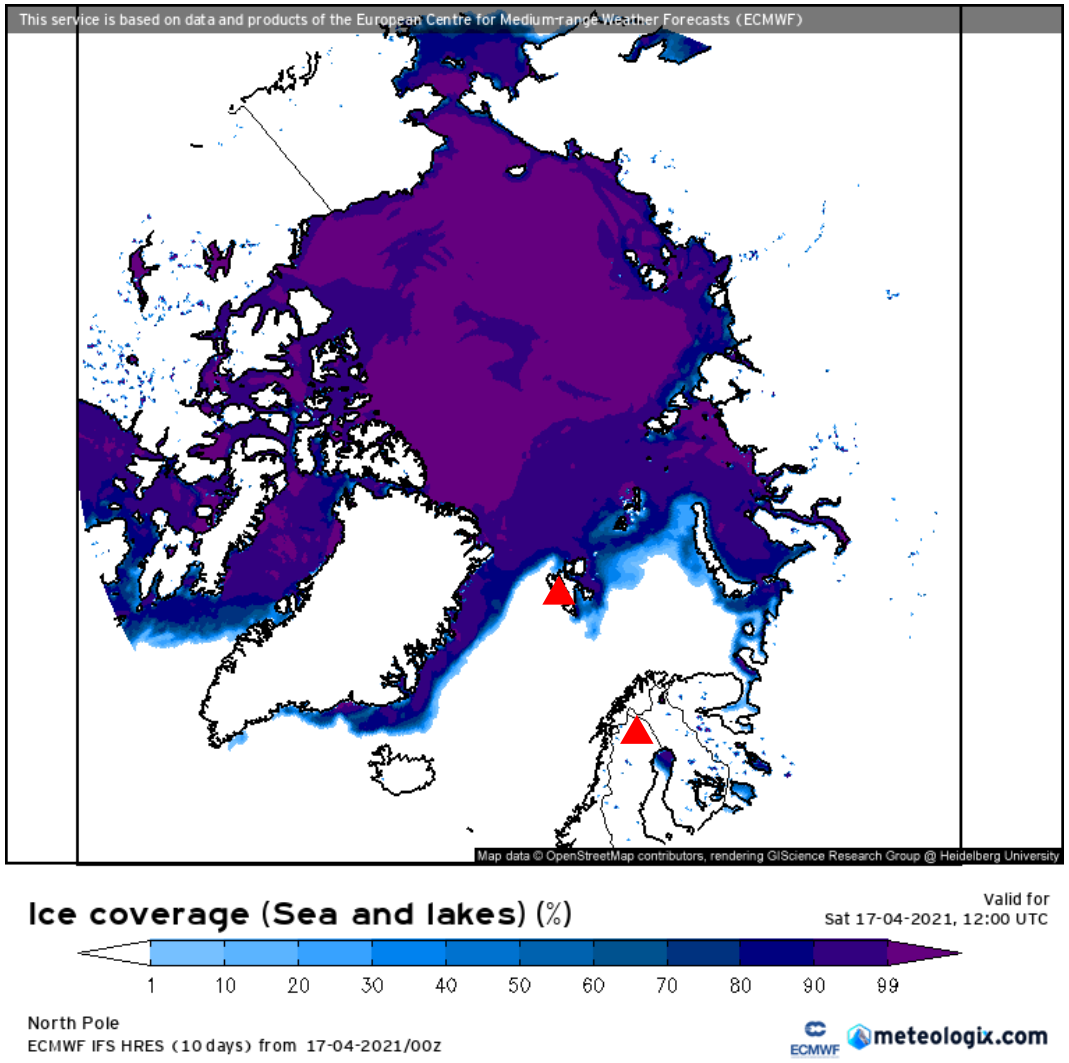
Weather observations 17.04.2021

