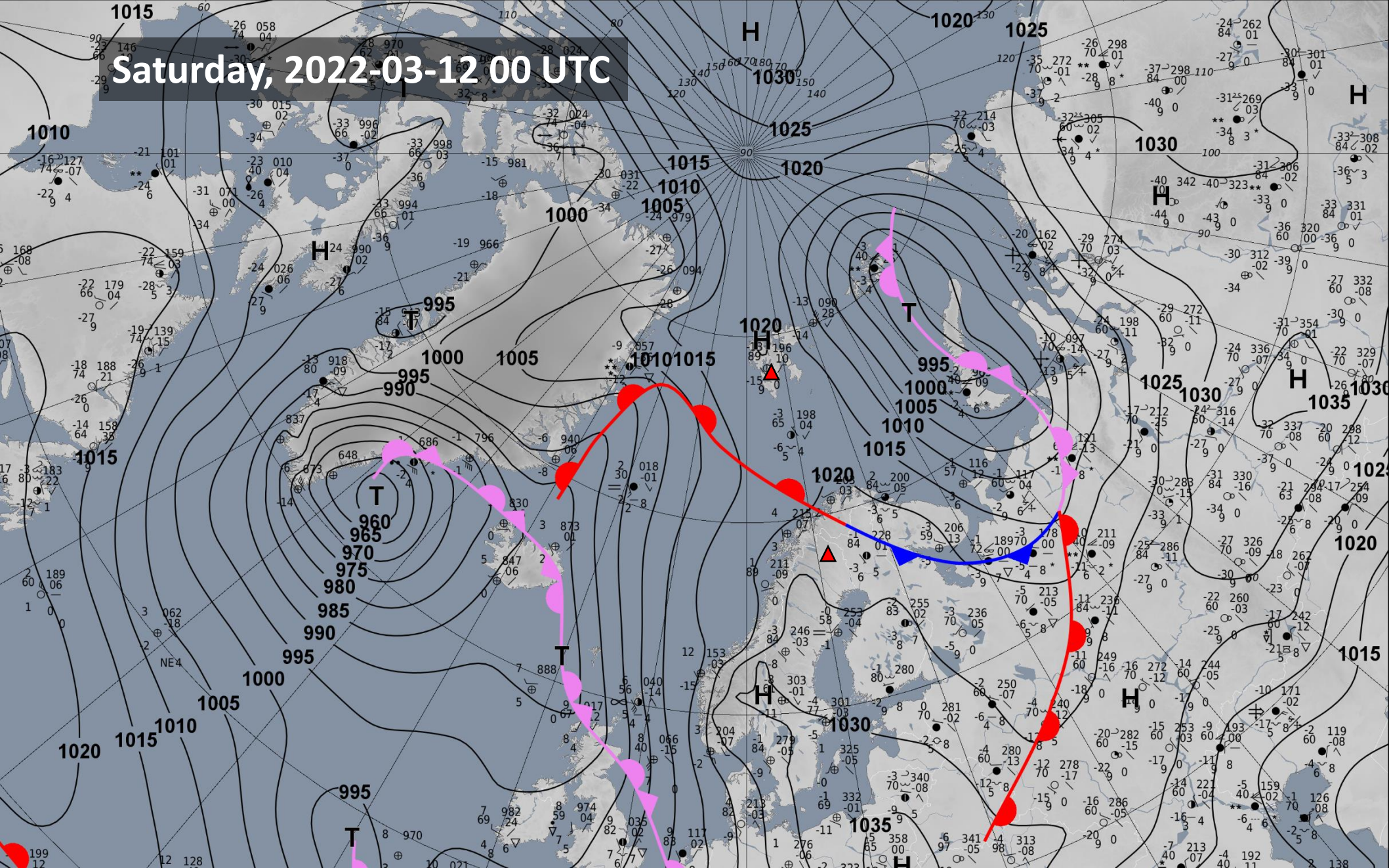


Weather briefing HALO-(AC)³

Wednesday, 2022-03-12 17:00 LT

Surface Analysis
2022-03-12 00 UTC
DWD

Saturday, 2022-03-12 00 UTC



Circulation pattern development

2022-03-12 00 UTC: 00 – 108h

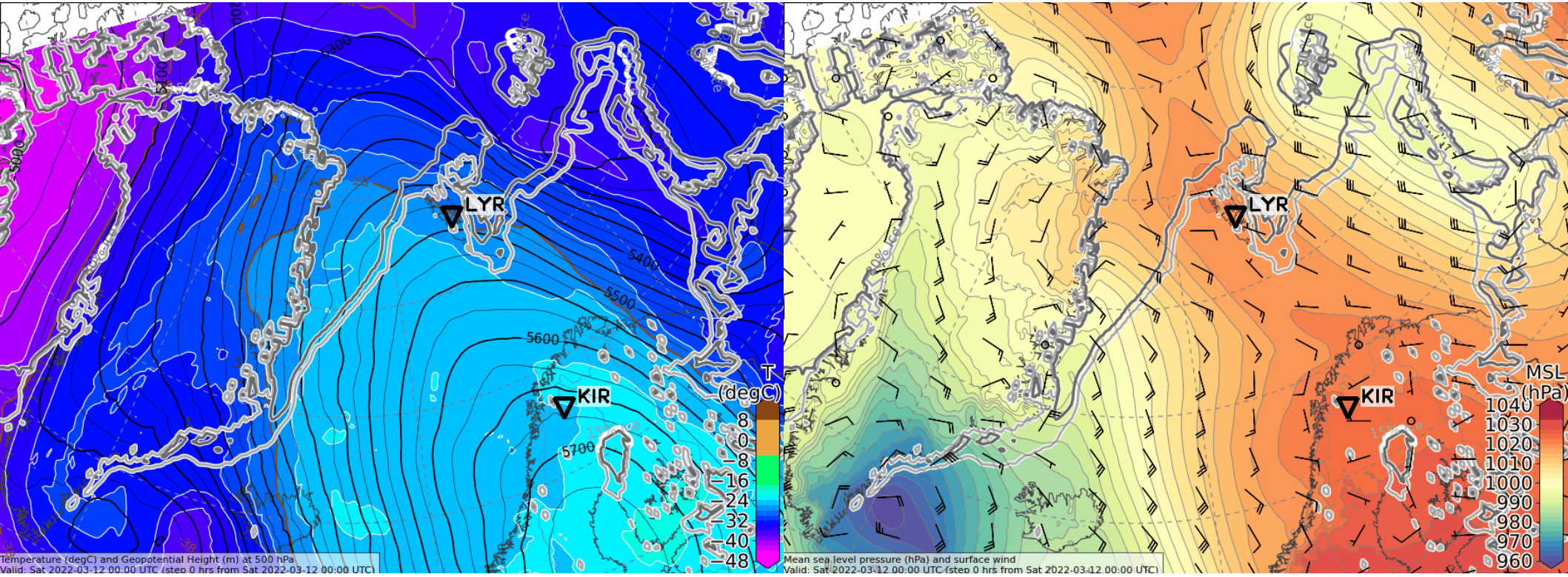
500 hPa Geopot & T

Sea level pressure

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

500 hPa Geopot & T

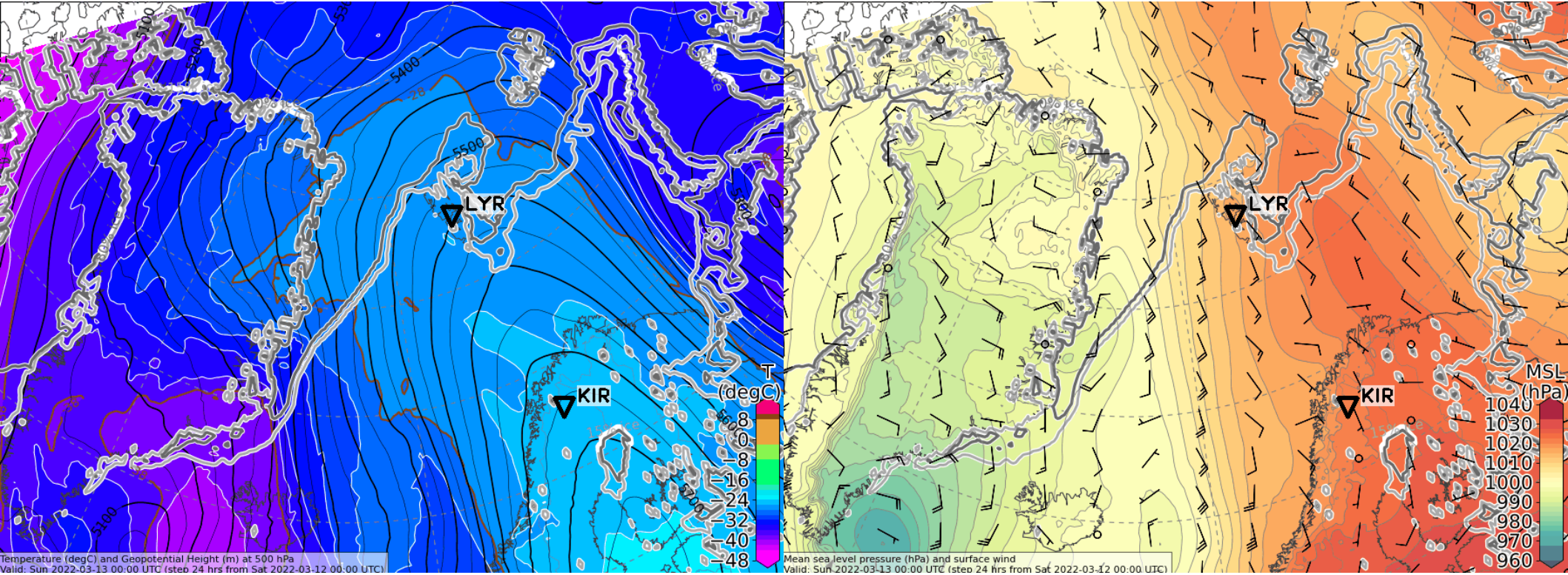
Sea level pressure



Sunday, 2022-03-13 00 UTC (+24h)

500 hPa Geopot & T

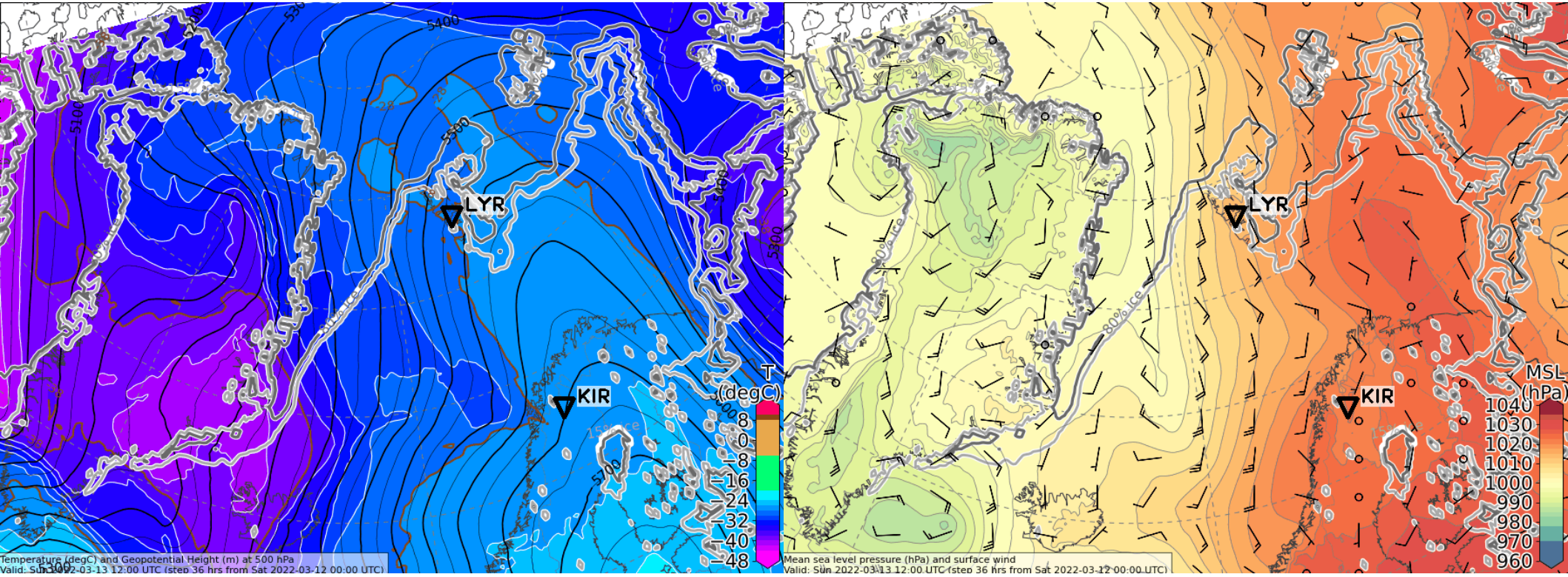
Sea level pressure



Sunday, 2022-03-13 12 UTC (+36h)

500 hPa Geopot & T

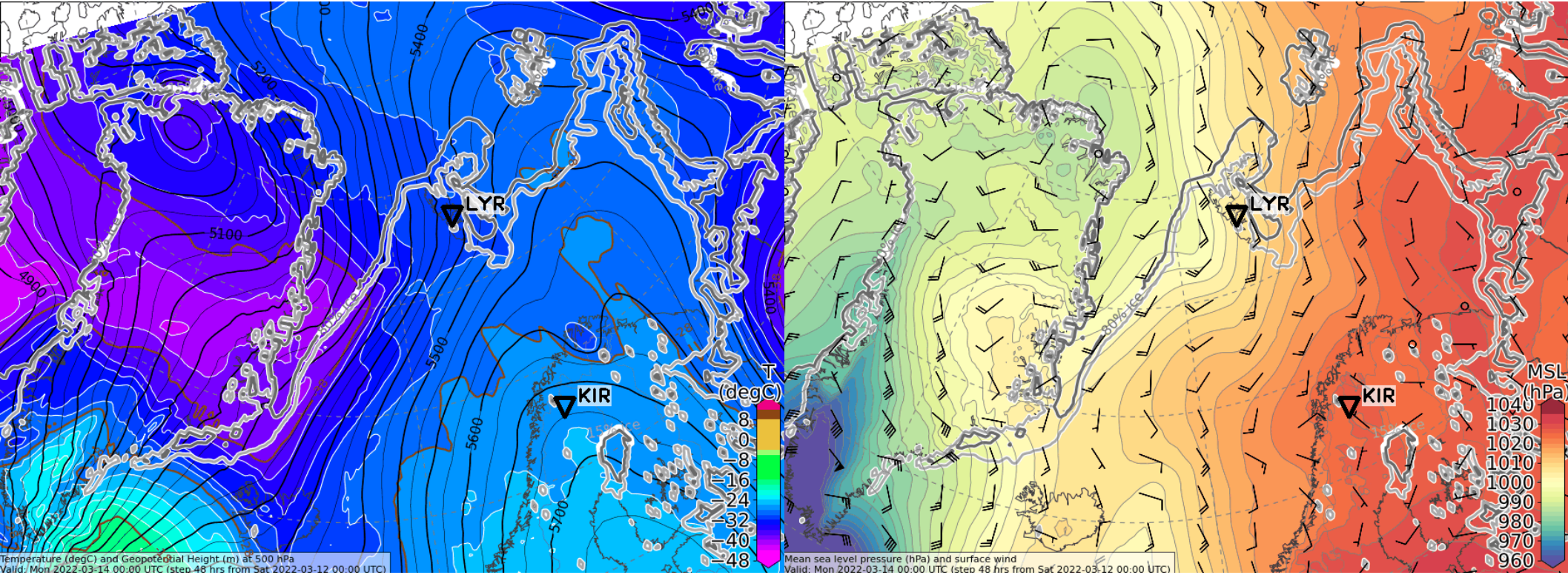
Sea level pressure



Monday, 2022-03-14 00 UTC (+48h)

500 hPa Geopot & T

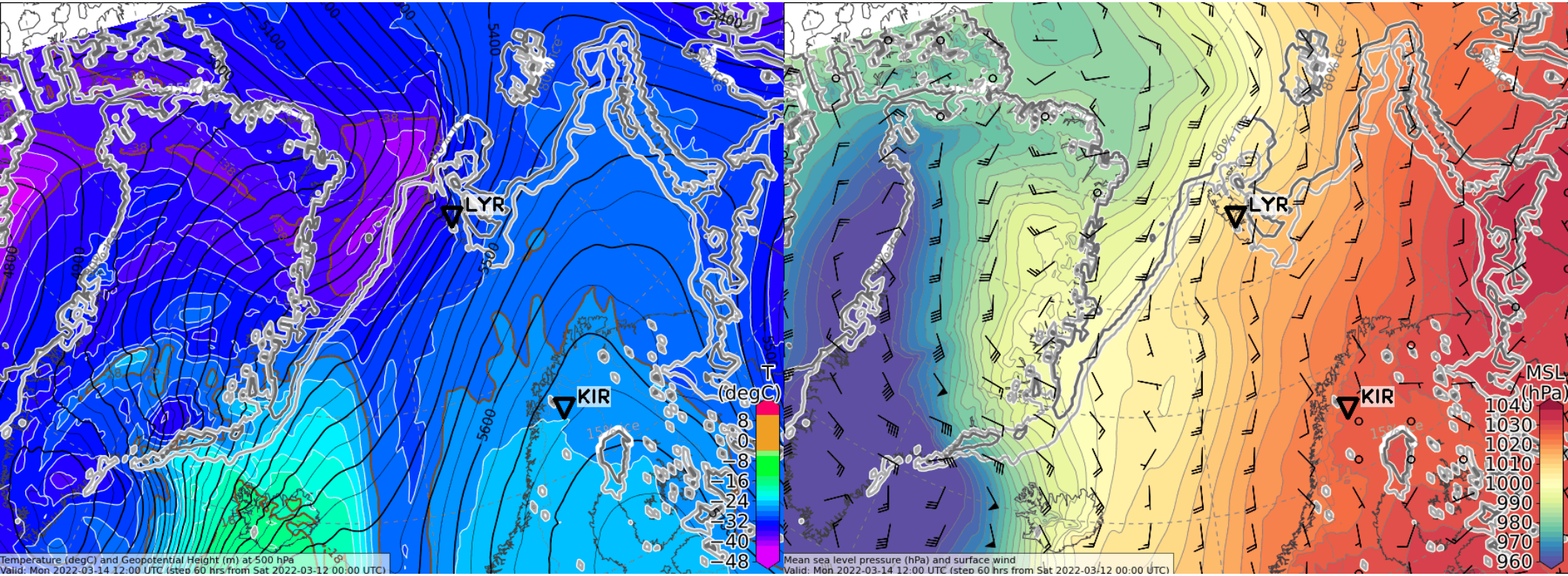
Sea level pressure



Monday, 2022-03-14 12 UTC (+60h)

500 hPa Geopot & T

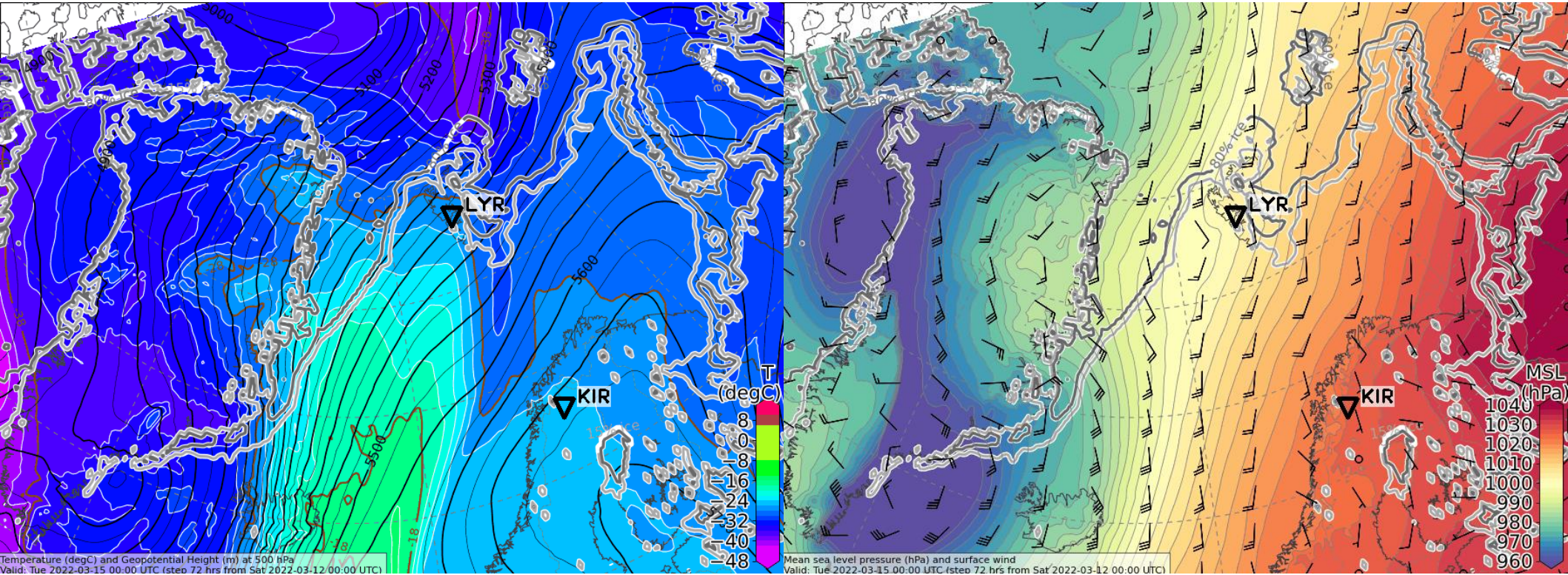
Sea level pressure



Tuesday, 2022-03-15 00 UTC (+72h)

500 hPa Geopot & T

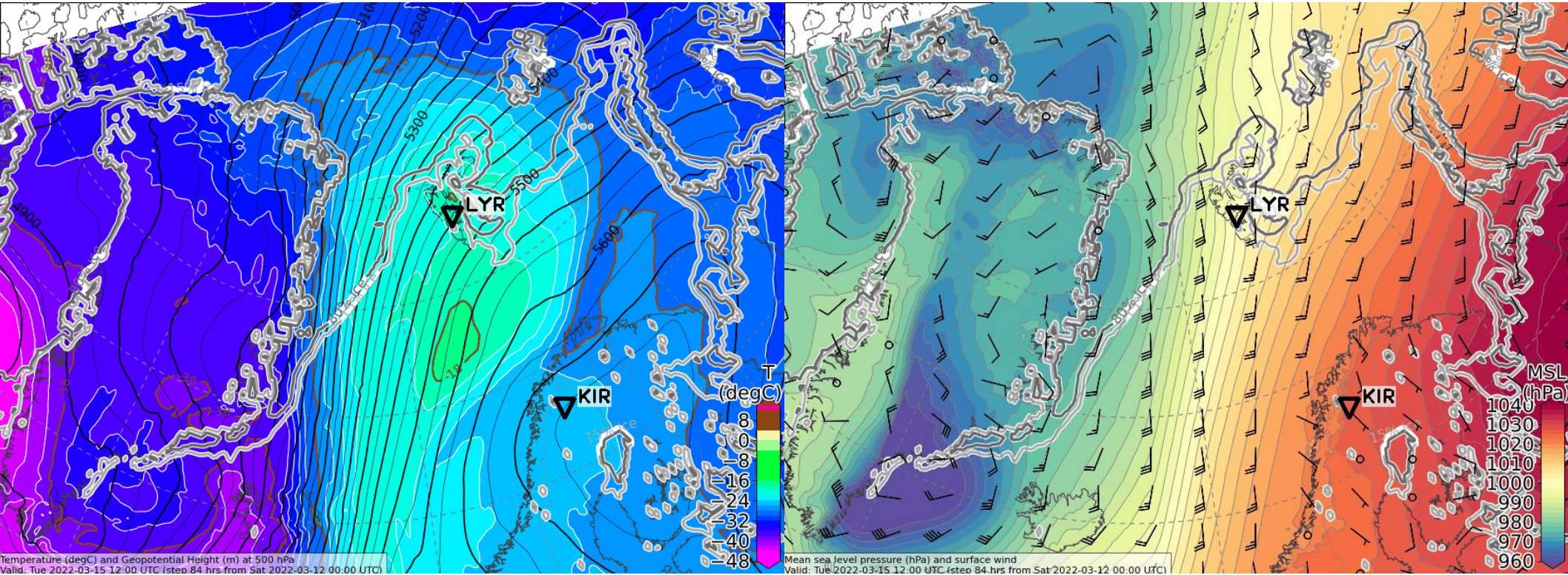
Sea level pressure



Tuesday, 2022-03-15 12 UTC (+84h)

500 hPa Geopot & T

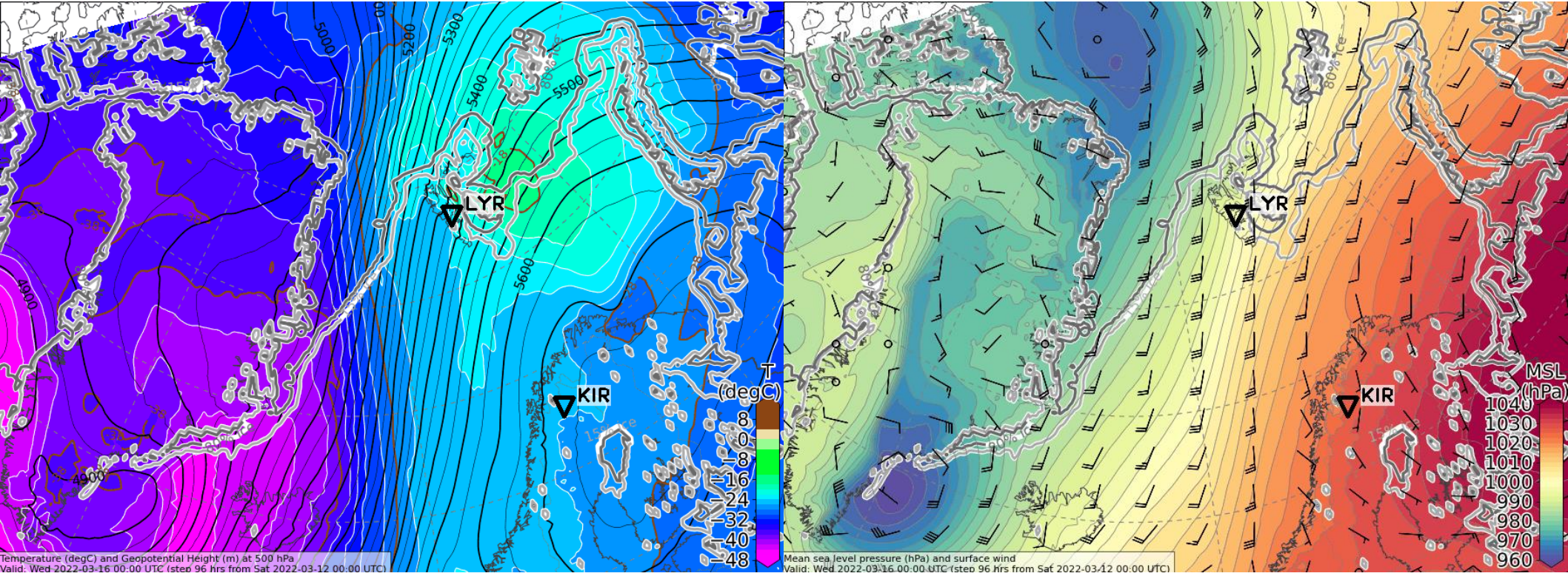
Sea level pressure



Wednesday, 2022-03-16 00 UTC (+96h)

