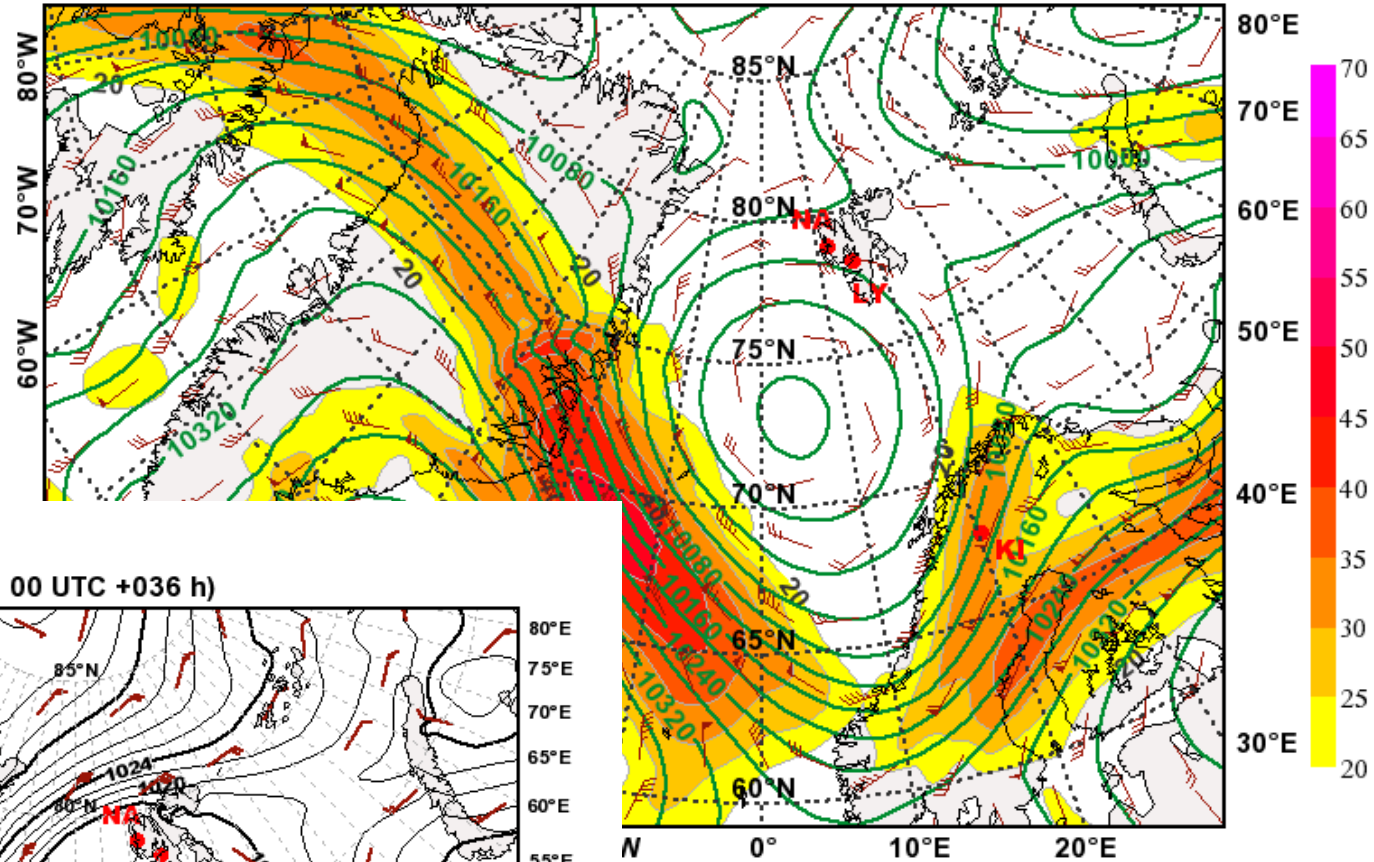


Weather Forecast

Friday May 07, 2010

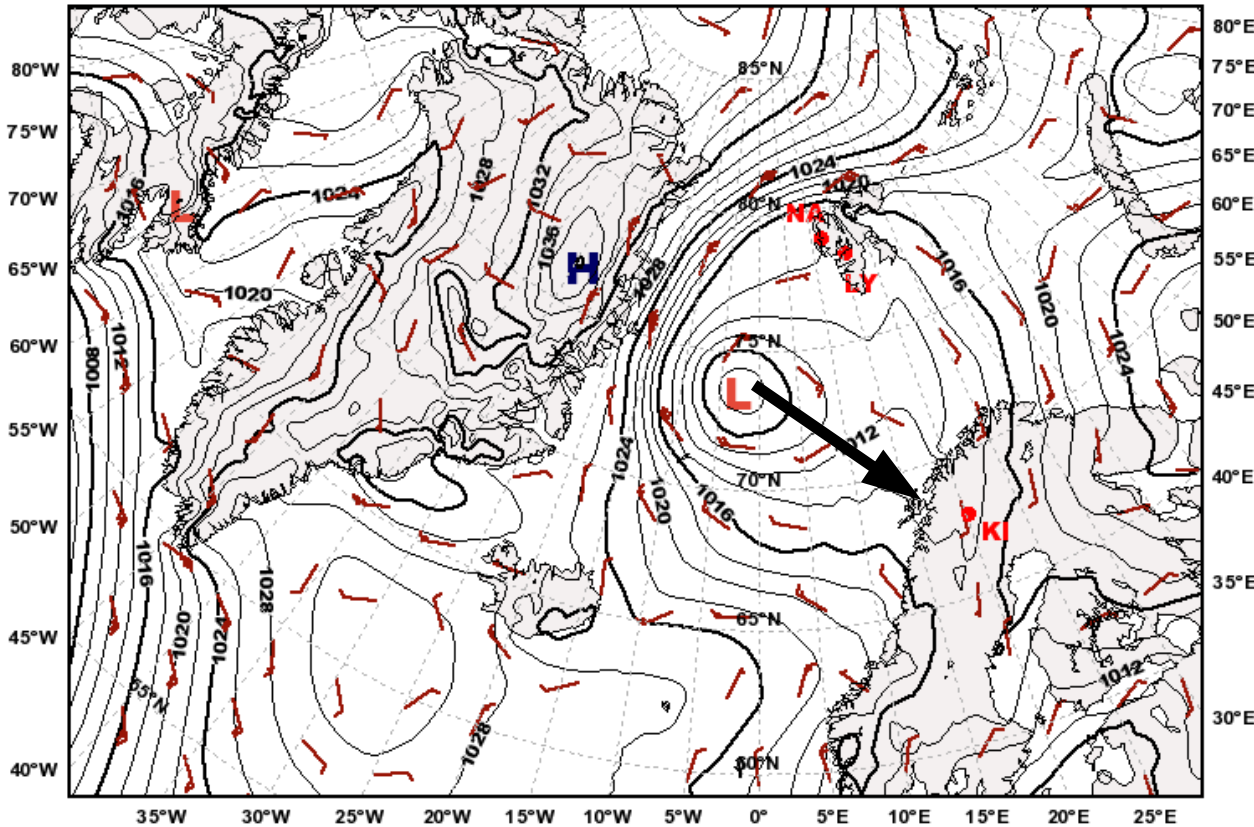
Marc Rautenhaus, DLR/IPA

Geopotential Height (m) & Horizontal Wind (m/s) at 250hPa
 valid: Sat, 08 May 2010, 12 UTC (init: 20100507 00 UTC +036 h)

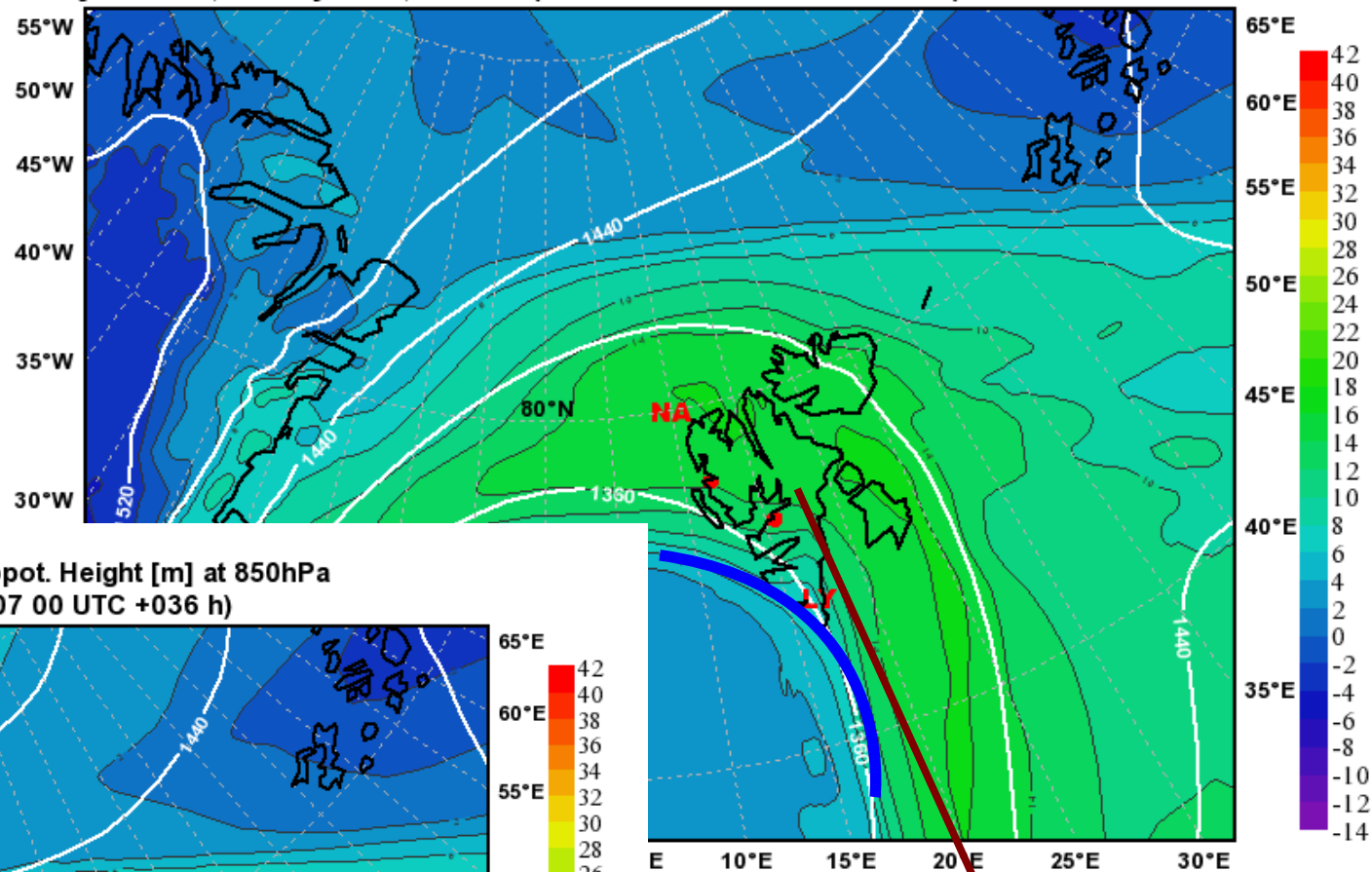


Saturday: Cyclone transported southeastward by upper level flow.

Mean Sea Level Pressure
 valid: Sat, 08 May 2010, 12 UTC (init: 20100507 00 UTC +036 h)

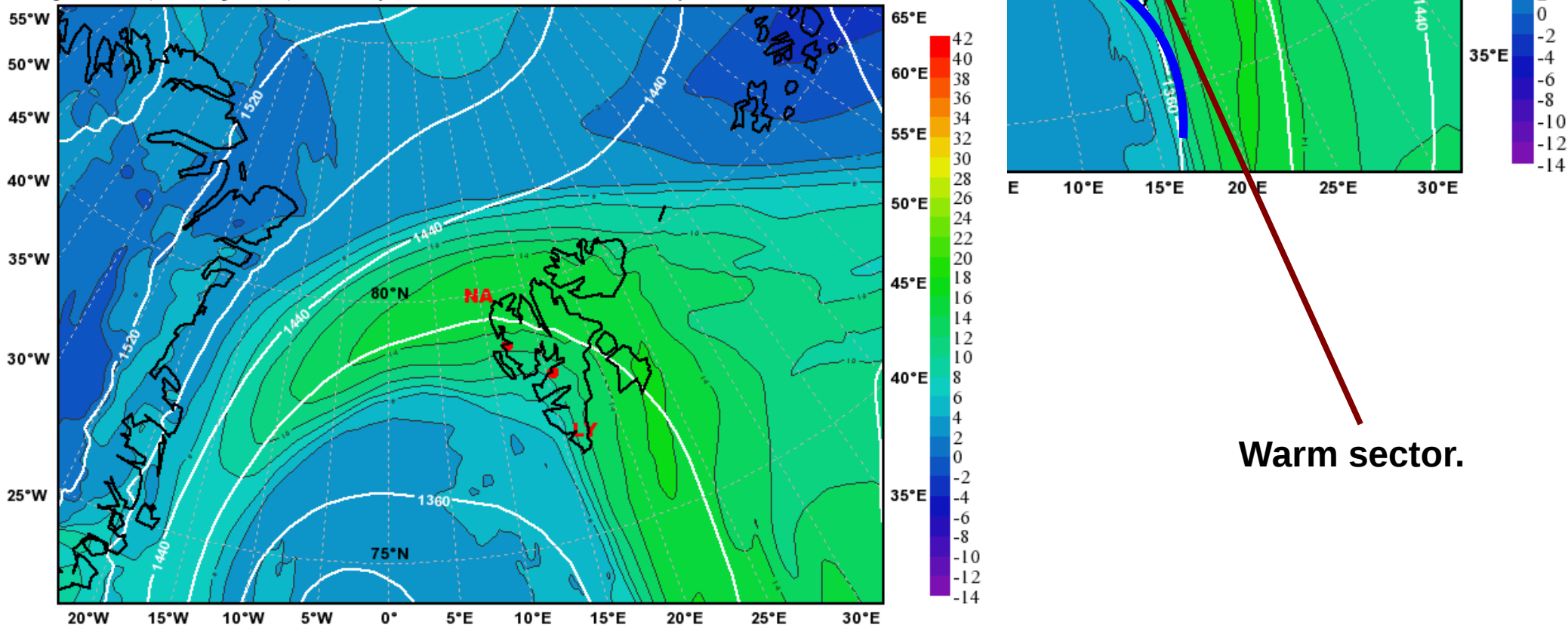


Equivalent Potential Temperature [°C] & Geopot. Height [m] at 850hPa
 valid: Sat, 08 May 2010, 06 UTC (init: 20100507 00 UTC +030 h)



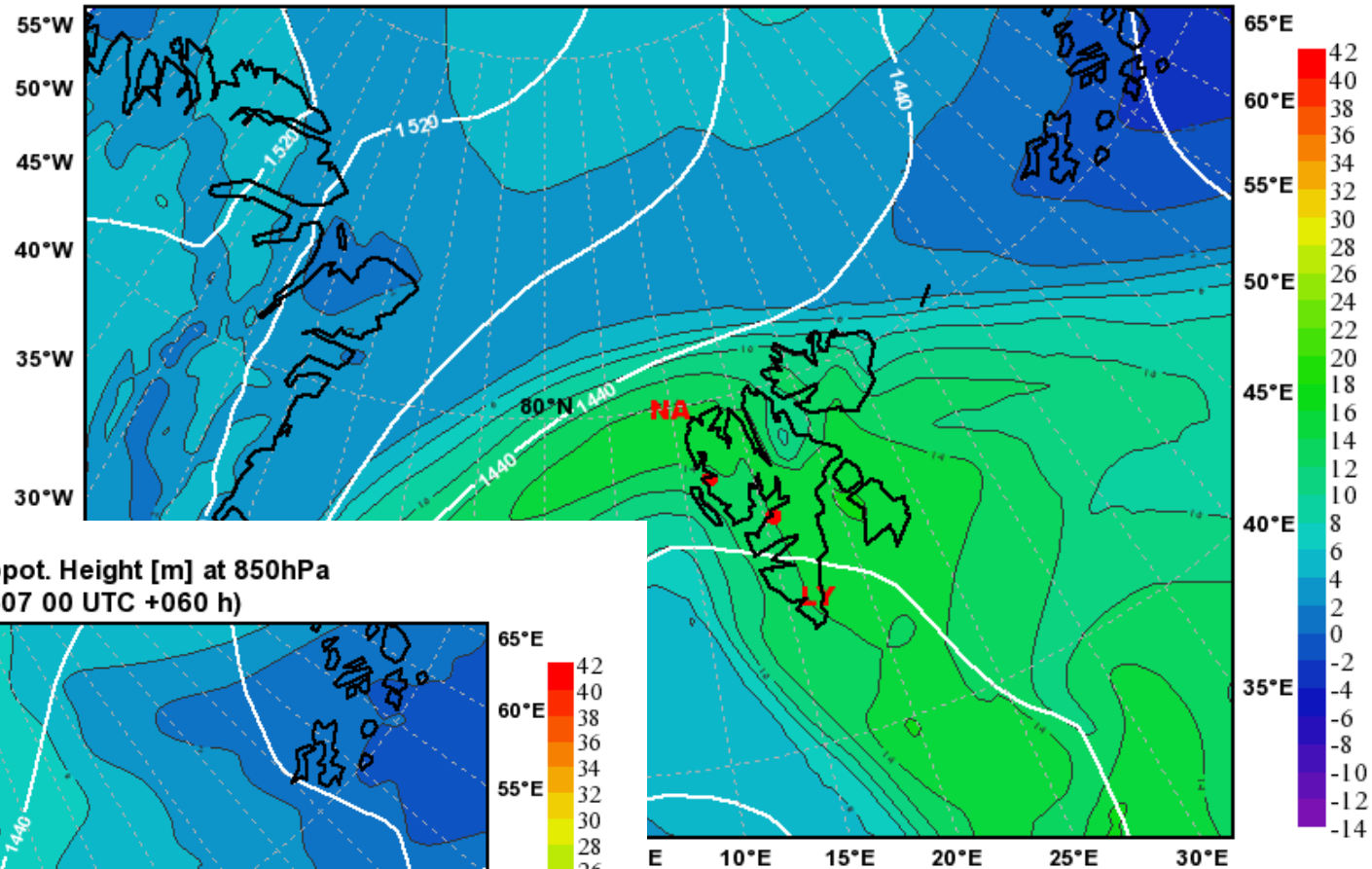
Cold front touches Svalbard on Saturday, but does not cross the islands.

Equivalent Potential Temperature [°C] & Geopot. Height [m] at 850hPa
 valid: Sat, 08 May 2010, 12 UTC (init: 20100507 00 UTC +036 h)



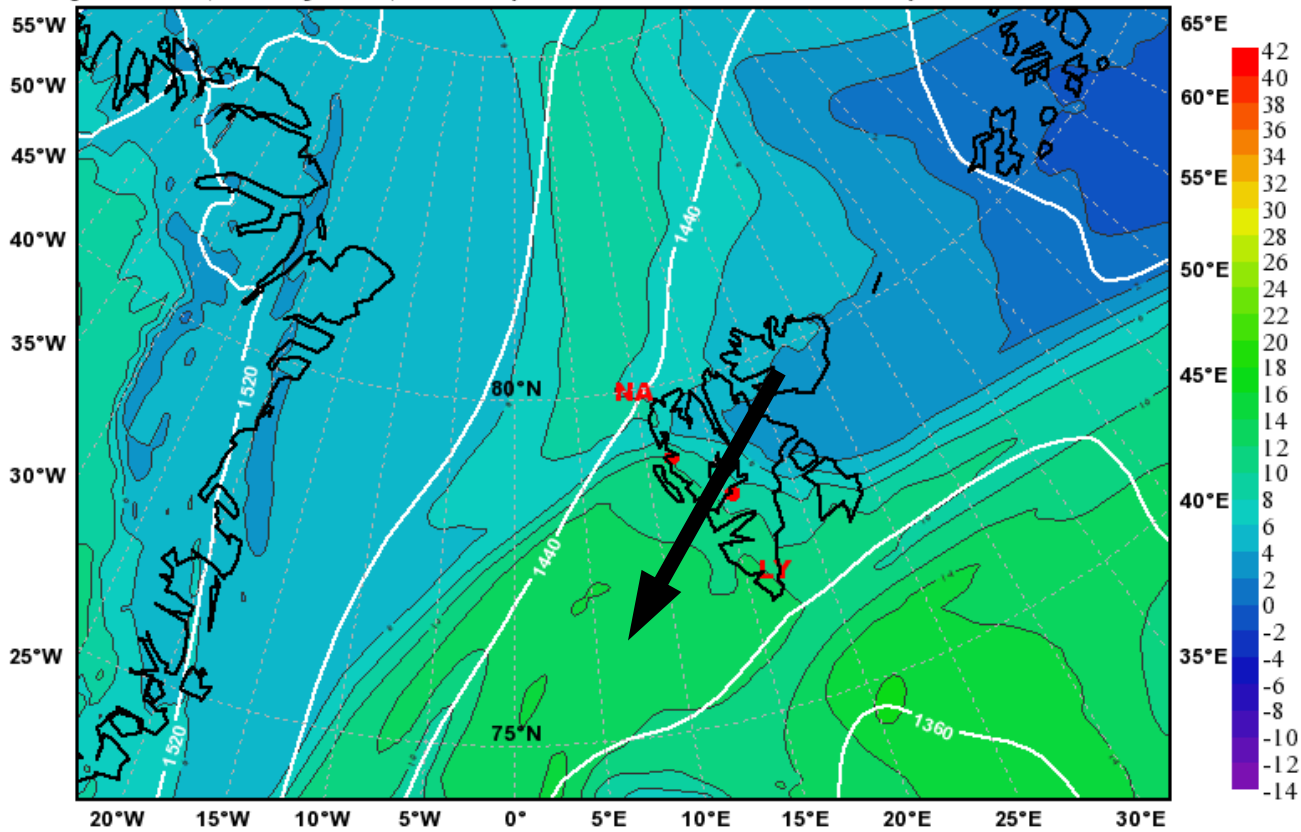
Warm sector.

Equivalent Potential Temperature [$^{\circ}\text{C}$] & Geopot. Height [m] at 850hPa
 valid: Sat, 08 May 2010, 18 UTC (init: 20100507 00 UTC +042 h)



Cold front touches Svalbard on Saturday, but does not cross the islands.

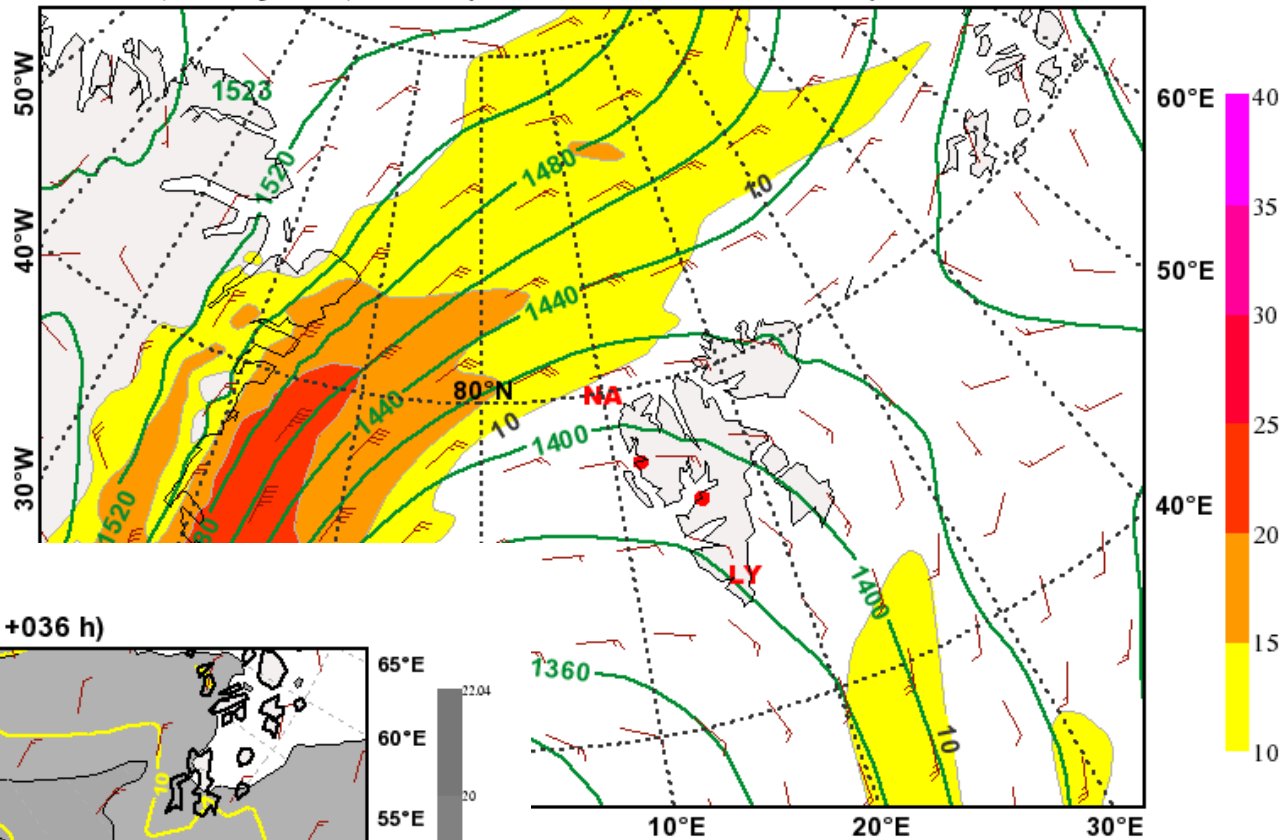
Equivalent Potential Temperature [$^{\circ}\text{C}$] & Geopot. Height [m] at 850hPa
 valid: Sun, 09 May 2010, 12 UTC (init: 20100507 00 UTC +060 h)



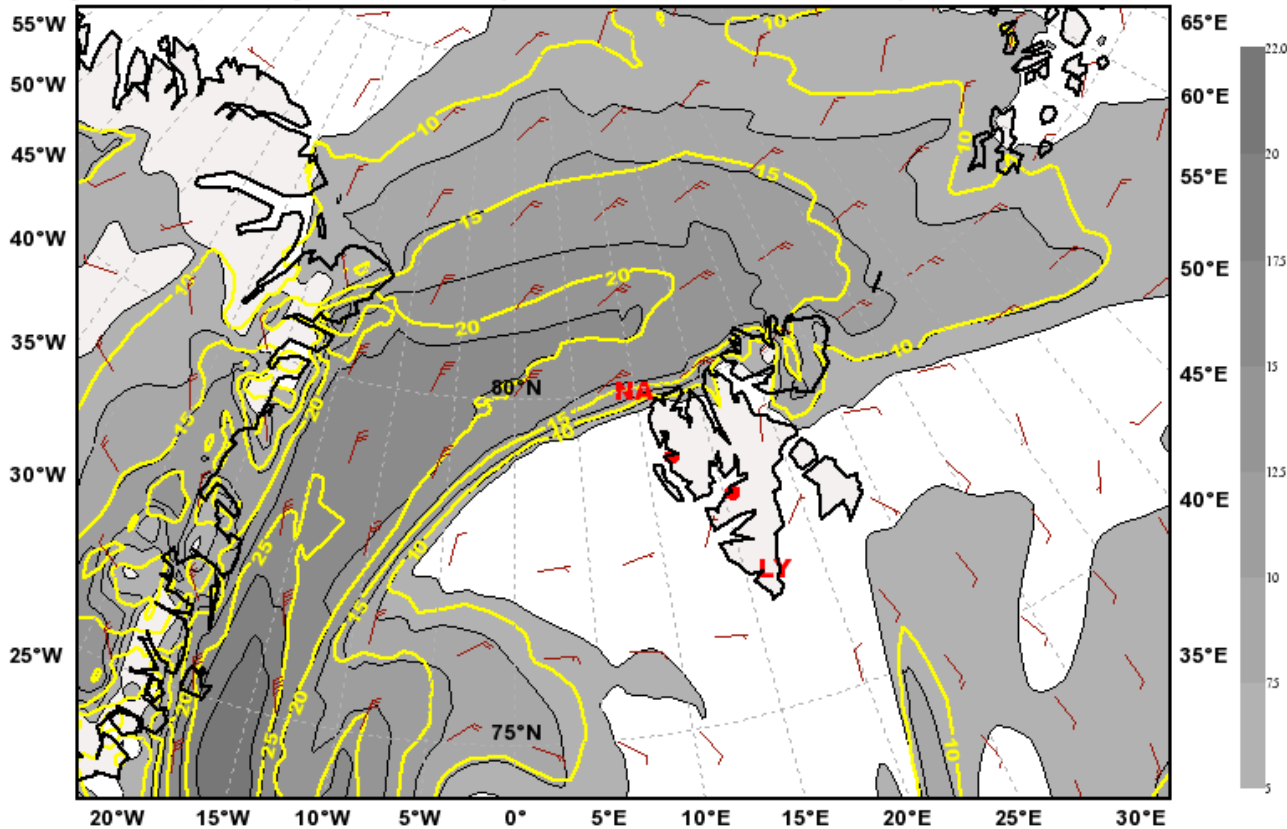
Flow shifts to NE on Sunday, air mass of warm sector pushed southwestward.

Calm winds at the surface and at 850hPa.

SE flow, LY on lee side.