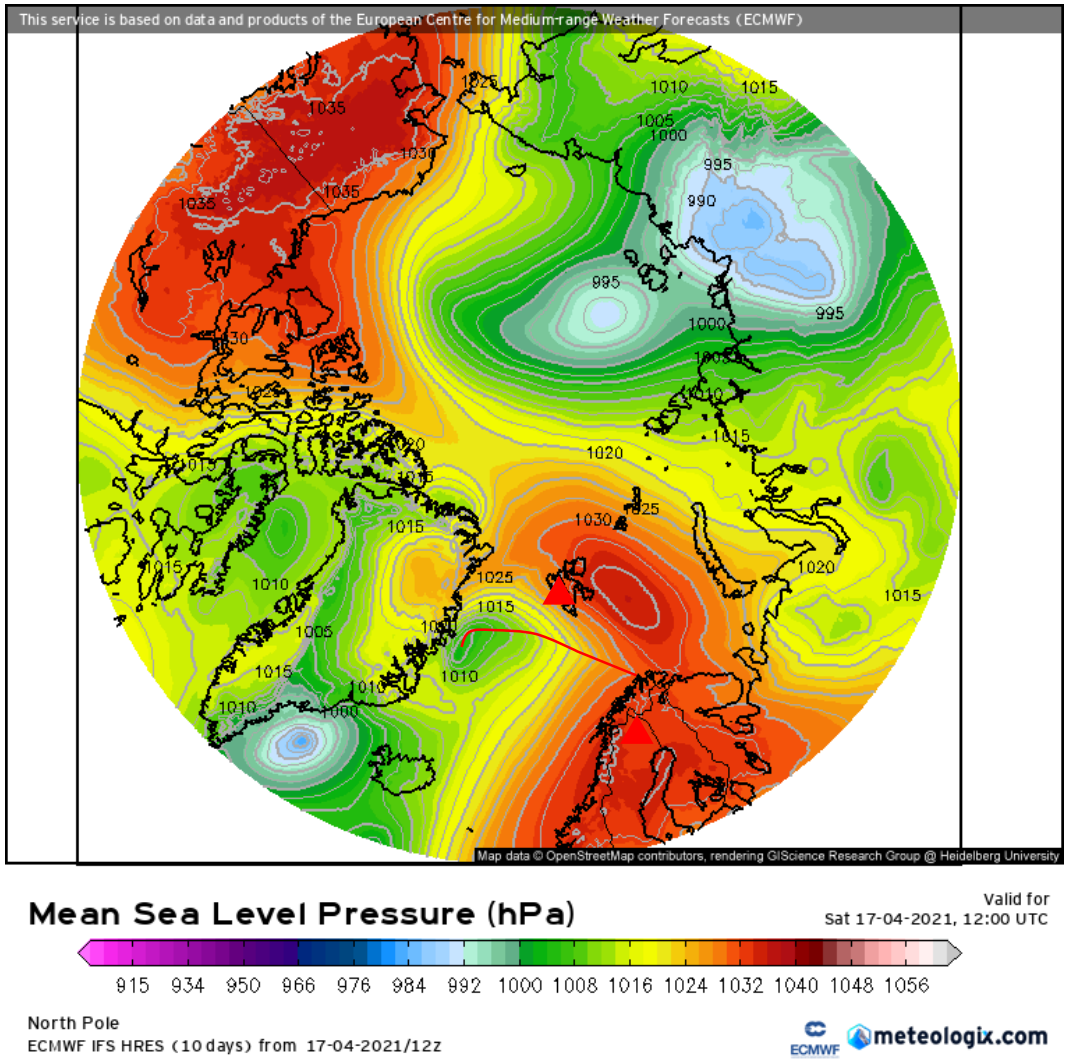
Johannes | Marcus

Sea ice cover (17.04.2021 12 UTC)



