

Weather Forecast

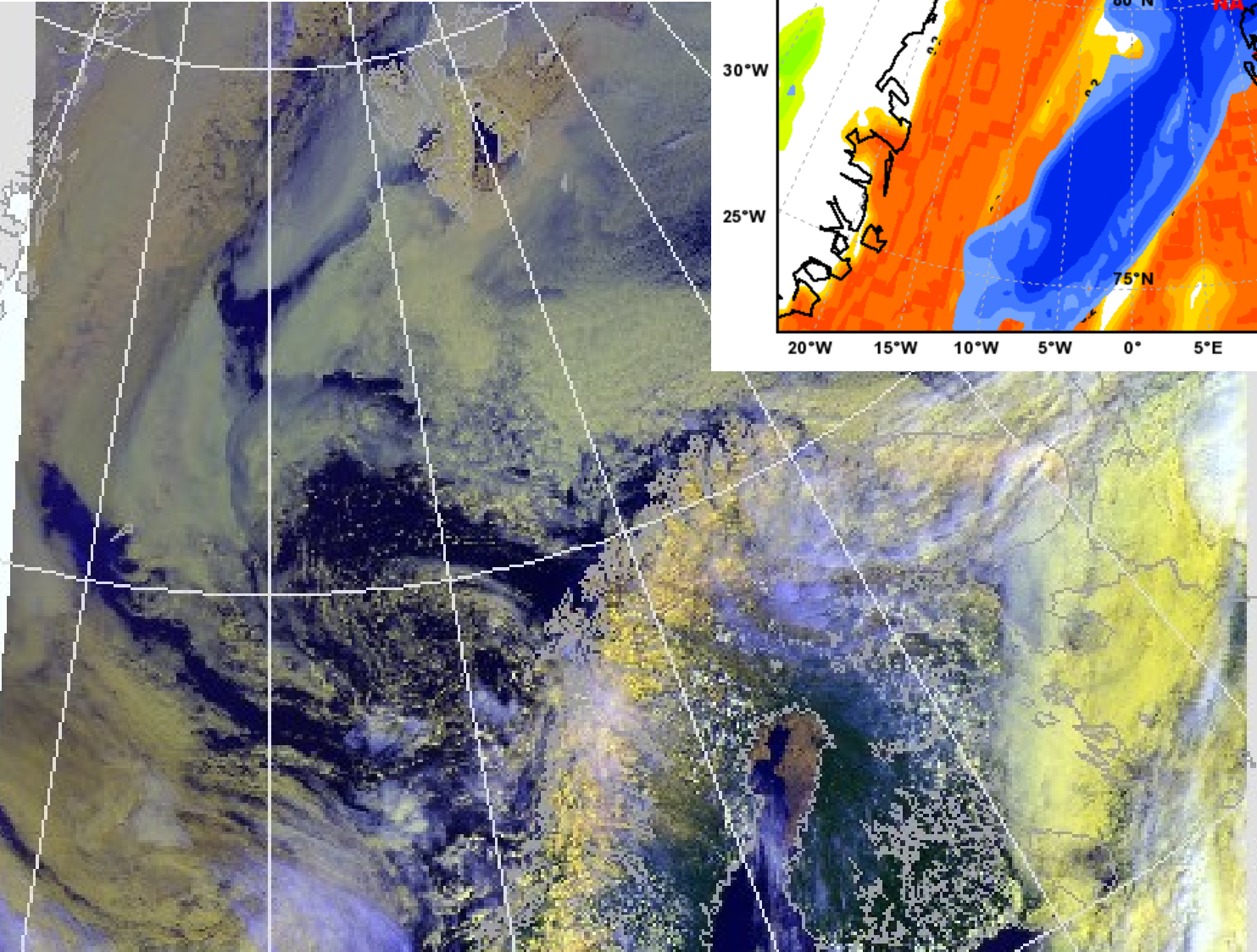
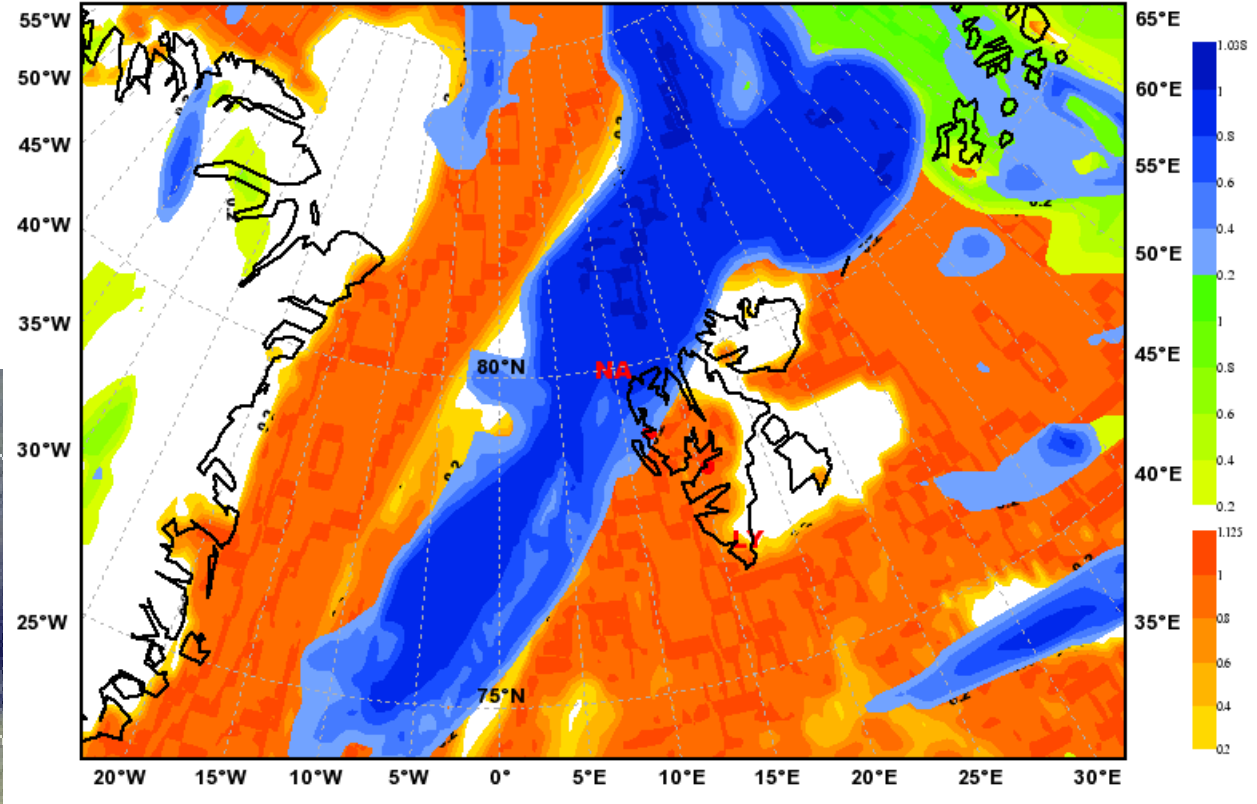
Wednesday May 05, 2010

Marc Rautenhaus, DLR/IPA

Satellite vs. ECMWF clouds

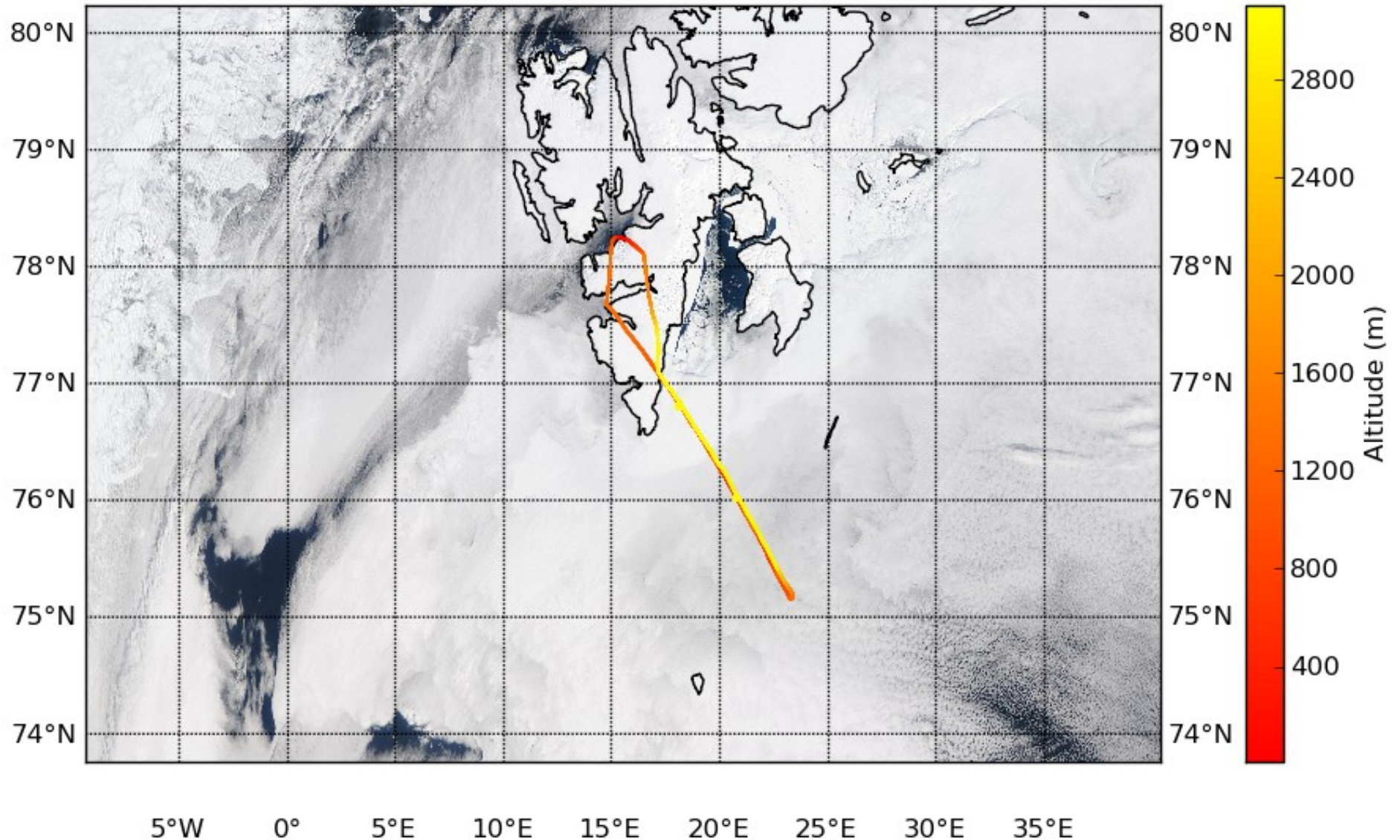
09 UTC (11 local)
10:51 local

Total Cloud Cover
gvalid: Wed, 05 May 2010, 09 UTC (init: 20100505 00 UTC +009 h)



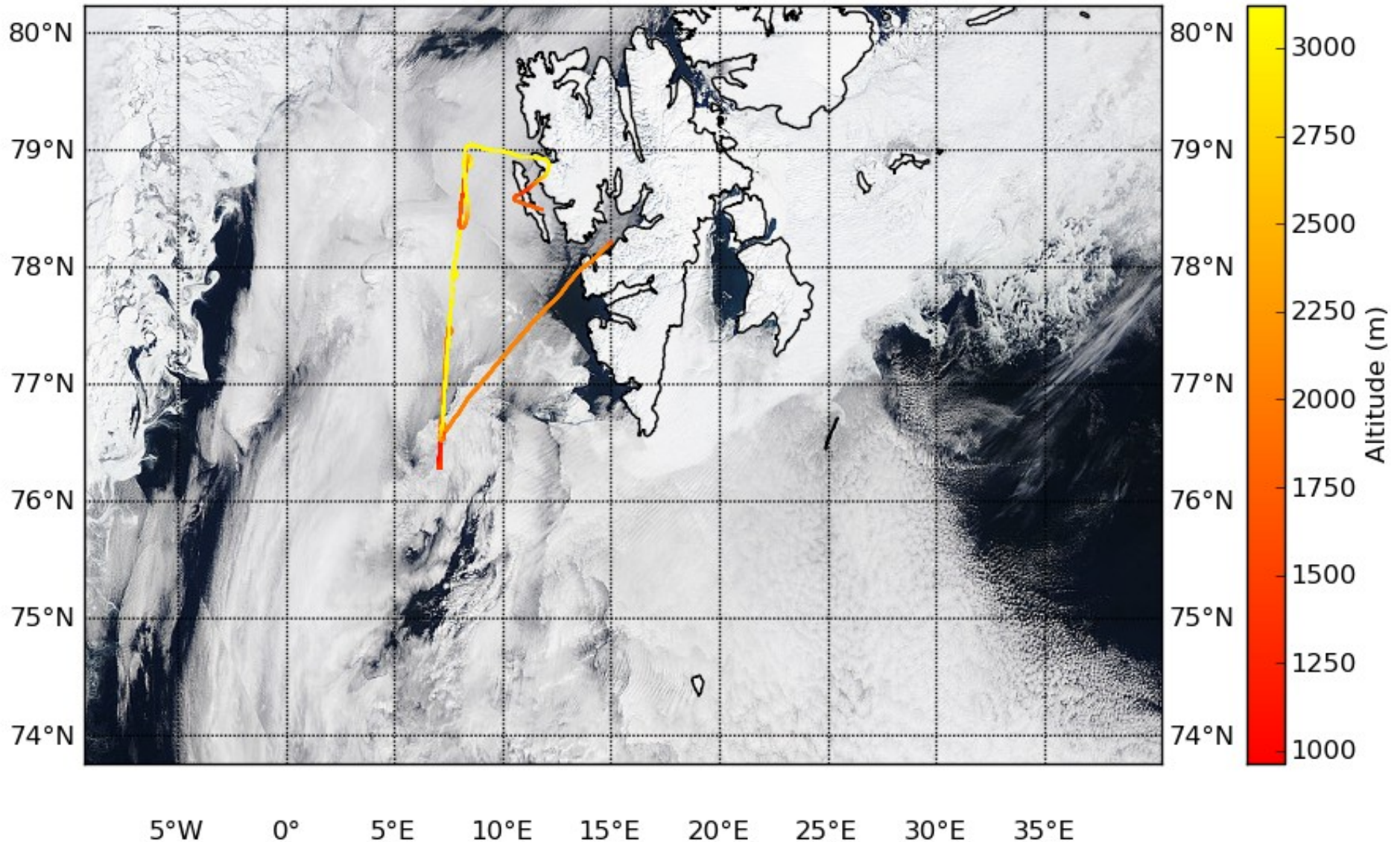
Flight track Wednesday, May 05.

POLAR 5 flight from 2010/05/05, 07:35 UTC to 10:49 UTC
AQUA Modis image from 08:10, 08:15 UTC



Flight track Tuesday, May 04.

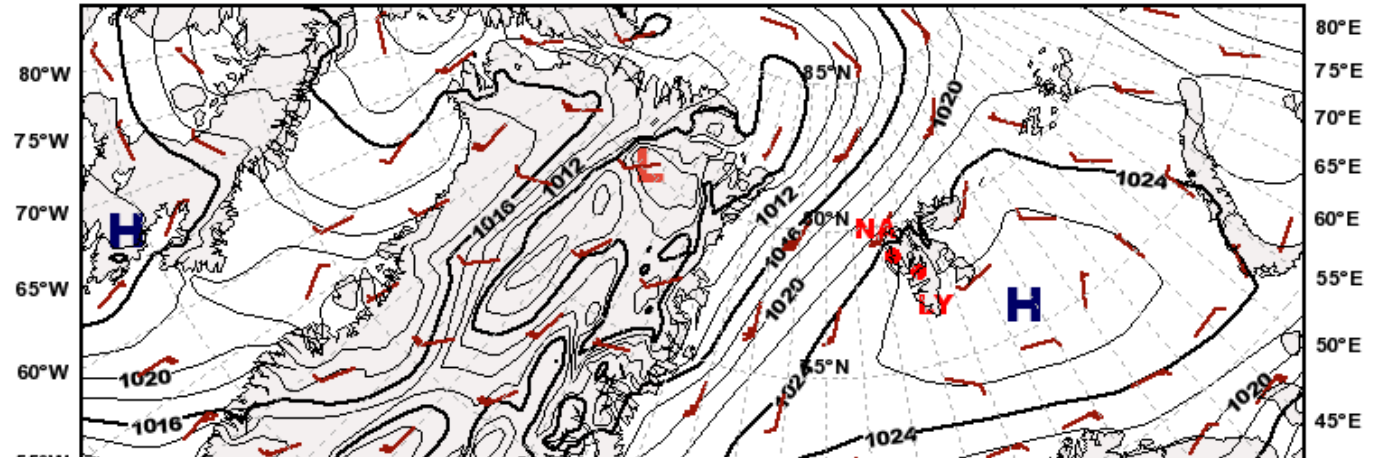
POLAR 5 flight from 2010/05/04, 08:20 UTC to 13:33 UTC
AQUA Modis image from 09:05, 09:10, 10:45, 10:50, 12:25 UTC



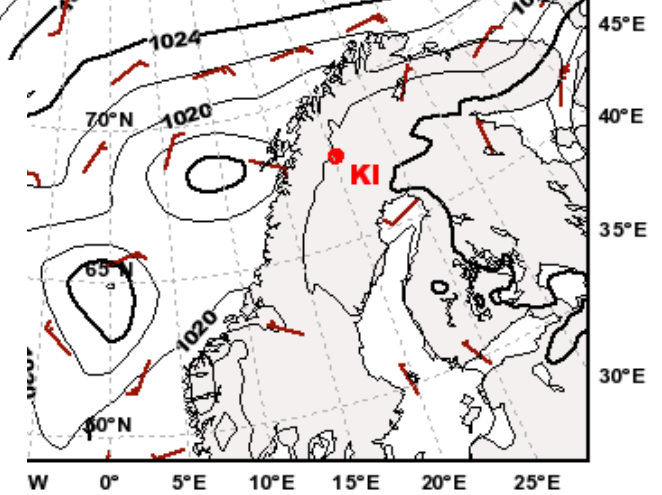
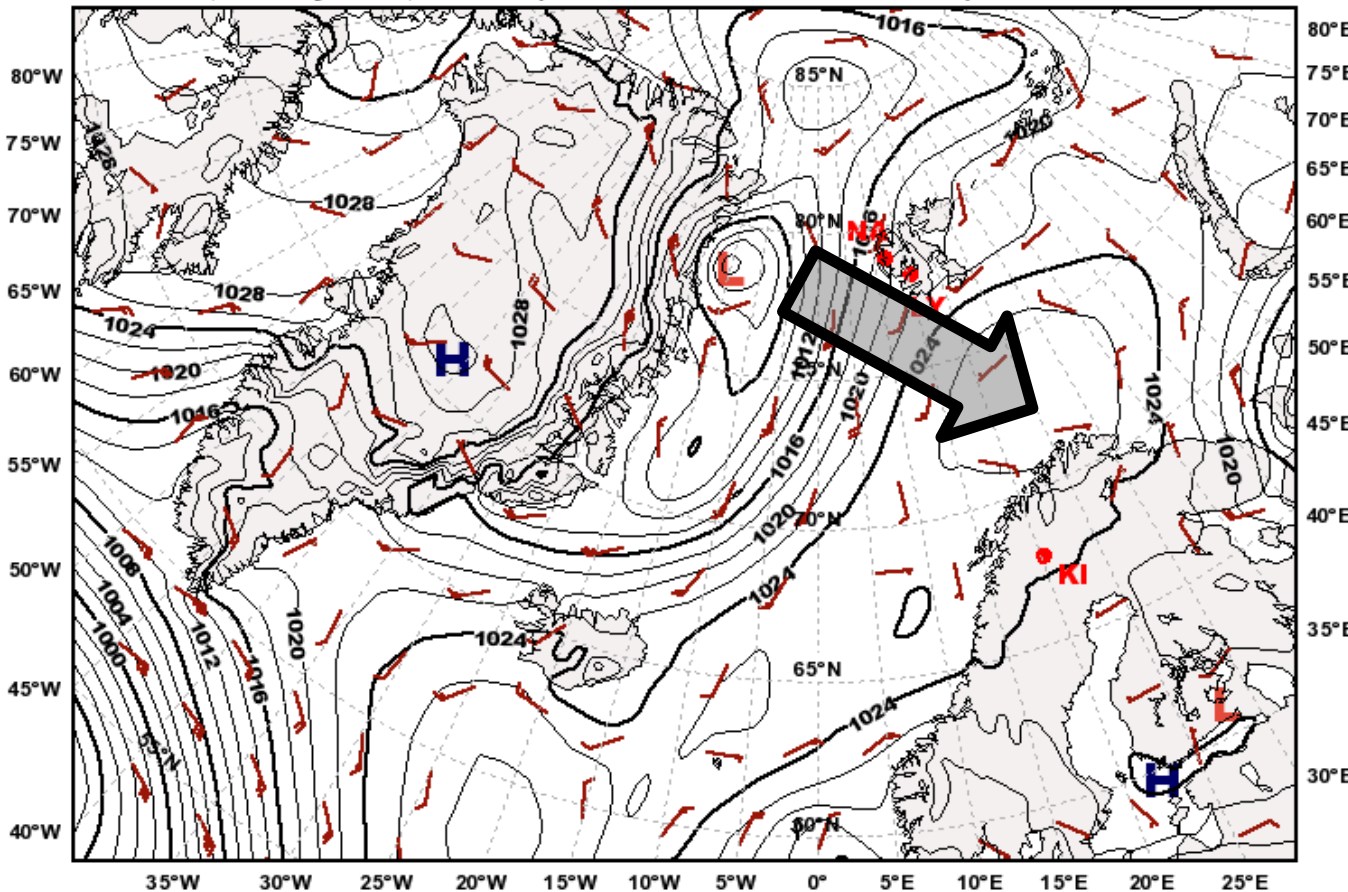
Thursday to Sunday

Mean Sea Level Pressure
valid: Wed, 05 May 2010, 12 UTC (init: 20100505 00 UTC +012 h)

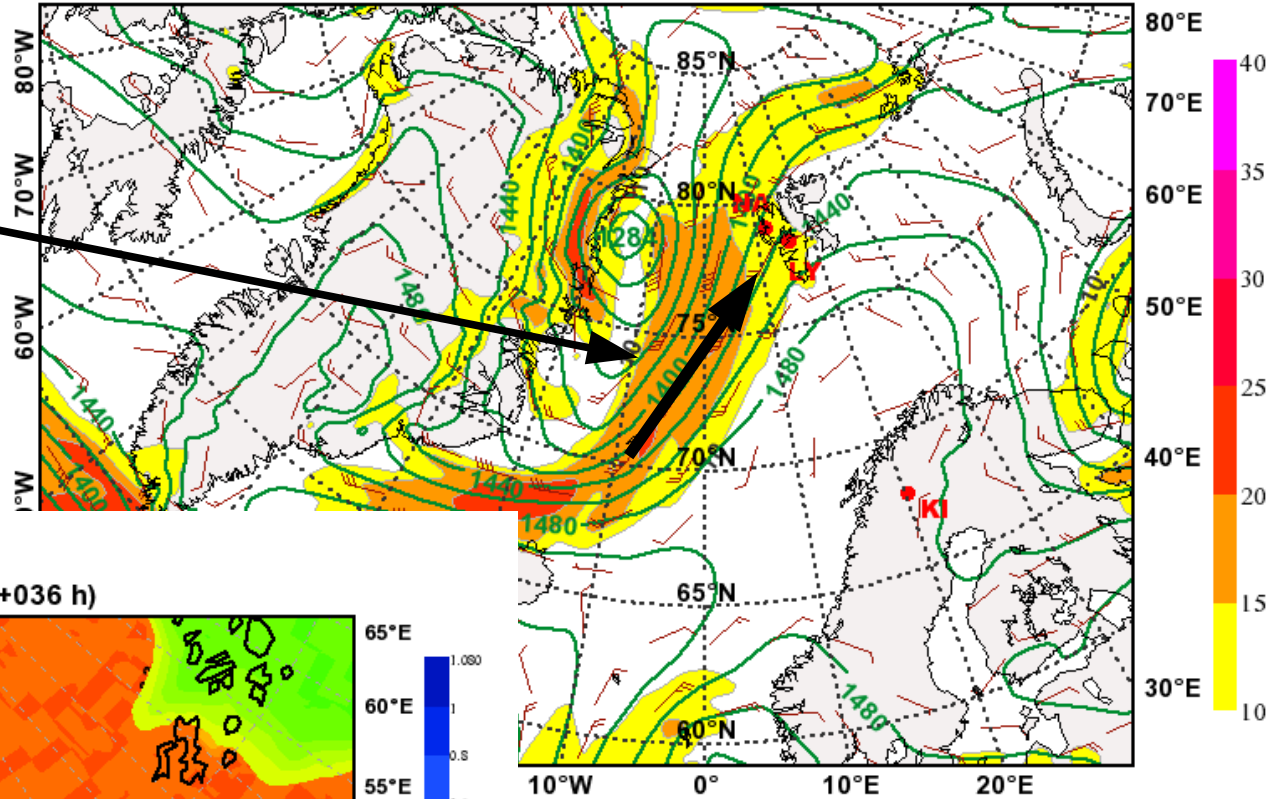
High pressure system pushed southeastward by approaching cyclone.