500 hPa Geopot & T

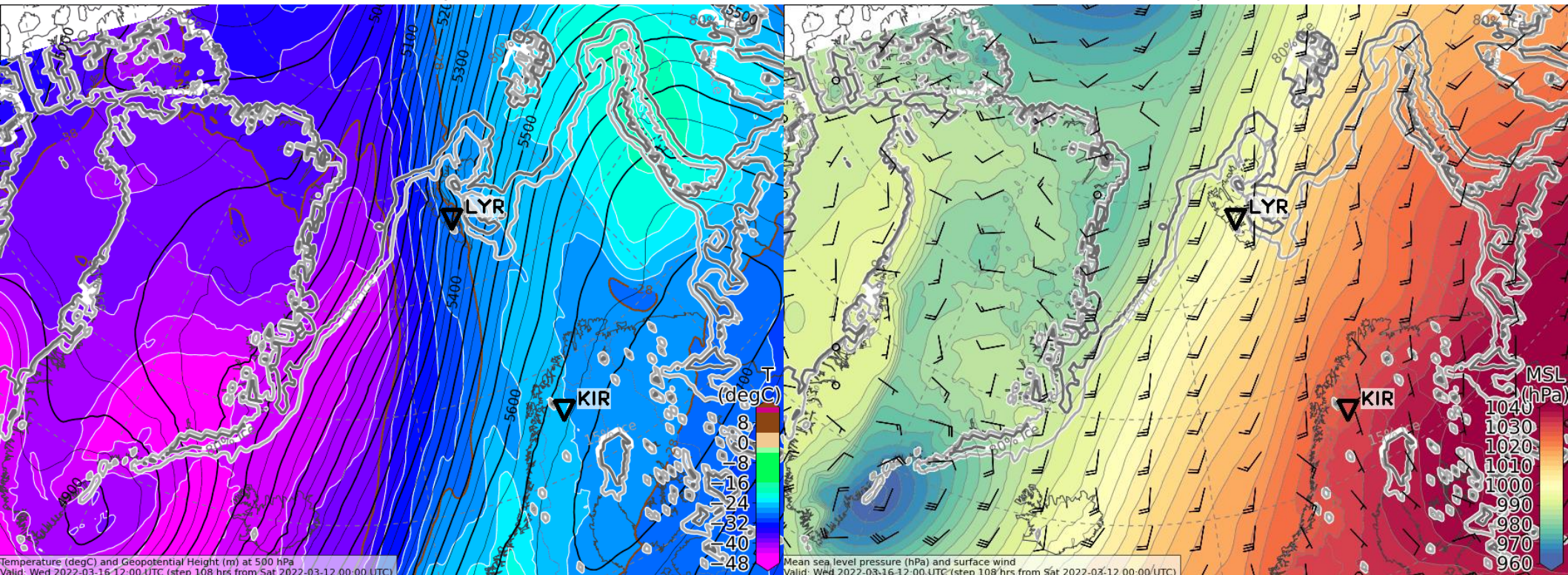
Sea level pressure



Wednesday, 2022-03-16 12 UTC (+108h)

500 hPa Geopot & T

Sea level pressure



Surface wind development
2022-03-12 00 UTC: 36 – 108h
ECMWF

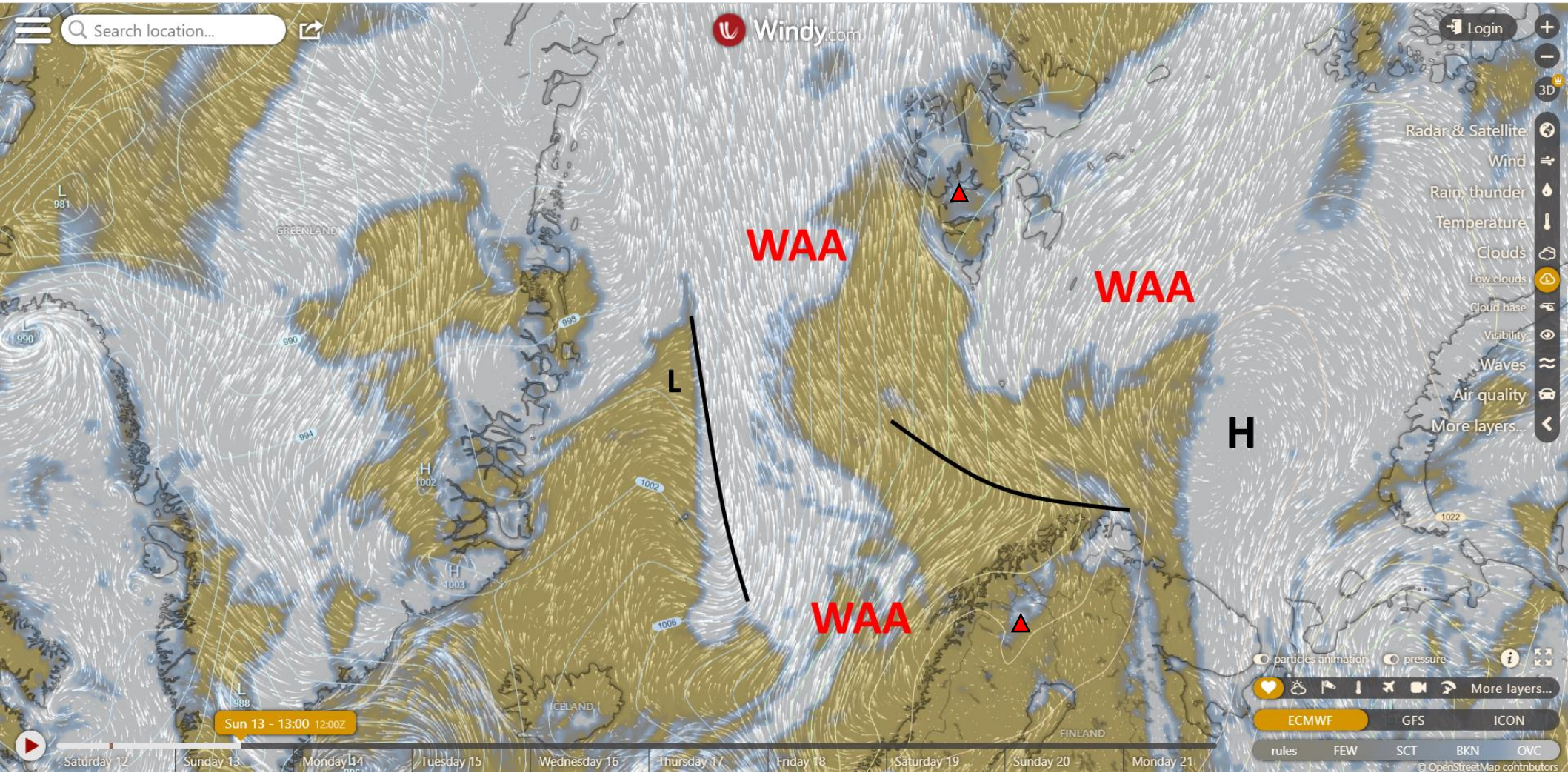
L: Low

H: High

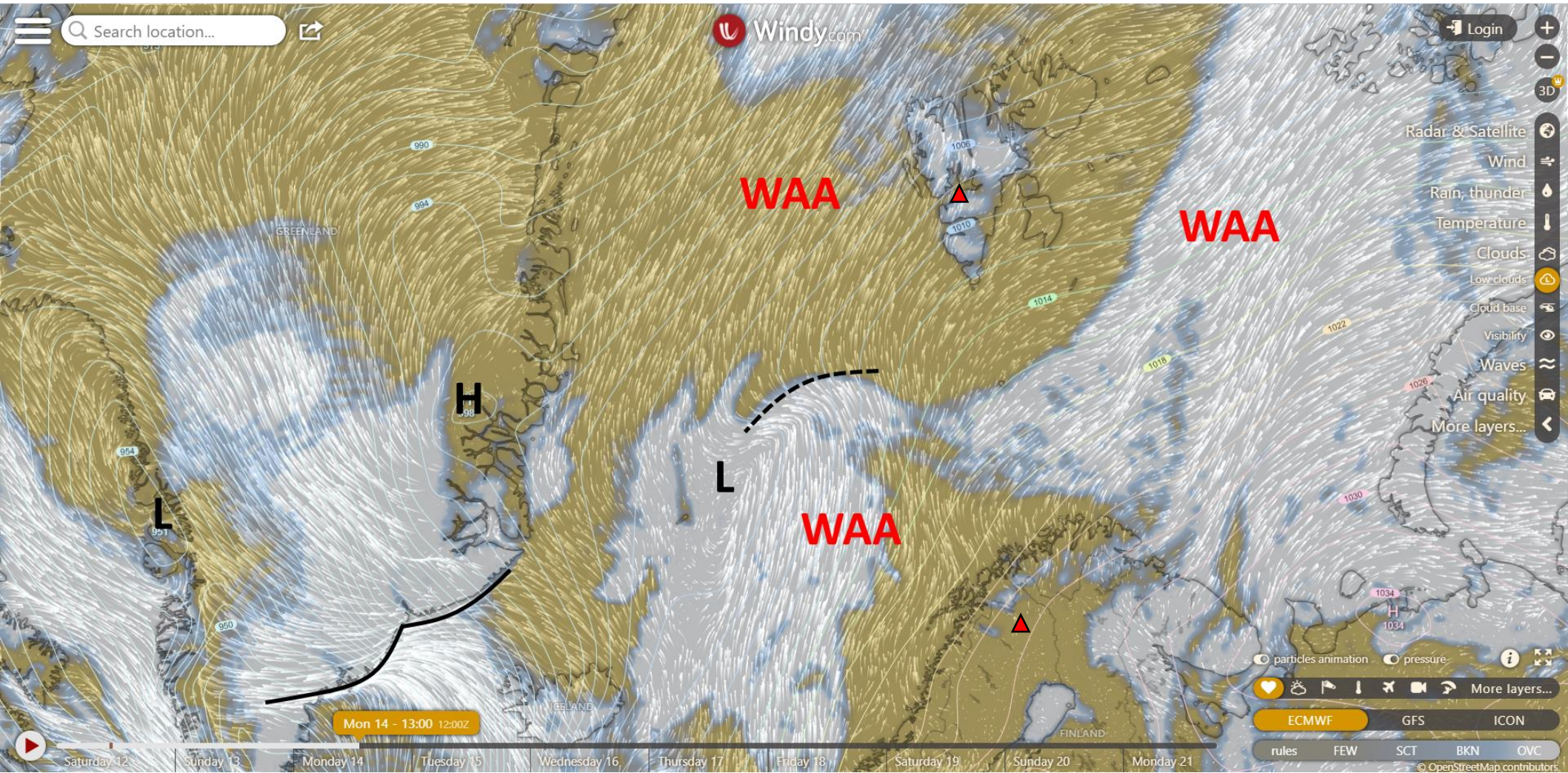
CAA: Cold Air Advection

WAA: Warm Air Advection

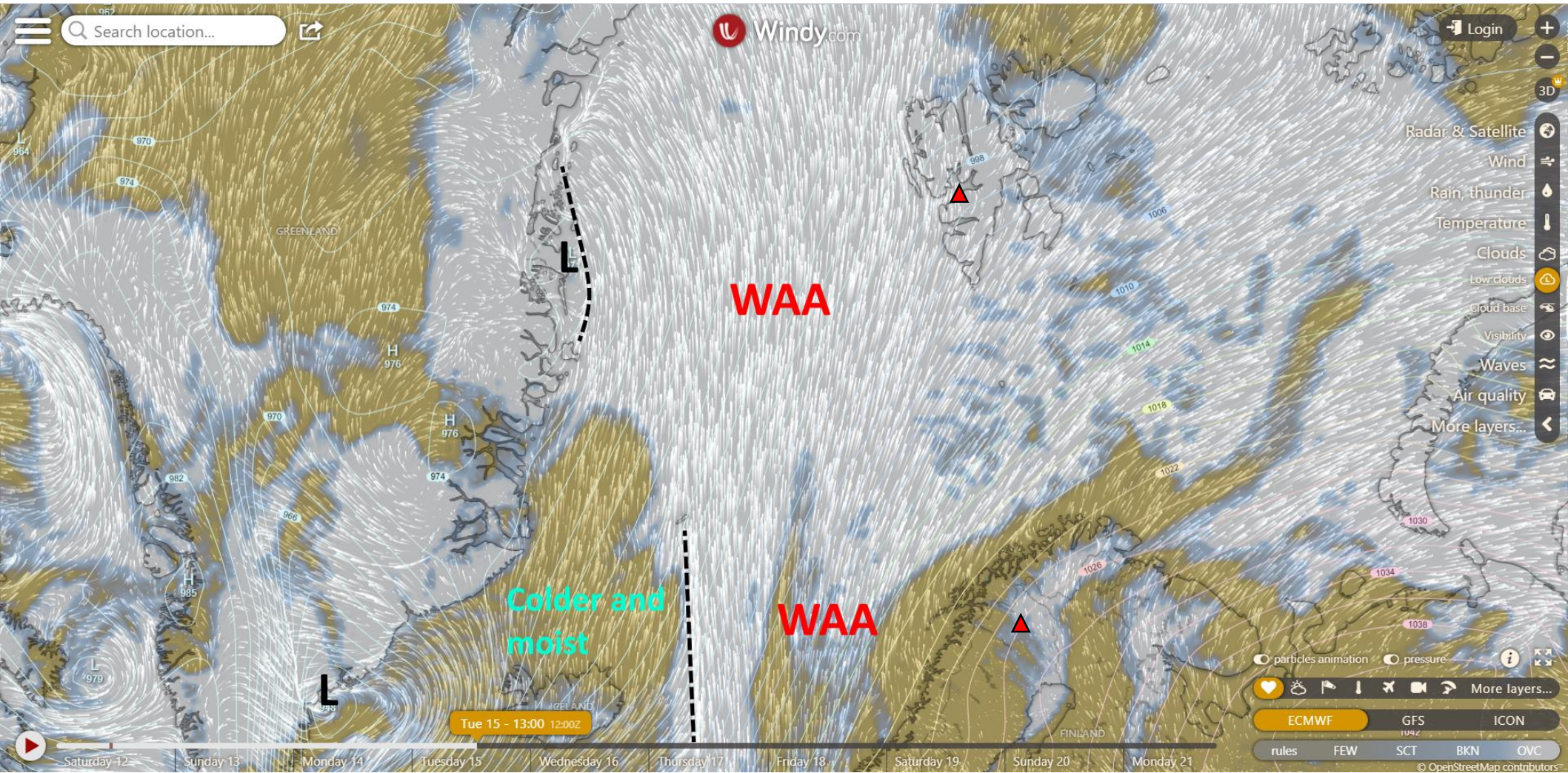
Sunday, 2022-03-13 12 UTC (+36h)



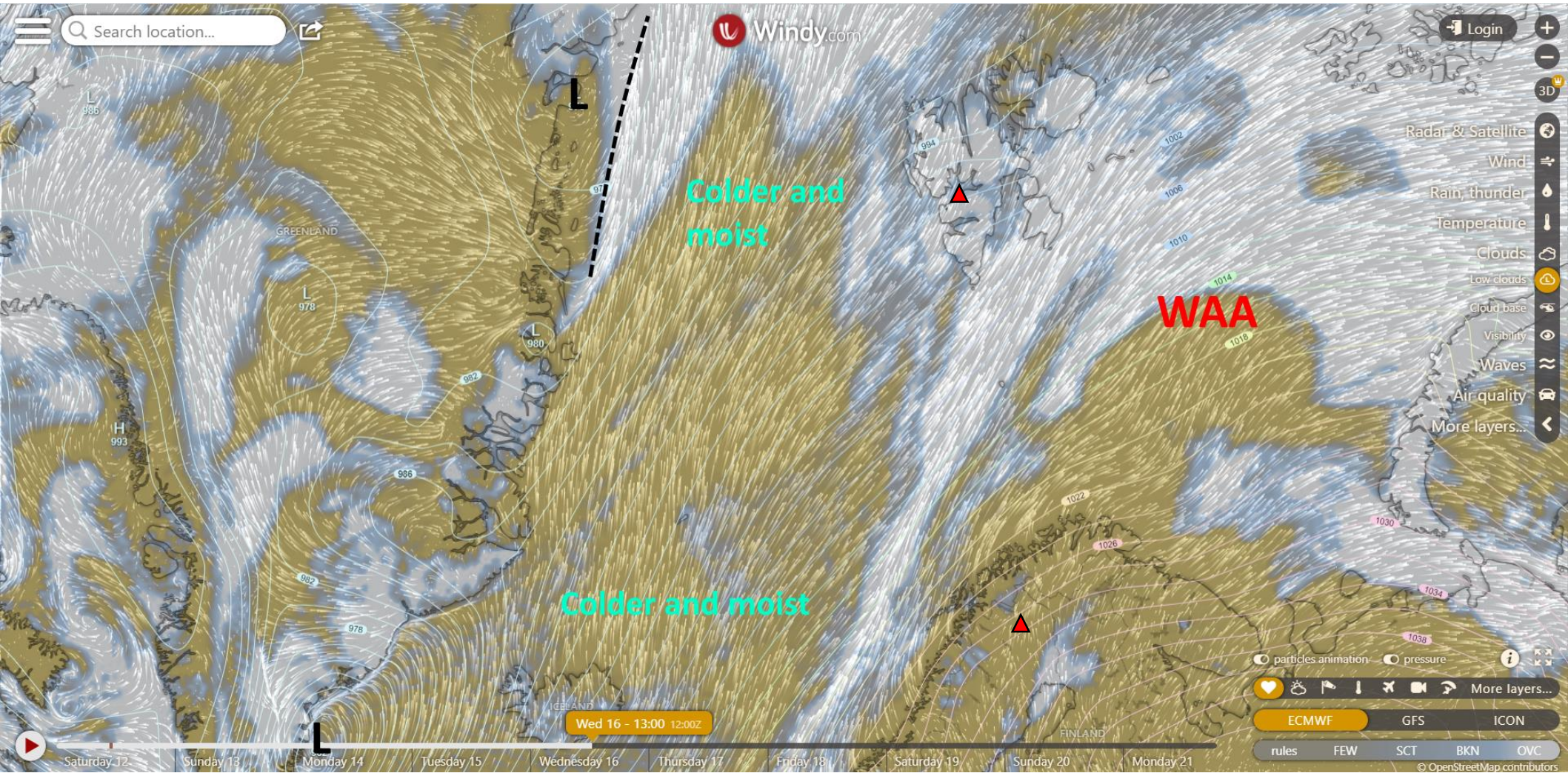
Monday, 2022-03-14 12 UTC (+60h)



Tuesday, 2022-03-15 12 UTC (+84h)



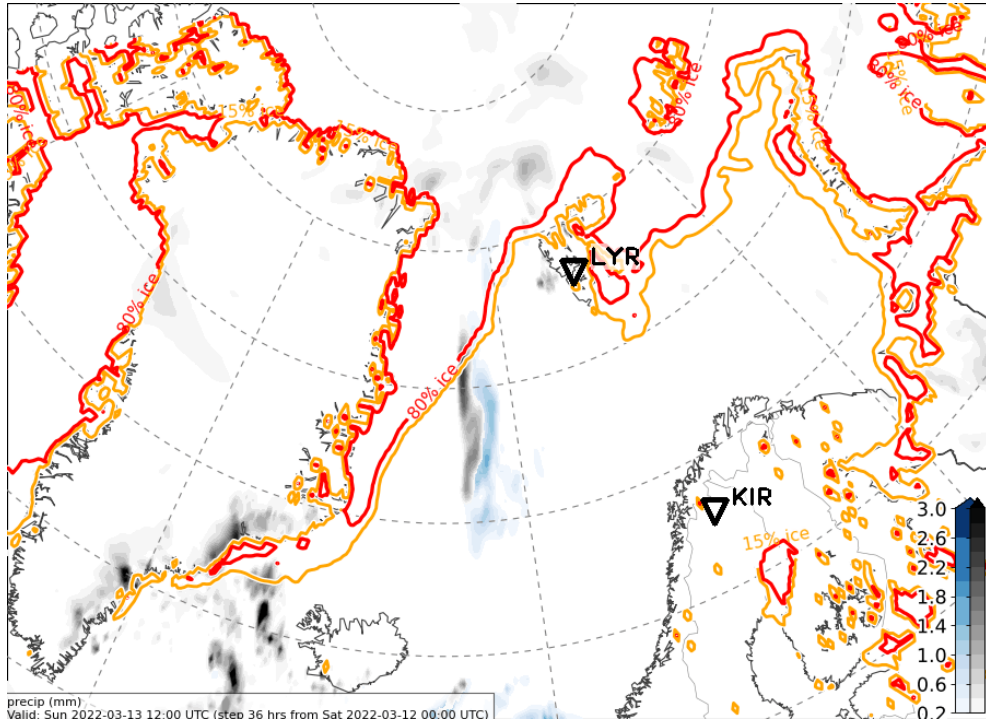
Wednesday, 2022-03-16 12 UTC (+108h)



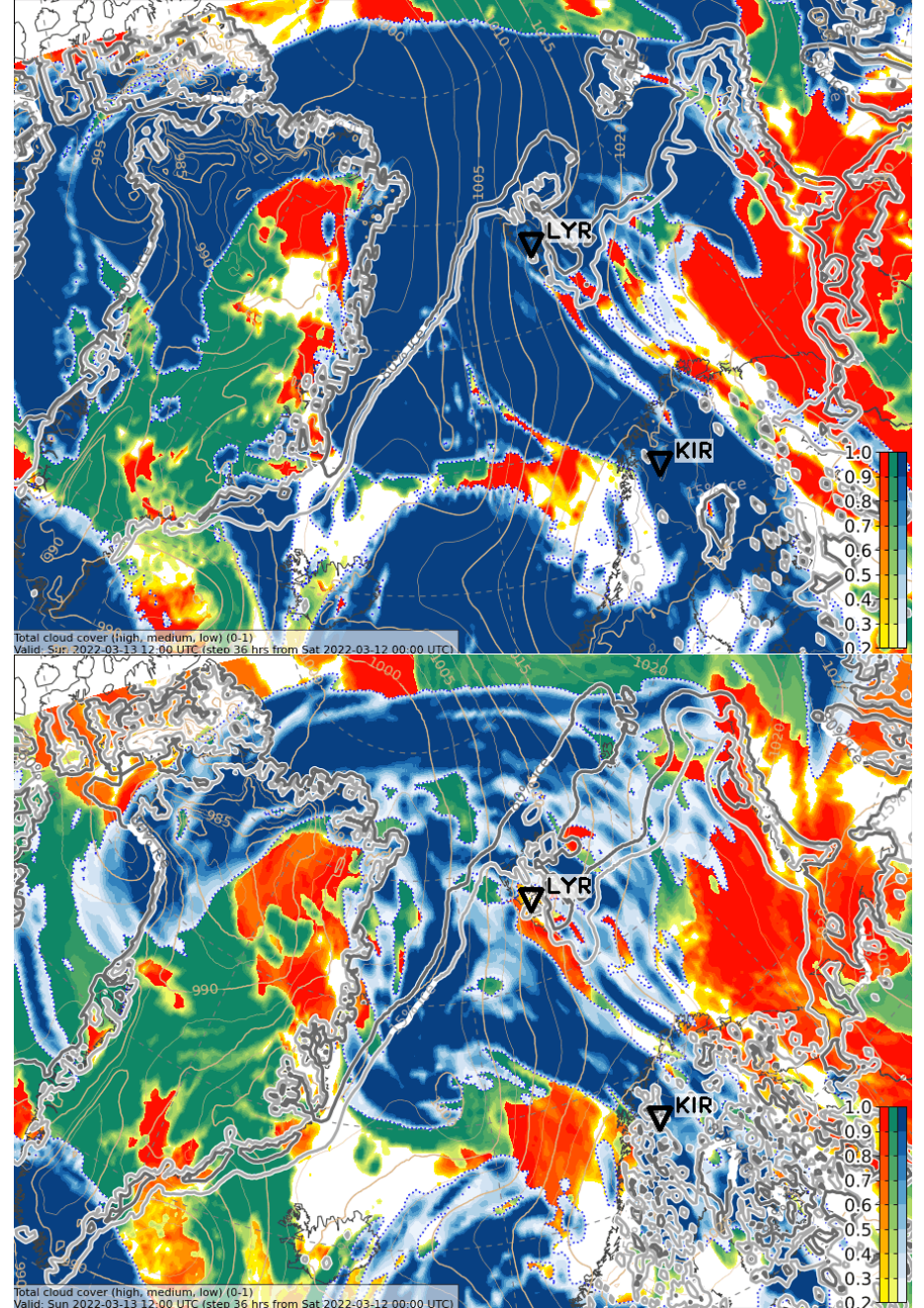
Cloud cover & precip development
2022-03-12 00 UTC: 36 – 108h
ECMWF + ICON