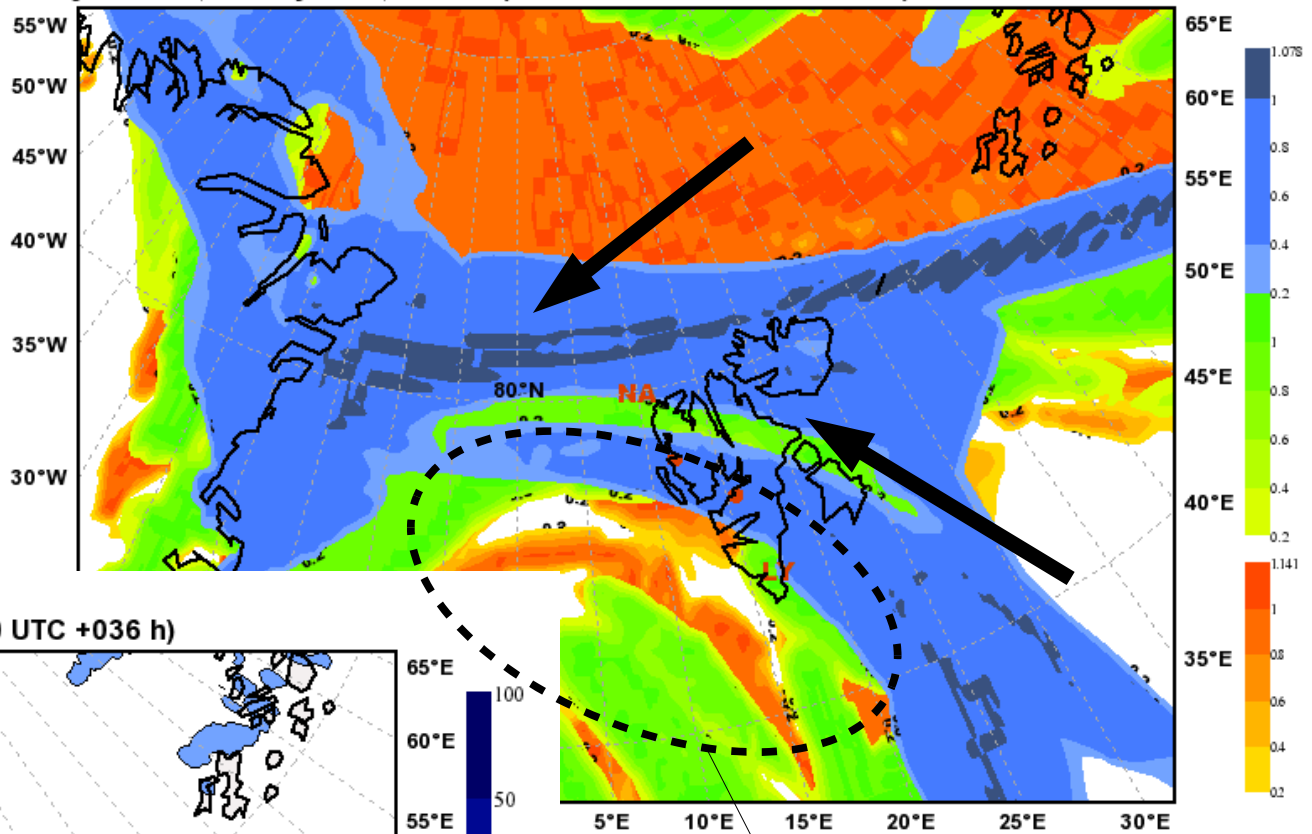


10 m Wind and 10 m Wind gusts [m s⁻¹]
 valid: Sat, 08 May 2010, 12 UTC (init: 20100507 00 UTC +036 h)

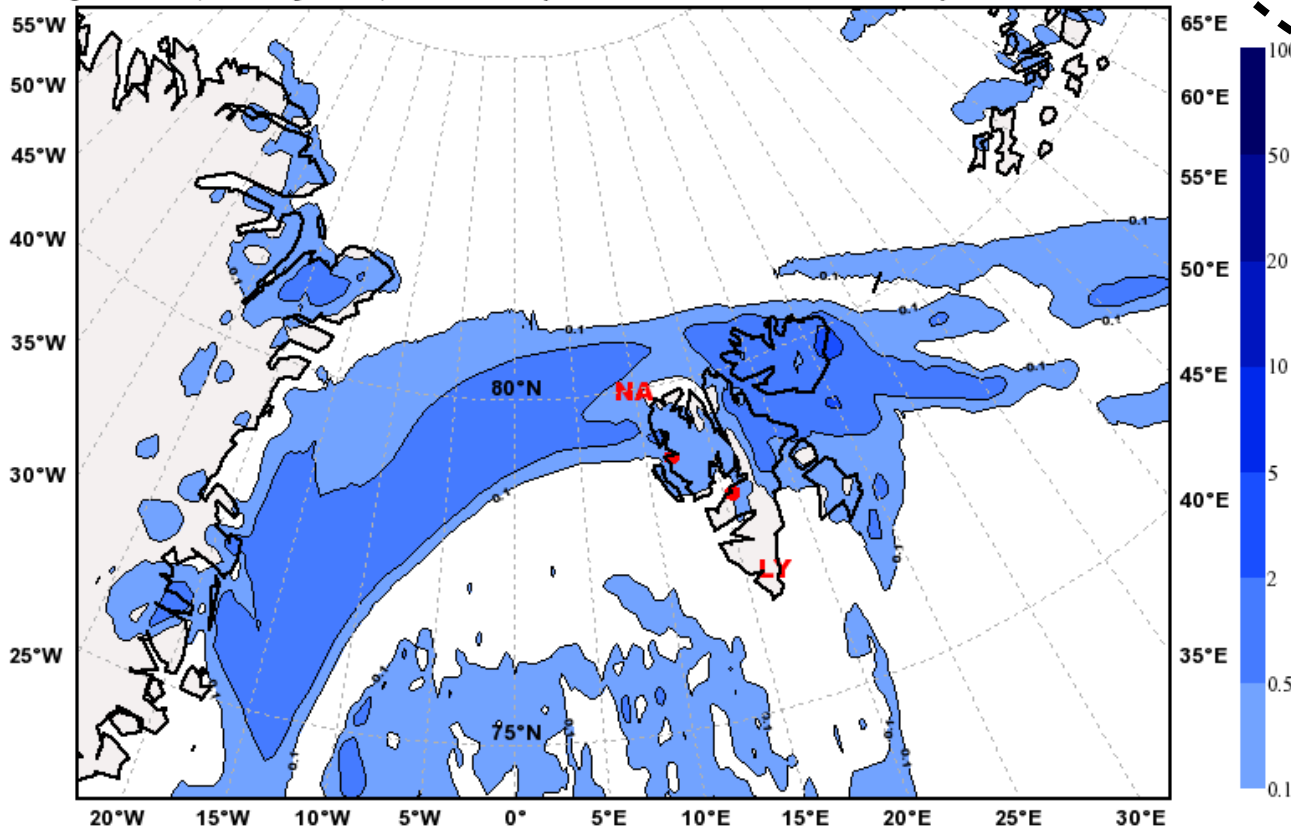


Mixture of clouds, thick enough for some precipitation (similar to today → not much).

Total Cloud Cover
valid: Sat, 08 May 2010, 12 UTC (init: 20100507 00 UTC +036 h)

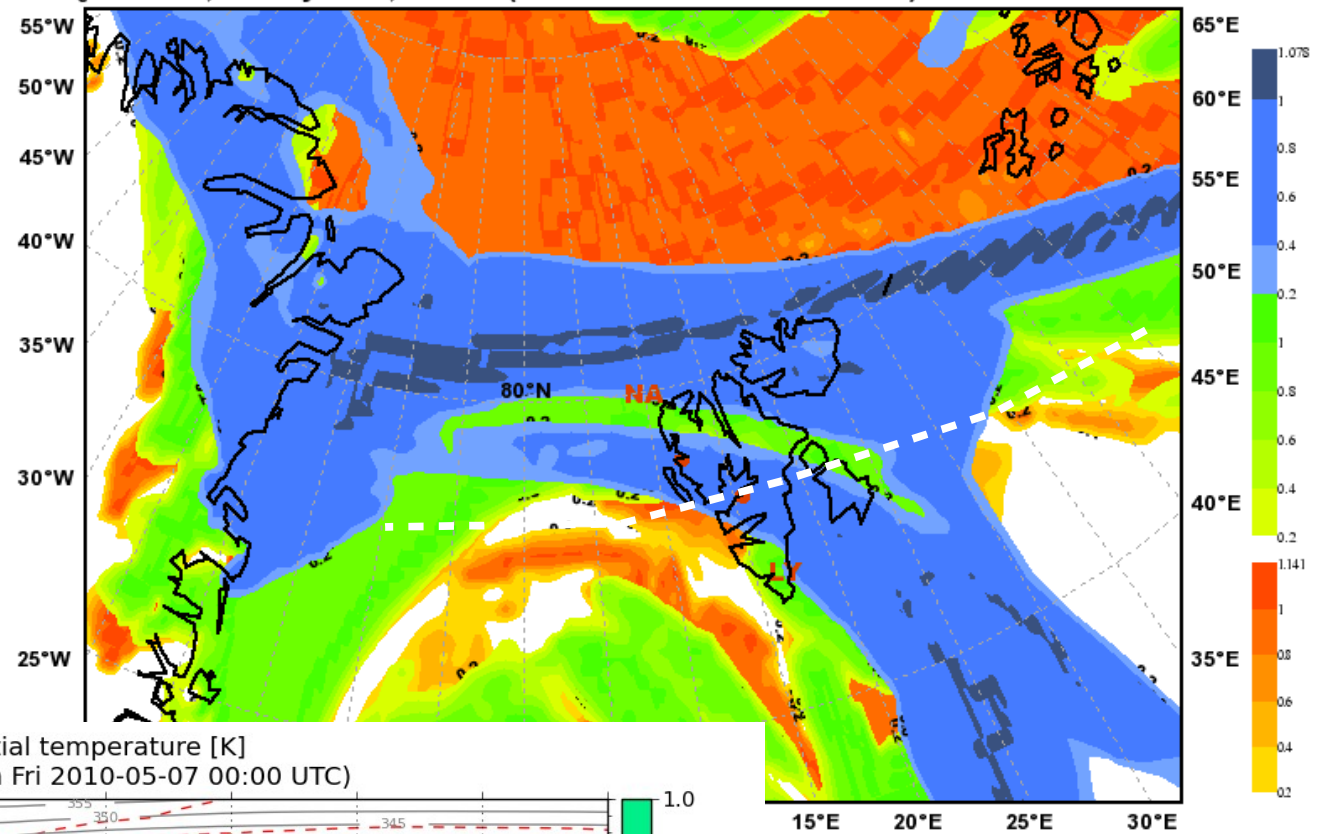


Total Precipitation [mm]
valid: Sat, 08 May 2010, 09-12 UTC (init: 20100507 00 UTC +036 h)



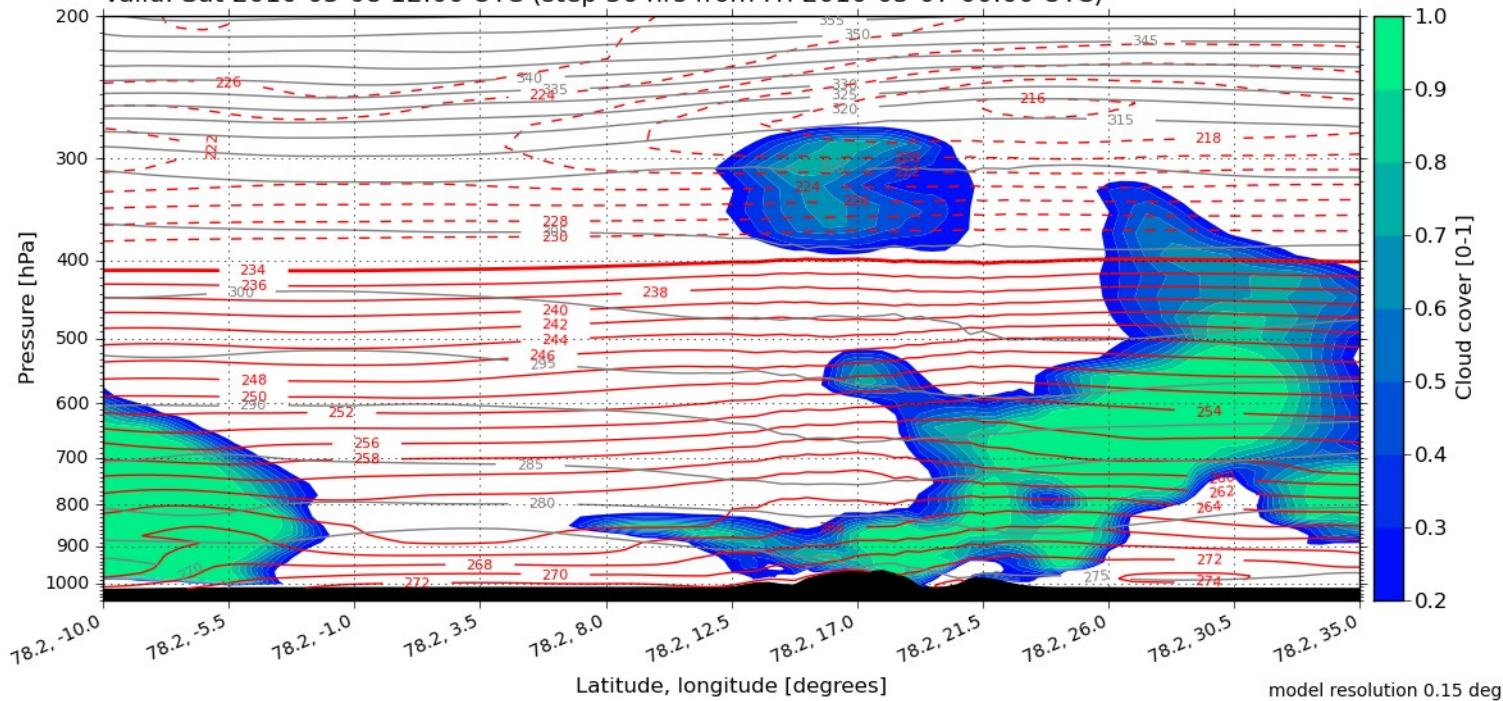
But: potential measurement area in the southwest?

Total Cloud Cover
Valid: Sat, 08 May 2010, 12 UTC (init: 20100507 00 UTC +036 h)

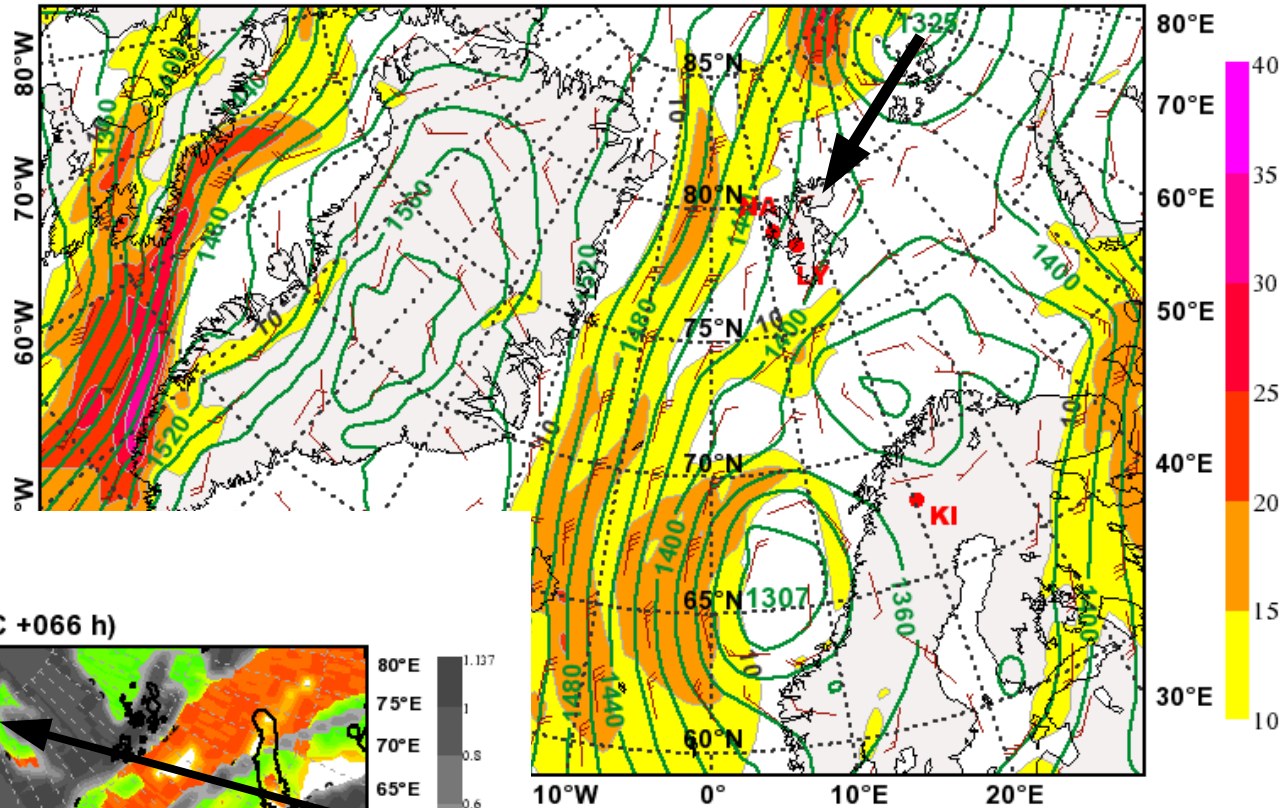


E-W along 78N

Cloud cover [0-1] with temperature [K] and potential temperature [K]
Valid: Sat 2010-05-08 12:00 UTC (step 36 hrs from Fri 2010-05-07 00:00 UTC)

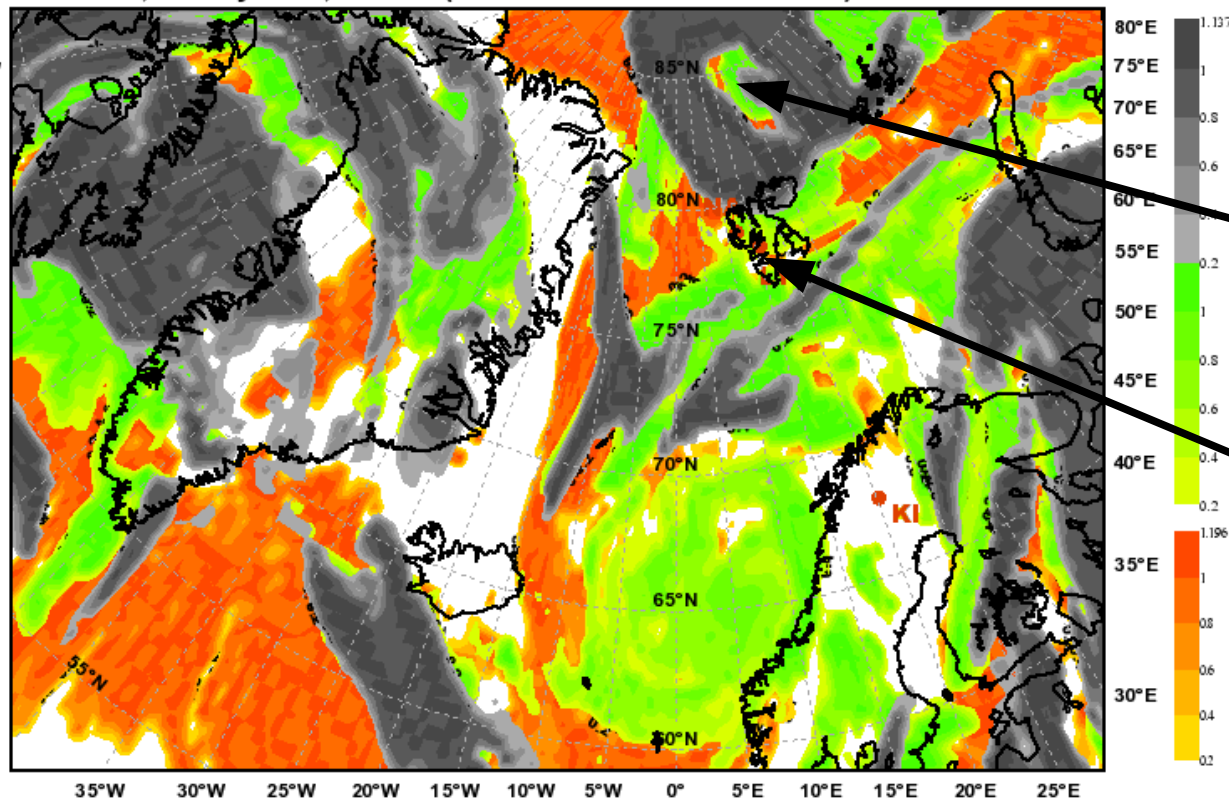


Geopotential Height (m) & Horizontal Wind (m/s) at 850hPa
 valid: Sun, 09 May 2010, 18 UTC (init: 20100507 00 UTC +066 h)



Sunday: NE flow between SE moving, dying cyclone and approaching cyclone in the NE.

Total Cloud Cover
 valid: Sun, 09 May 2010, 18 UTC (init: 20100507 00 UTC +066 h)

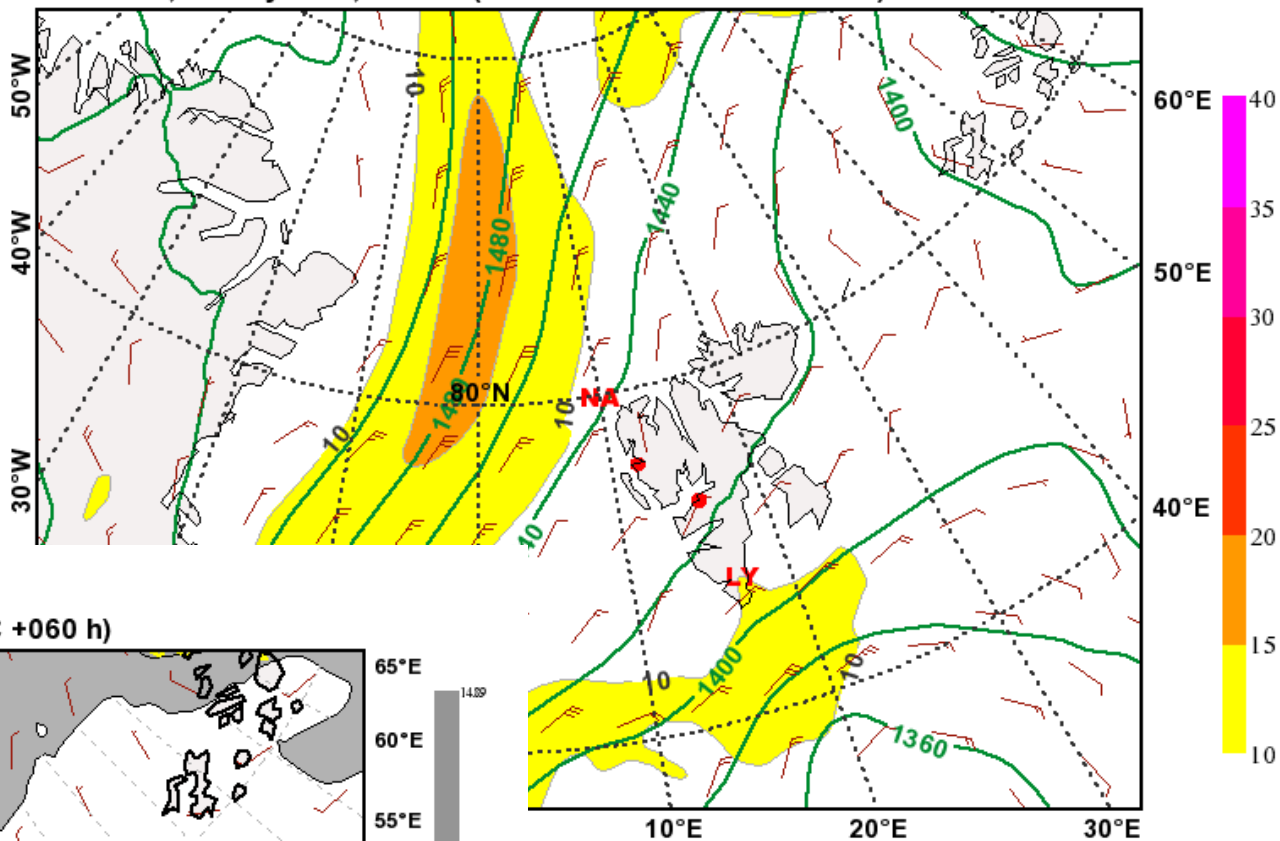


Clouds from new cyclone.

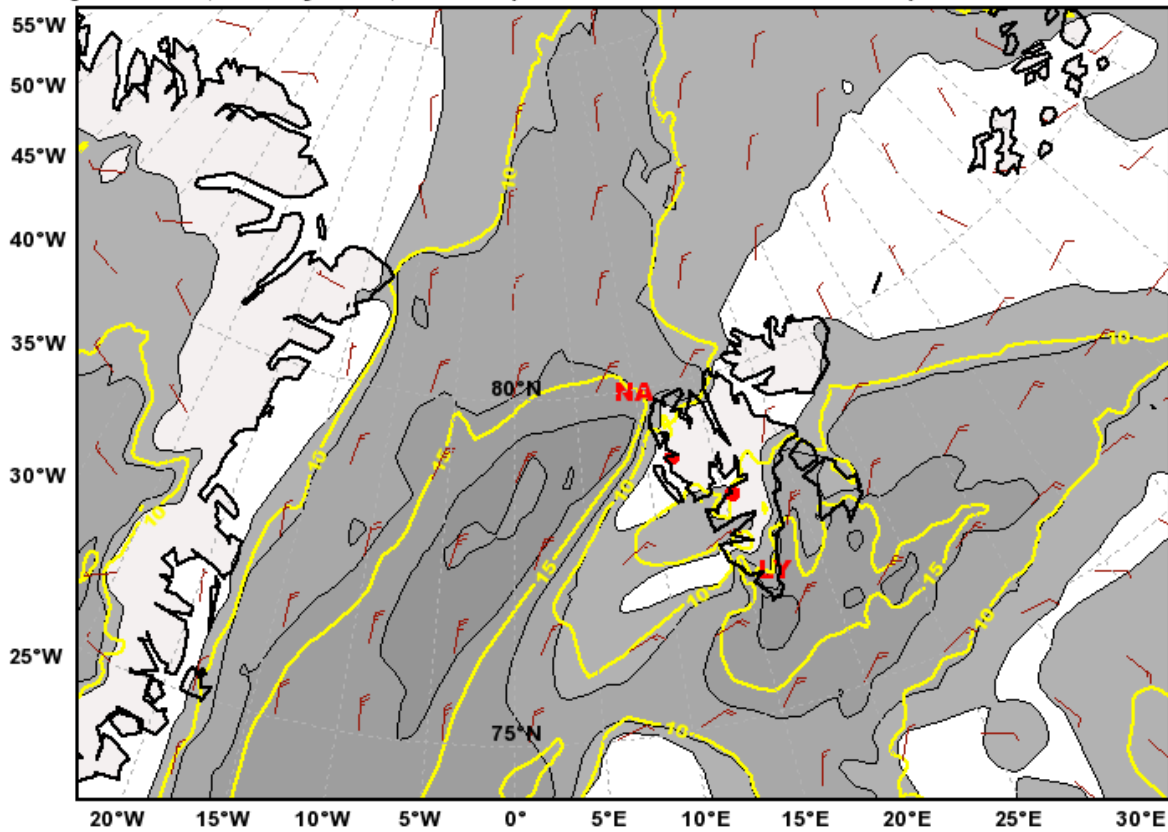
Fewer clouds around Svalbard, especially on lee side.

Weak winds from NE.

LY still on lee side.