Mean Sea Level Pressure
valid: Thu, 06 May 2010, 12 UTC (init: 20100505 00 UTC +036 h)

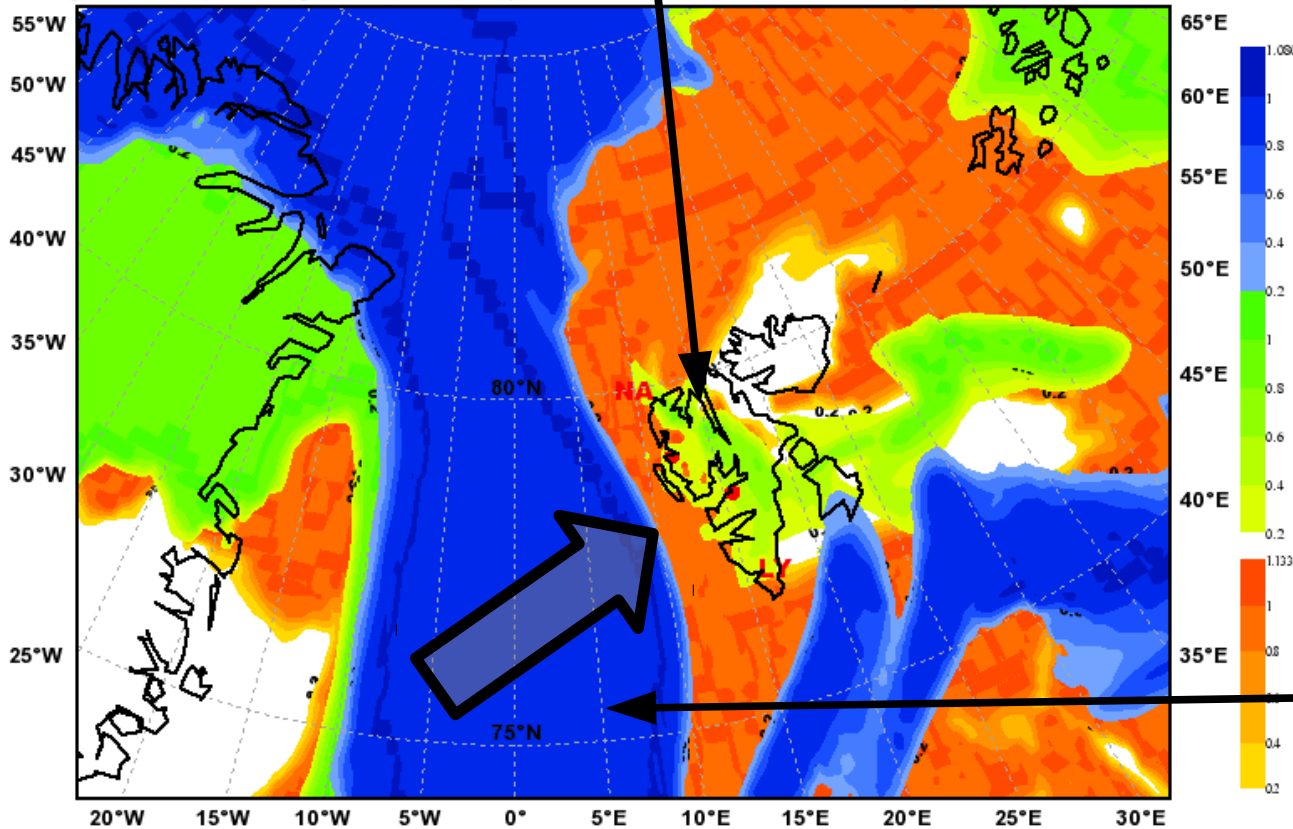


Geopotential Height (m) & Horizontal Wind (m/s) at 850hPa
 valid: Thu, 06 May 2010, 12 UTC (init: 20100505 00 UTC +036 h)



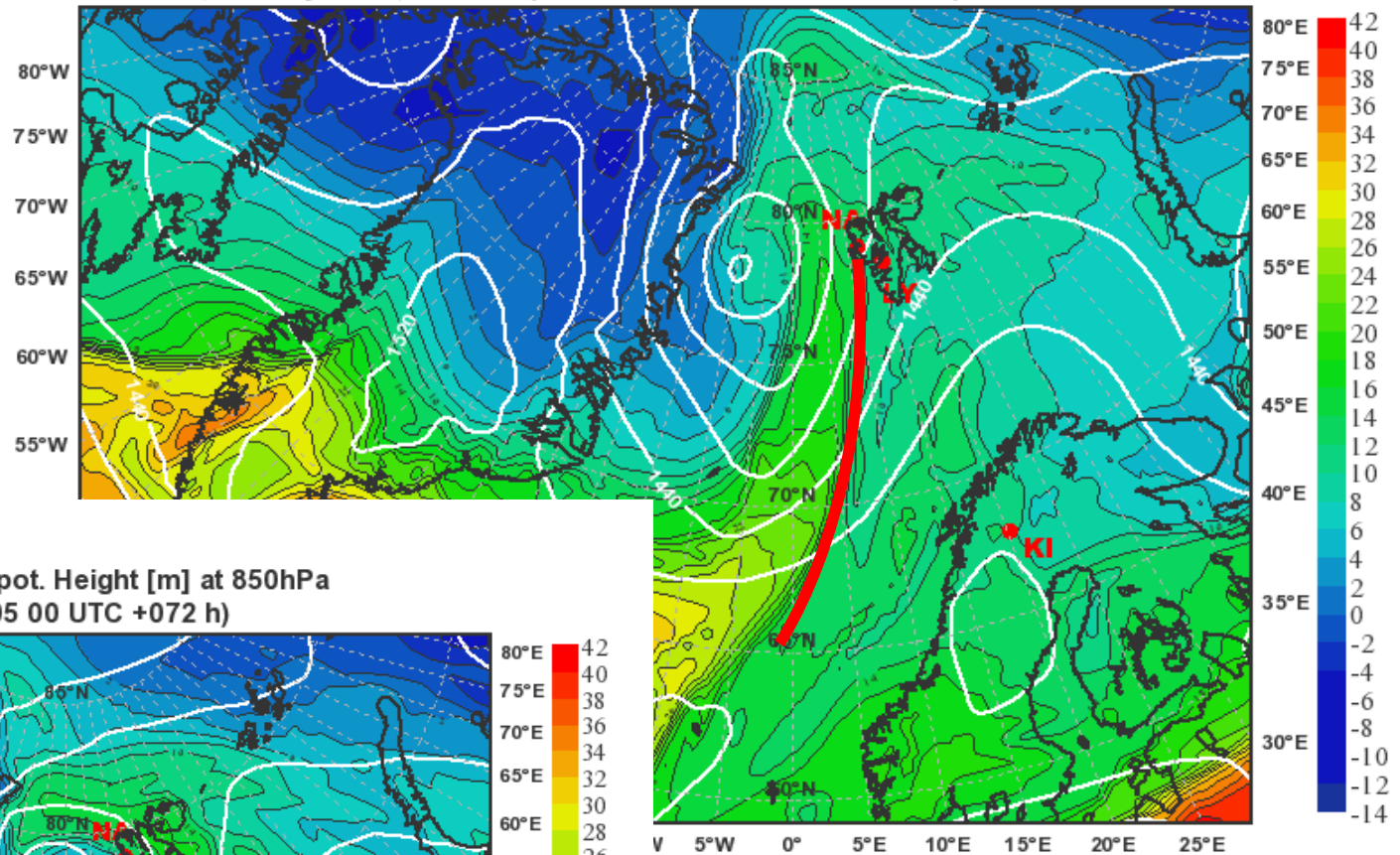
Low clouds similar to today. Southwesterly flow. Medium level cloud above Svalbard.

Total Cloud Cover
 valid: Thu, 06 May 2010, 12 UTC (init: 20100505 00 UTC +036 h)



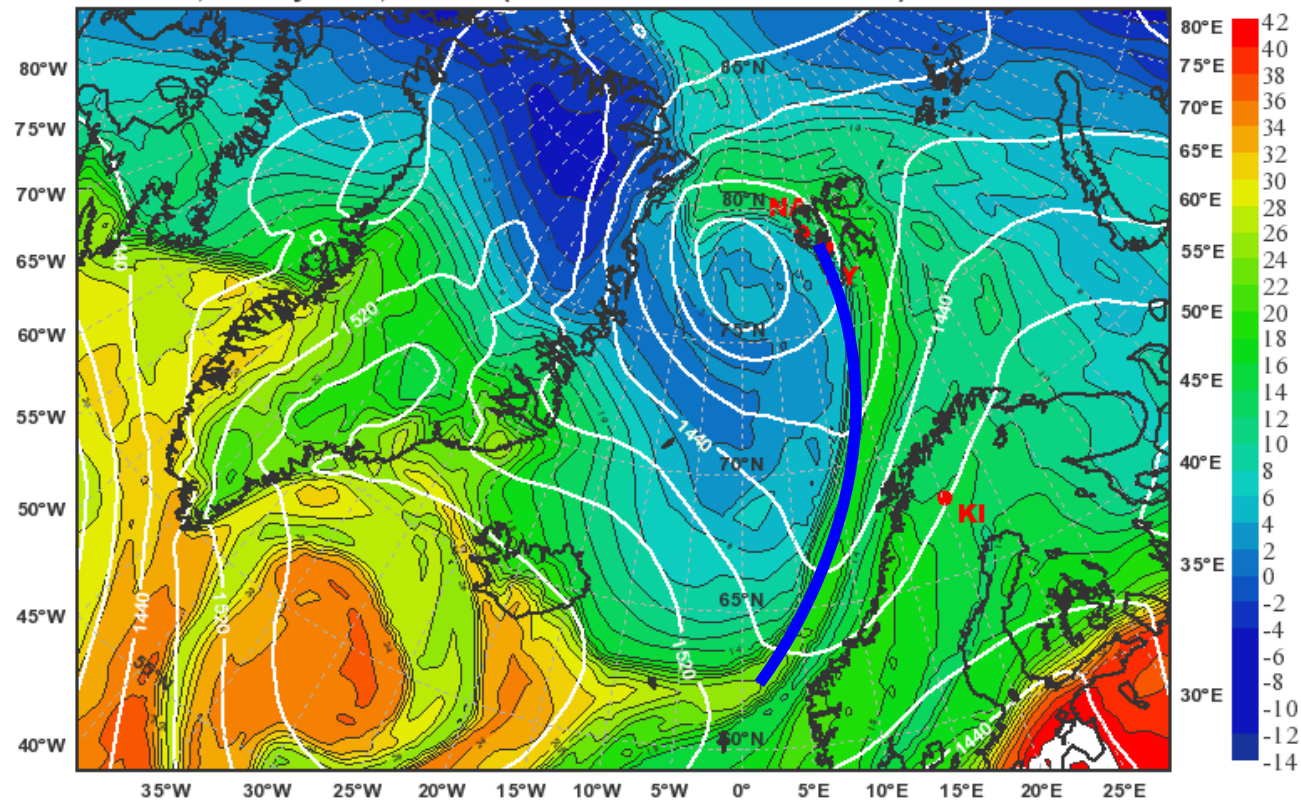
Arriving front.

Equivalent Potential Temperature [°C] & Geopot. Height [m] at 850hPa
 valid: Fri, 07 May 2010, 00 UTC (init: 20100505 00 UTC +048 h)



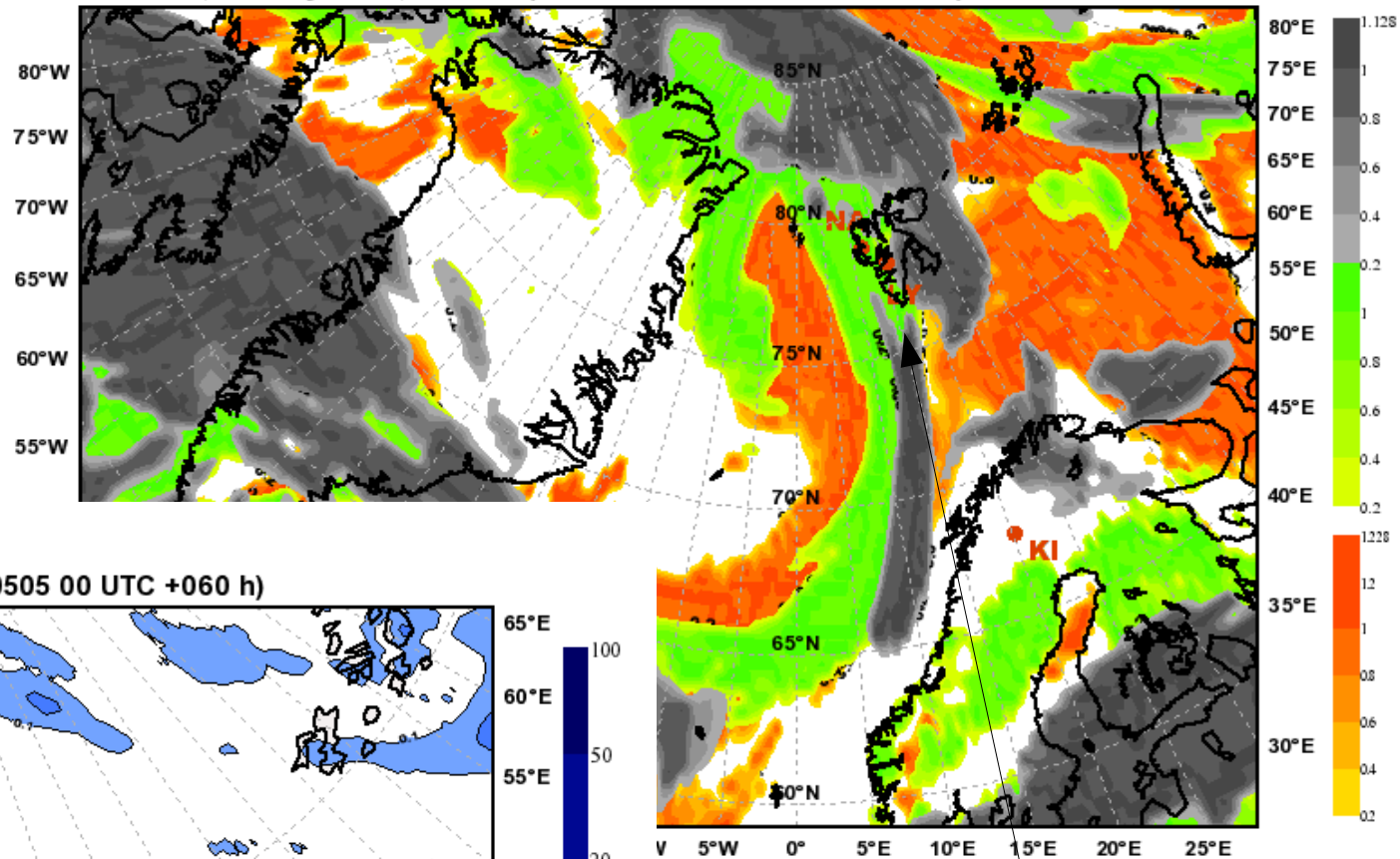
**Cold and warm front hit
 LY around Fri 00 UTC
 and Sat 00 UTC.**

Equivalent Potential Temperature [°C] & Geopot. Height [m] at 850hPa
 valid: Sat, 08 May 2010, 00 UTC (init: 20100505 00 UTC +072 h)

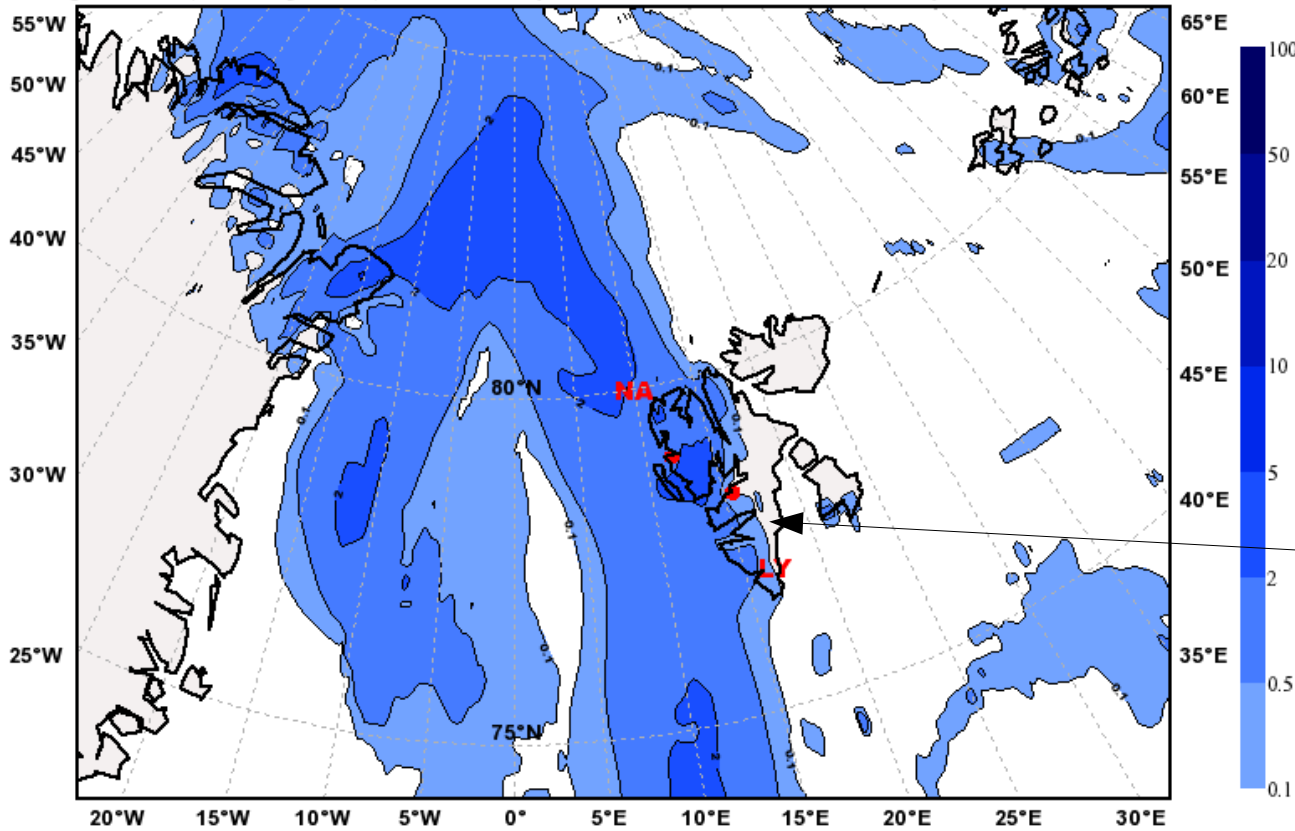


Thick clouds and some precipitation on Friday.

Total Cloud Cover
valid: Fri, 07 May 2010, 12 UTC (init: 20100505 00 UTC +060 h)

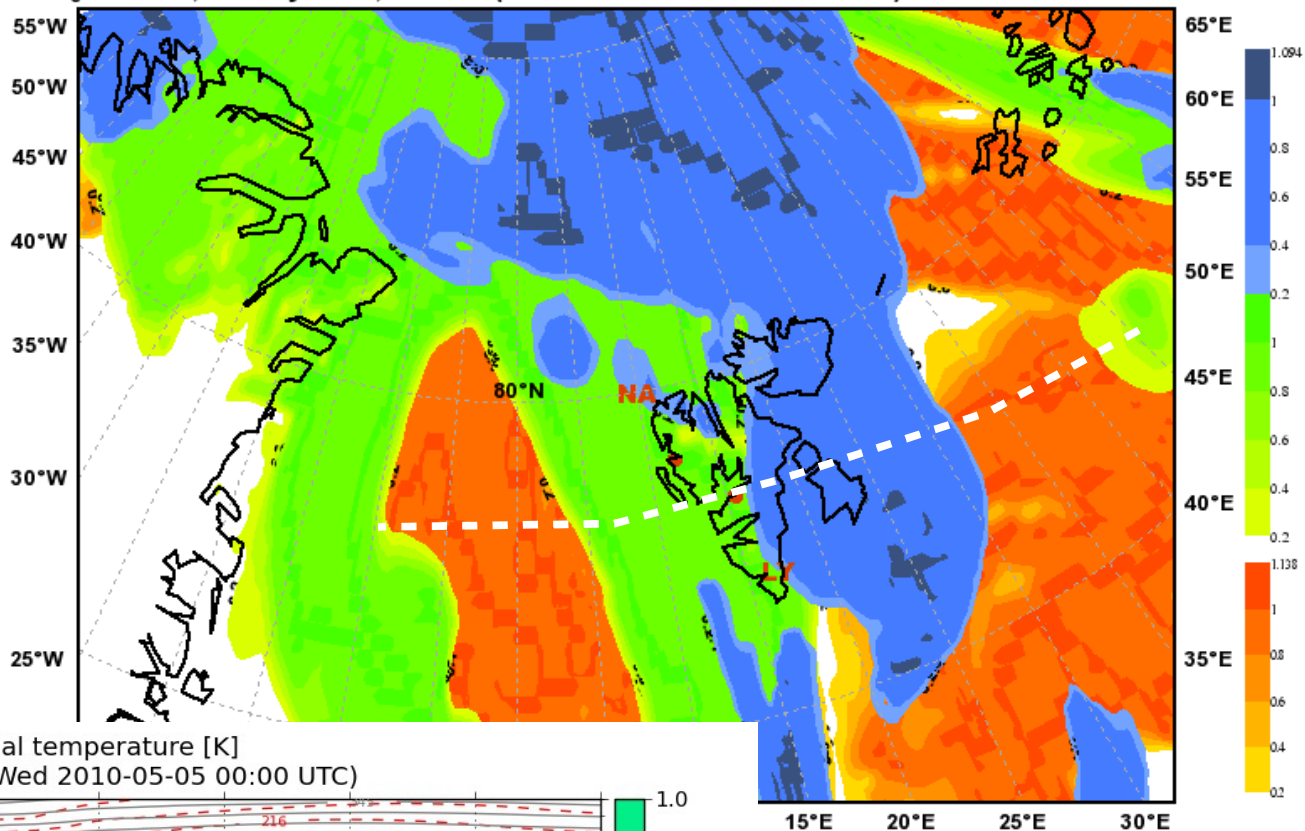


Total Precipitation [mm]
valid: Fri, 07 May 2010, 06-12 UTC (init: 20100505 00 UTC +060 h)



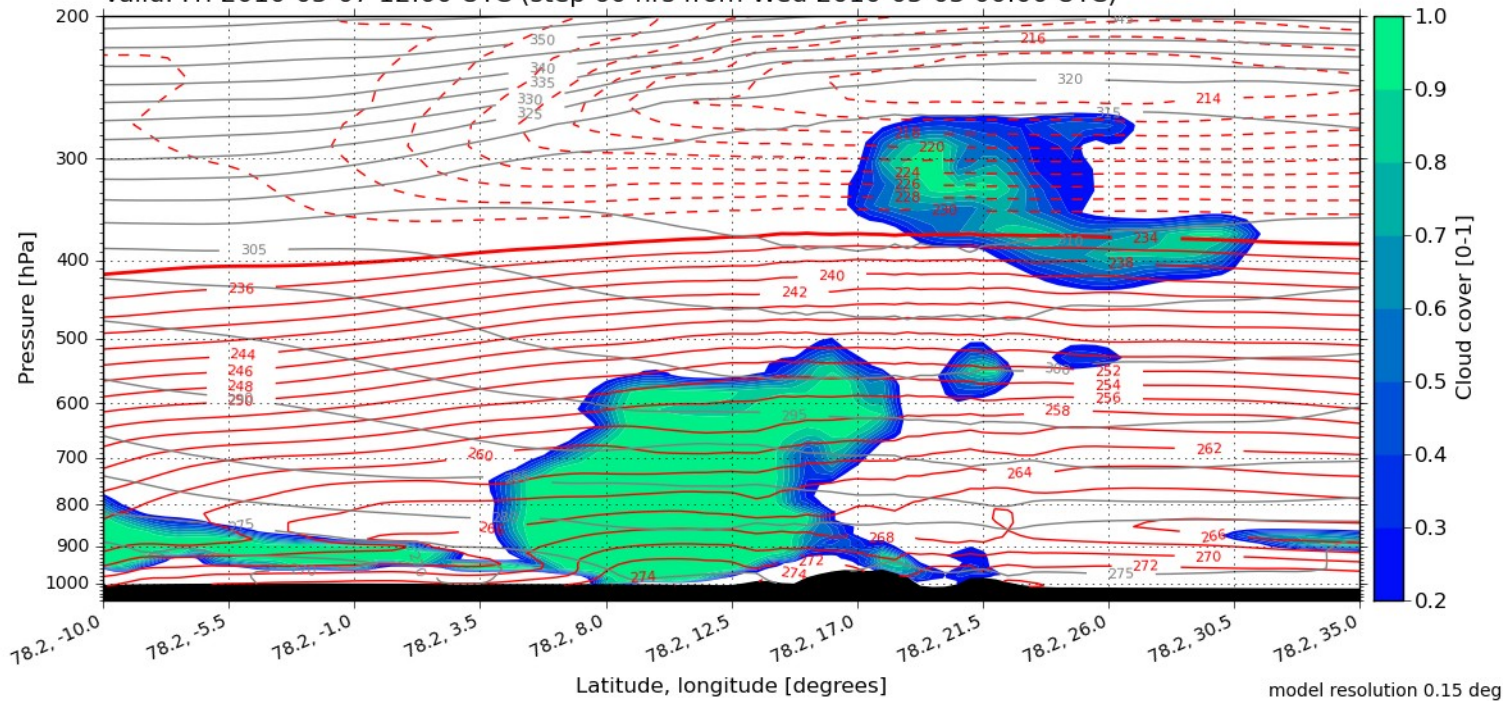
Front

Total Cloud Cover
Valid: Fri, 07 May 2010, 12 UTC (init: 20100505 00 UTC +060 h)



