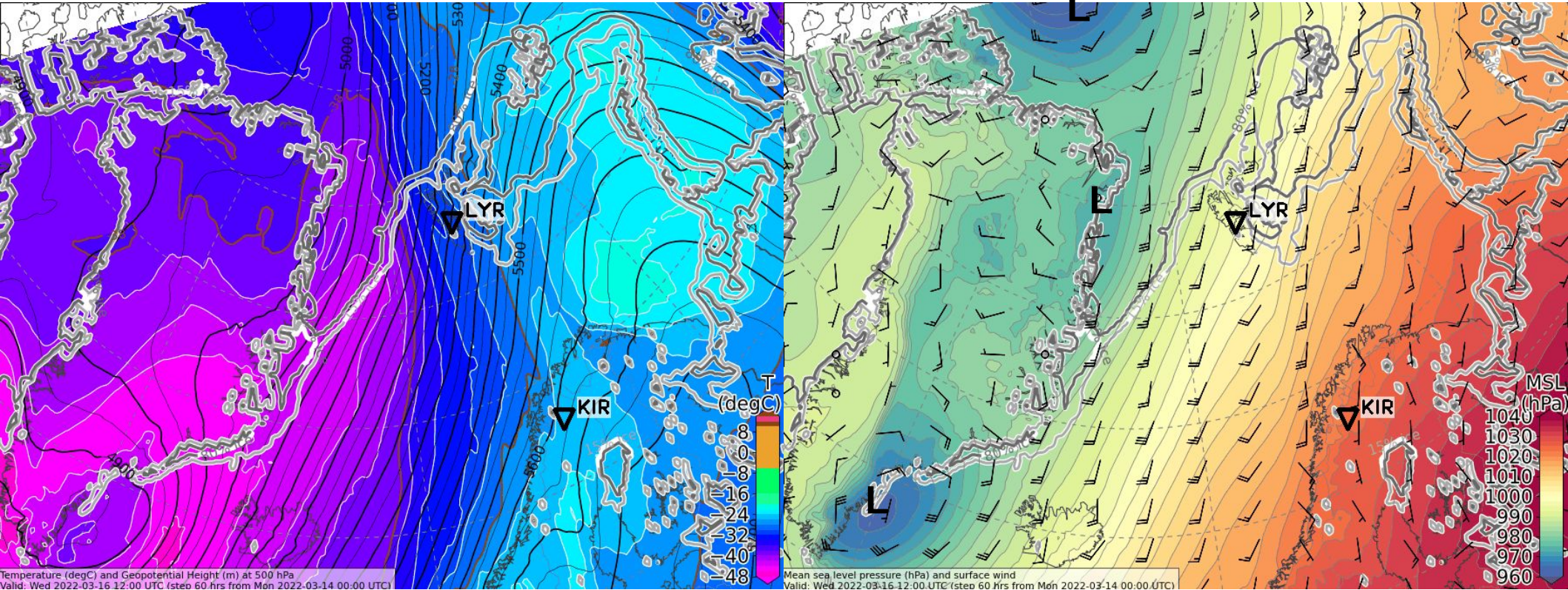
Sea level pressure



Wednesday, 2022-03-16 12 UTC (+60h)

500 hPa Geopot. & T

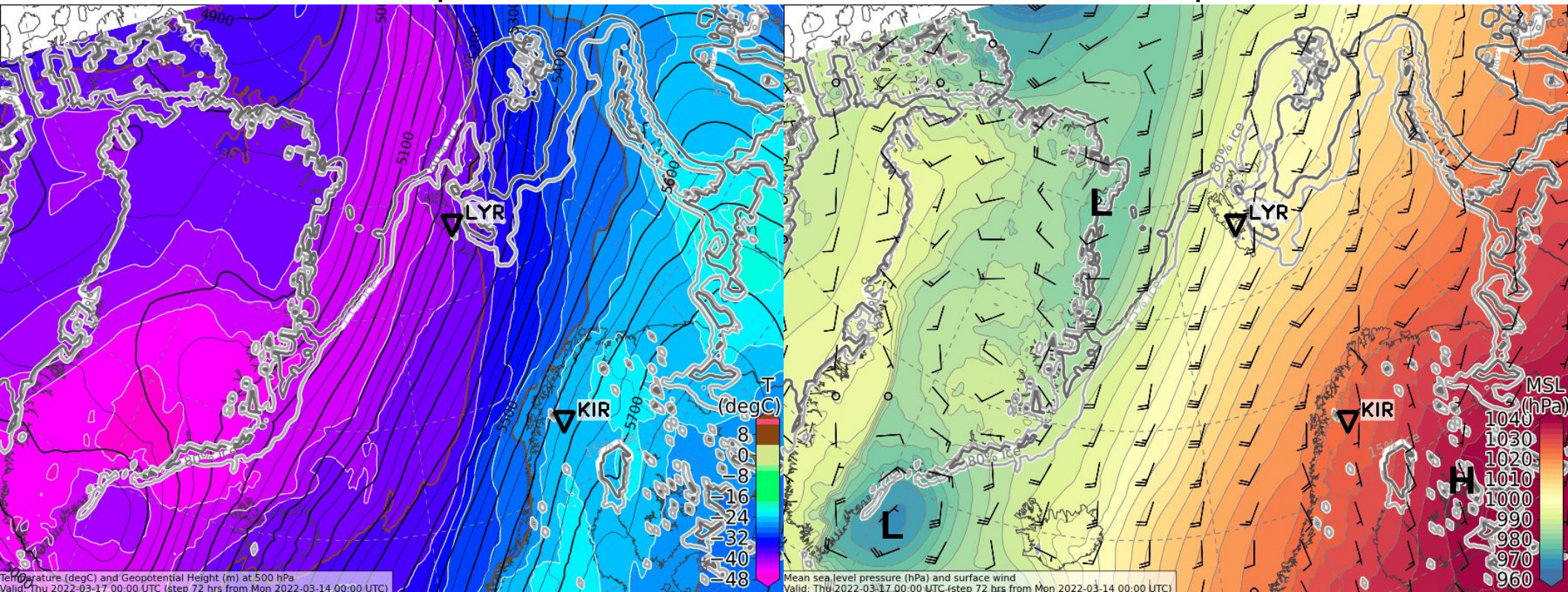
Sea level pressure



Thursday, 2022-03-17 00 UTC (+72h)

500 hPa Geopot. & T

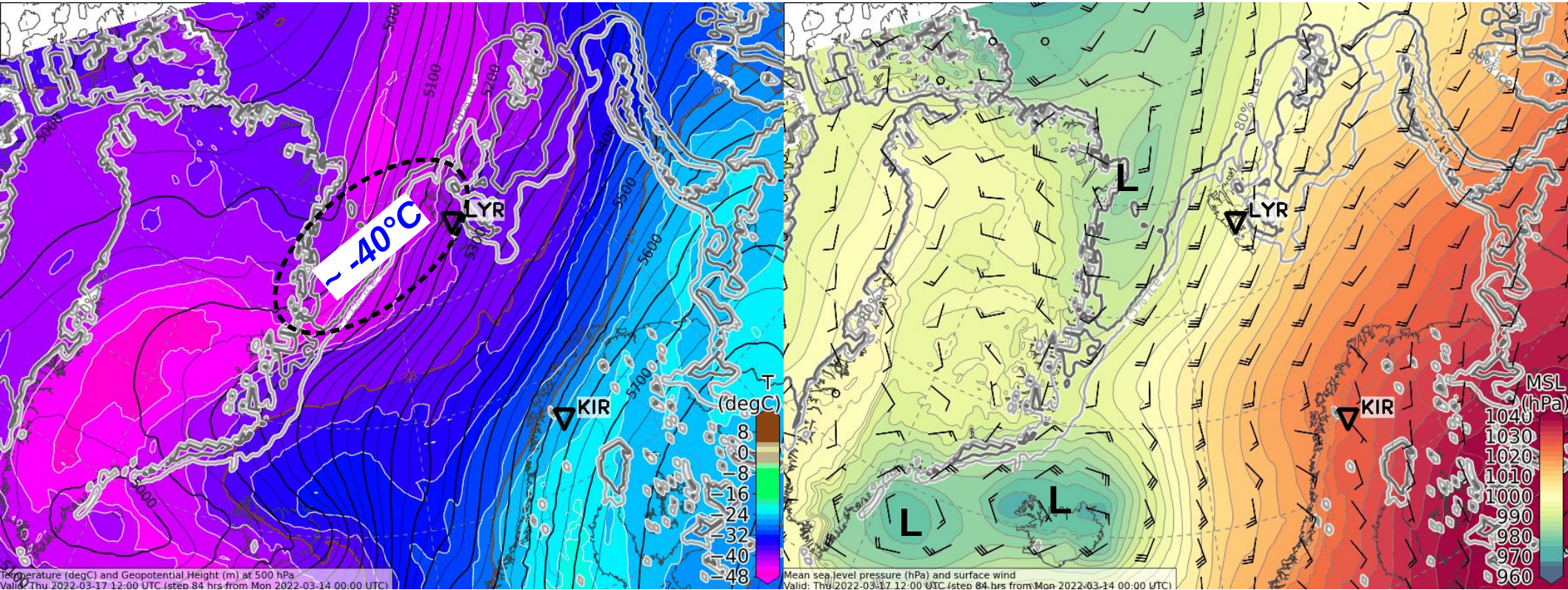
Sea level pressure



Thursday, 2022-03-17 12 UTC (+84h)

500 hPa Geopot. & T

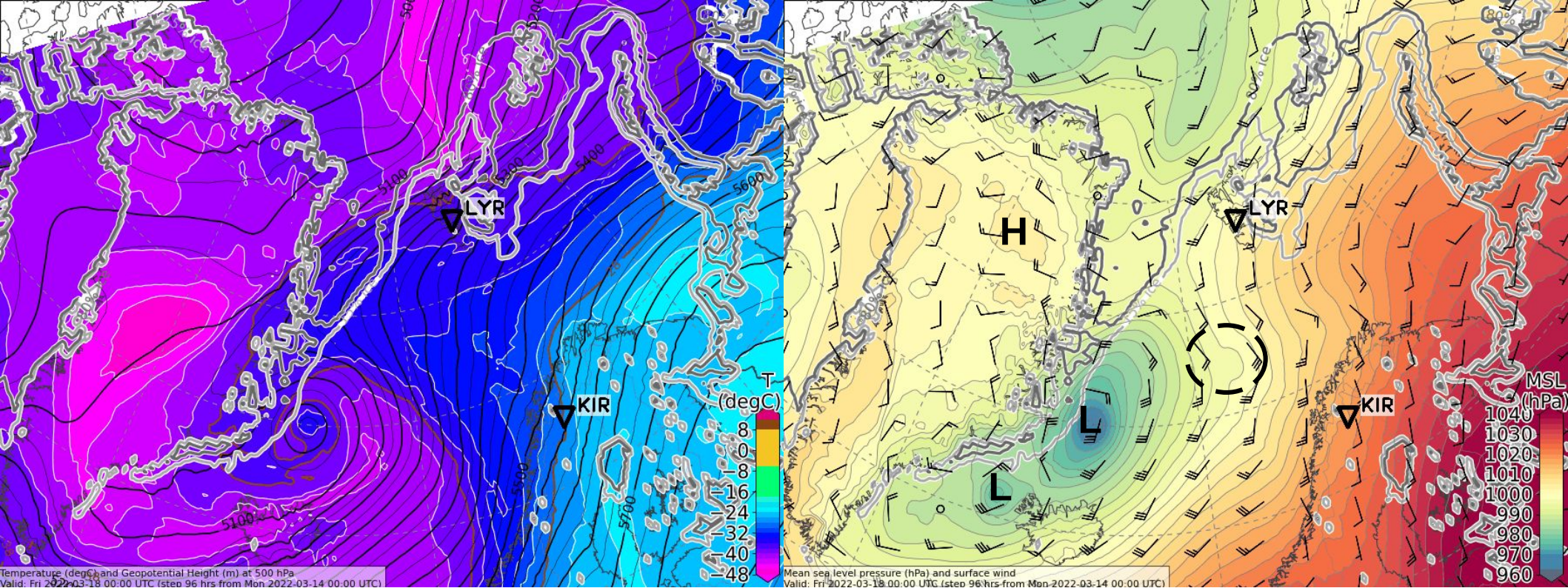
Sea level pressure



Friday, 2022-03-18 00 UTC (+96h)

500 hPa Geopot. & T

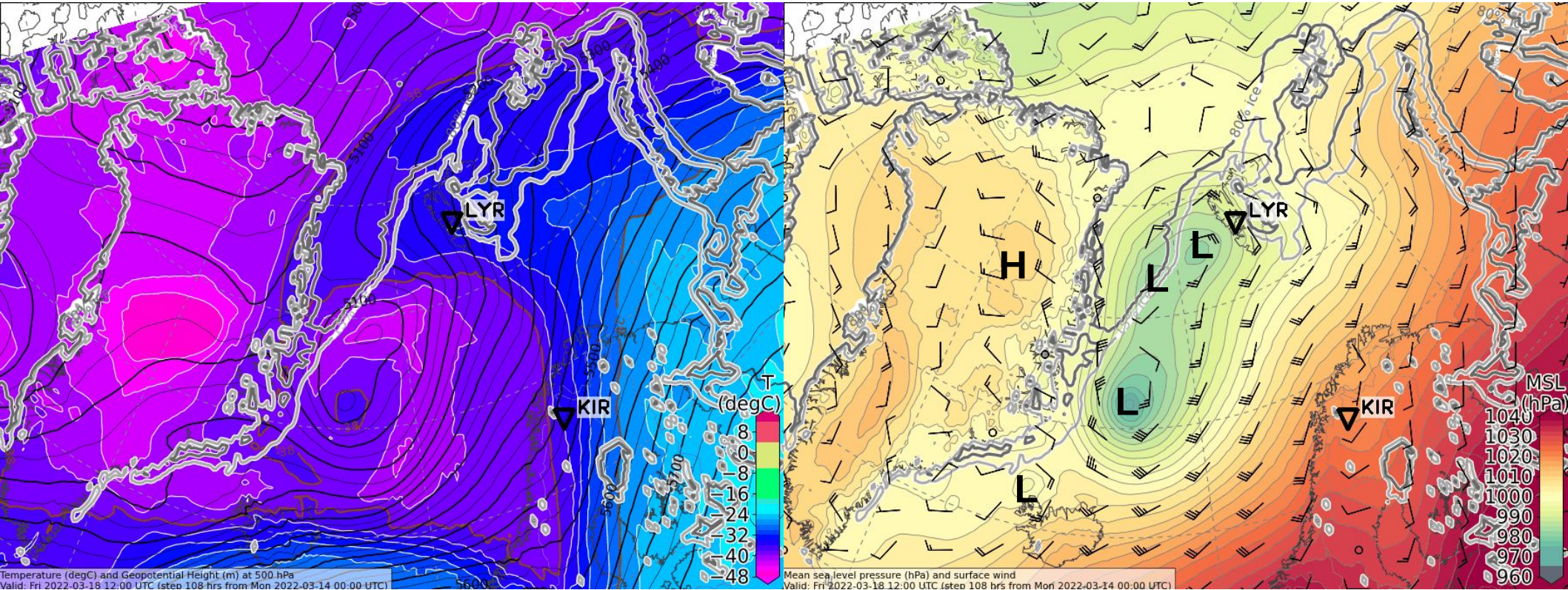
Sea level pressure



Friday, 2022-03-18 12 UTC (+108h)

500 hPa Geopot. & T

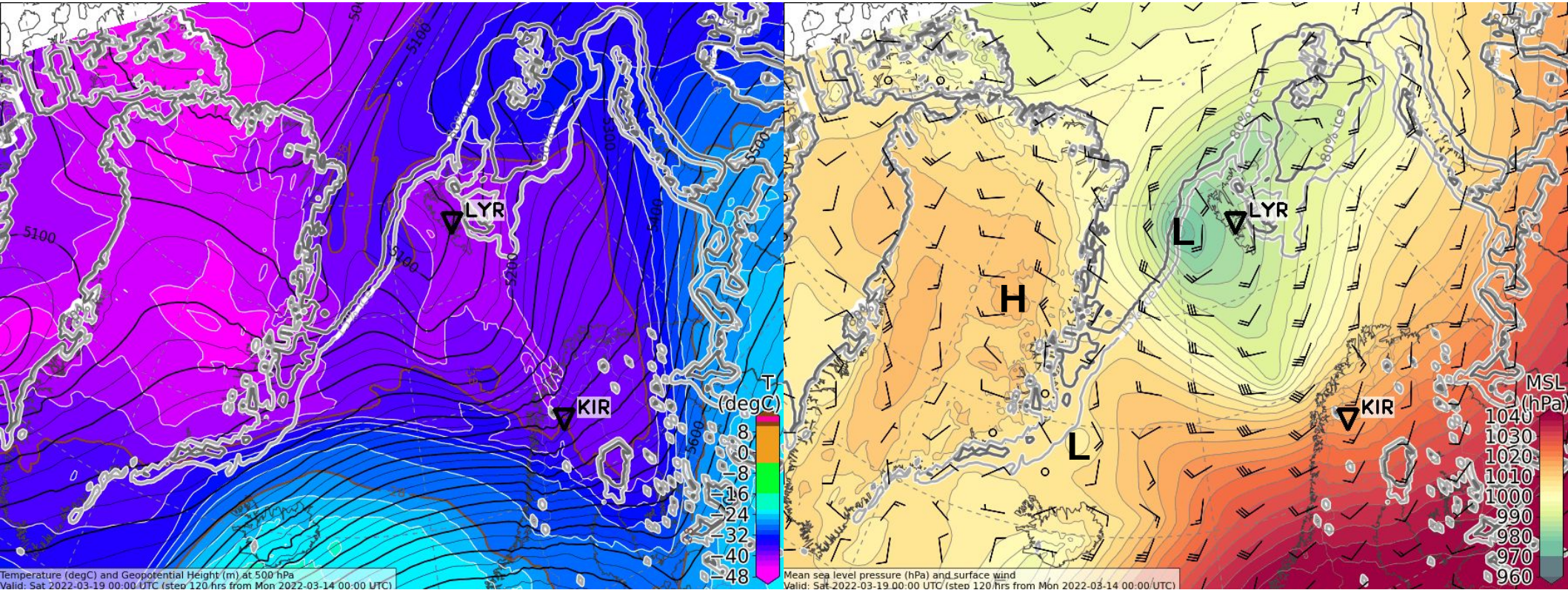
Sea level pressure



Saturday, 2022-03-19 00 UTC (+120h)