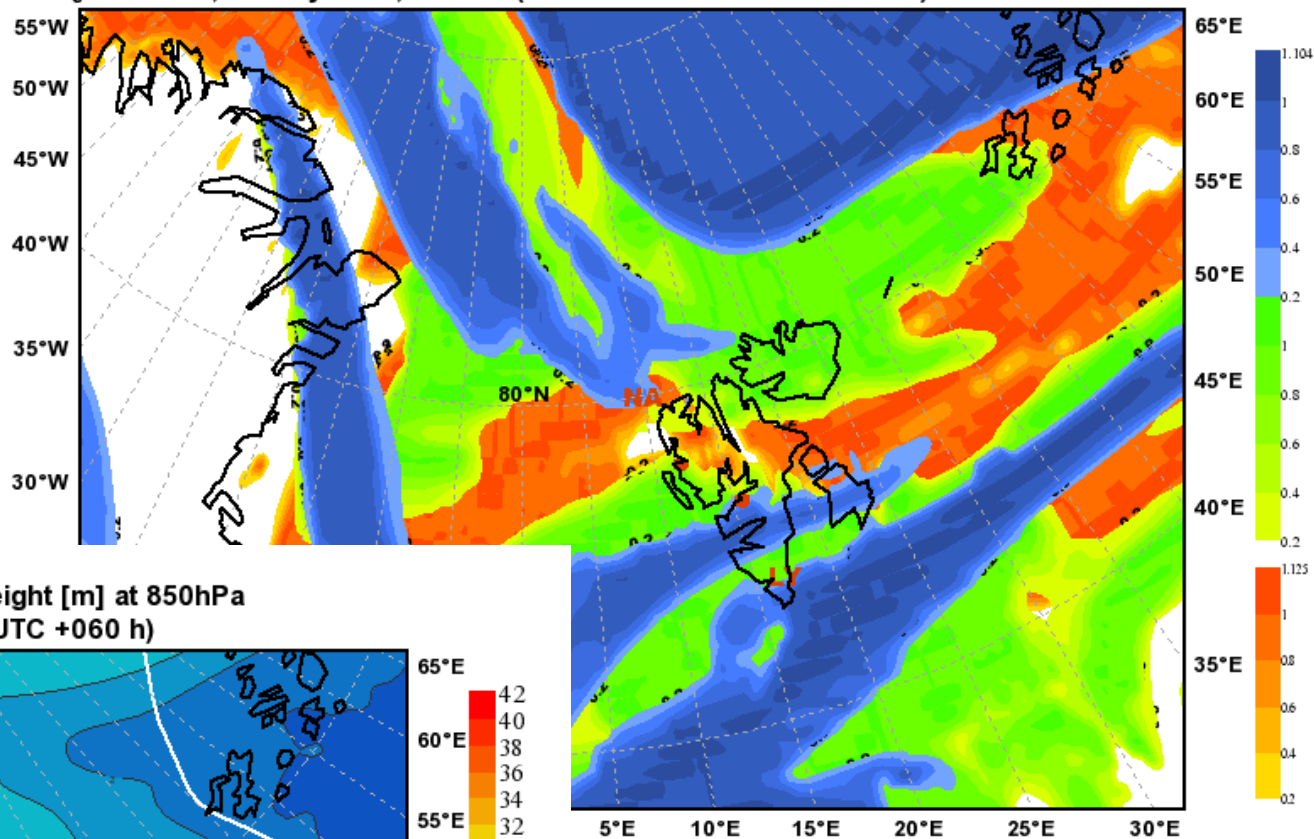


10 m Wind and 10 m Wind gusts [m s⁻¹]
 valid: Sun, 09 May 2010, 12 UTC (init: 20100507 00 UTC +060 h)

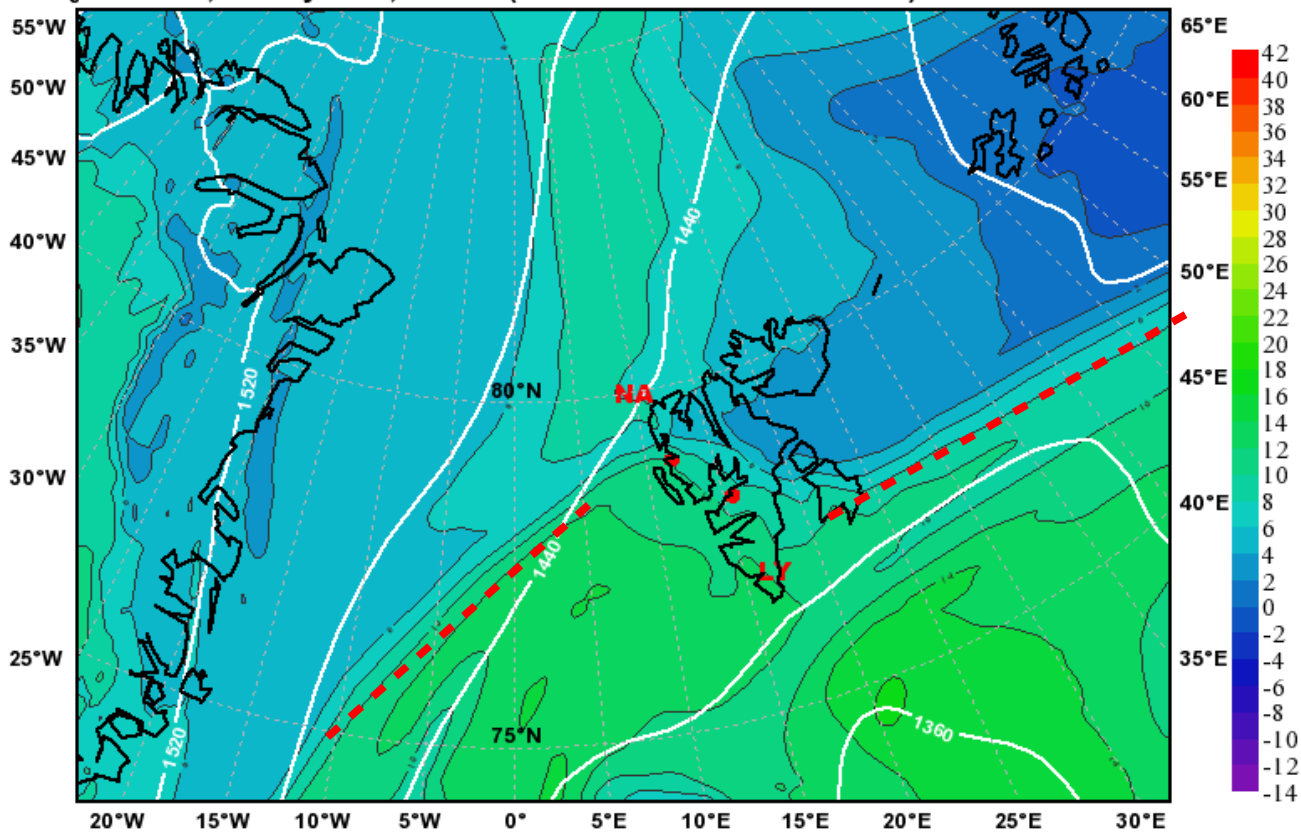


Narrow band free of upper level clouds along air mass boundary.

Total Cloud Cover
 valid: Sun, 09 May 2010, 12 UTC (init: 20100507 00 UTC +060 h)

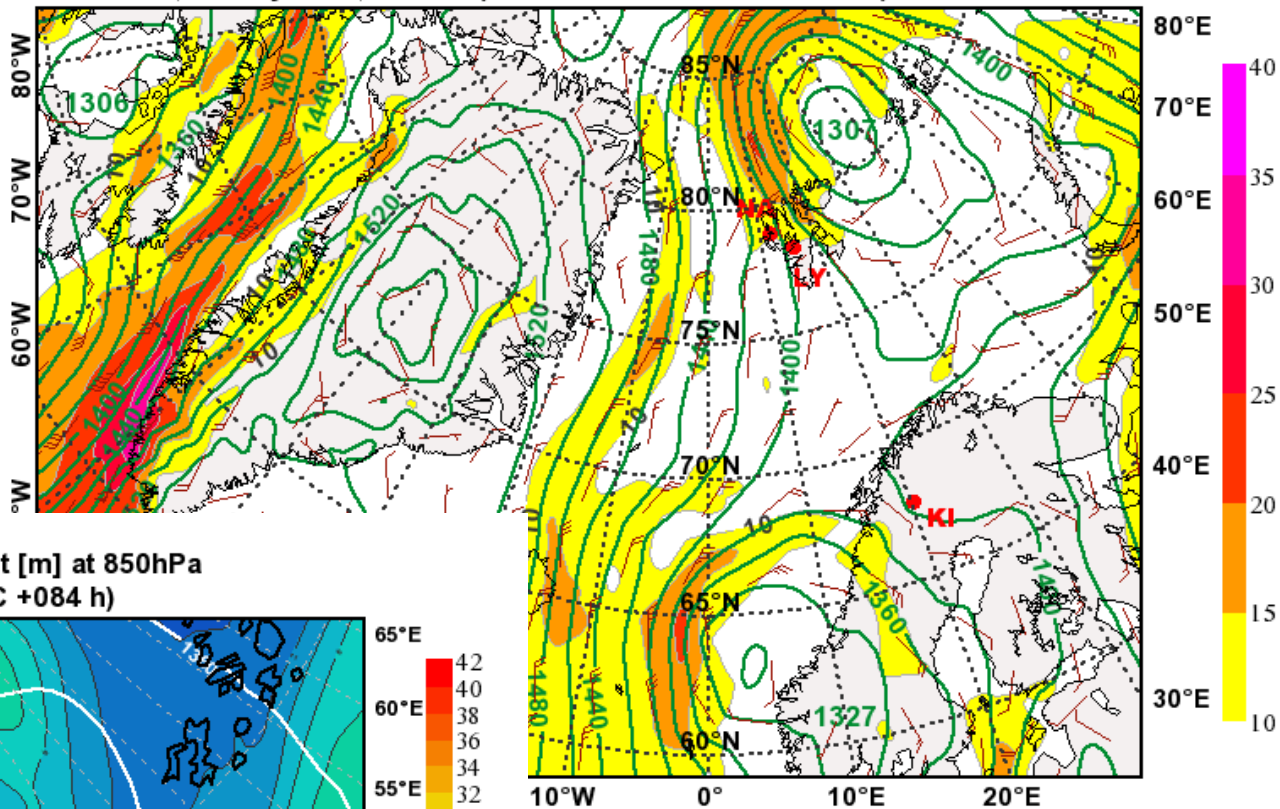


Equivalent Potential Temperature [°C] & Geopot. Height [m] at 850hPa
 valid: Sun, 09 May 2010, 12 UTC (init: 20100507 00 UTC +060 h)

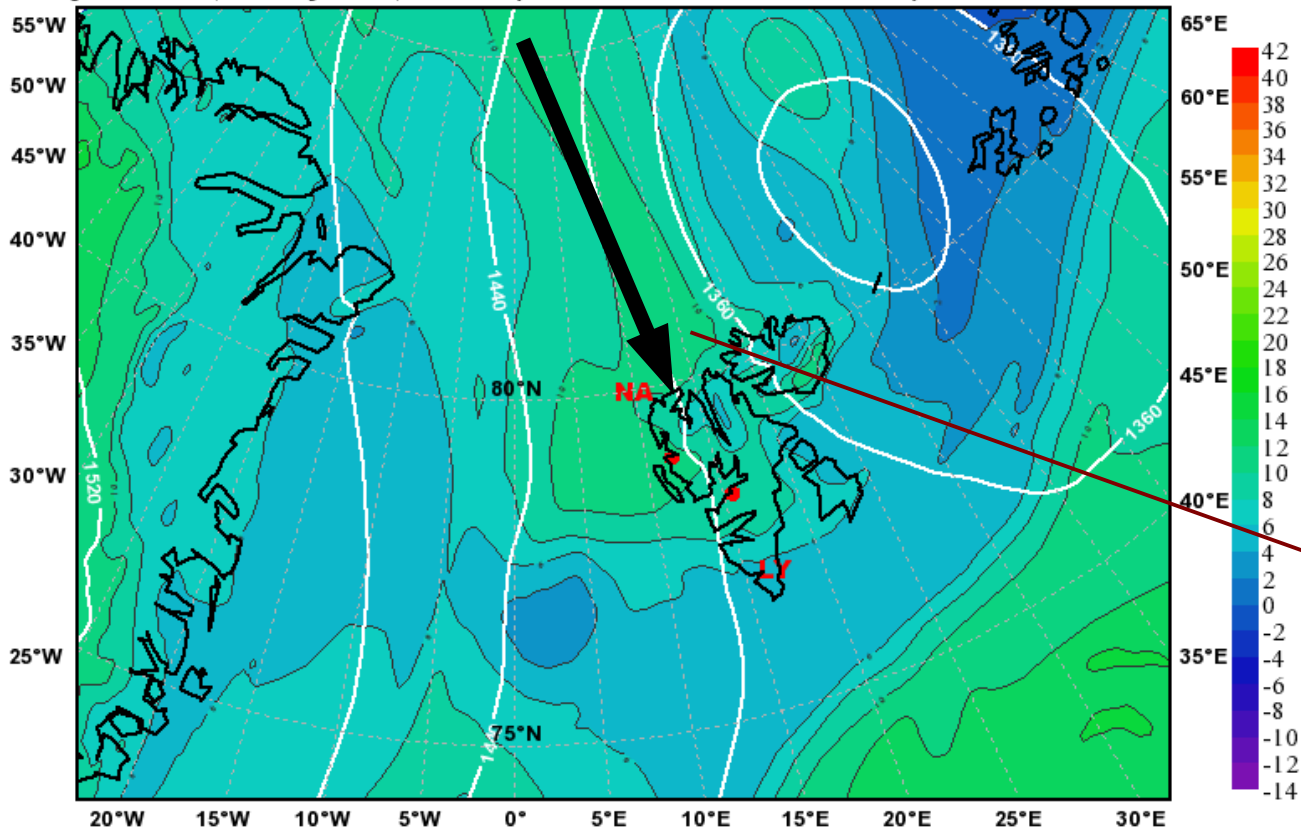


Monday: Northerly flow caused by approaching cyclone.

Geopotential Height (m) & Horizontal Wind (m/s) at 850hPa
 valid: Mon, 10 May 2010, 12 UTC (init: 20100507 00 UTC +084 h)

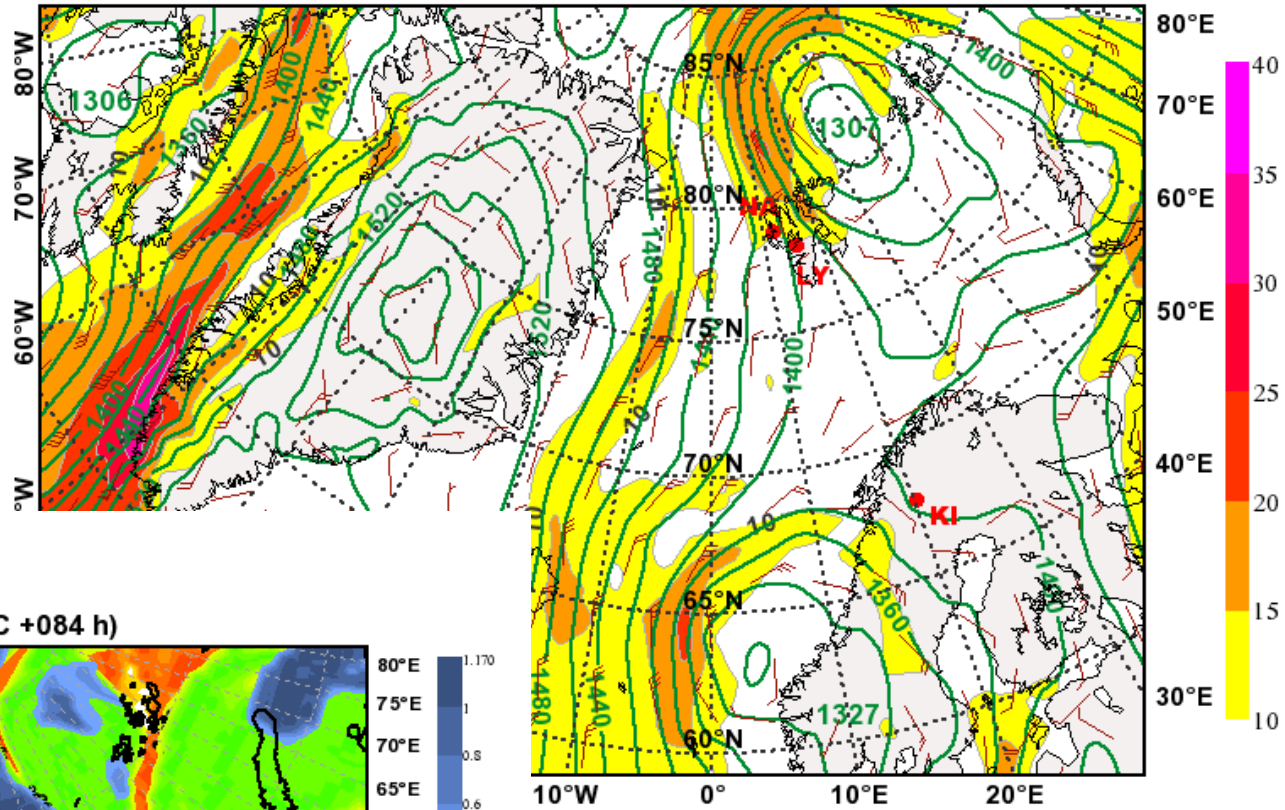


Equivalent Potential Temperature [°C] & Geopot. Height [m] at 850hPa
 valid: Mon, 10 May 2010, 12 UTC (init: 20100507 00 UTC +084 h)



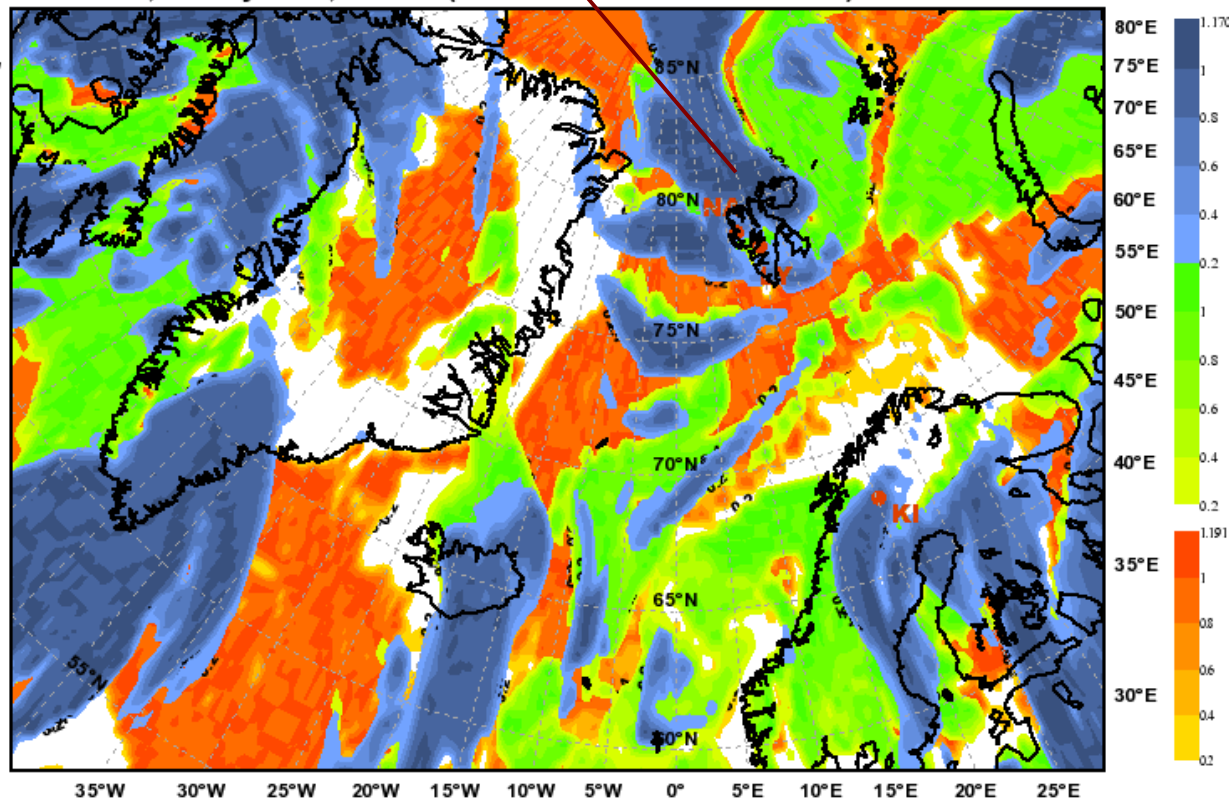
Warm sector of cyclone.

Geopotential Height (m) & Horizontal Wind (m/s) at 850hPa
 valid: Mon, 10 May 2010, 12 UTC (init: 20100507 00 UTC +084 h)

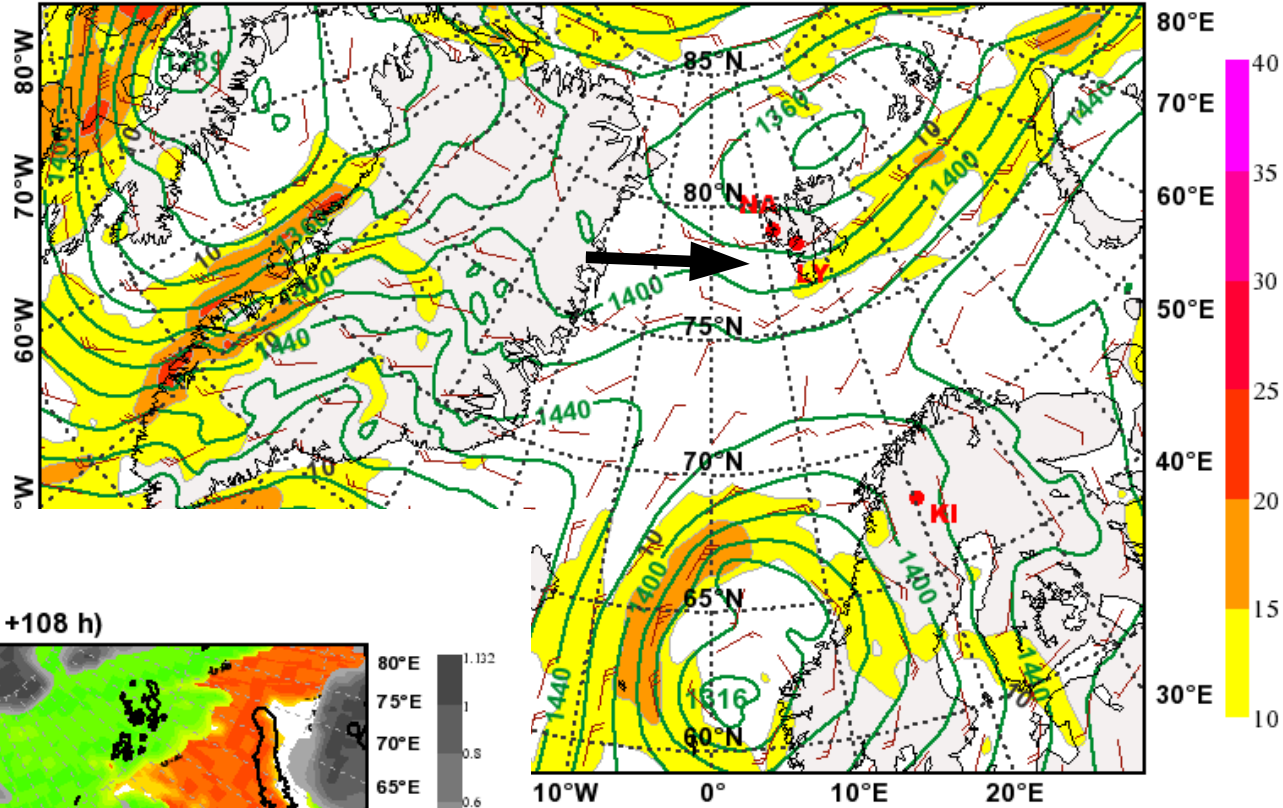


Warm sector
 unfortunately brings
 more upper level
 clouds.

Total Cloud Cover
 valid: Mon, 10 May 2010, 12 UTC (init: 20100507 00 UTC +084 h)

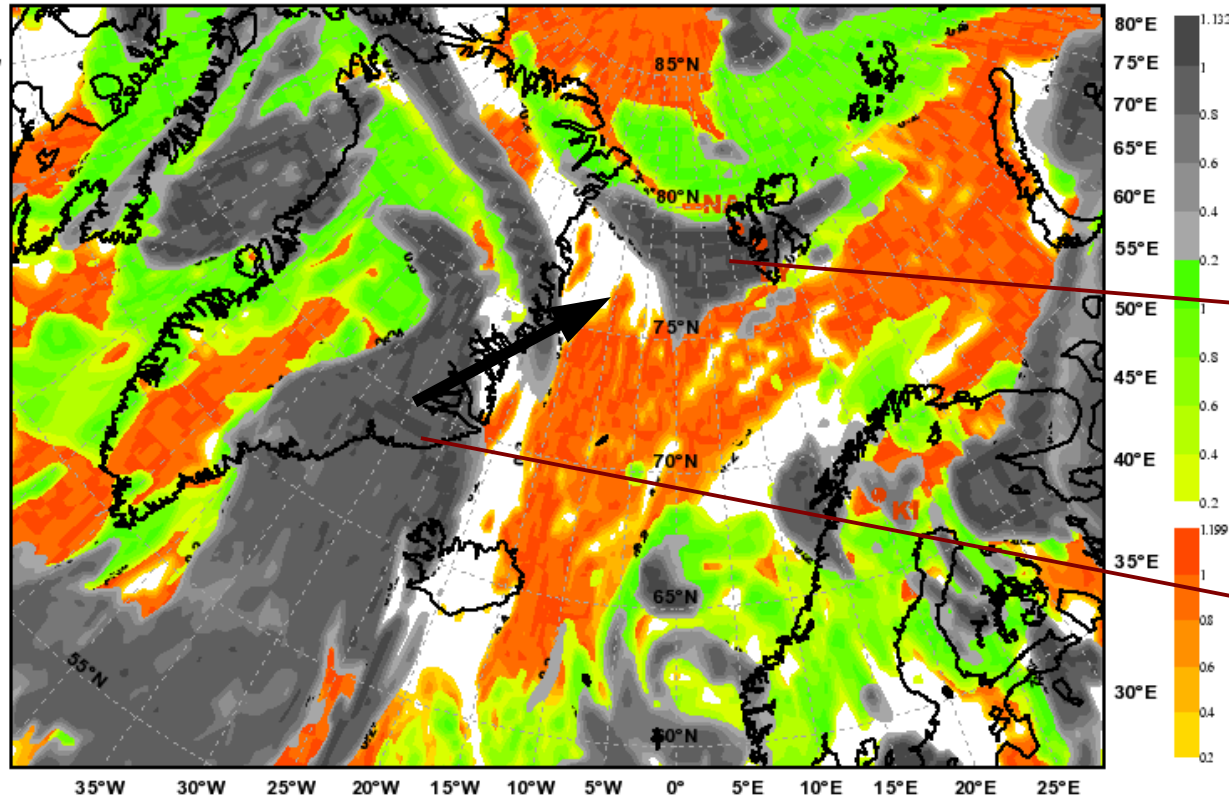


Geopotential Height (m) & Horizontal Wind (m/s) at 850hPa
 valid: Tue, 11 May 2010, 12 UTC (init: 20100507 00 UTC +108 h)



Tuesday: Weak westerly flow between dying cyclone and retreating ridge E/SE of Greenland.

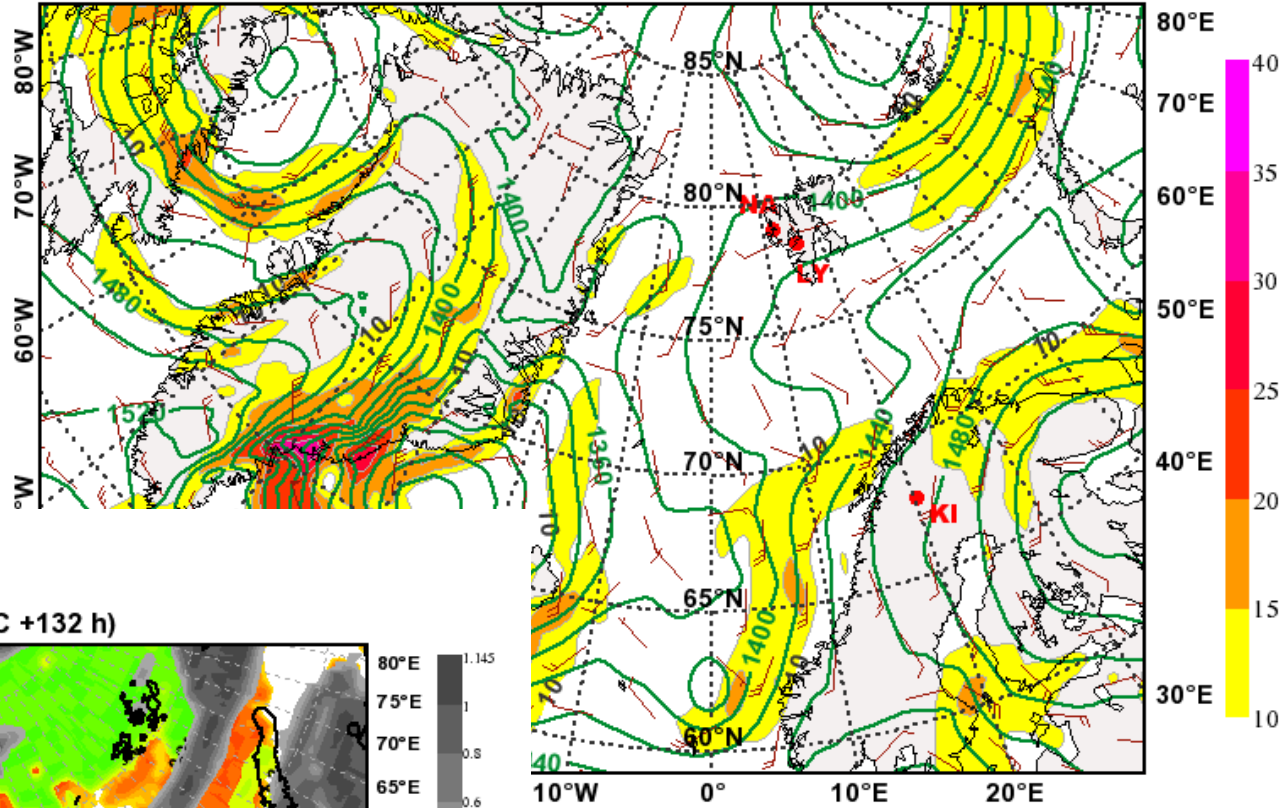
Total Cloud Cover
 valid: Tue, 11 May 2010, 12 UTC (init: 20100507 00 UTC +108 h)



Upper level clouds stay right above Svalbard. Chance for measurements N or S of Svalbard?