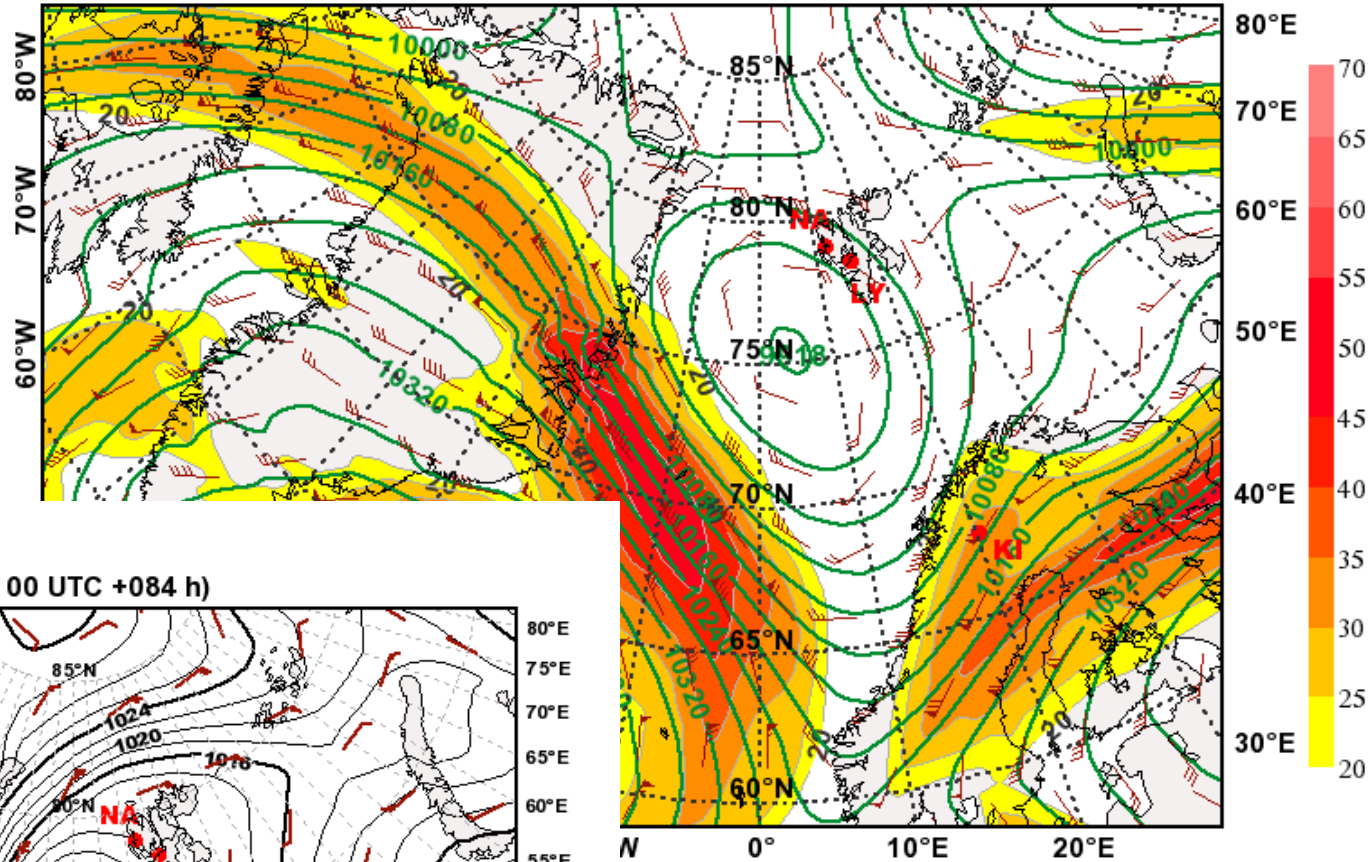
E-W along 78N

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

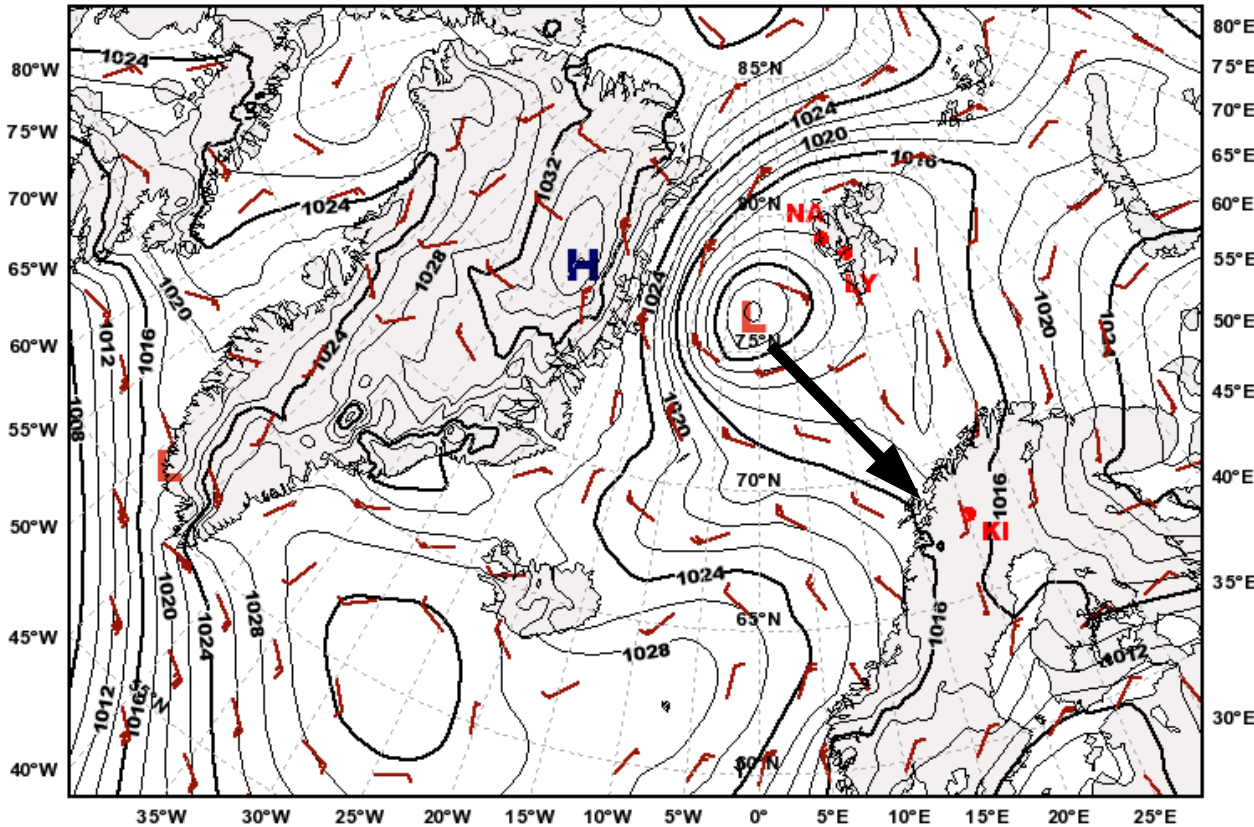


Saturday: Cyclone transported southeastward by upper level flow.

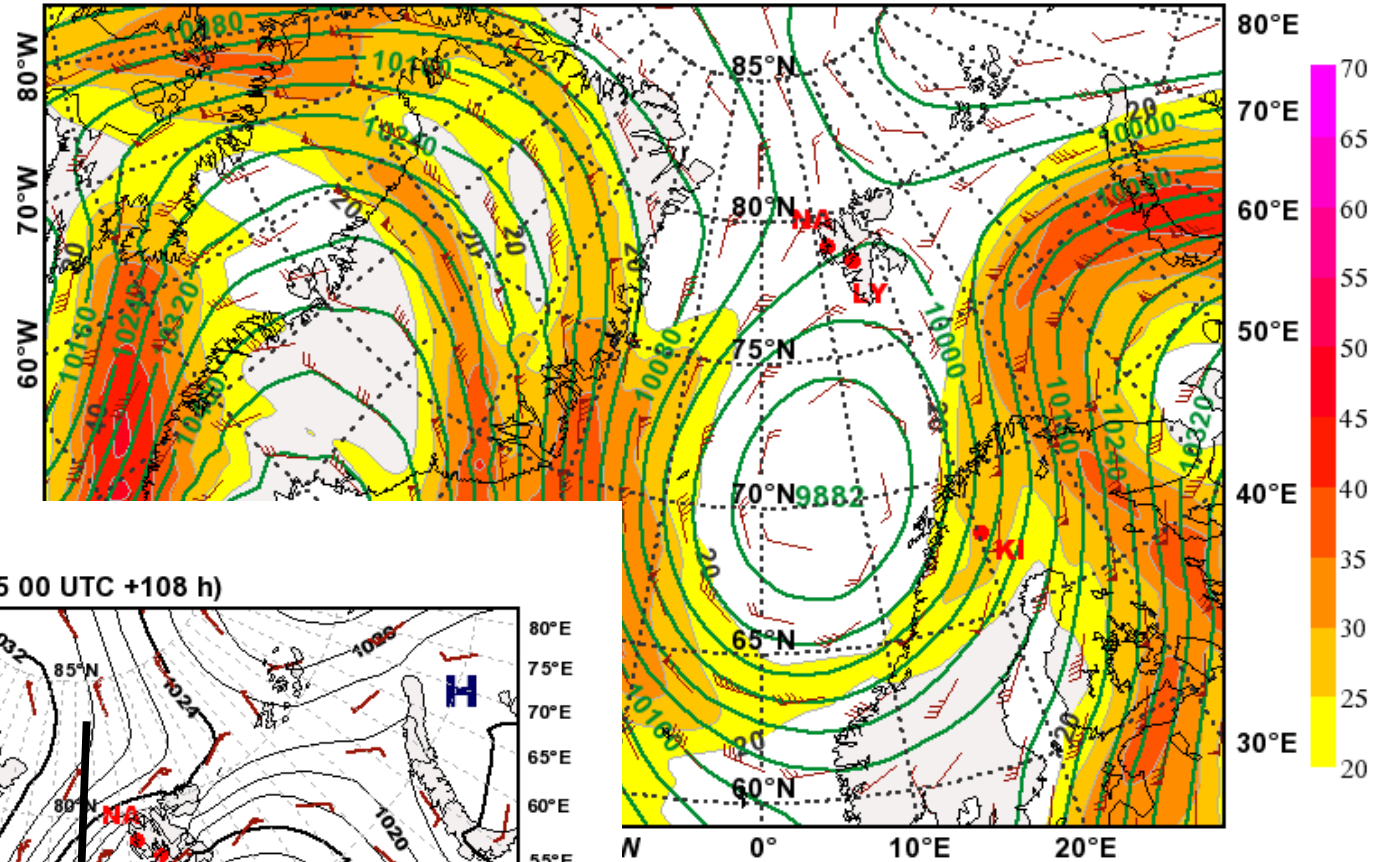
Geopotential Height (m) & Horizontal Wind (m/s) at 250hPa
 valid: Sat, 08 May 2010, 12 UTC (init: 20100505 00 UTC +084 h)



Mean Sea Level Pressure
 valid: Sat, 08 May 2010, 12 UTC (init: 20100505 00 UTC +084 h)

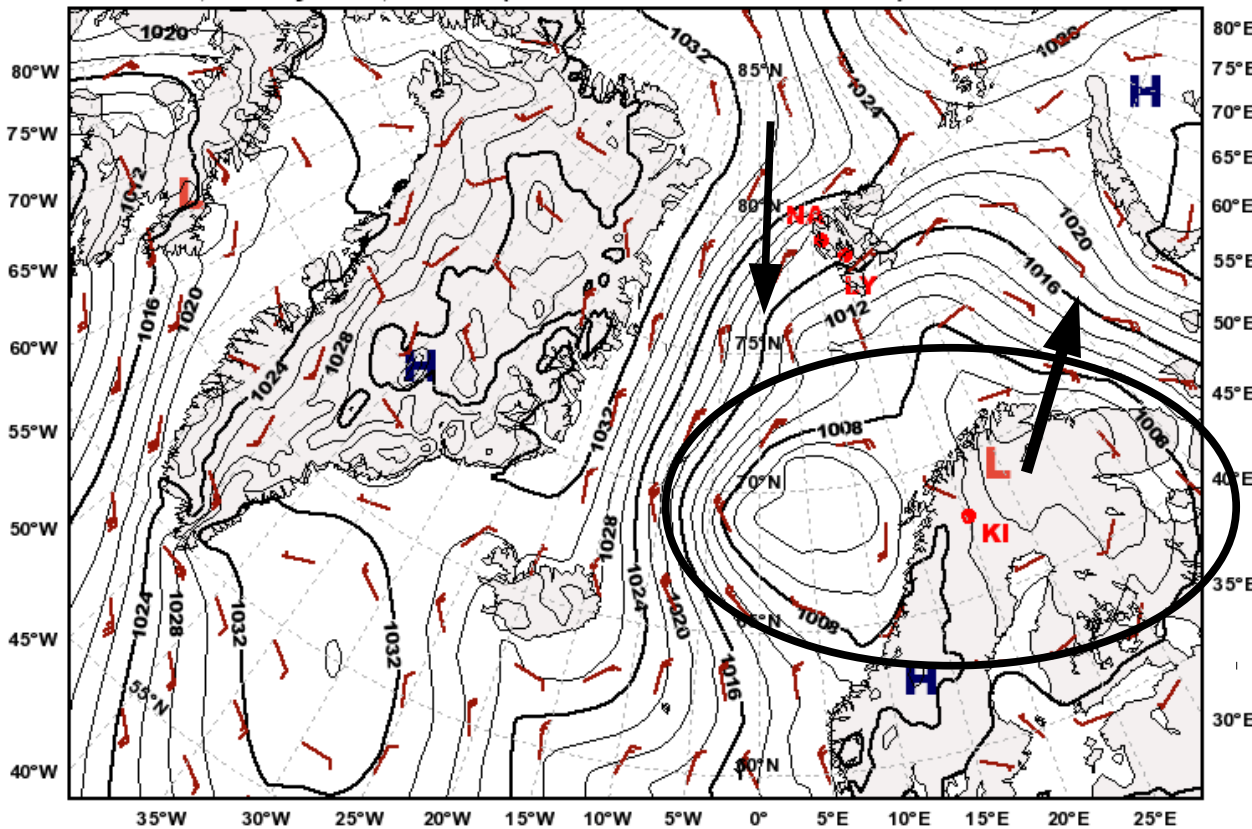


Geopotential Height (m) & Horizontal Wind (m/s) at 250hPa
 valid: Sun, 09 May 2010, 12 UTC (init: 20100505 00 UTC +108 h)



Sunday: Merges with another cyclone over Scandinavia, moves northeastward.

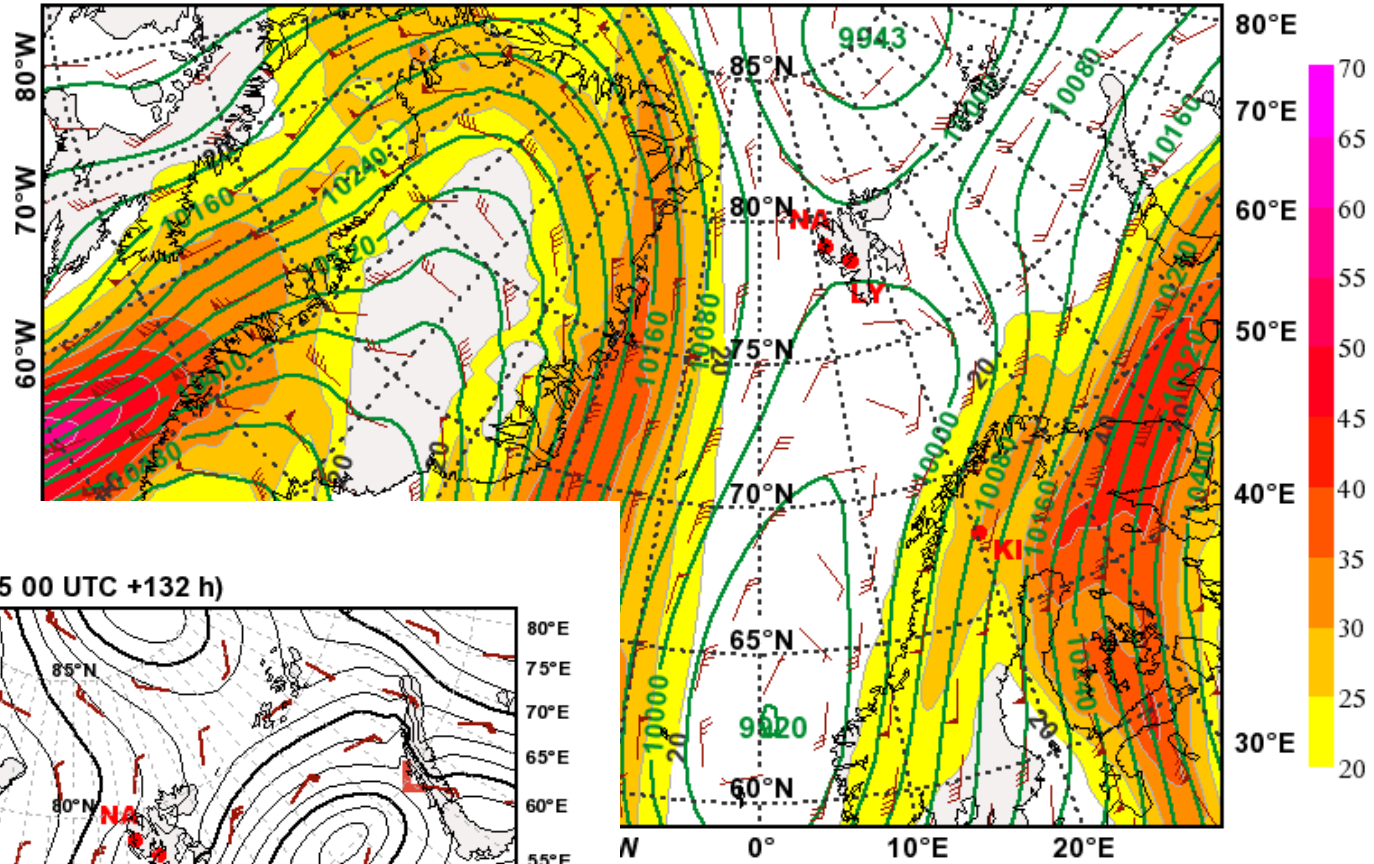
Mean Sea Level Pressure
 valid: Sun, 09 May 2010, 12 UTC (init: 20100505 00 UTC +108 h)



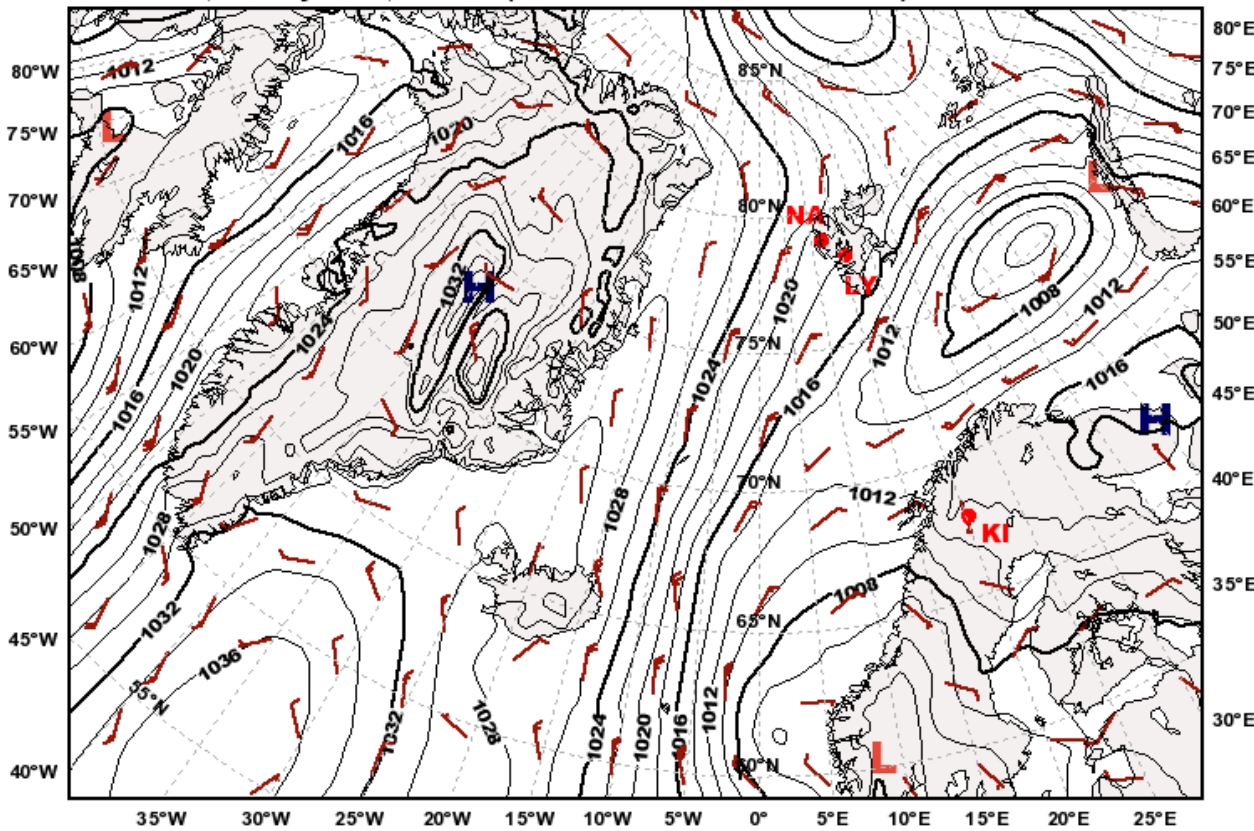
Northerly winds west of Svalbard.

Monday: Northerly flow
flow around Svalbard.

Geopotential Height (m) & Horizontal Wind (m/s) at 250hPa
valid: Mon, 10 May 2010, 12 UTC (init: 20100505 00 UTC +132 h)

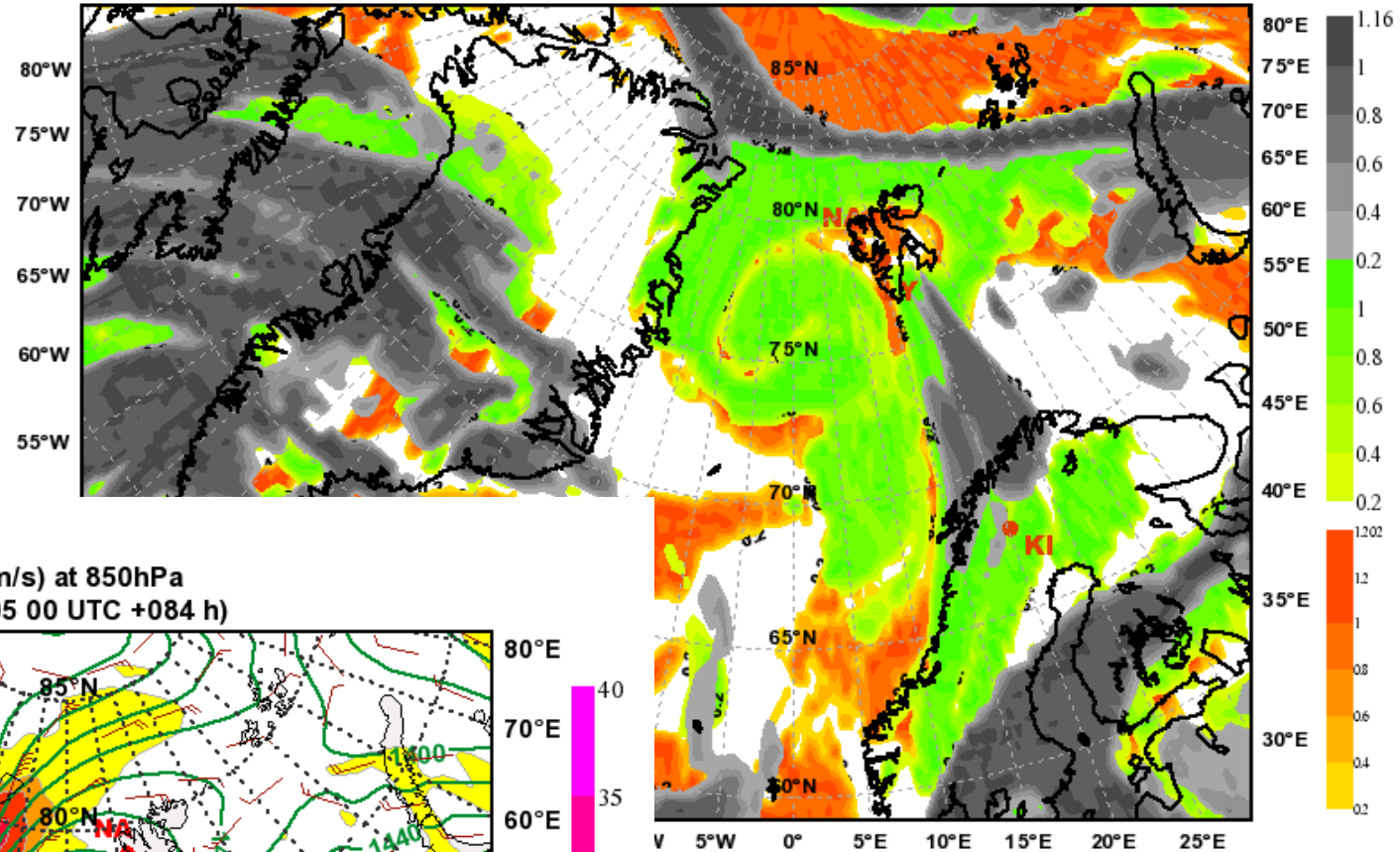


Mean Sea Level Pressure
valid: Mon, 10 May 2010, 12 UTC (init: 20100505 00 UTC +132 h)

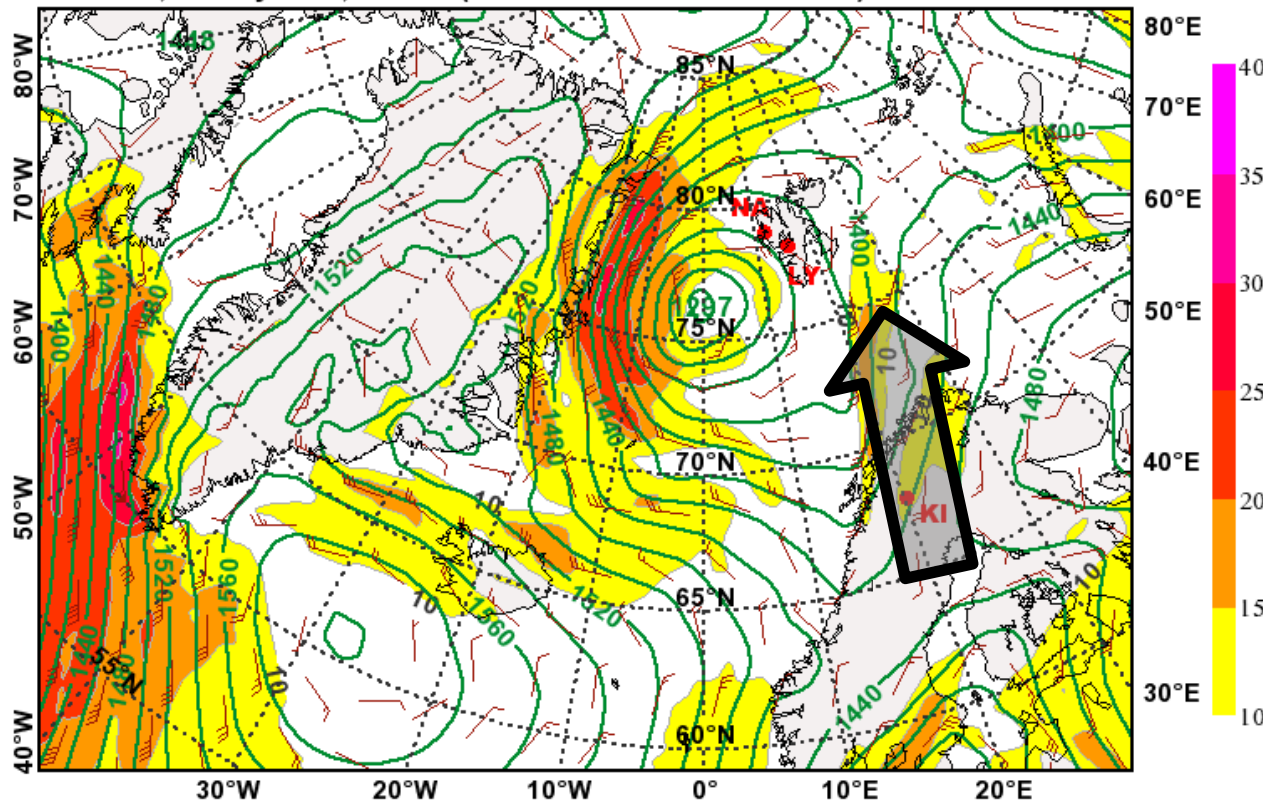


Saturday/Sunday: Still very humid, many clouds.