500 hPa Geopot. & T

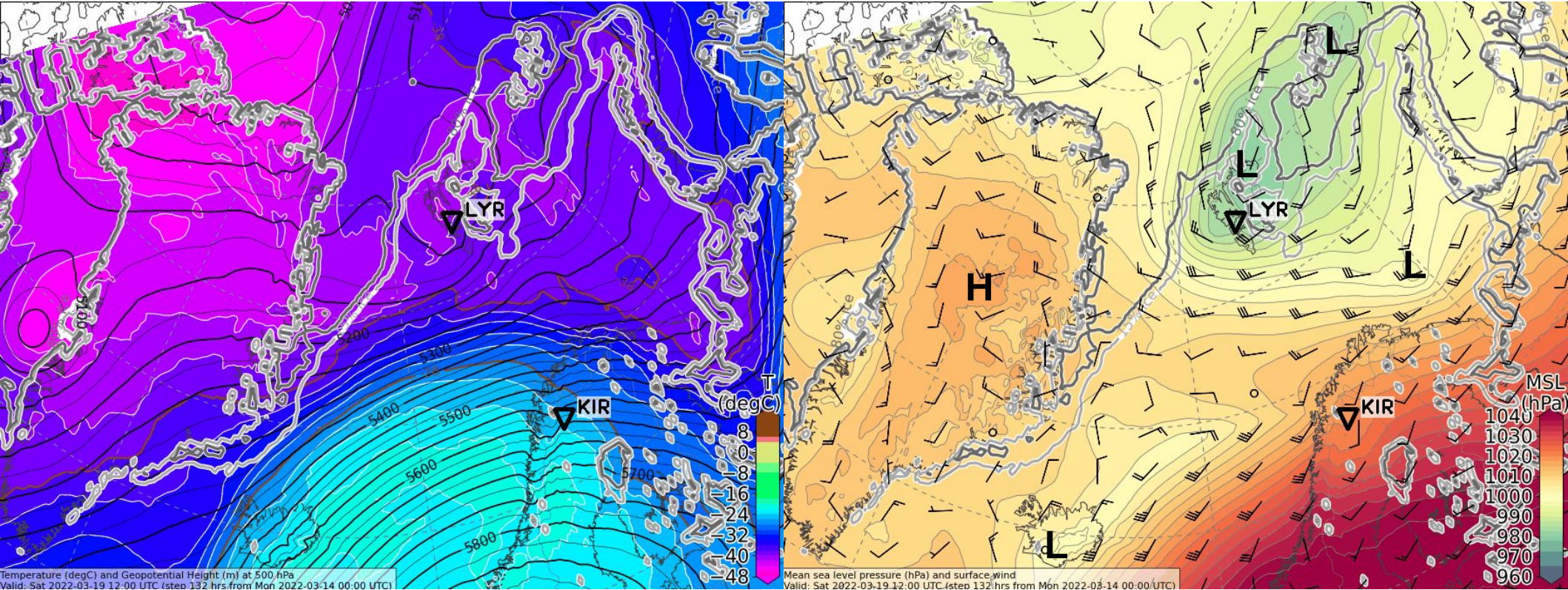
Sea level pressure



Saturday, 2022-03-19 12 UTC (+132h)

500 hPa Geopot. & T

Sea level pressure

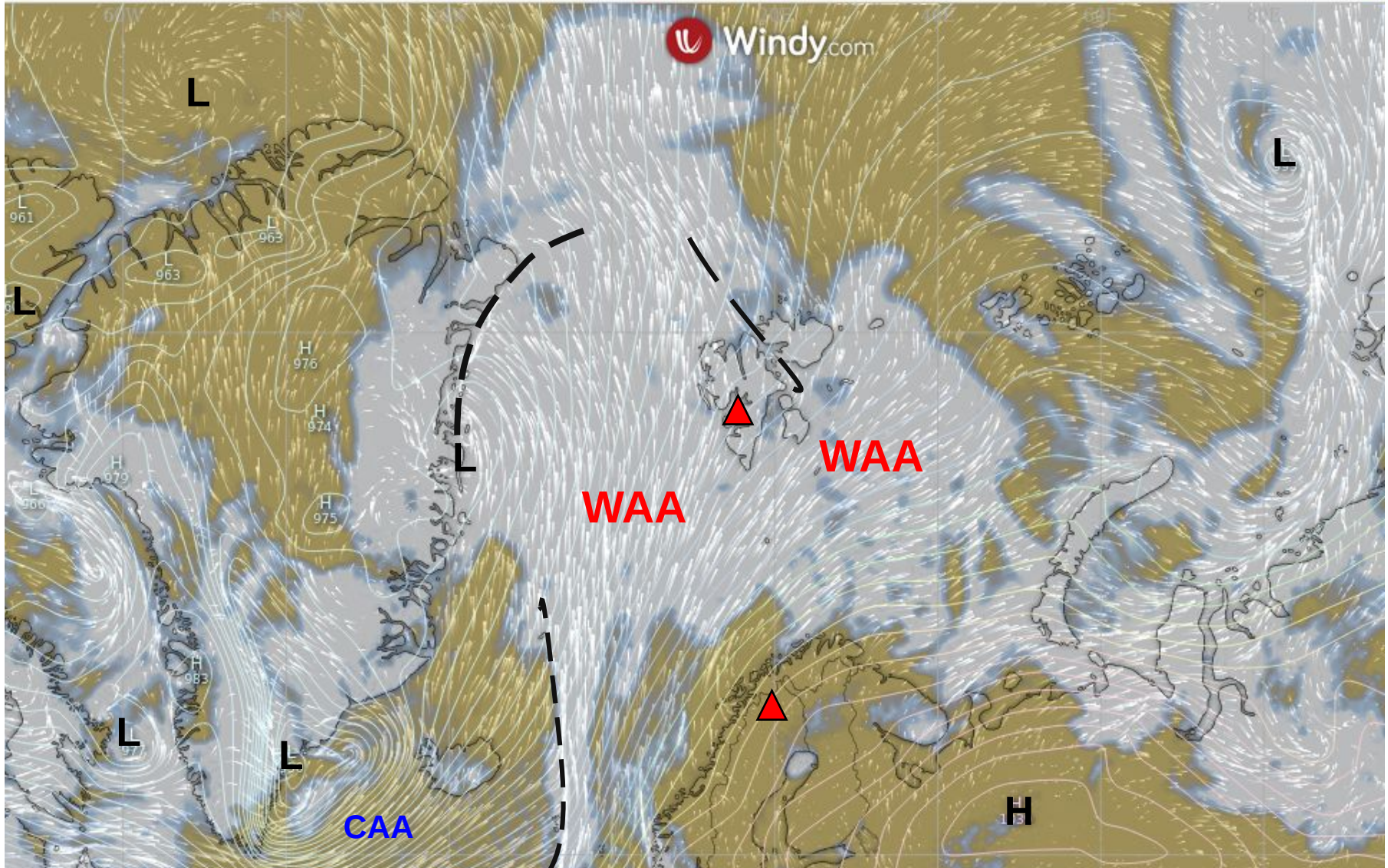


Surface wind development
2022-03-14 00 UTC: 36 – 132h
ECMWF

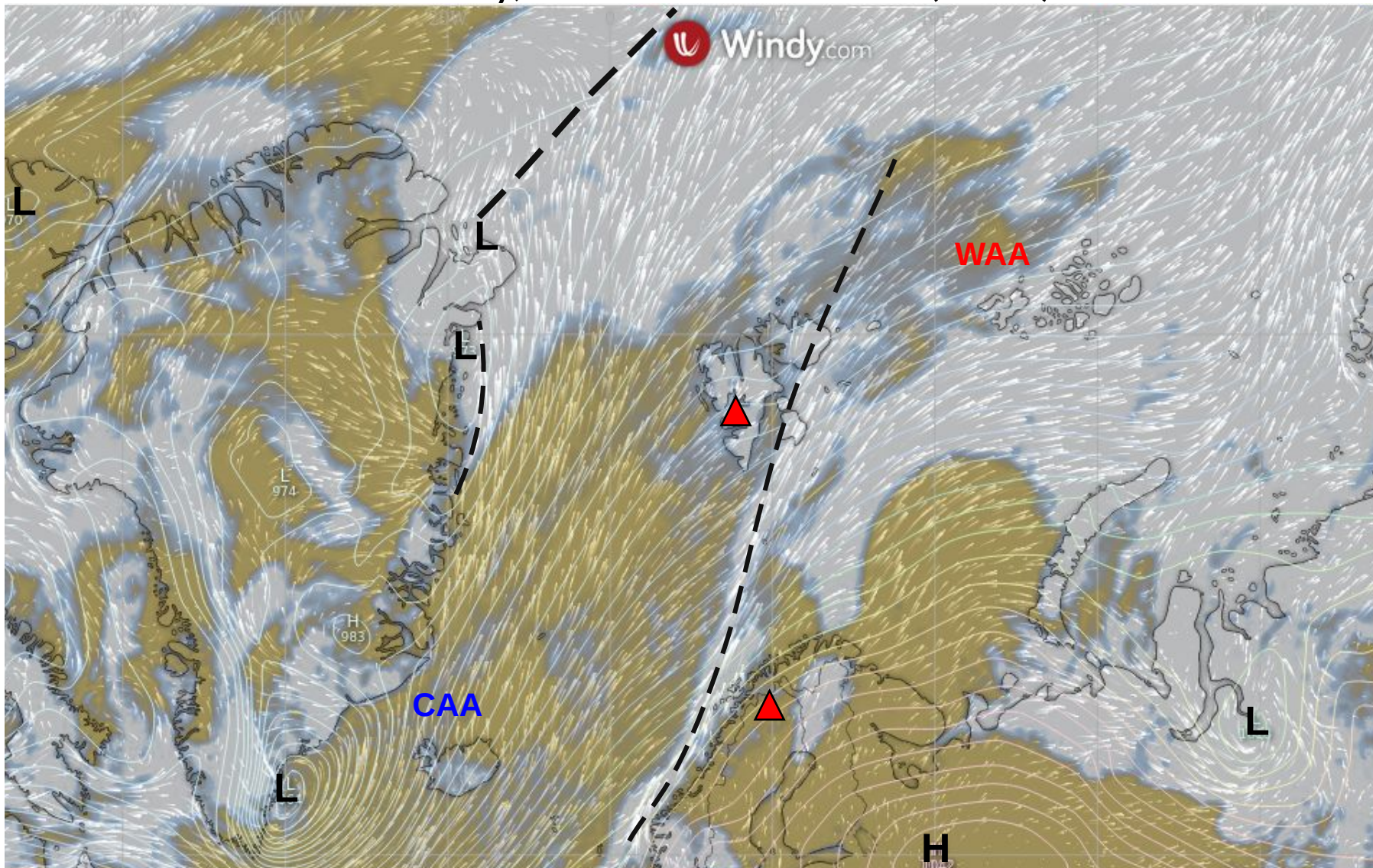
CAA: Cold Air Advection

WAA: Warm Air Advection

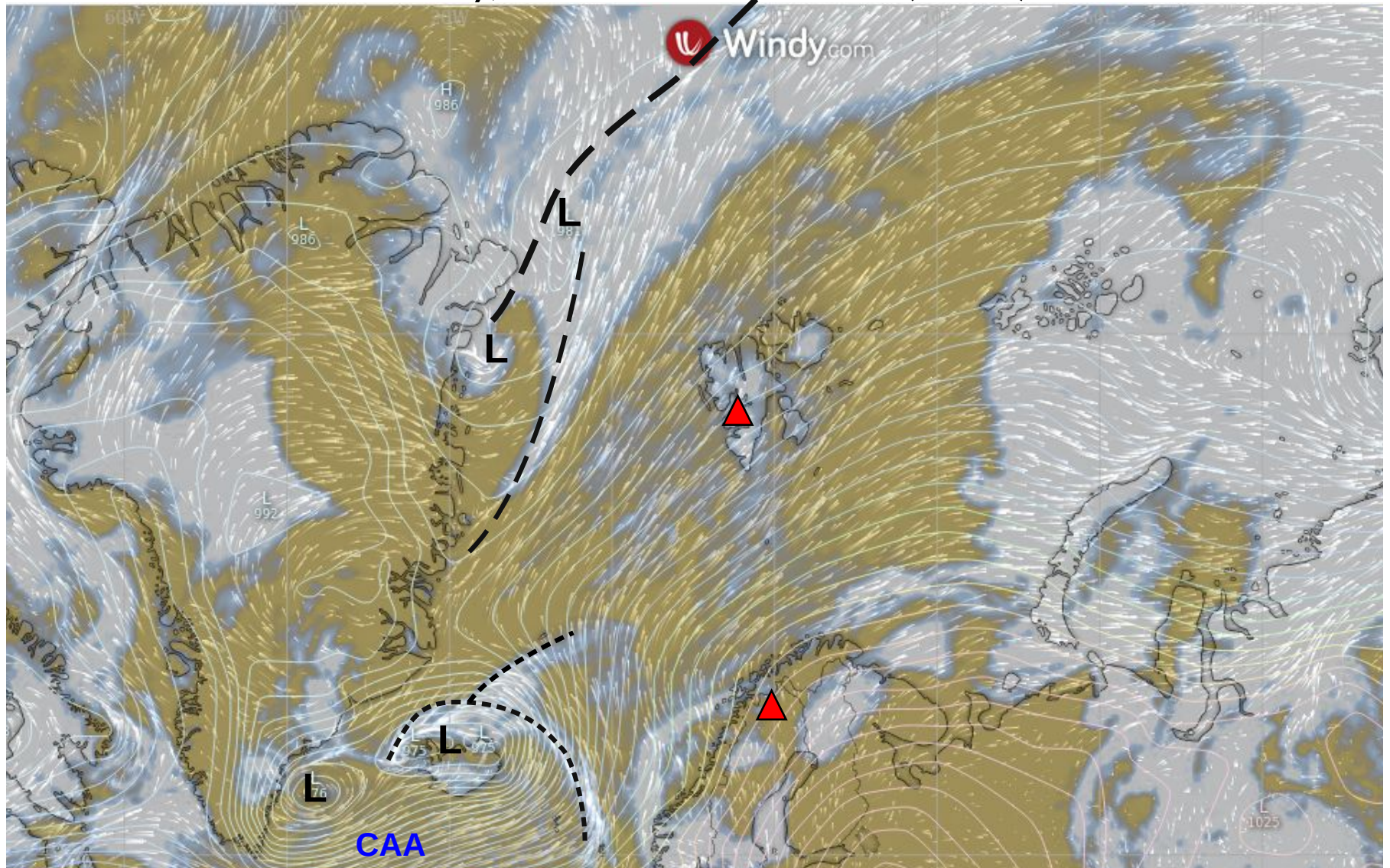
Tuesday, 2022-03-15 12 UTC (+36h)



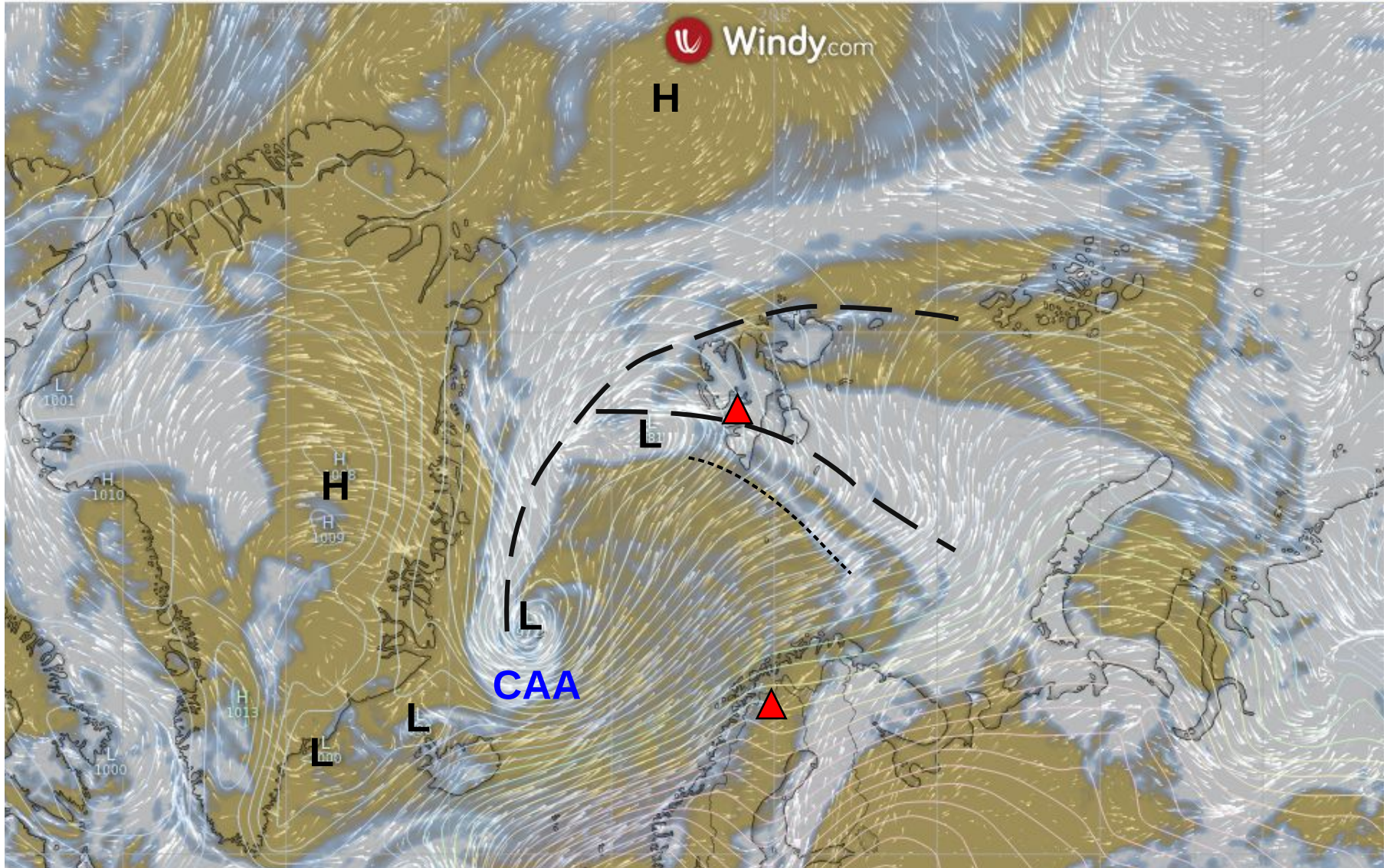
Wednesday, 2022-03-16 12 UTC (+60h)



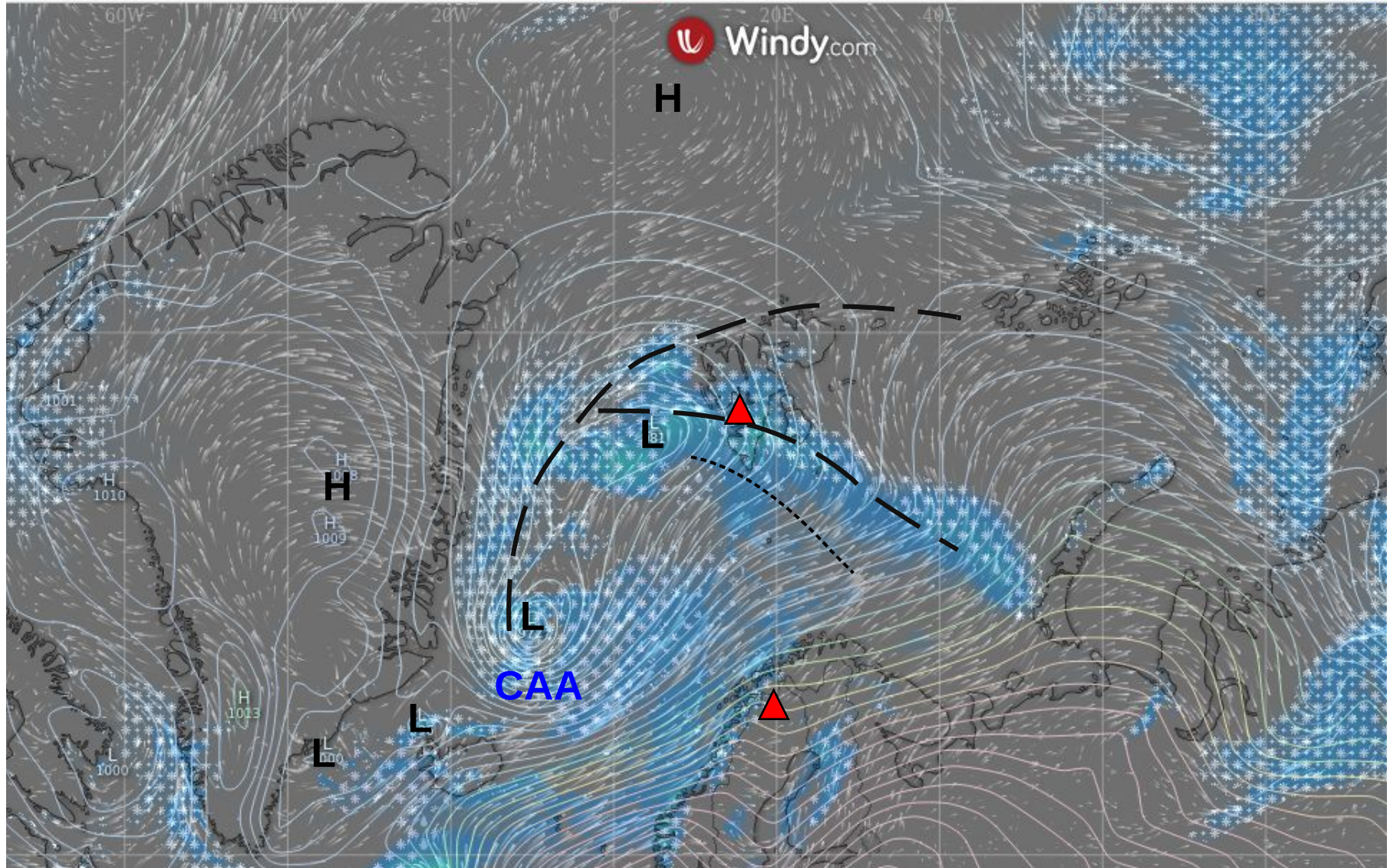
Thursday, 2022-03-17 12 UTC (+84h)