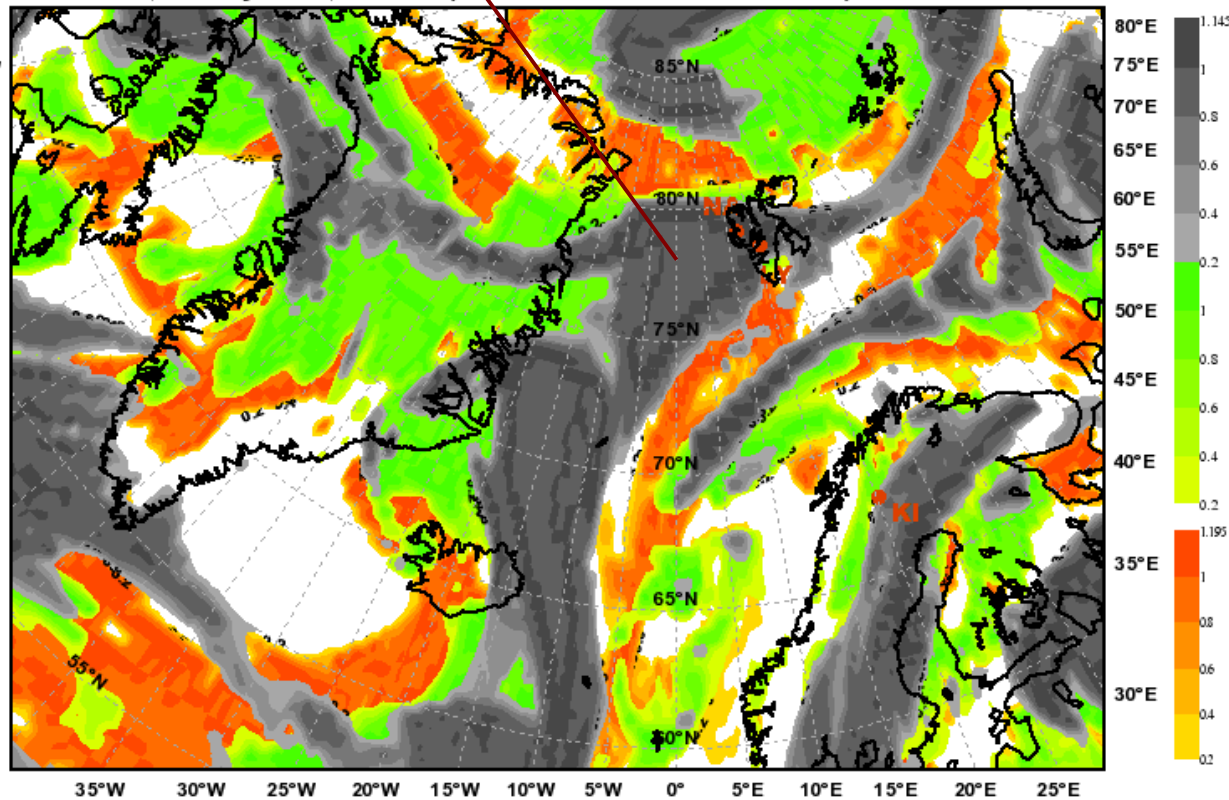
High pressure Ci clouds moving northeastward.

Geopotential Height (m) & Horizontal Wind (m/s) at 850hPa
 valid: Wed, 12 May 2010, 12 UTC (init: 20100507 00 UTC +132 h)



Wednesday: Still weak westerly flow. High pressure Ci clouds merge with remains of Ci from cyclone.

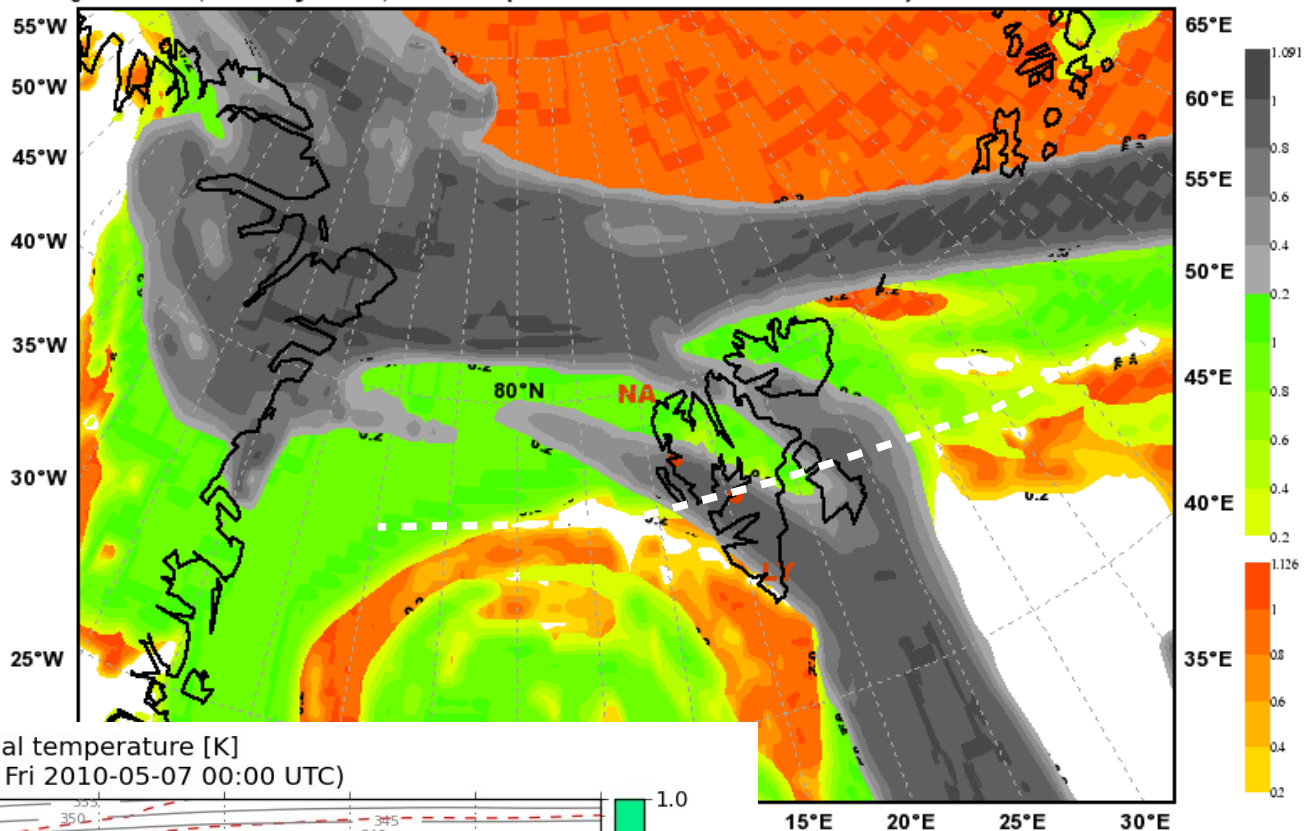
Total Cloud Cover
 valid: Wed, 12 May 2010, 12 UTC (init: 20100507 00 UTC +132 h)



Chance for measurements N or S of Svalbard?

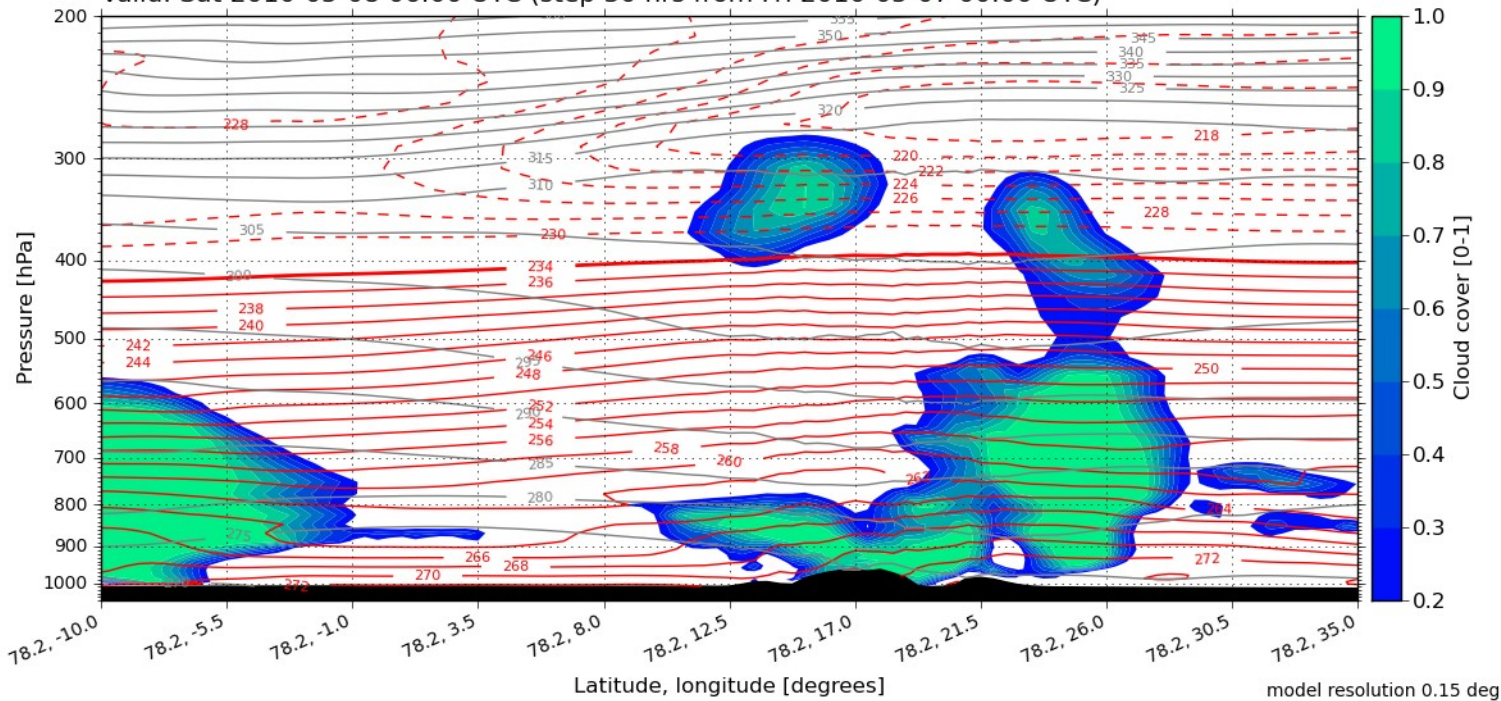
Vertical sections for Saturday

Total Cloud Cover
 Valid: Sat, 08 May 2010, 06 UTC (init: 20100507 00 UTC +030 h)



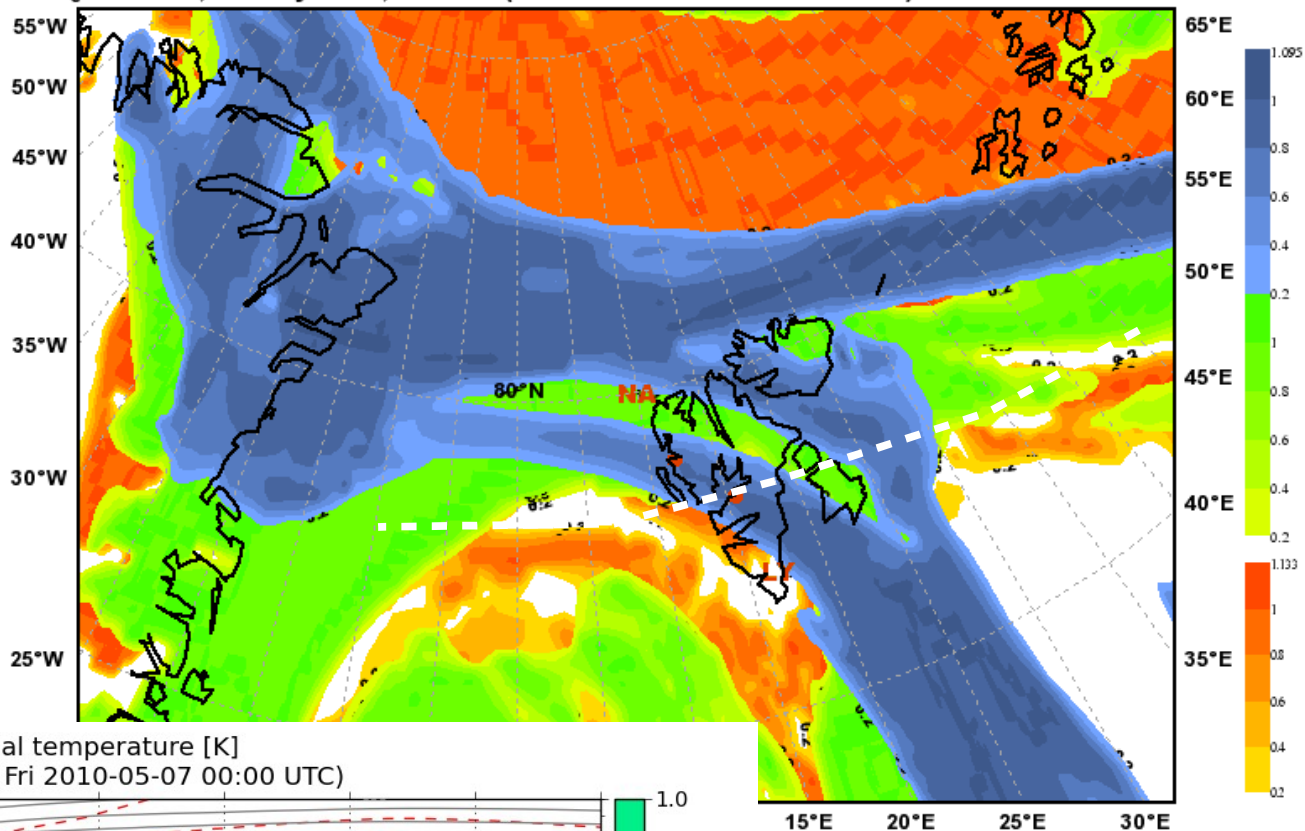
E-W along 78N

Cloud cover [0-1] with temperature [K] and potential temperature [K]
 Valid: Sat 2010-05-08 06:00 UTC (step 30 hrs from Fri 2010-05-07 00:00 UTC)



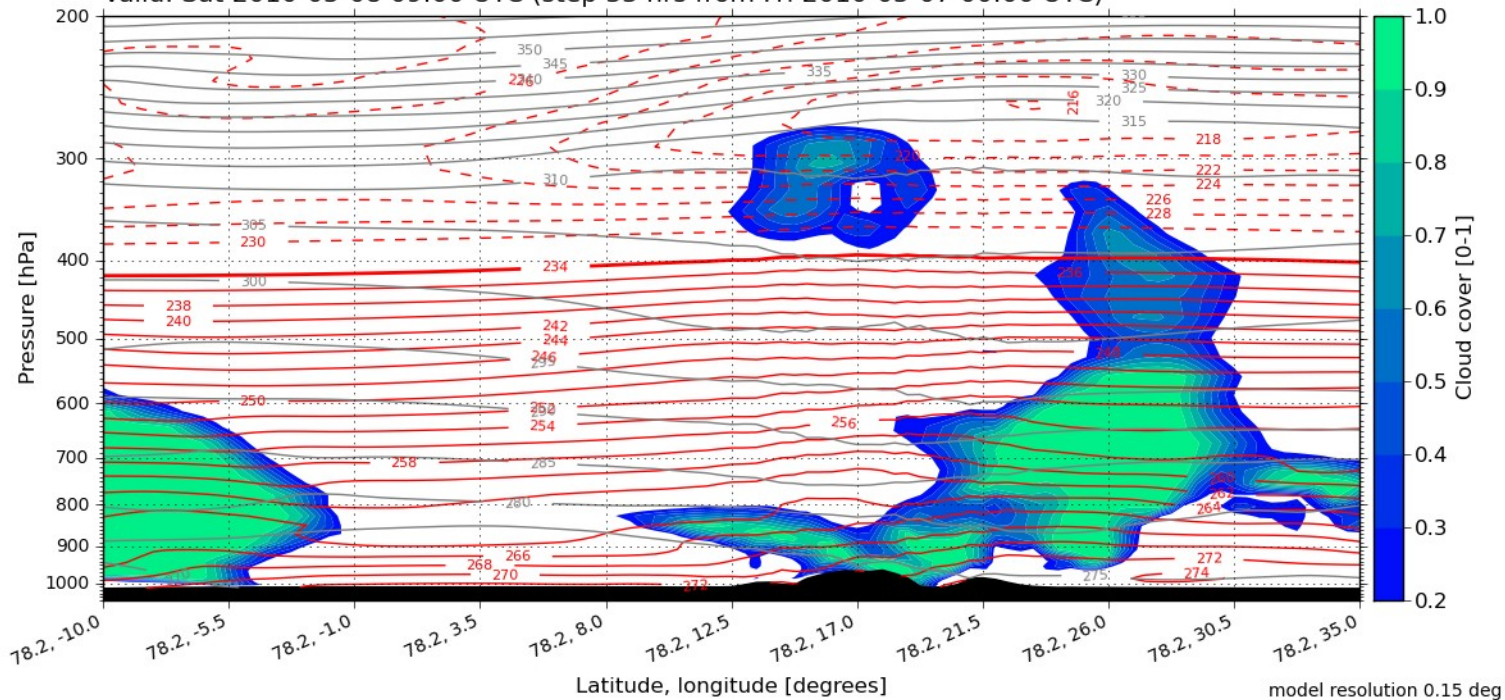
model resolution 0.15 deg

Total Cloud Cover
Valid: Sat, 08 May 2010, 09 UTC (init: 20100507 00 UTC +033 h)

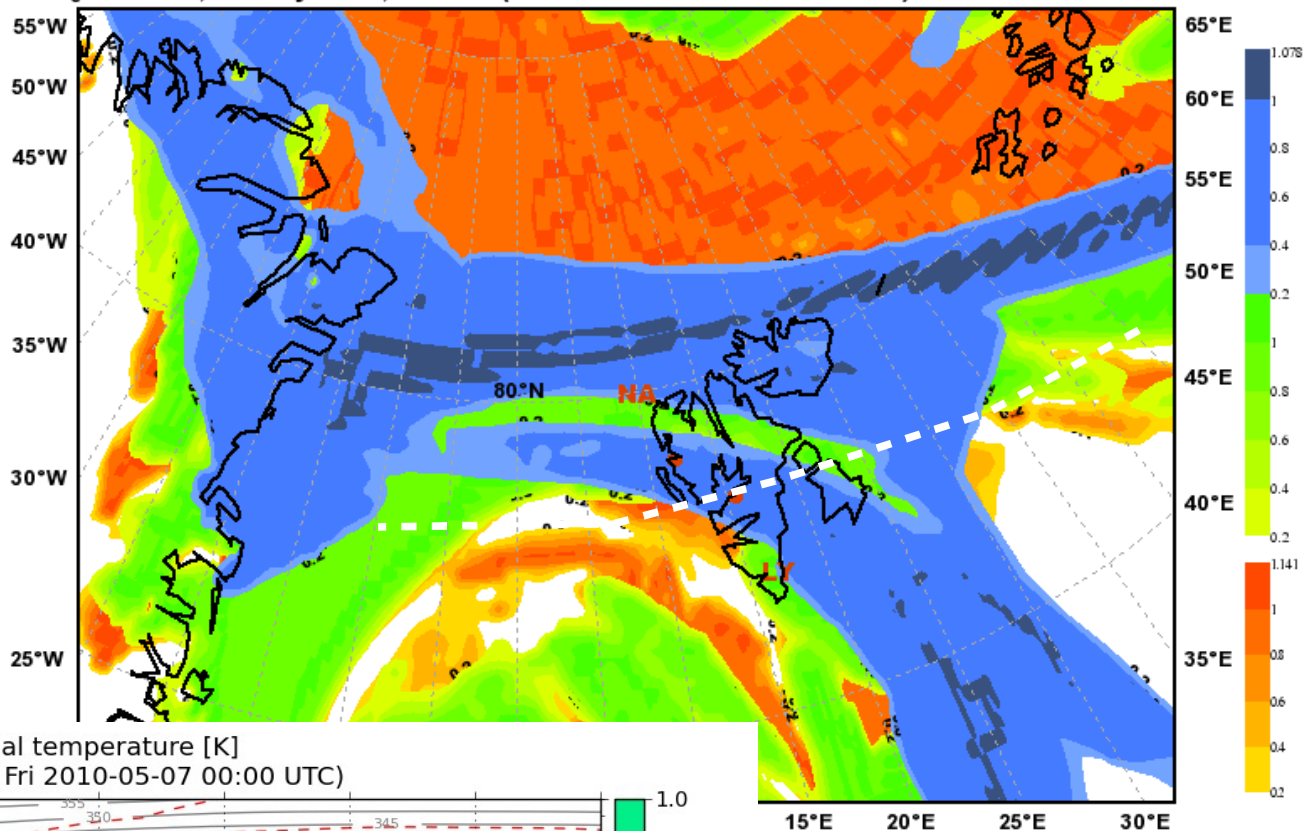


E-W along 78N

Cloud cover [0-1] with temperature [K] and potential temperature [K]
Valid: Sat 2010-05-08 09:00 UTC (step 33 hrs from Fri 2010-05-07 00:00 UTC)

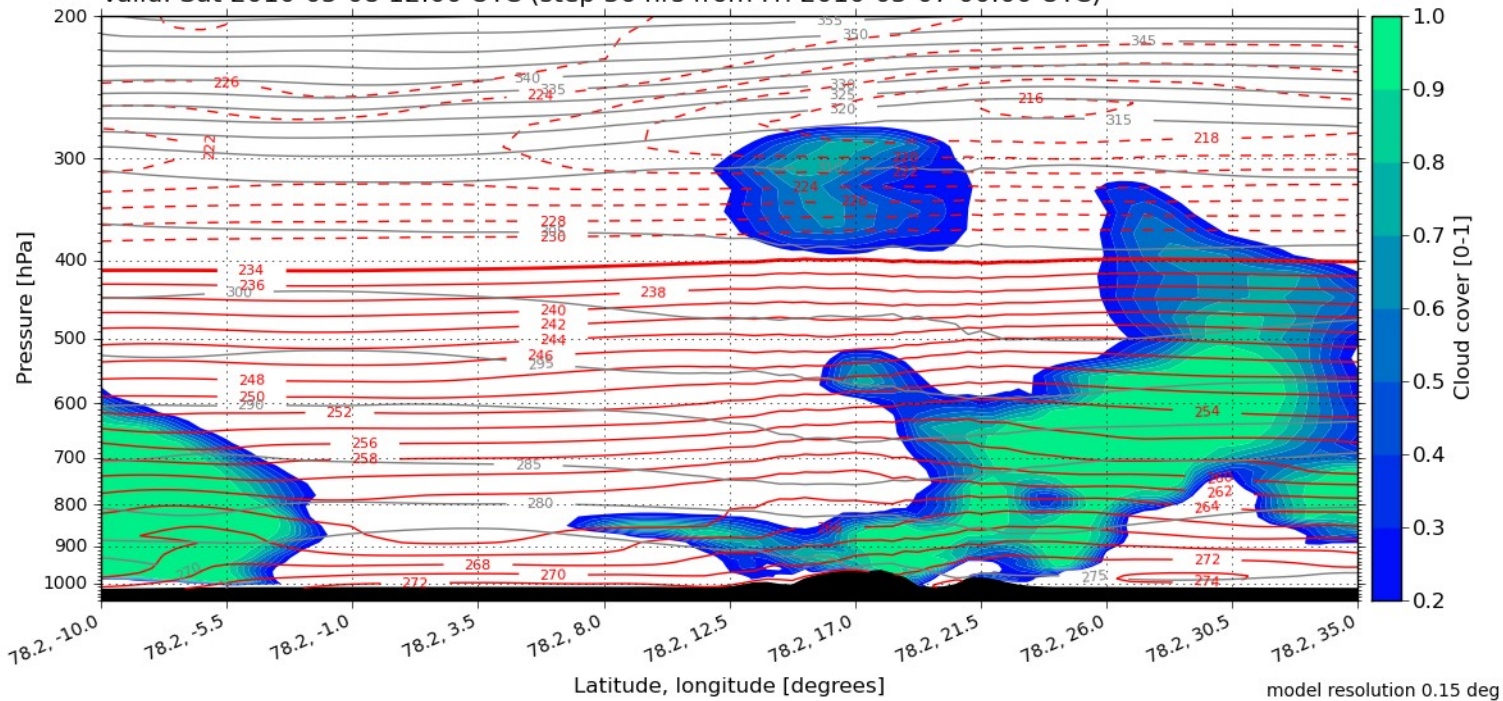


Total Cloud Cover
Valid: Sat, 08 May 2010, 12 UTC (init: 20100507 00 UTC +036 h)

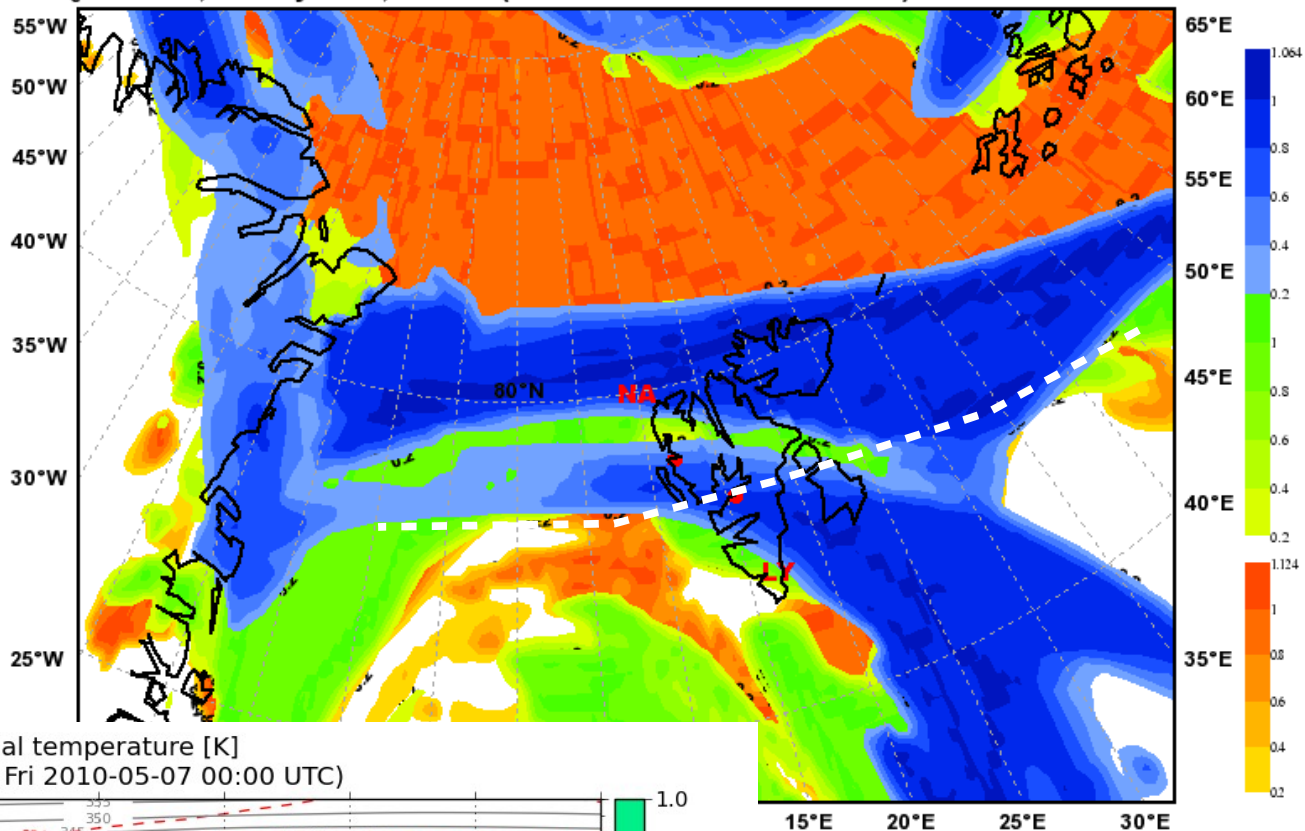


E-W along 78N

Cloud cover [0-1] with temperature [K] and potential temperature [K]
Valid: Sat 2010-05-08 12:00 UTC (step 36 hrs from Fri 2010-05-07 00:00 UTC)

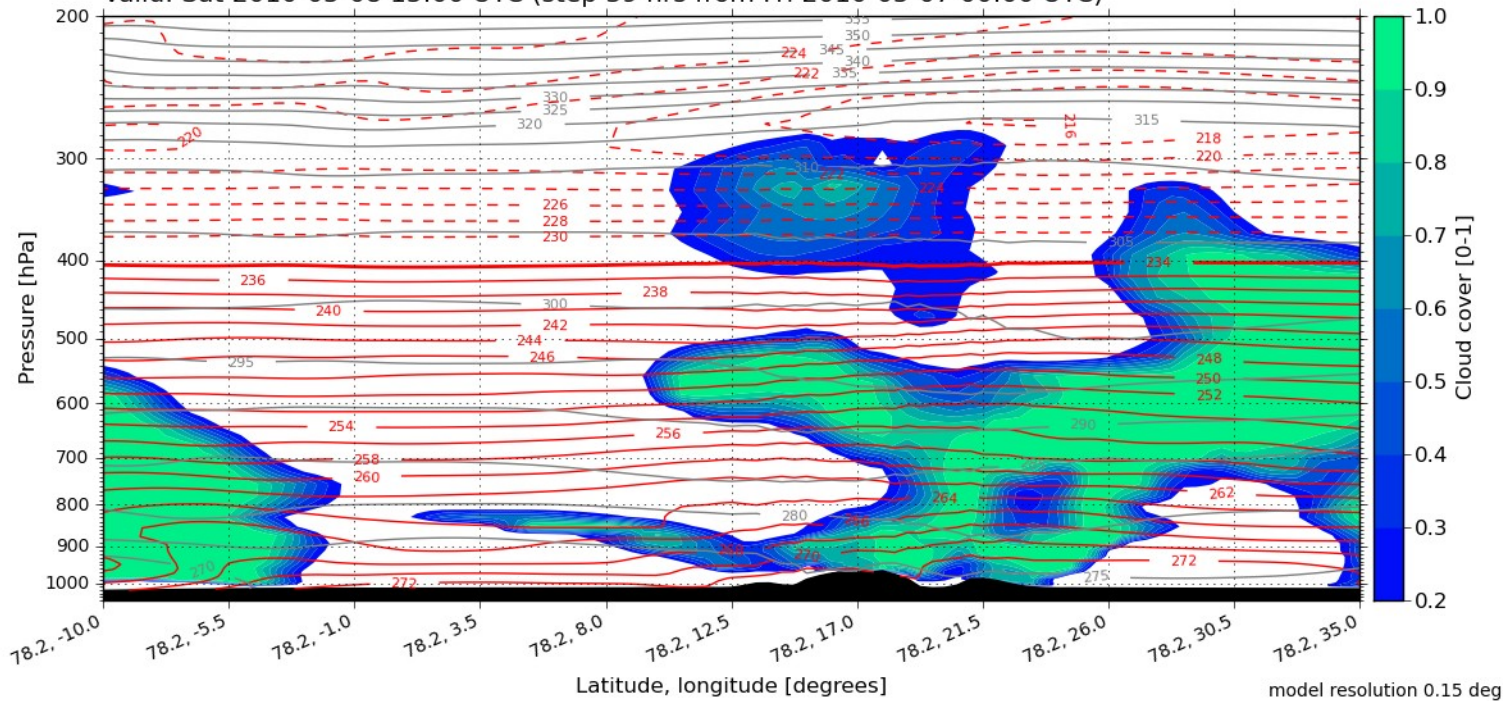


Total Cloud Cover
 Valid: Sat, 08 May 2010, 15 UTC (init: 20100507 00 UTC +039 h)