Total Cloud Cover
valid: Sat, 08 May 2010, 12 UTC (init: 20100505 00 UTC +084 h)



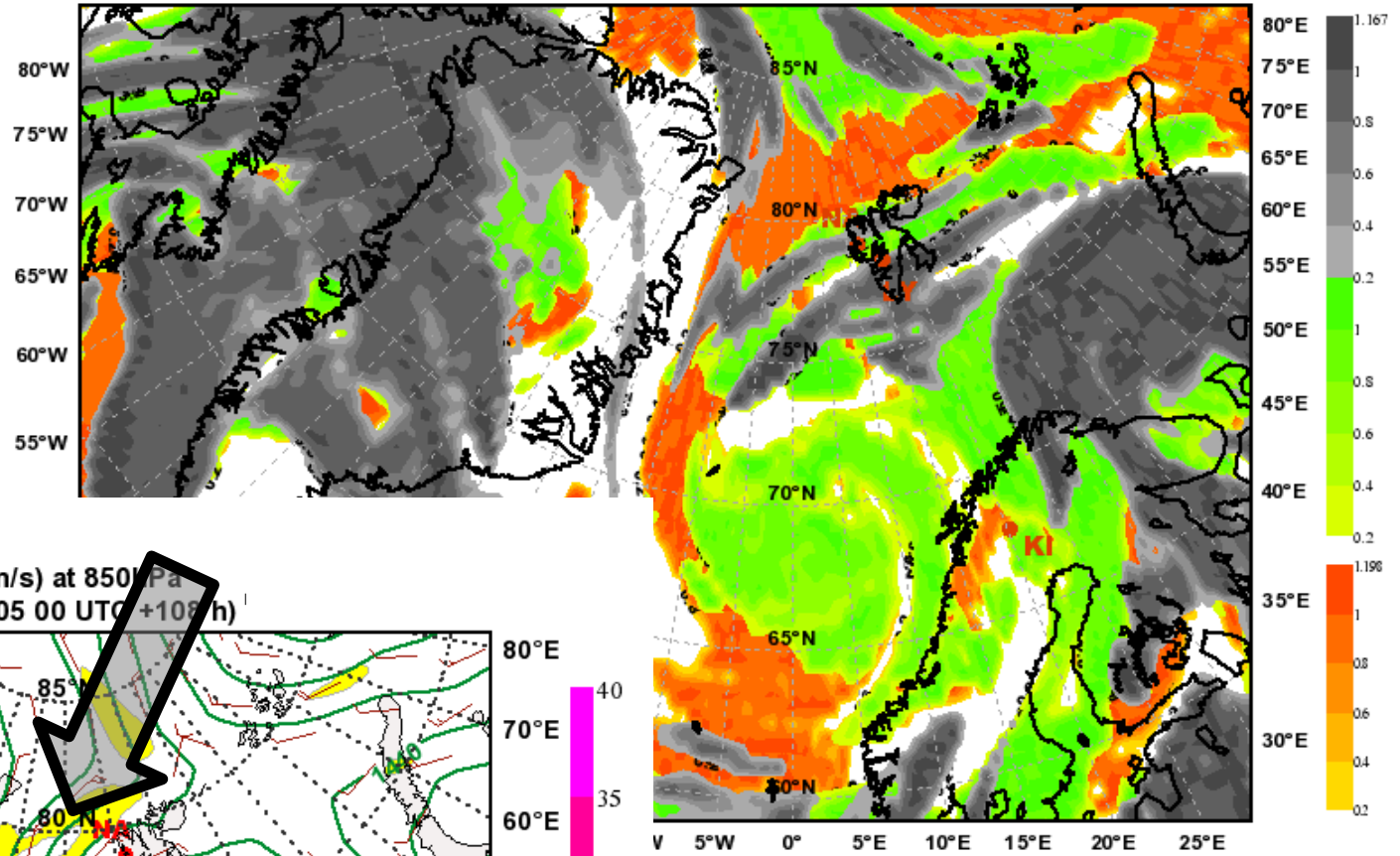
Geopotential Height (m) & Horizontal Wind (m/s) at 850hPa
valid: Sat, 08 May 2010, 12 UTC (init: 20100505 00 UTC +084 h)



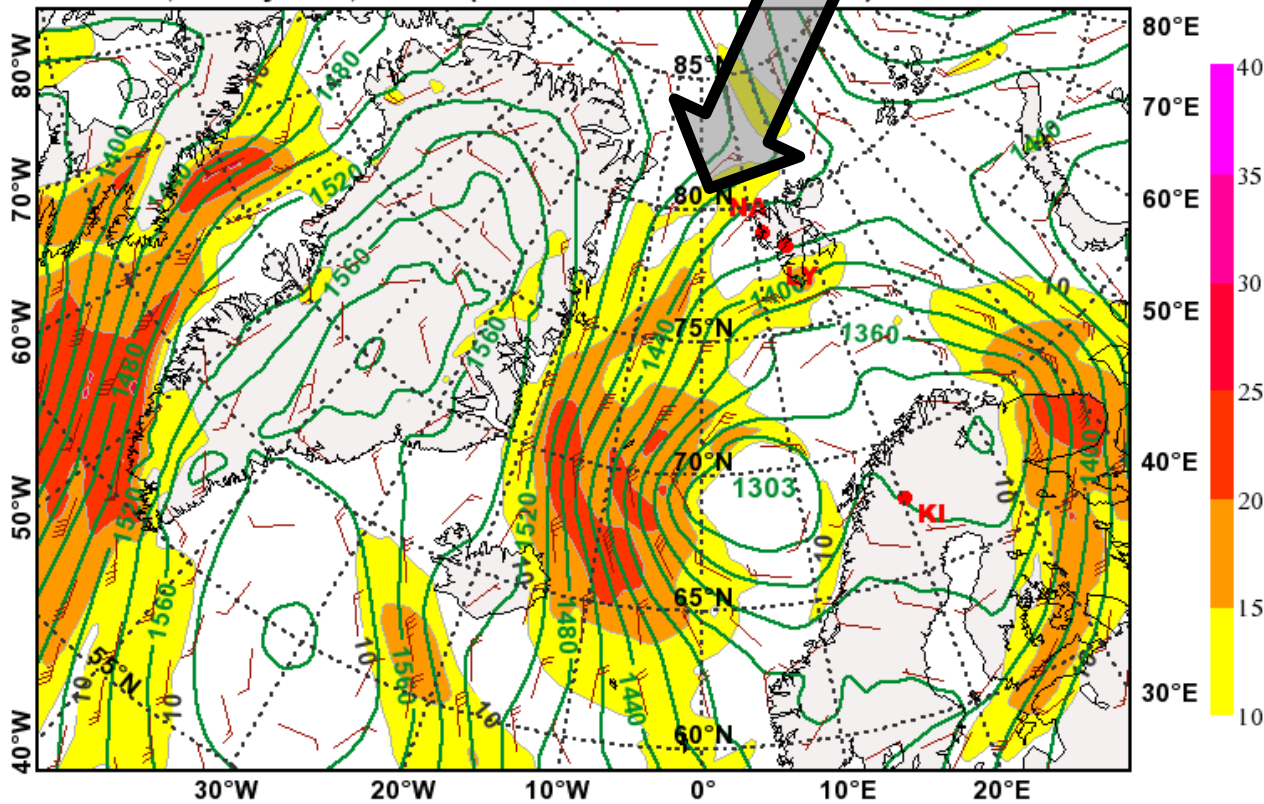
Moist air advected from the south.

Drier air advected from the north.

Total Cloud Cover
valid: Sun, 09 May 2010, 12 UTC (init: 20100505 00 UTC +108 h)

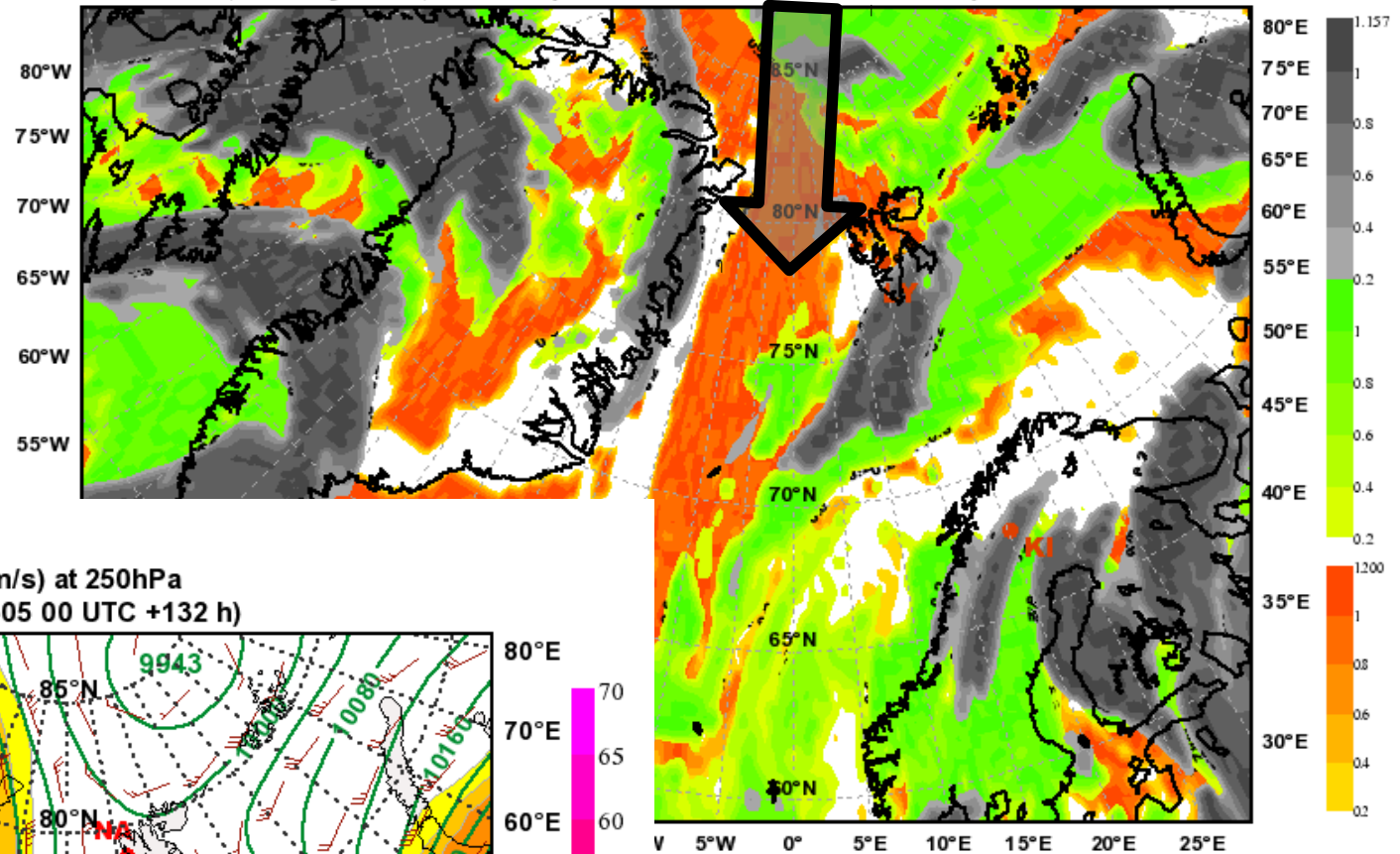


Geopotential Height (m) & Horizontal Wind (m/s) at 850 Pa
valid: Sun, 09 May 2010, 12 UTC (init: 20100505 00 UTC +108 h)

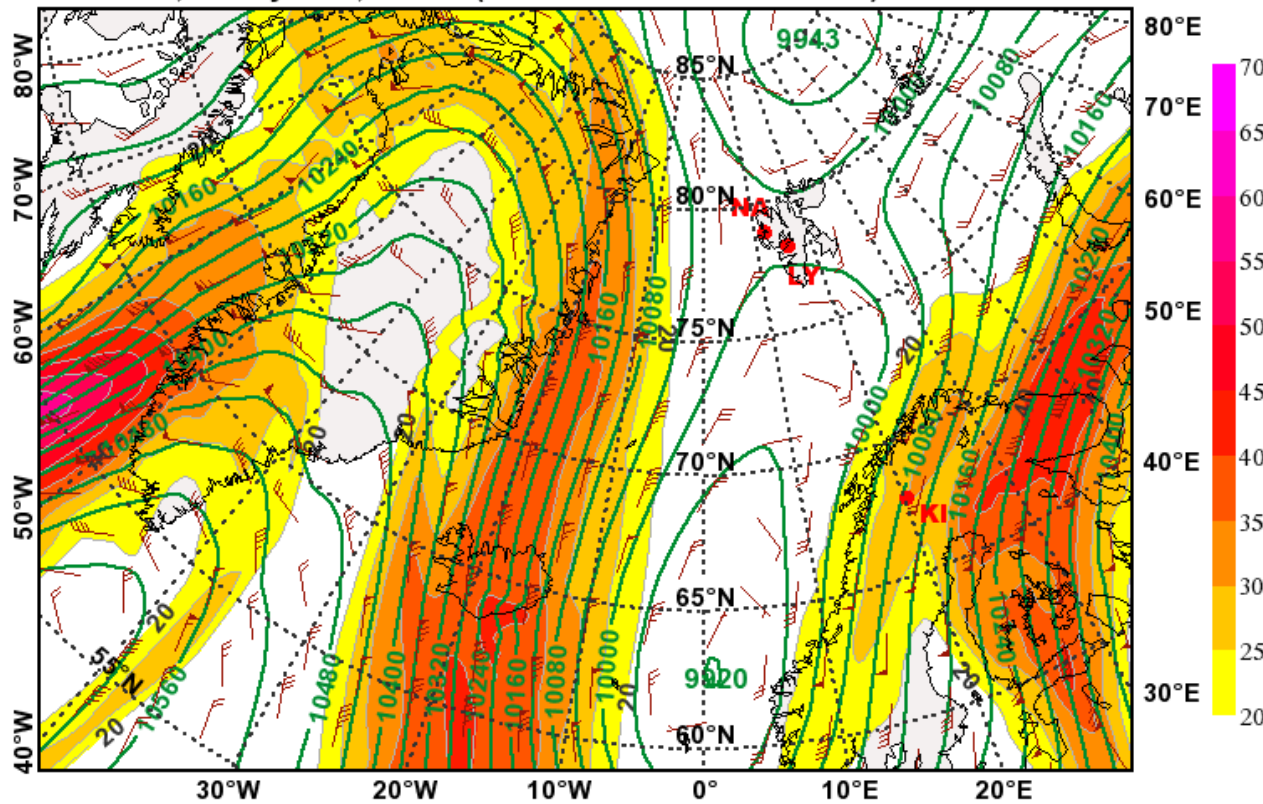


Monday: Northerly flow
flow around Svalbard.

Total Cloud Cover
valid: Mon, 10 May 2010, 12 UTC (init: 20100505 00 UTC +132 h)

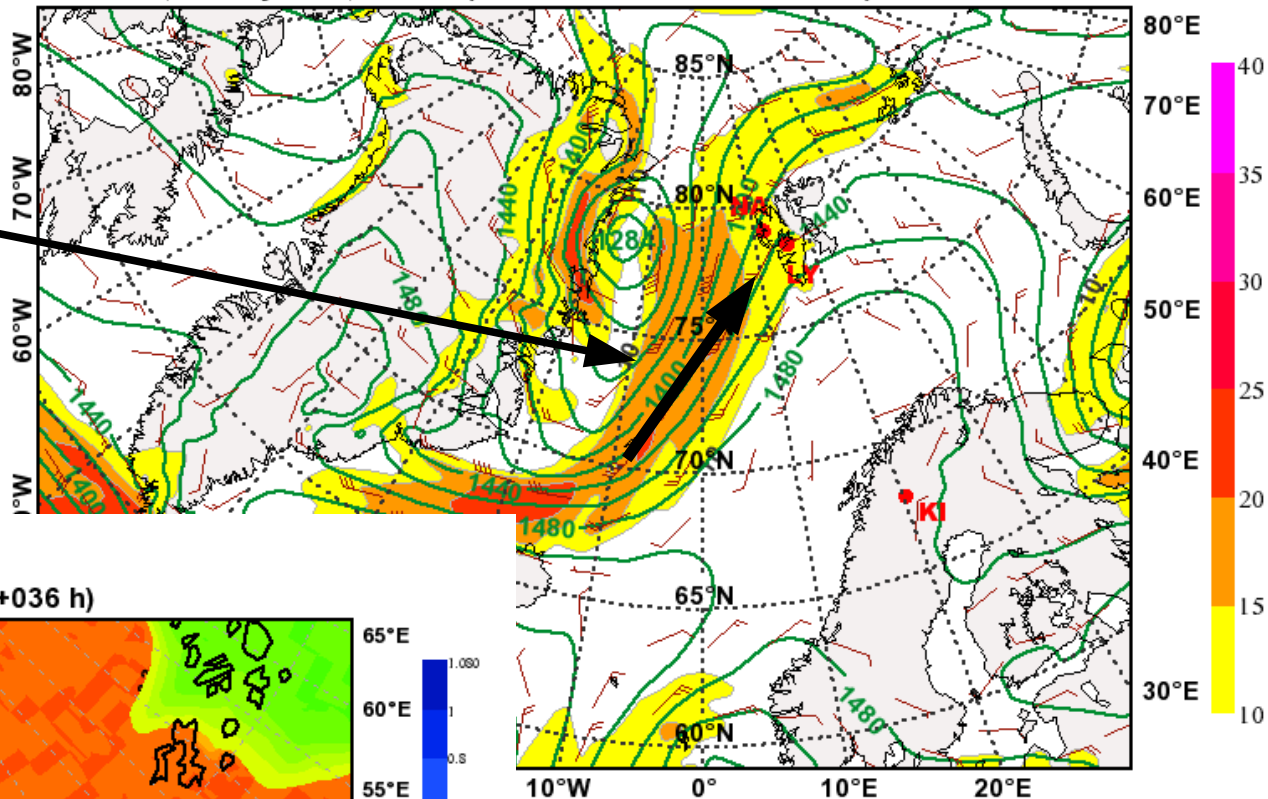


Geopotential Height (m) & Horizontal Wind (m/s) at 250hPa
valid: Mon, 10 May 2010, 12 UTC (init: 20100505 00 UTC +132 h)



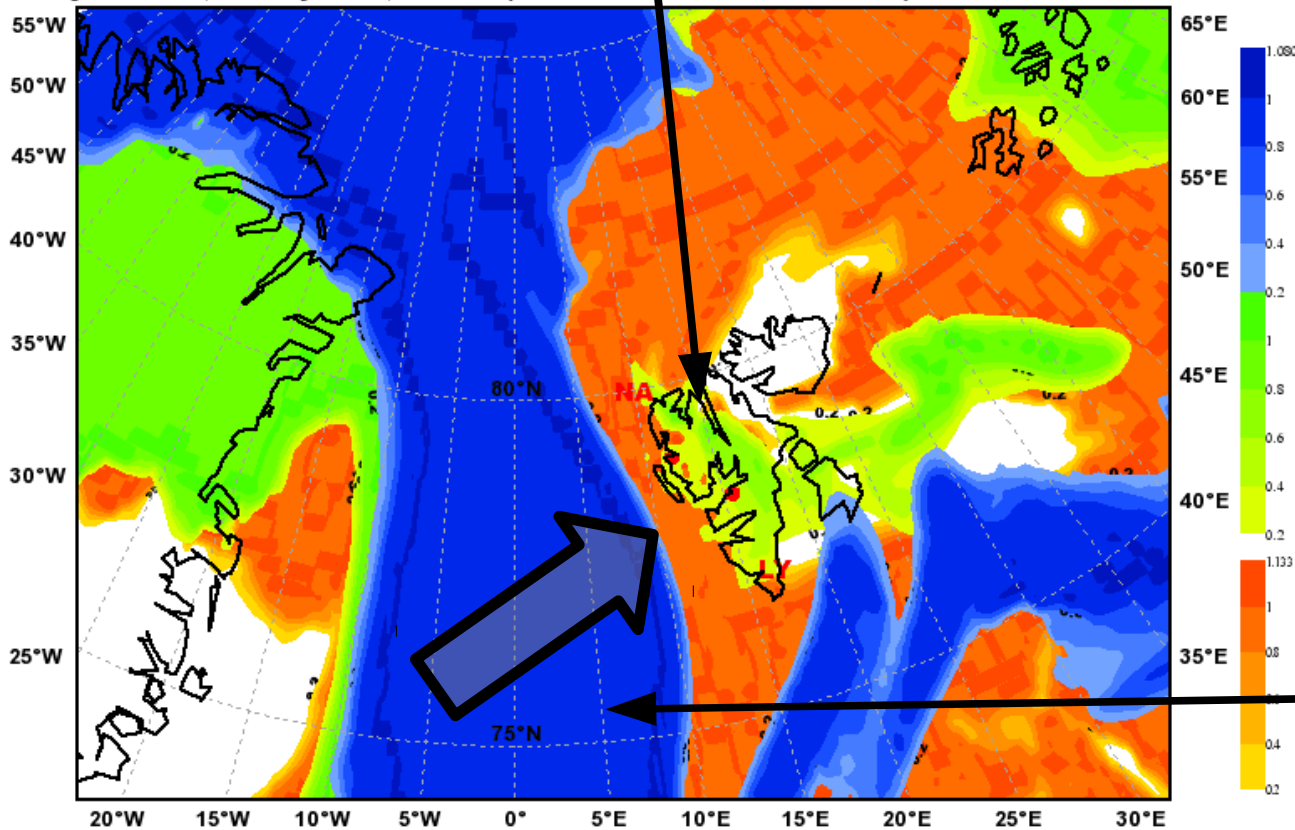
Thursday.

Geopotential Height (m) & Horizontal Wind (m/s) at 850hPa
 valid: Thu, 06 May 2010, 12 UTC (init: 20100505 00 UTC +036 h)



Low clouds similar to today. South-westerly flow. Medium level cloud above Svalbard.

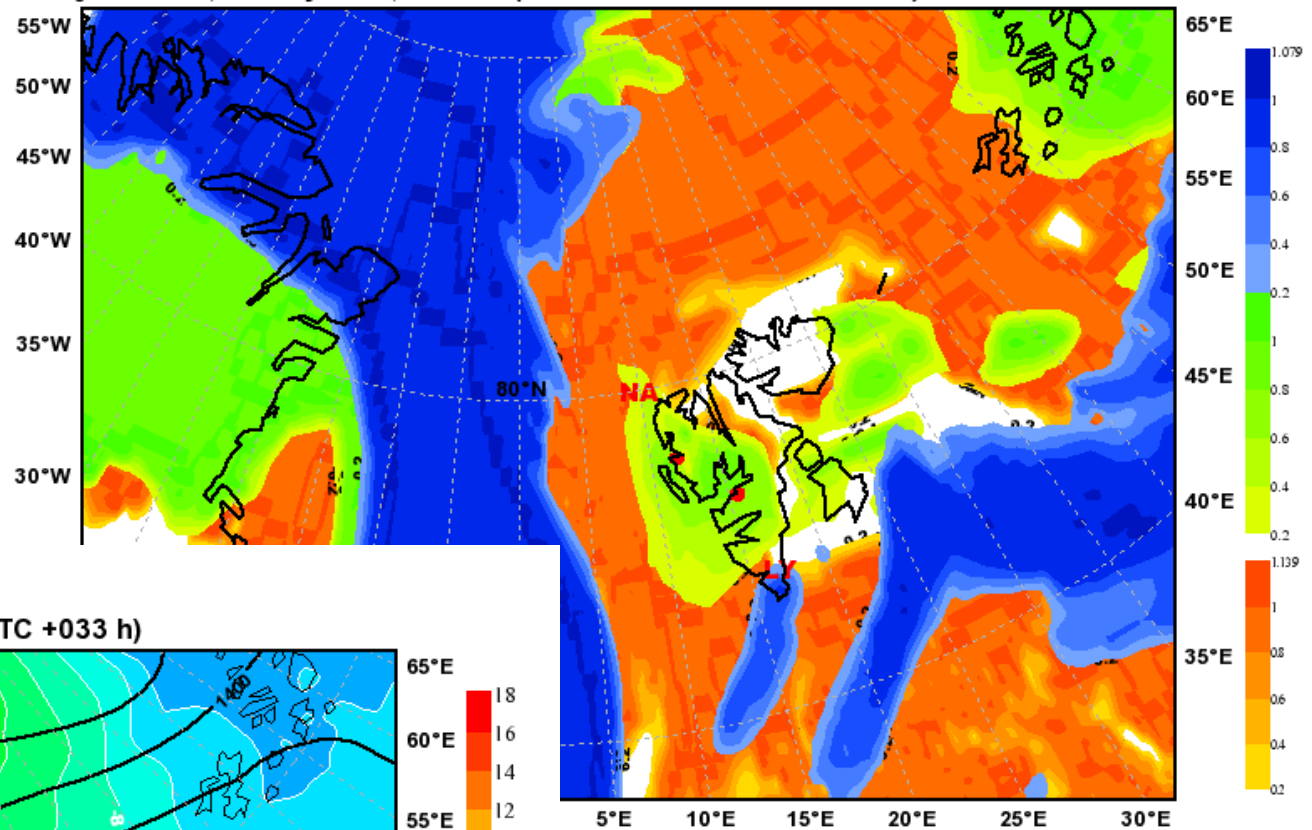
Total Cloud Cover
 valid: Thu, 06 May 2010, 12 UTC (init: 20100505 00 UTC +036 h)



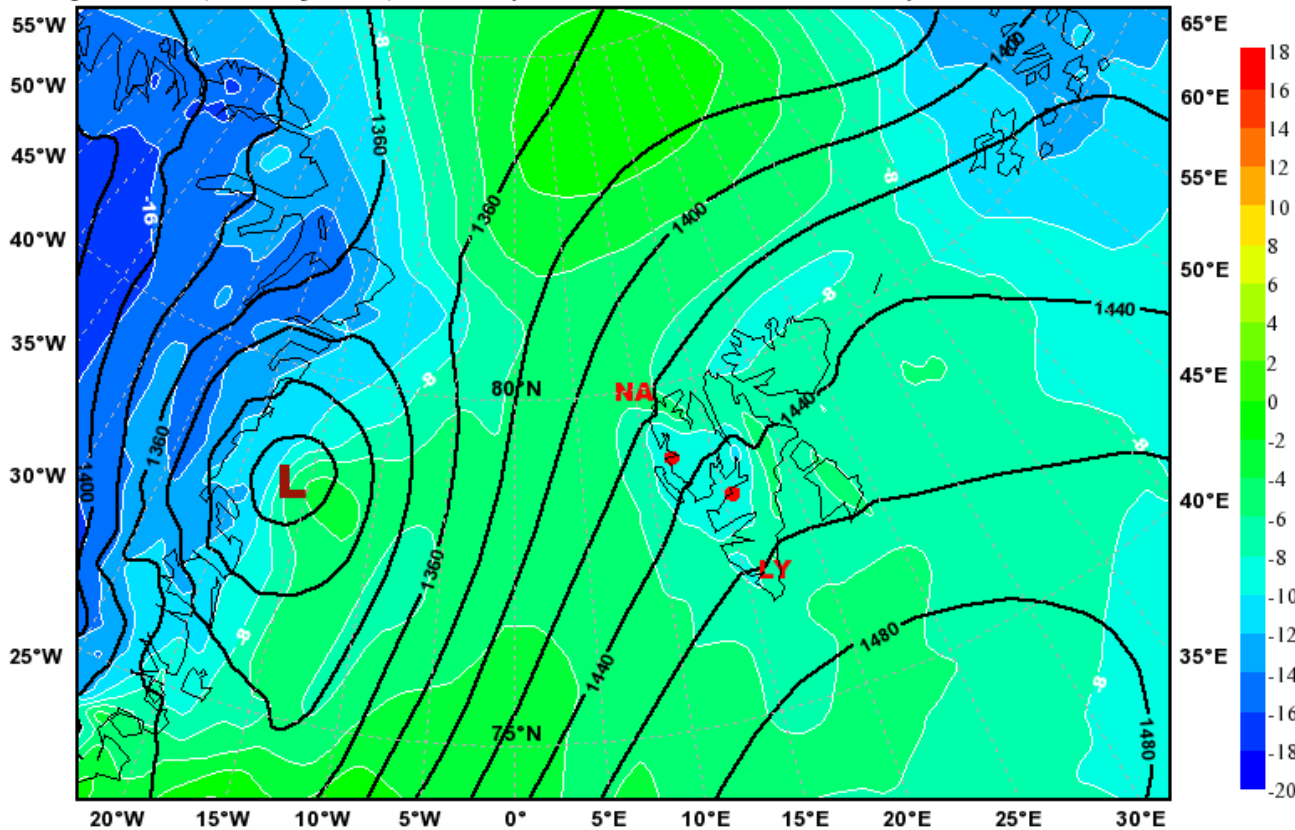
Arriving front.