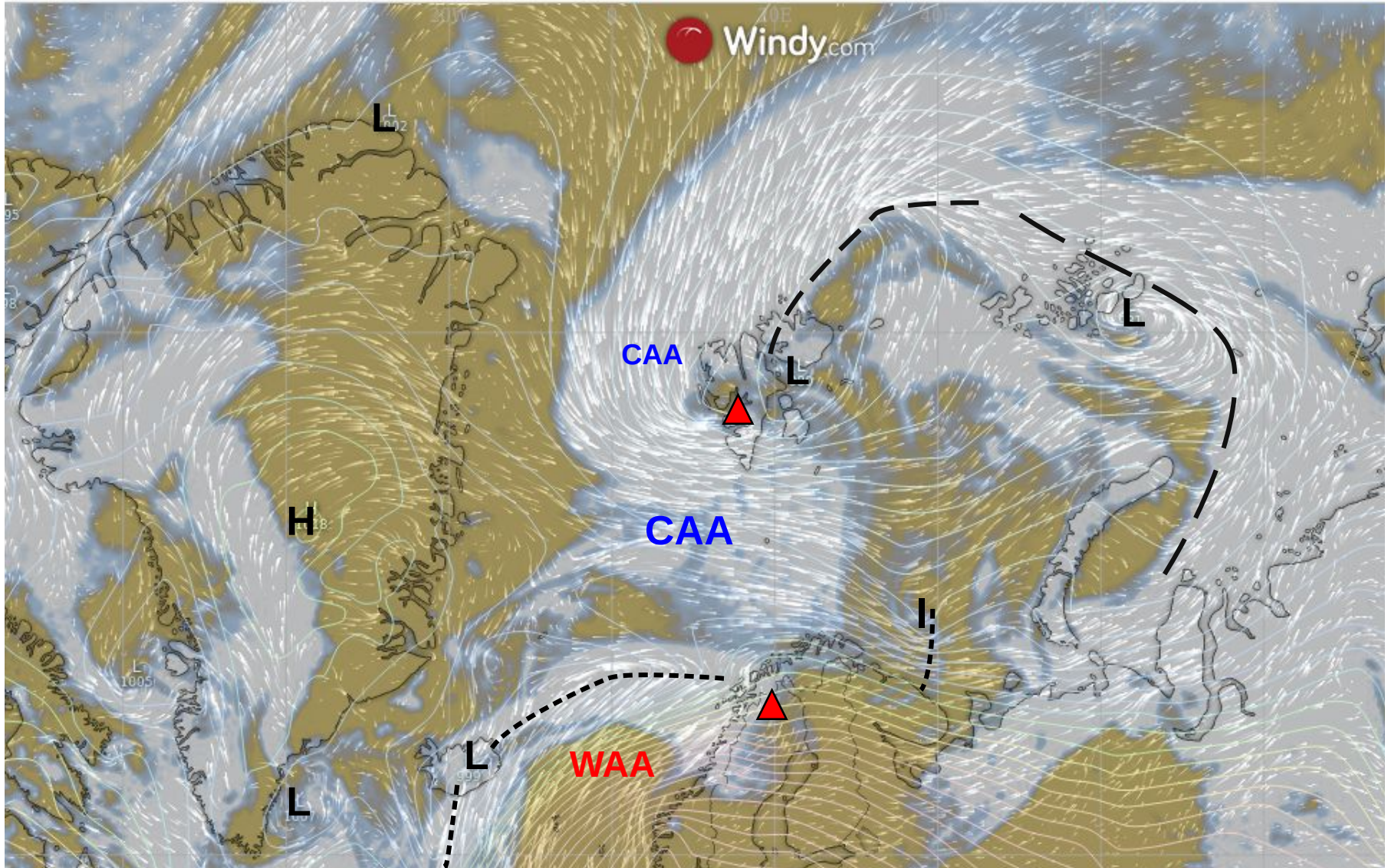
Friday, 2022-03-18 12 UTC (+108h)



Friday, 2022-03-18 12 UTC (+108h)



Saturday, 2022-03-19 12 UTC (+132h)



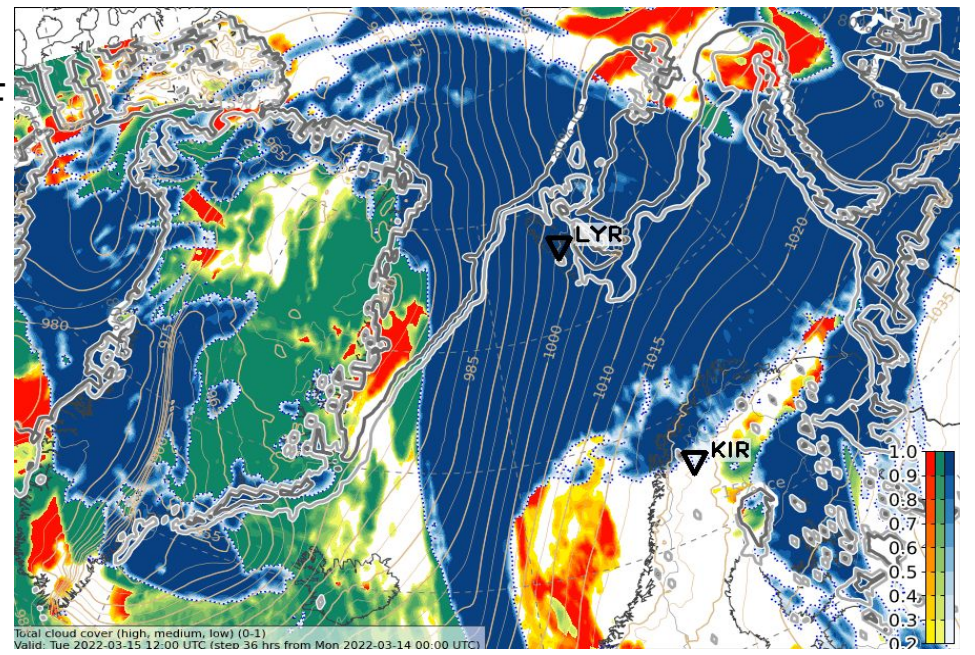
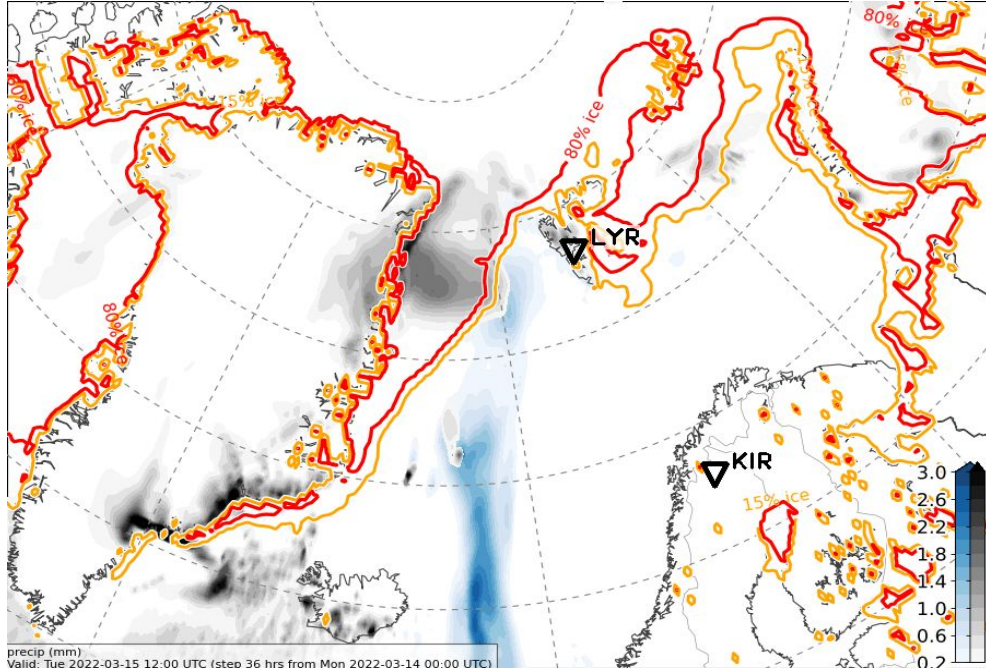
Cloud cover & precip development

2022-03-14 00 UTC: 36 - 132h

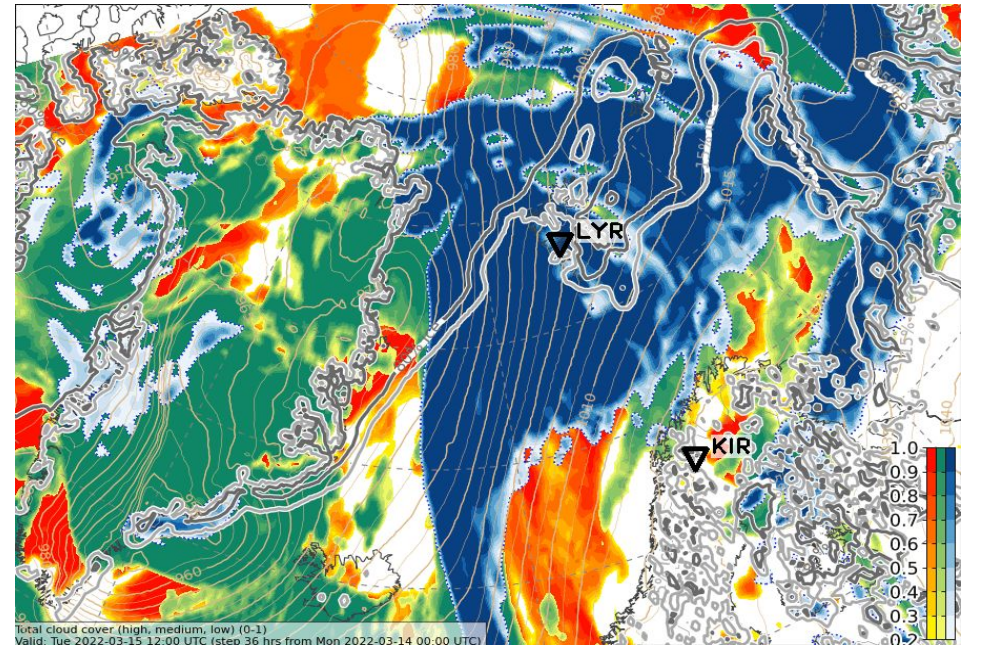
ECMWF + ICON

Tue, 2022-03-15 12 UTC (+36h) ECMWF

2h prec.

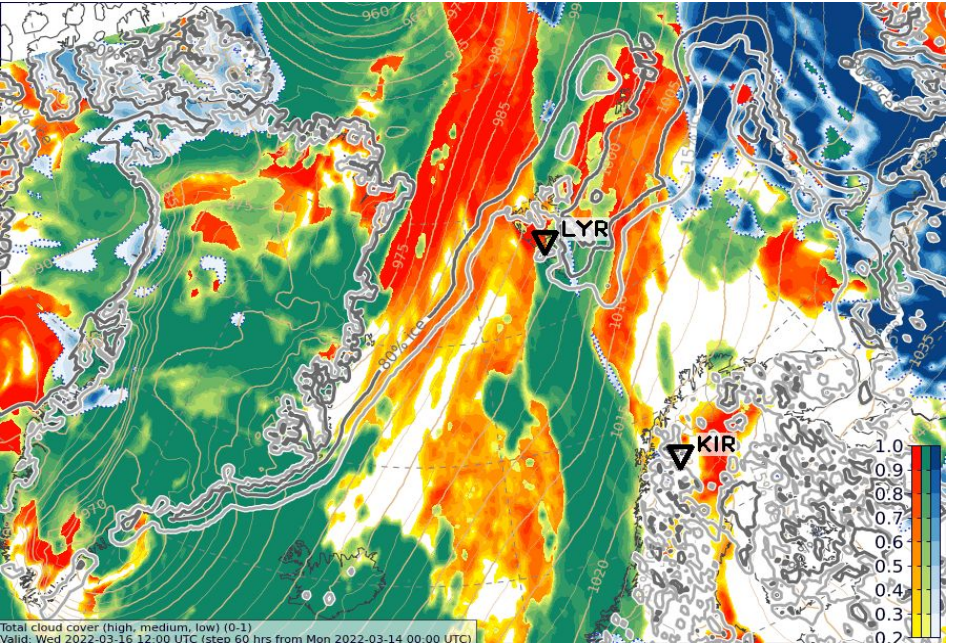
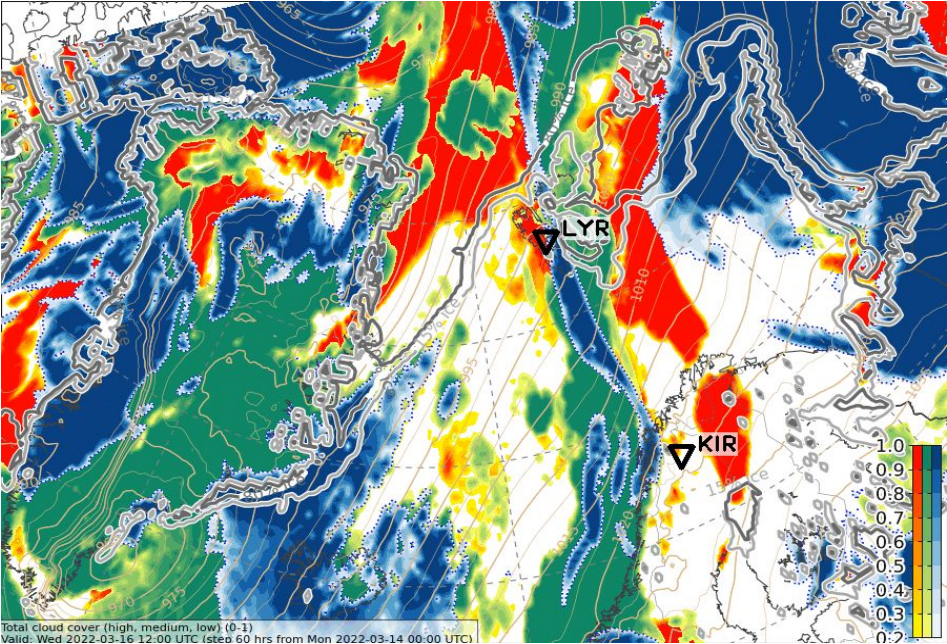
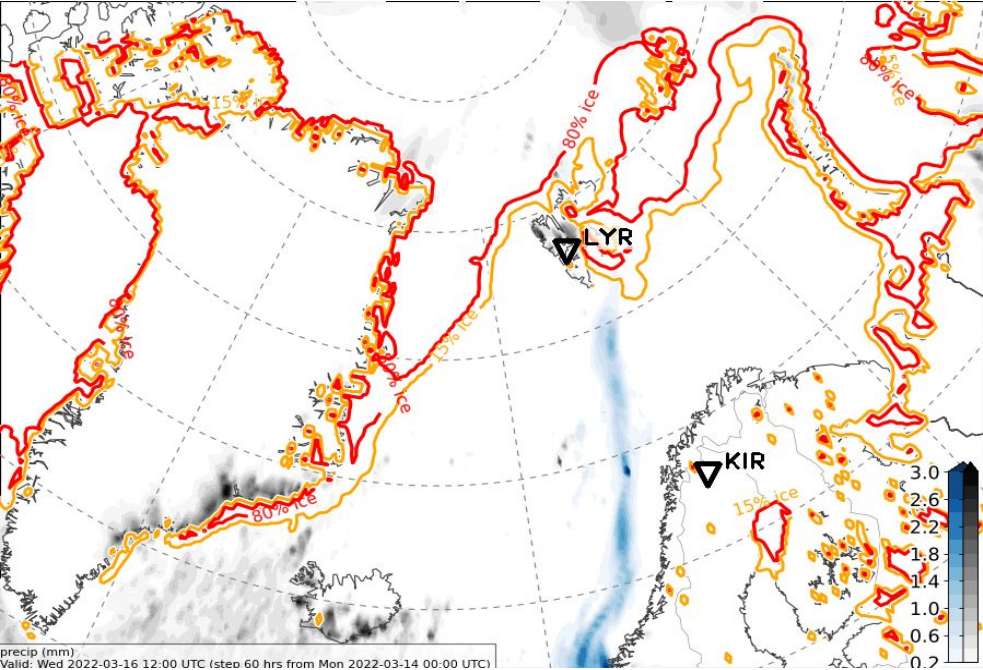


ICON



Wed, 2022-03-16 12 UTC (+60h) ECMWF

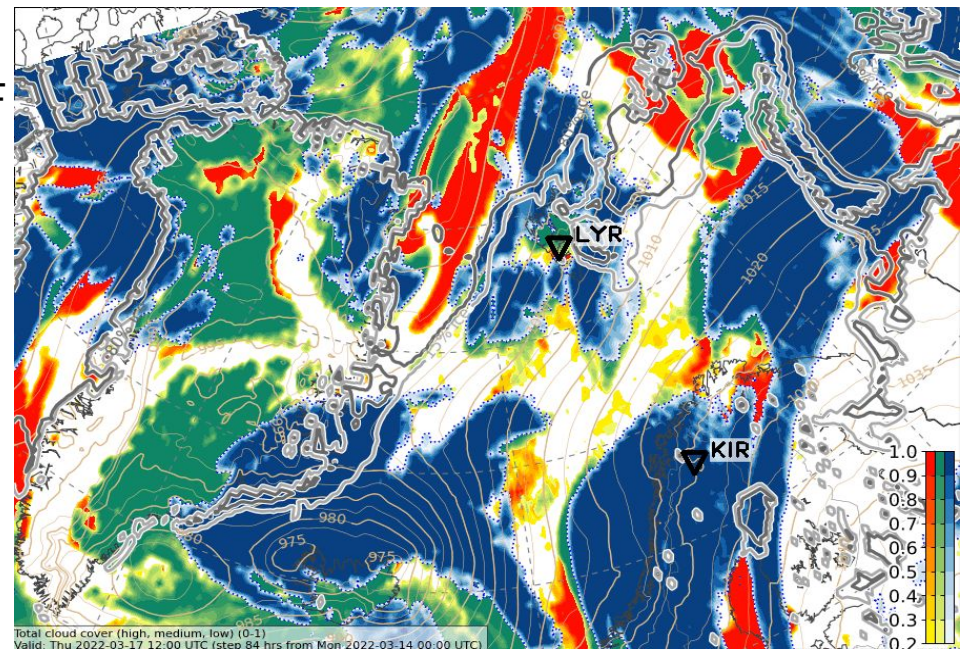
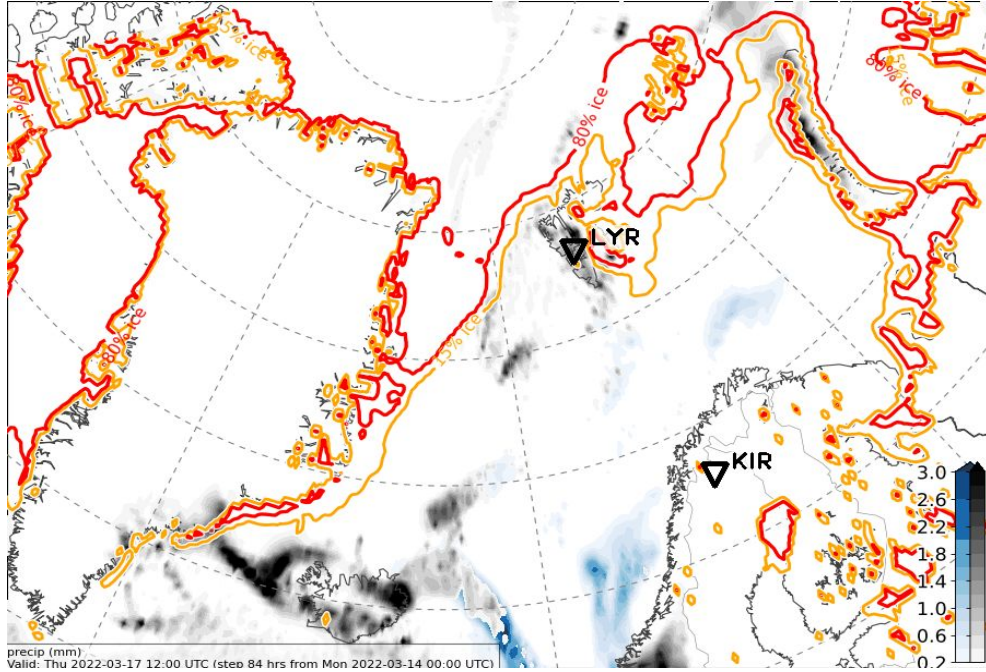
2h prec.