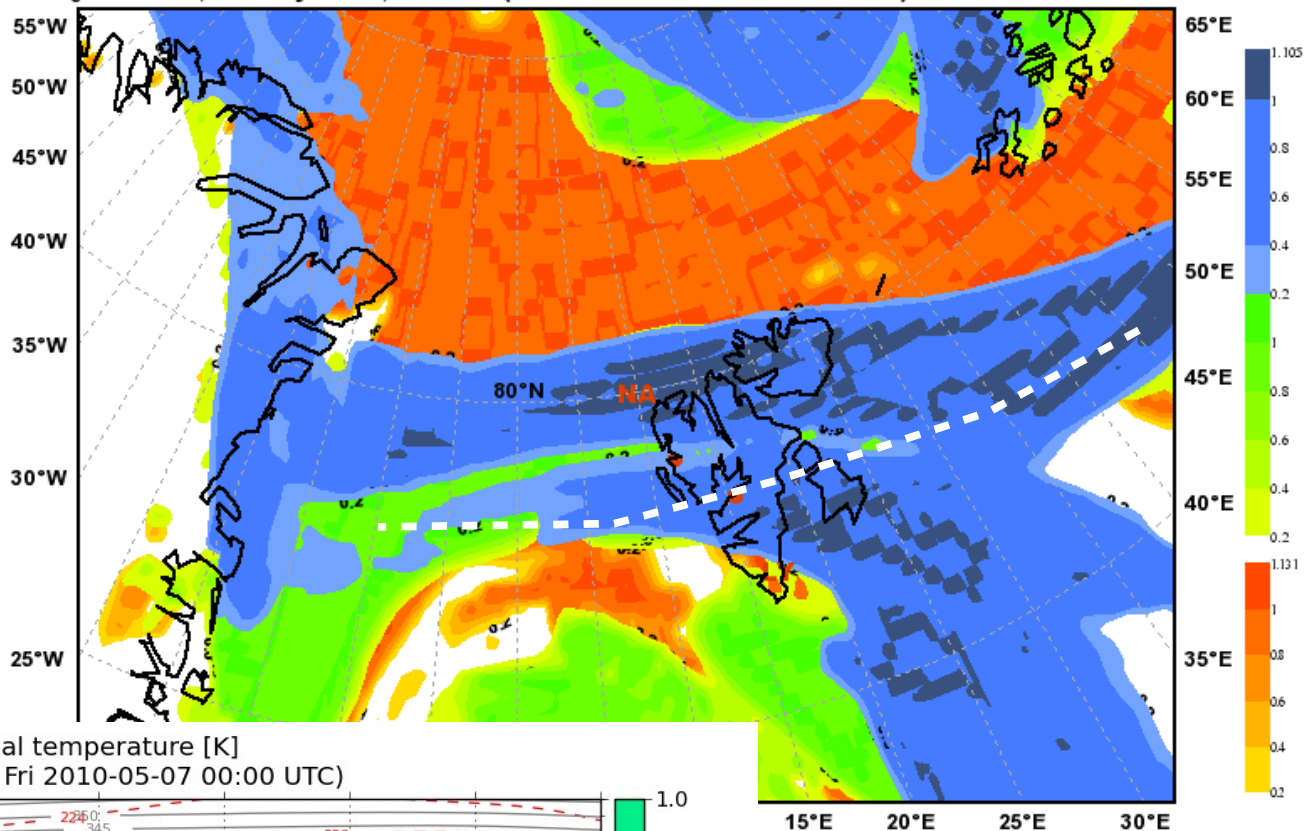
E-W along 78N

Cloud cover [0-1] with temperature [K] and potential temperature [K]
 Valid: Sat 2010-05-08 15:00 UTC (step 39 hrs from Fri 2010-05-07 00:00 UTC)



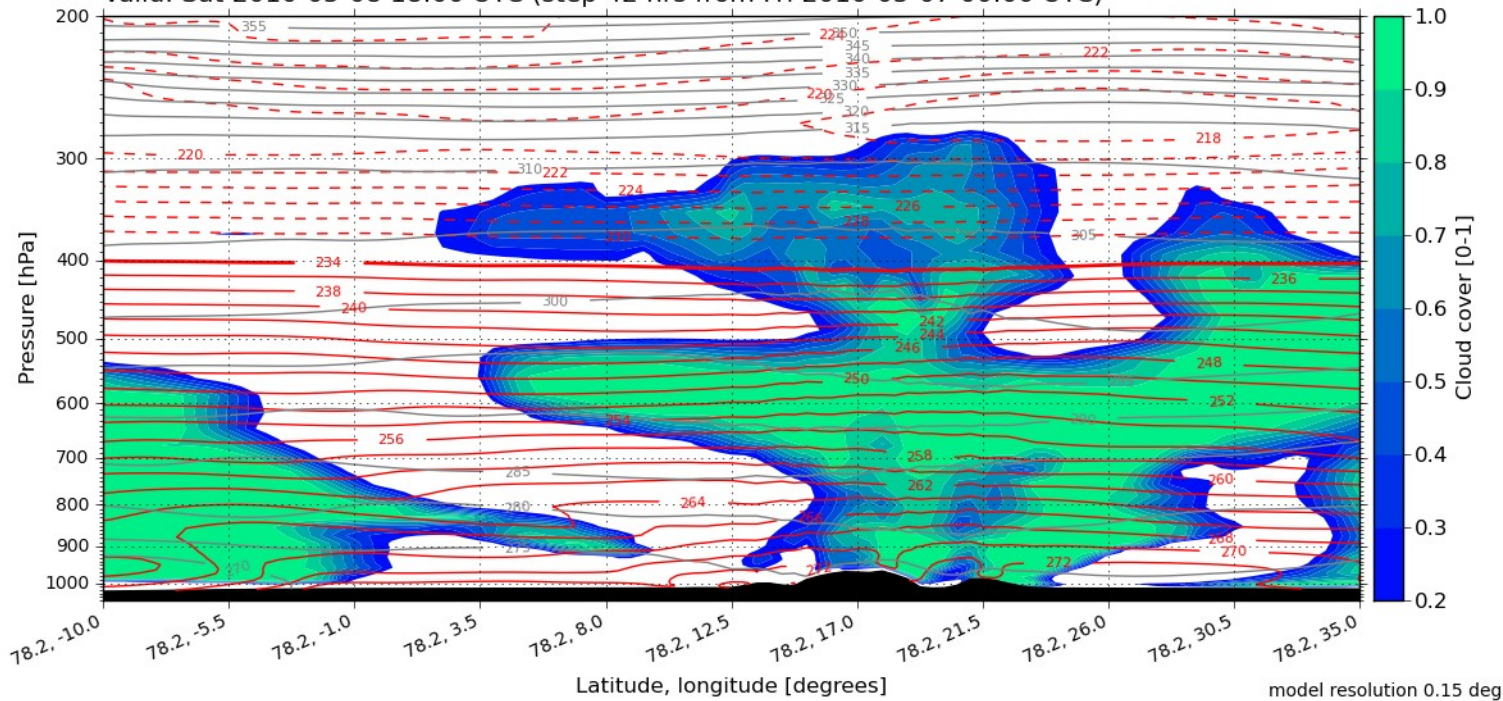
model resolution 0.15 deg

Total Cloud Cover
 Valid: Sat, 08 May 2010, 18 UTC (init: 20100507 00 UTC +042 h)



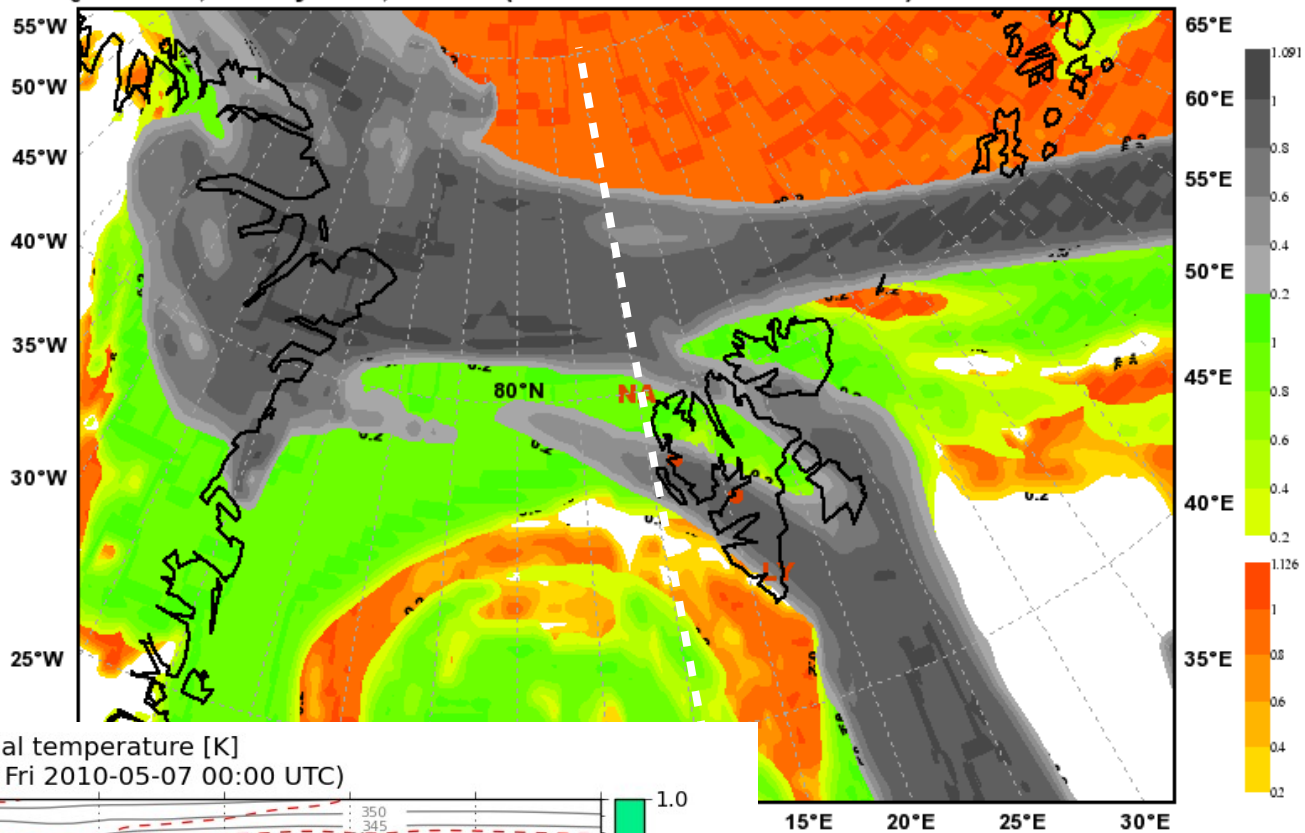
E-W along 78N

Cloud cover [0-1] with temperature [K] and potential temperature [K]
 Valid: Sat 2010-05-08 18:00 UTC (step 42 hrs from Fri 2010-05-07 00:00 UTC)



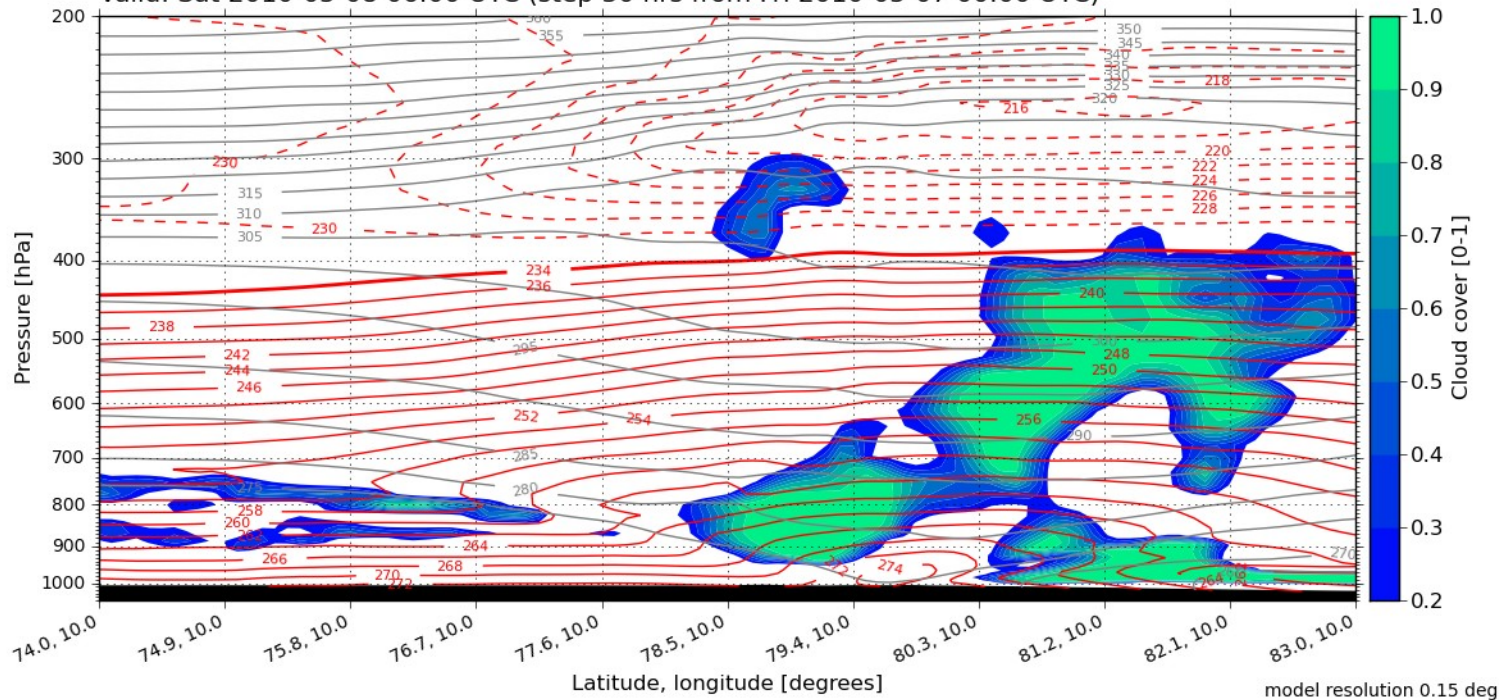
model resolution 0.15 deg

Total Cloud Cover
 Valid: Sat, 08 May 2010, 06 UTC (init: 20100507 00 UTC +030 h)

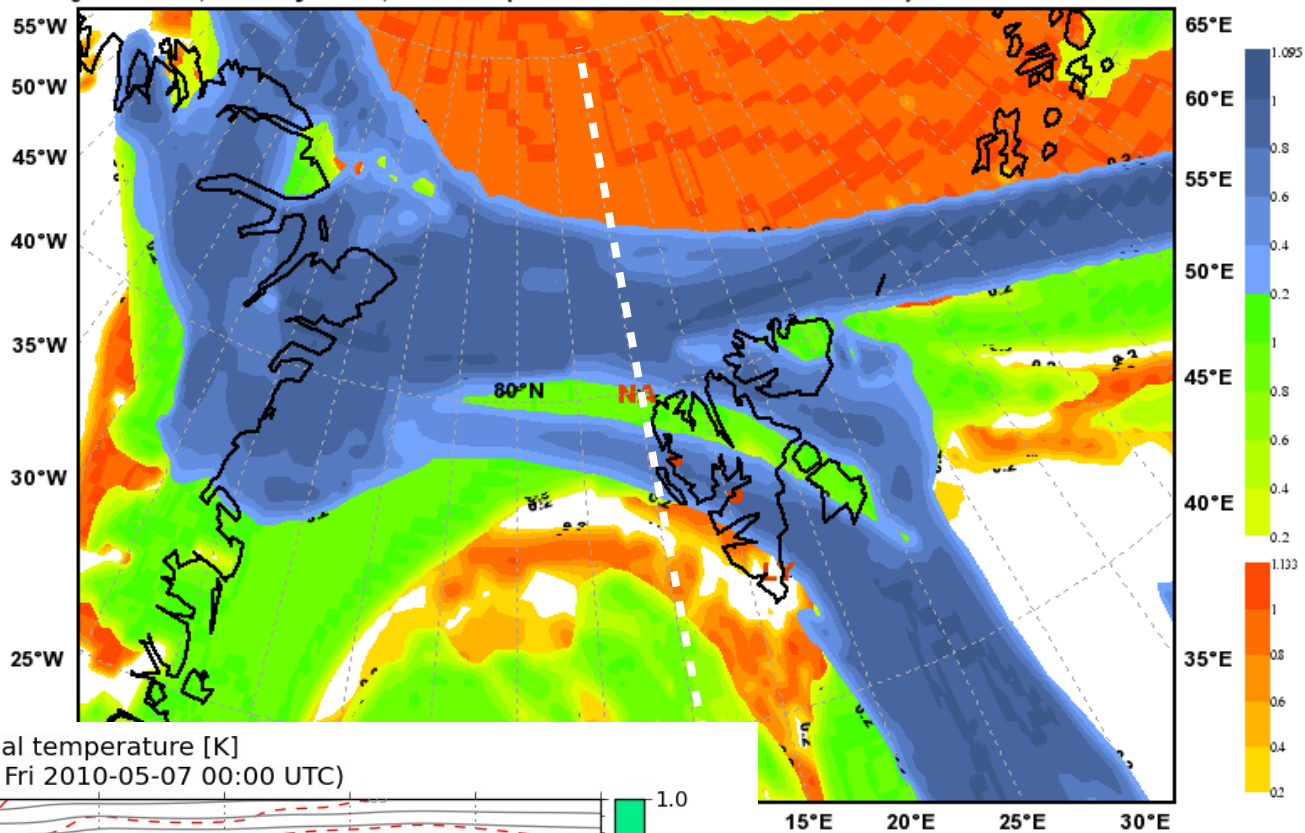


N-S along 10E

Cloud cover [0-1] with temperature [K] and potential temperature [K]
 Valid: Sat 2010-05-08 06:00 UTC (step 30 hrs from Fri 2010-05-07 00:00 UTC)

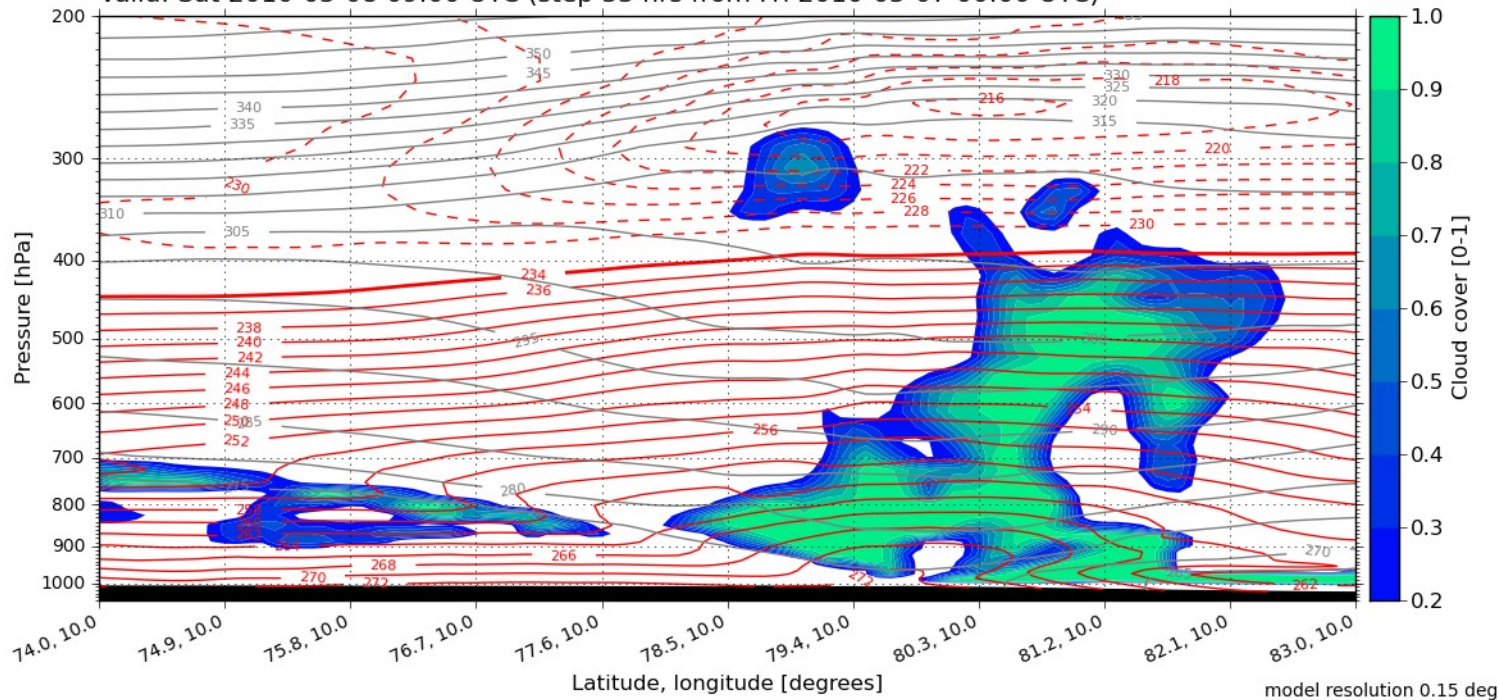


Total Cloud Cover
Valid: Sat, 08 May 2010, 09 UTC (init: 20100507 00 UTC +033 h)



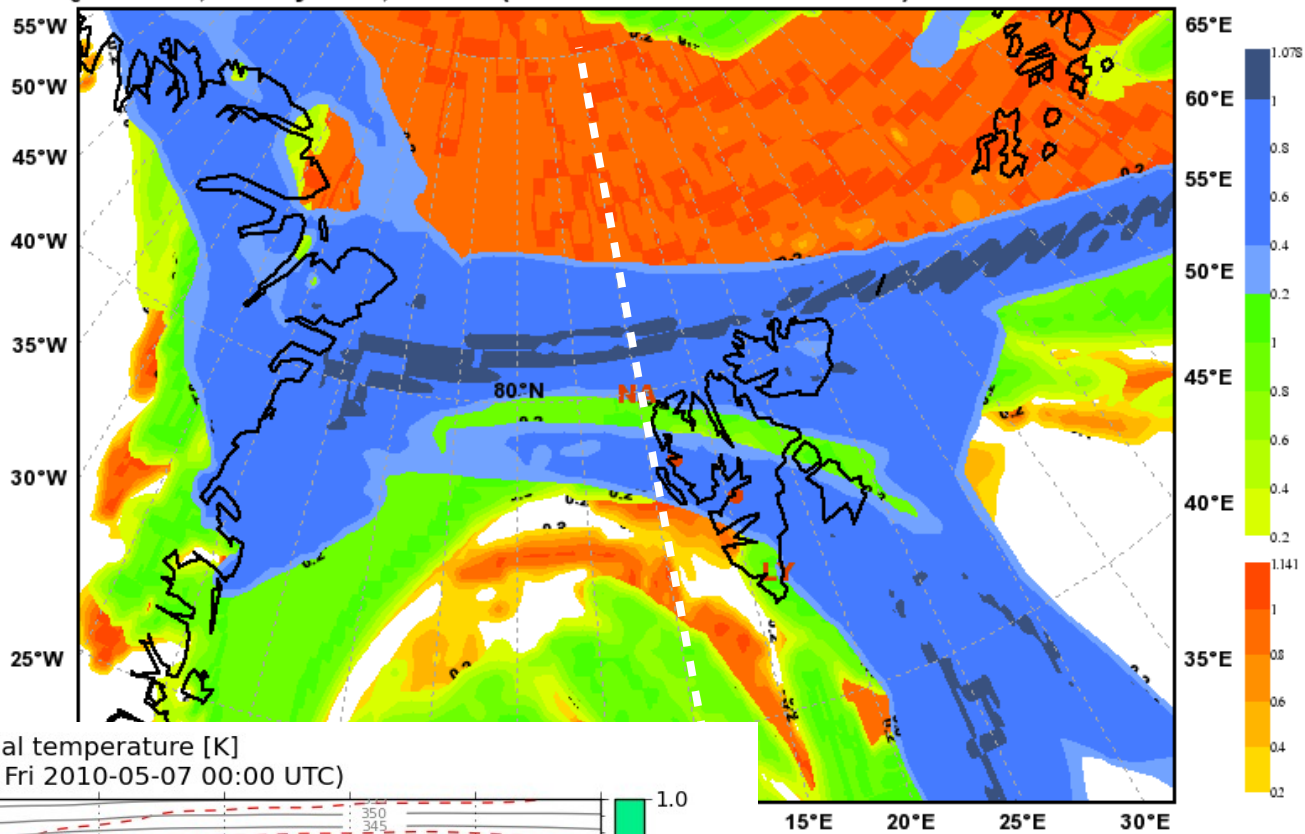
N-S along 10E

Cloud cover [0-1] with temperature [K] and potential temperature [K]
Valid: Sat 2010-05-08 09:00 UTC (step 33 hrs from Fri 2010-05-07 00:00 UTC)



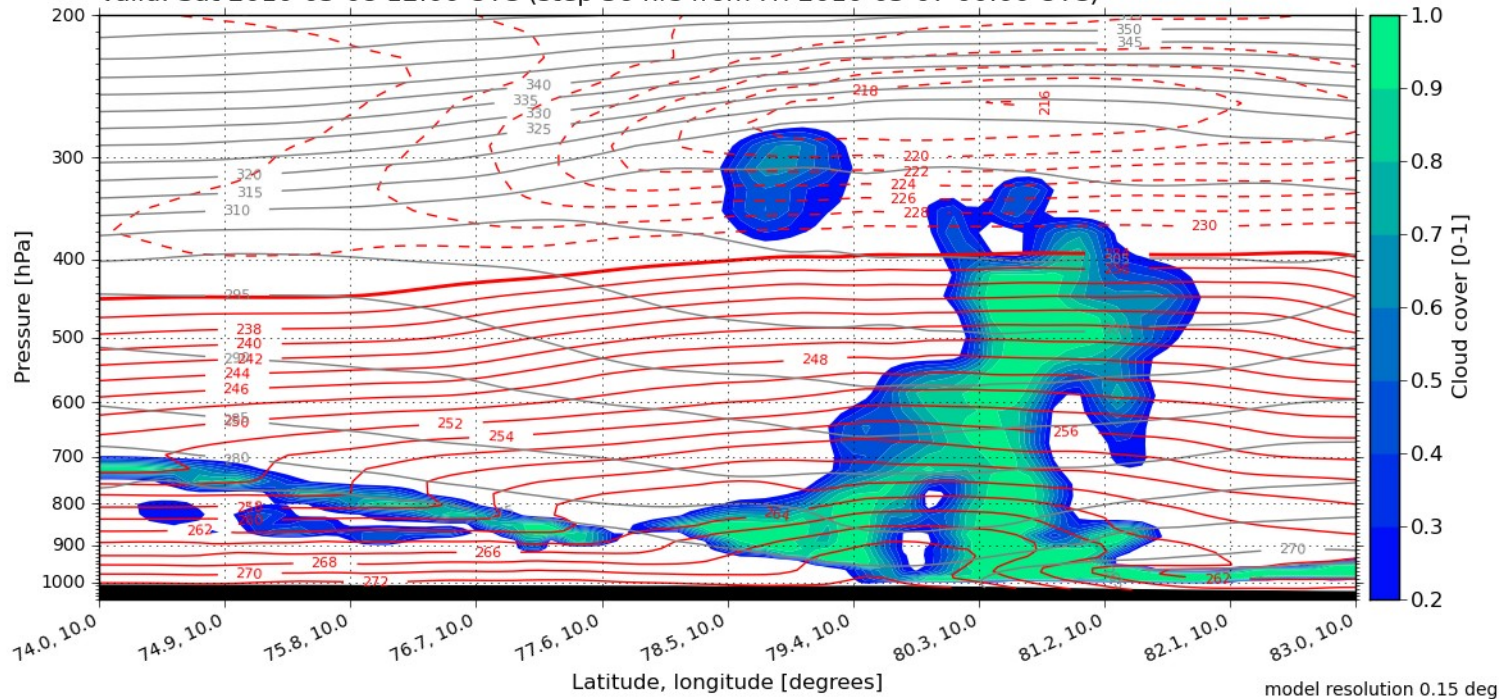
model resolution 0.15 deg

Total Cloud Cover
 Valid: Sat, 08 May 2010, 12 UTC (init: 20100507 00 UTC +036 h)