Sun, 2022-03-13 12 UTC (+36h) ECMWF

2h precip

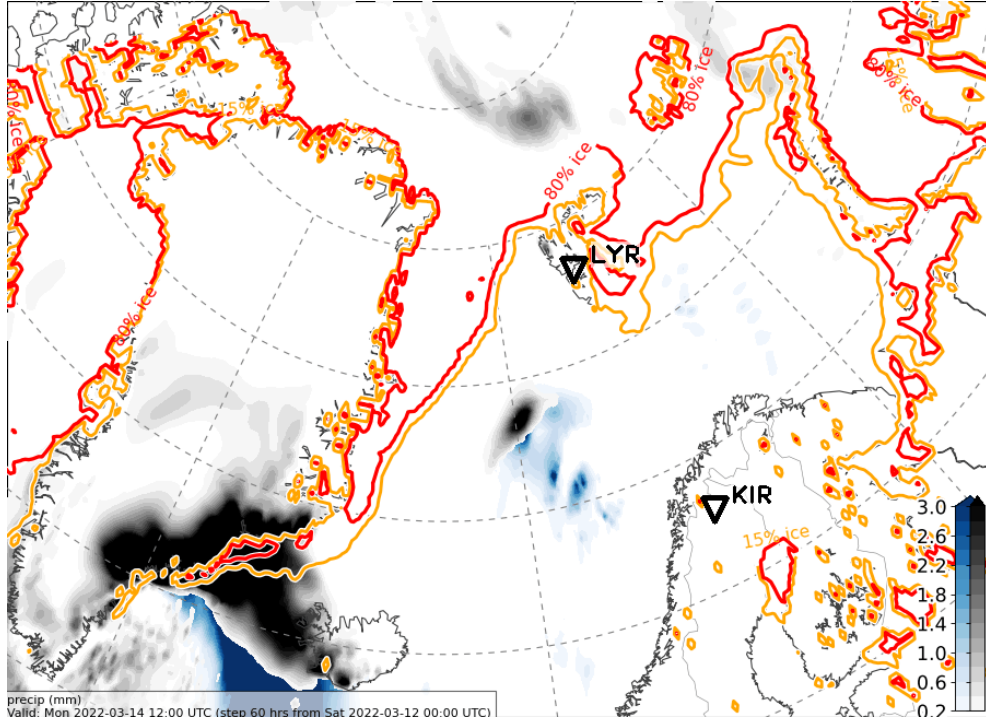


ICON

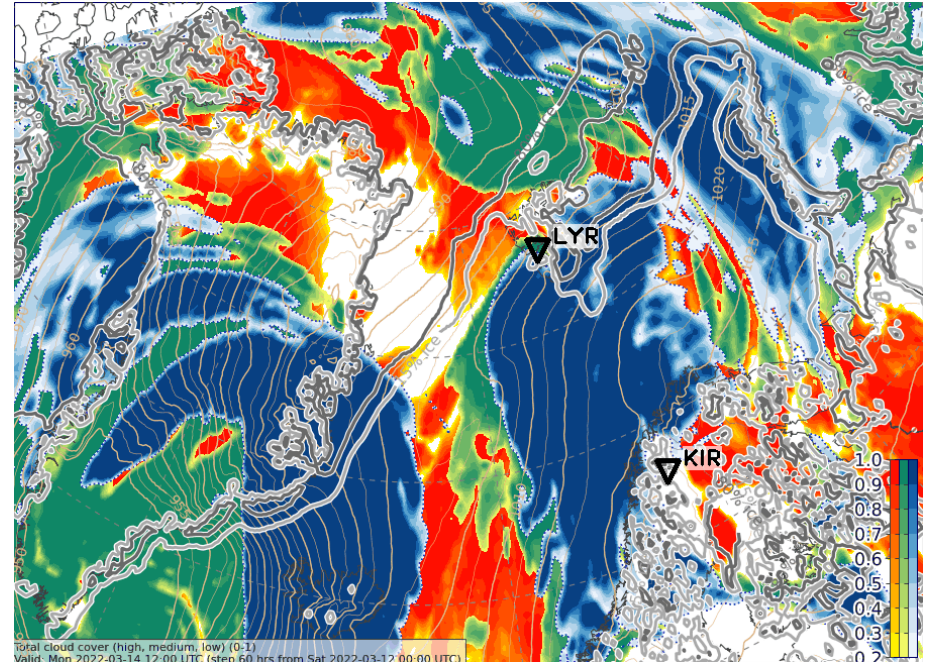
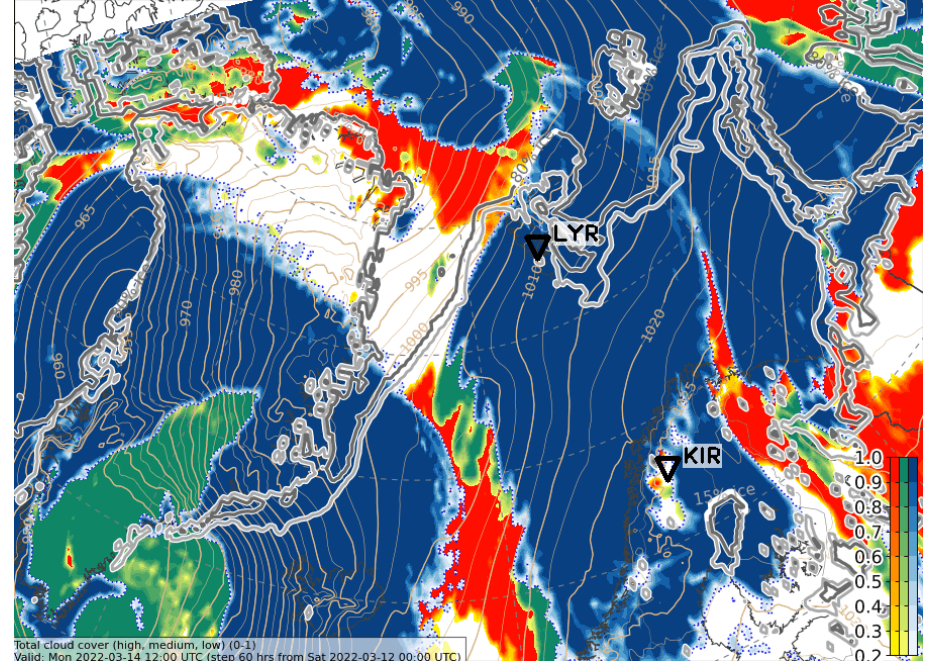


Mon, 2022-03-14 12 UTC (+60h) ECMWF

2h precip

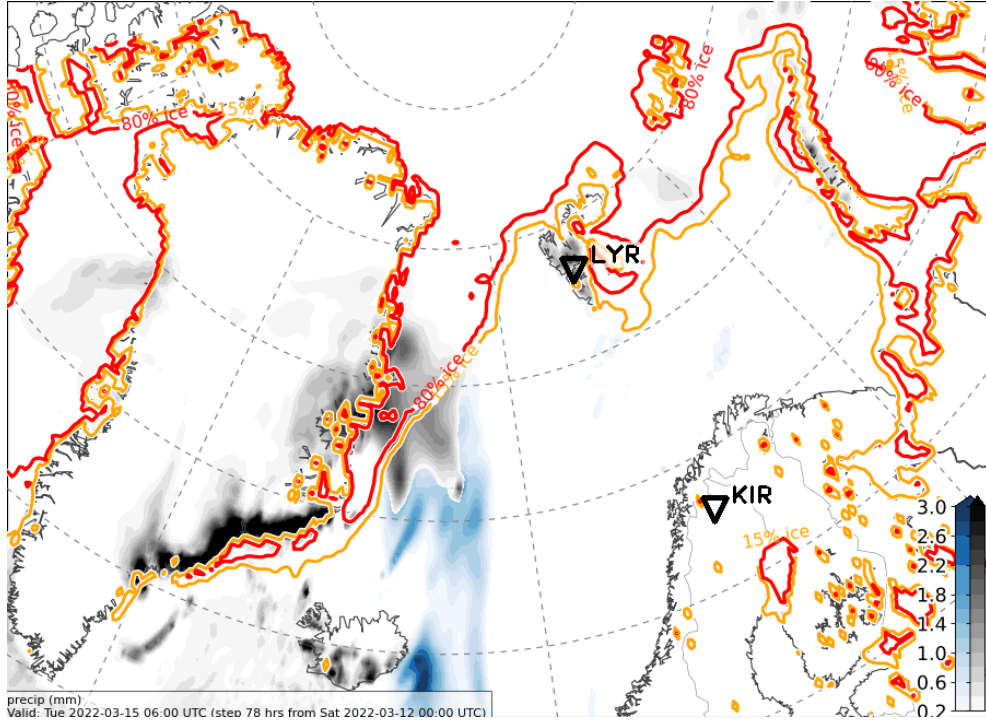


ICON

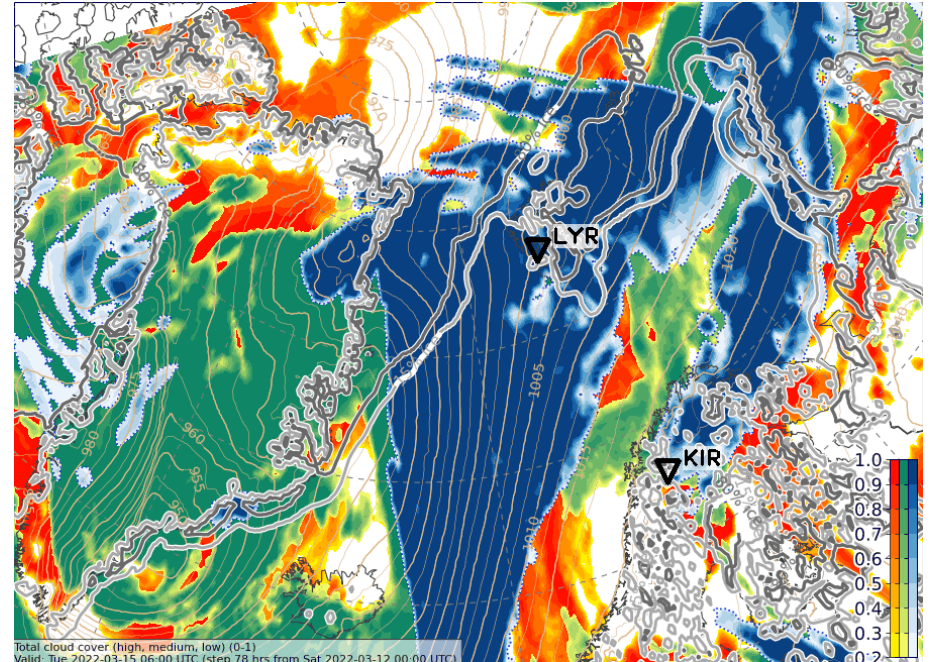
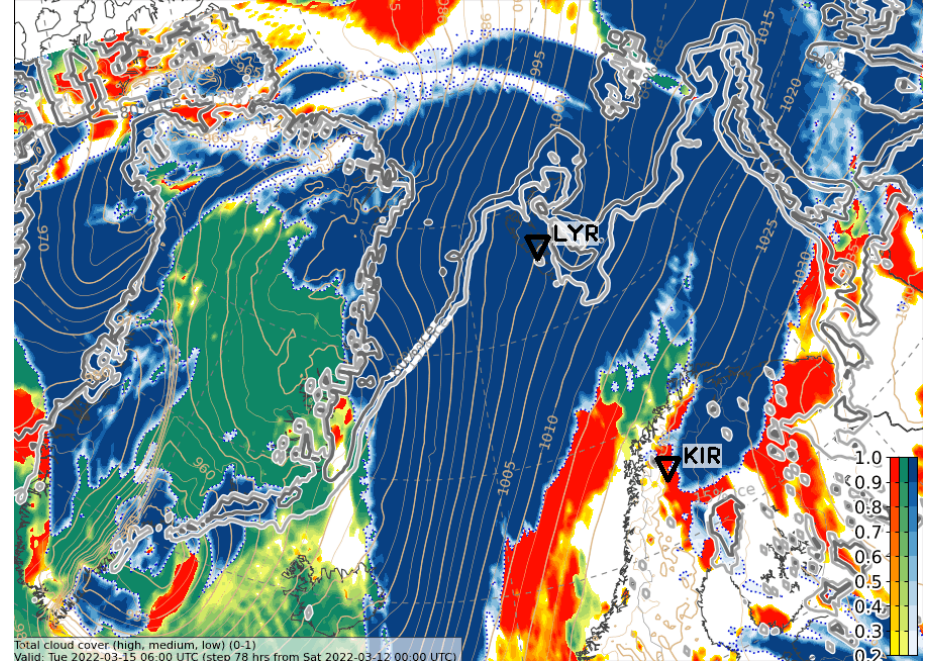


Tue, 2022-03-15 06 UTC (+78h) ECMWF

2h precip

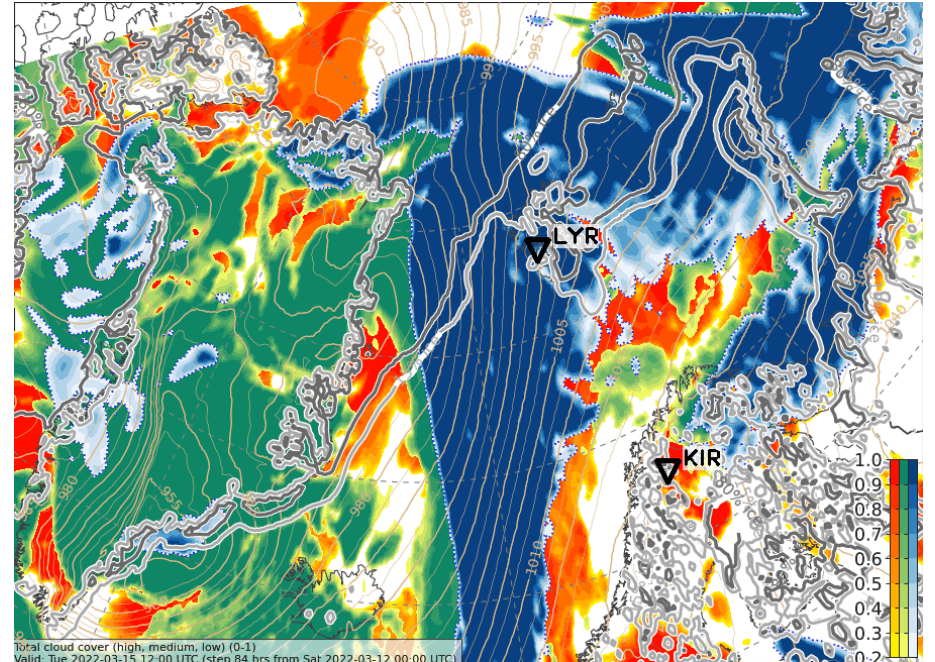
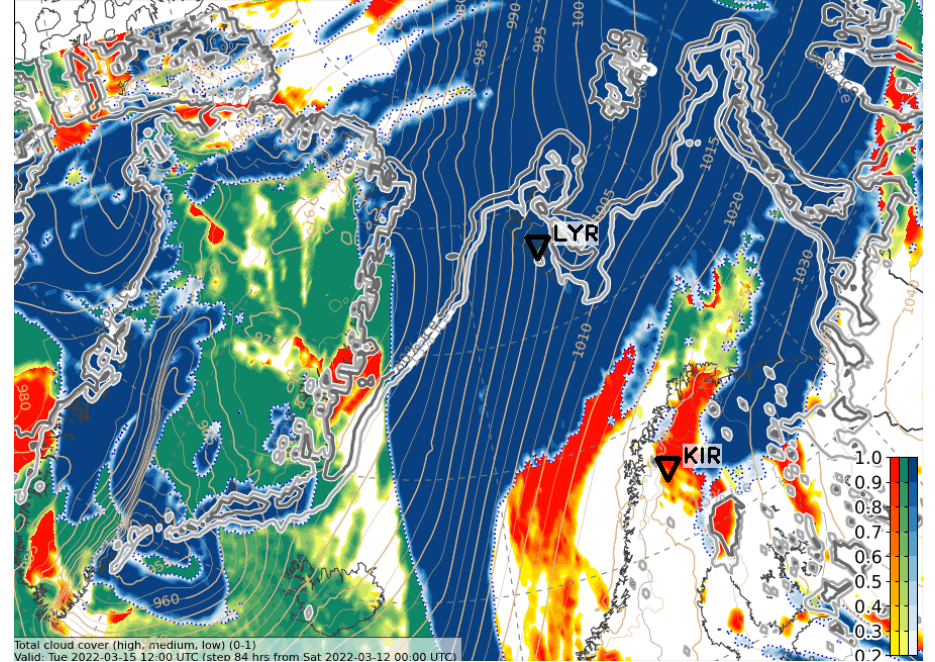
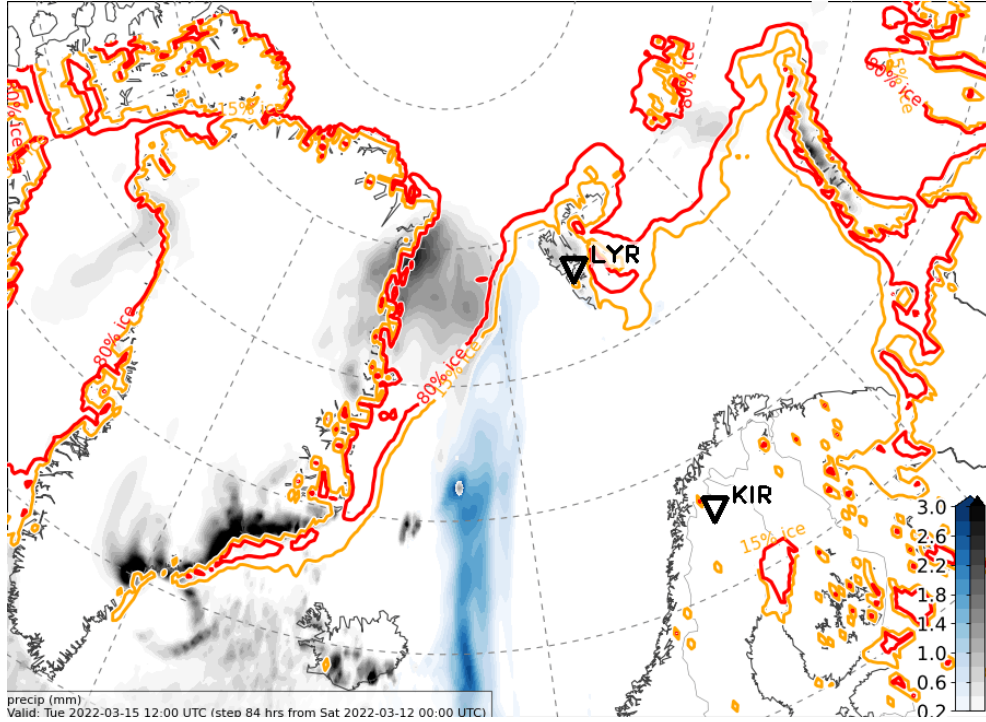


ICON



Tue, 2022-03-15 12 UTC (+84h) ECMWF

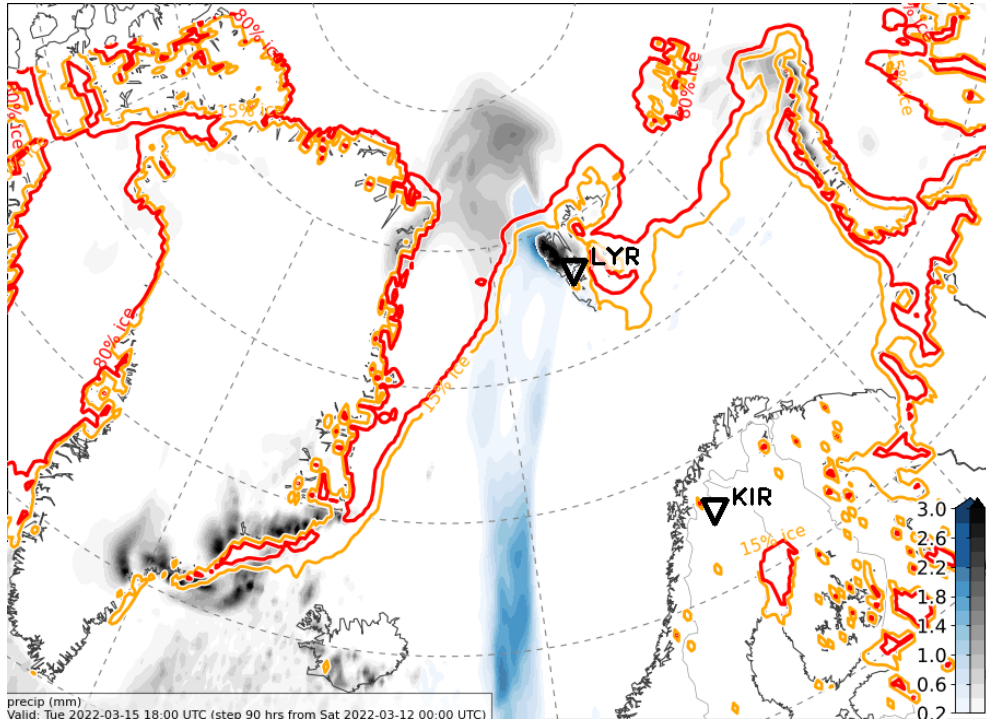
2h precip



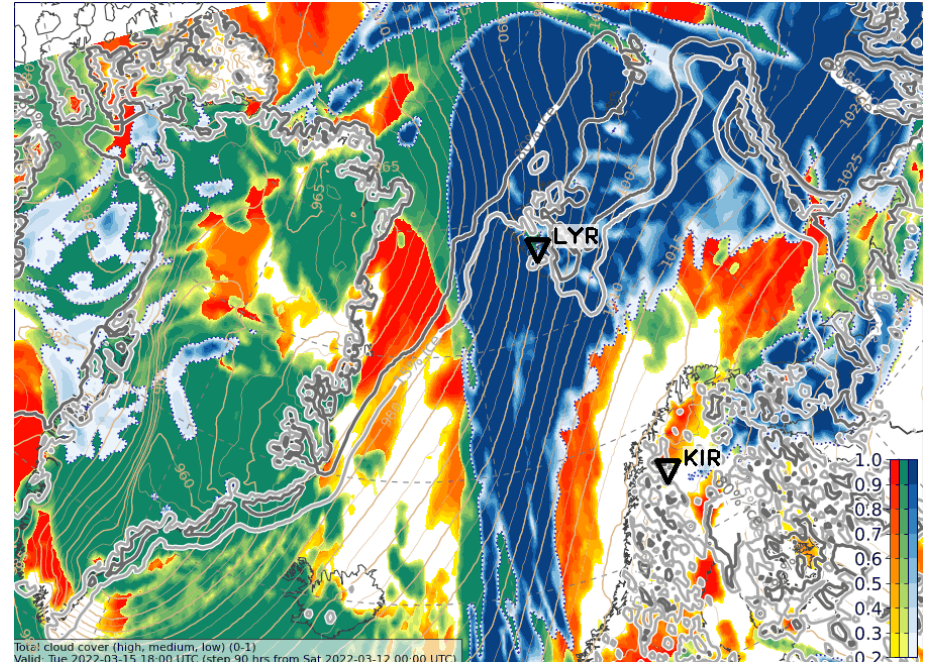
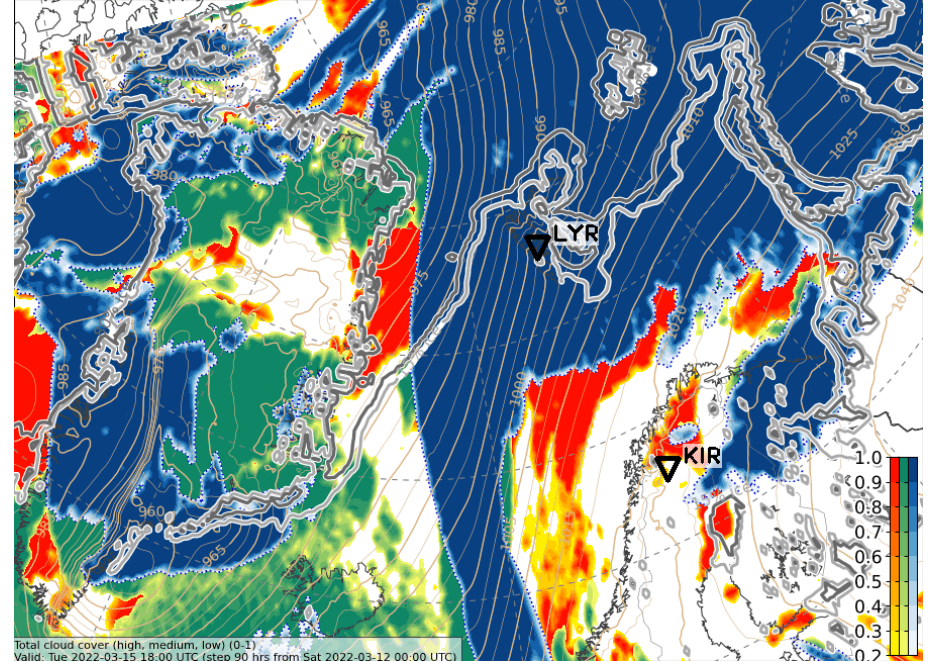
ICON