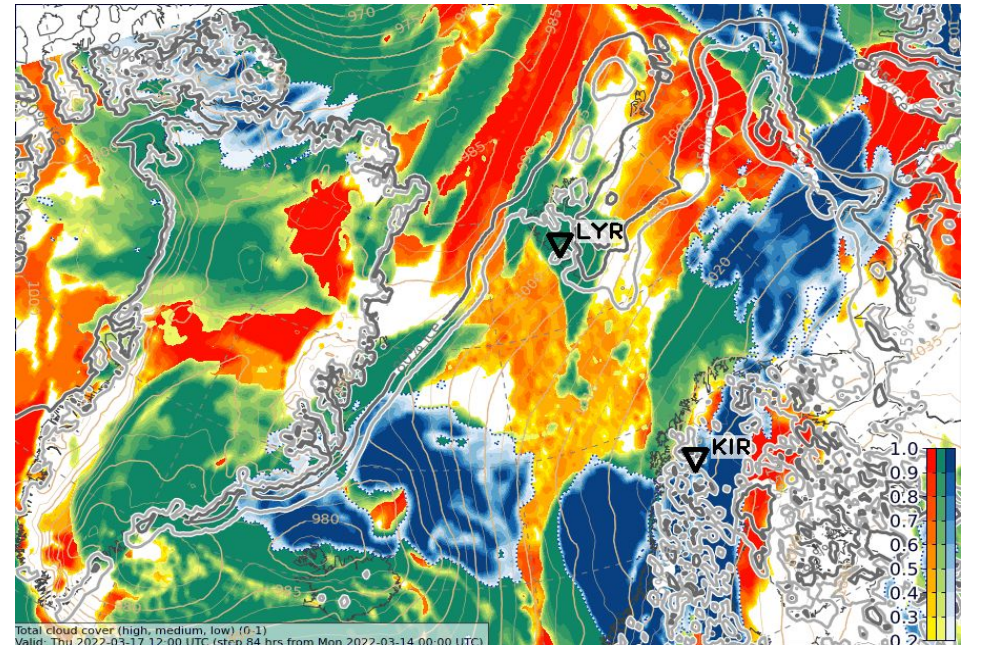
ICON

Thu, 2022-03-17 12 UTC (+84h) ECMWF

2h prec.

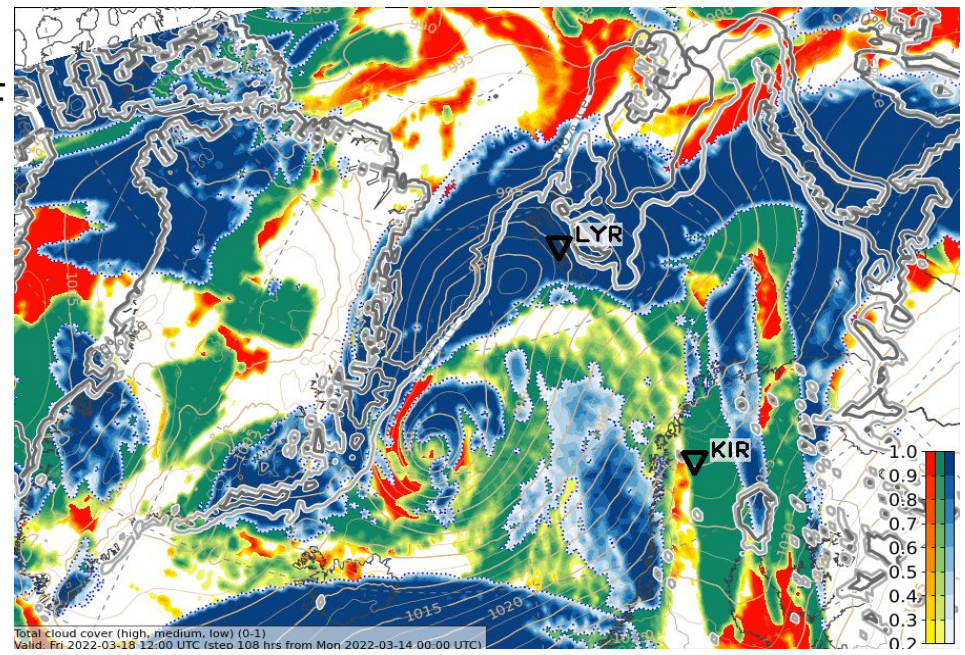
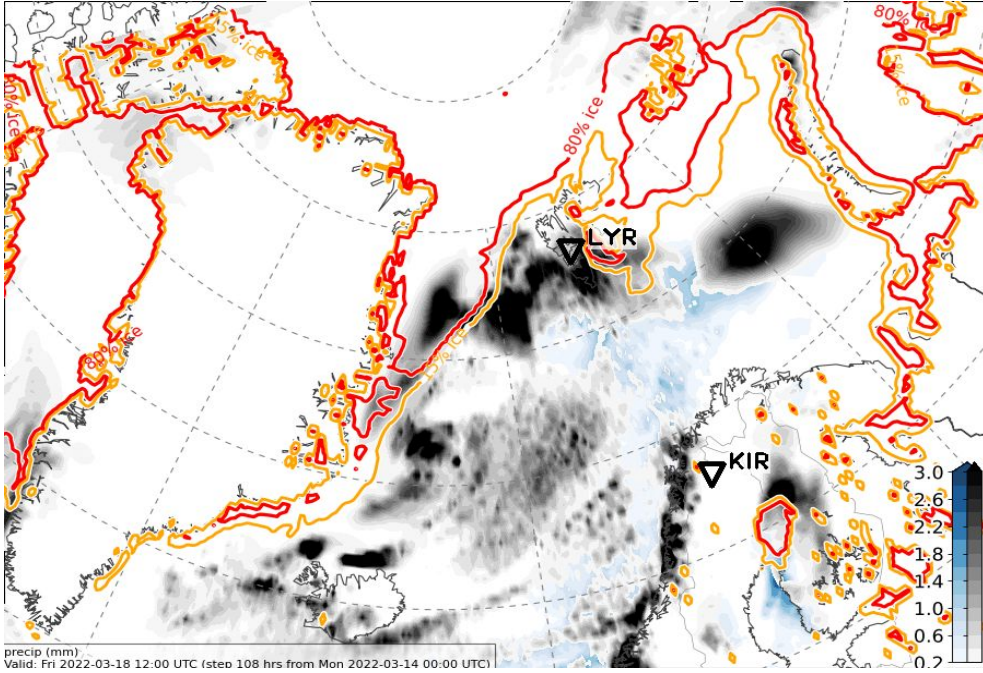


ICON

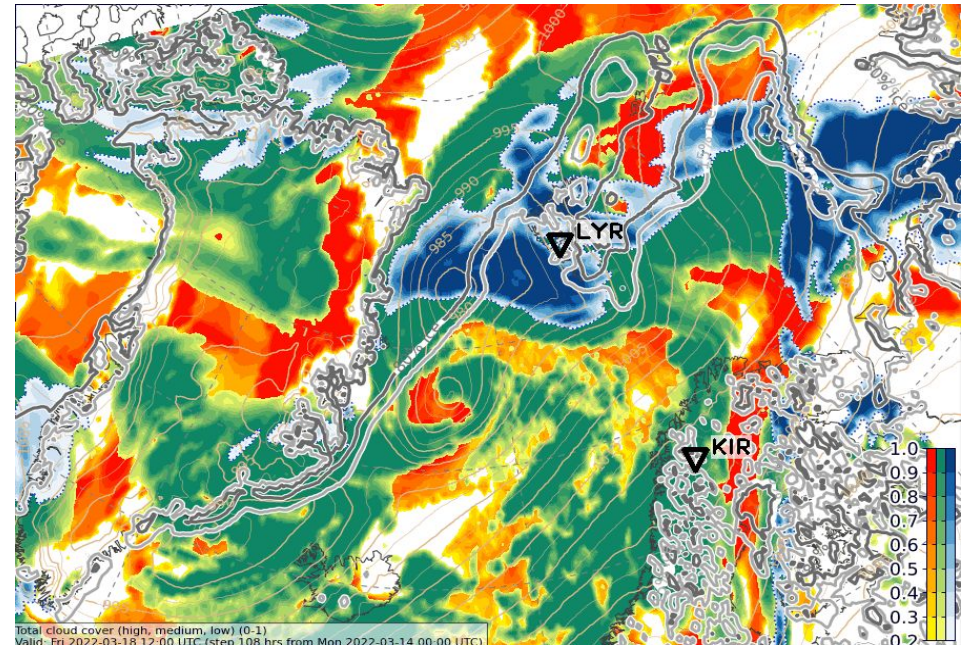


Fri, 2022-03-18 12 UTC (+108h) ECMWF

6h prec.

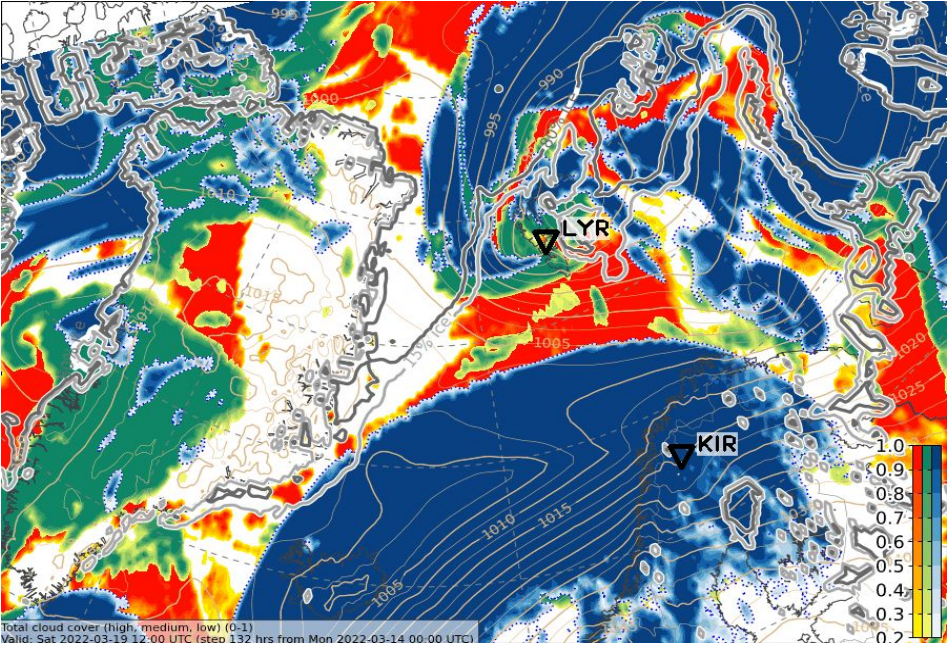
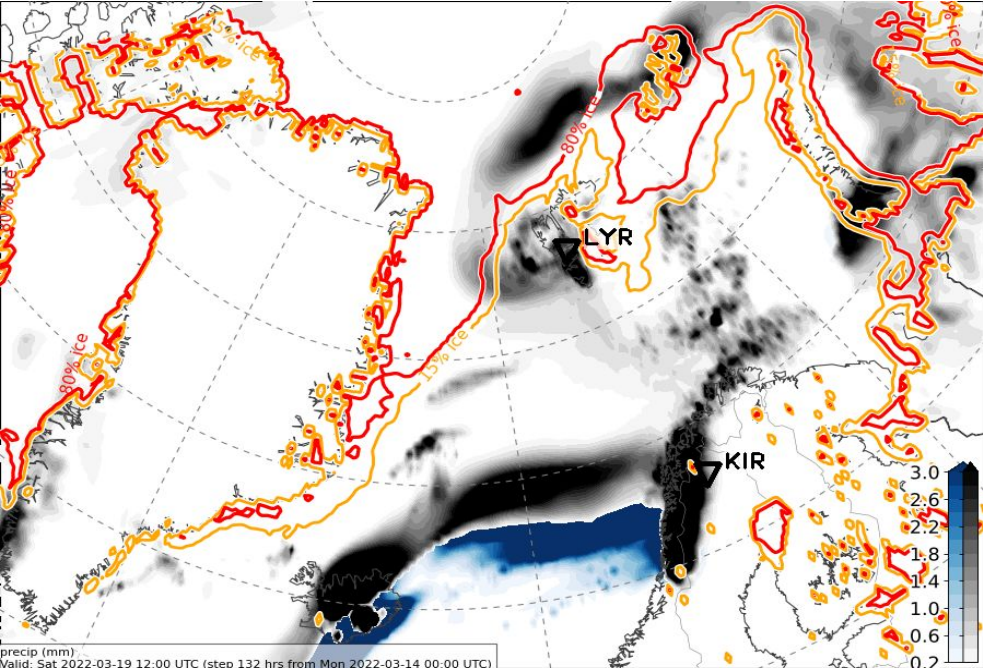


ICON



Sat, 2022-03-19 12 UTC (+132h) ECMWF

6h prec.



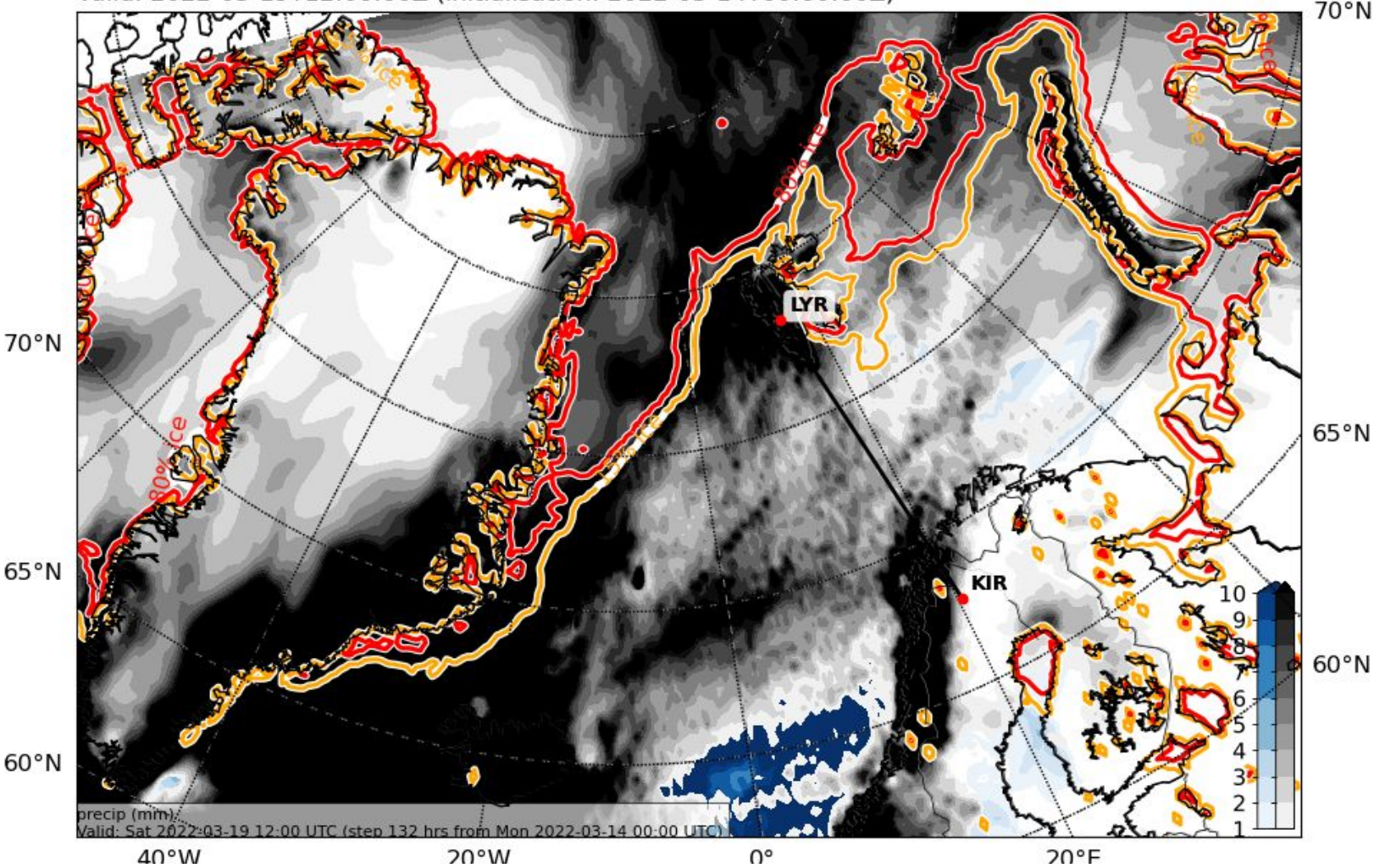
not available

ICON

Sat, 2022-03-19 12 UTC (+132h)

Precipitation, accumulated (mm water eq.). Rain-blue, snow-black
Valid: 2022-03-19T12:00:00Z (initialisation: 2022-03-14T00:00:00Z)

Acc. prec.