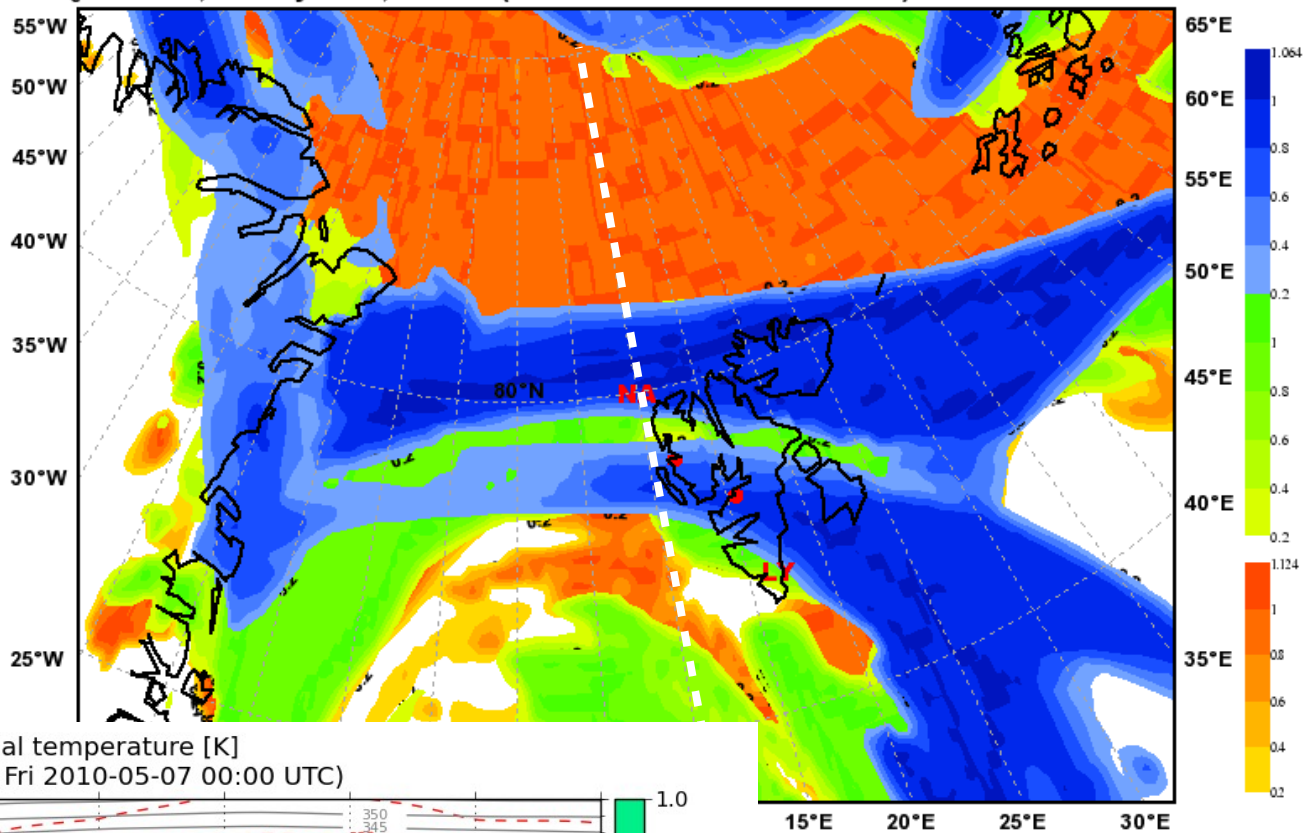
N-S along 10E

Cloud cover [0-1] with temperature [K] and potential temperature [K]
 Valid: Sat 2010-05-08 12:00 UTC (step 36 hrs from Fri 2010-05-07 00:00 UTC)



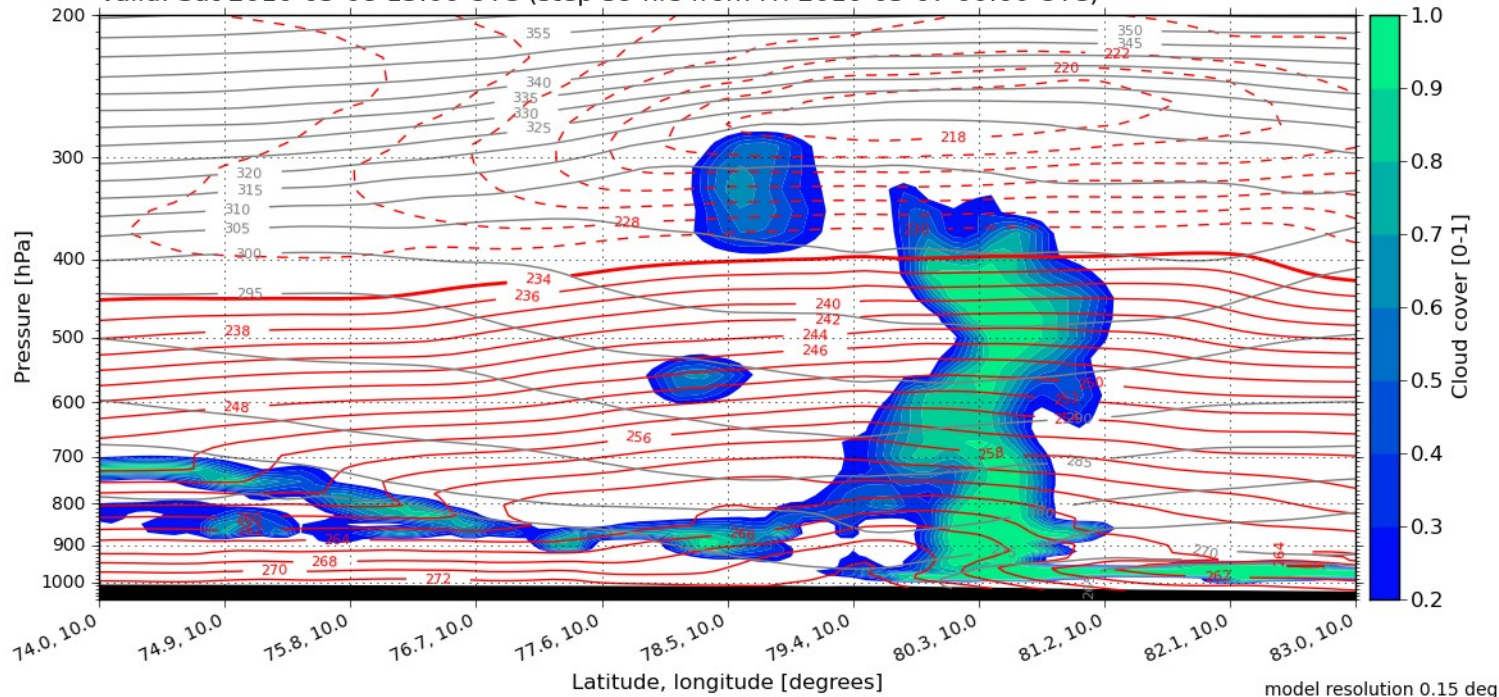
model resolution 0.15 deg

Total Cloud Cover
Valid: Sat, 08 May 2010, 15 UTC (init: 20100507 00 UTC +039 h)



N-S along 10E

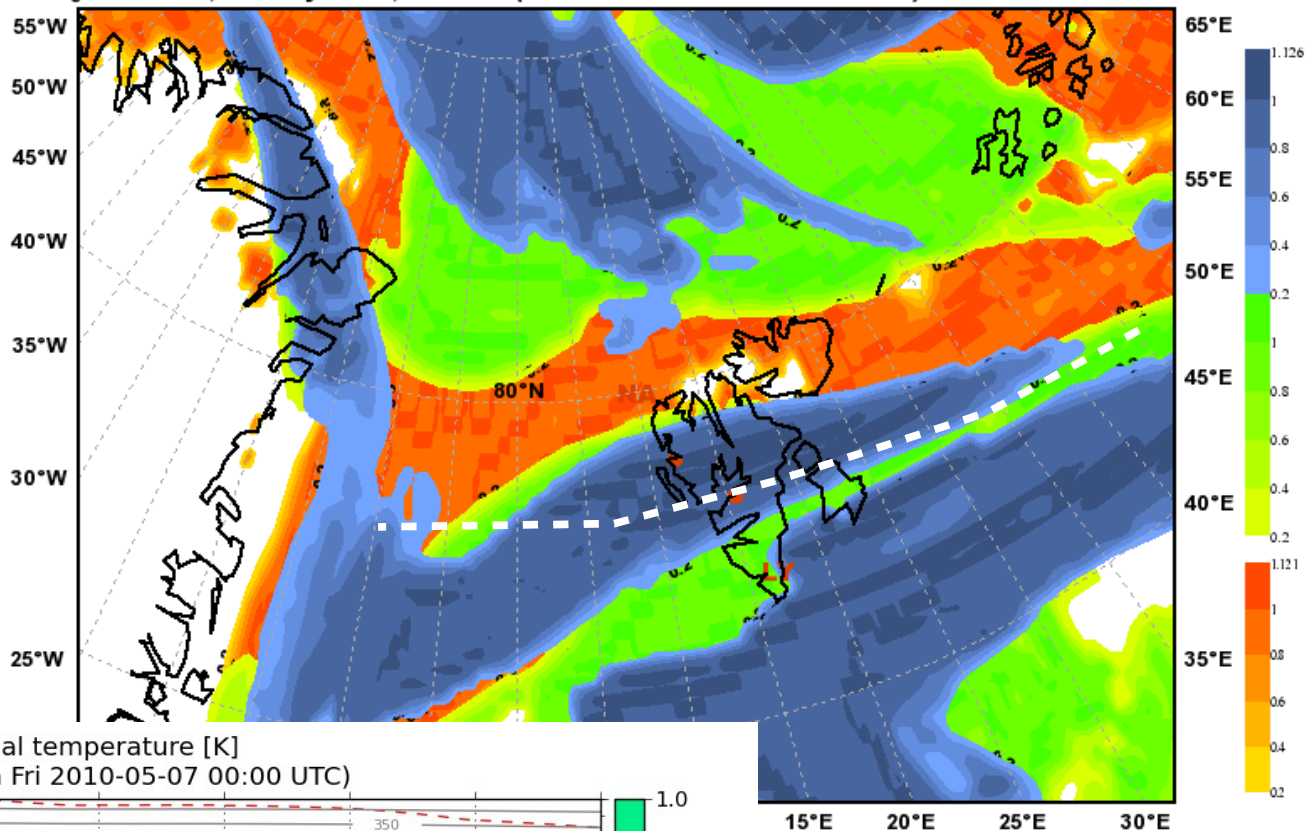
Cloud cover [0-1] with temperature [K] and potential temperature [K]
Valid: Sat 2010-05-08 15:00 UTC (step 39 hrs from Fri 2010-05-07 00:00 UTC)



model resolution 0.15 deg

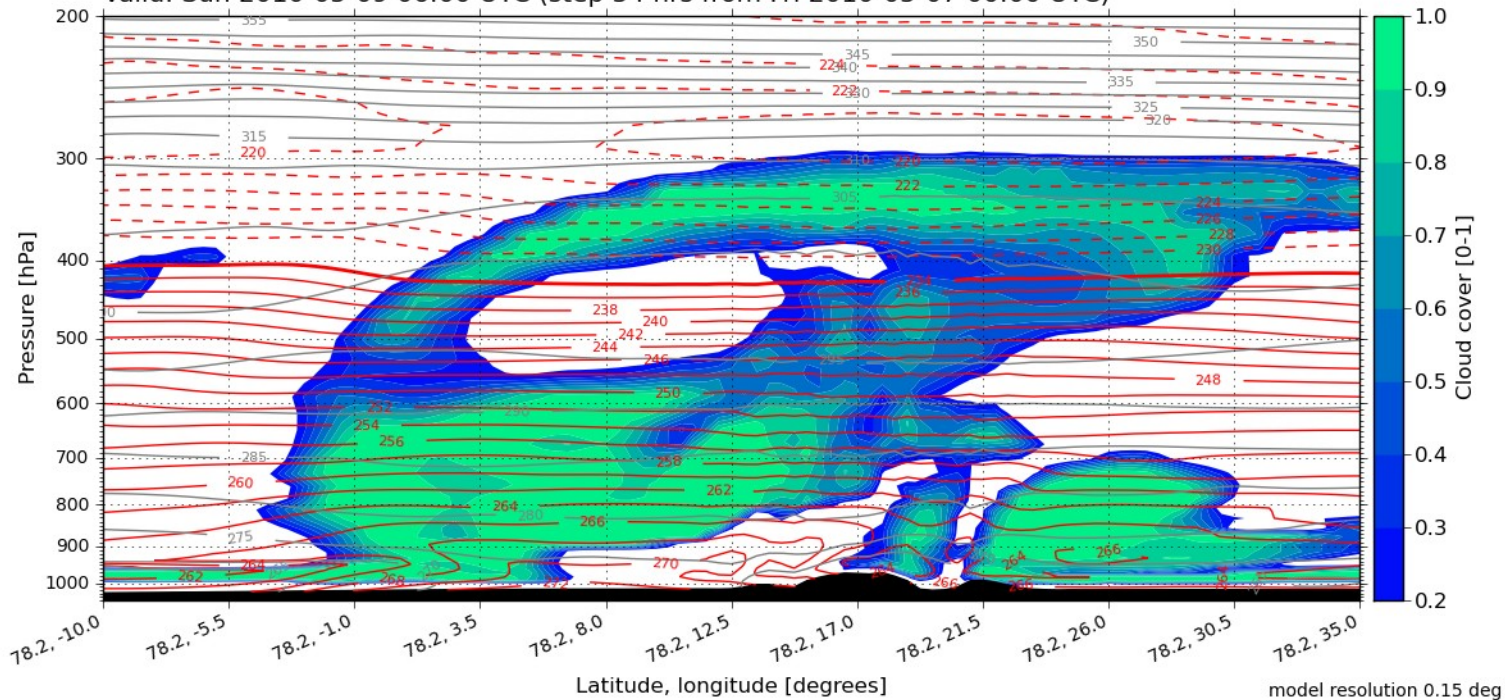
Vertical sections for Sunday

Total Cloud Cover
 Valid: Sun, 09 May 2010, 06 UTC (init: 20100507 00 UTC +054 h)



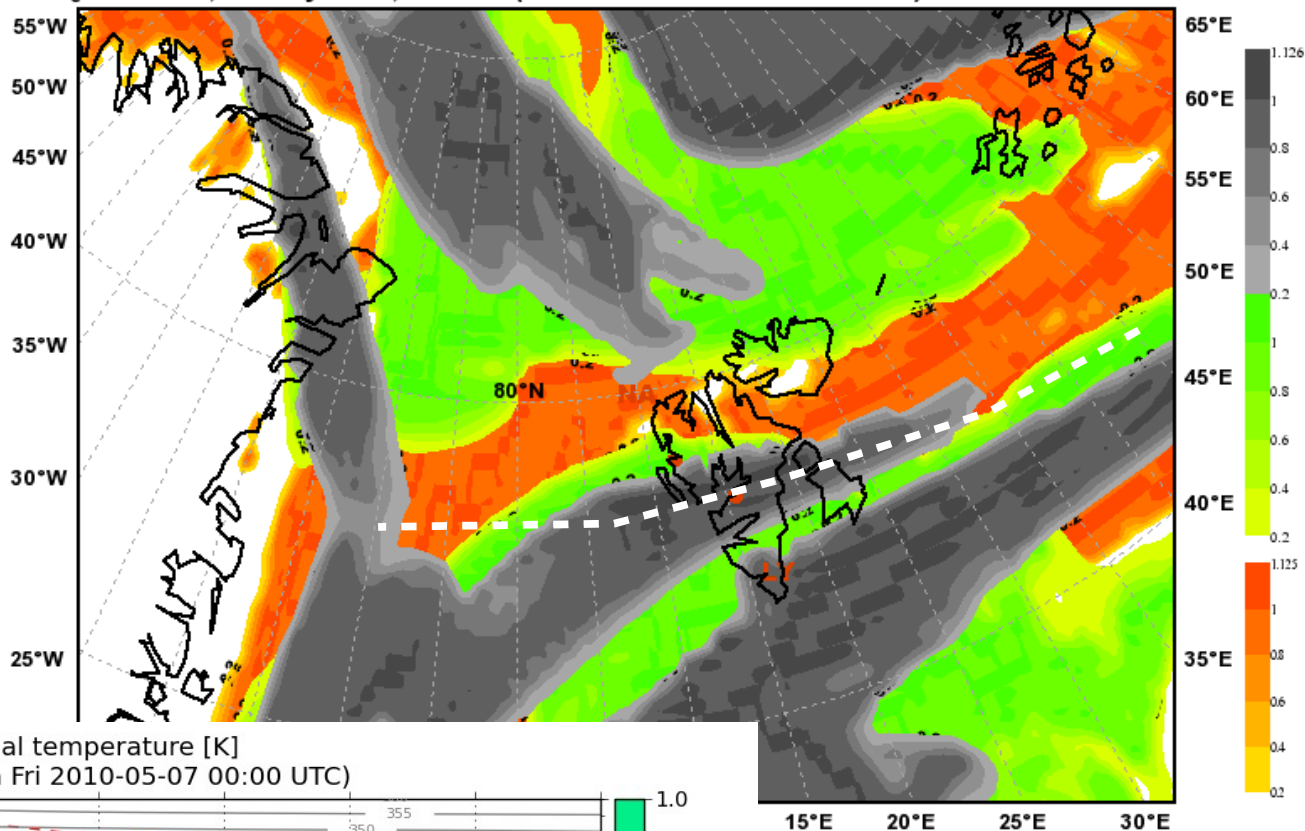
E-W along 78N

Cloud cover [0-1] with temperature [K] and potential temperature [K]
 Valid: Sun 2010-05-09 06:00 UTC (step 54 hrs from Fri 2010-05-07 00:00 UTC)



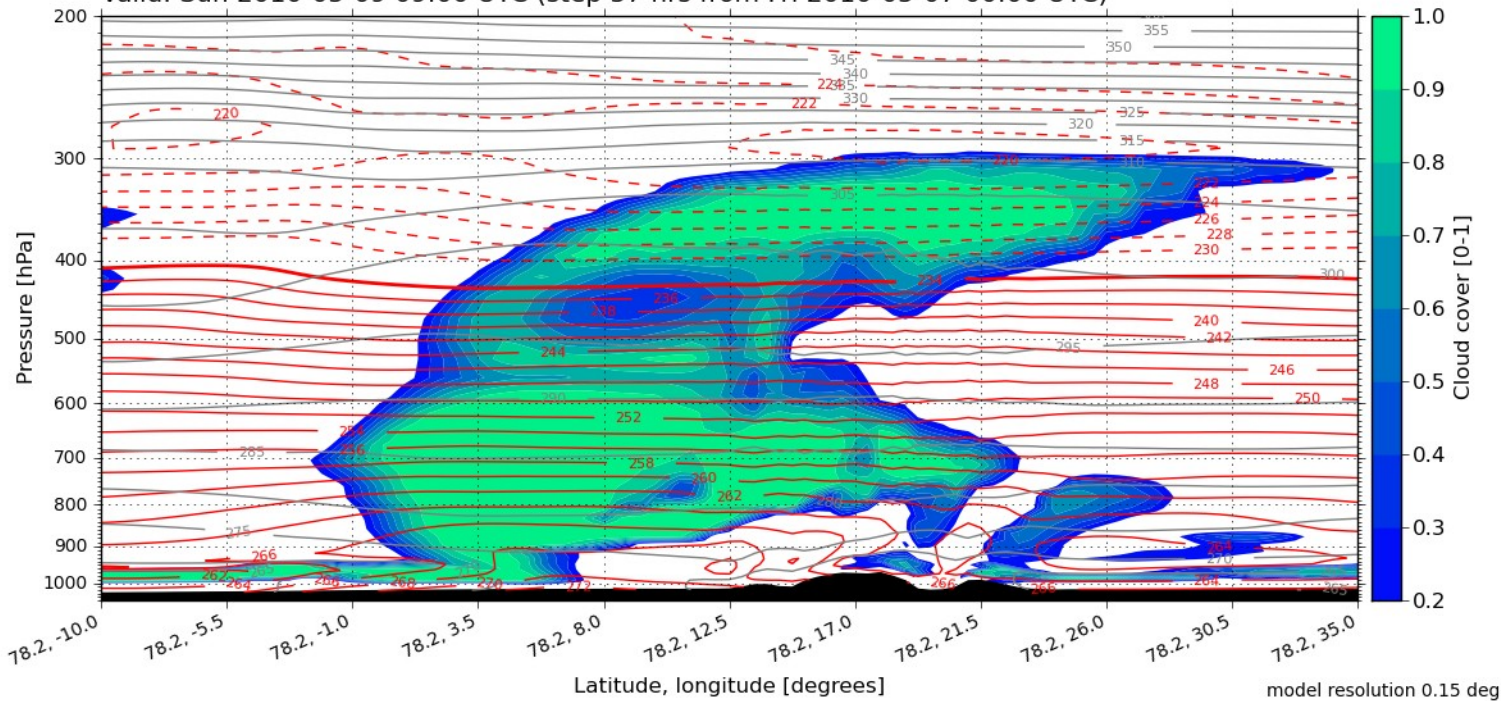
model resolution 0.15 deg

Total Cloud Cover
 Valid: Sun, 09 May 2010, 09 UTC (init: 20100507 00 UTC +057 h)

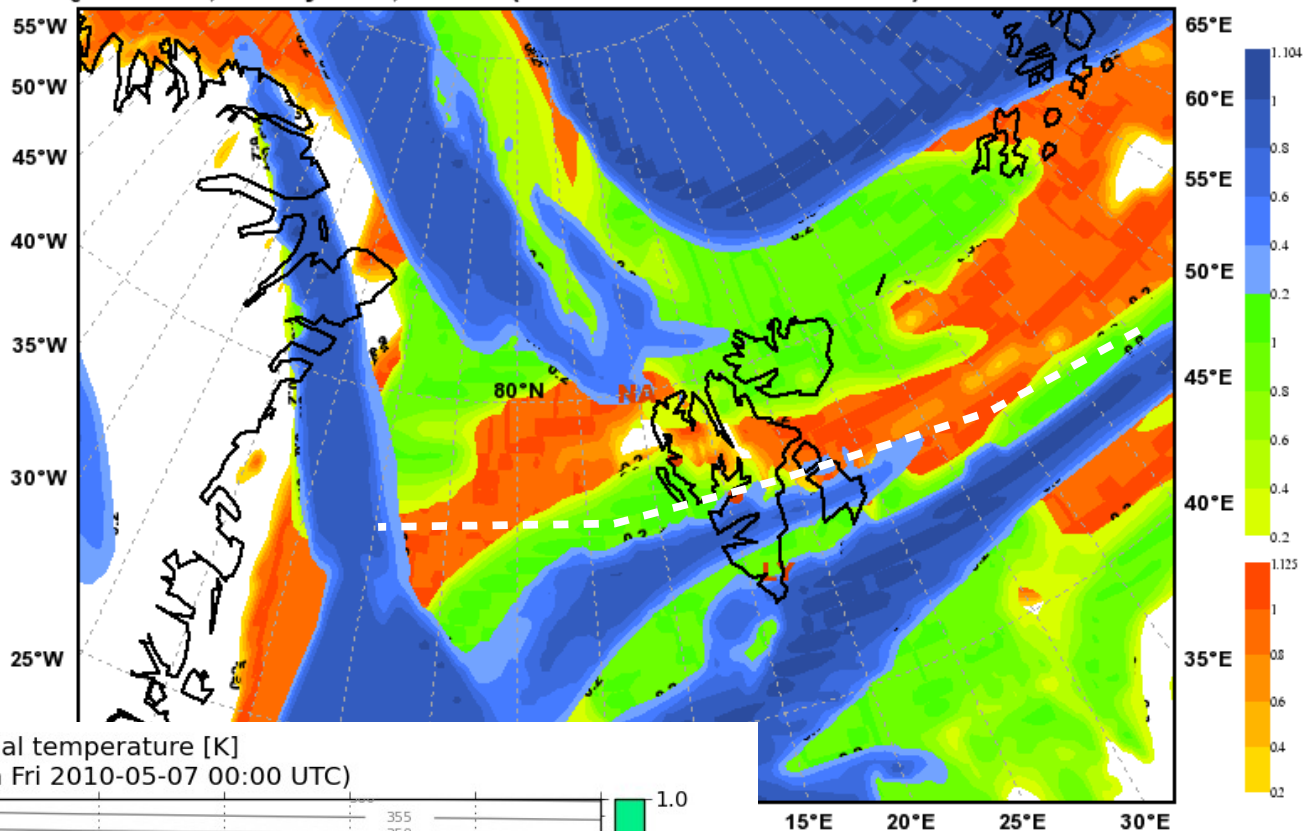


E-W along 78N

Cloud cover [0-1] with temperature [K] and potential temperature [K]
 Valid: Sun 2010-05-09 09:00 UTC (step 57 hrs from Fri 2010-05-07 00:00 UTC)

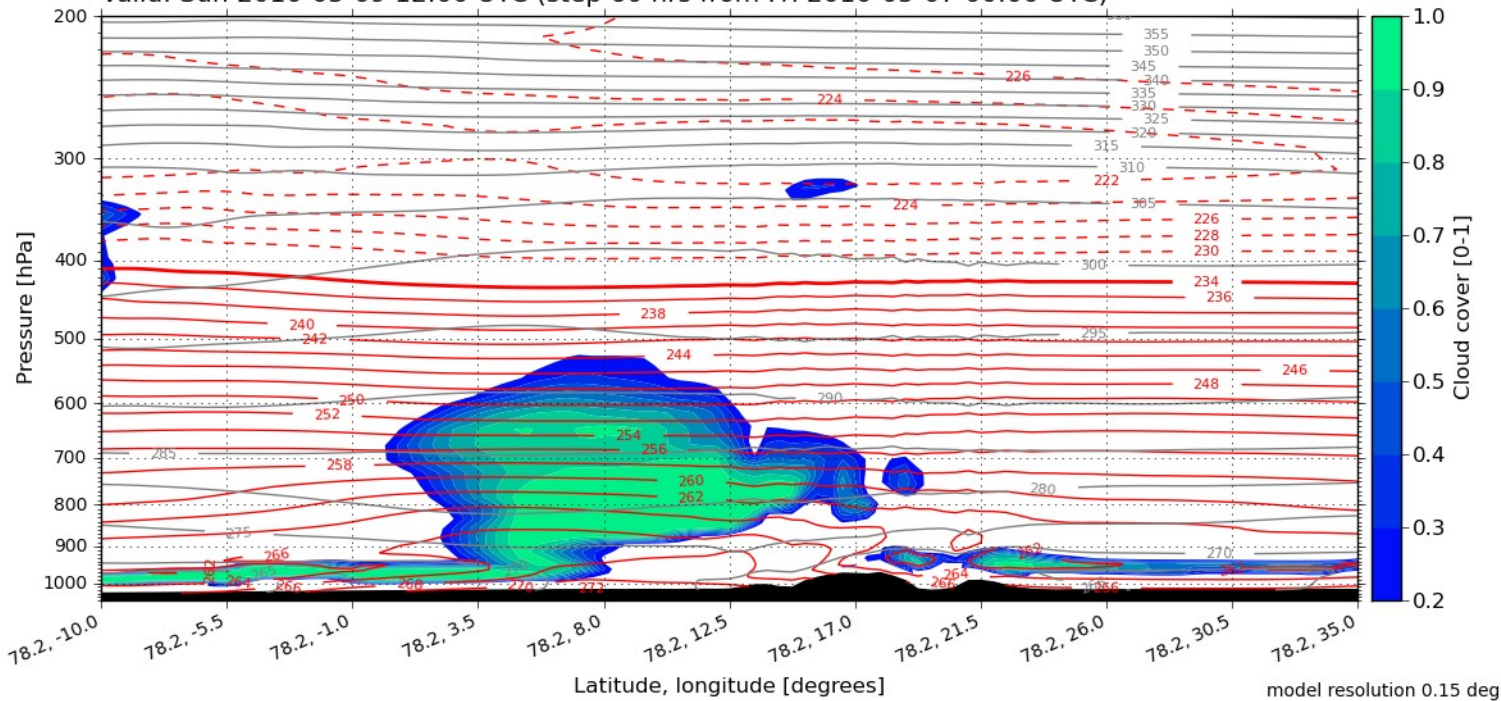


Total Cloud Cover
 Valid: Sun, 09 May 2010, 12 UTC (init: 20100507 00 UTC +060 h)