Temperature fairly homogeneous in potential measurement areas.

Total Cloud Cover
valid: Thu, 06 May 2010, 09 UTC (init: 20100505 00 UTC +033 h)

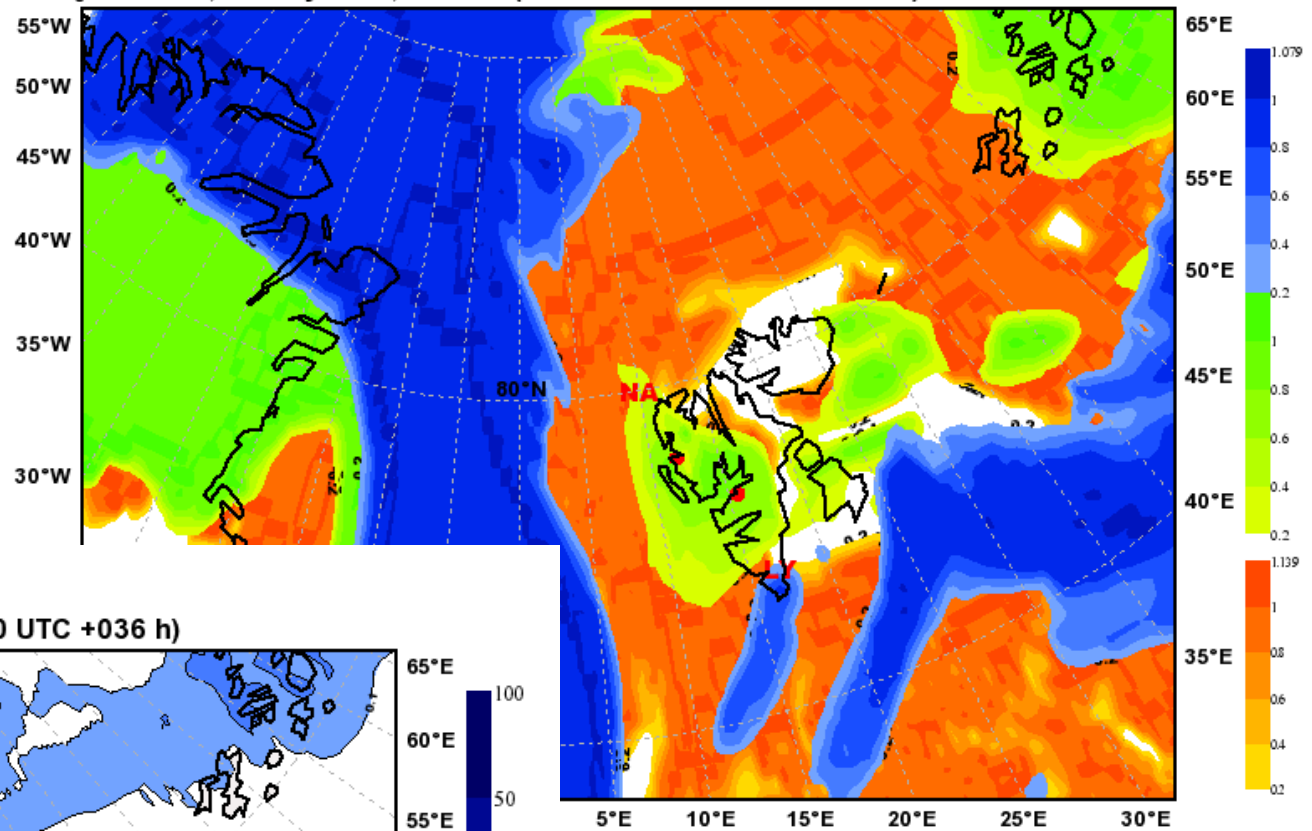


Temperature [°C] and Geopotential [m] at 850hPa
valid: Thu, 06 May 2010, 09 UTC (init: 20100505 00 UTC +033 h)

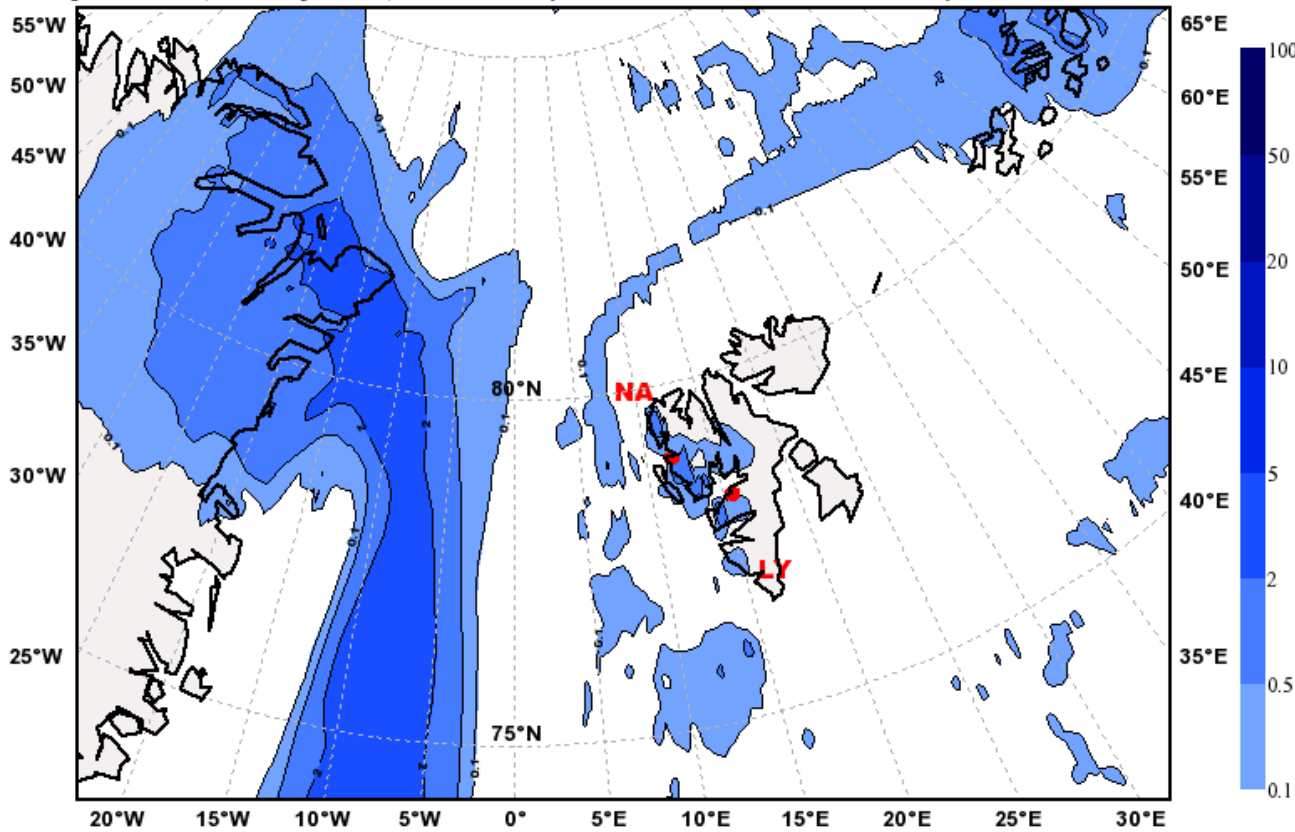


Some precipitation
forecasted for the entire
day (<0.5mm/3hrs).

Total Cloud Cover
valid: Thu, 06 May 2010, 09 UTC (init: 20100505 00 UTC +033 h)



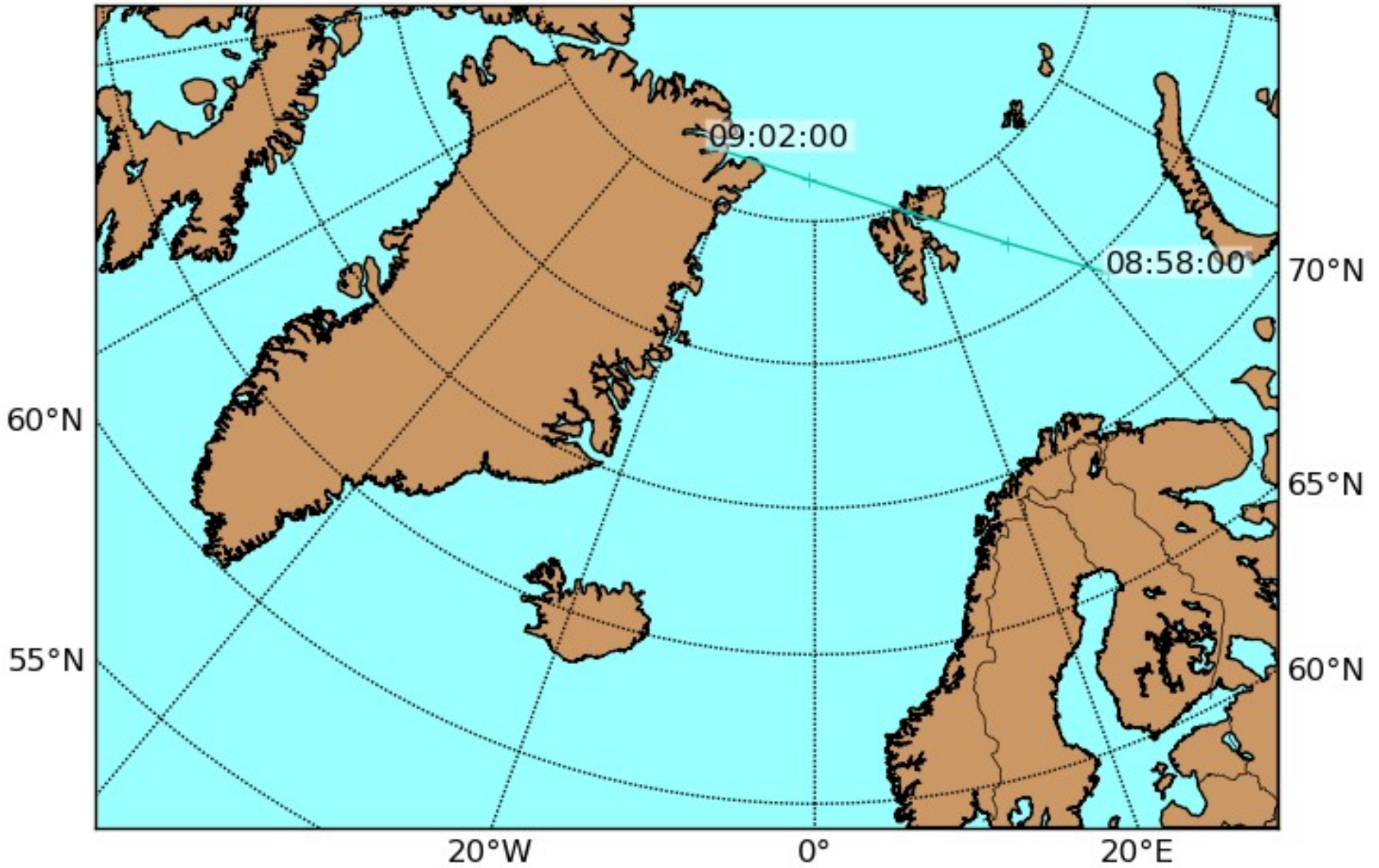
Total Precipitation [mm]
valid: Thu, 06 May 2010, 09-12 UTC (init: 20100505 00 UTC +036 h)



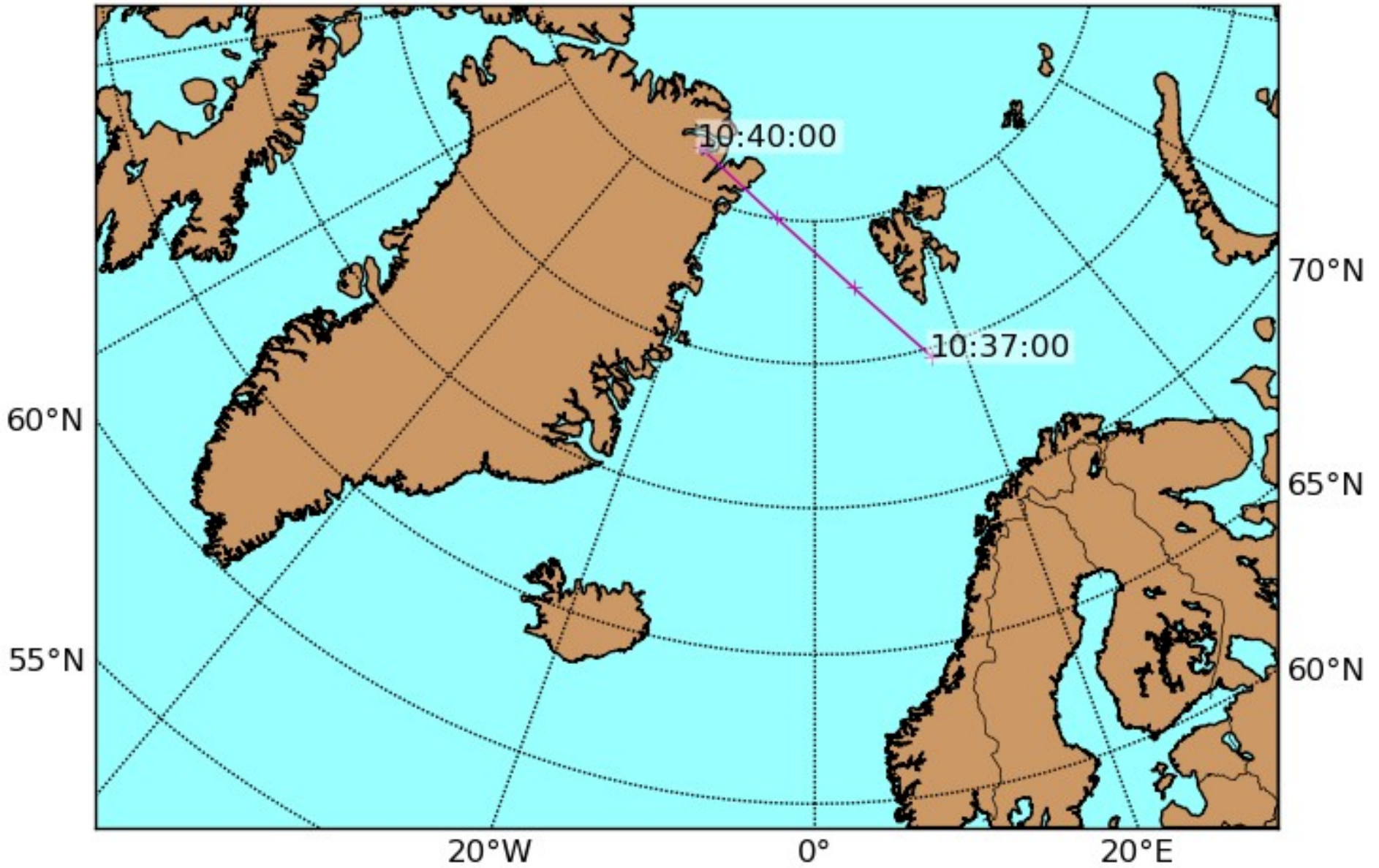
CLOUDSAT overpass at 07:22 UTC



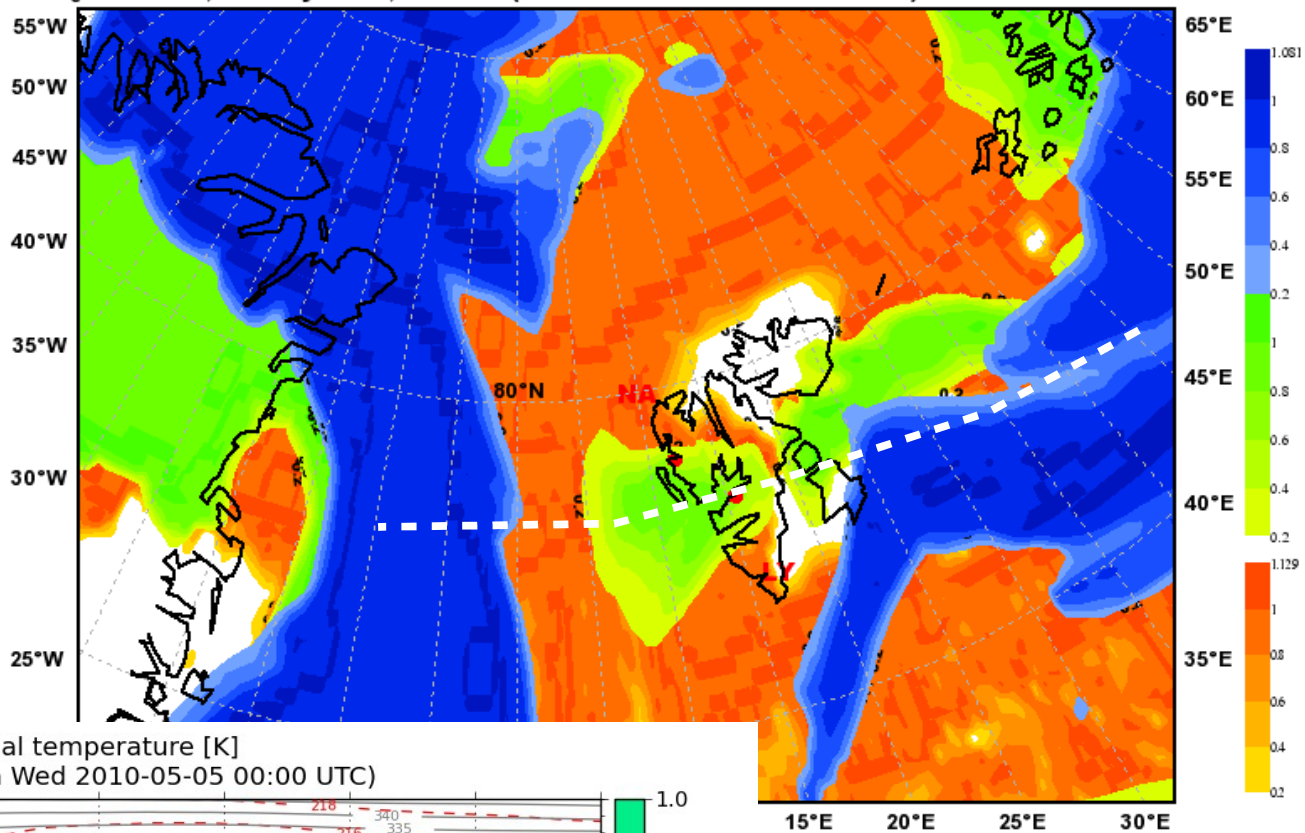
CLOUDSAT overpass at 09:00 UTC



CLOUDSAT overpass at 10:38 UTC

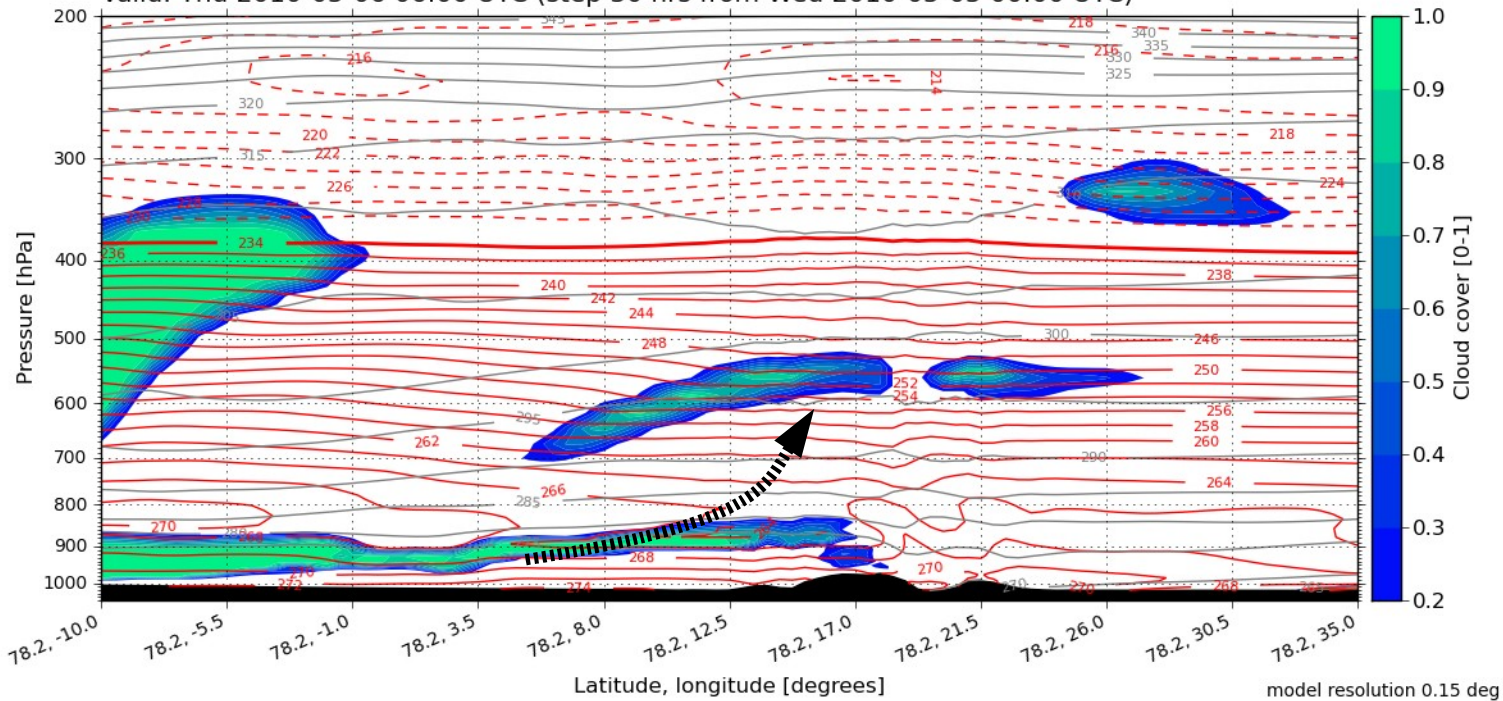


Total Cloud Cover
Valid: Thu, 06 May 2010, 06 UTC (init: 20100505 00 UTC +030 h)