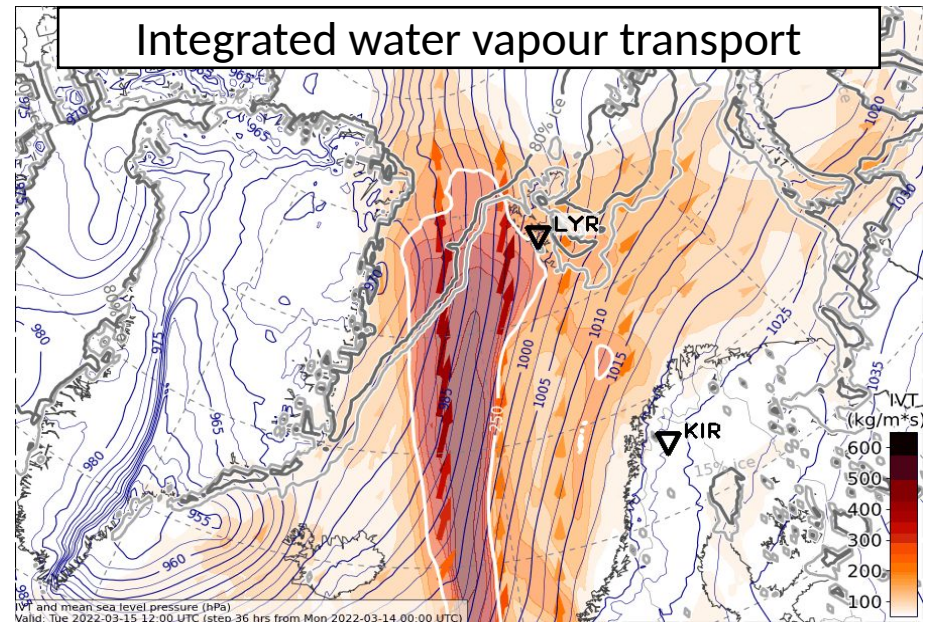
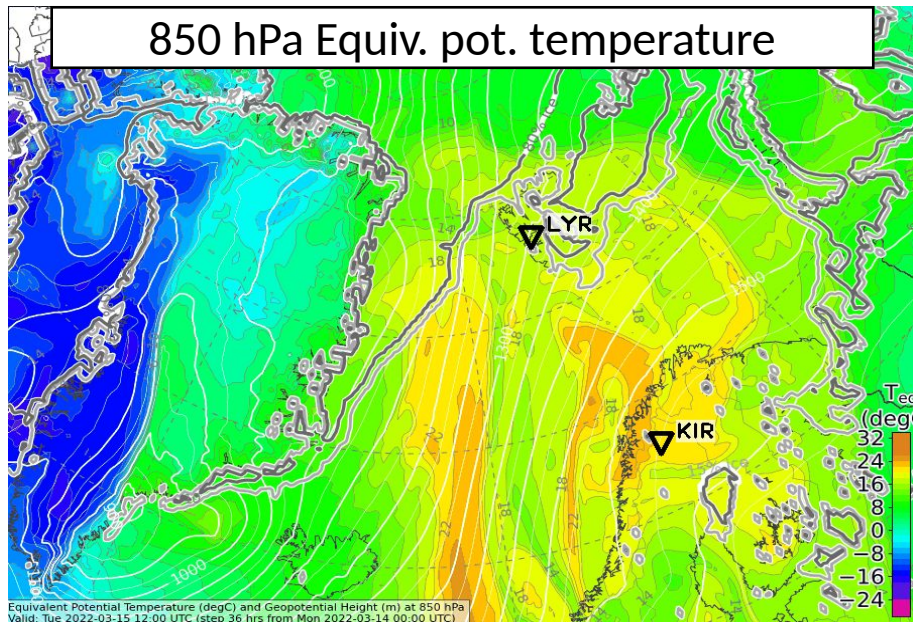
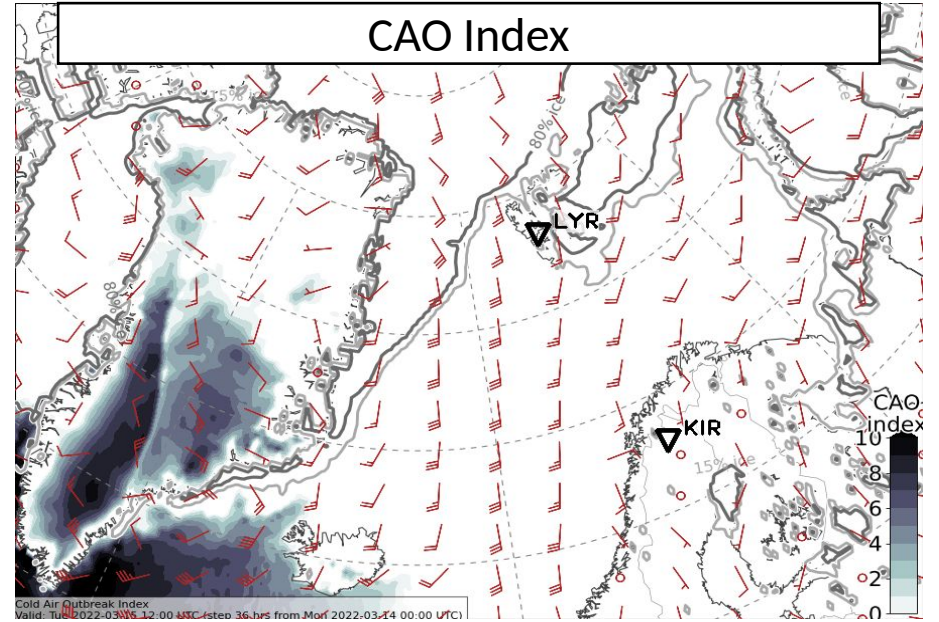
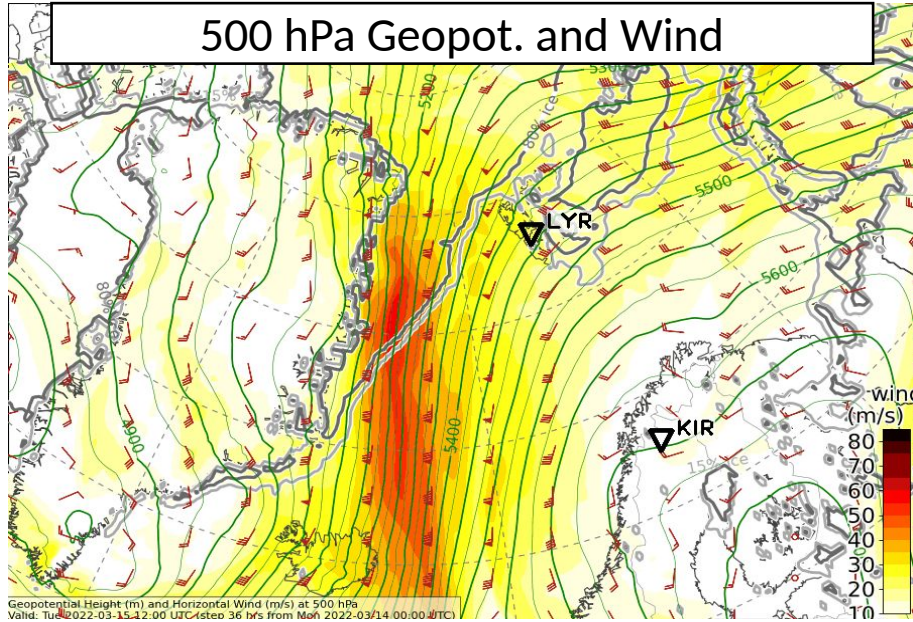


Extra variables

2022-03-14 00 UTC: 36 – 132h

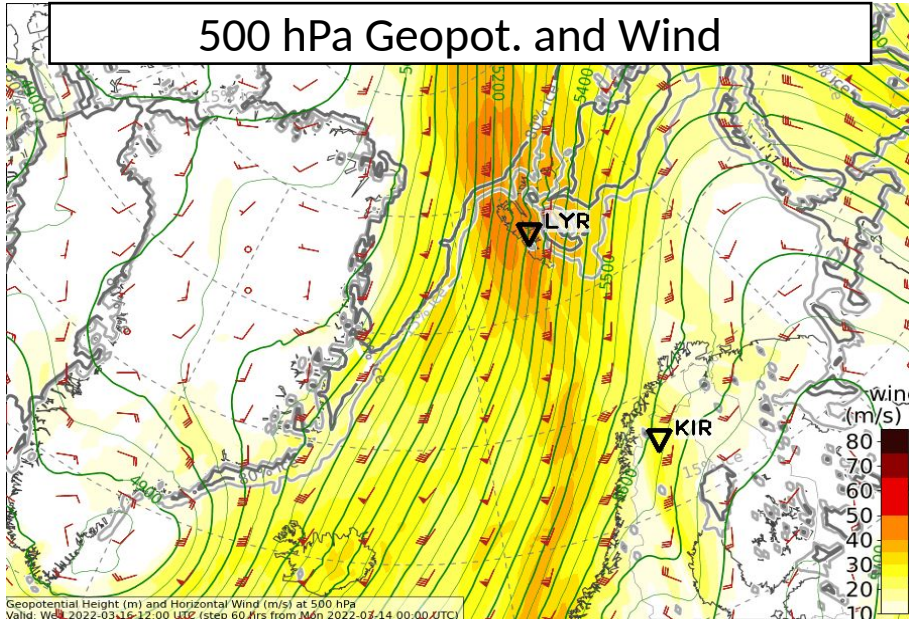
500 hPa wind & 850hPa θ_e & CAO & IVT

Tue, 2022-03-15 12 UTC (+36h)

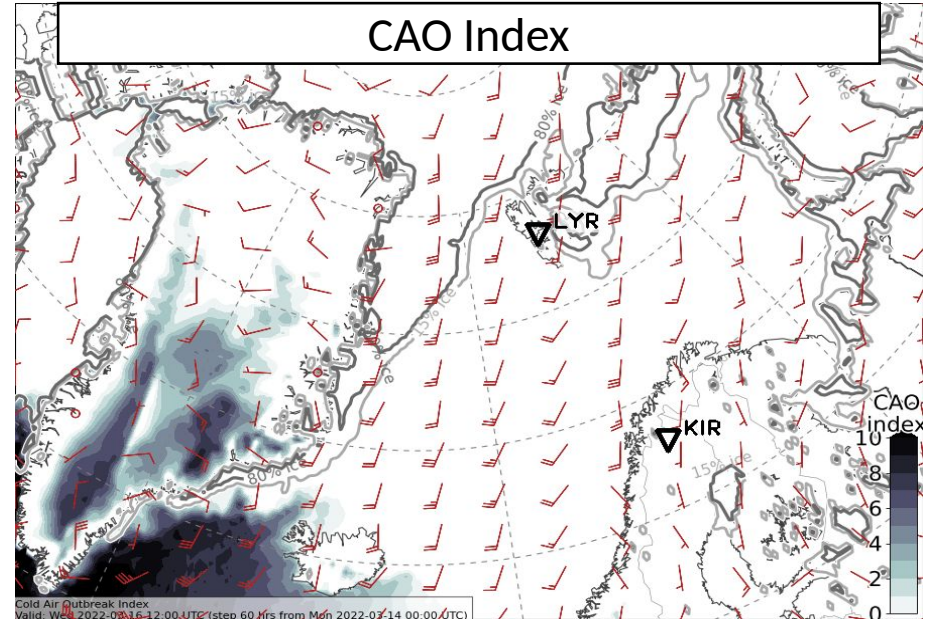


Wed, 2022-03-16 12 UTC (+60h)

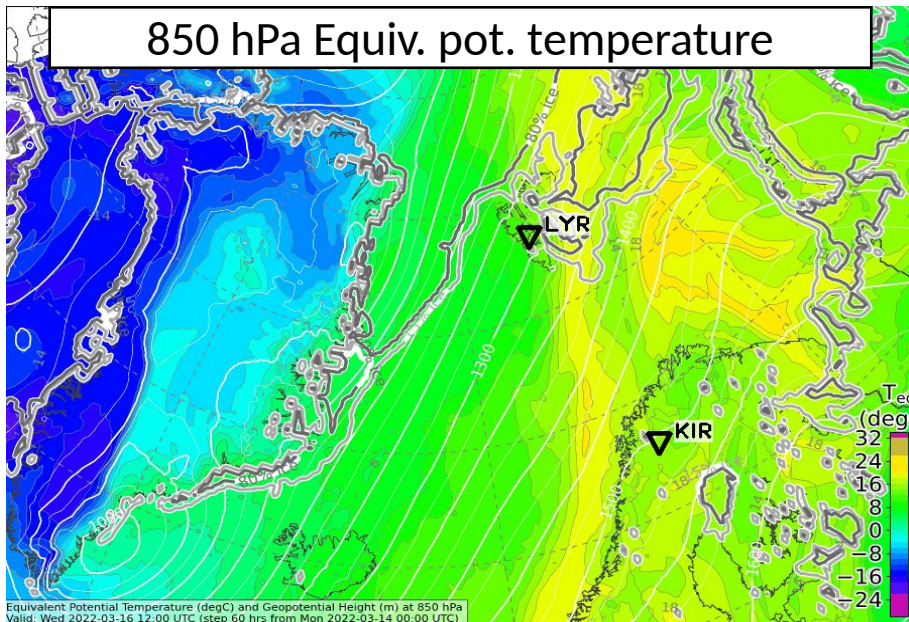
500 hPa Geopot. and Wind



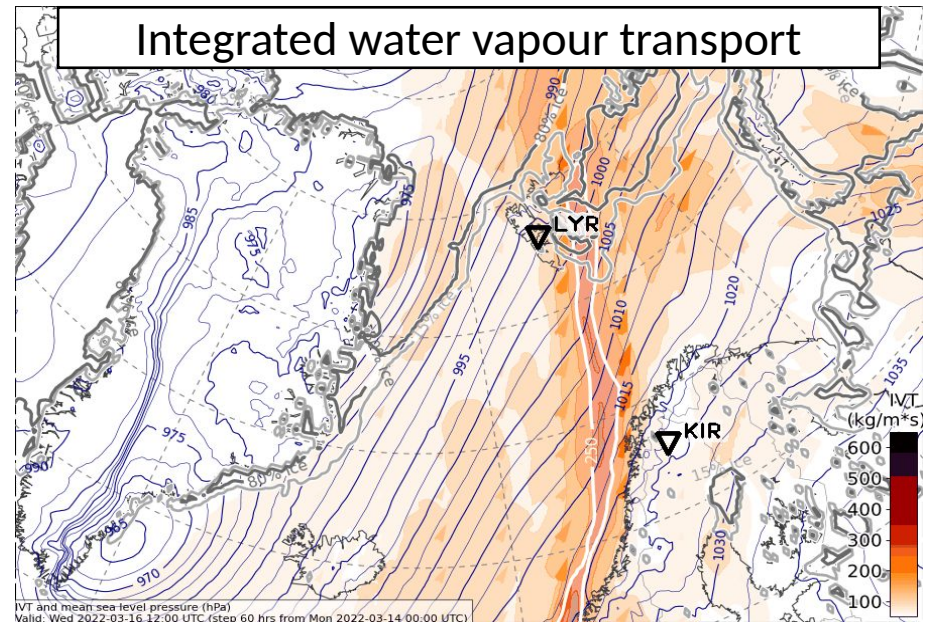
CAO Index



850 hPa Equiv. pot. temperature

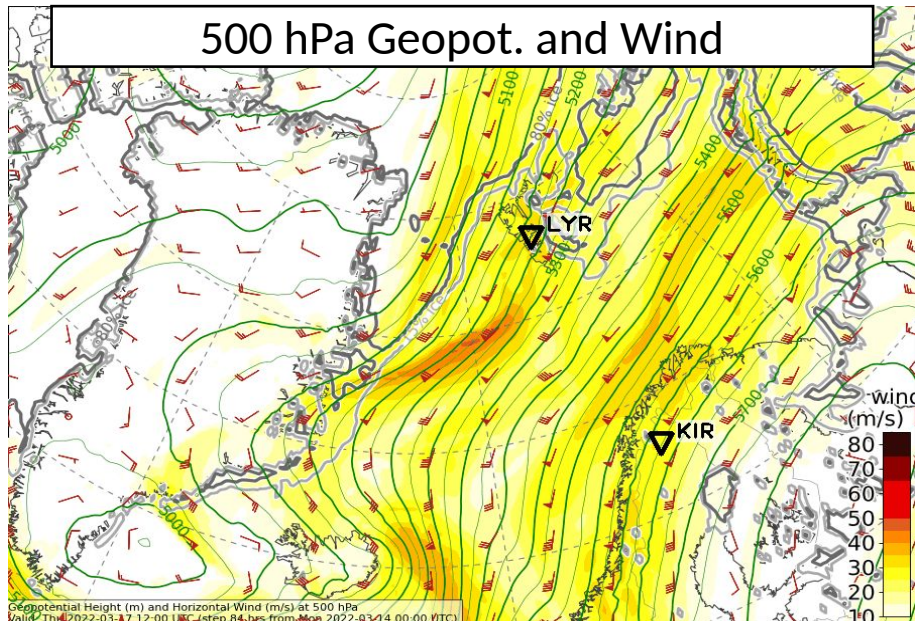


Integrated water vapour transport

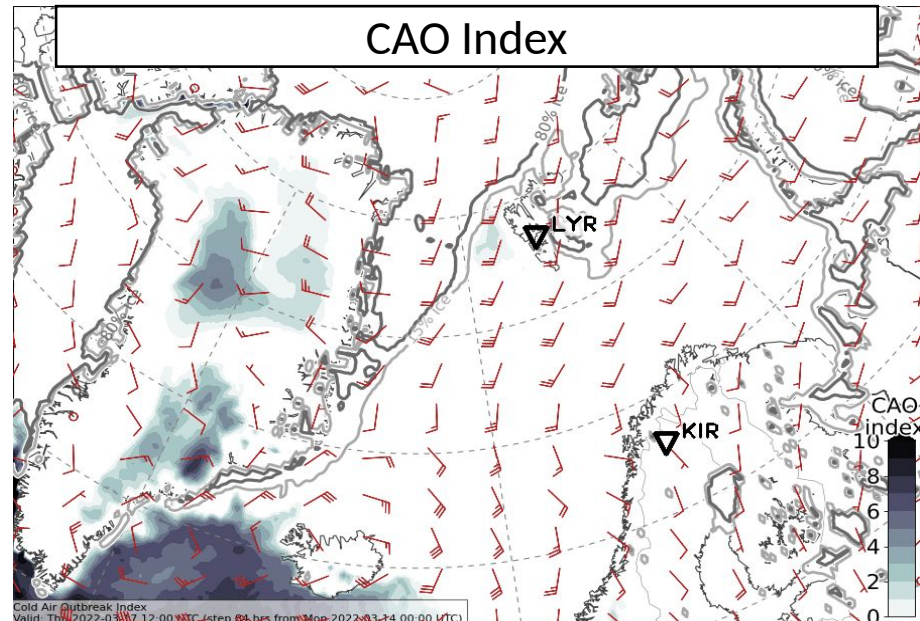


Thu, 2022-03-17 12 UTC (+84h)