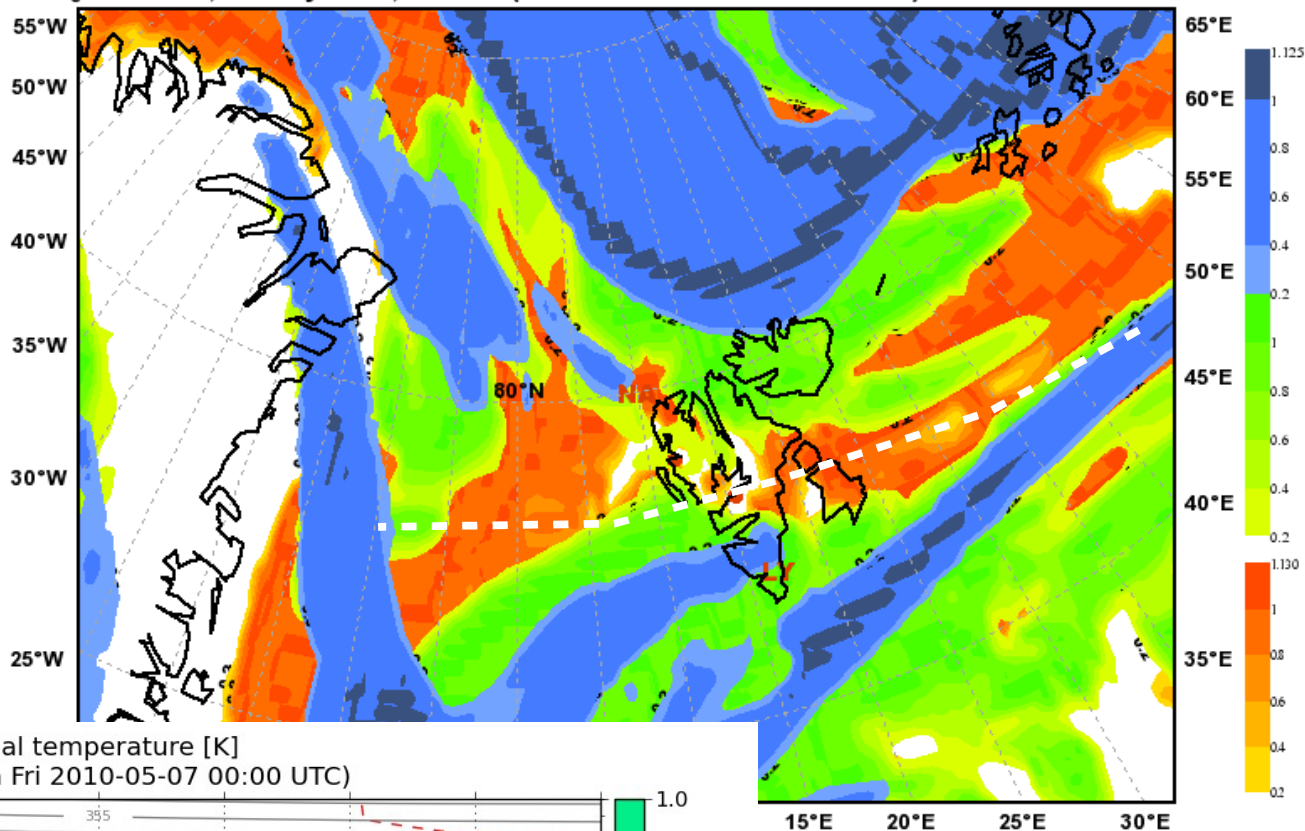
E-W along 78N

Cloud cover [0-1] with temperature [K] and potential temperature [K]
 Valid: Sun 2010-05-09 12:00 UTC (step 60 hrs from Fri 2010-05-07 00:00 UTC)



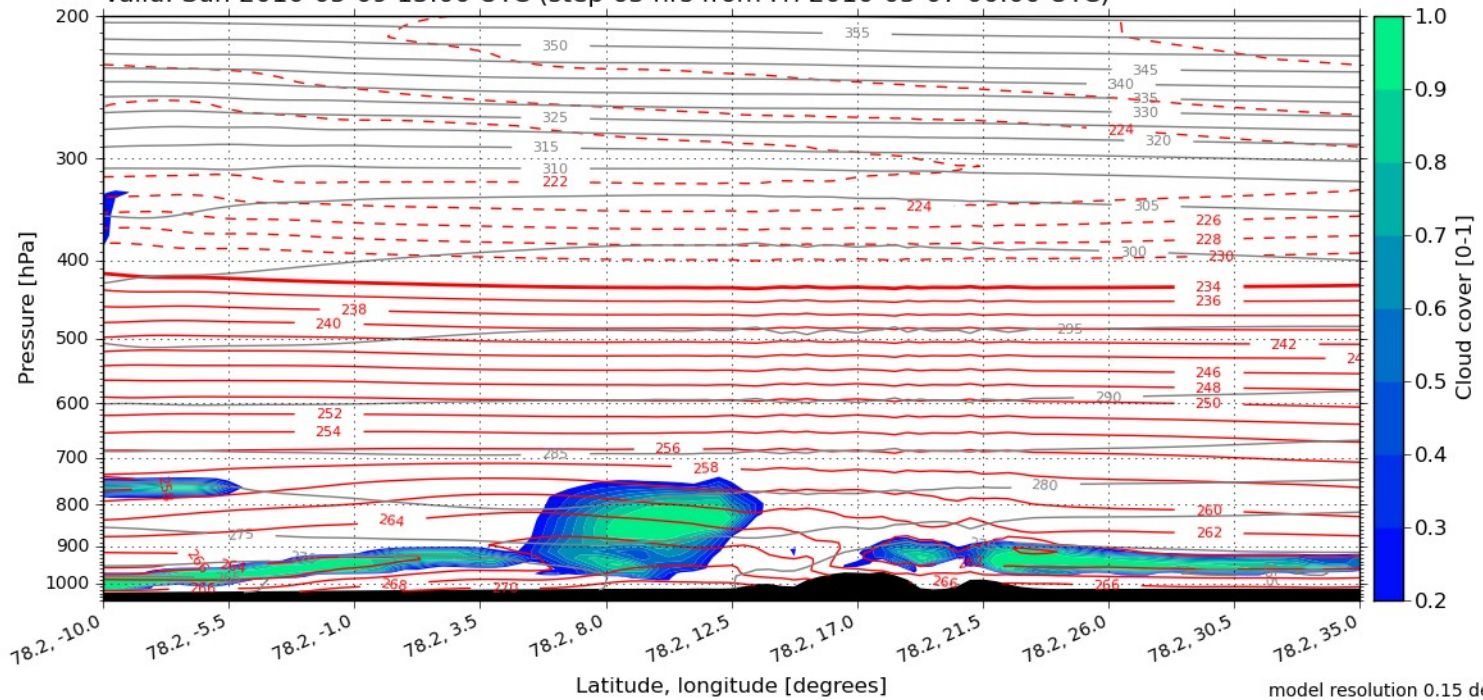
model resolution 0.15 deg

Total Cloud Cover
Valid: Sun, 09 May 2010, 15 UTC (init: 20100507 00 UTC +063 h)



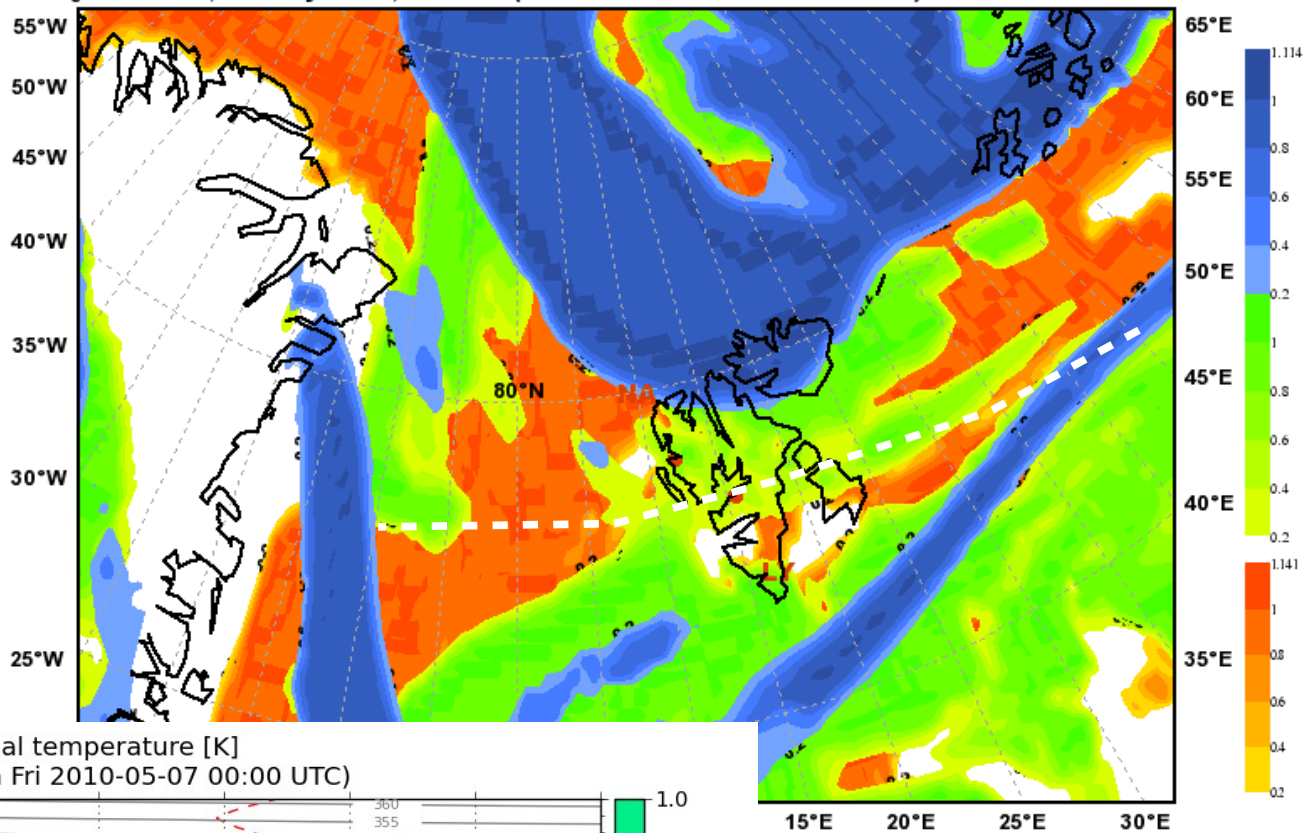
E-W along 78N

Cloud cover [0-1] with temperature [K] and potential temperature [K]
Valid: Sun 2010-05-09 15:00 UTC (step 63 hrs from Fri 2010-05-07 00:00 UTC)



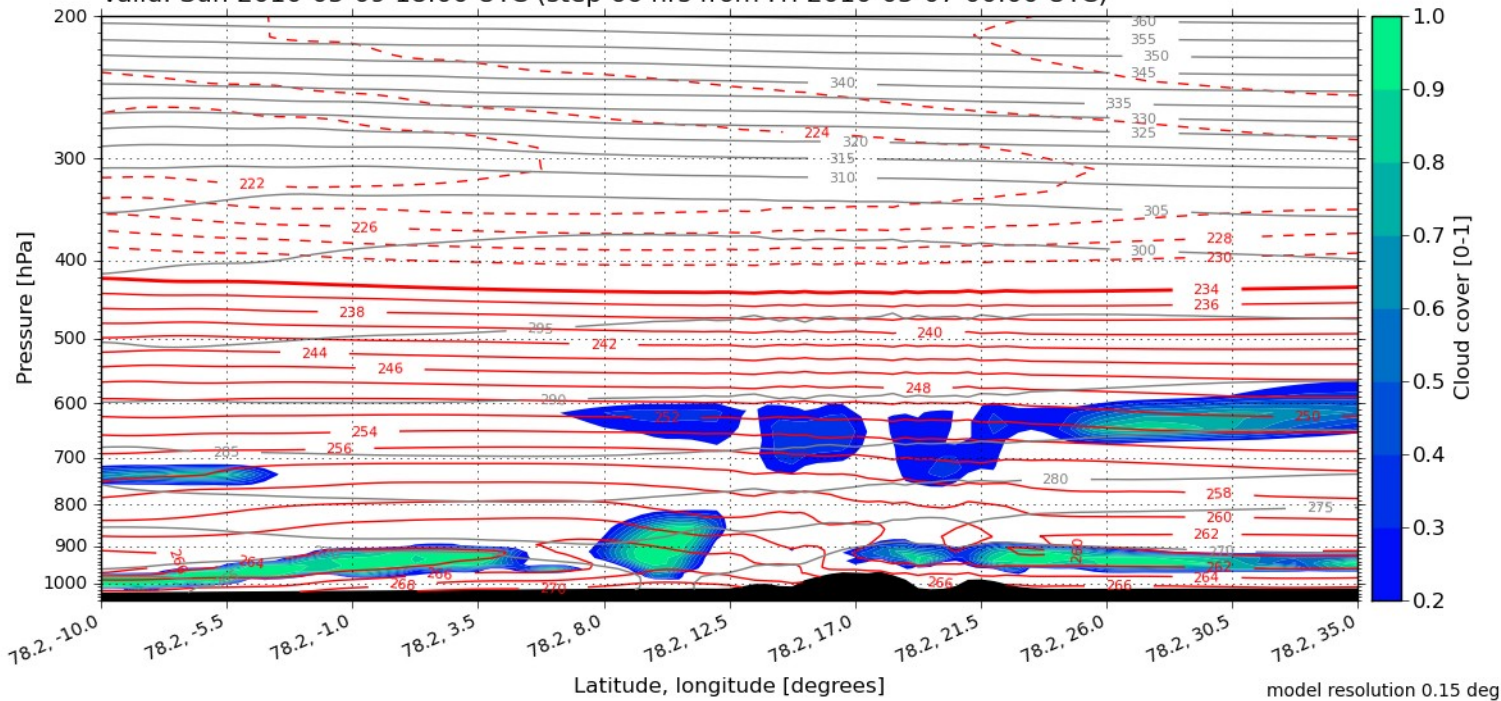
model resolution 0.15 deg

Total Cloud Cover
 Valid: Sun, 09 May 2010, 18 UTC (init: 20100507 00 UTC +066 h)



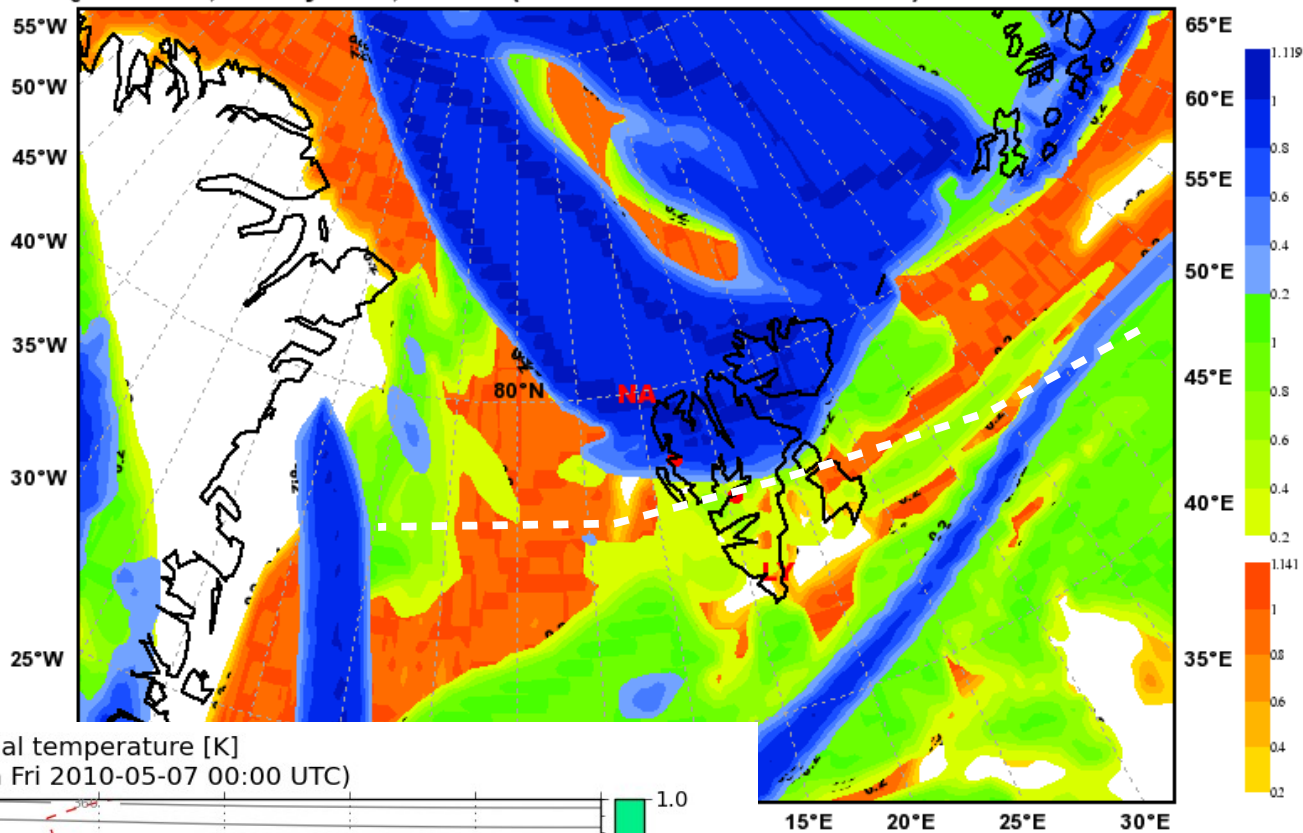
E-W along 78N

Cloud cover [0-1] with temperature [K] and potential temperature [K]
 Valid: Sun 2010-05-09 18:00 UTC (step 66 hrs from Fri 2010-05-07 00:00 UTC)



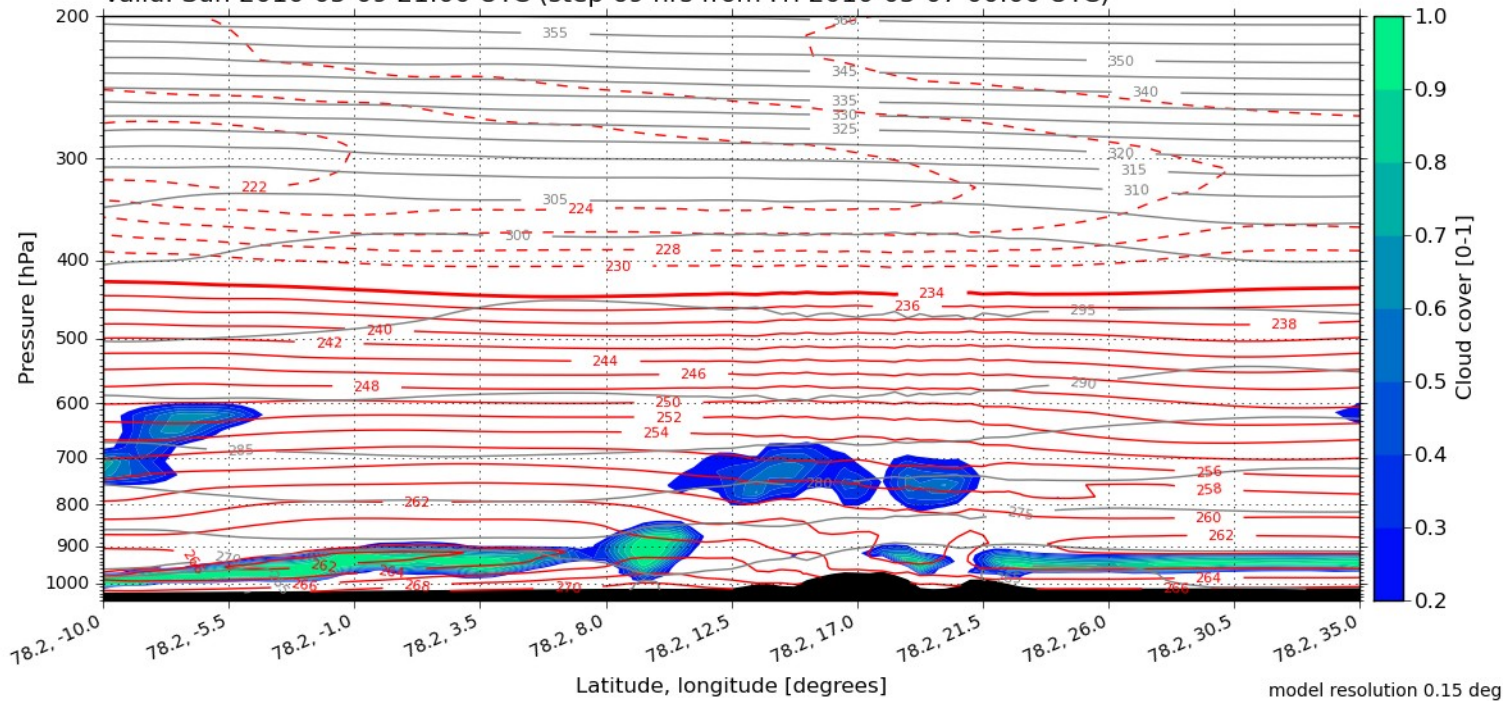
model resolution 0.15 deg

Total Cloud Cover
Valid: Sun, 09 May 2010, 21 UTC (init: 20100507 00 UTC +069 h)

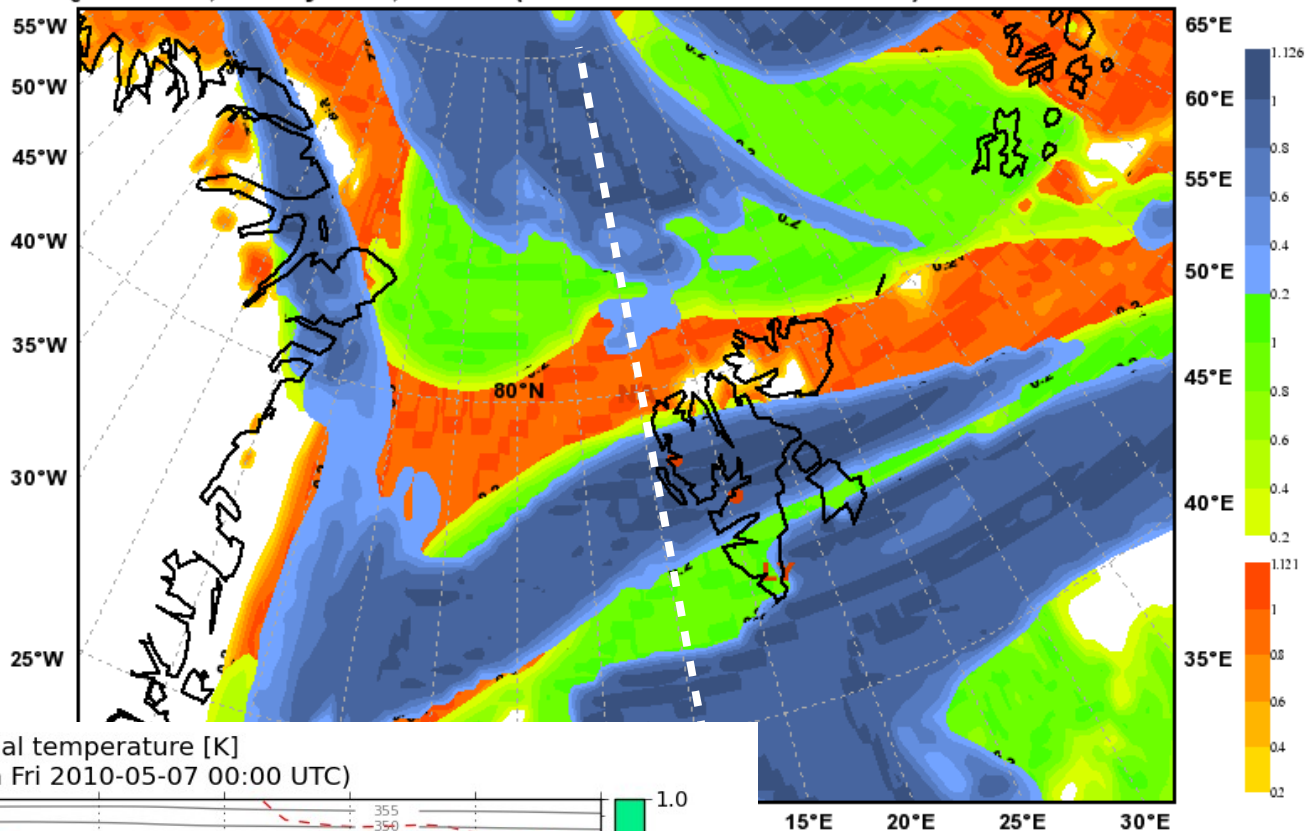


E-W along 78N

Cloud cover [0-1] with temperature [K] and potential temperature [K]
Valid: Sun 2010-05-09 21:00 UTC (step 69 hrs from Fri 2010-05-07 00:00 UTC)

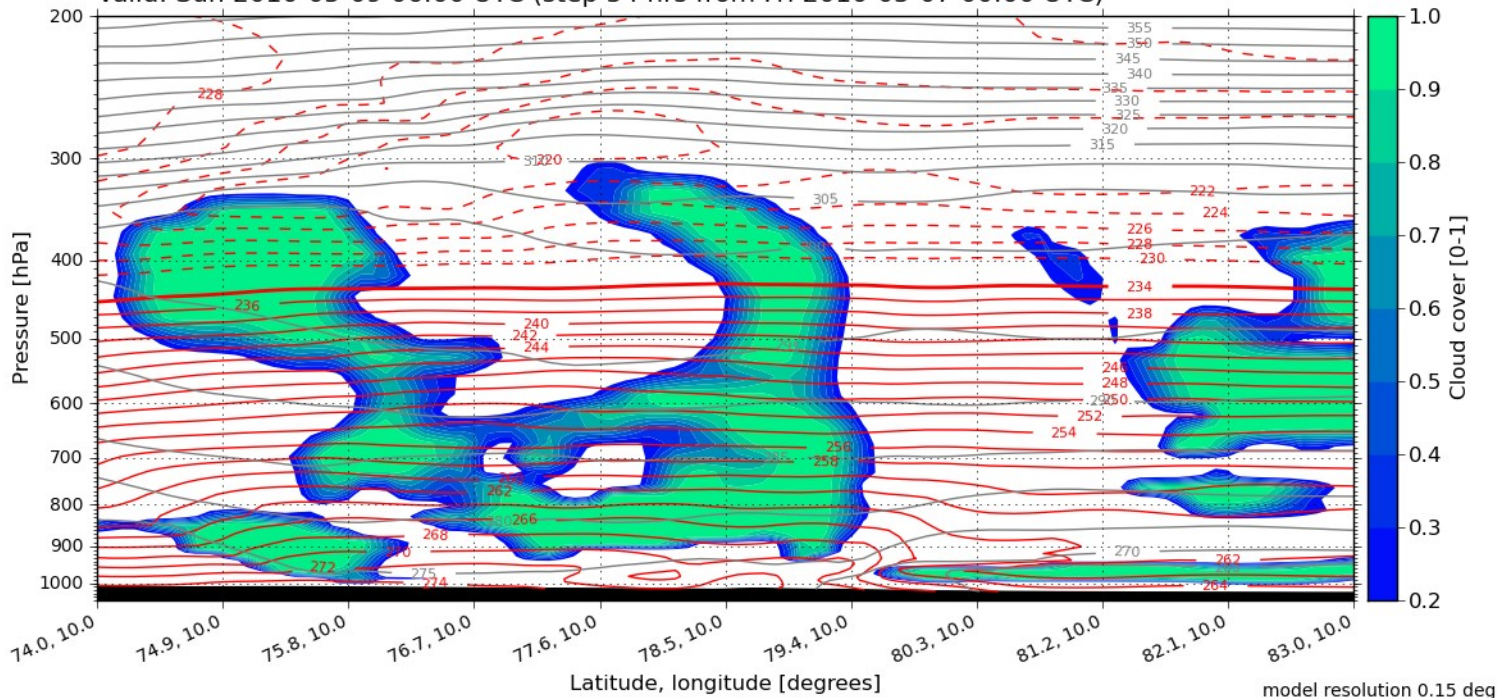


Total Cloud Cover
Valid: Sun, 09 May 2010, 06 UTC (init: 20100507 00 UTC +054 h)



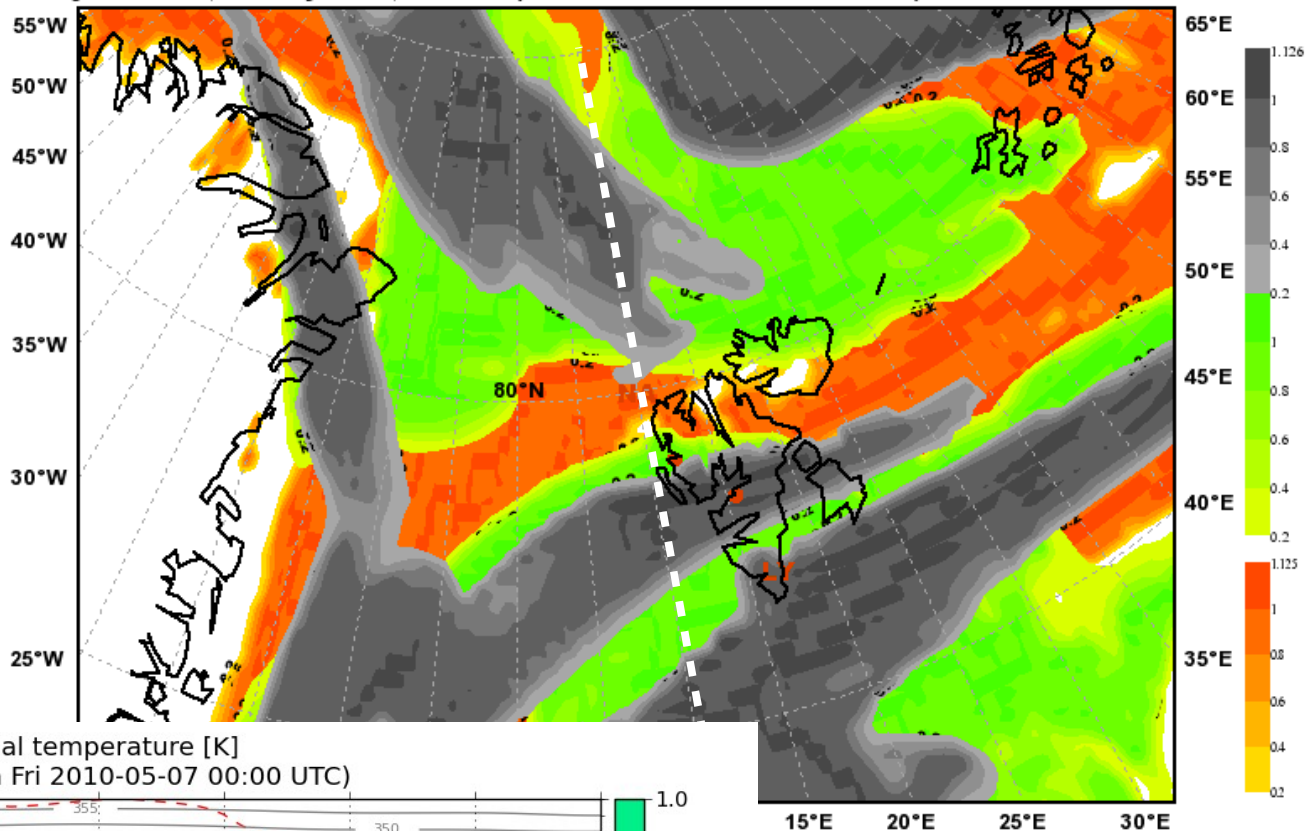
N-S along 10E

Cloud cover [0-1] with temperature [K] and potential temperature [K]
Valid: Sun 2010-05-09 06:00 UTC (step 54 hrs from Fri 2010-05-07 00:00 UTC)