Tue, 2022-03-15 18 UTC (+90h) ECMWF

2h precip

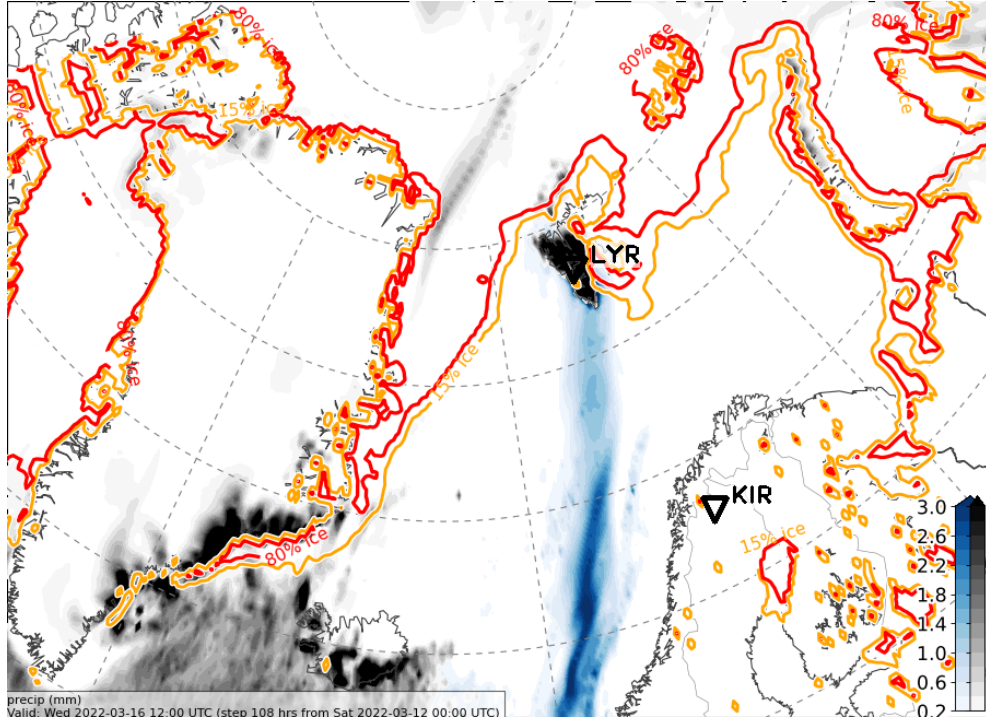


ICON

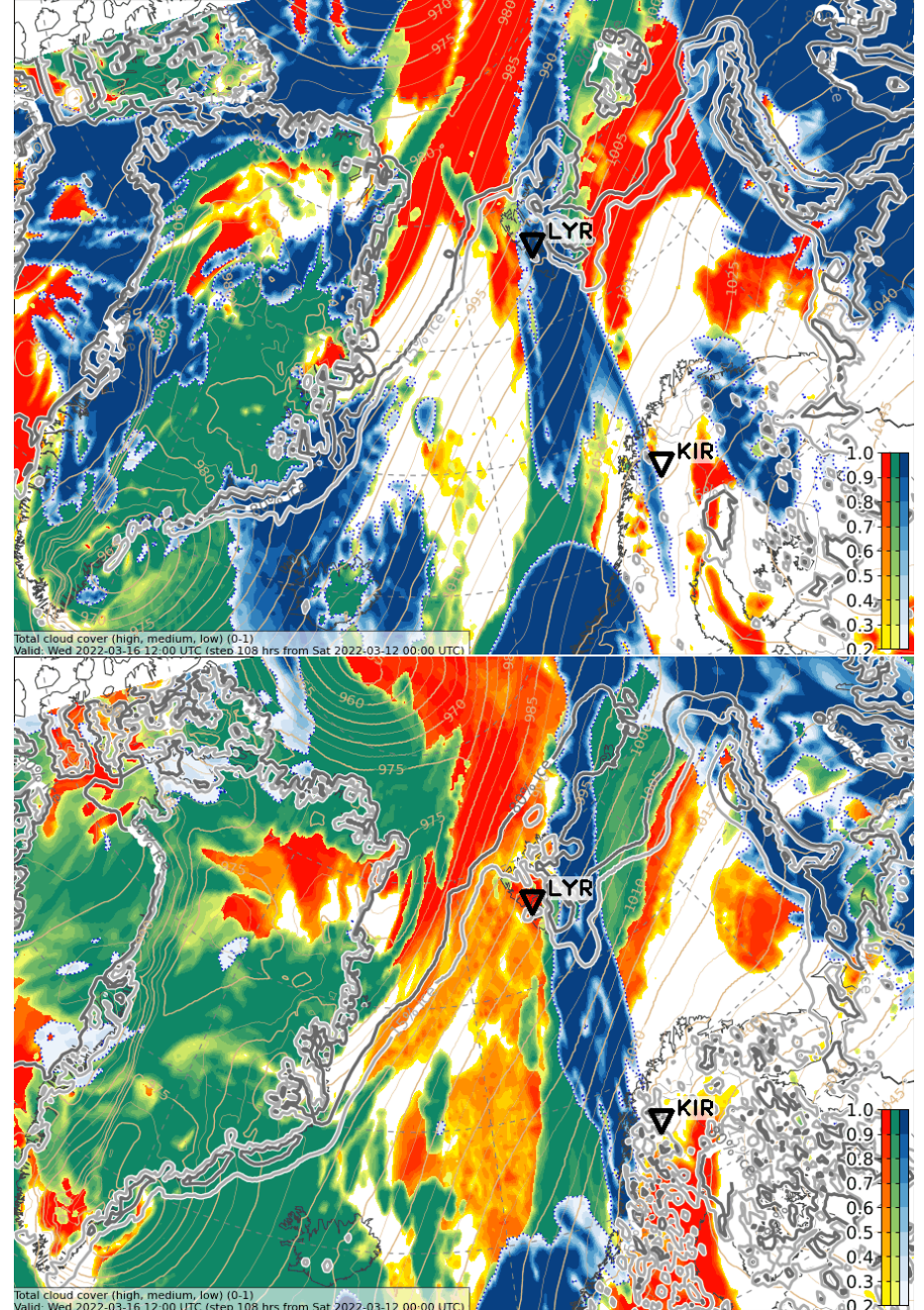


Wed, 2022-03-16 12 UTC (+108h)_{ECMWF}

2h precip



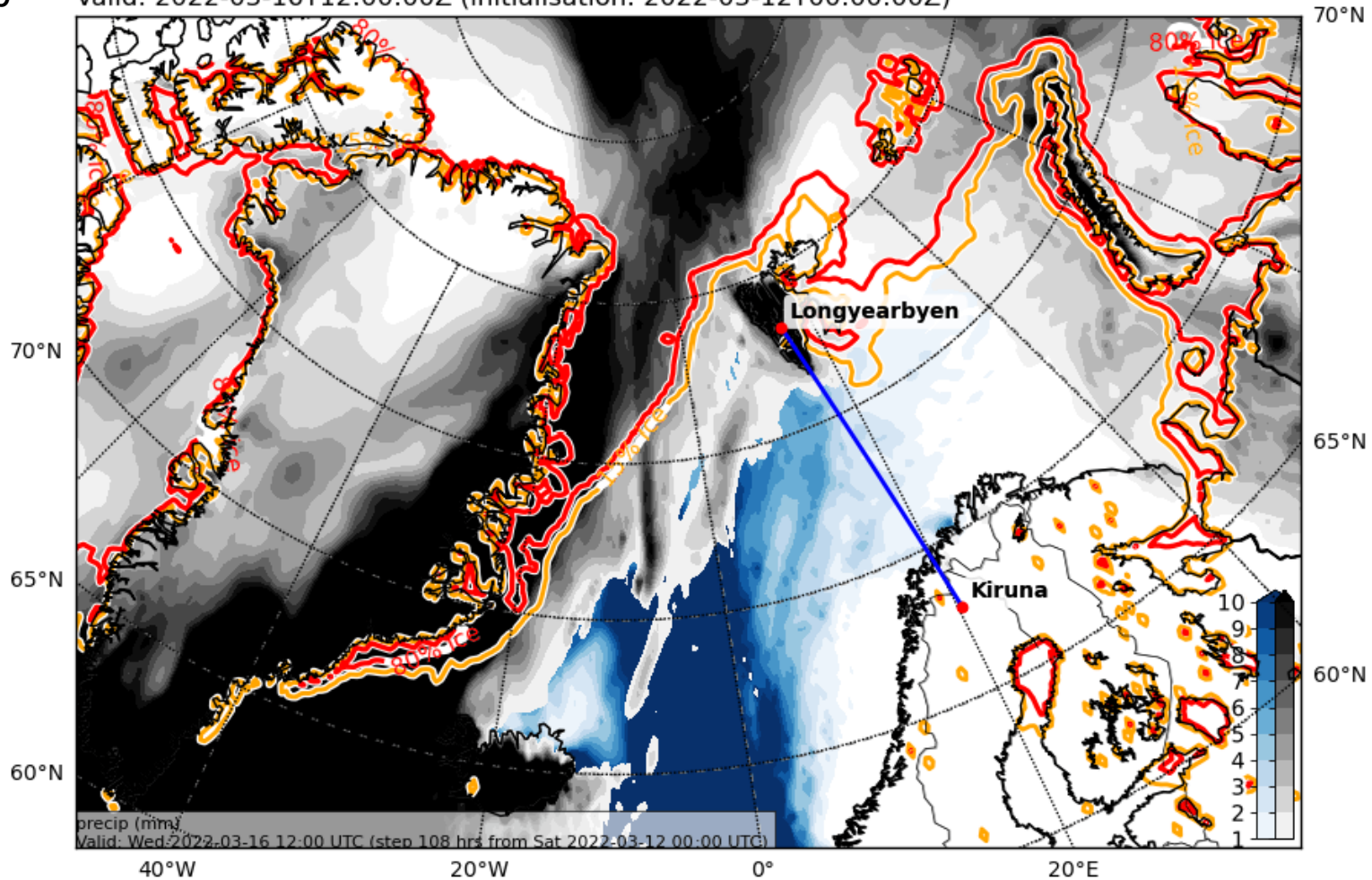
Low Level Clouds



Wed, 2022-03-16 12 UTC (+108h)_{ECMWF}

ACC. precip

Precipitation, accumulated (mm water eq.). Rain-blue, snow-black
Valid: 2022-03-16T12:00:00Z (initialisation: 2022-03-12T00:00:00Z)



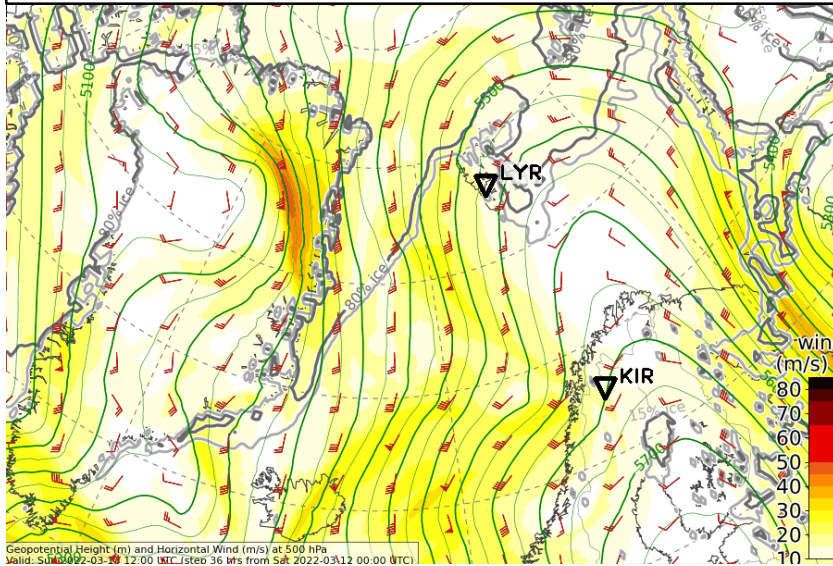
Extra variables

2022-03-12 00 UTC: 36 – 108h

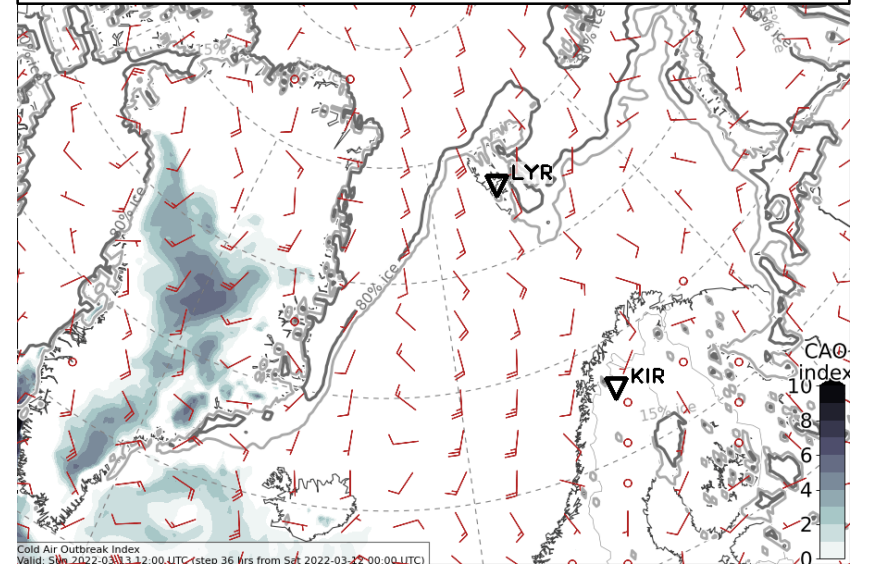
500 hPa wind & 850hPa θ_e & CAO & IVT

Sun, 2022-03-13 12 UTC (+36h)

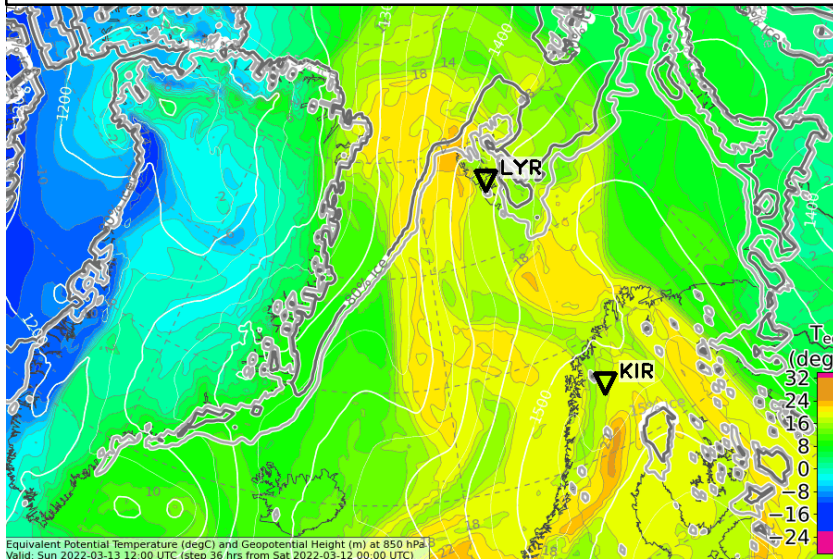
500 hPa Geopot. and Wind



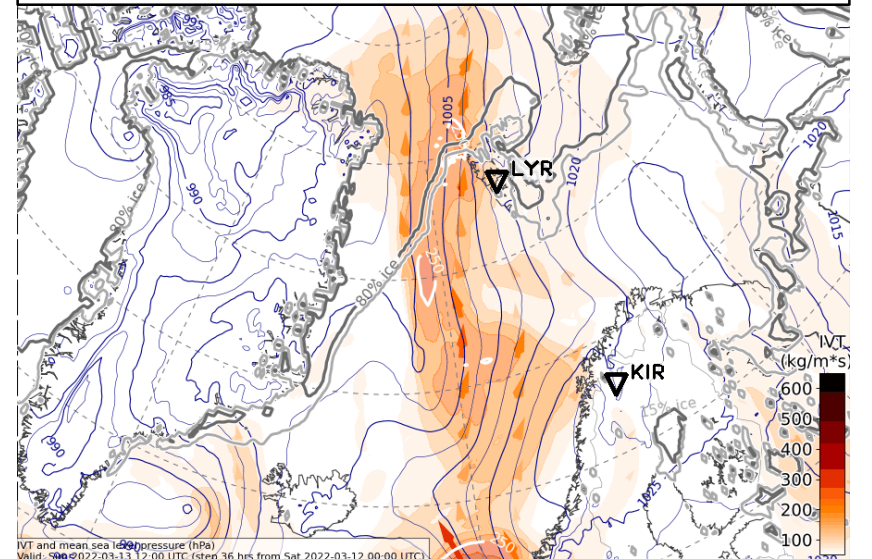
CAO Index



850 hPa Equiv. pot. temperature

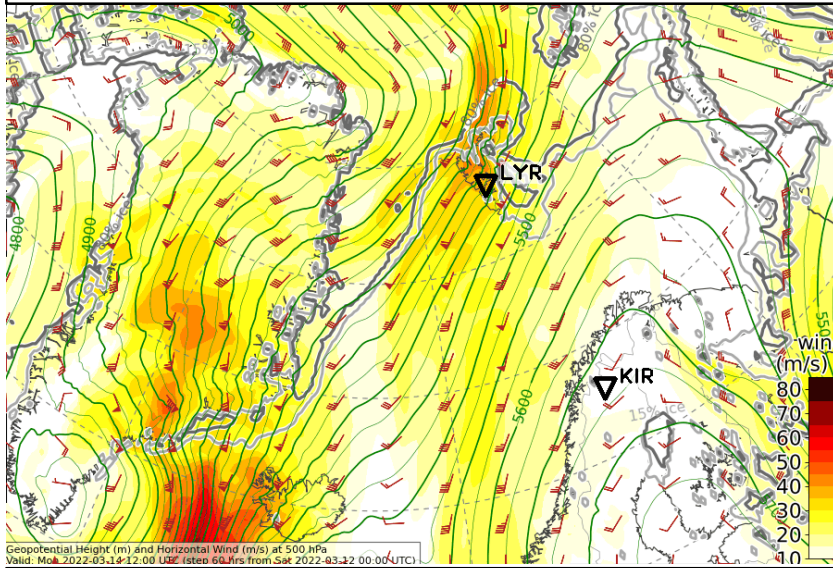


Integrated water vapour transport

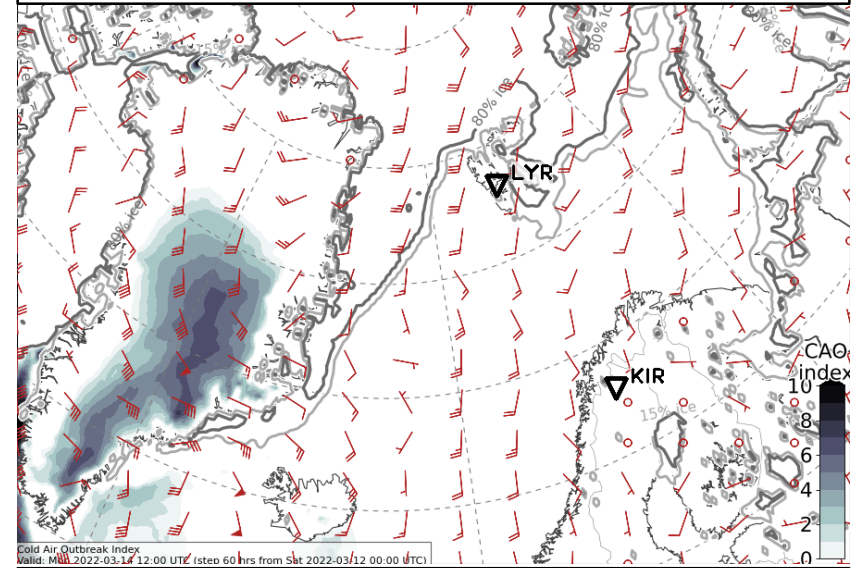


Mon, 2022-03-14 12 UTC (+60h)

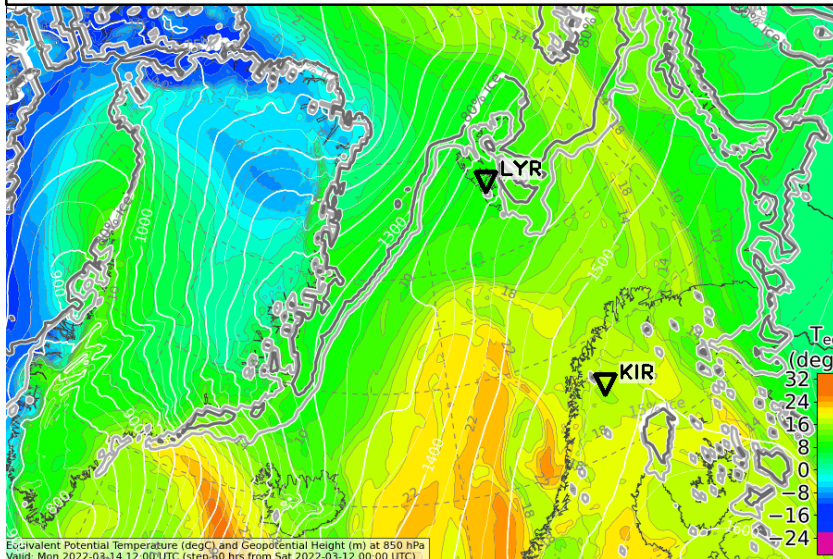
500 hPa Geopot. and Wind



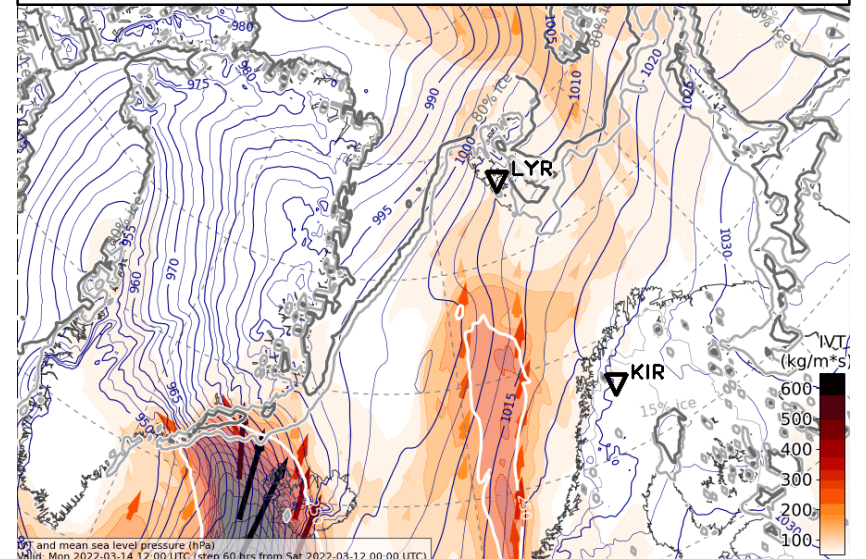
CAO Index



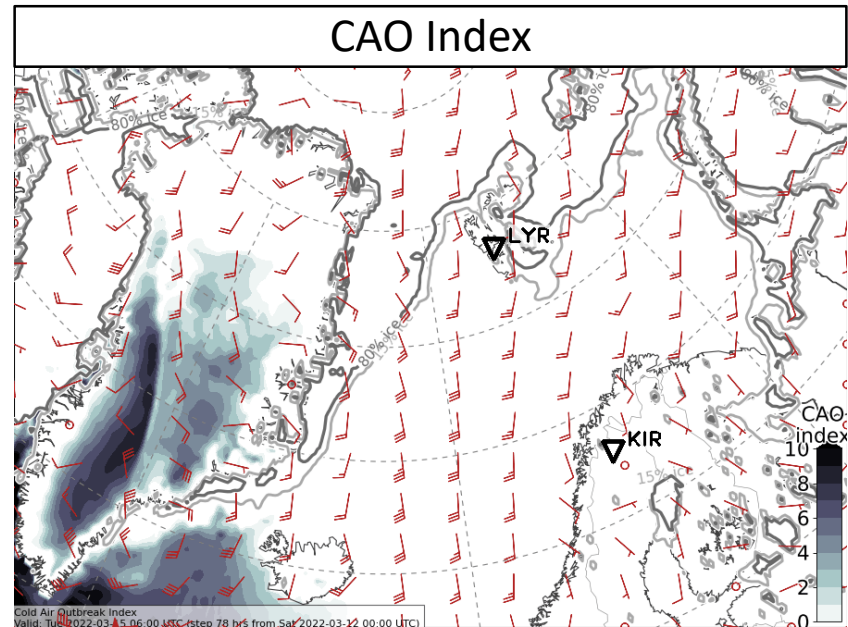
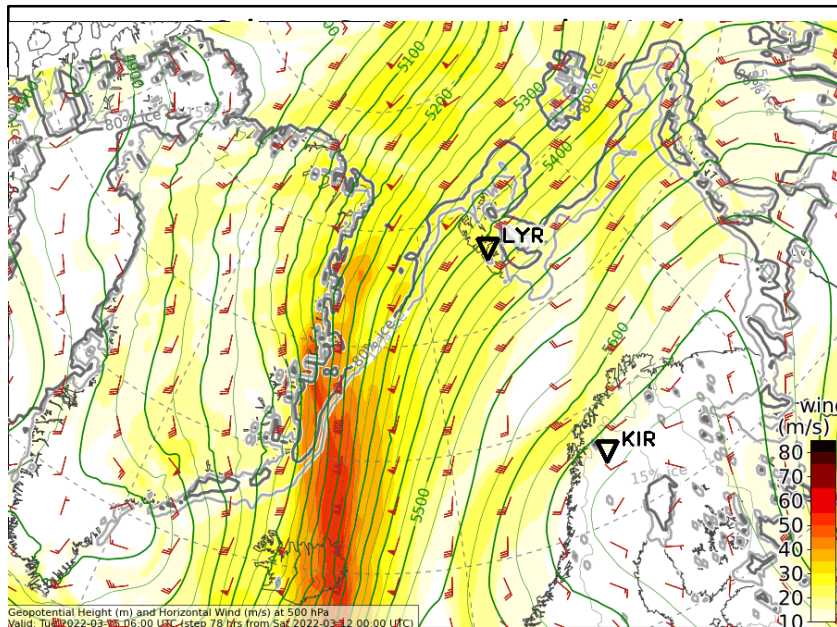
850 hPa Equiv. pot. temperature



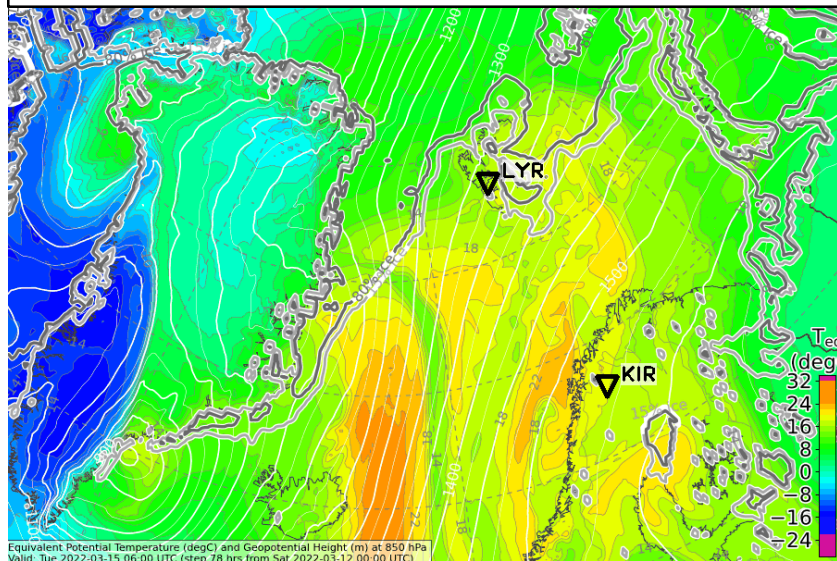
Integrated water vapour transport



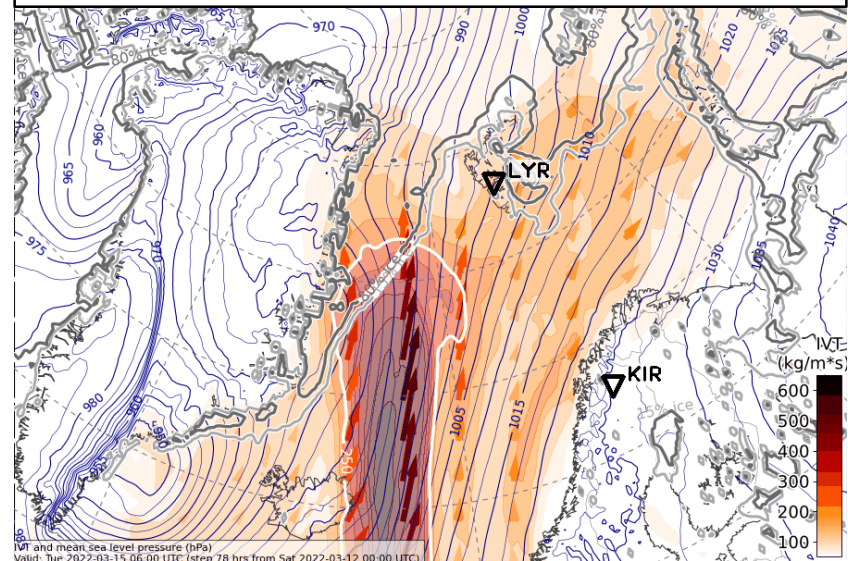
Tue, 2022-03-15 06 UTC (+78h)