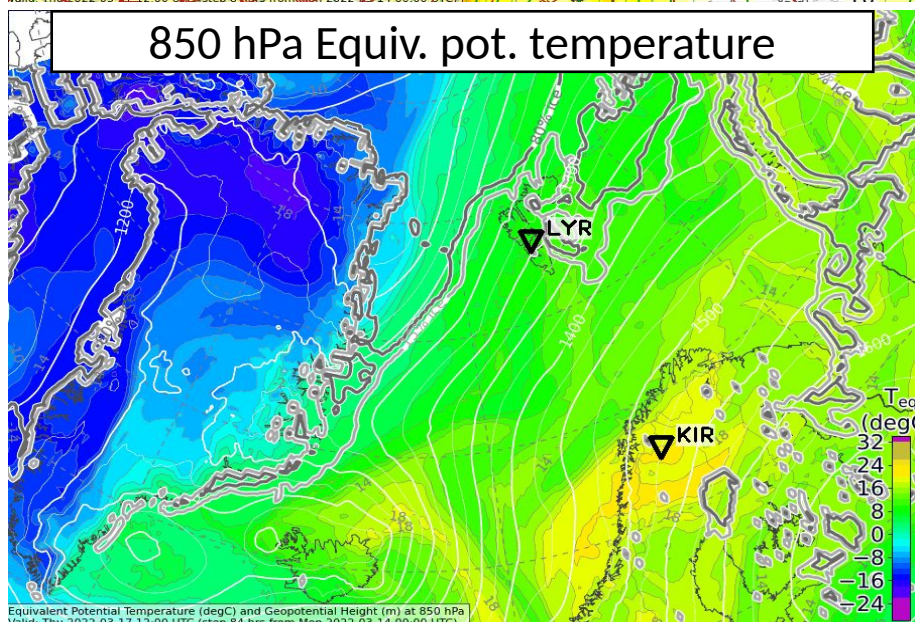
500 hPa Geopot. and Wind



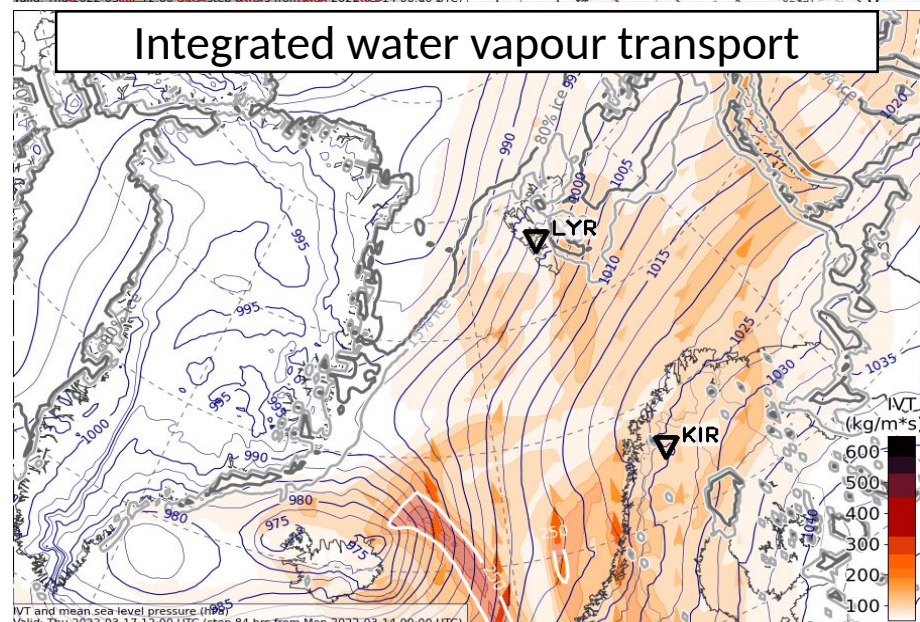
CAO Index



850 hPa Equiv. pot. temperature

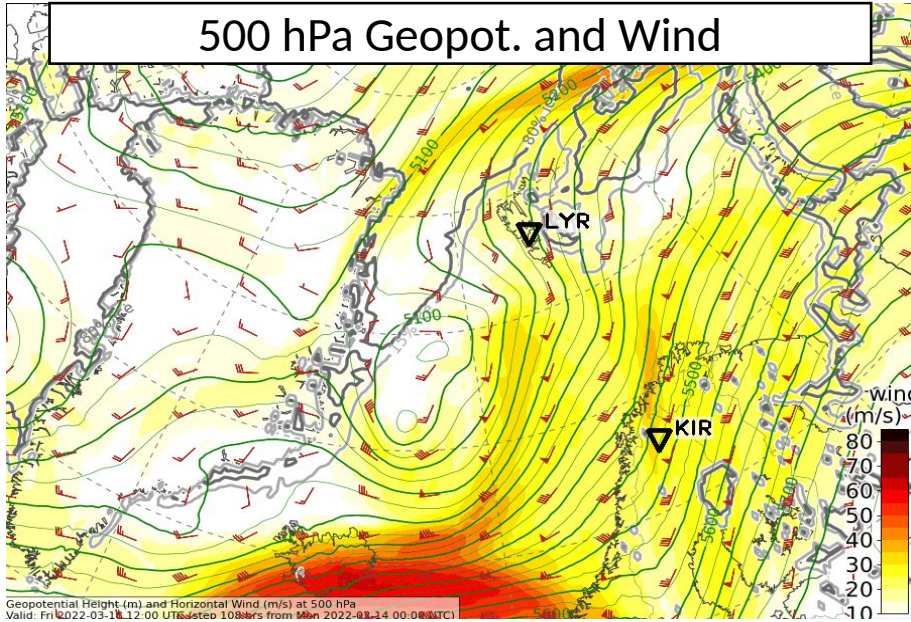


Integrated water vapour transport

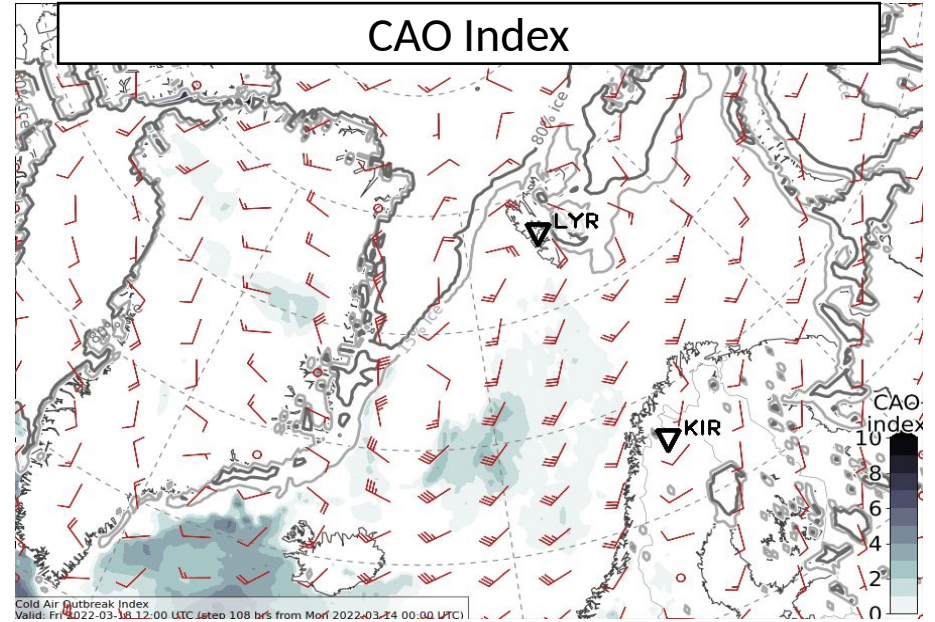


Fri, 2022-03-18 12 UTC (+108h)

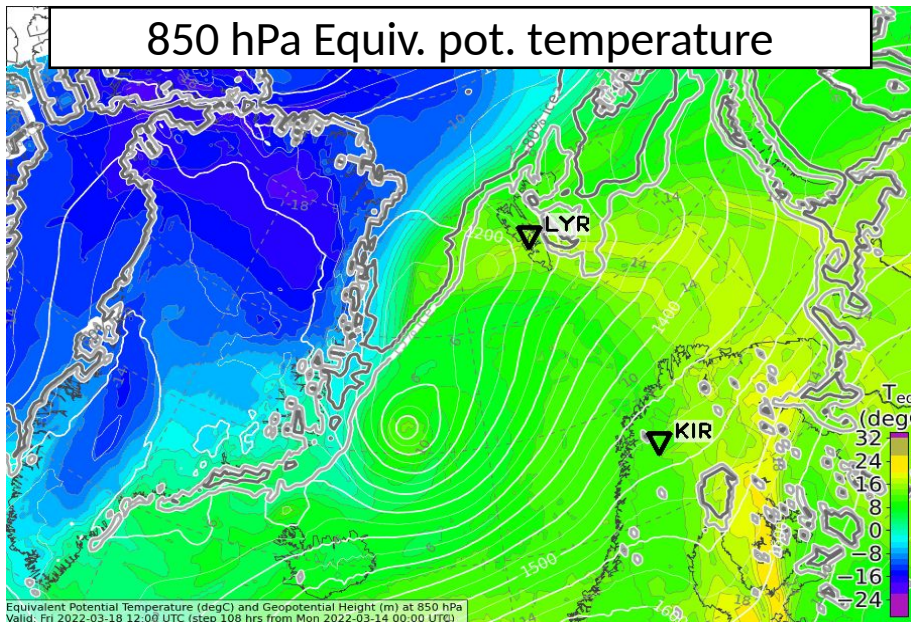
500 hPa Geopot. and Wind



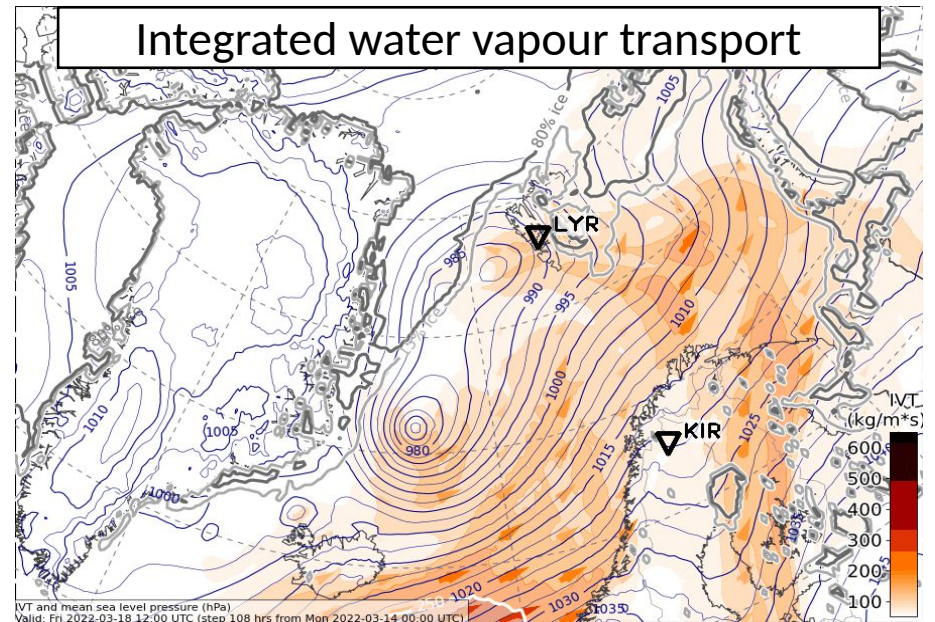
CAO Index



850 hPa Equiv. pot. temperature

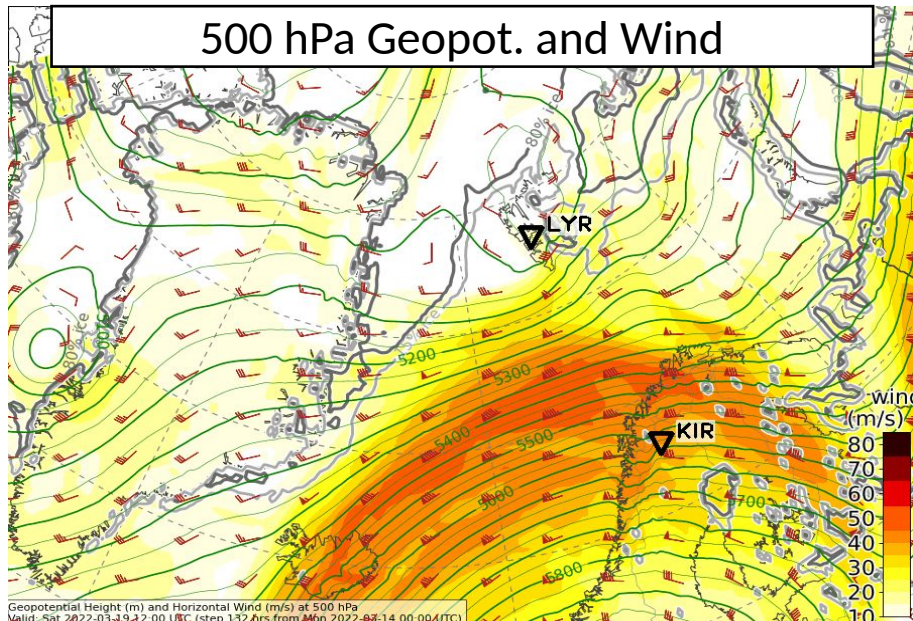


Integrated water vapour transport

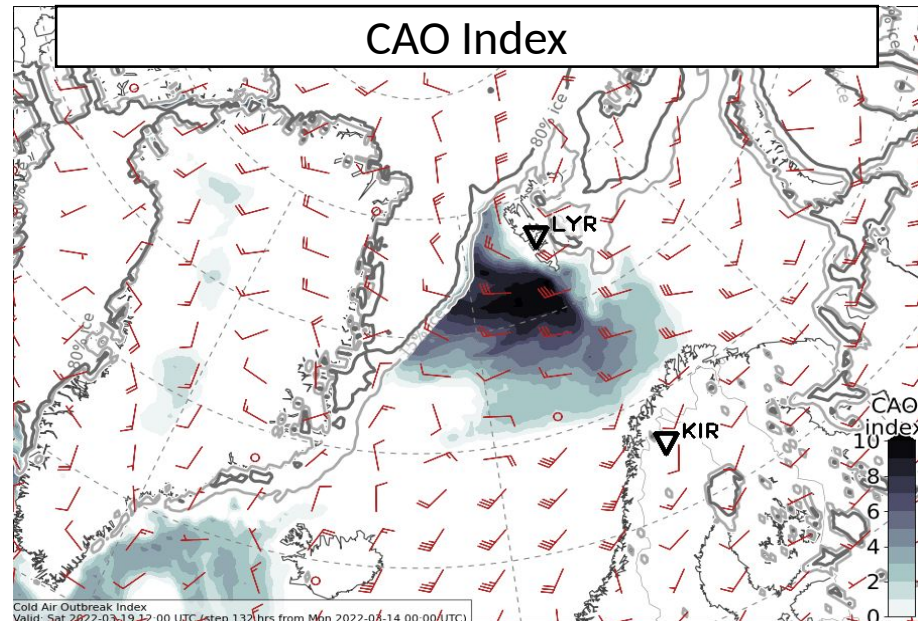


Sat, 2022-03-19 12 UTC (+132h)

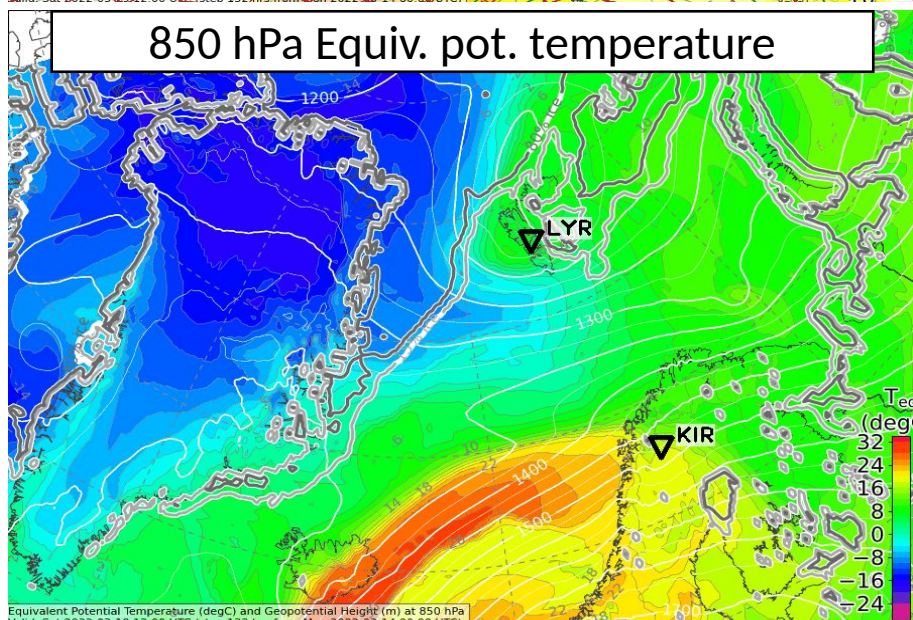
500 hPa Geopot. and Wind



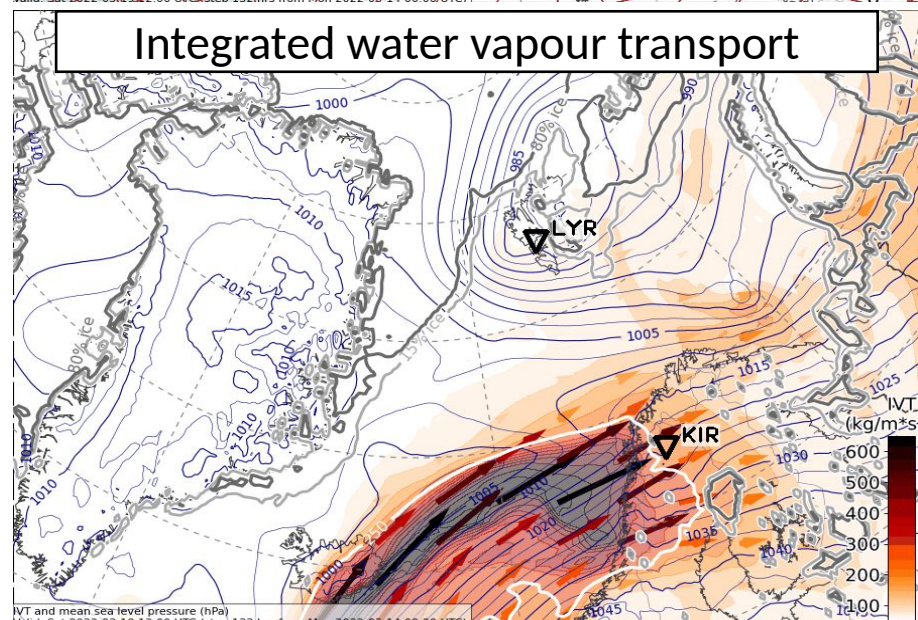
CAO Index



850 hPa Equiv. pot. temperature



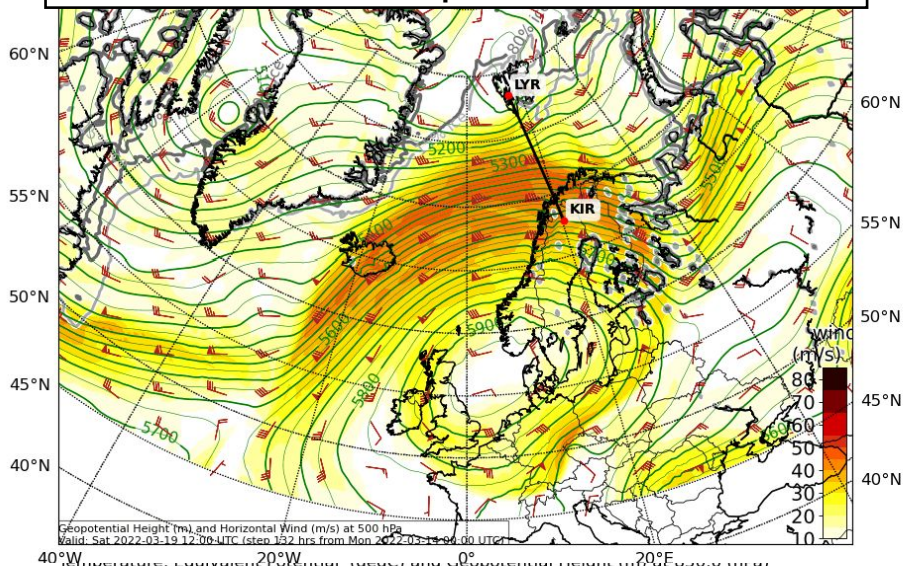
Integrated water vapour transport



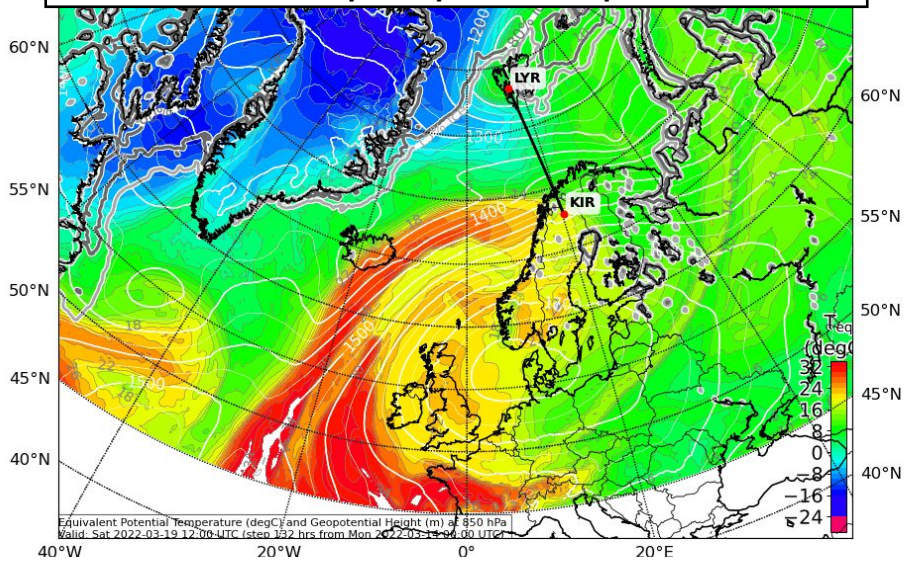
Sat, 2022-03-19 12 UTC (+132h)