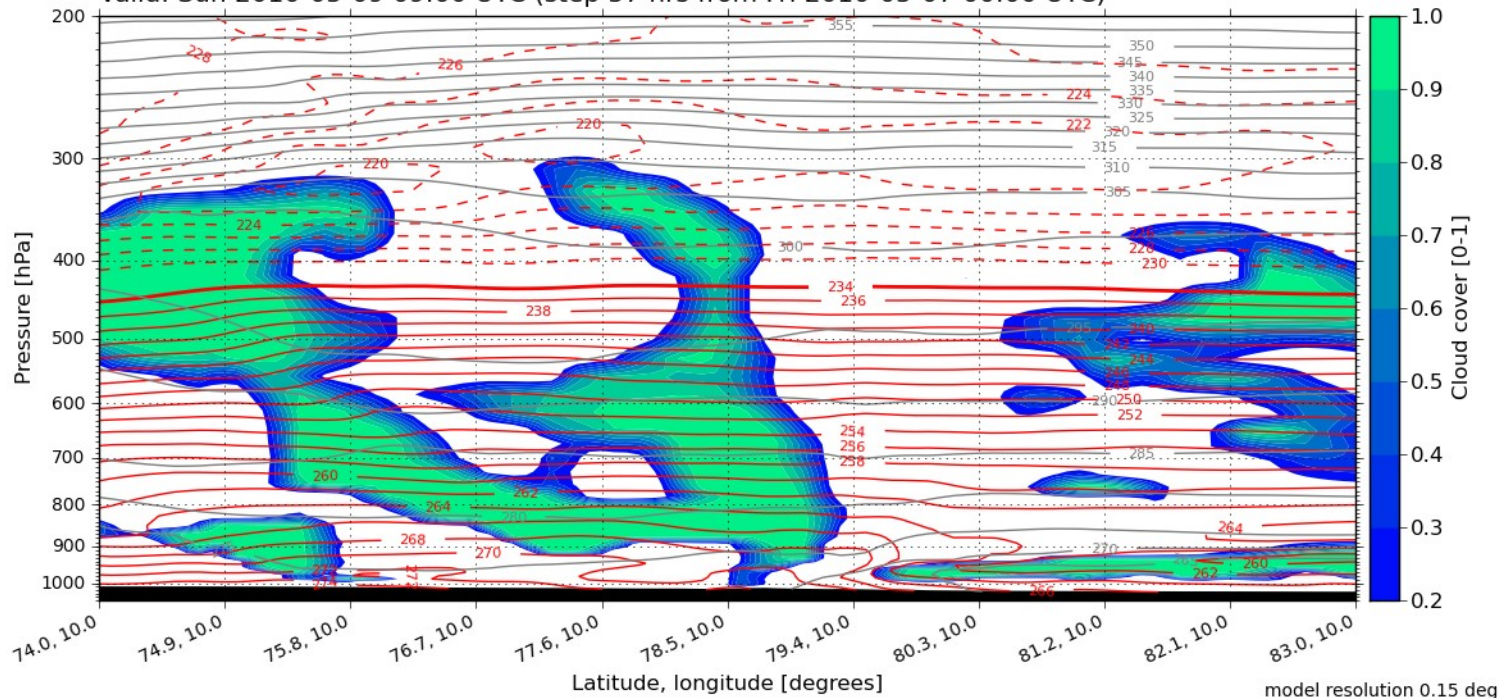
model resolution 0.15 deg

Total Cloud Cover
 Valid: Sun, 09 May 2010, 09 UTC (init: 20100507 00 UTC +057 h)

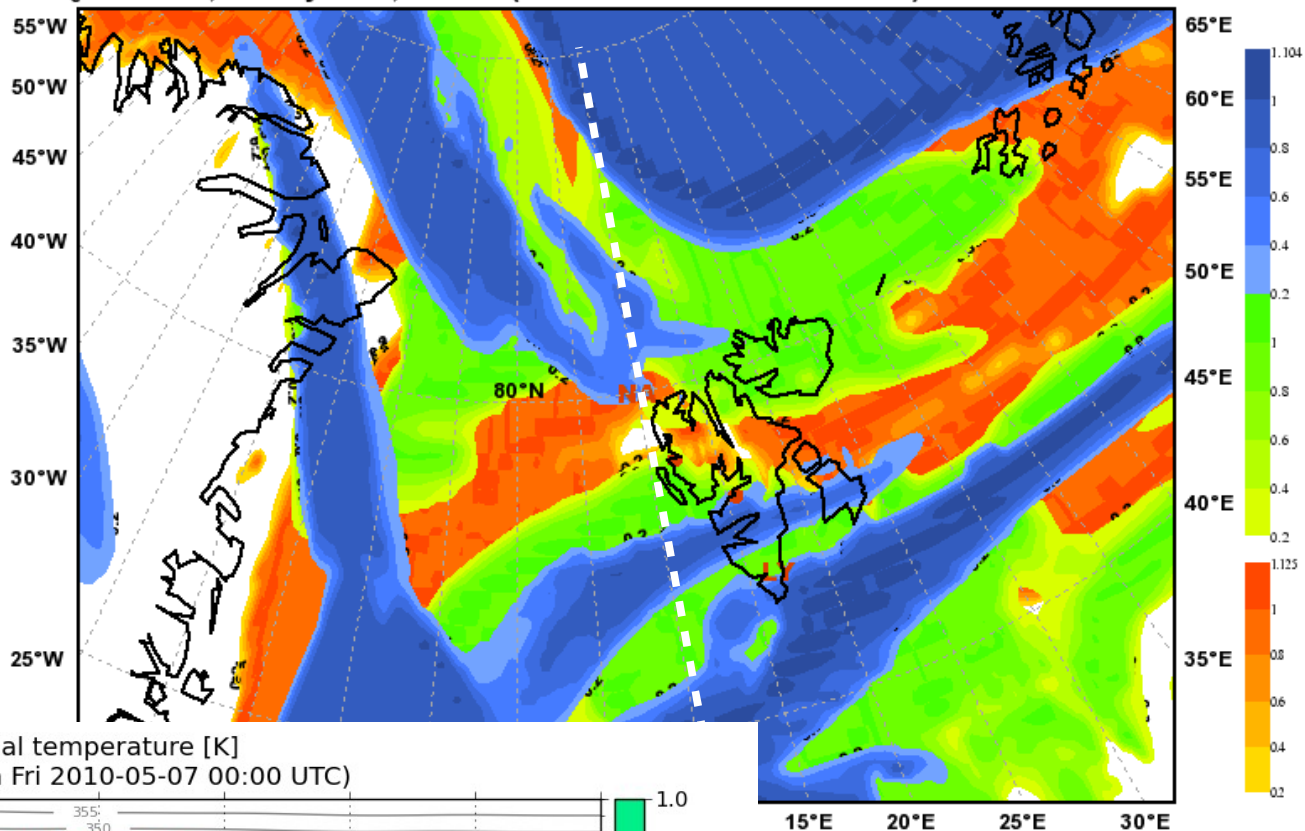


N-S along 10E

Cloud cover [0-1] with temperature [K] and potential temperature [K]
 Valid: Sun 2010-05-09 09:00 UTC (step 57 hrs from Fri 2010-05-07 00:00 UTC)

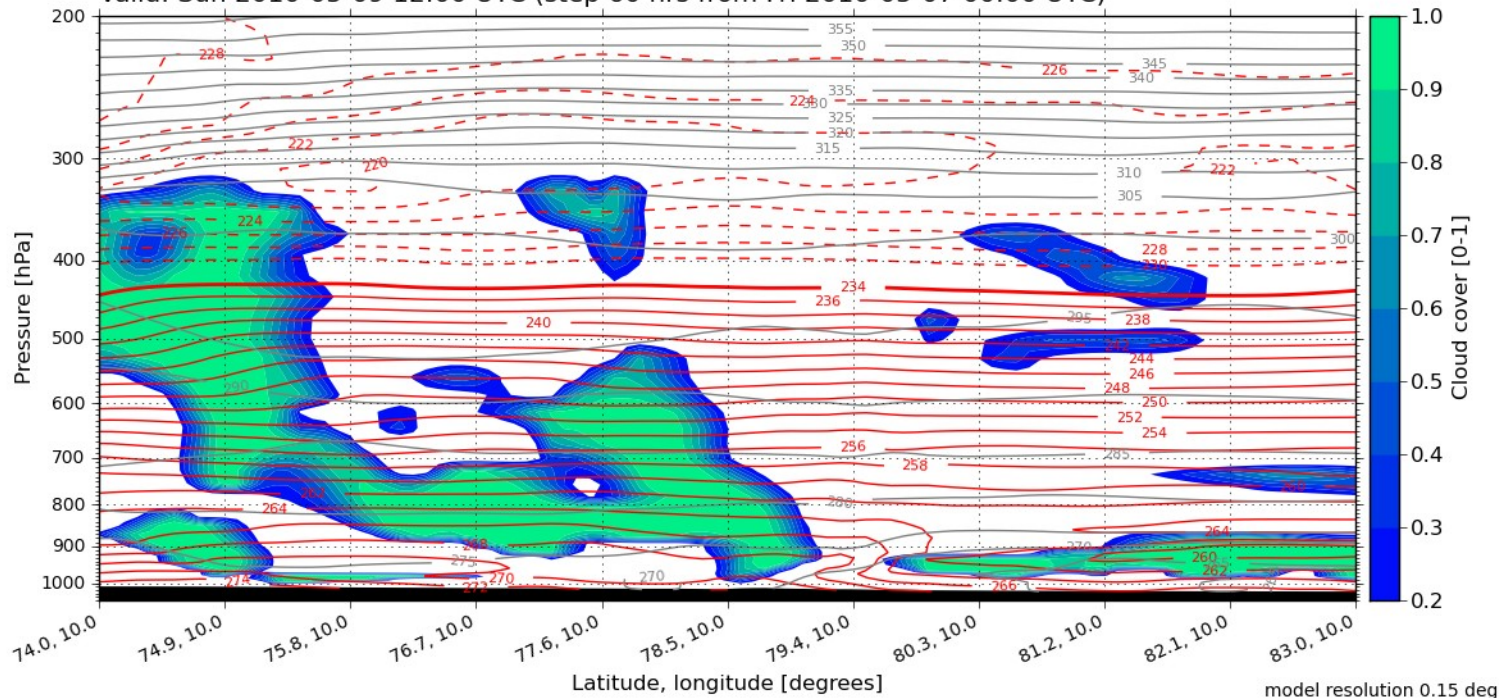


Total Cloud Cover
 Valid: Sun, 09 May 2010, 12 UTC (init: 20100507 00 UTC +060 h)

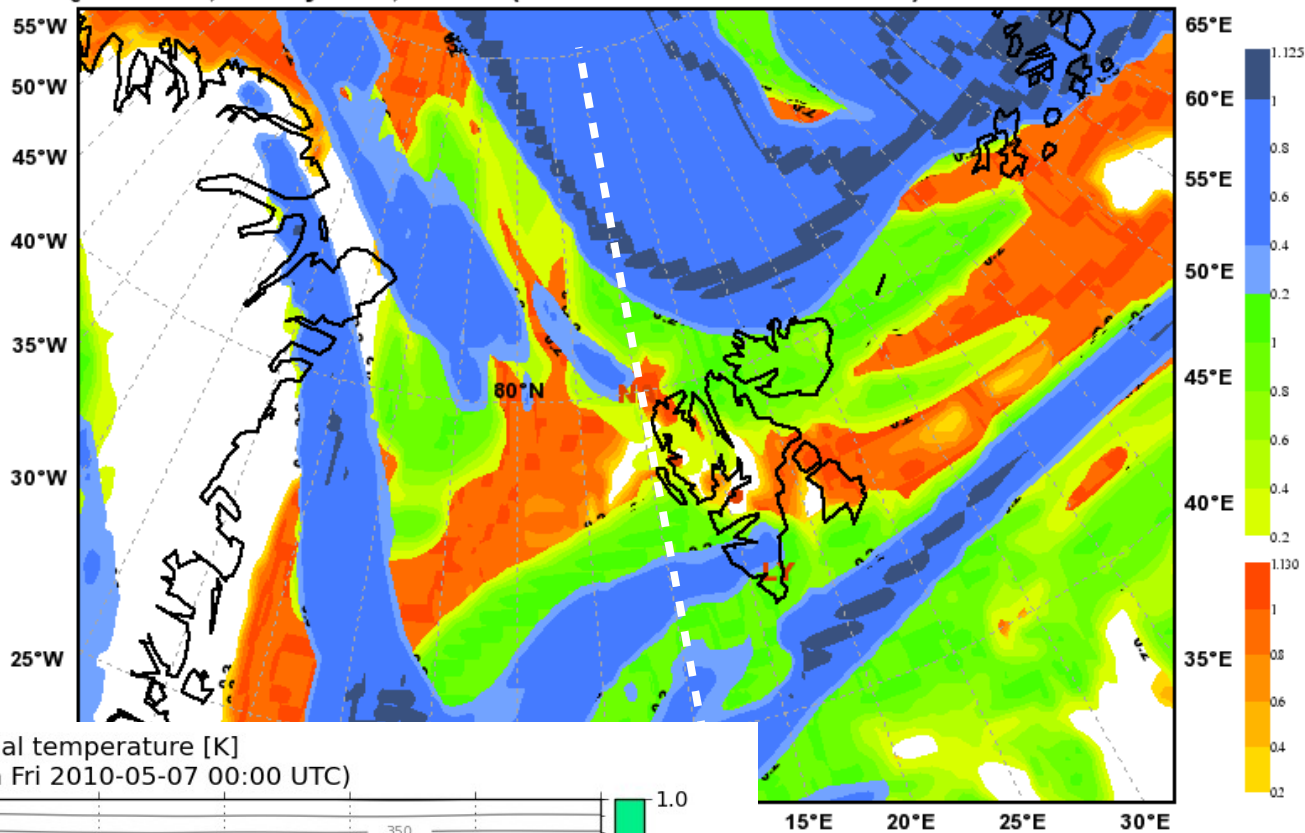


N-S along 10E

Cloud cover [0-1] with temperature [K] and potential temperature [K]
 Valid: Sun 2010-05-09 12:00 UTC (step 60 hrs from Fri 2010-05-07 00:00 UTC)

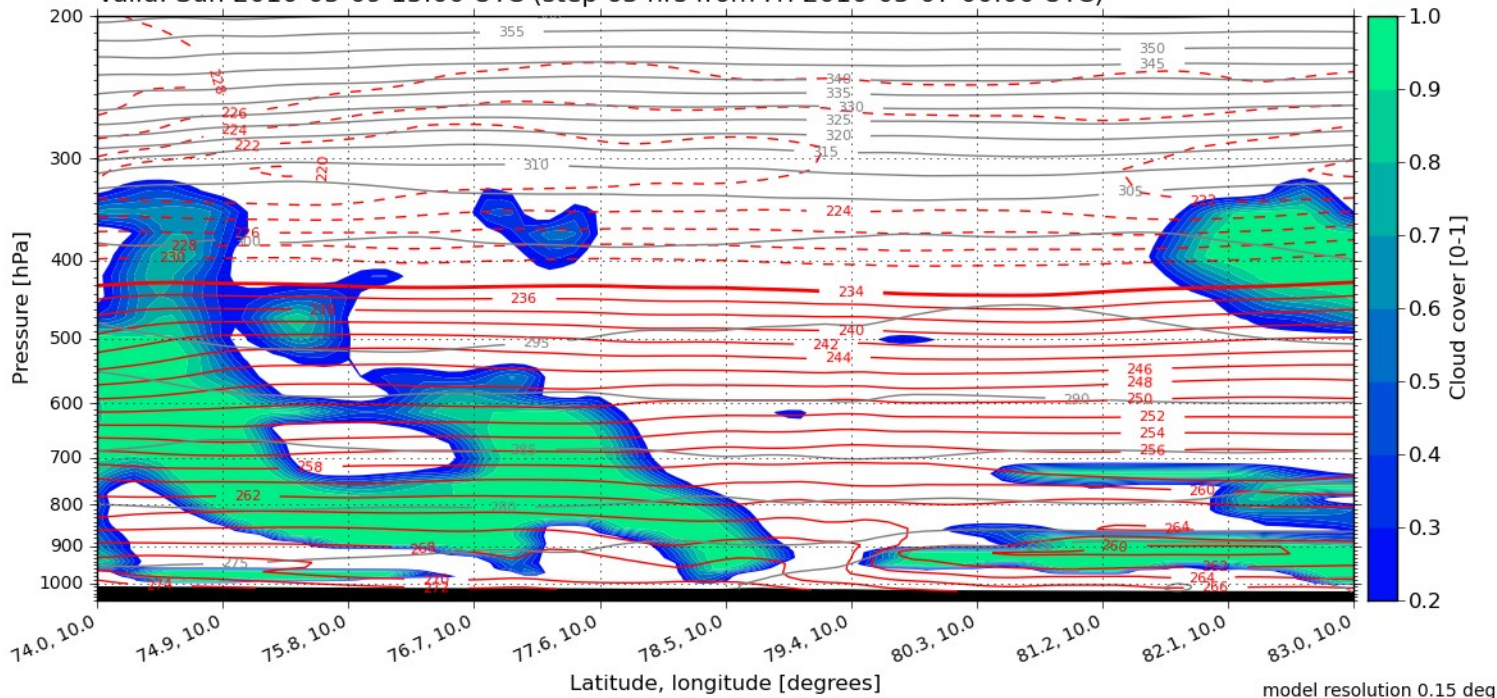


Total Cloud Cover
 Valid: Sun, 09 May 2010, 15 UTC (init: 20100507 00 UTC +063 h)



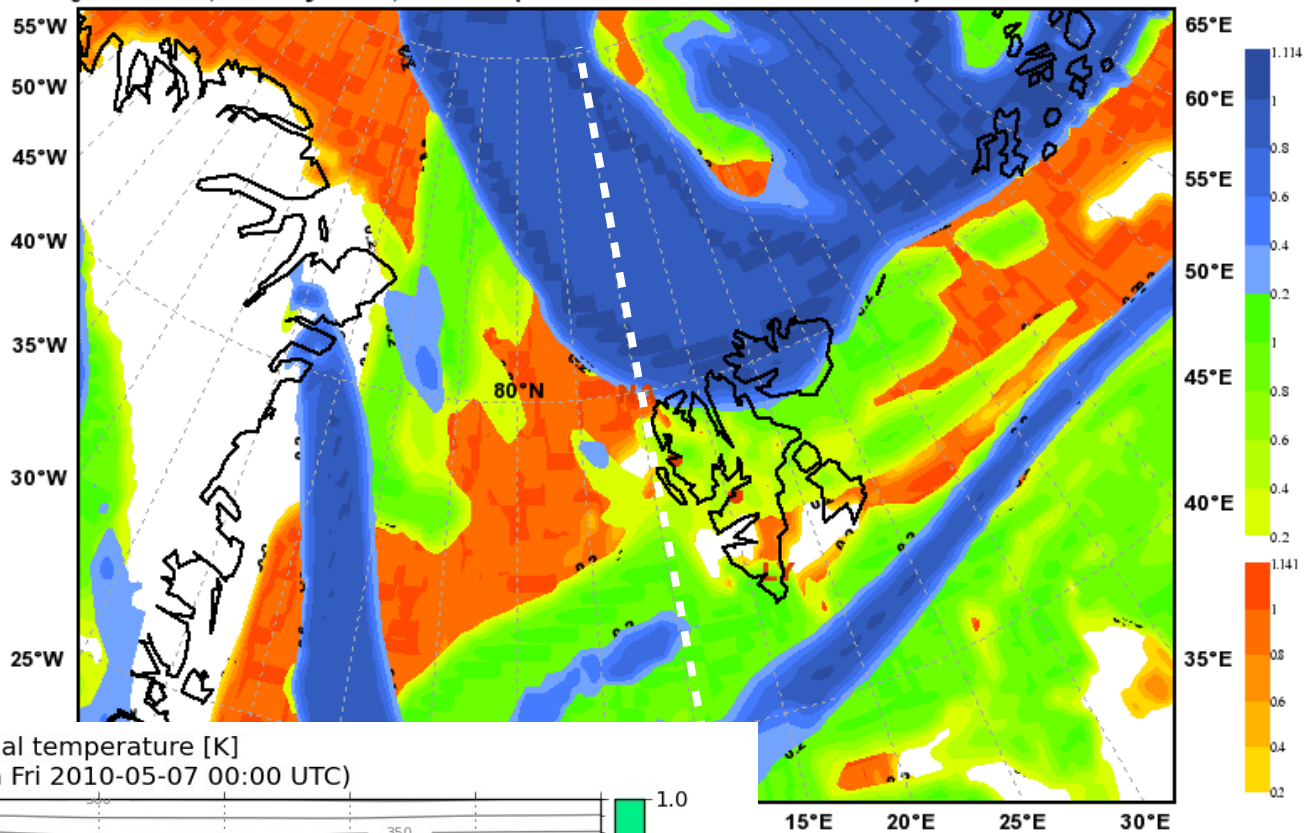
N-S along 10E

Cloud cover [0-1] with temperature [K] and potential temperature [K]
 Valid: Sun 2010-05-09 15:00 UTC (step 63 hrs from Fri 2010-05-07 00:00 UTC)



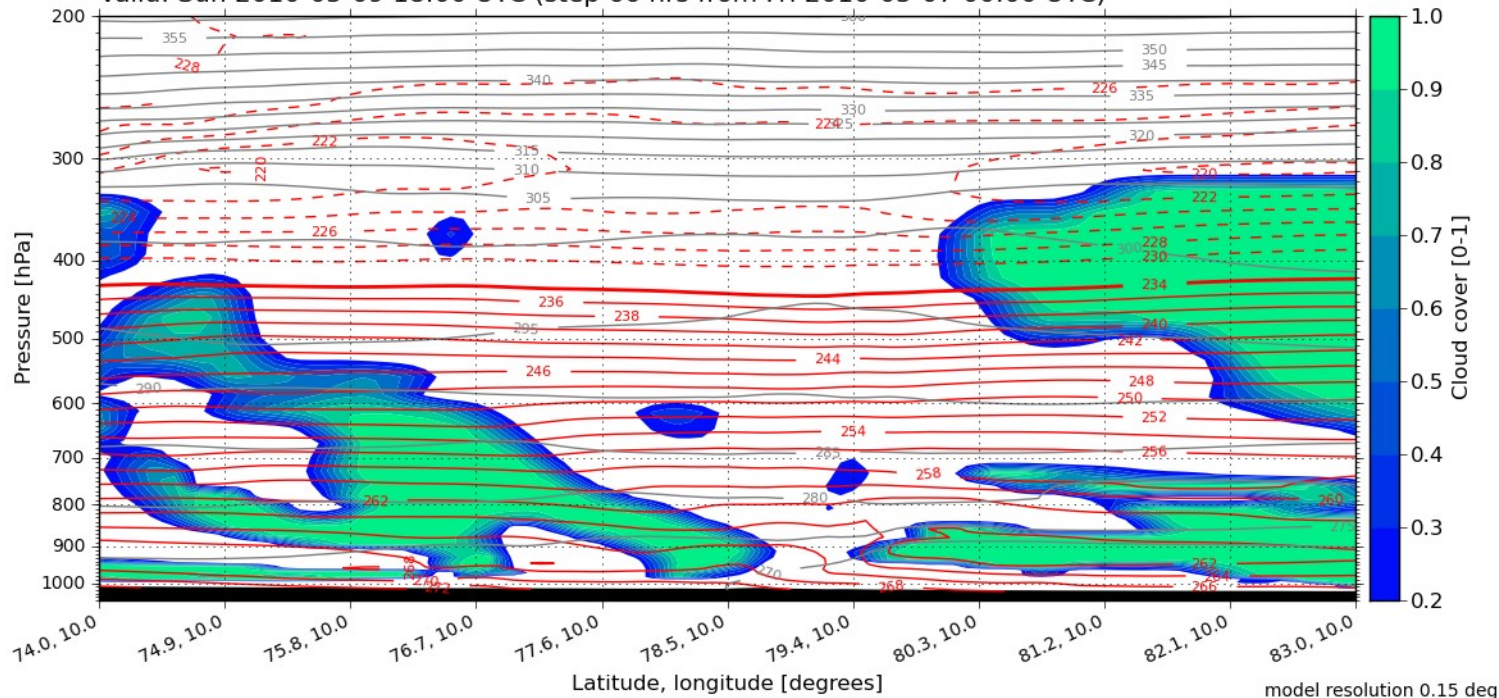
model resolution 0.15 deg

Total Cloud Cover
 Valid: Sun, 09 May 2010, 18 UTC (init: 20100507 00 UTC +066 h)

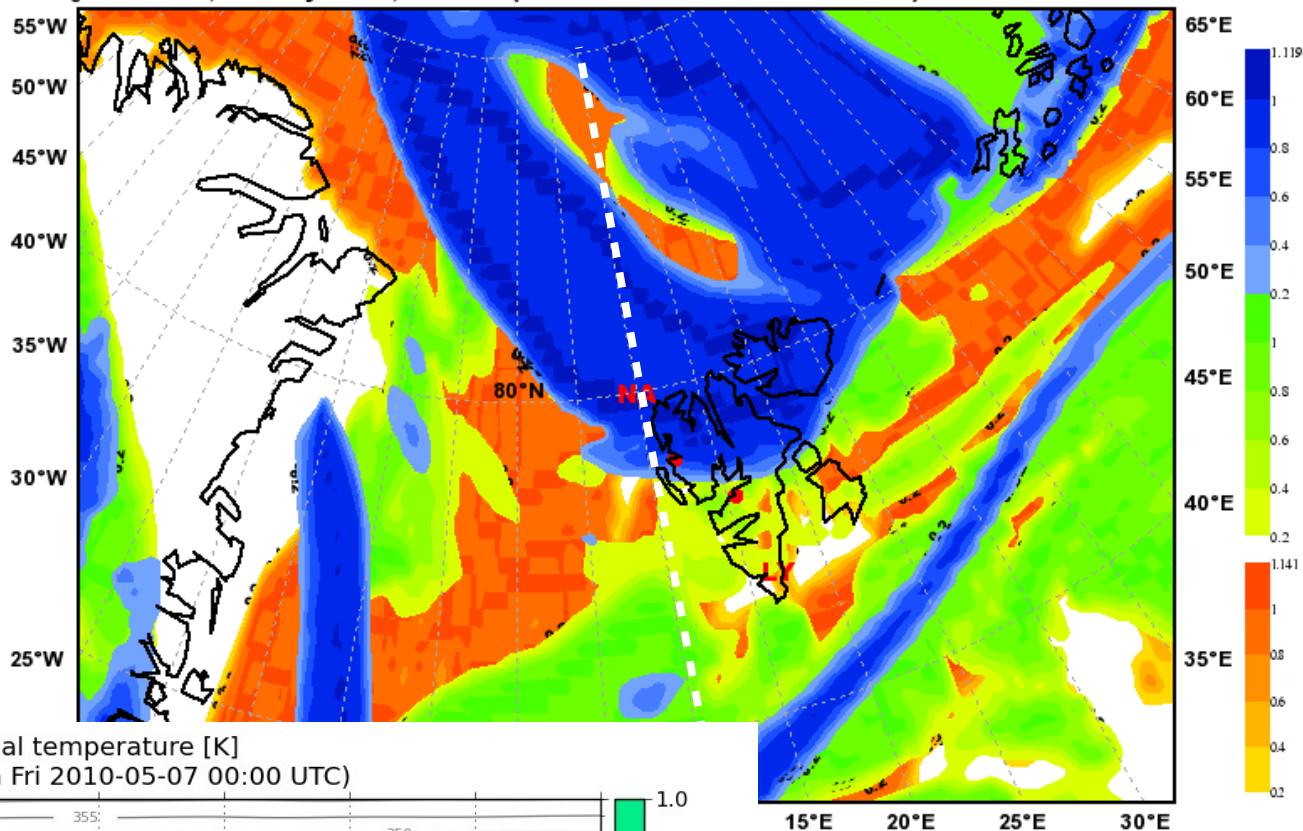


N-S along 10E

Cloud cover [0-1] with temperature [K] and potential temperature [K]
 Valid: Sun 2010-05-09 18:00 UTC (step 66 hrs from Fri 2010-05-07 00:00 UTC)



Total Cloud Cover
Valid: Sun, 09 May 2010, 21 UTC (init: 20100507 00 UTC +069 h)



N-S along 10E

Cloud cover [0-1] with temperature [K] and potential temperature [K]
Valid: Sun 2010-05-09 21:00 UTC (step 69 hrs from Fri 2010-05-07 00:00 UTC)