850 hPa Equiv. pot. temperature

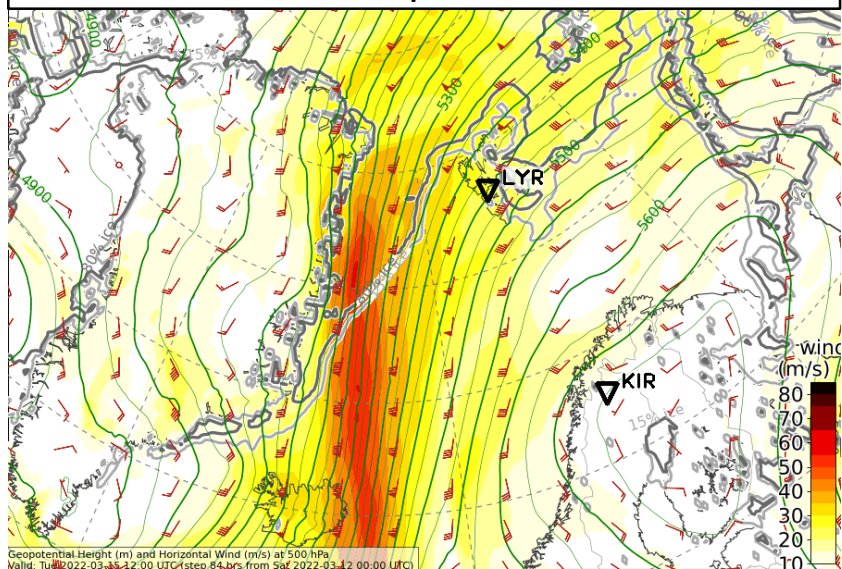


Integrated water vapour transport

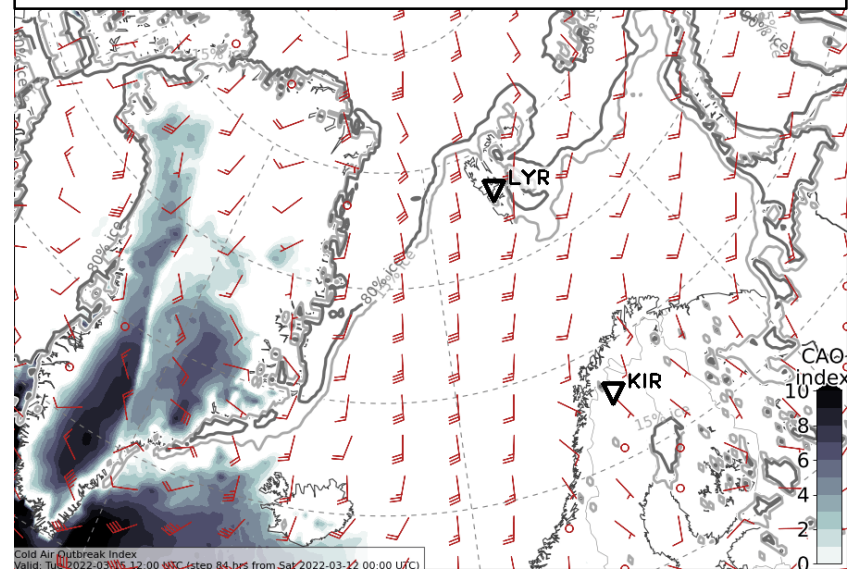


Tue, 2022-03-15 12 UTC (+84h)

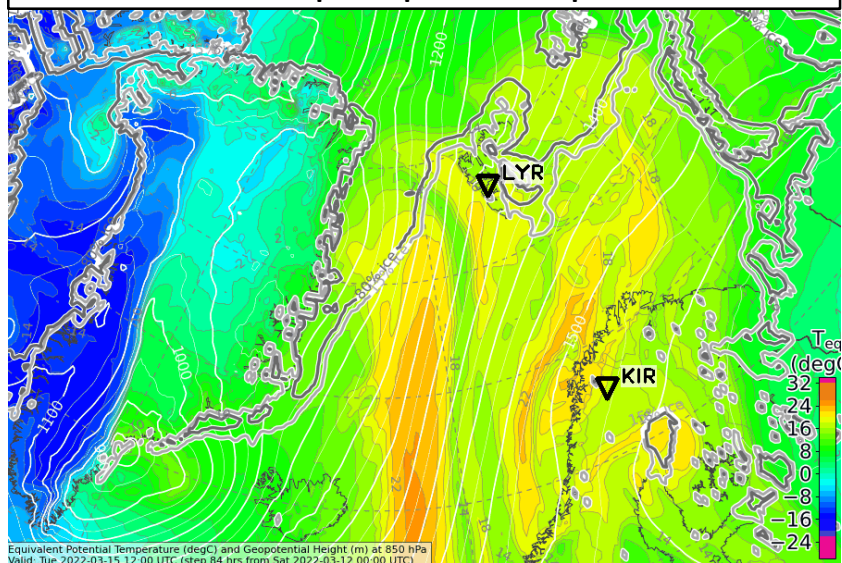
500 hPa Geopot. and Wind



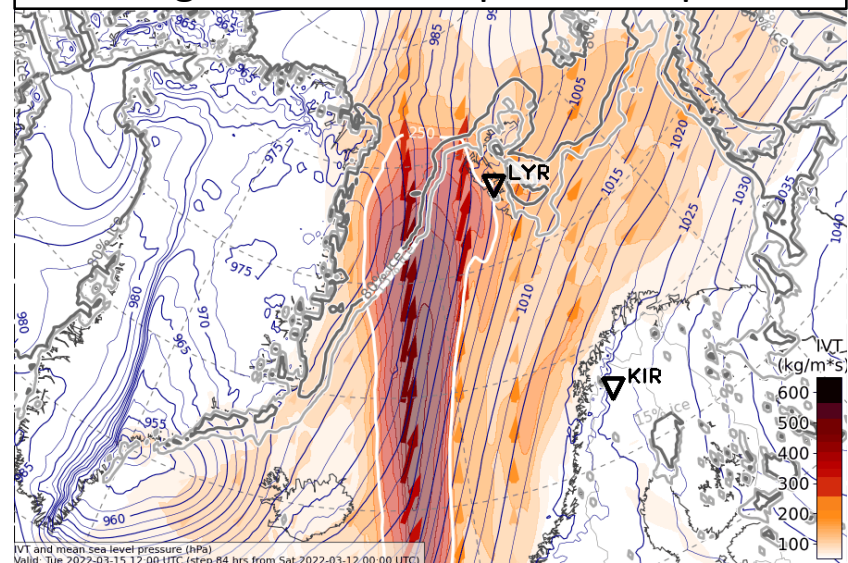
CAO Index



850 hPa Equiv. pot. temperature

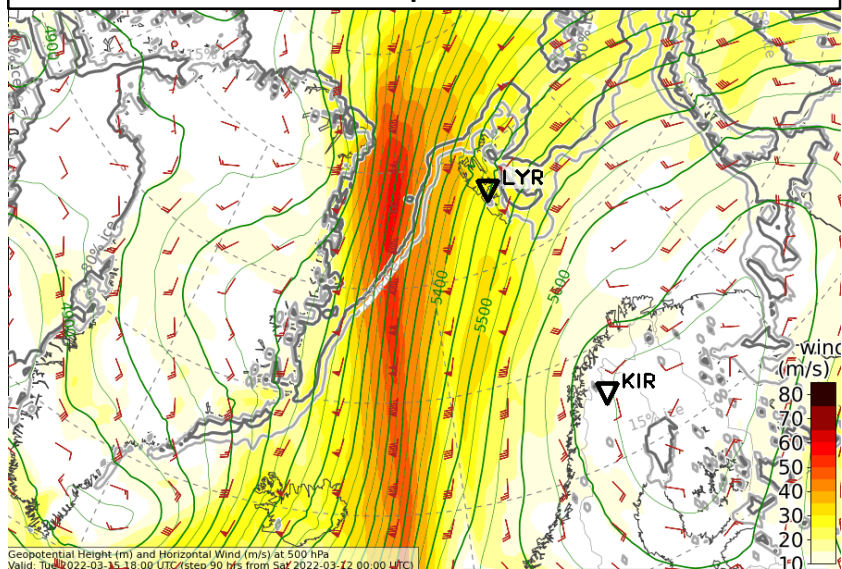


Integrated water vapour transport

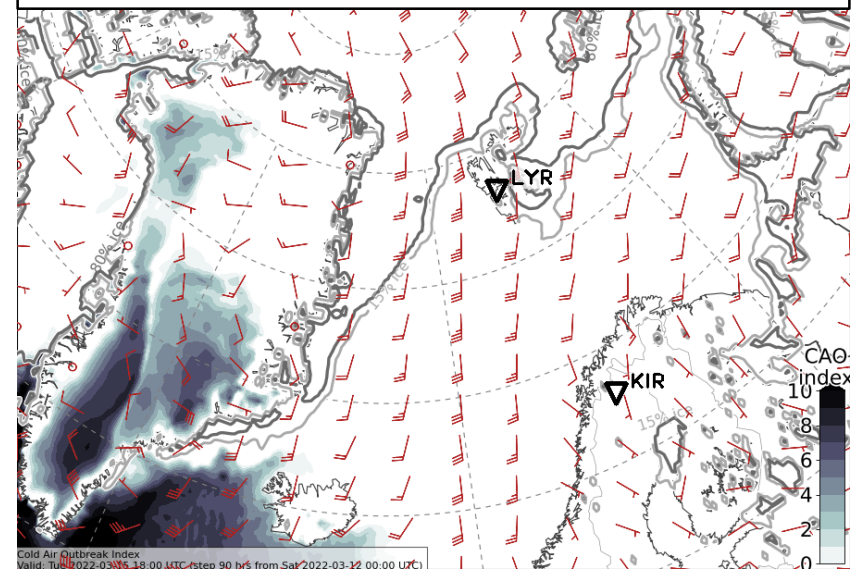


Tue, 2022-03-15 18 UTC (+90h)

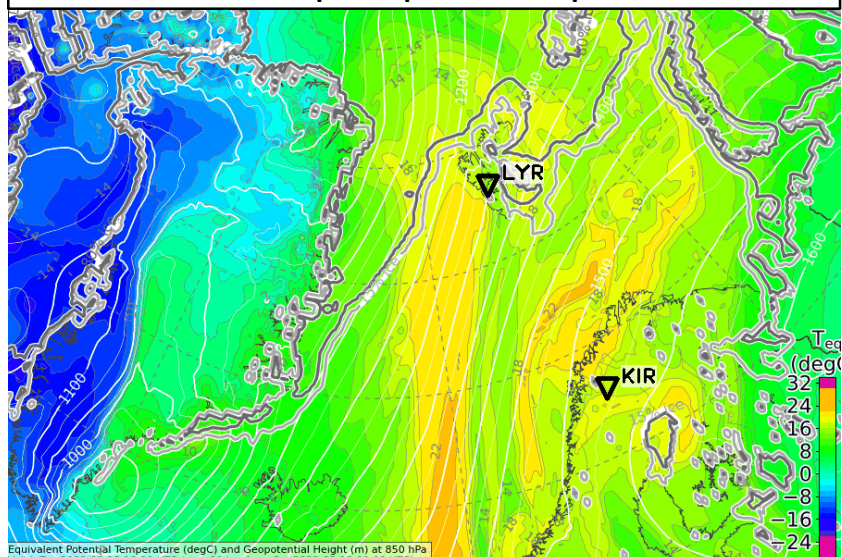
500 hPa Geopot. and Wind



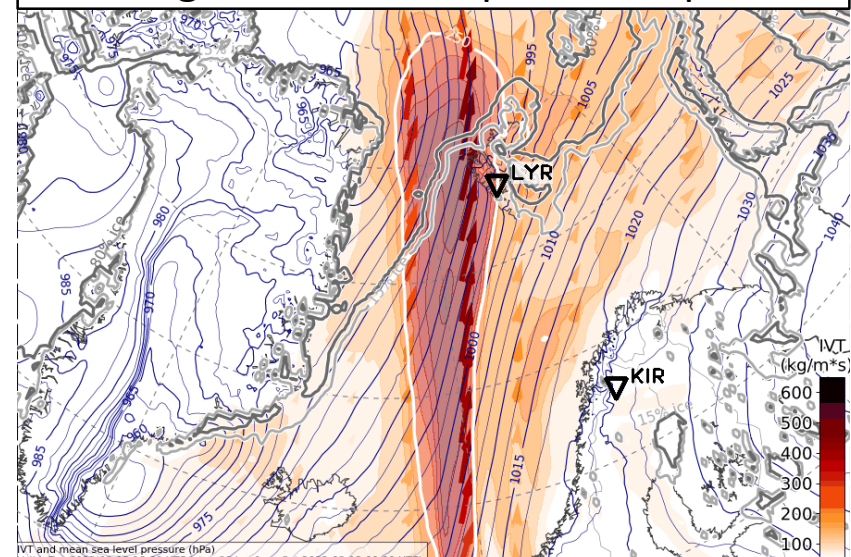
CAO Index



850 hPa Equiv. pot. temperature

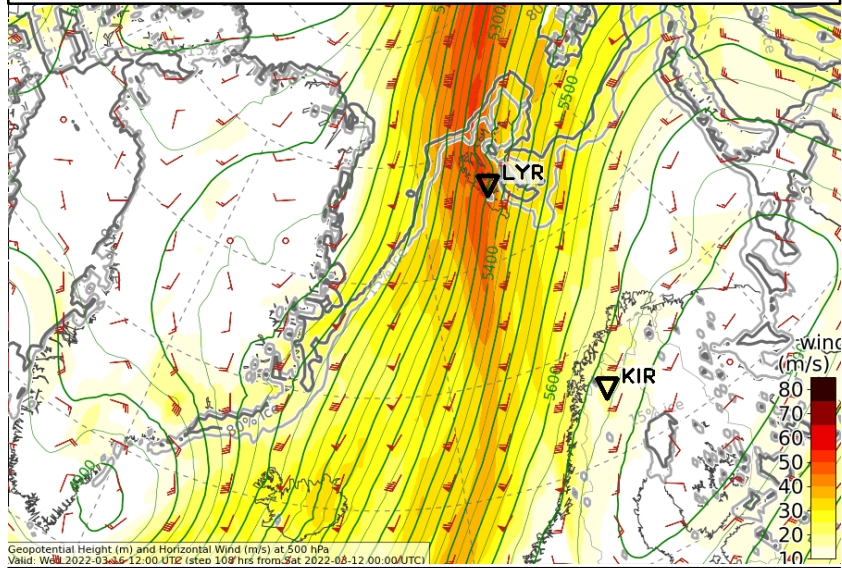


Integrated water vapour transport

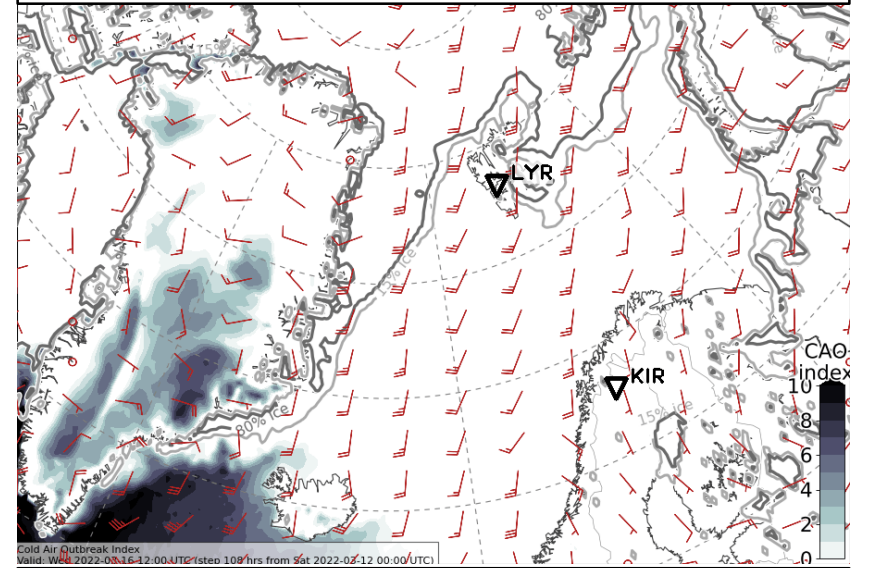


Wed, 2022-03-16 12 UTC (+108h)

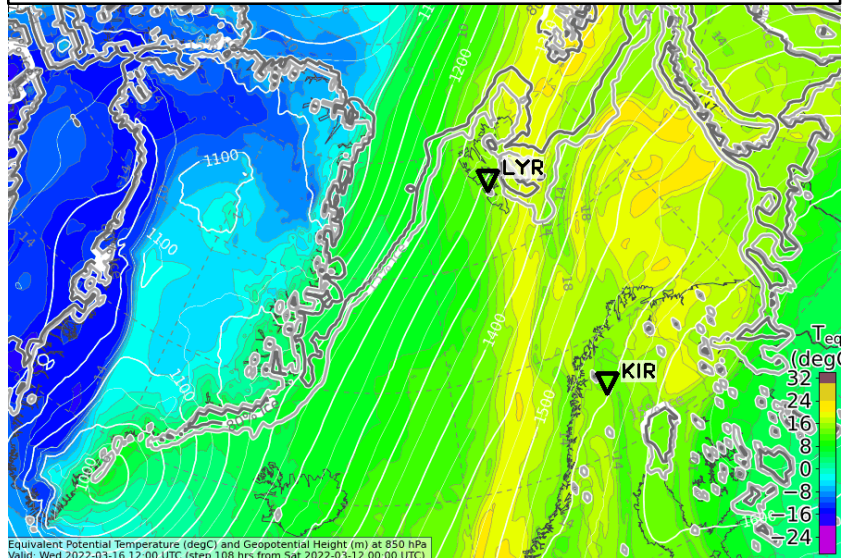
500 hPa Geopot. and Wind



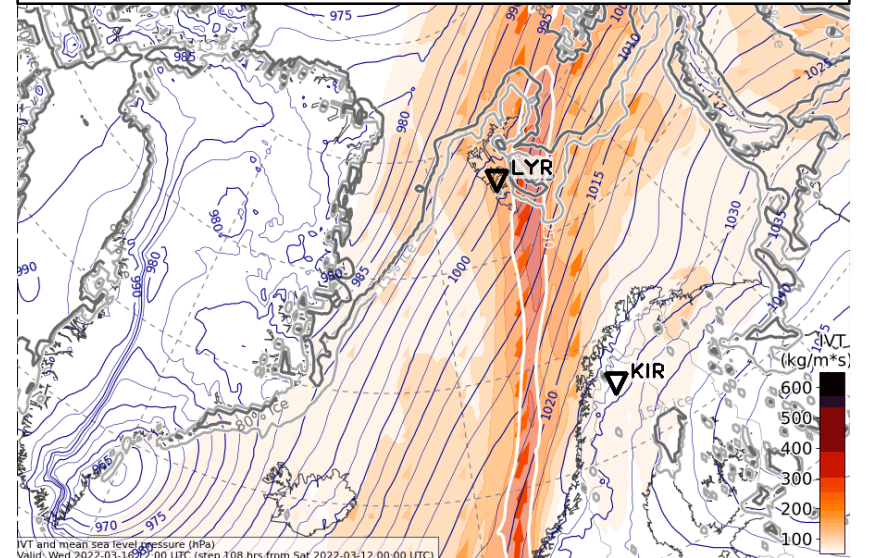
CAO Index



850 hPa Equiv. pot. temperature



Integrated water vapour transport



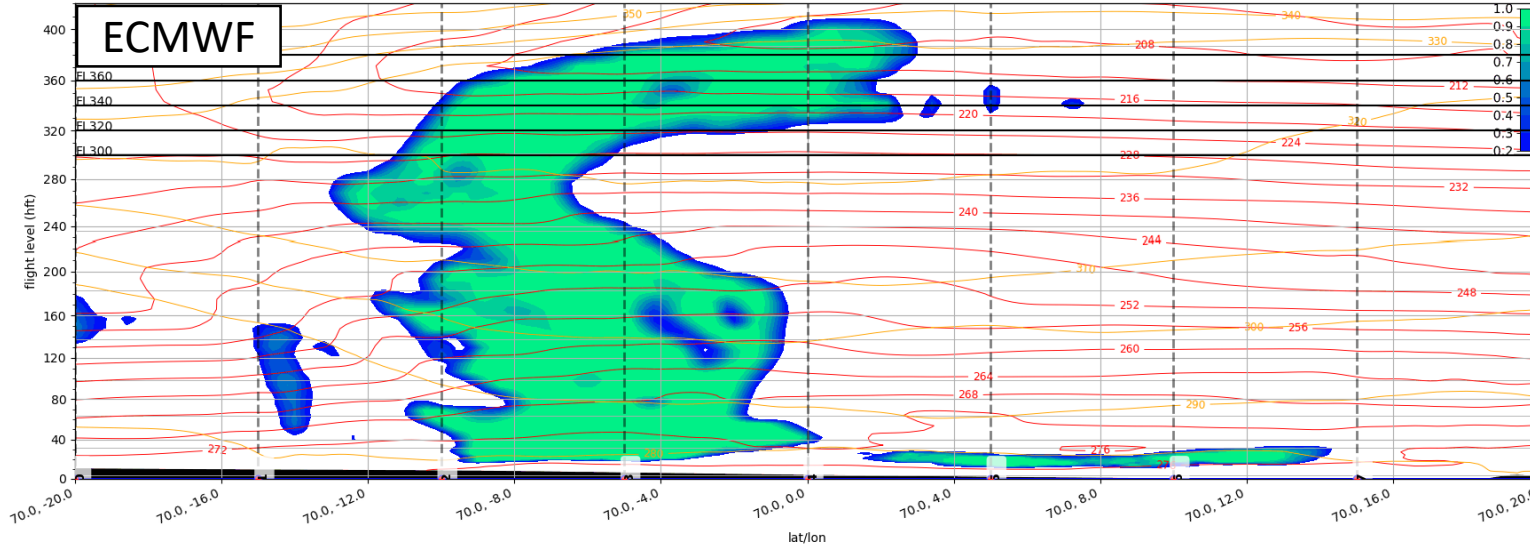
Cross sections

2022-03-12 00 UTC: +84h

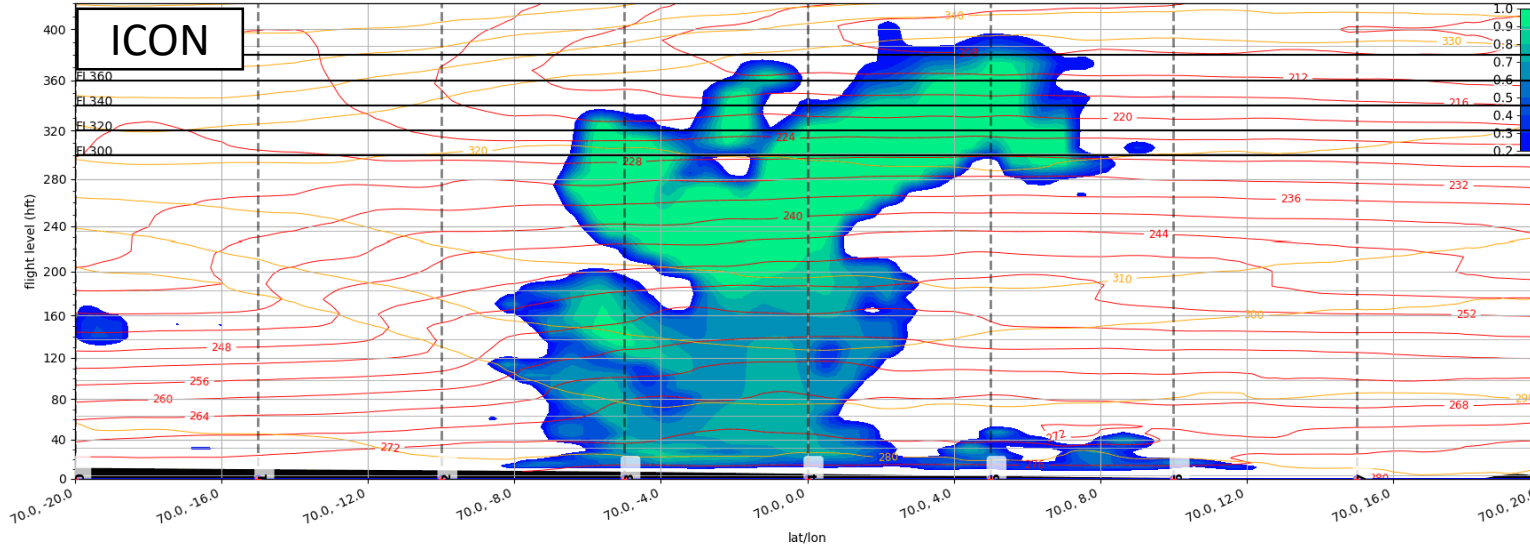
Clouds, RH, spec. hum., T

Tue, 2022-03-15 12 UTC: Clouds

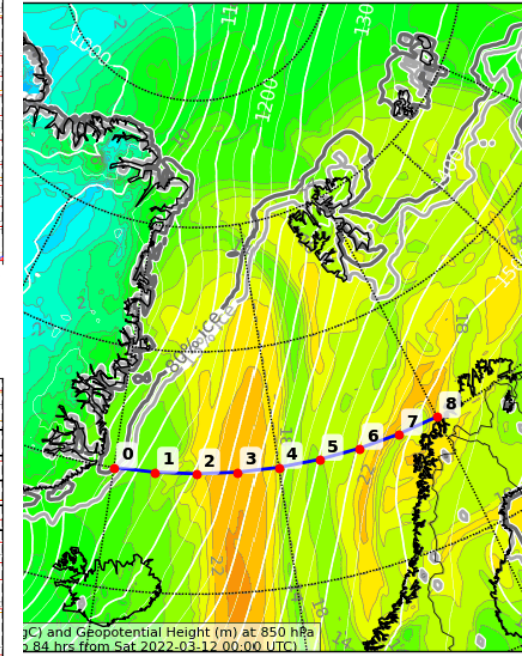
Cloud Cover (0-1) Vertical Section
Valid: 2022-03-15T12:00:00Z (initialisation: 2022-03-12T00:00:00Z)