Horizontal Wind (m/s) and Geopotential Height (m) (default) at 500.0 (hPa)

500 hPa Geopot. and Wind

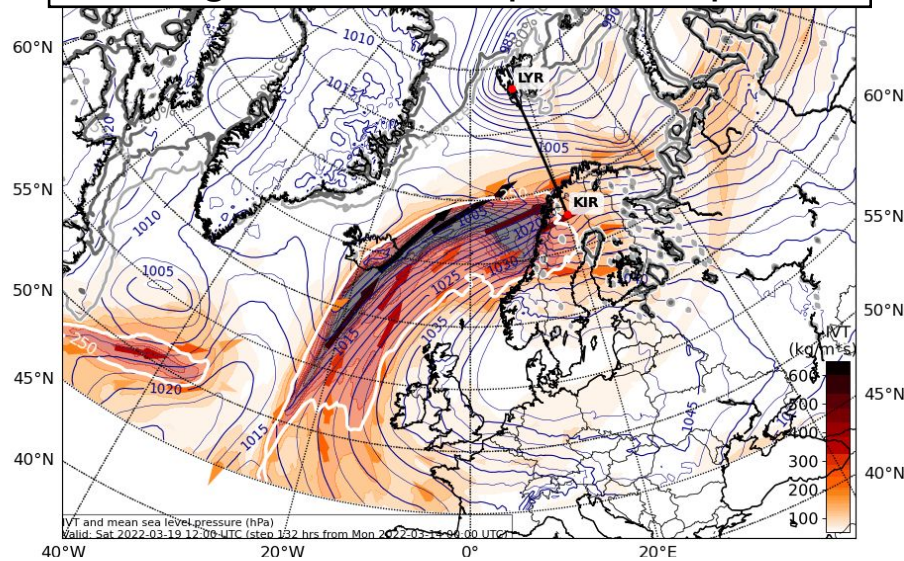


850 hPa Equiv. pot. temperature



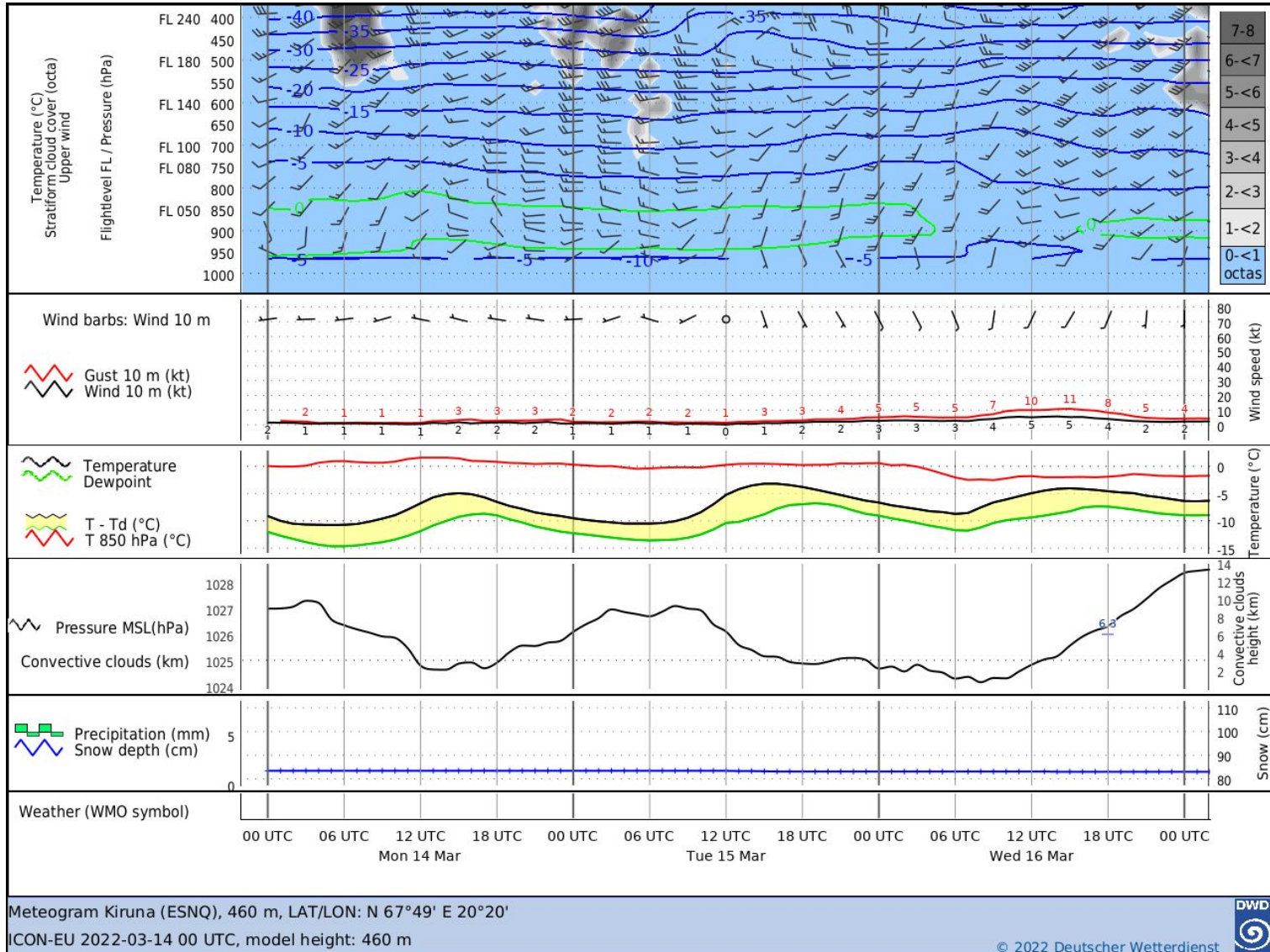
IVT (kg m⁻¹ s⁻¹) and Mean Sea Level Pressure (hPa)

Integrated water vapour transport



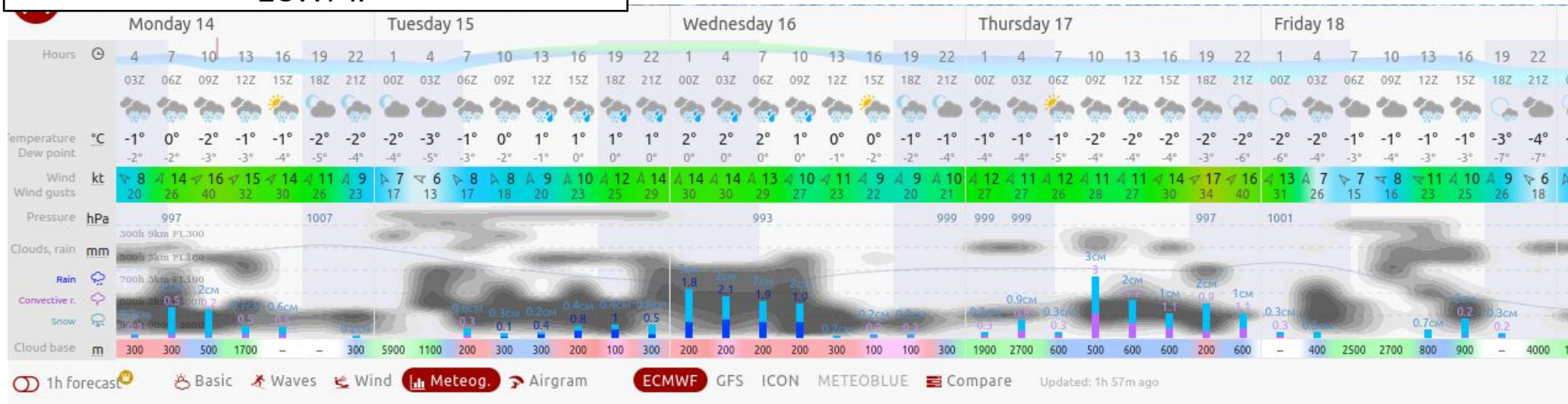
Airport meteograms

Kiruna:

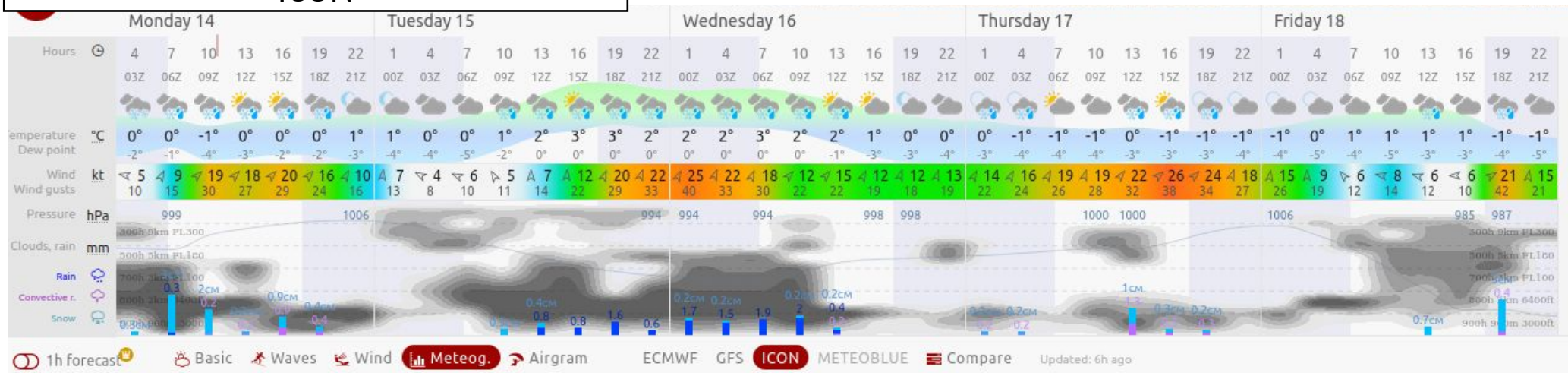


Longyearbyen:

ECWMF

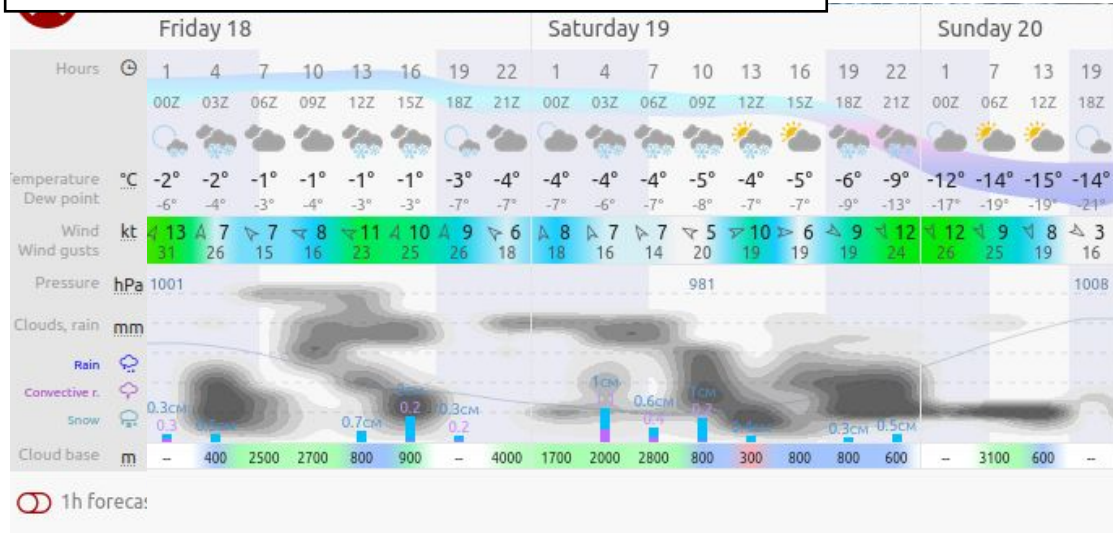


ICON



Longyearbyen:

ECWMF

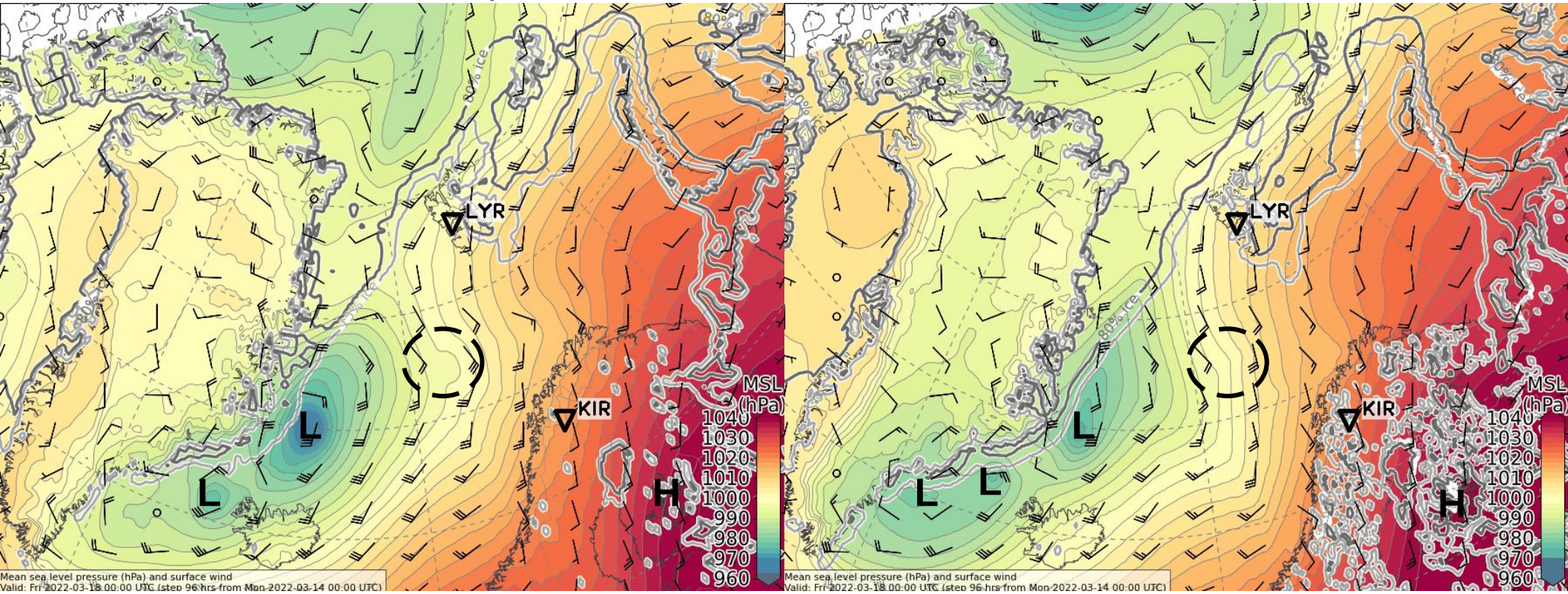


Forecast uncertainty
2022-03-14 00 UTC: 96 – 108h

Friday, 2022-03-18 00 UTC (+96h)

ECMWF - Sea level pressure

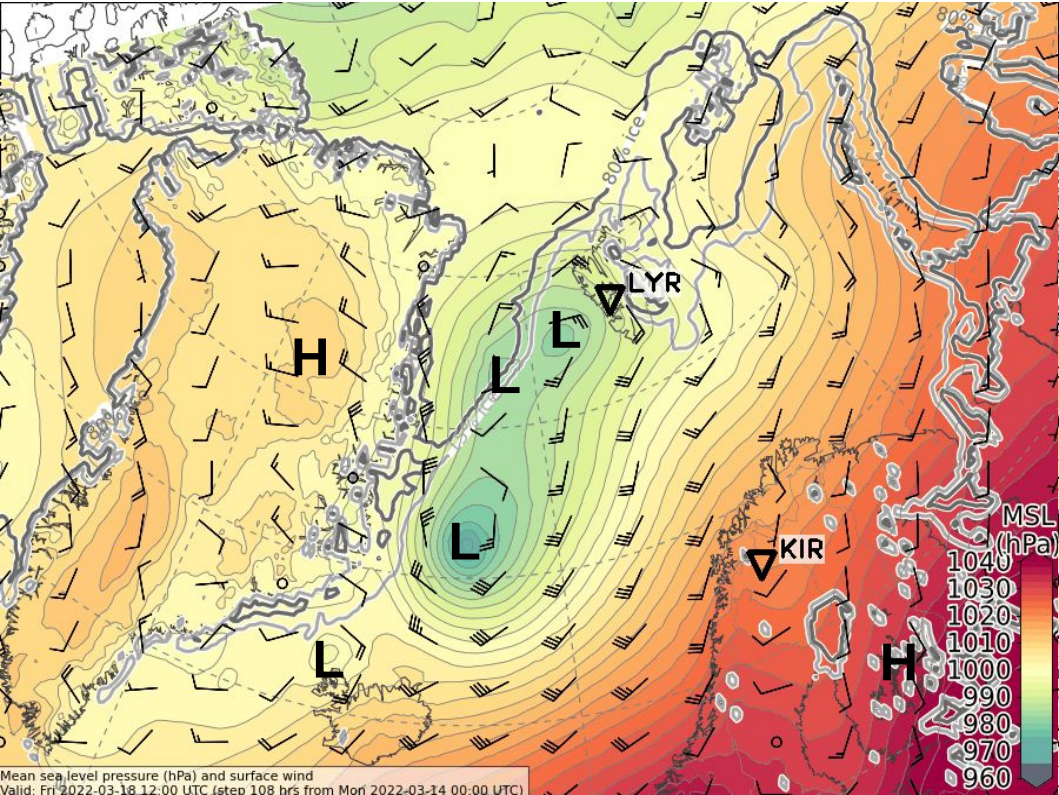
ICON - Sea level pressure



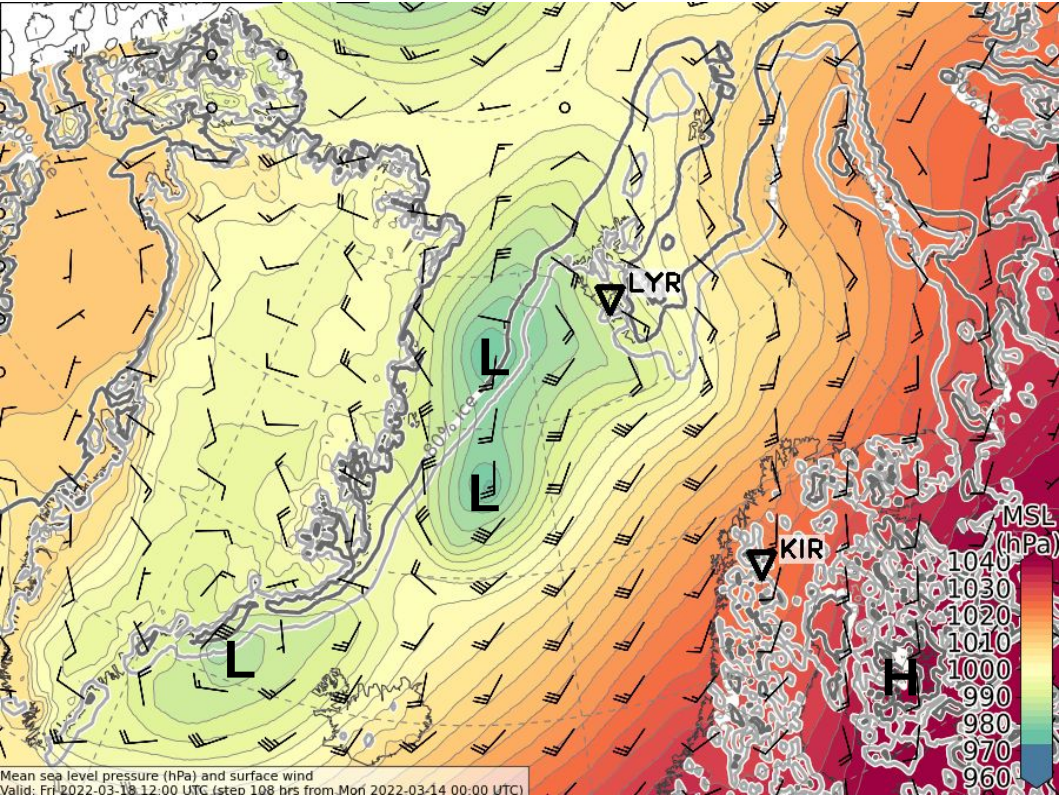
Friday, 2022-03-18 12 UTC (+108h)