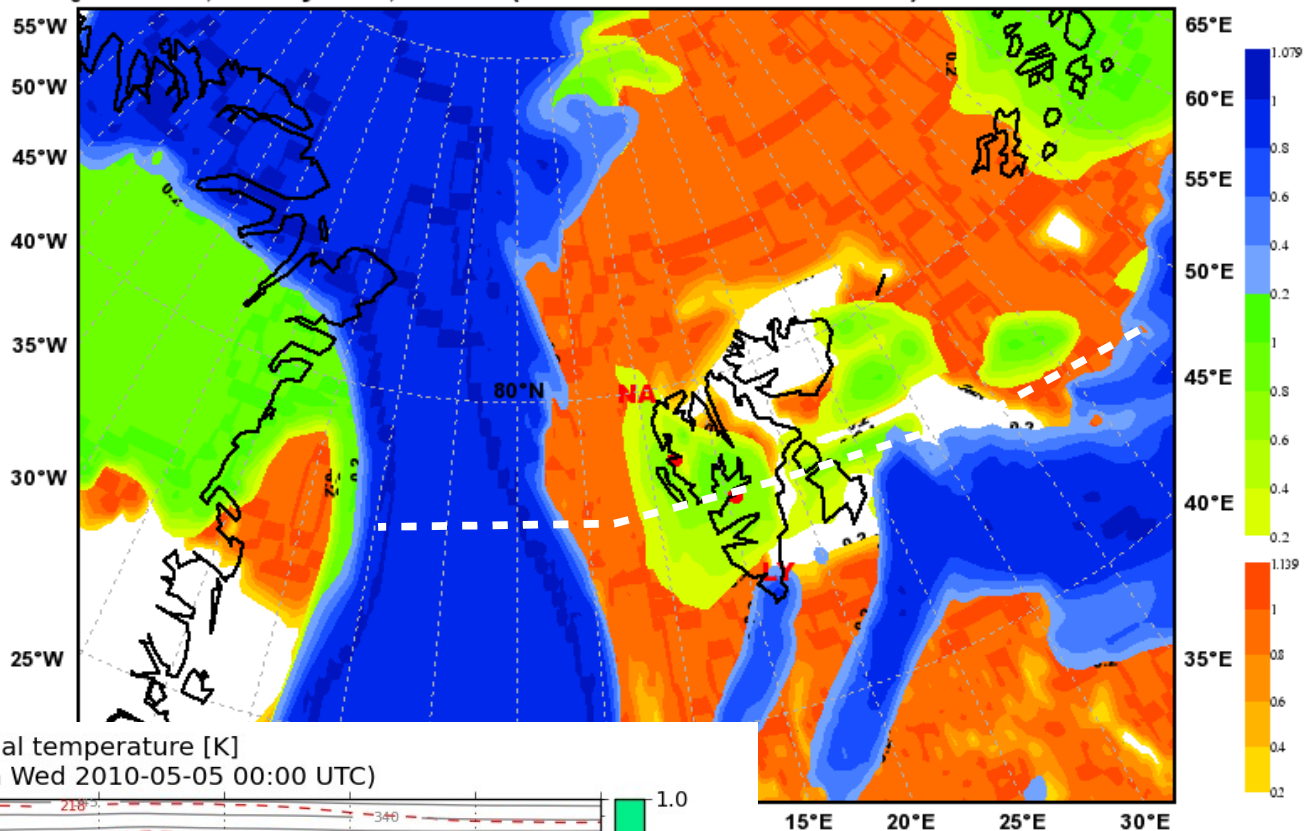
E-W along 78N

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



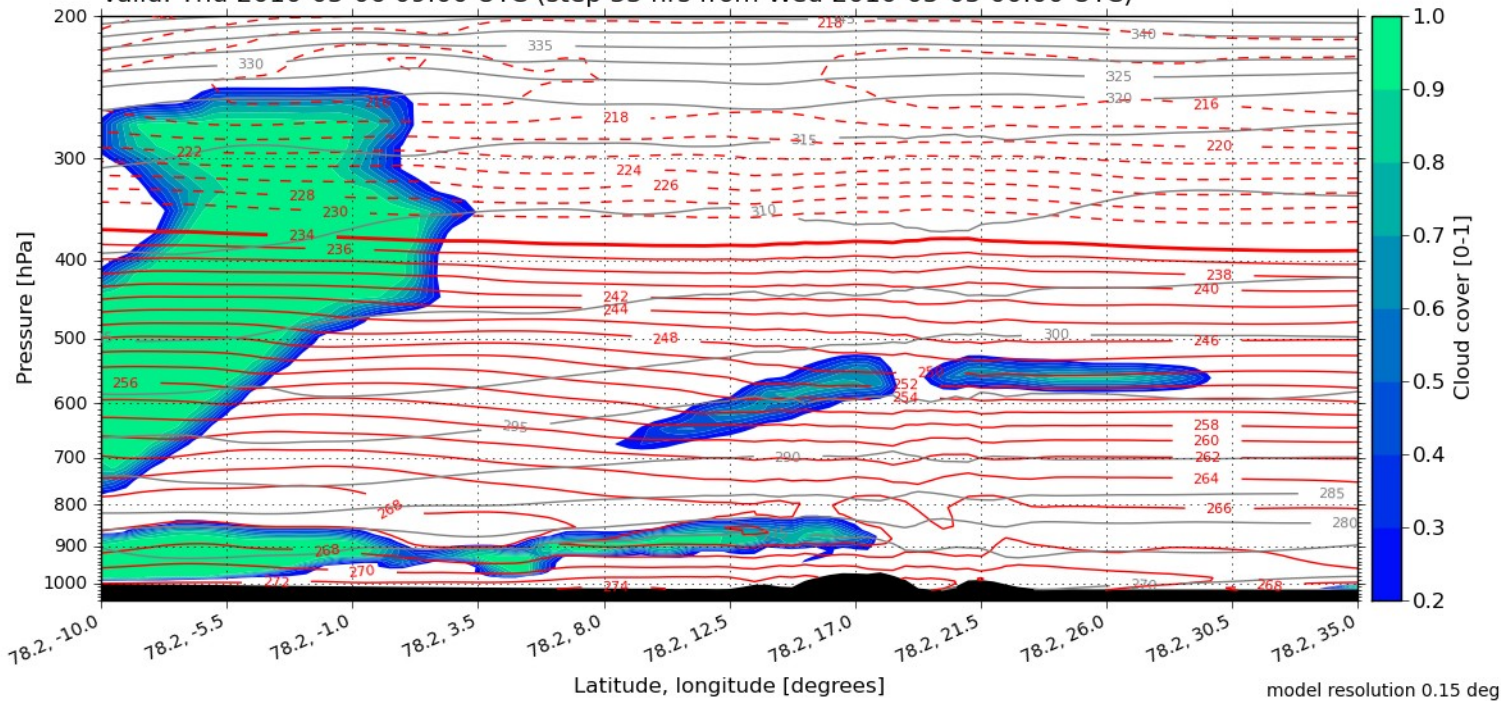
model resolution 0.15 deg

Total Cloud Cover
Valid: Thu, 06 May 2010, 09 UTC (init: 20100505 00 UTC +033 h)

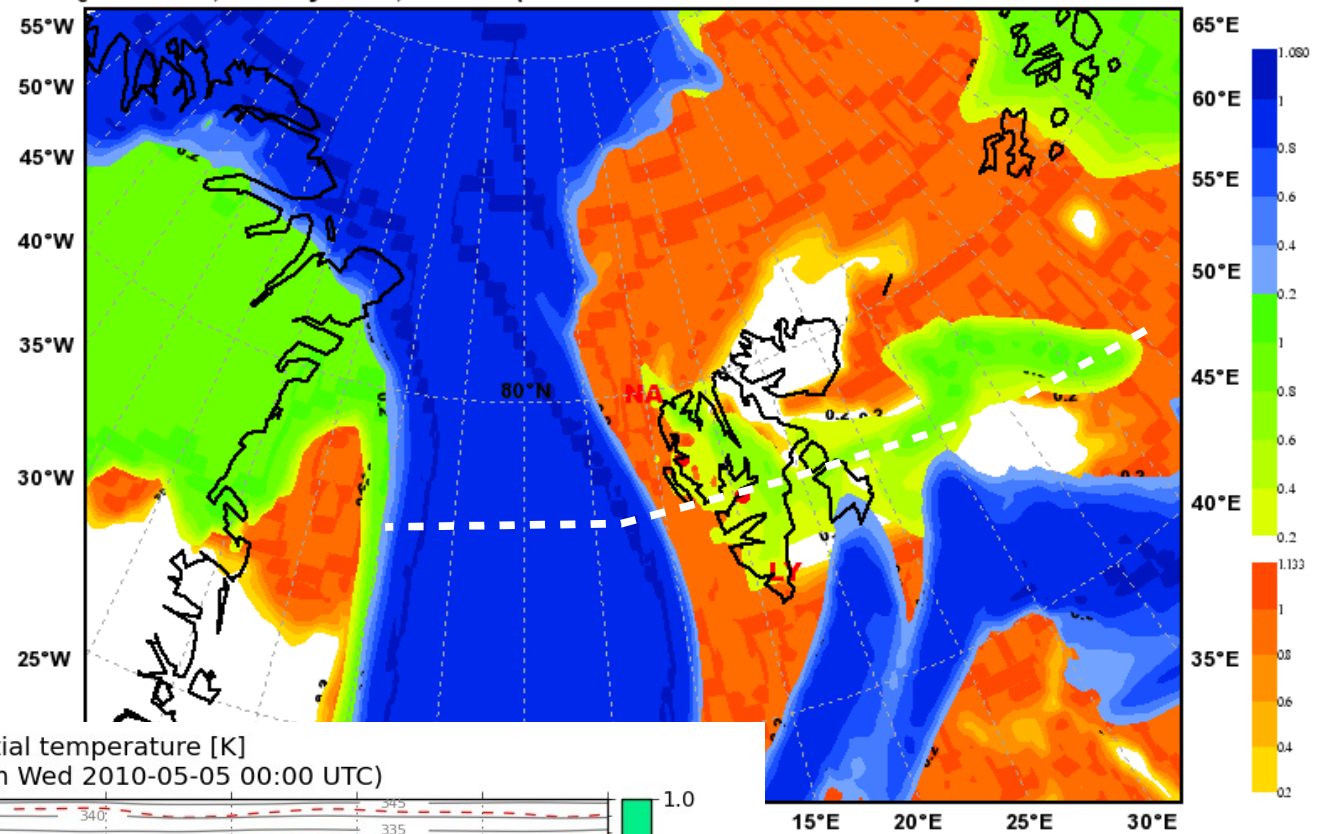


E-W along 78N

Cloud cover [0-1] with temperature [K] and potential temperature [K]
Valid: Thu 2010-05-06 09:00 UTC (step 33 hrs from Wed 2010-05-05 00:00 UTC)

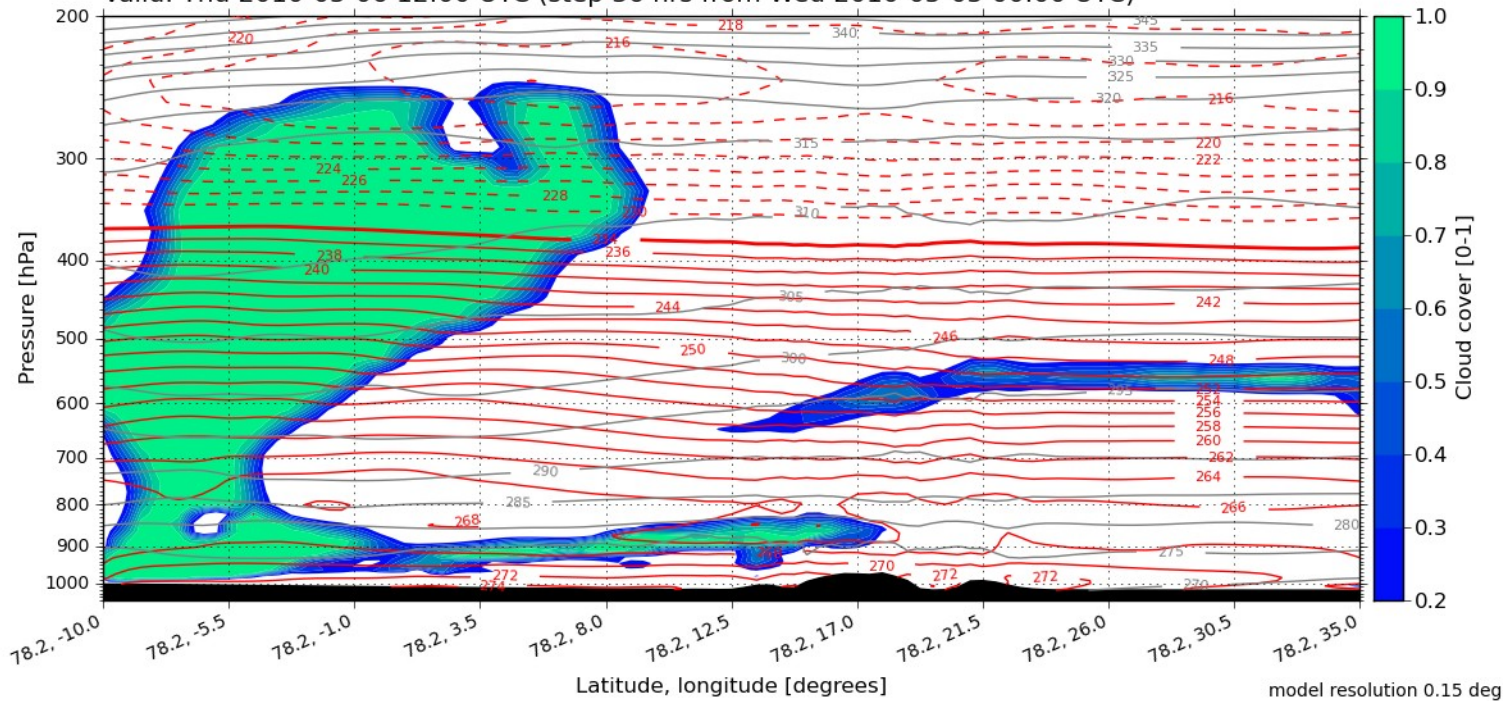


Total Cloud Cover
Valid: Thu, 06 May 2010, 12 UTC (init: 20100505 00 UTC +036 h)

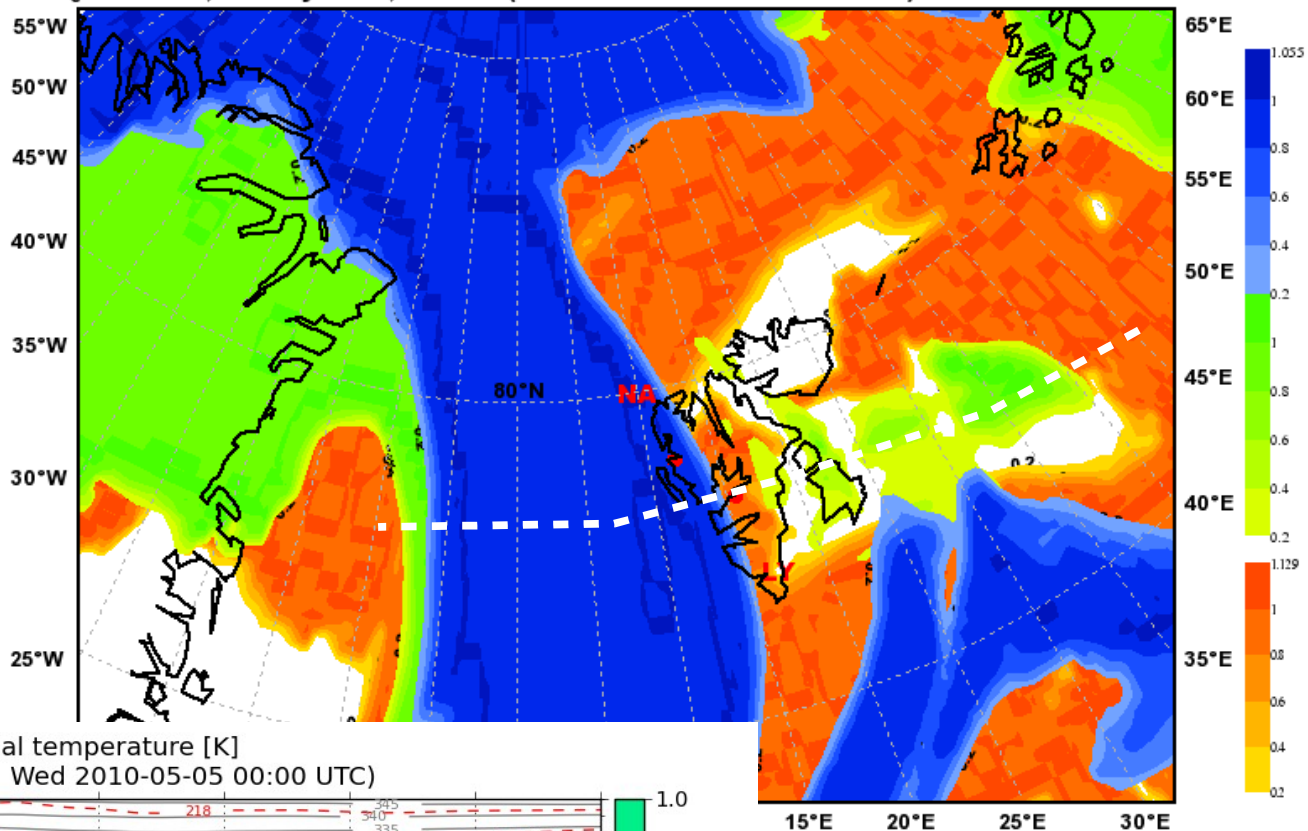


E-W along 78N

Cloud cover [0-1] with temperature [K] and potential temperature [K]
Valid: Thu 2010-05-06 12:00 UTC (step 36 hrs from Wed 2010-05-05 00:00 UTC)

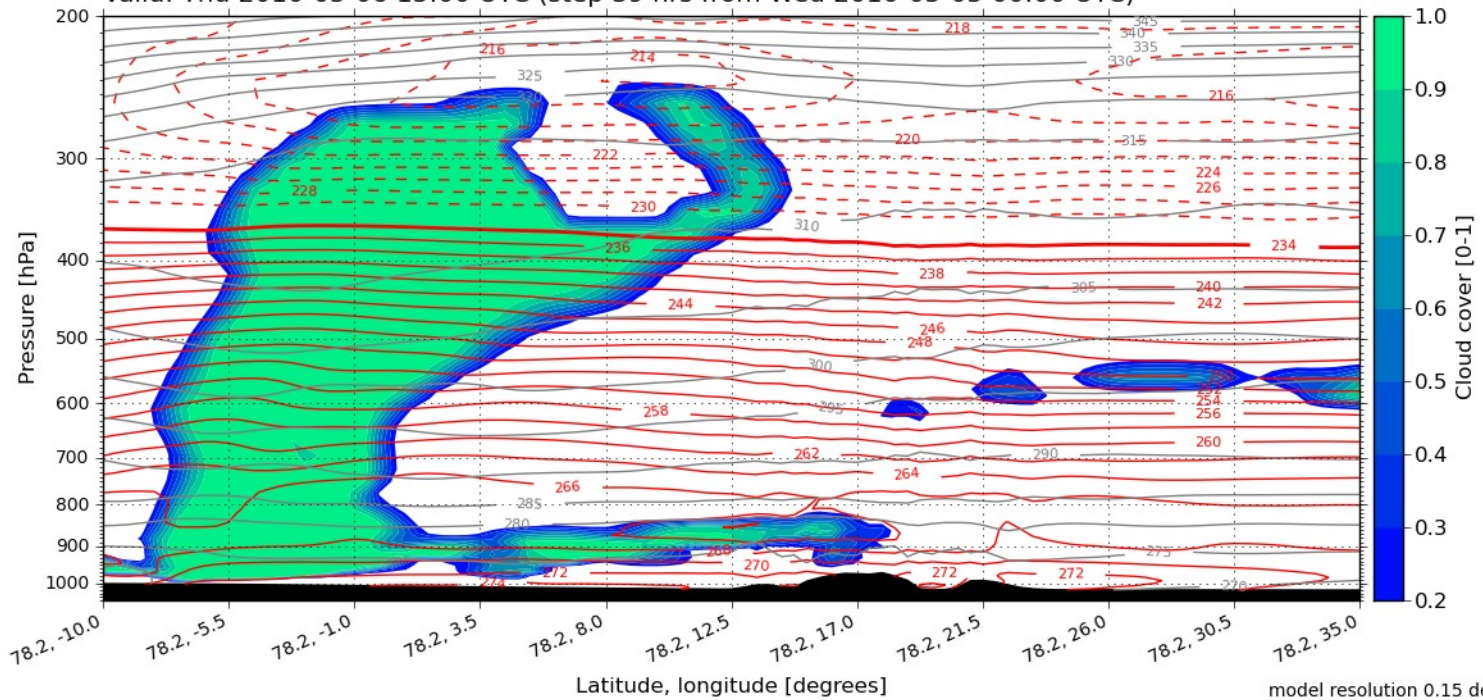


Total Cloud Cover
 Valid: Thu, 06 May 2010, 15 UTC (init: 20100505 00 UTC +039 h)



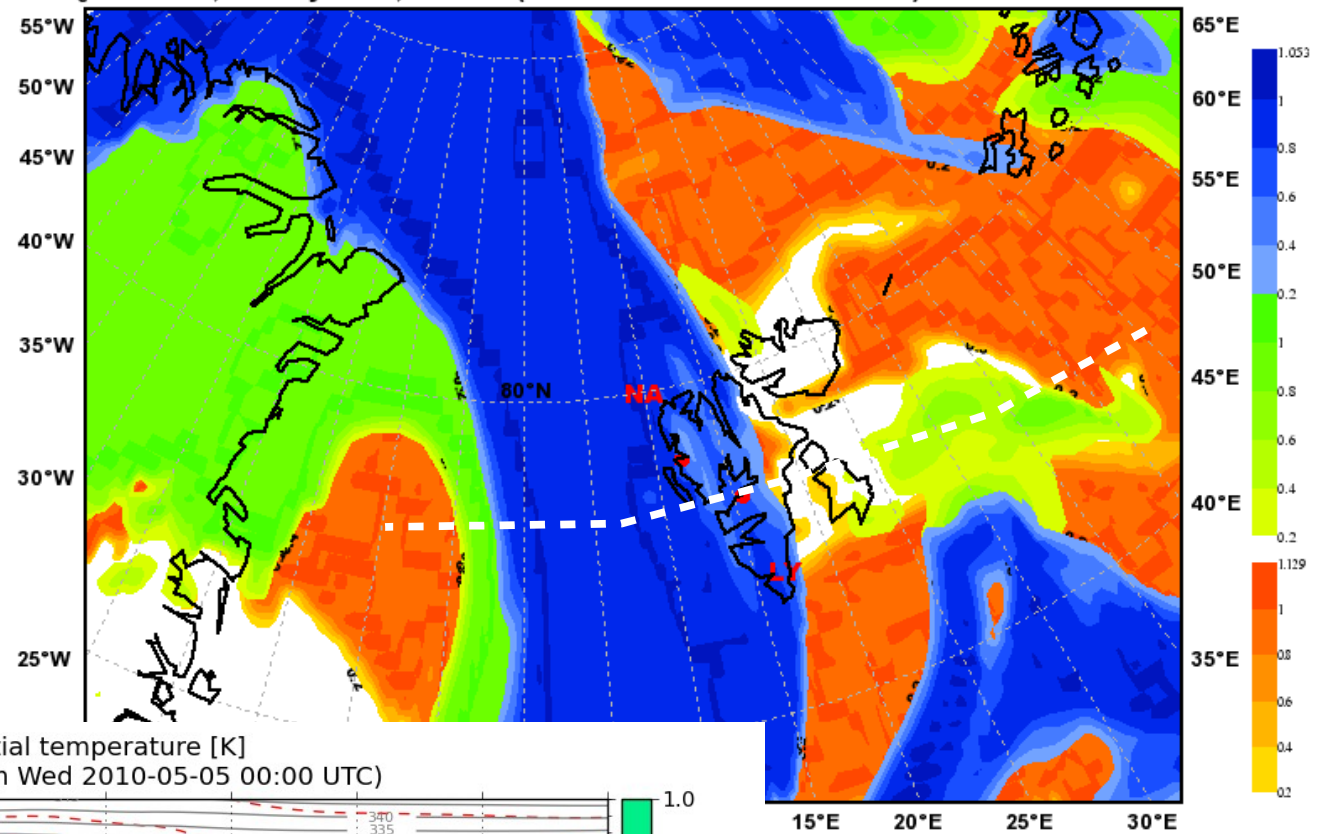
E-W along 78N

Cloud cover [0-1] with temperature [K] and potential temperature [K]
 Valid: Thu 2010-05-06 15:00 UTC (step 39 hrs from Wed 2010-05-05 00:00 UTC)



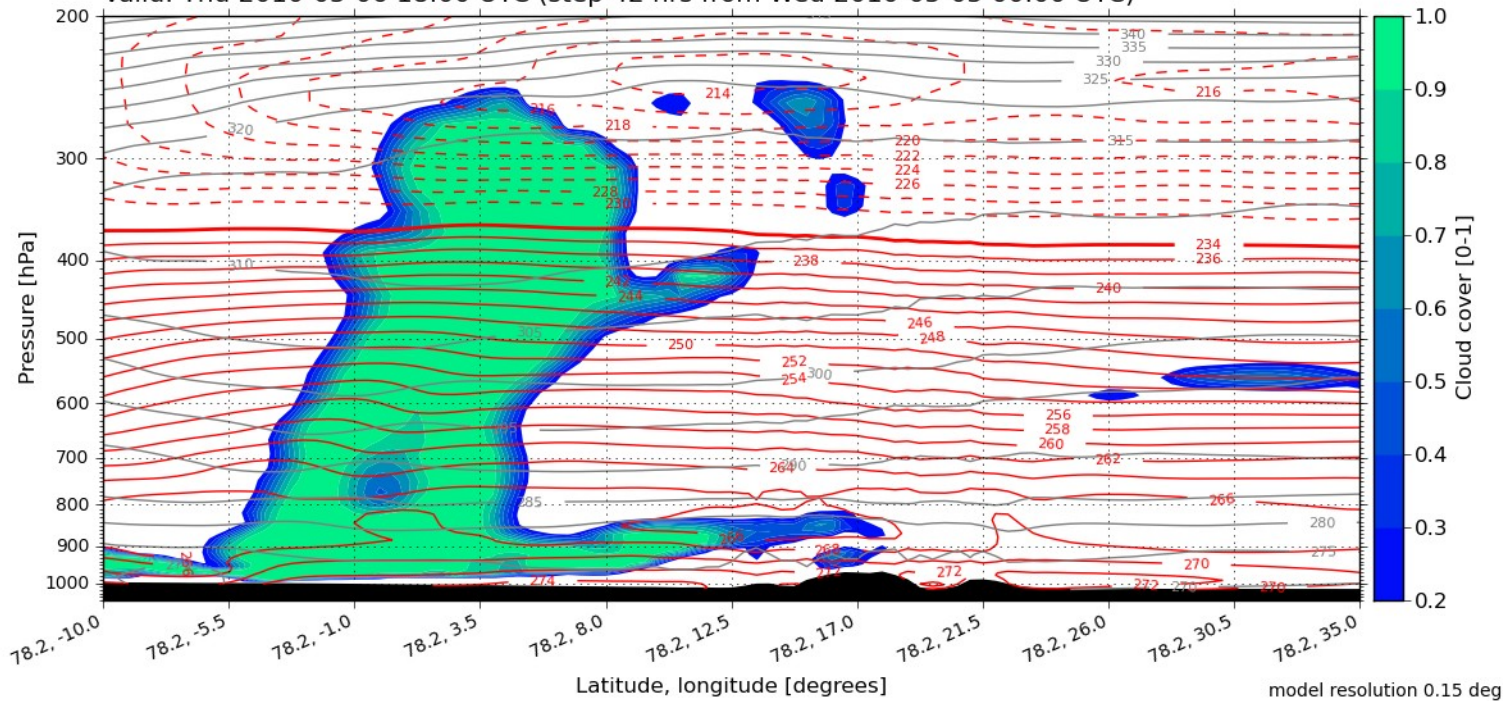
model resolution 0.15 deg

Total Cloud Cover
Valid: Thu, 06 May 2010, 18 UTC (init: 20100505 00 UTC +042 h)