Cloud Cover (0-1) Vertical Section
Valid: 2022-03-15T12:00:00Z (initialisation: 2022-03-12T00:00:00Z)

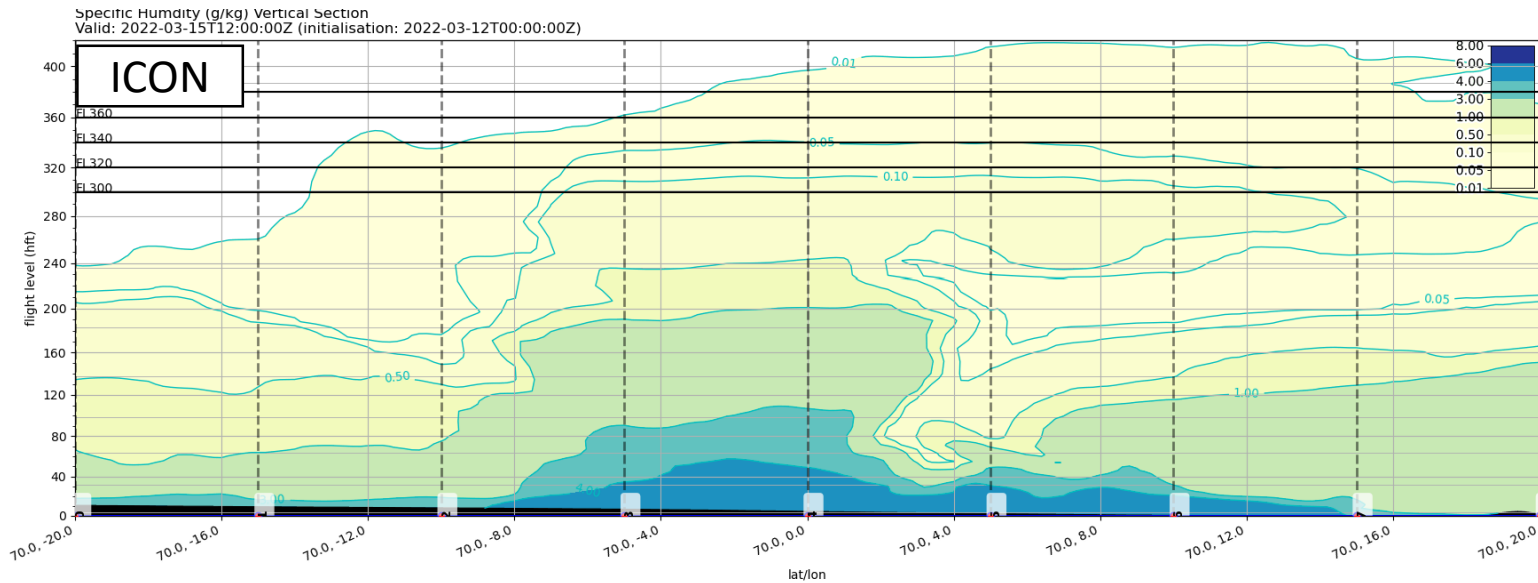
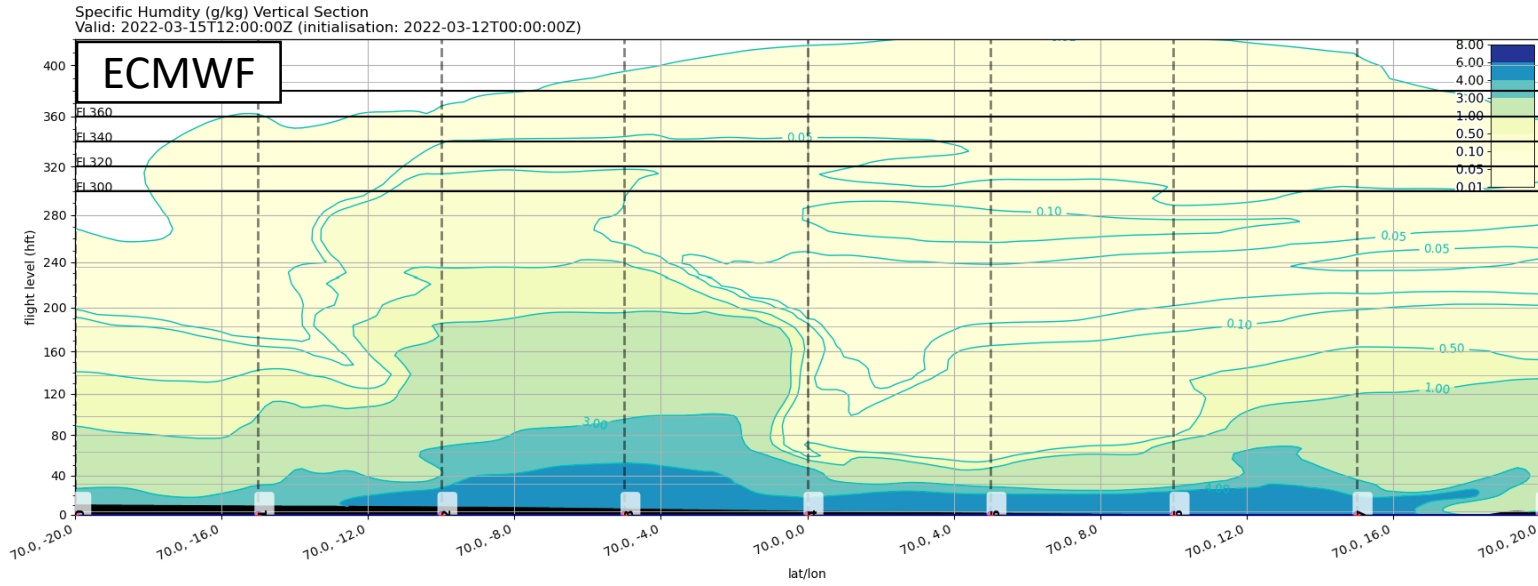


Potential (degC) and Geopotential Height (m) at 850 hPa
Valid: 2022-03-15T12:00:00Z (initialisation: 2022-03-12T00:00:00Z)

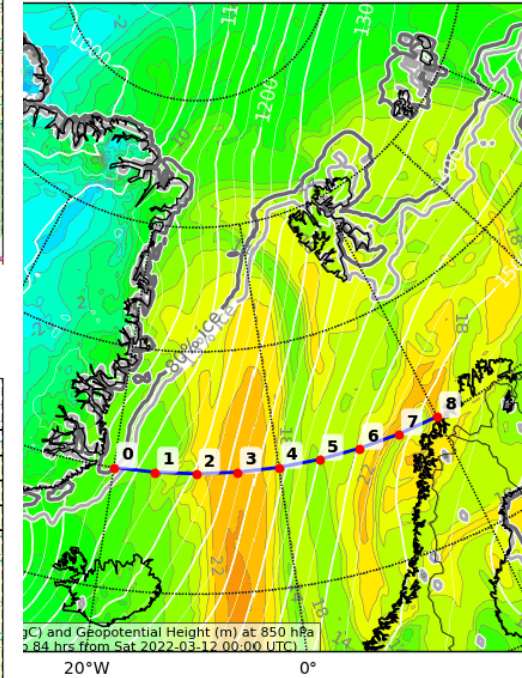


Potential (degC) and Geopotential Height (m) at 850 hPa
Valid: 2022-03-15T12:00:00Z (initialisation: 2022-03-12T00:00:00Z)

Tue, 2022-03-15 12 UTC: Specific humidity

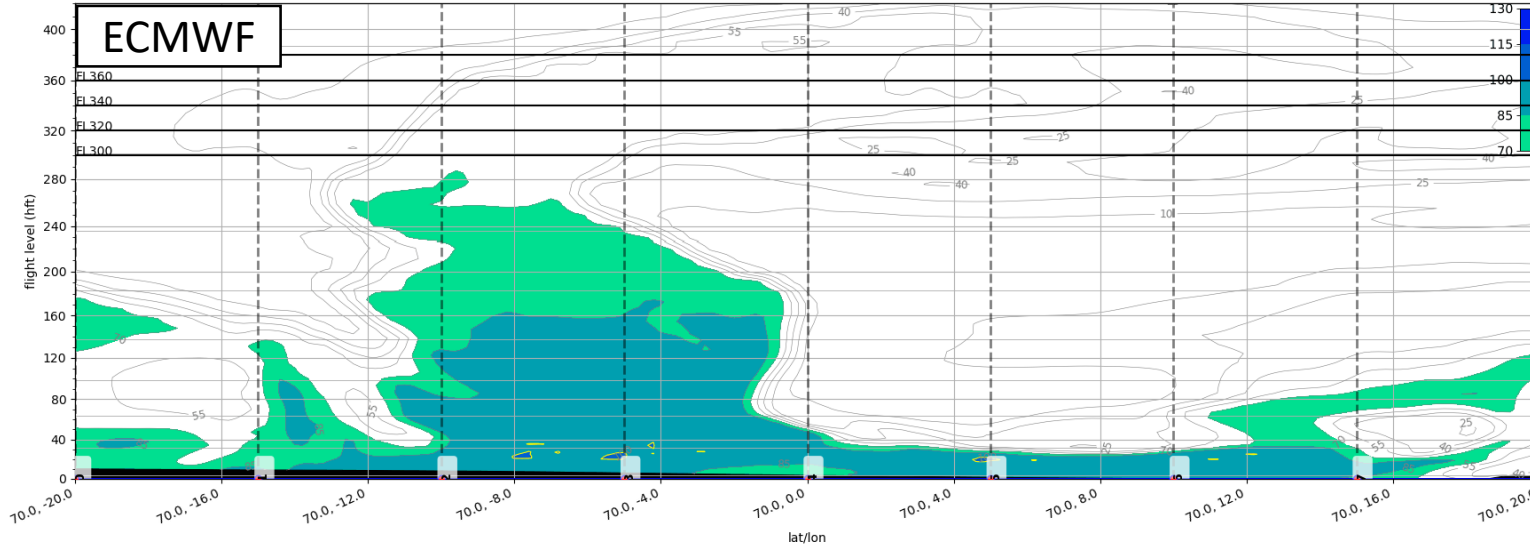


Potential (degC) and Geopotential Height (m) at 850 hPa
Valid: 2022-03-15T12:00:00Z (initialisation: 2022-03-12T00:00:00Z)

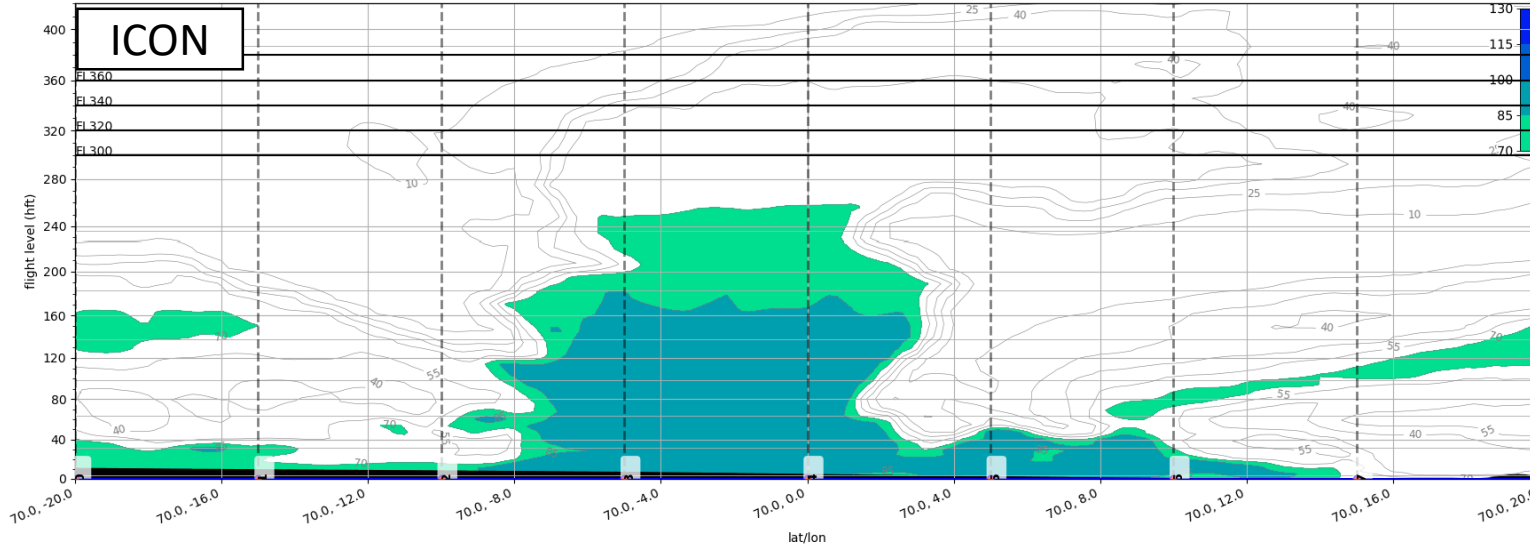


Tue, 2022-03-15 12 UTC: Relative humidity

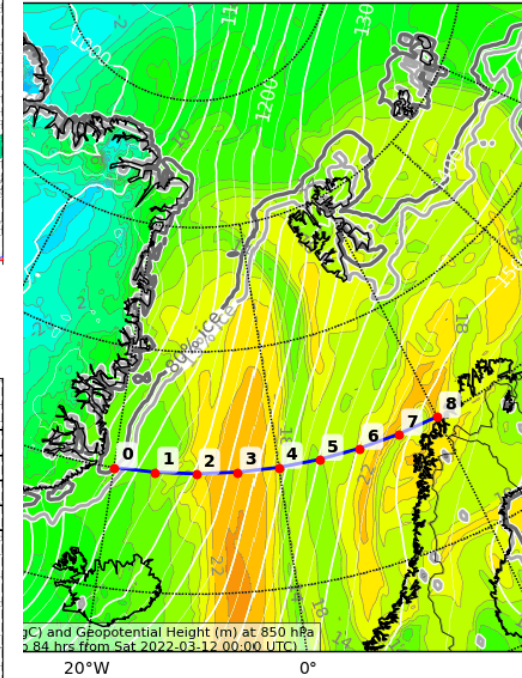
Relative Humidity (%) Vertical Section
Valid: 2022-03-15T12:00:00Z (initialisation: 2022-03-12T00:00:00Z)



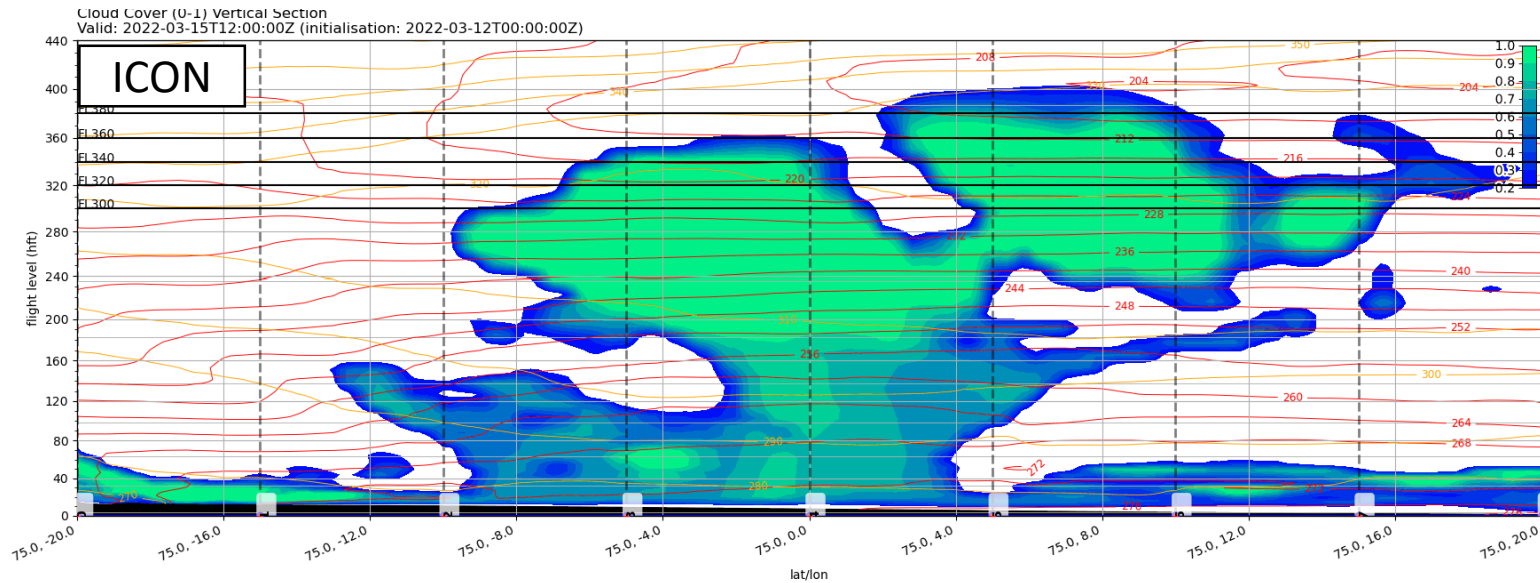
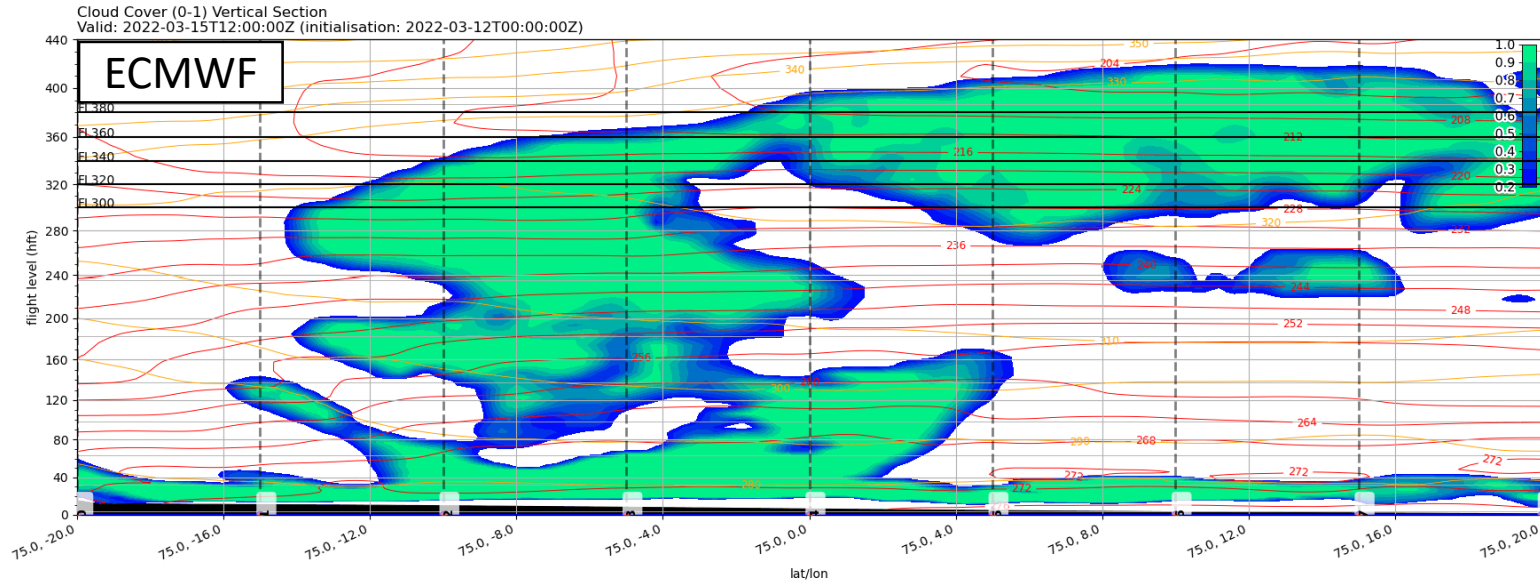
Relative Humidity (%) Vertical Section
Valid: 2022-03-15T12:00:00Z (initialisation: 2022-03-12T00:00:00Z)



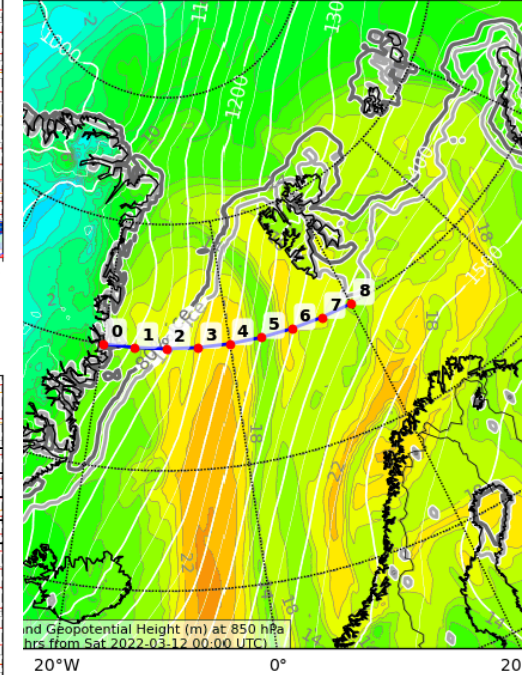
Potential (degC) and Geopotential Height (m) at 850 hPa
Valid: 2022-03-15T12:00:00Z (initialisation: 2022-03-12T00:00:00Z)



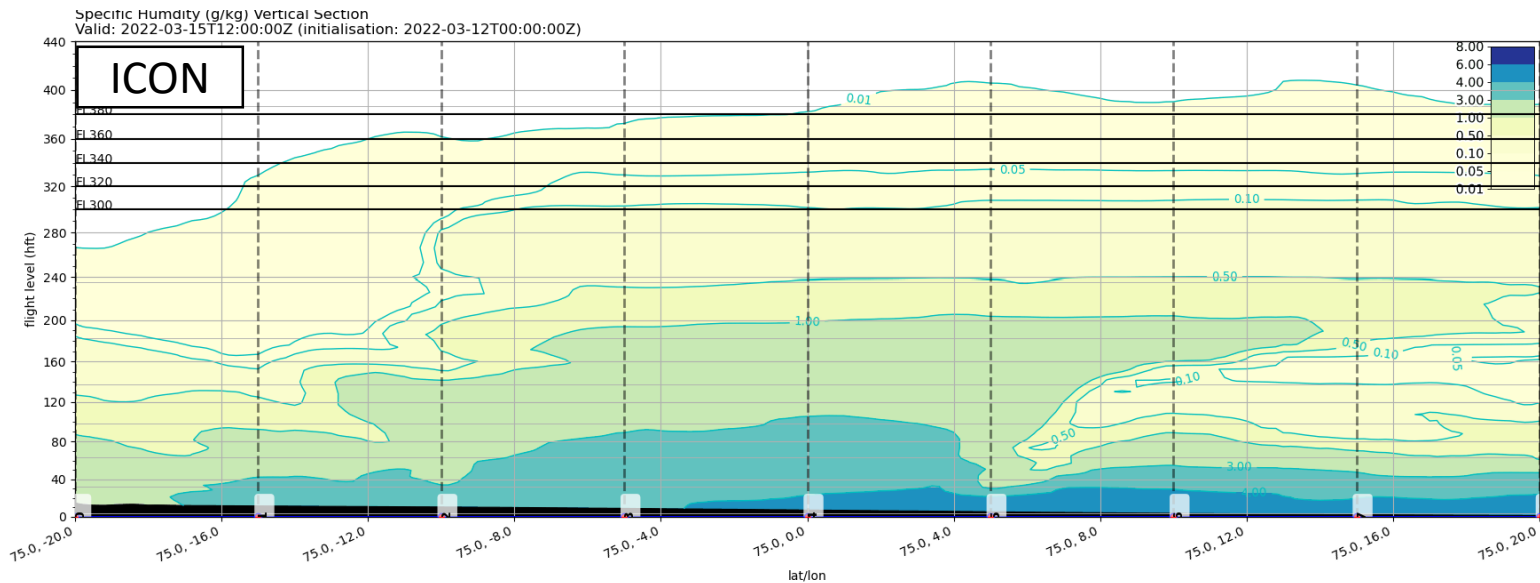
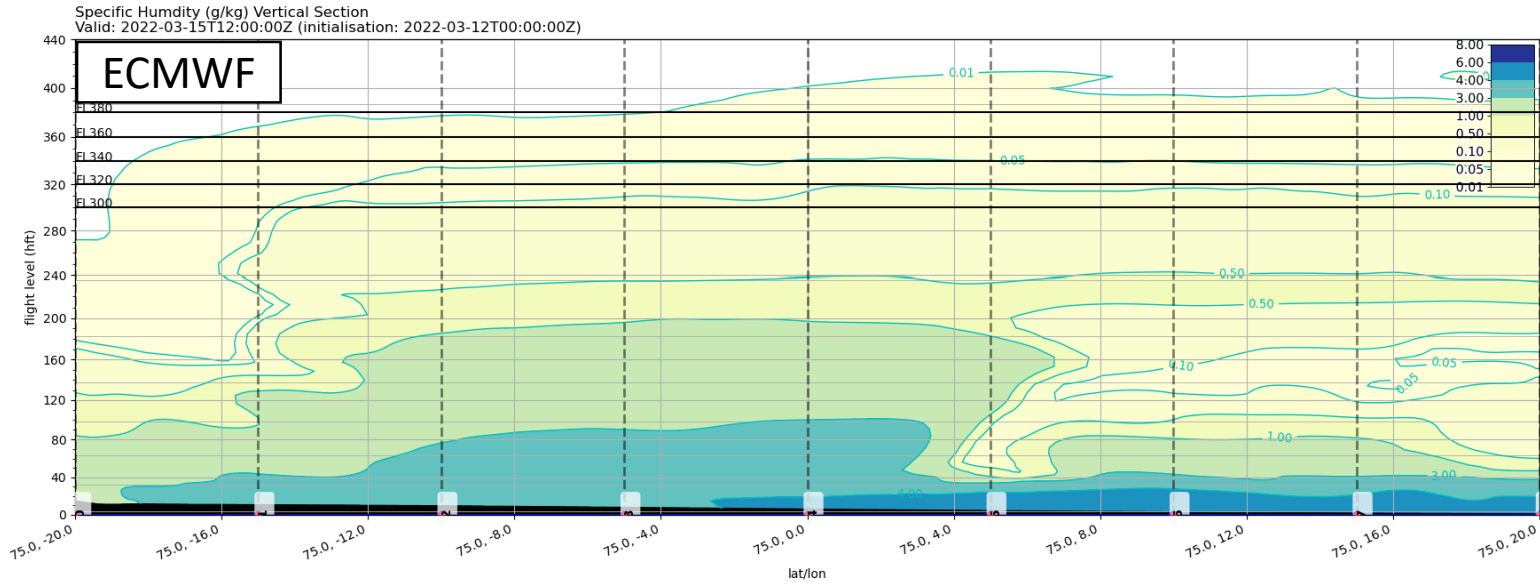
Tue, 2022-03-15 12 UTC: Clouds