ECMWF - Sea level pressure

ICON - Sea level pressure



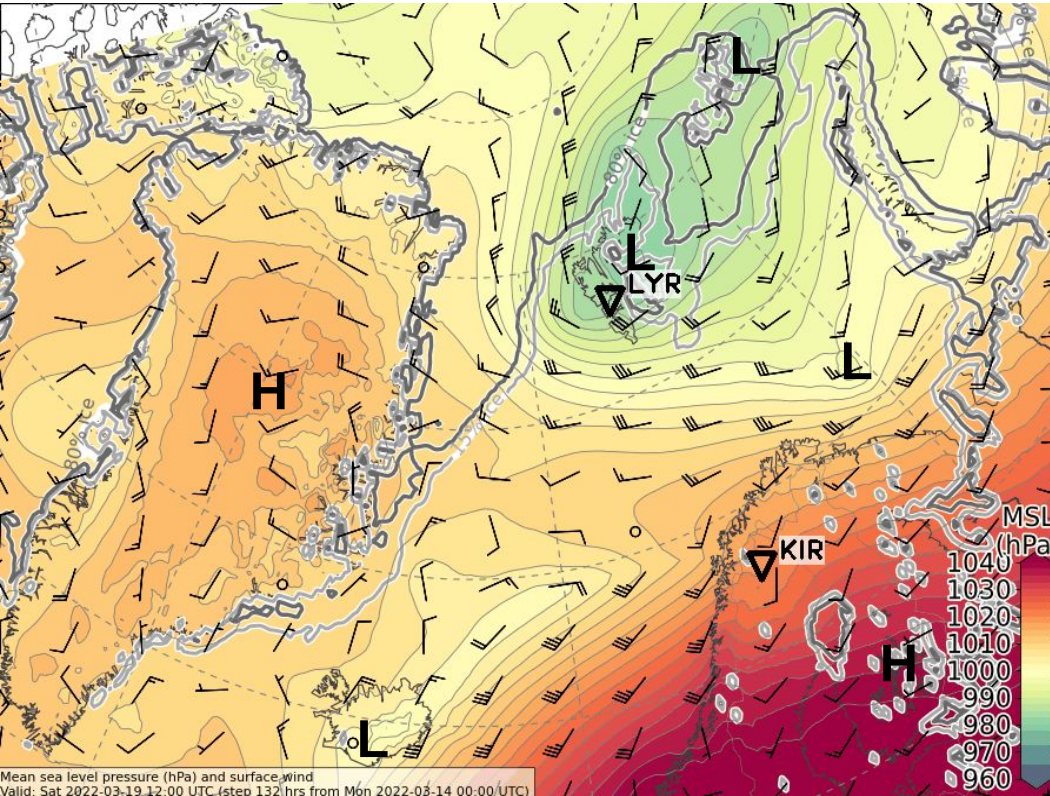
Mean sea level pressure (hPa) and surface wind
Valid: Fri 2022-03-18 12:00 UTC (stepped 108 hrs from Mon 2022-03-14 00:00 UTC)



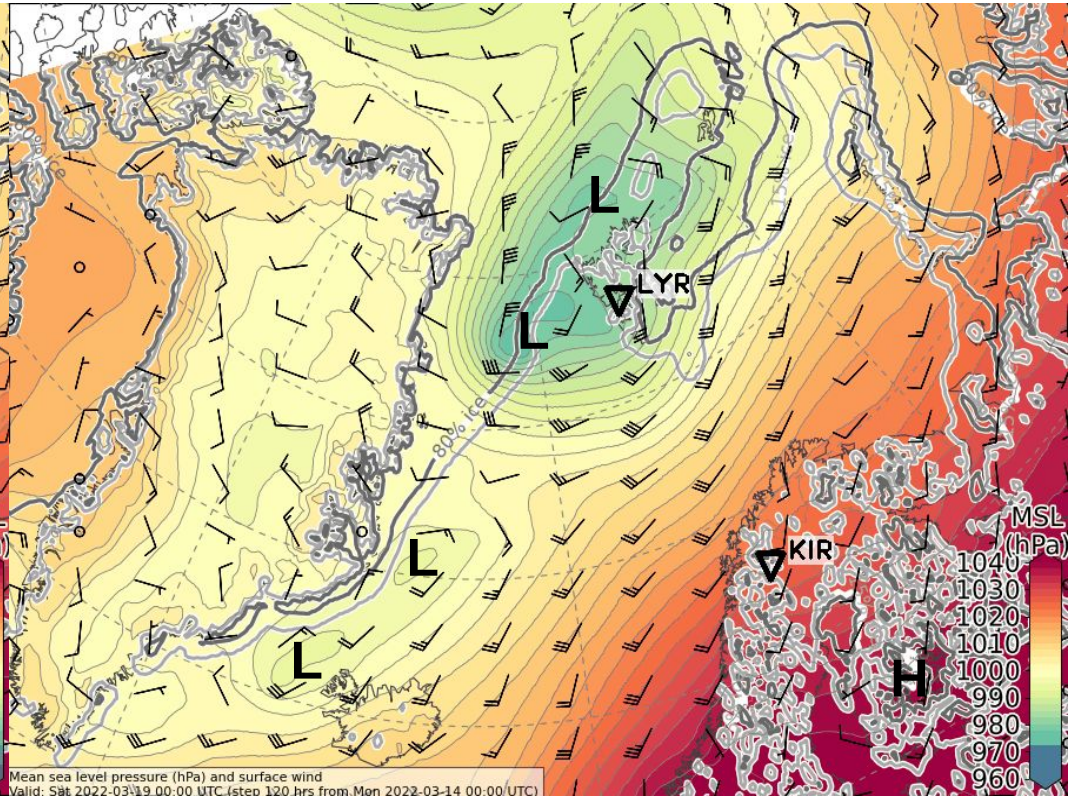
Mean sea level pressure (hPa) and surface wind
Valid: Fri 2022-03-18 12:00 UTC (stepped 108 hrs from Mon 2022-03-14 00:00 UTC)

Saturday, 2022-03-19 00 UTC (+120h)

ECMWF - Sea level pressure

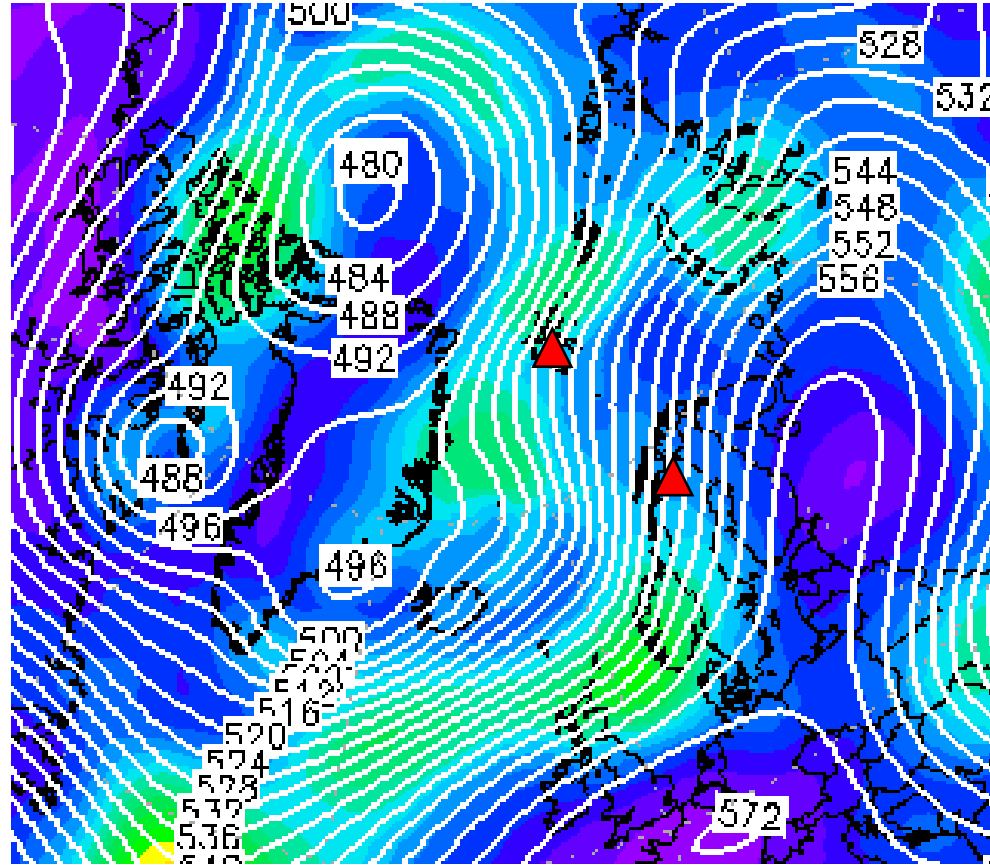


ICON - Sea level pressure



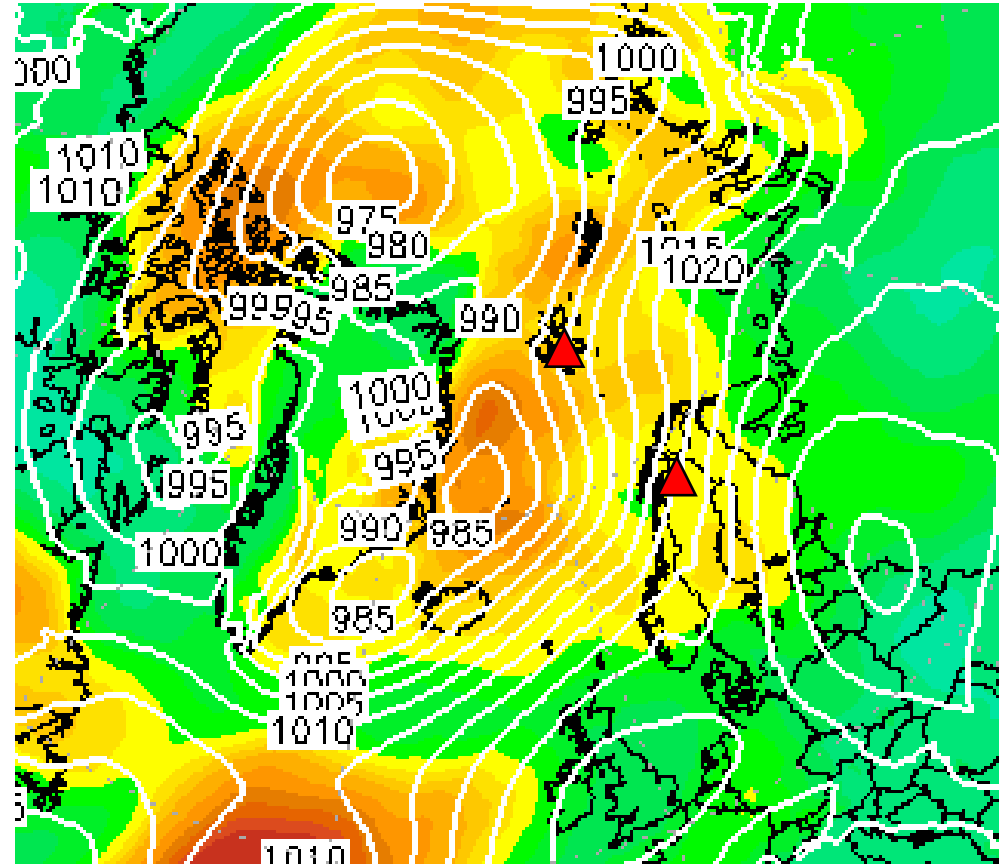
Friday, 2022-03-18 00 UTC (+96h)

500 hPa Geopot.



gpdam

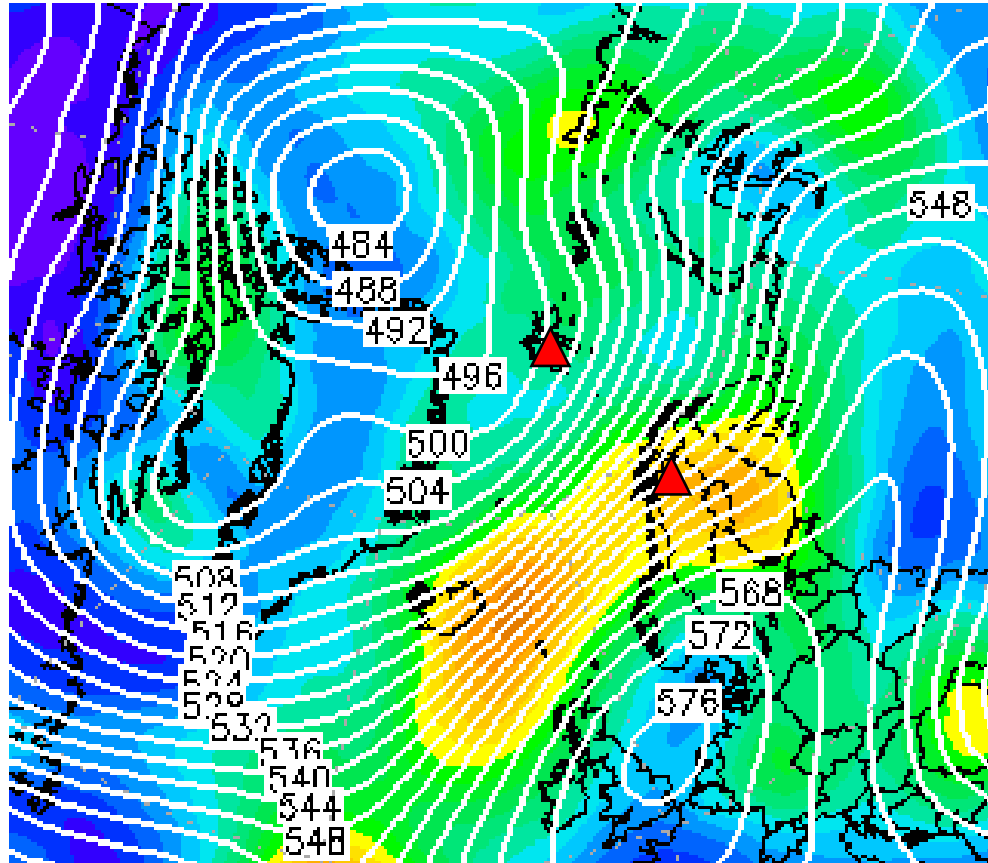
Sea level pressure



hPa

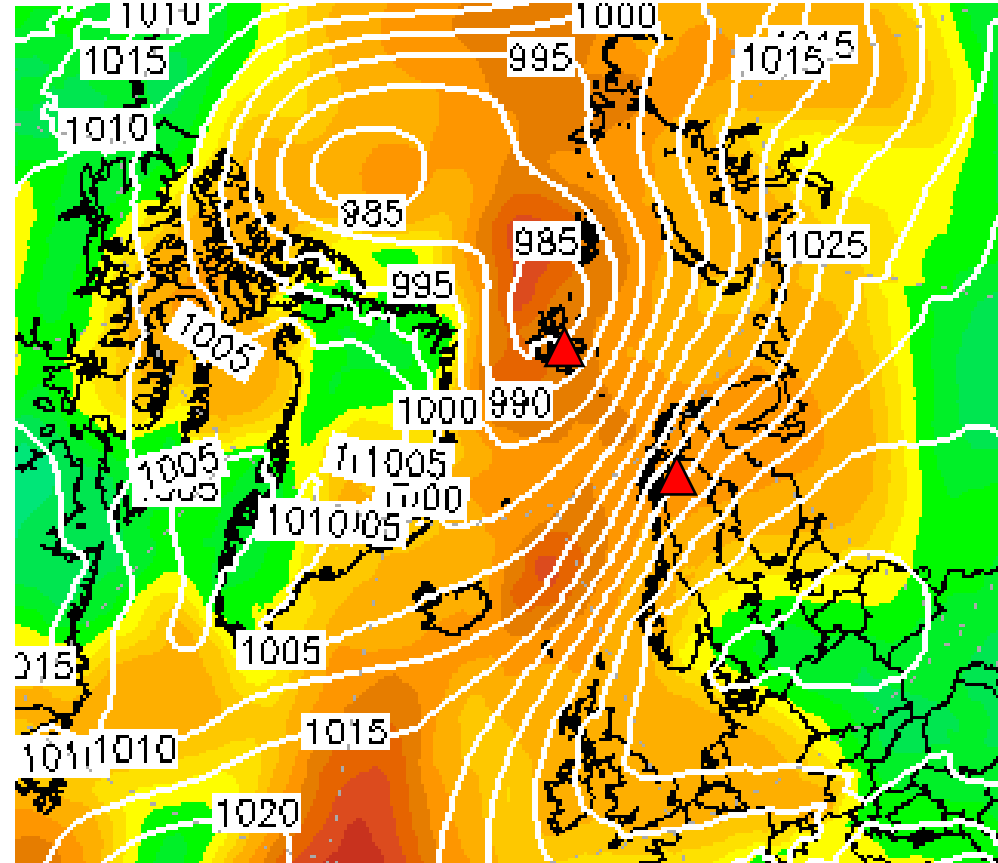
Saturday, 2022-03-19 00 UTC (+120h)

500 hPa Geopot.



gpdam

Sea level pressure



hPa

Summary

Summary: Weather Briefing 2022-03-14, 17:00 LT

•Tuesday, 2022-03-15:

- Strong AR event over Fram Strait associated with some rain near the ice edge

•Wednesday, 2022-03-16:

- AR directed from Norwegian coast (offshore) to Svalbard and Arctic Ocean further north
- Front over sea ice NE of Greenland causing snow over presumably closed sea ice

•Thursday, 2022-03-17:

- Slightly cooler and drier airmasses over Fram Strait
- SW flow over open water + large vertical T-difference = snow showers over Svalbard

•Friday, 2022-03-18:

- Cyclone(s) over Fram Strait, presumably with another front + precipitation approaching Svalbard from SW
- However, uncertainties in exact position of these structures and thus in the predicted precipitation

•Saturday, 2022-03-19:

- Cold air advection/cold air outbreak over Fram Strait almost from West to East originating from Greenland
- Very warm and moist airmass advection towards Kiruna from SW
- Uncertainties increase