- Still pronounced Whaler‘s Bay polynya
- Thickening of ice edges

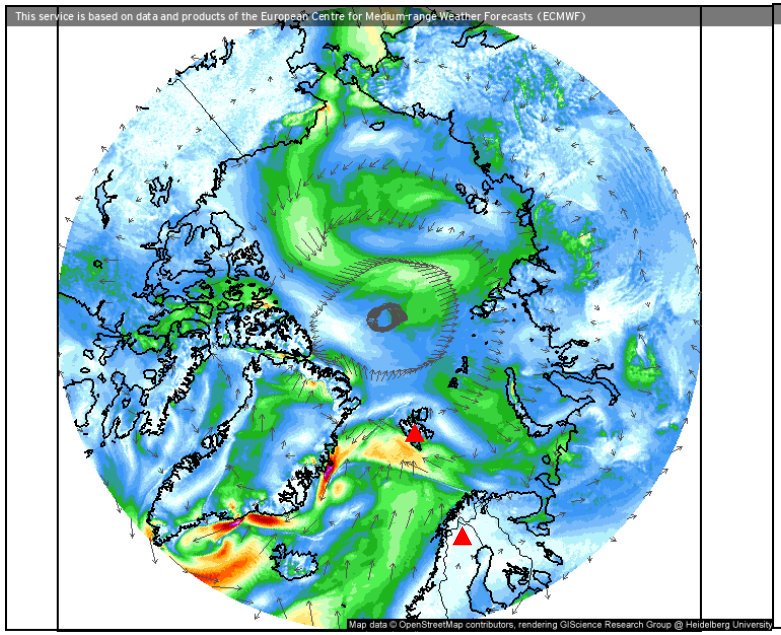
Surface air pressure (17.04.2021 12 UTC)



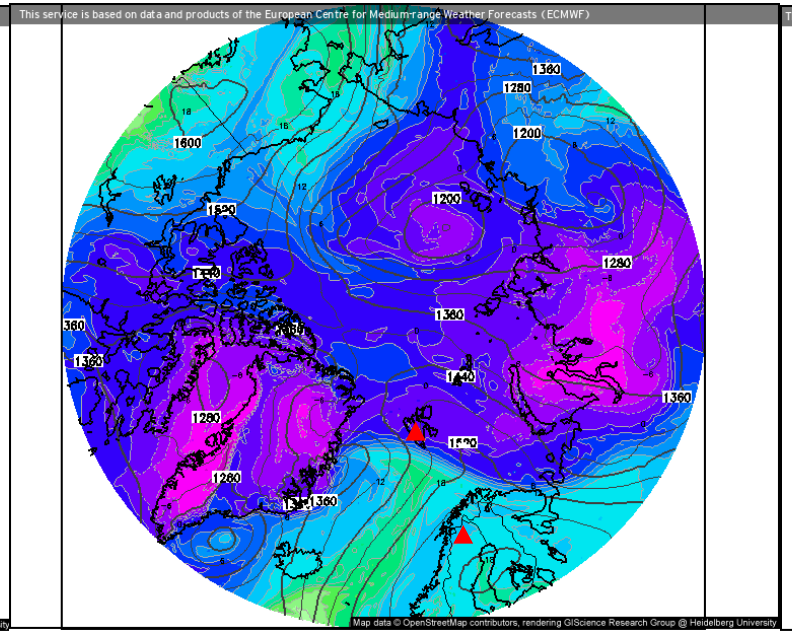
- Weak Low is pushing in from the south along the coast of Greenland
- The High moved over Svalbard is now to the east of it
- Strong low at the south east corner of Greenland
- The air south of Svalbard warms due to advection from the North Atlantic
- Warm Front is moving in from the south

Wind, θ_{eq}, z, IWV (17.04.2021 12 UTC)