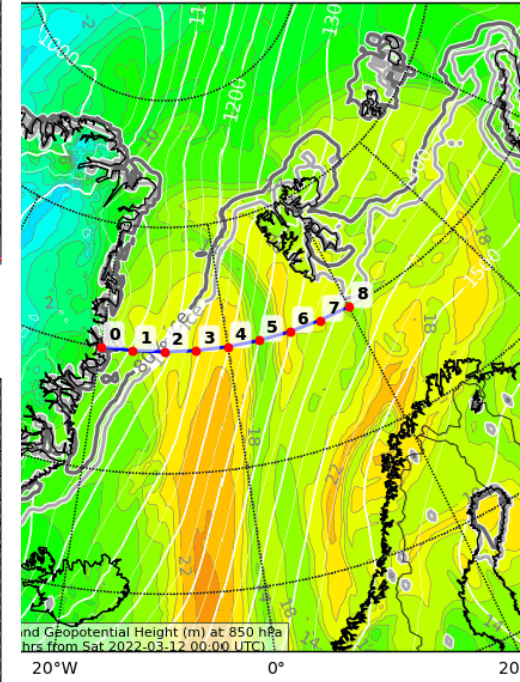
ential (degC) and Geopotential Height (m) at 850 hPa
Z (initialisation: 2022-03-12T00:00:00Z)



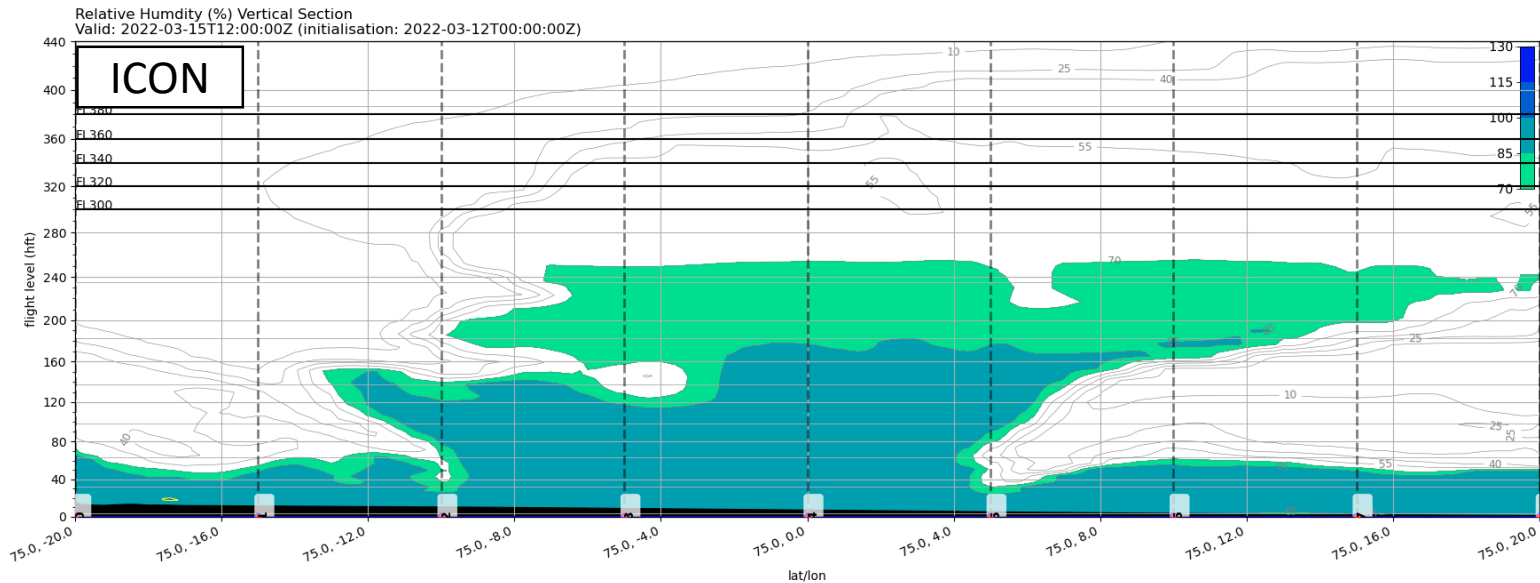
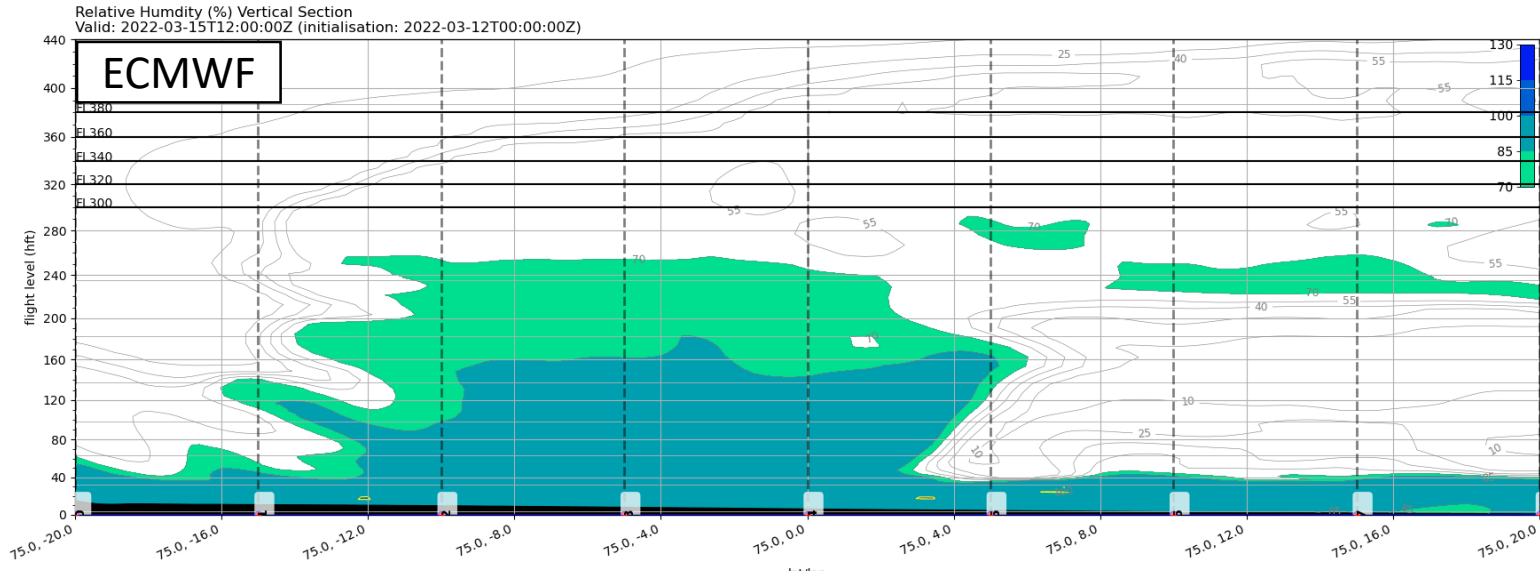
Tue, 2022-03-15 12 UTC: Specific humidity



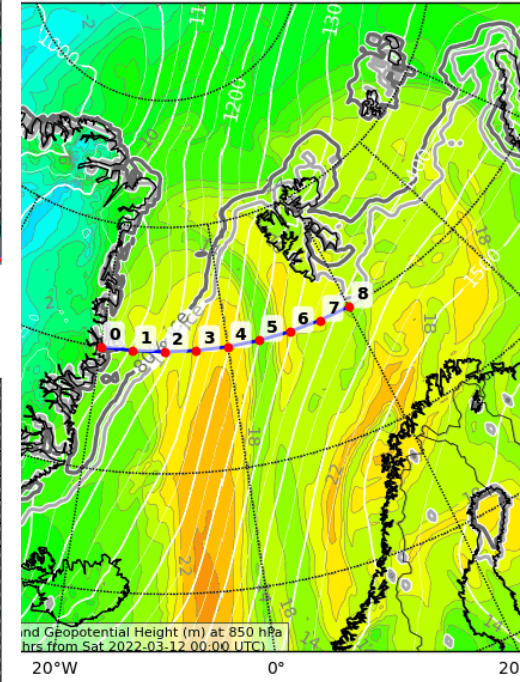
Temperature (degC) and Geopotential Height (m) at 850 hPa
Valid: 2022-03-15T12:00:00Z (initialisation: 2022-03-12T00:00:00Z)



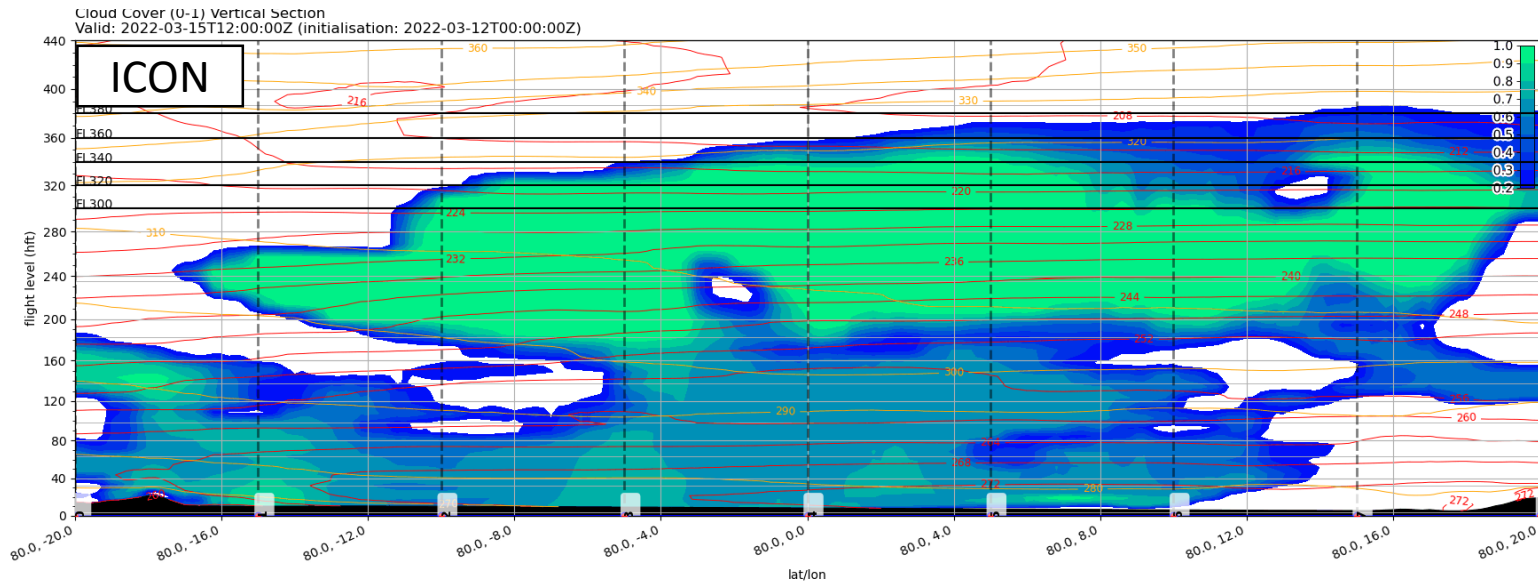
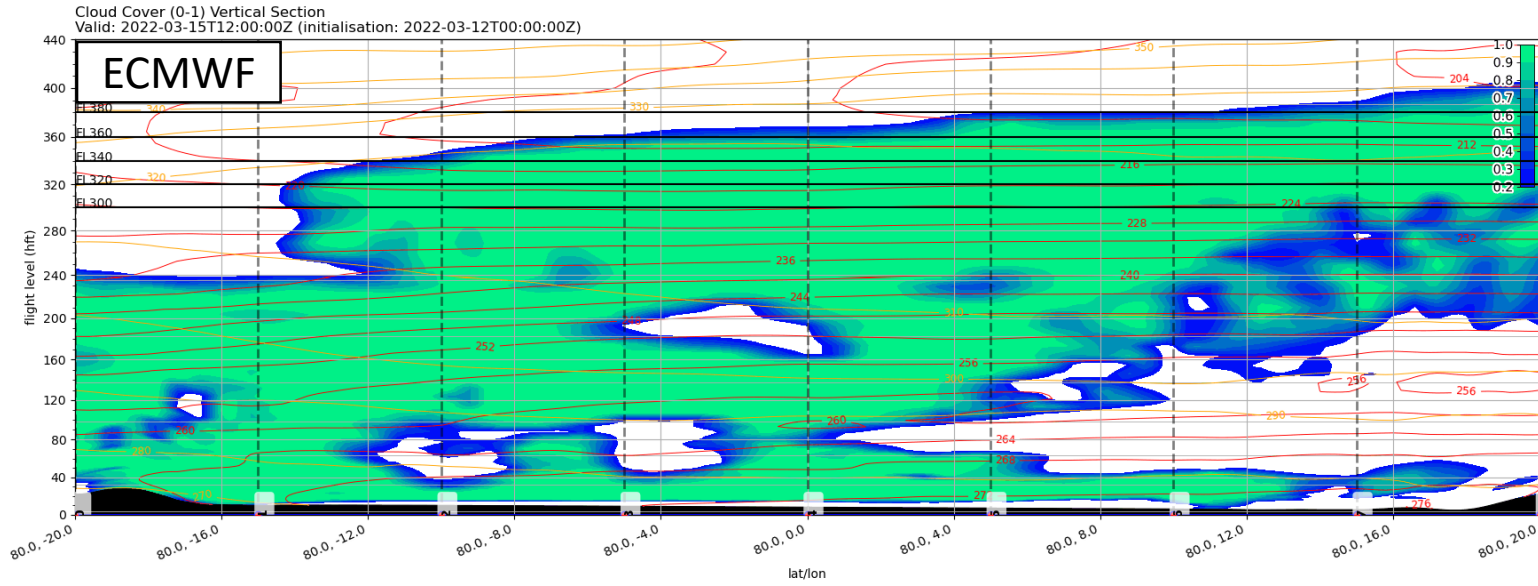
Tue, 2022-03-15 12 UTC: Relative humidity



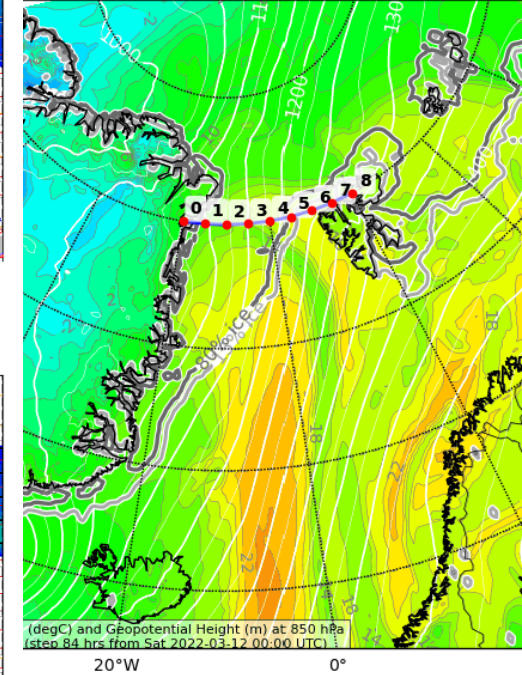
ential (degC) and Geopotential Height (m) at 850 hPa
Z (initialisation: 2022-03-12T00:00:00Z)



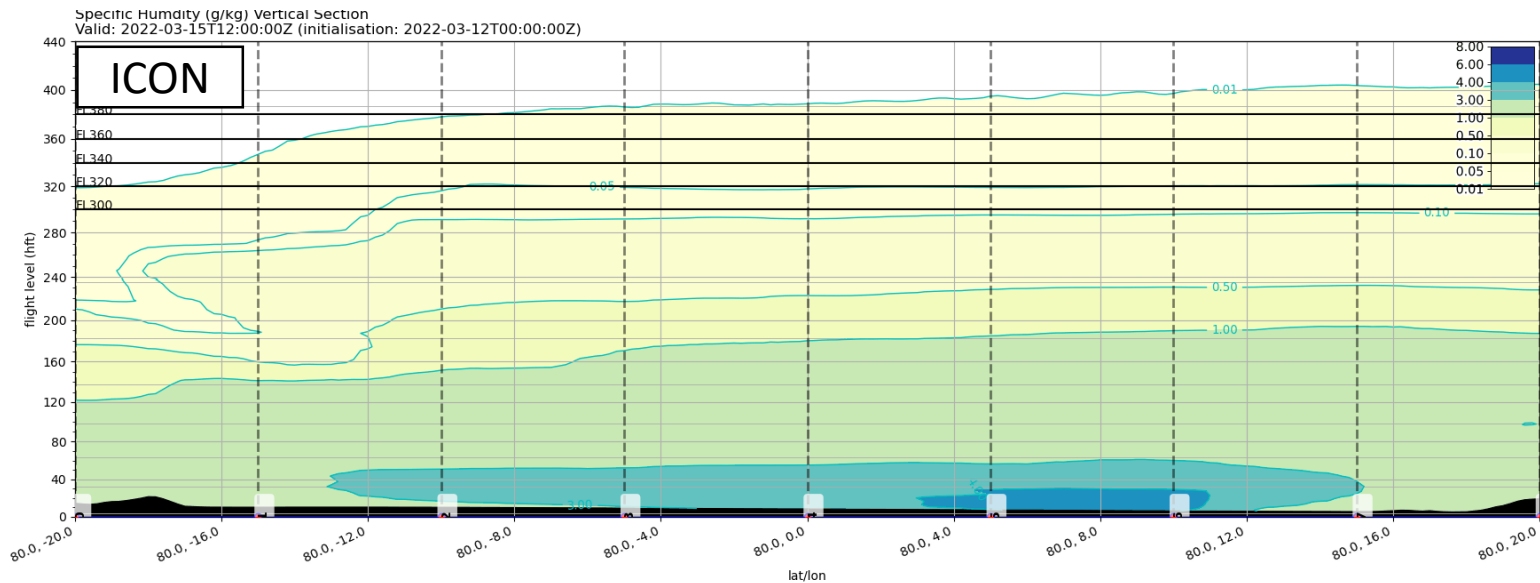
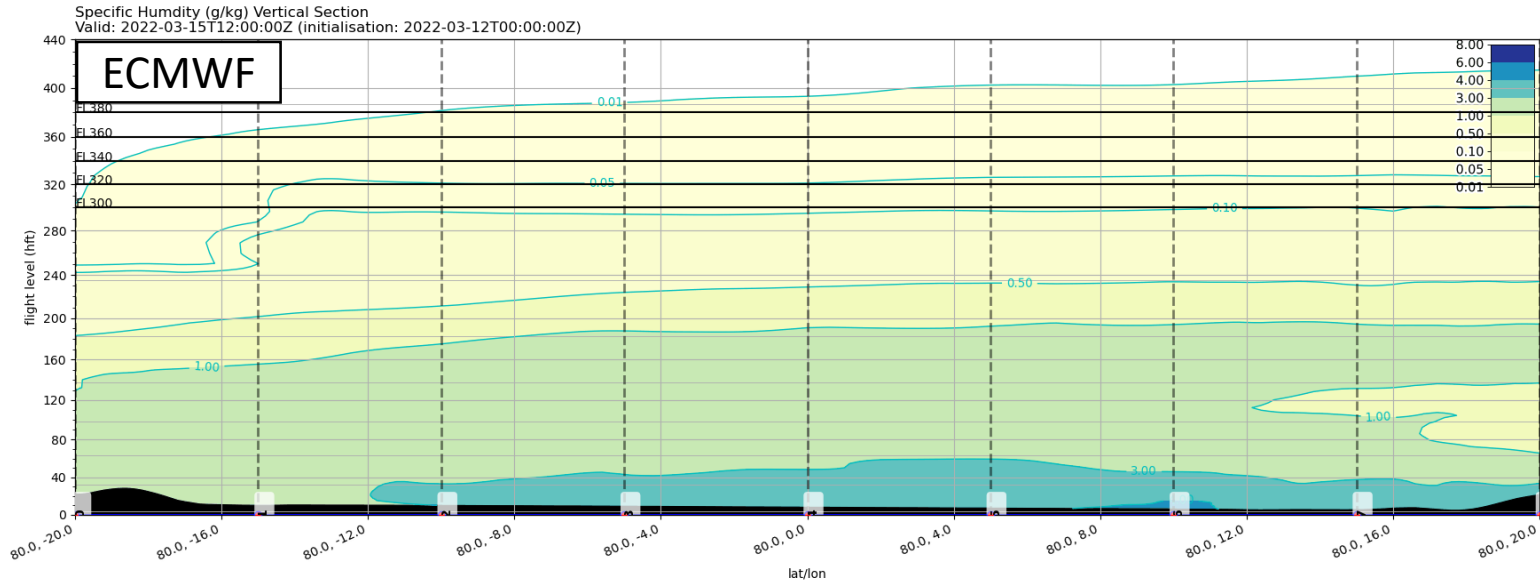
Tue, 2022-03-15 12 UTC: Clouds



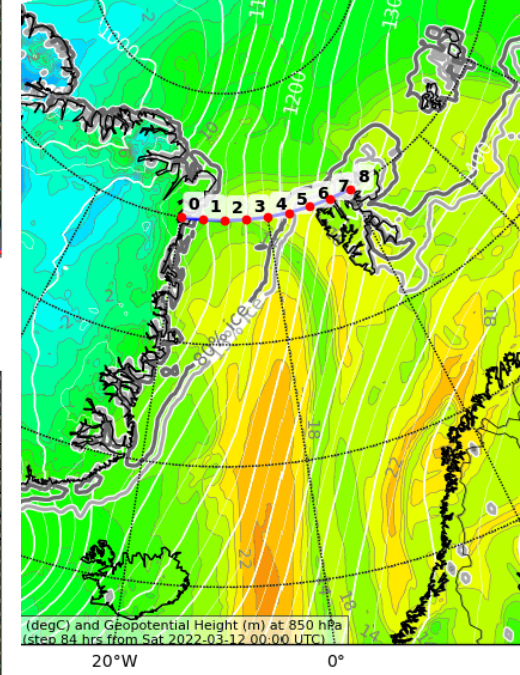
ent Potential (degC) and Geopotential Height (m)
00:00Z (initialisation: 2022-03-12T00:00:00Z)



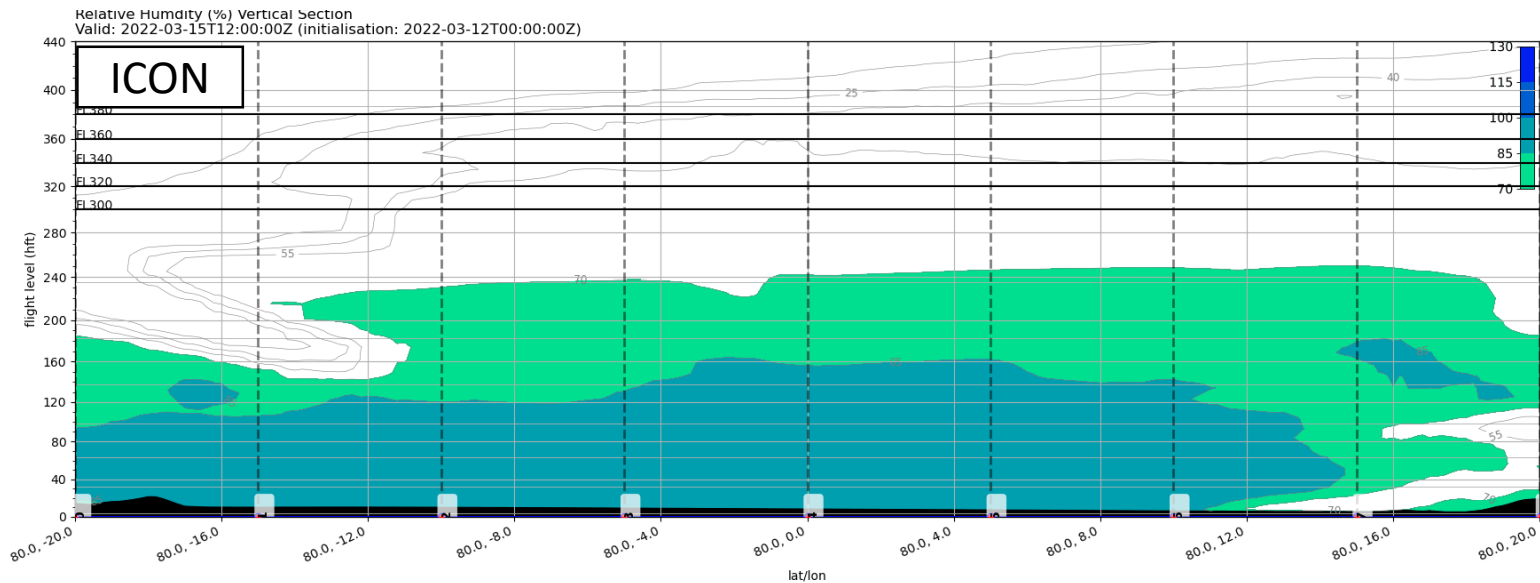
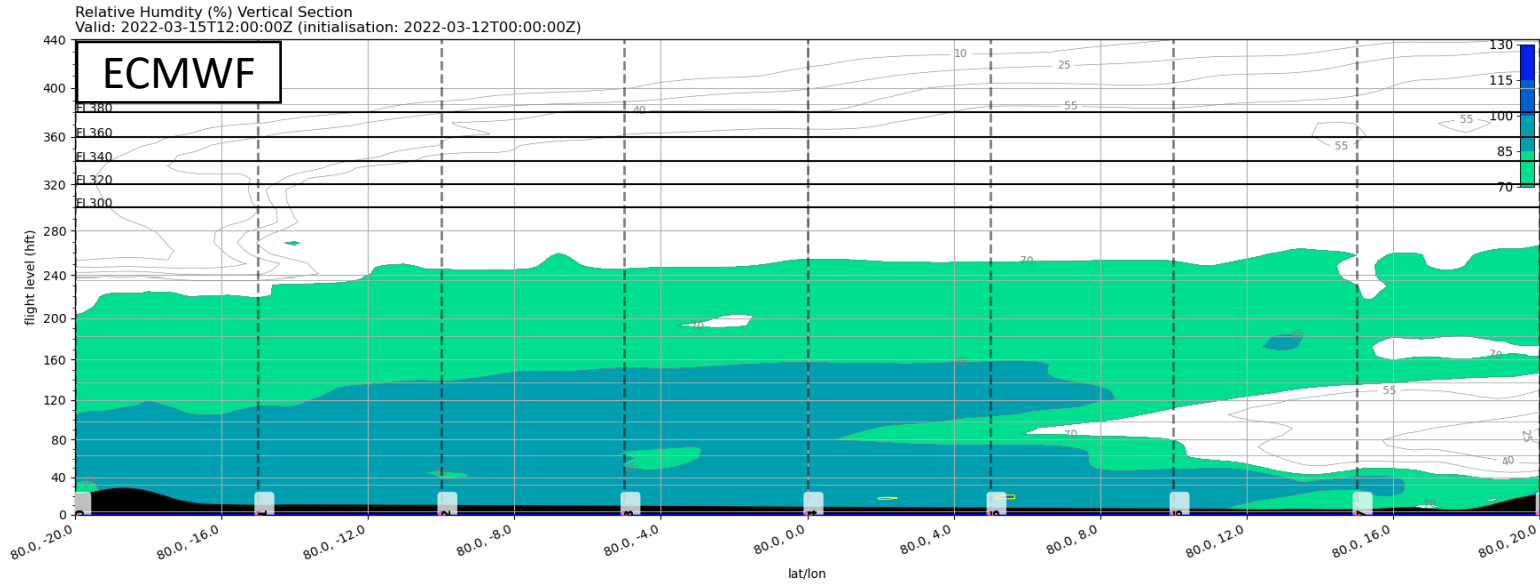
Tue, 2022-03-15 12 UTC: Specific humidity