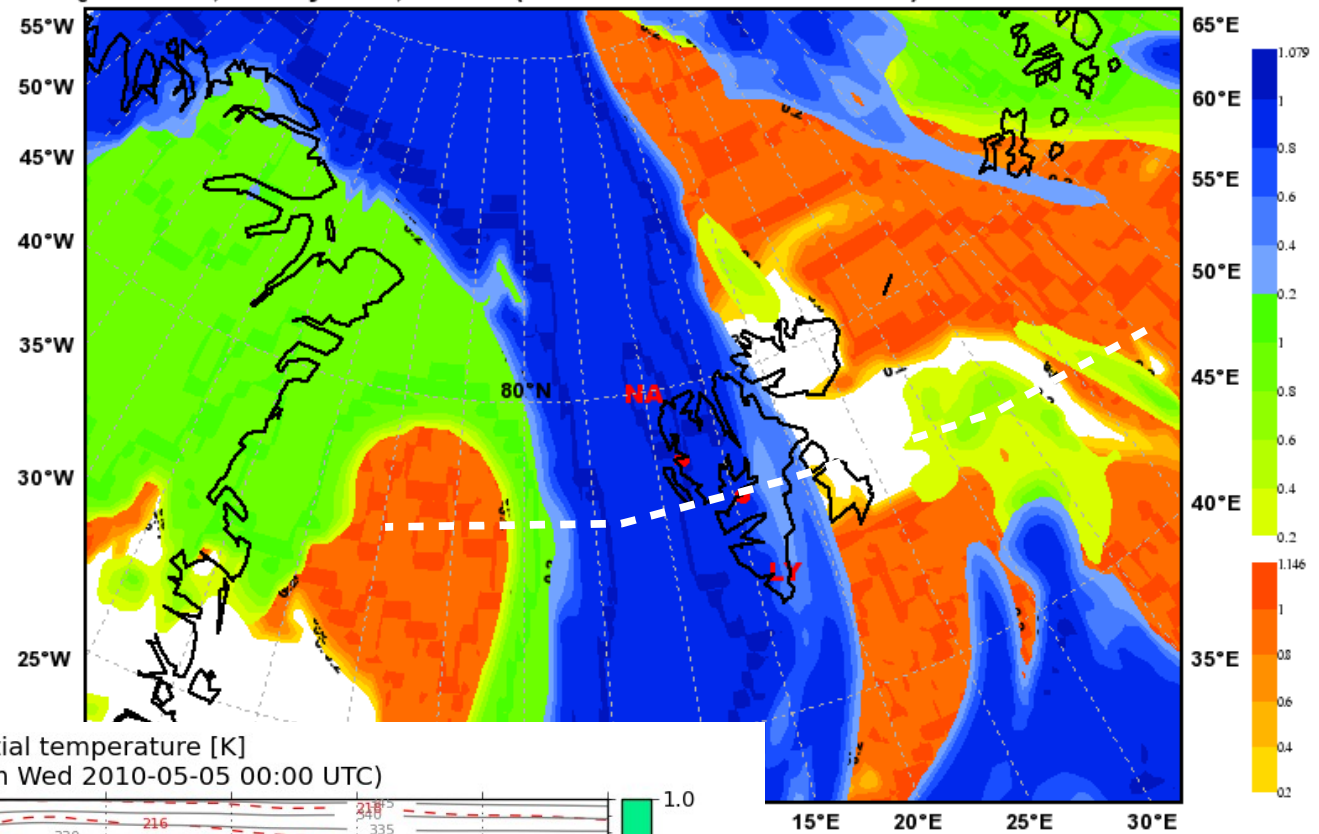


E-W along 78N

Cloud cover [0-1] with temperature [K] and potential temperature [K]
Valid: Thu 2010-05-06 18:00 UTC (step 42 hrs from Wed 2010-05-05 00:00 UTC)

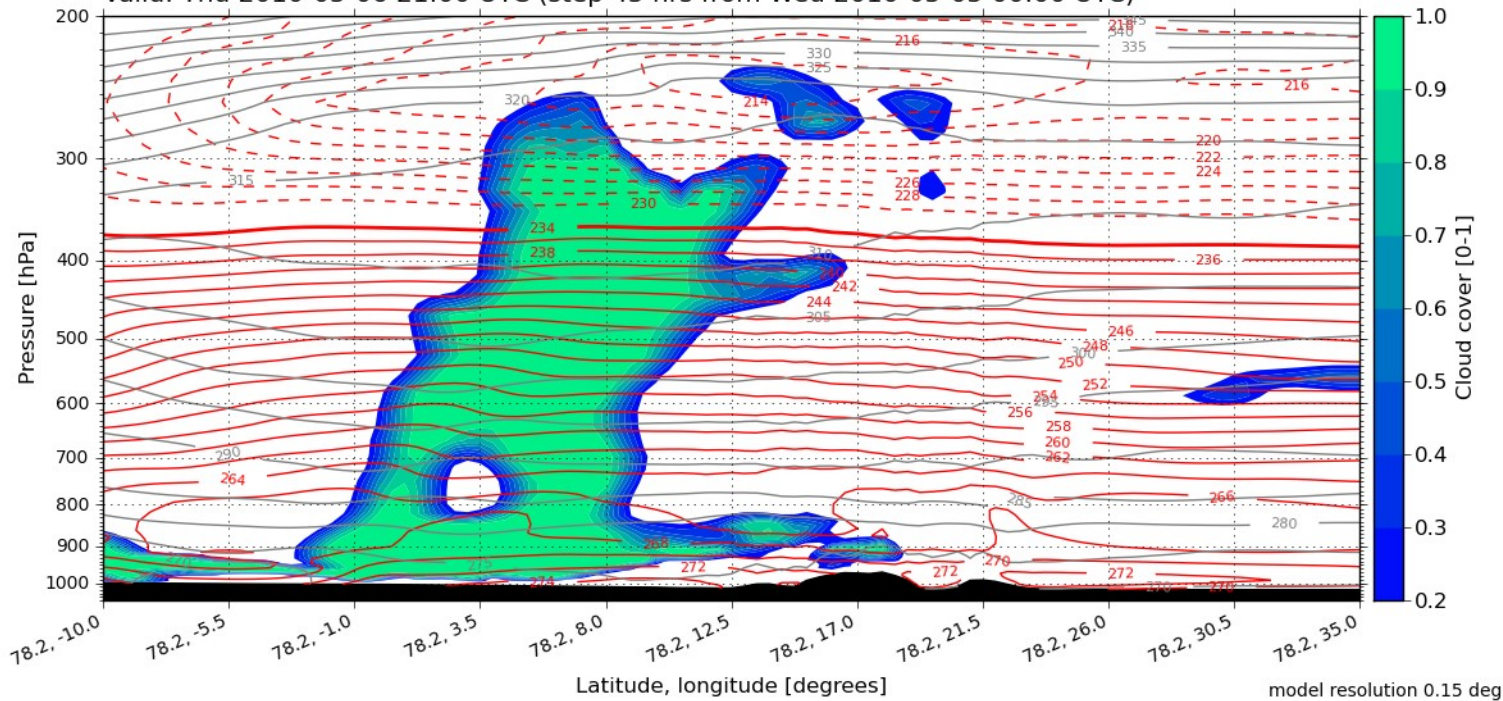


Total Cloud Cover
Valid: Thu, 06 May 2010, 21 UTC (init: 20100505 00 UTC +045 h)

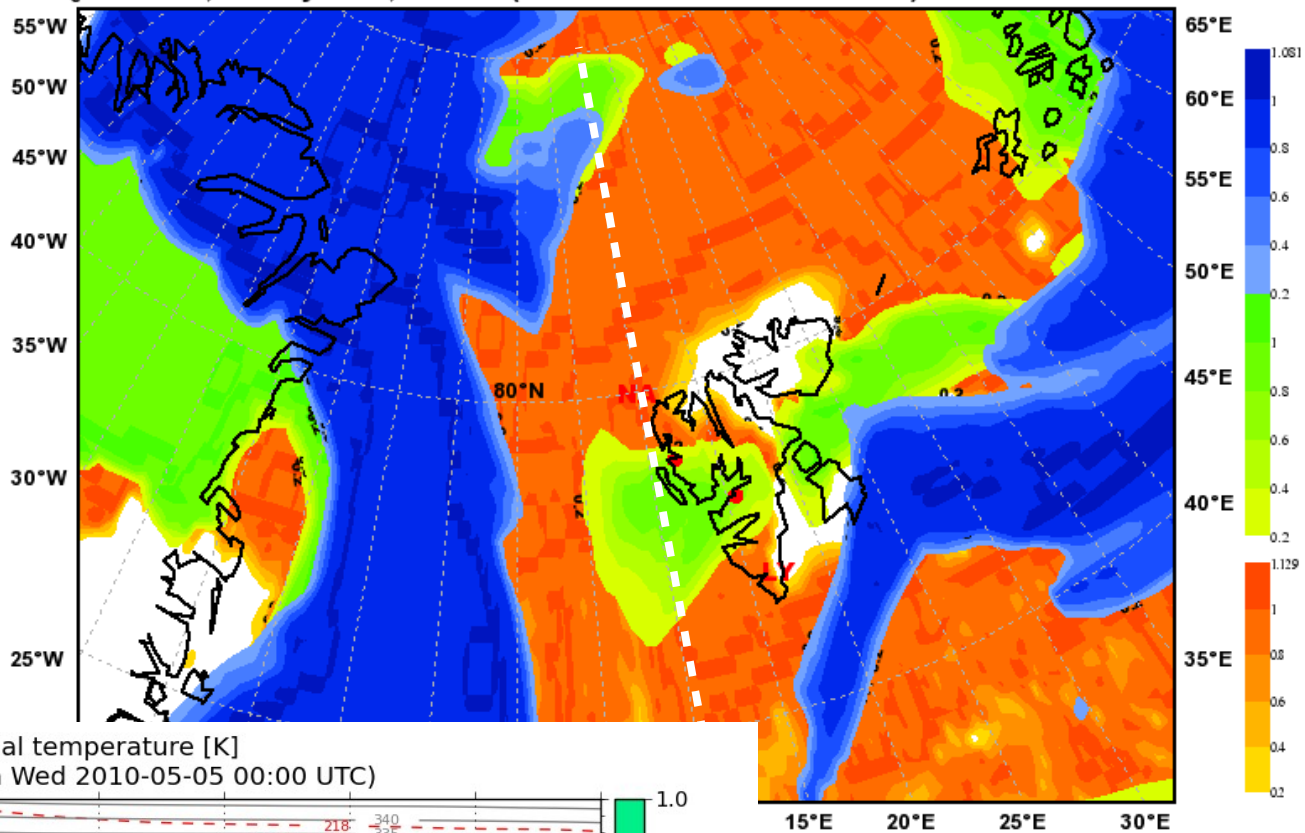


E-W along 78N

Cloud cover [0-1] with temperature [K] and potential temperature [K]
Valid: Thu 2010-05-06 21:00 UTC (step 45 hrs from Wed 2010-05-05 00:00 UTC)

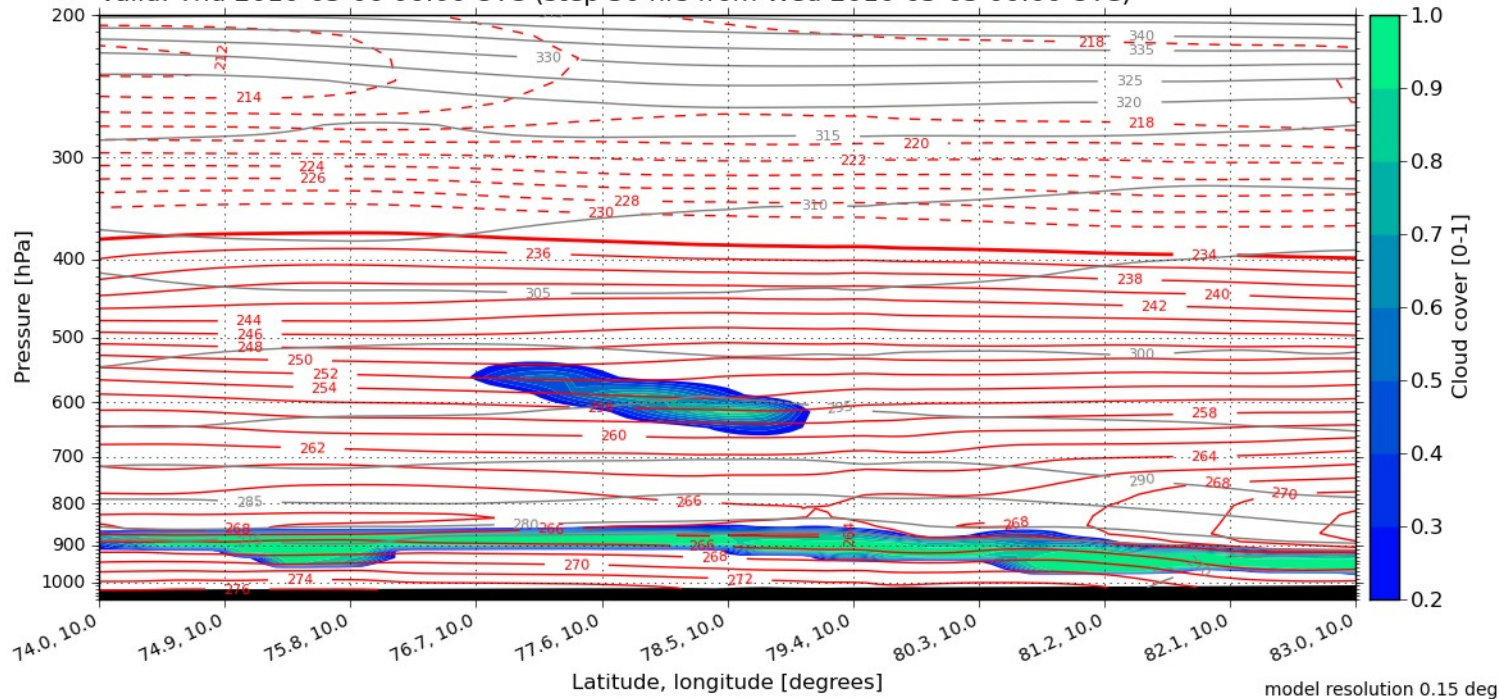


Total Cloud Cover
 Valid: Thu, 06 May 2010, 06 UTC (init: 20100505 00 UTC +030 h)



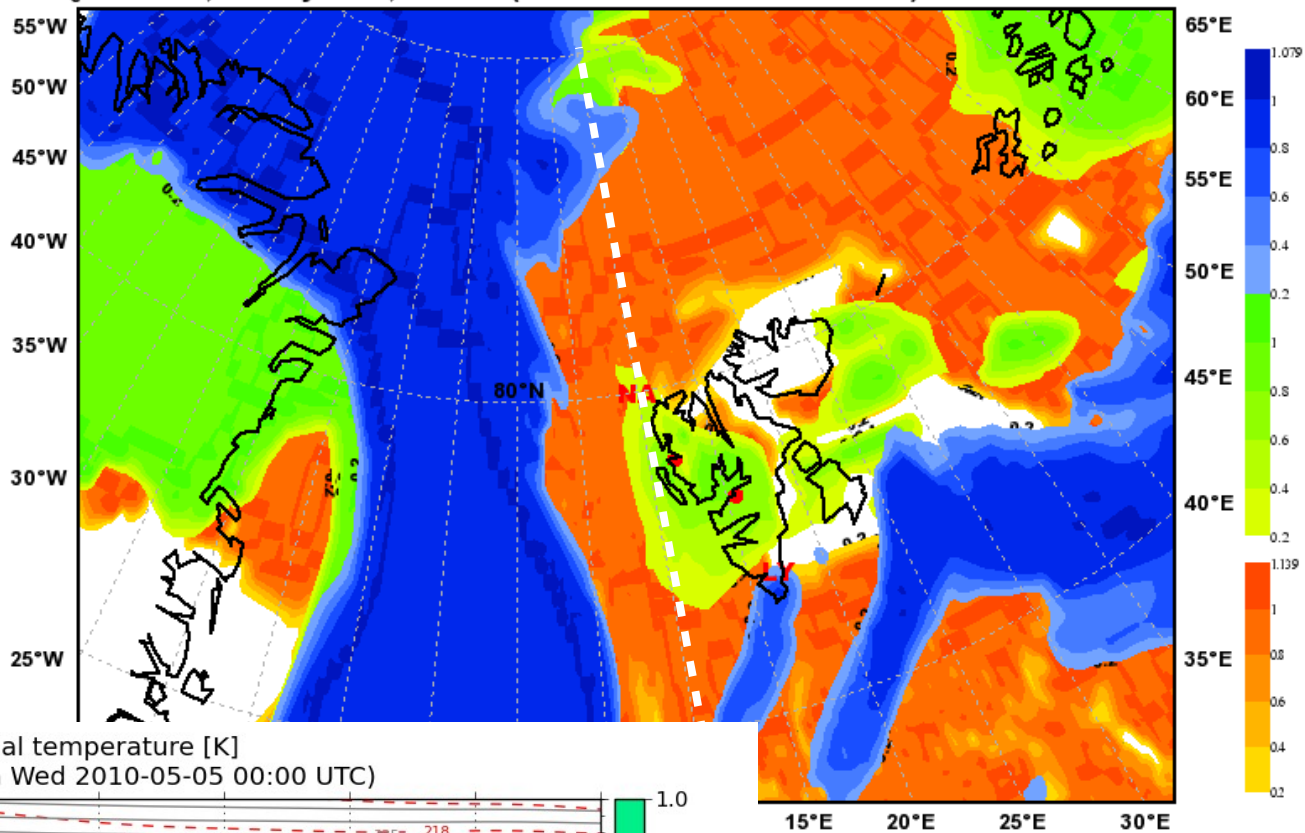
N-S along 10E

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



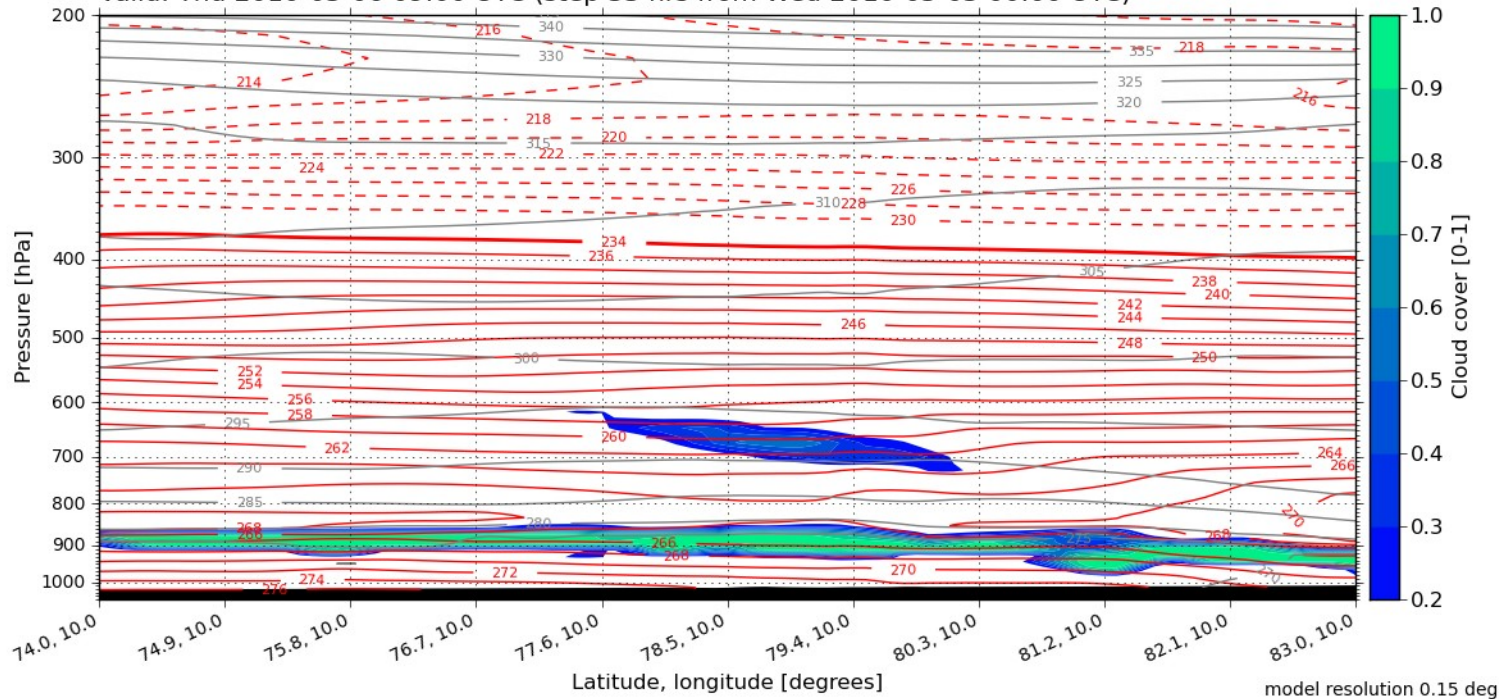
model resolution 0.15 deg

Total Cloud Cover
 Valid: Thu, 06 May 2010, 09 UTC (init: 20100505 00 UTC +033 h)

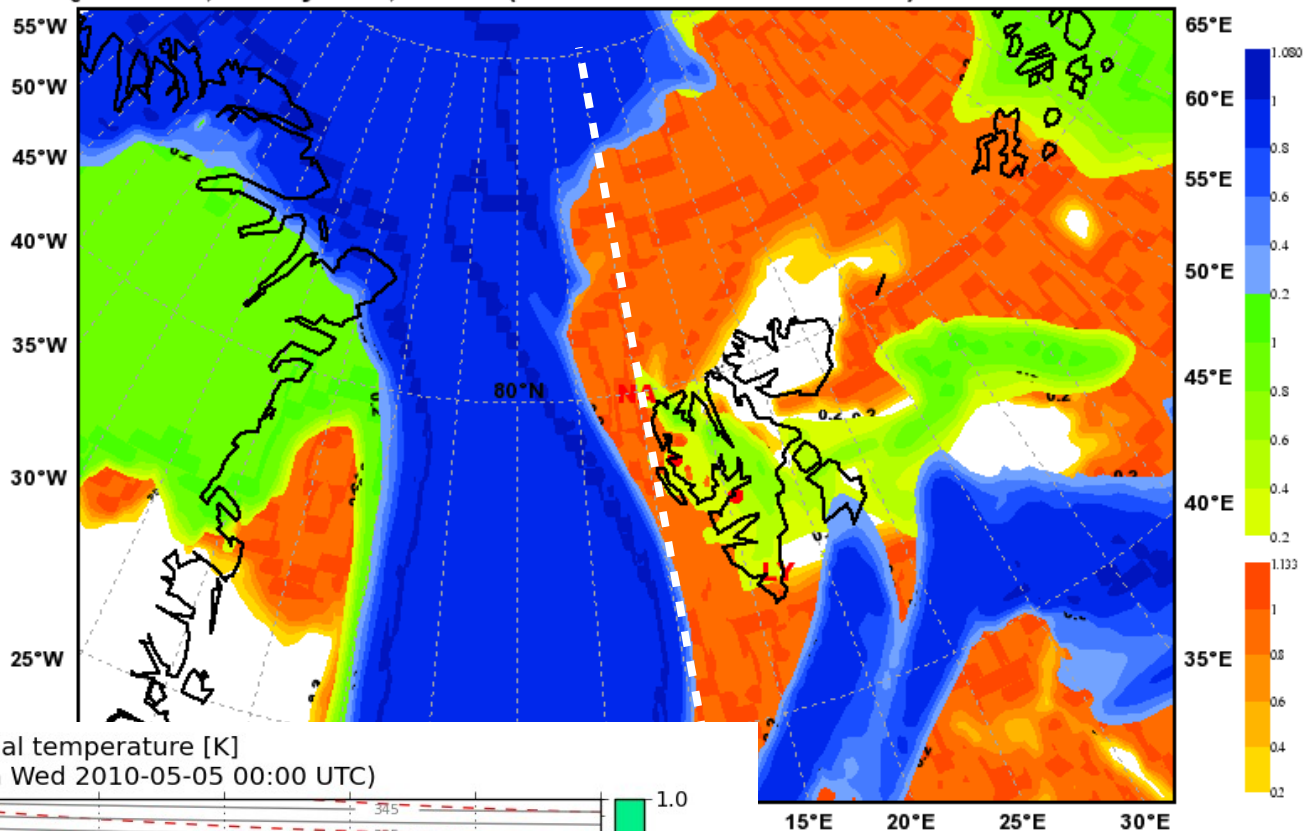


N-S along 10E

Cloud cover [0-1] with temperature [K] and potential temperature [K]
 Valid: Thu 2010-05-06 09:00 UTC (step 33 hrs from Wed 2010-05-05 00:00 UTC)