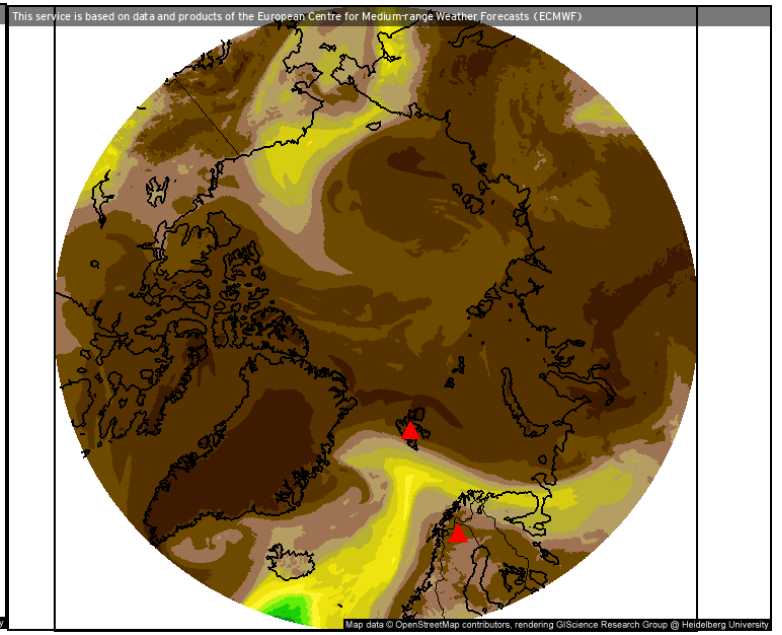
Wind speed and streamlines



Theta-E and geopotential (850 hPa)



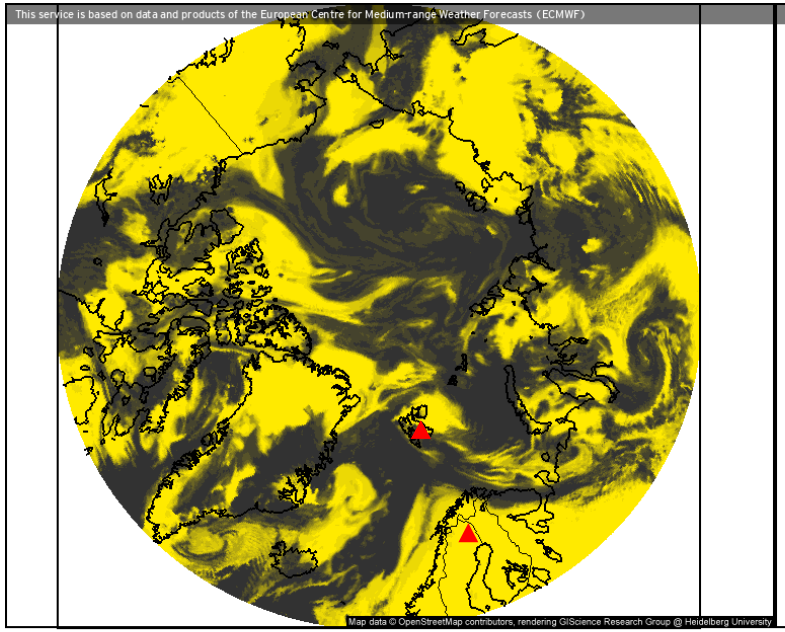
Precipitable water



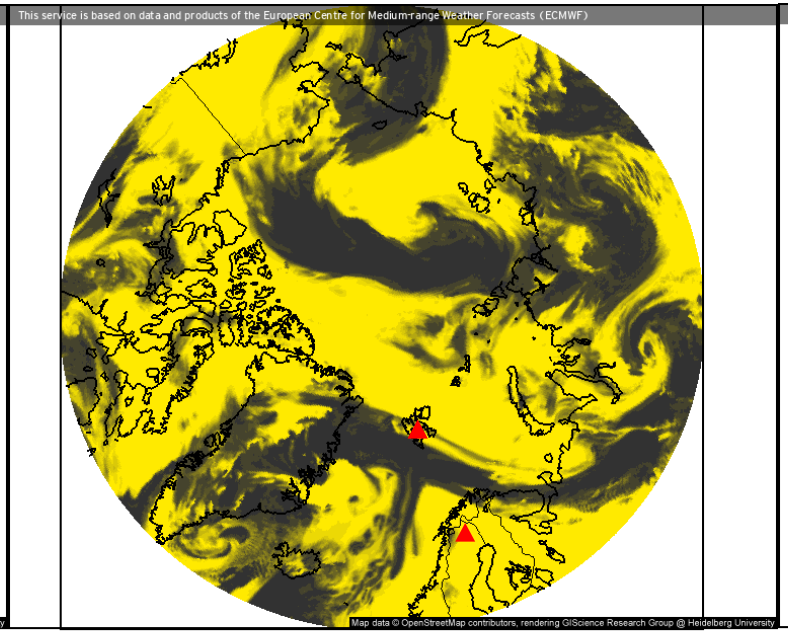
- Higher winds in the southern Fram Strait
- Band of moist air along the south coast of Svalbard