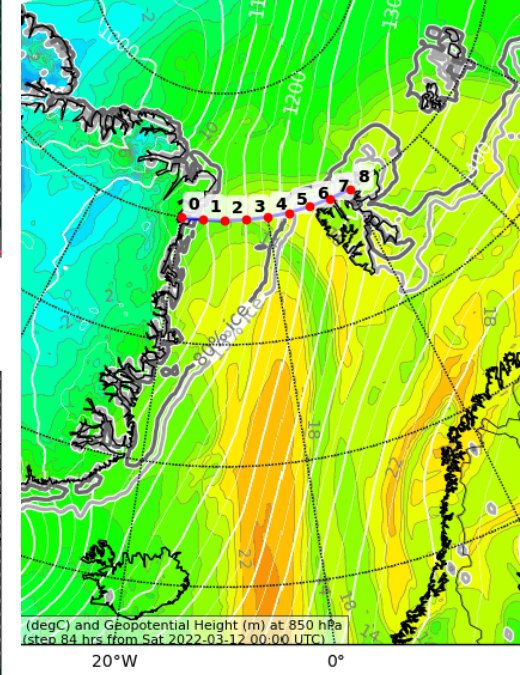
Temperature (degC) and Geopotential Height (m) at 850 hPa
Valid: 2022-03-15T12:00:00Z (initialisation: 2022-03-12T00:00:00Z)



Tue, 2022-03-15 12 UTC: Relative humidity

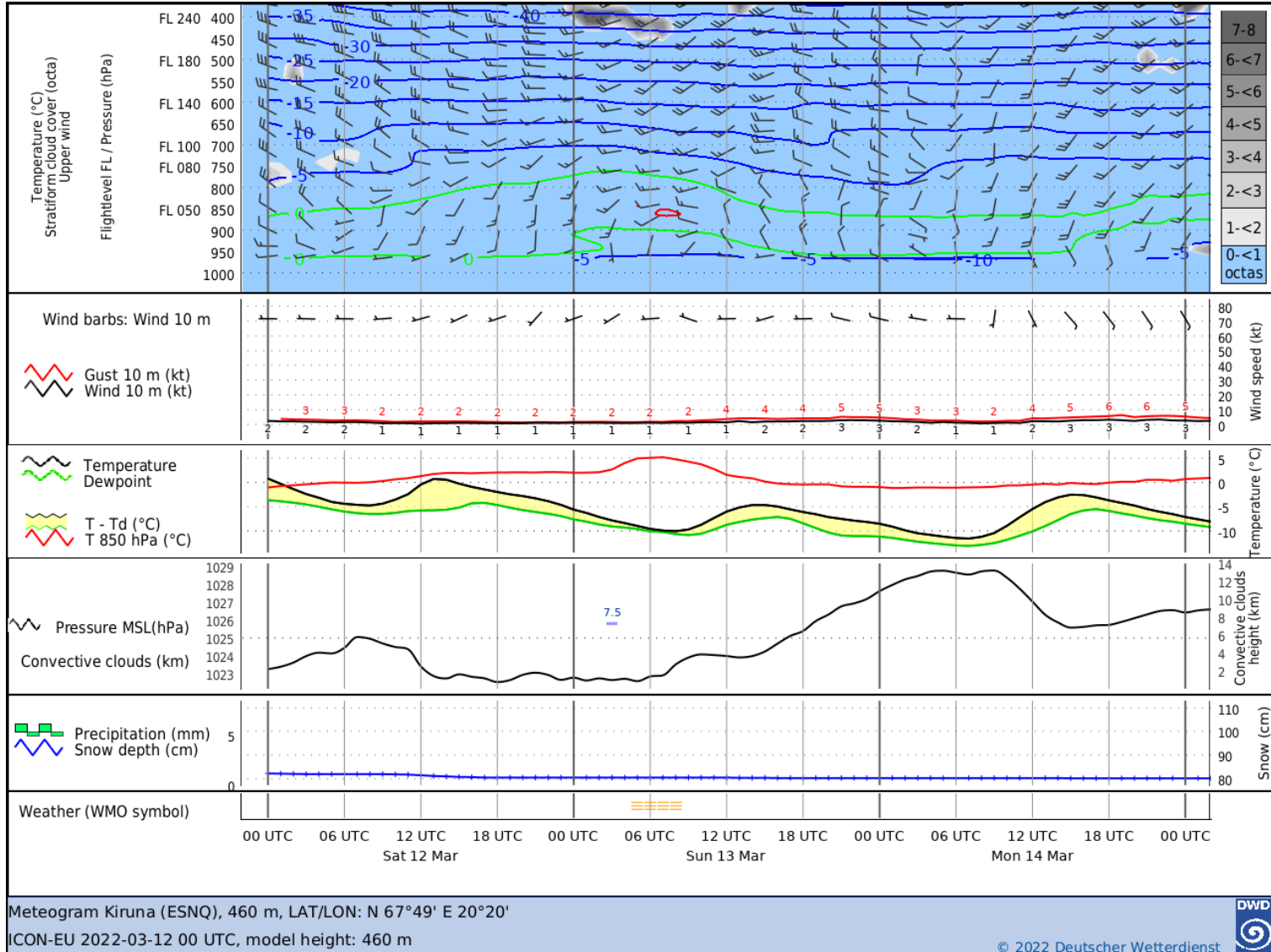


ent Potential (degC) and Geopotential Height (m) at 850 hPa
Valid: 2022-03-15T12:00:00Z (initialisation: 2022-03-12T00:00:00Z)



Airport meteograms
2022-03-12 00 UTC: 00 – 72h

Kiruna:

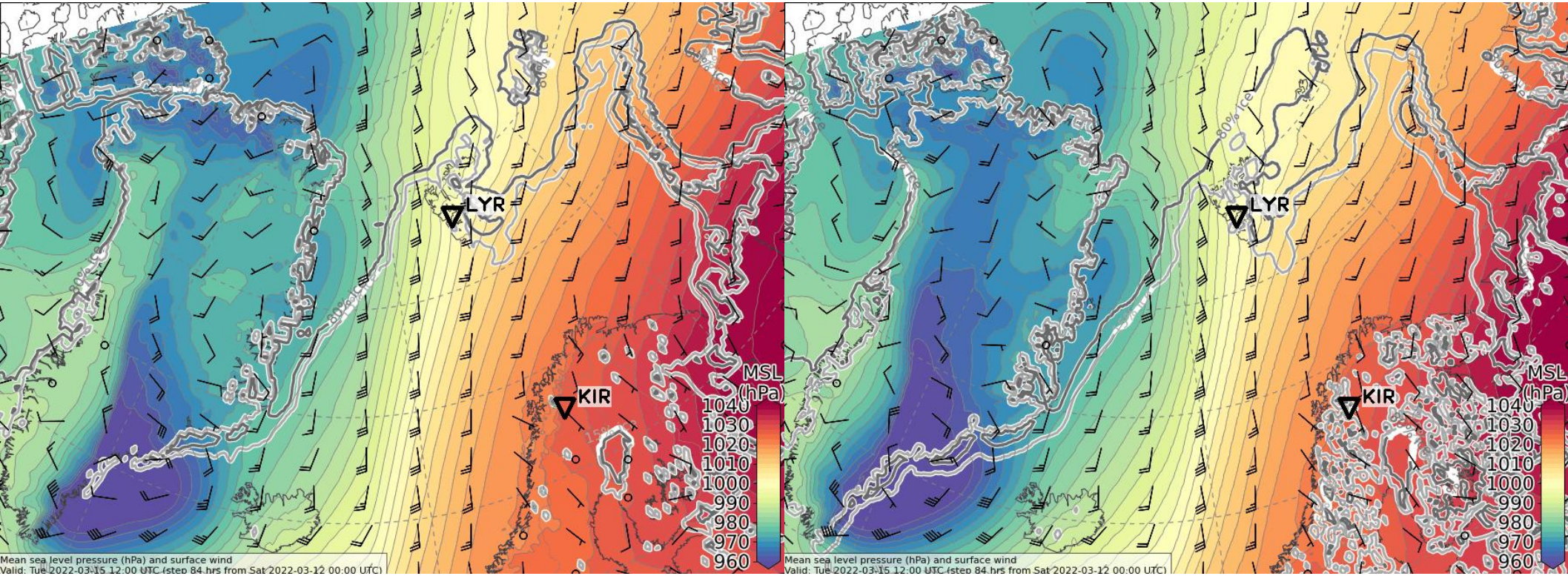


Forecast uncertainty
2022-03-12 00 UTC: 72 – 96h

Tuesday, 2022-03-15 12 UTC (+84h)

ECMWF

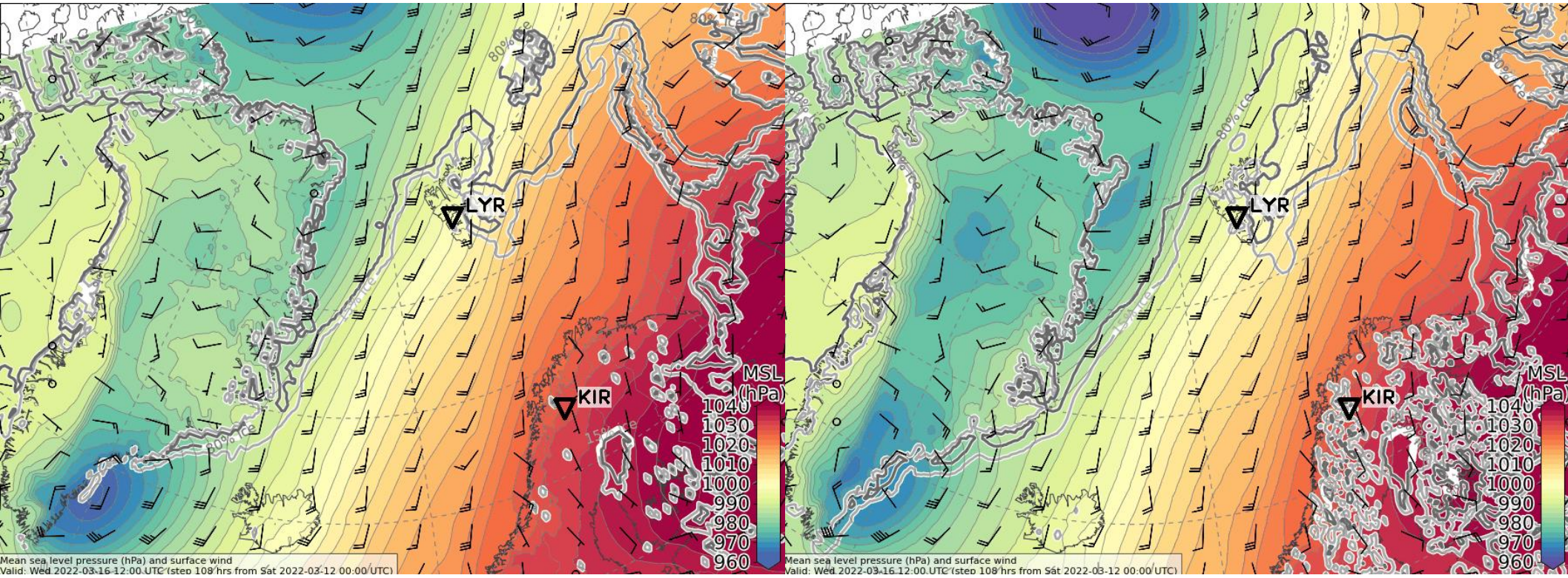
ICON



Wednesday, 2022-03-16 12 UTC (+108h)

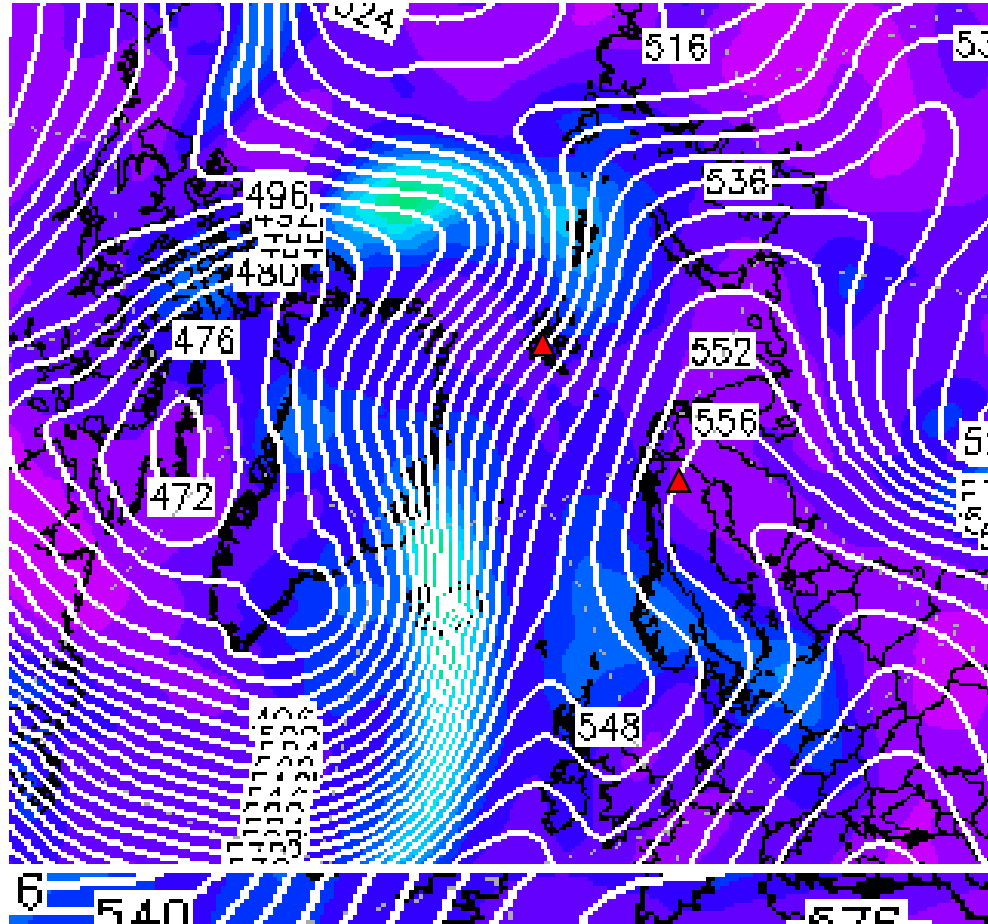
ECMWF

ICON



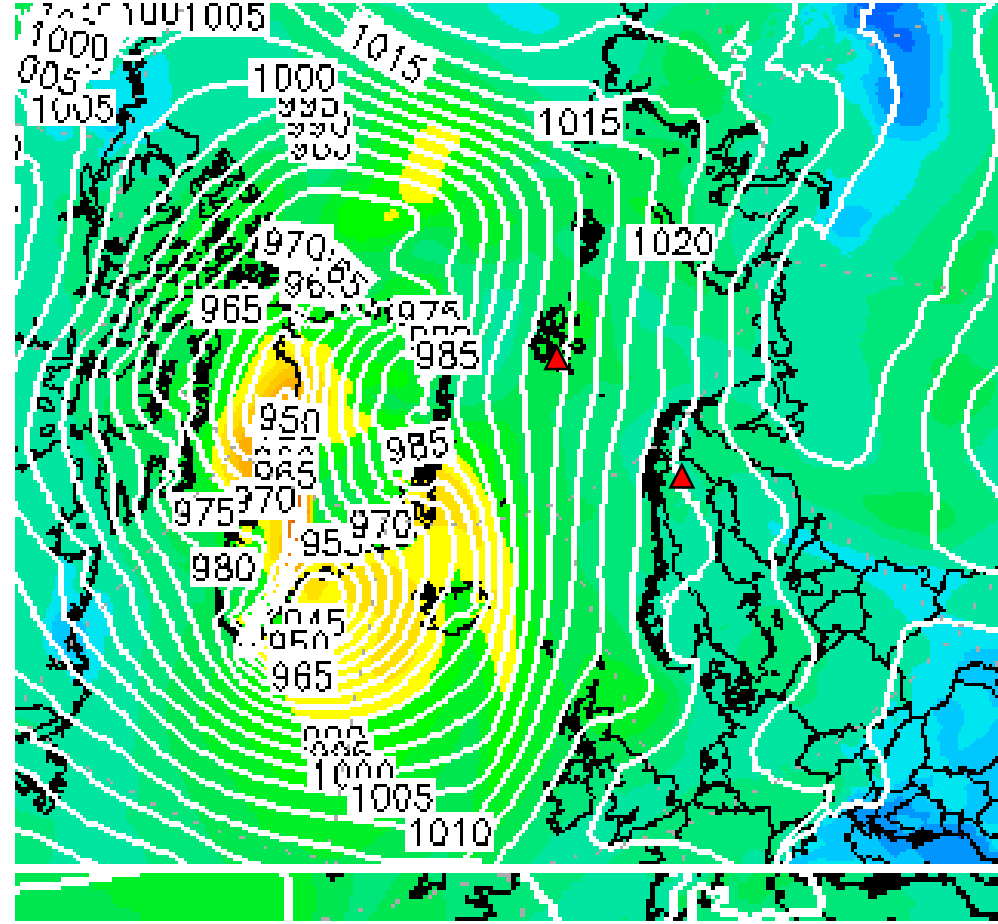
Tuesday, 2022-03-15 00 UTC (+72h)

500 hPa Geopot



gpdam

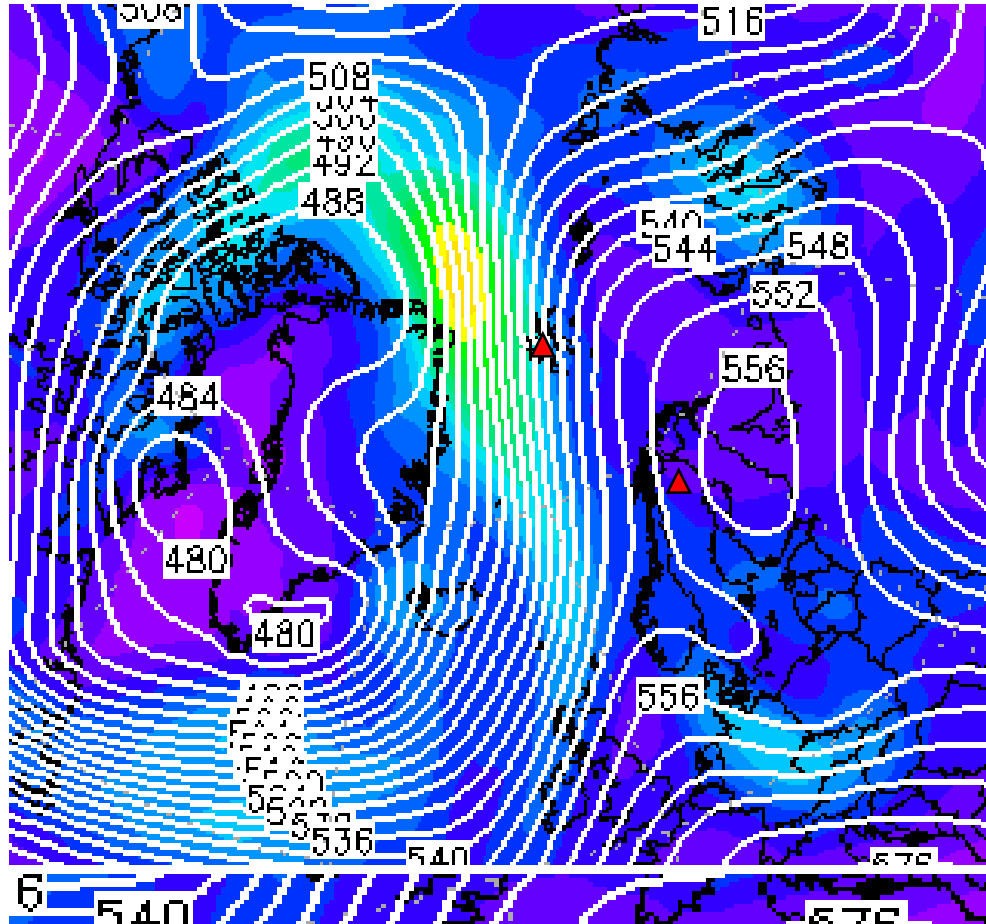
Sfc pressure



hPa

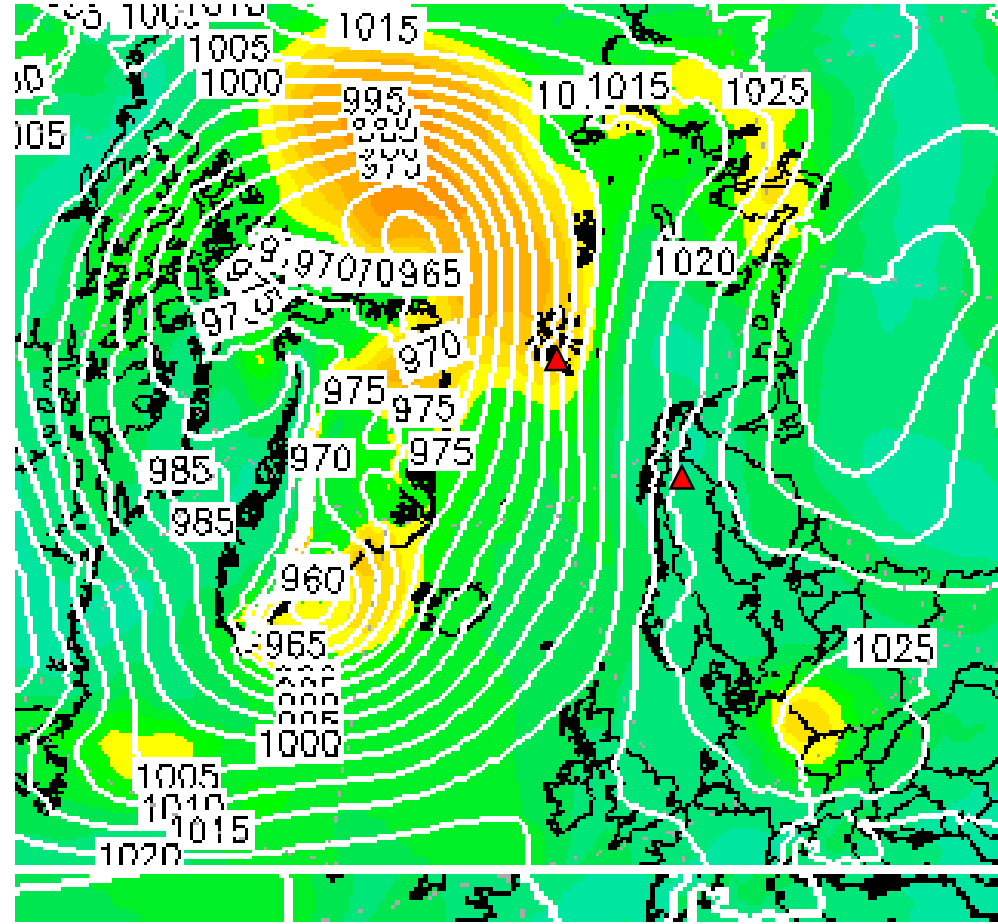
Wednesday, 2022-03-16 00 UTC (+96h)

500 hPa Geopot



gpdam

Sfc pressure



hPa

Summary

Summary: Weather Briefing 2022-03-12

- **Overall:**
 - W
- **Sunday, 2022-03-13:**
 - Secondary cyclones steered by Iceland Low – Scandinavia High dipole with moist cores
 - Strong warm air intrusion into the central Arctic
- **Monday, 2022-03-14:**
 - Remaining southerly flow from prev. WAI
 - Cold air advection in high altitudes over Fram Strait
- **Tuesday, 2022-03-15:**
 - Extreme WAI (Atmospheric River)
 - Filamentary structure, Low Level Jet
 - IWV close to 20 mm in Fram Strait, IVT > 550 kg (m s)⁻¹
- **Wednesday, 2022-03-16:**
 - Advection of colder and drier air behind Atmos. River
 - Cold air advection most in high altitudes
 - Strong winds but lower moisture transport