Clouds (17.04.2021 12 UTC)

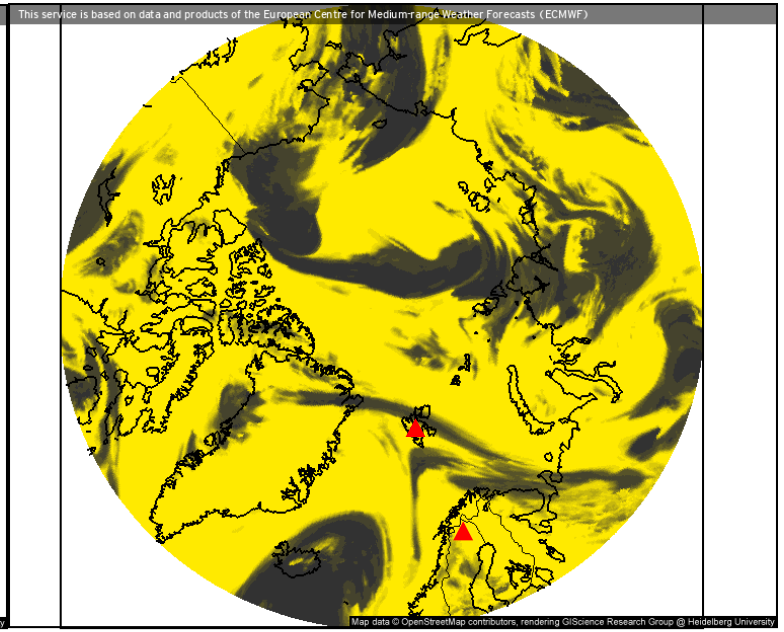
Low-level clouds



Mid-level clouds

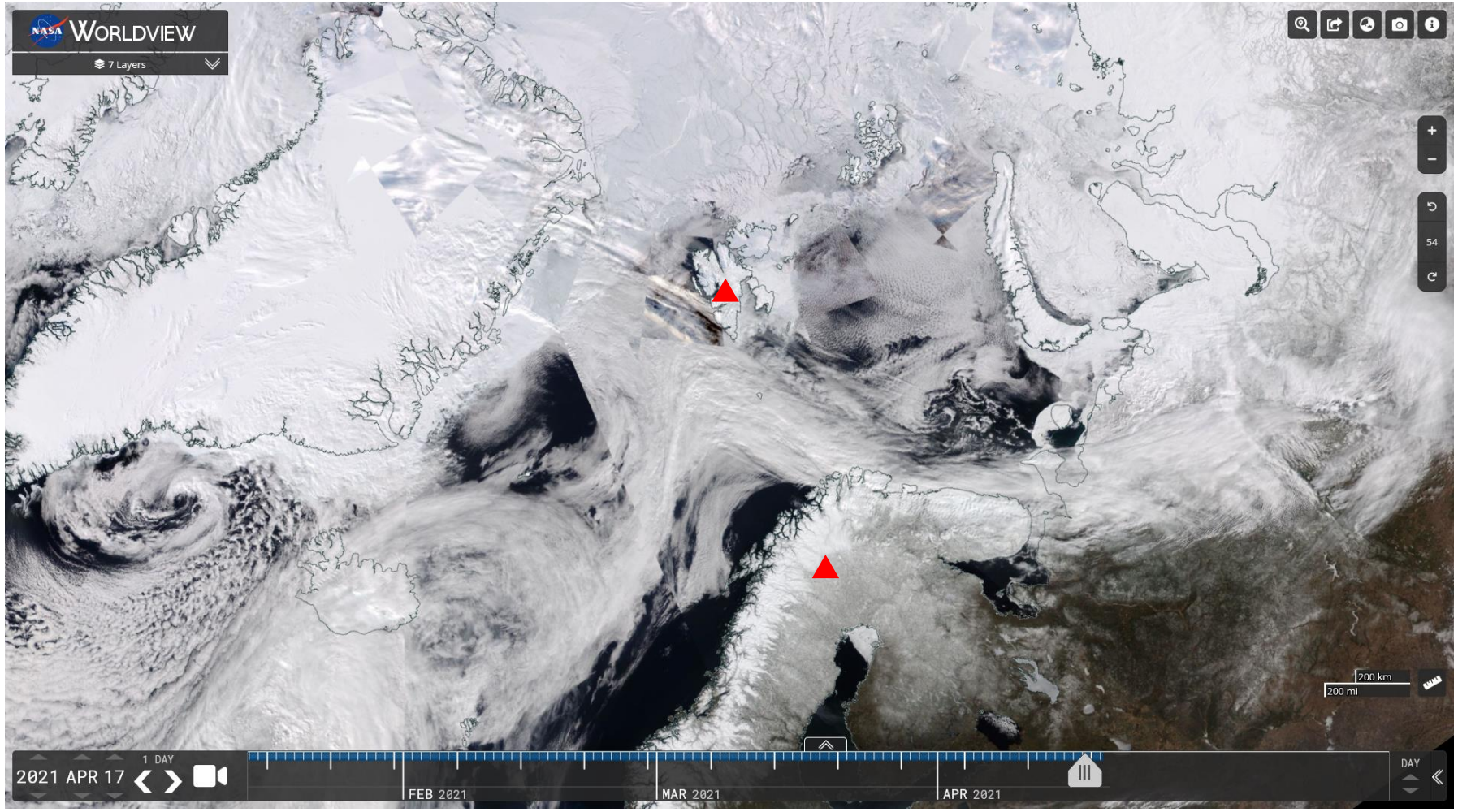


High-level clouds

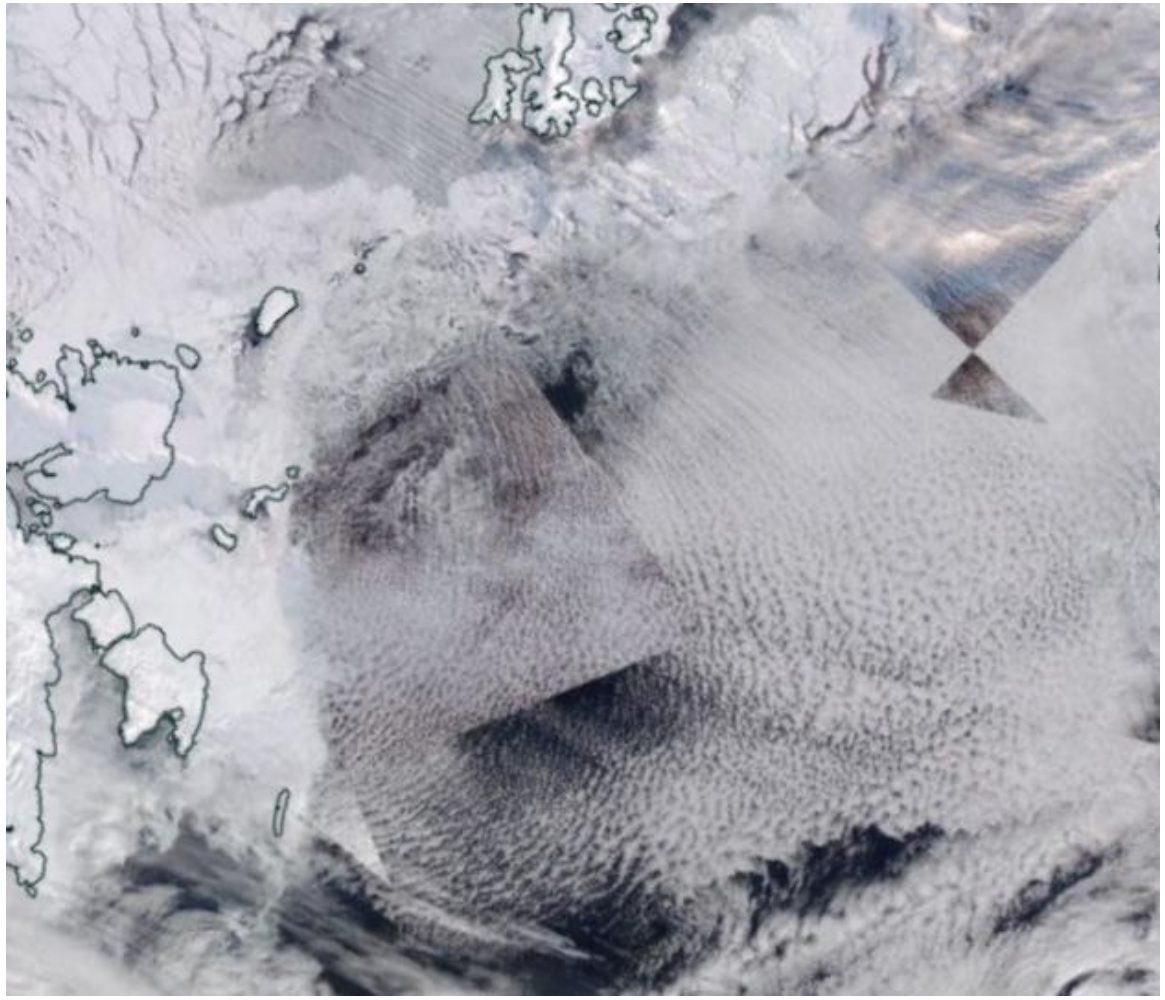


- Kiruna cloud-free under high pressure influence
- Frontal clouds moving in at all levels over Svalbard
- Band of cirrus clouds over Svalbard due to the warm front

VIIRS (NOAA-20) (17.04.2021)



VIIRS (NOAA-20) (17.04.2021)



Airport situation: Longyearbyen (17.04.2021)

Text:	**ENSB 171150Z 13014KT 9999 DRSN FEW020 SCT055 M07/M12 Q1029 RMK WIND 1400FT 13007KT**
Temperature:	-7.0°C (19°F)
Dewpoint:	-12.0°C (10°F) [RH = 67%]
Pressure (altimeter):	30.38 inches Hg (1029.0 mb)
Winds:	from the SE (130 degrees) at 16 MPH (14 knots; 7.2 m/s)
Visibility:	6 or more sm (10+ km)
Ceiling:	at least 12,000 feet AGL
Clouds:	few clouds at 2000 feet AGL, scattered clouds at 5500 feet AGL
Weather:	DRSN (low drifting snow)

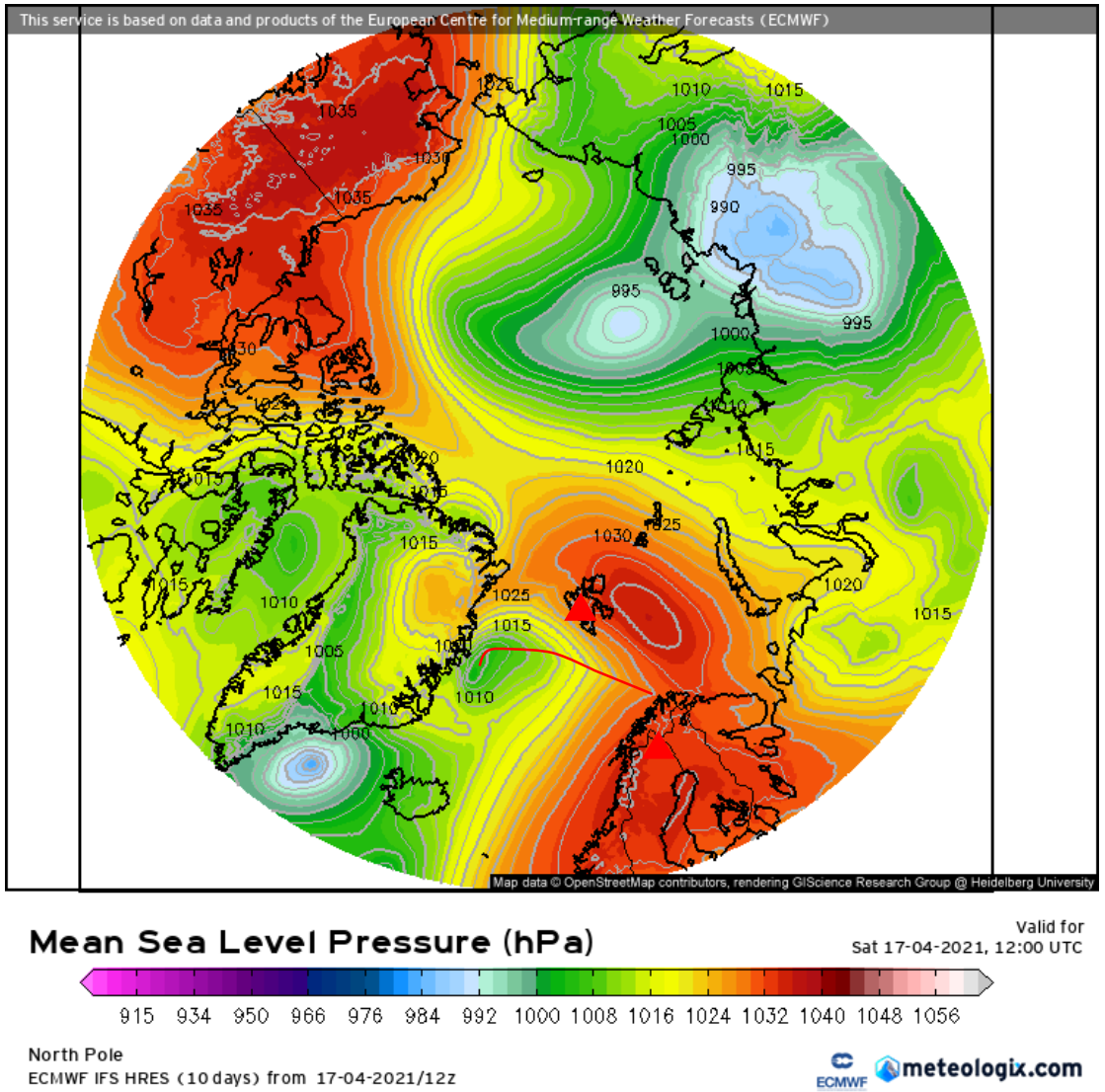
- Warm front clouds slowly moving in
- Good visibility and cloud base at 2000ft

Airport situation: Kiruna (17.04.2021)

- Good visibility, no clouds
- Perfect flight conditions

Text:	**ESNQ 171150Z AUTO 24005KT 9999 NCD 06/M05 Q1031**
Temperature:	6.0°C (43°F)
Dewpoint:	-5.0°C (23°F) [RH = 45%]
Pressure (altimeter):	30.44 inches Hg (1031.0 mb)
Winds:	from the WSW (240 degrees) at 6 MPH (5 knots; 2.6 m/s)
Visibility:	6 or more sm (10+ km)
Ceiling:	at least 12,000 feet AGL
Clouds:	sky clear below 12,000 feet AGL

Windy surface temperature/pressure (17.04.2021 12 UTC)



Summary

- The High to the east of Svalbard causes a small cold air outbreak over the Barents sea
- In combination with the Low to the east of Greenland warm and moist air is advected to the south of Svalbard bringing warm frontal clouds
- Medium strong winds are to be expected in the southern Fram Strait
- Kiruna is still under the influence of a high pressure system and shows perfect flight conditions