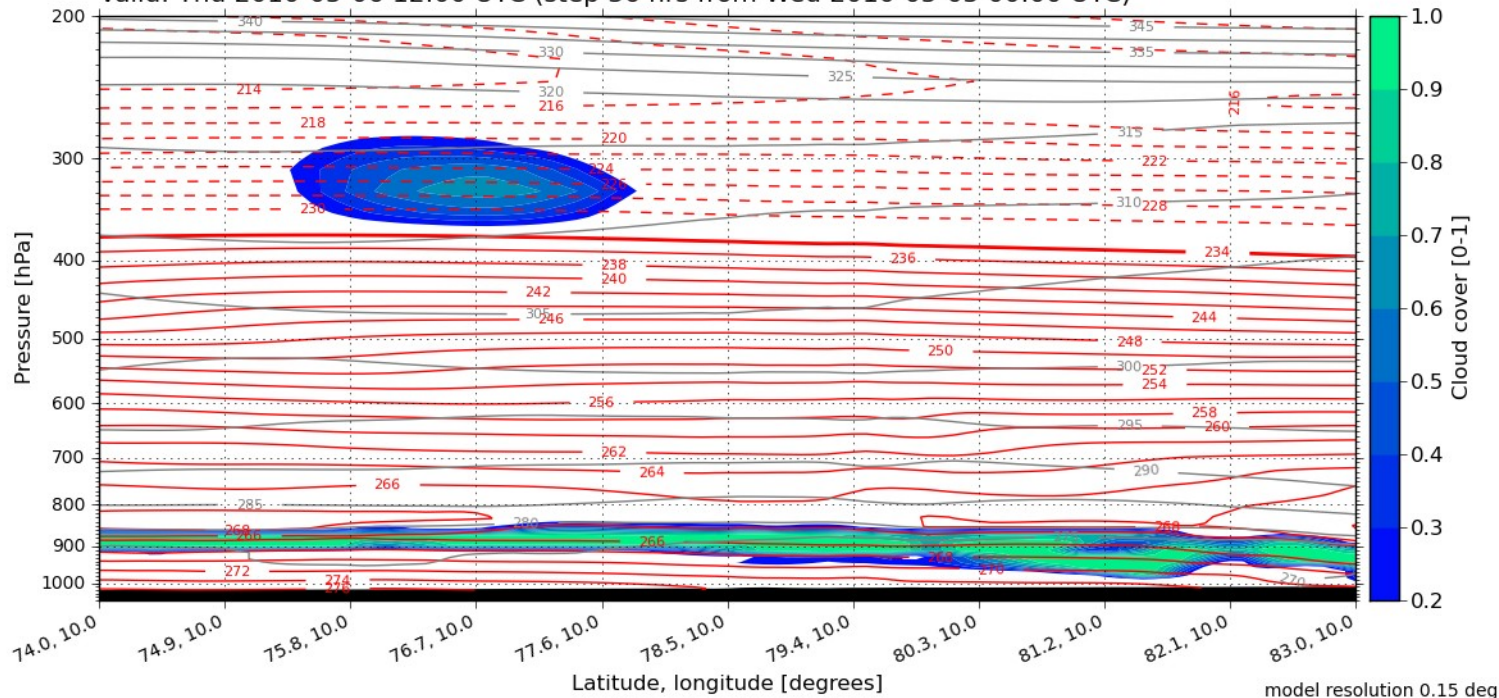


Total Cloud Cover
 Valid: Thu, 06 May 2010, 12 UTC (init: 20100505 00 UTC +036 h)



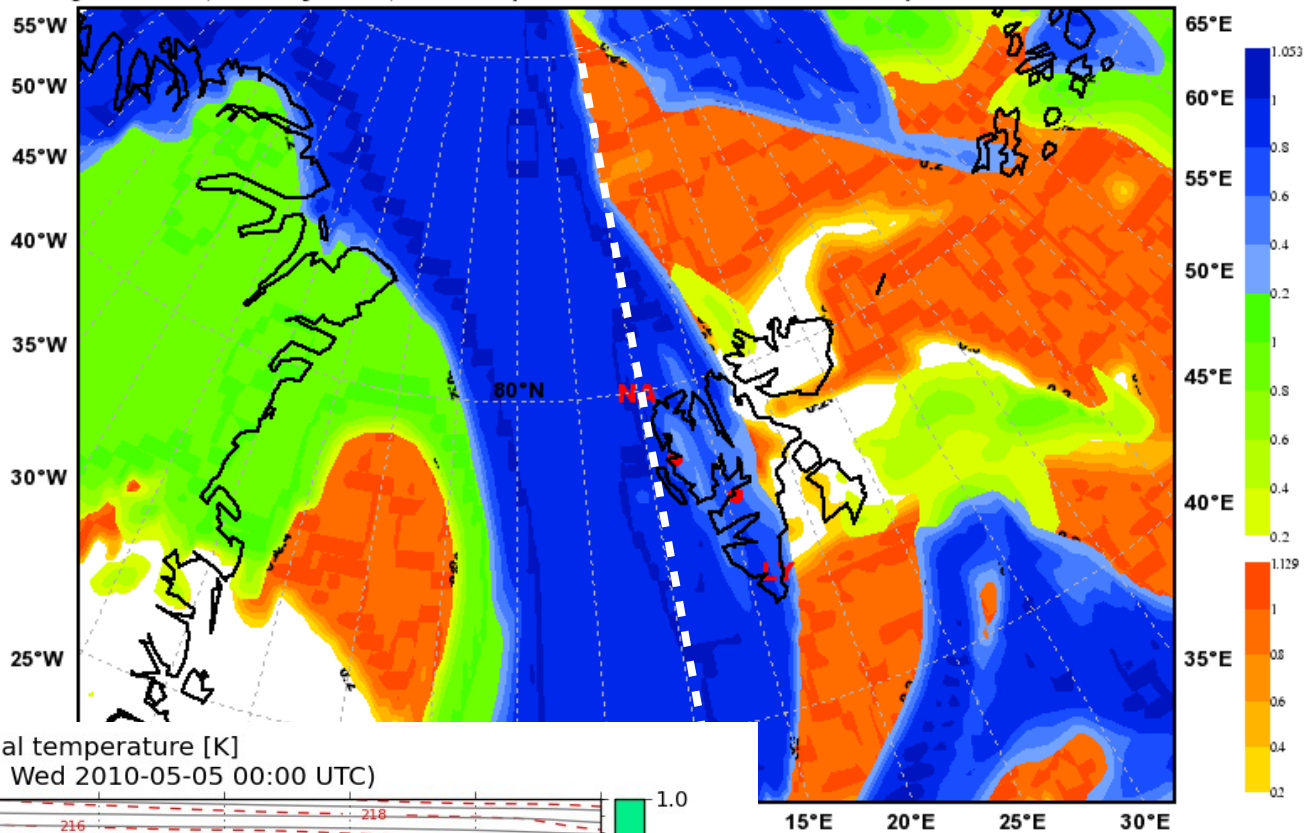
N-S along 10E

Cloud cover [0-1] with temperature [K] and potential temperature [K]
 Valid: Thu 2010-05-06 12:00 UTC (step 36 hrs from Wed 2010-05-05 00:00 UTC)



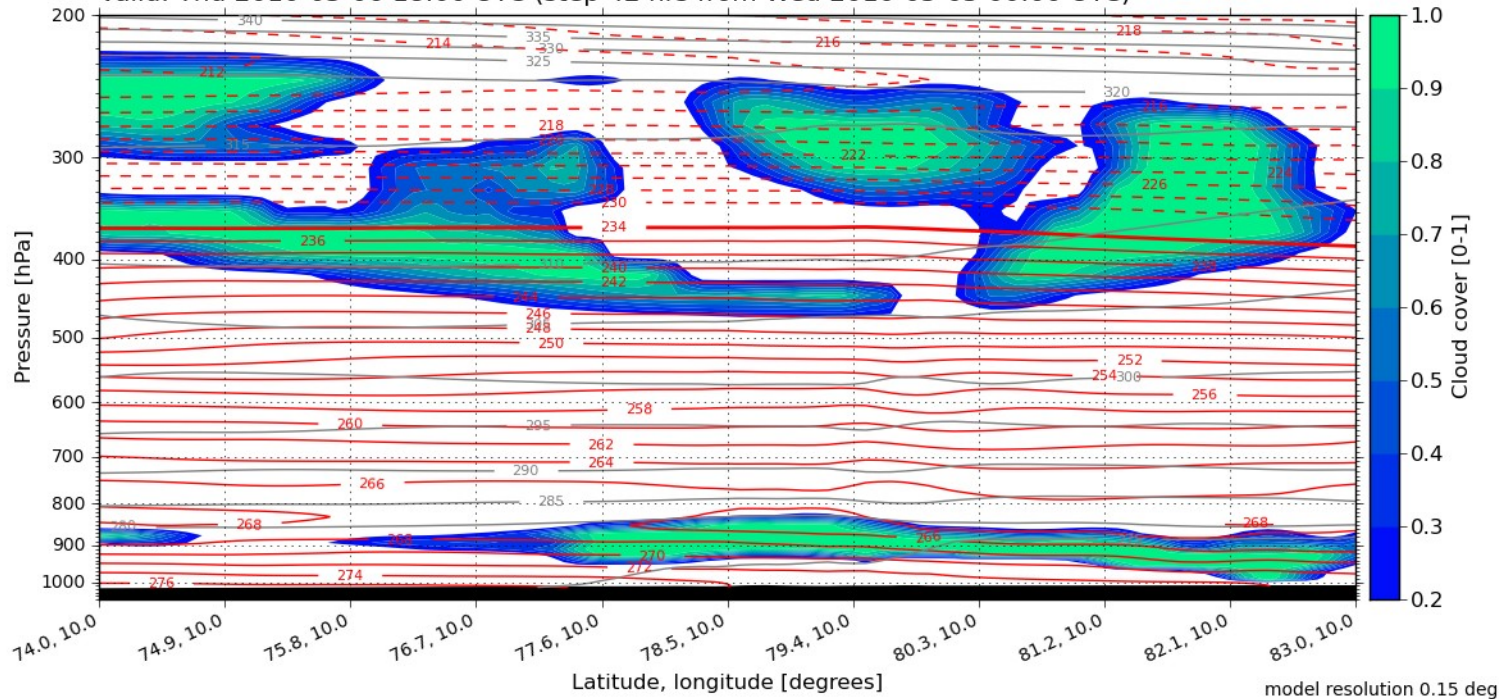
model resolution 0.15 deg

Total Cloud Cover
 Valid: Thu, 06 May 2010, 18 UTC (init: 20100505 00 UTC +042 h)

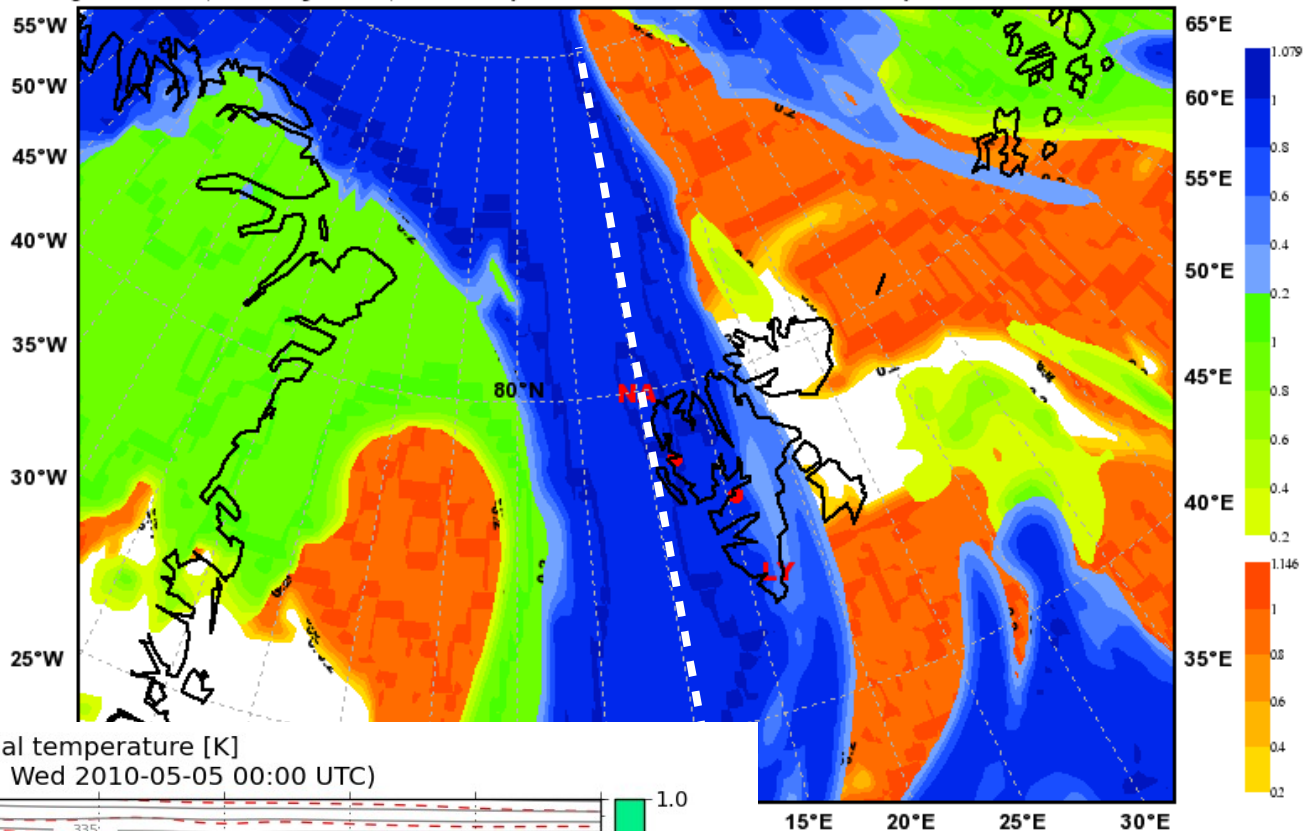


N-S along 10E

Cloud cover [0-1] with temperature [K] and potential temperature [K]
 Valid: Thu 2010-05-06 18:00 UTC (step 42 hrs from Wed 2010-05-05 00:00 UTC)

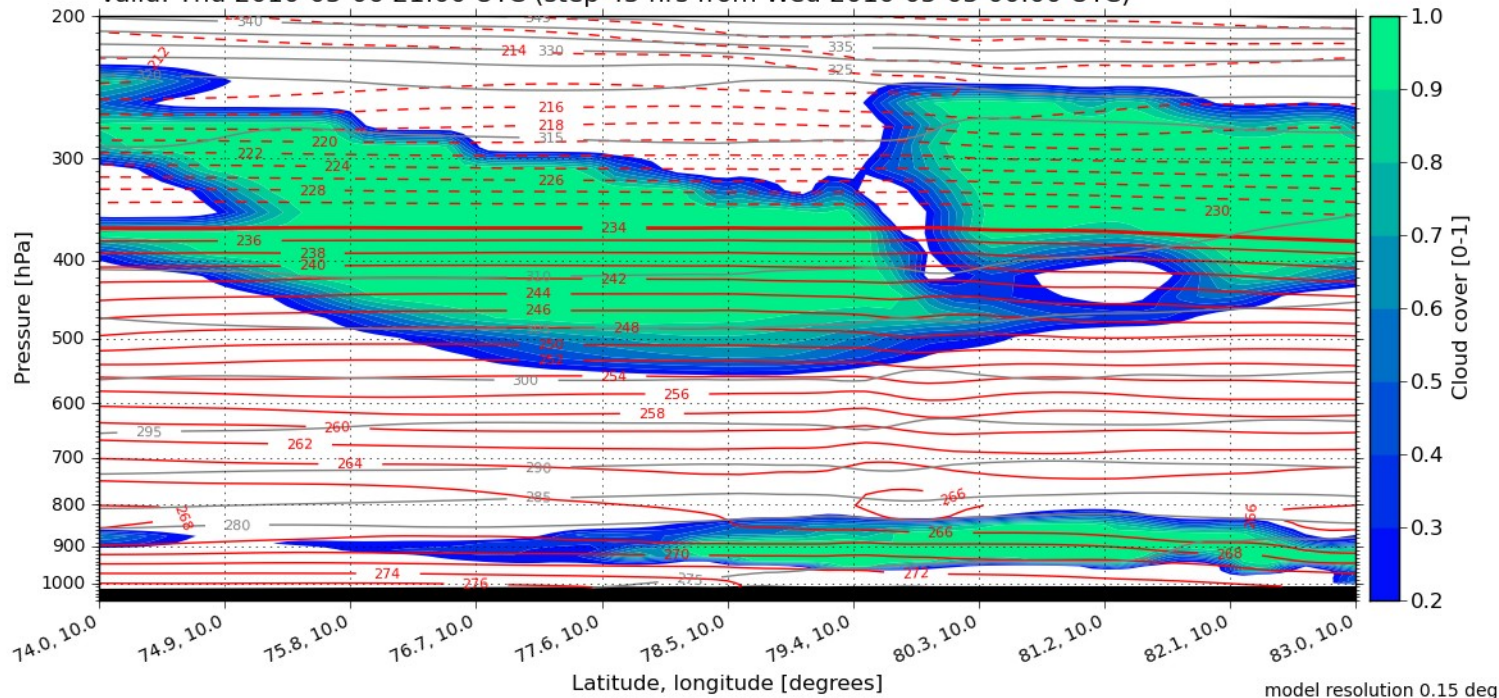


Total Cloud Cover
 Valid: Thu, 06 May 2010, 21 UTC (init: 20100505 00 UTC +045 h)



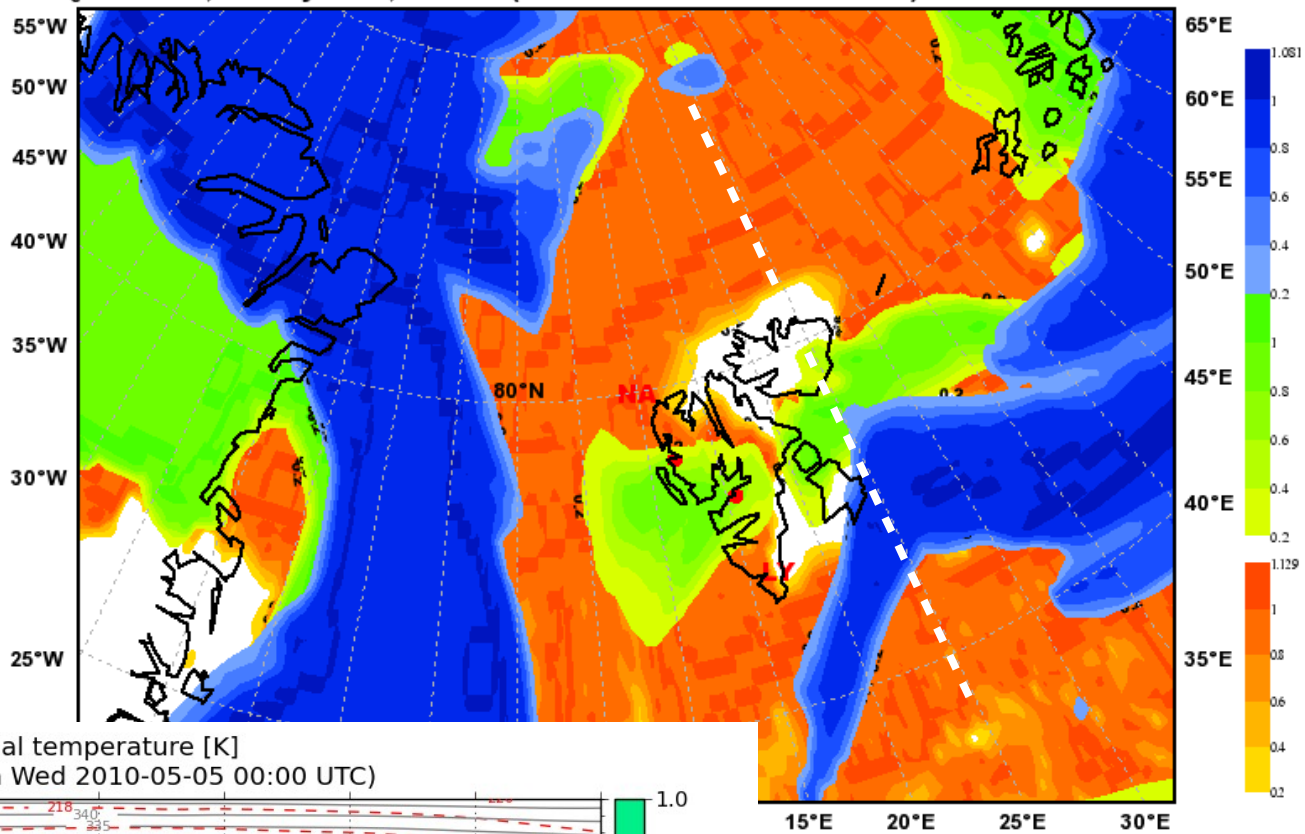
N-S along 10E

Cloud cover [0-1] with temperature [K] and potential temperature [K]
 Valid: Thu 2010-05-06 21:00 UTC (step 45 hrs from Wed 2010-05-05 00:00 UTC)



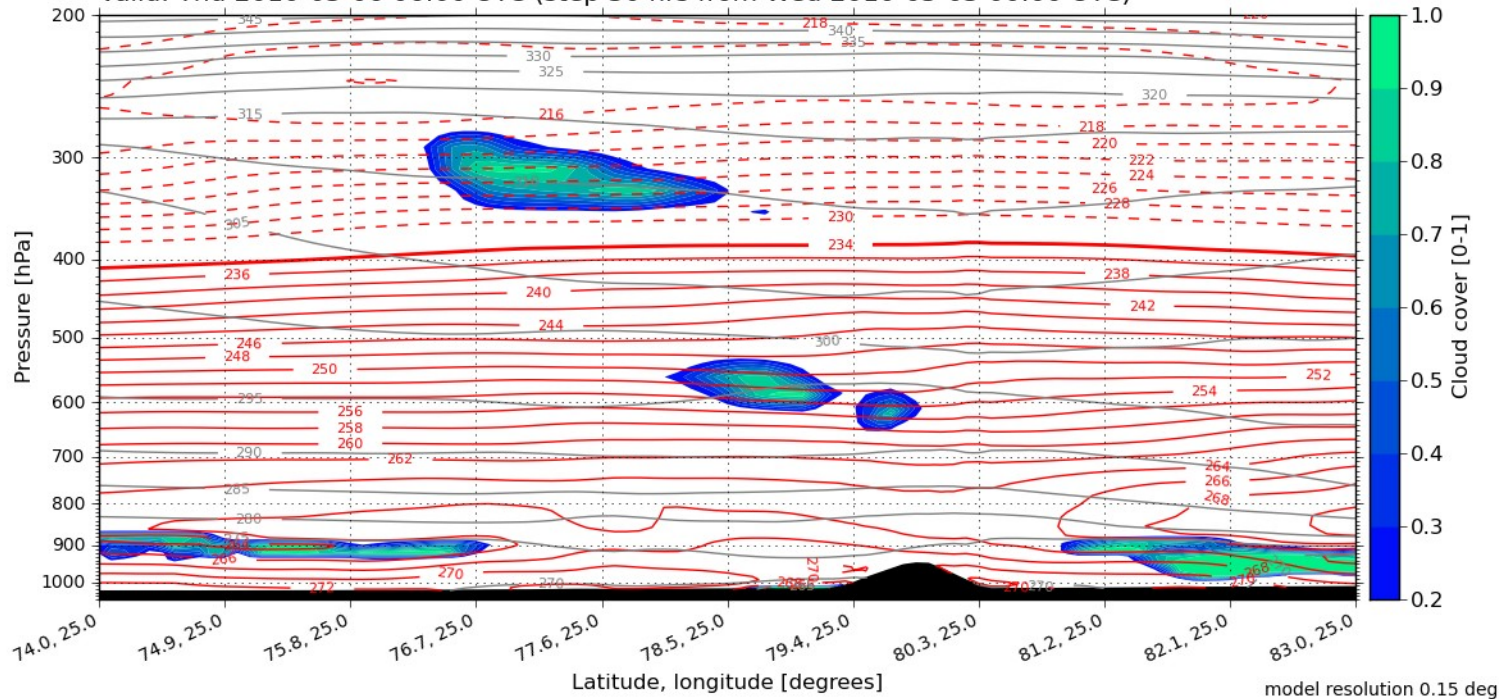
model resolution 0.15 deg

Total Cloud Cover
 Valid: Thu, 06 May 2010, 06 UTC (init: 20100505 00 UTC +030 h)



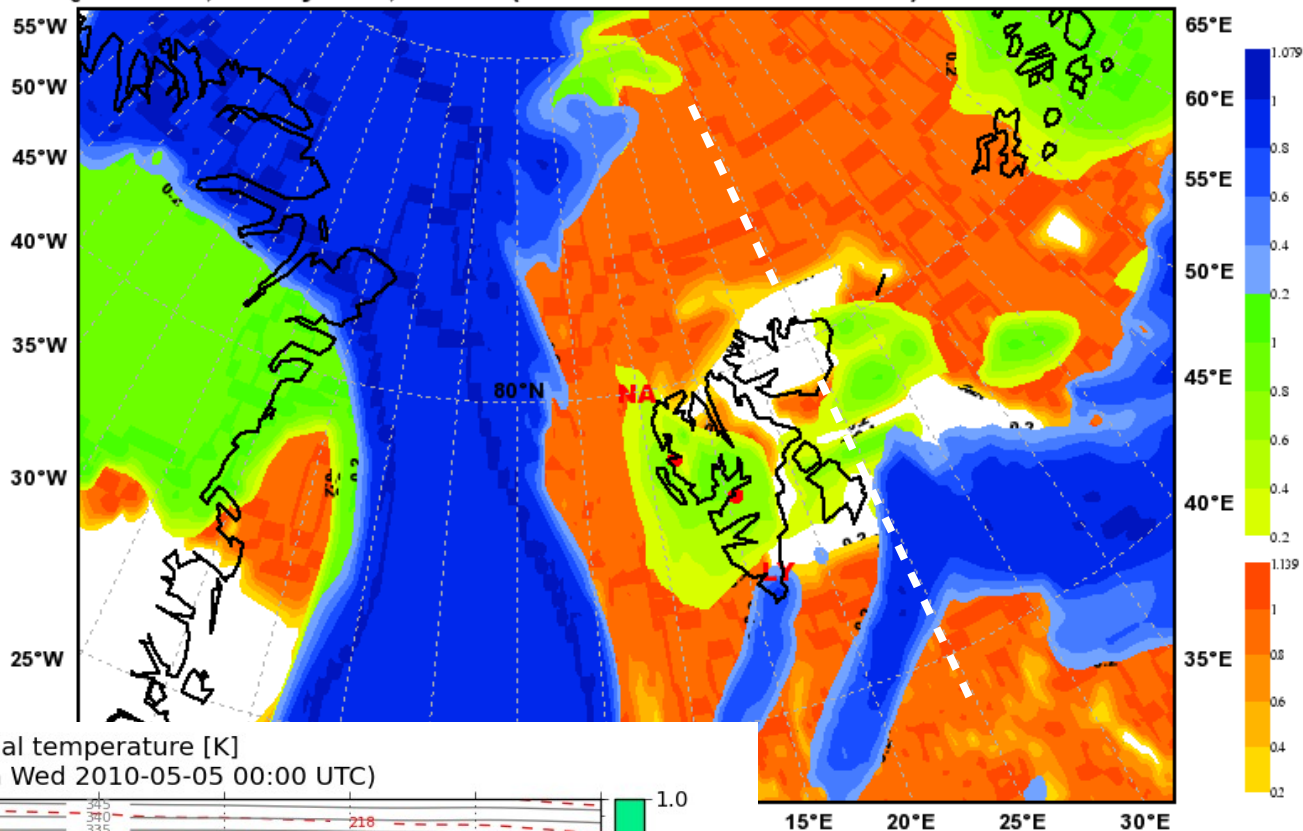
N-S along 25E

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



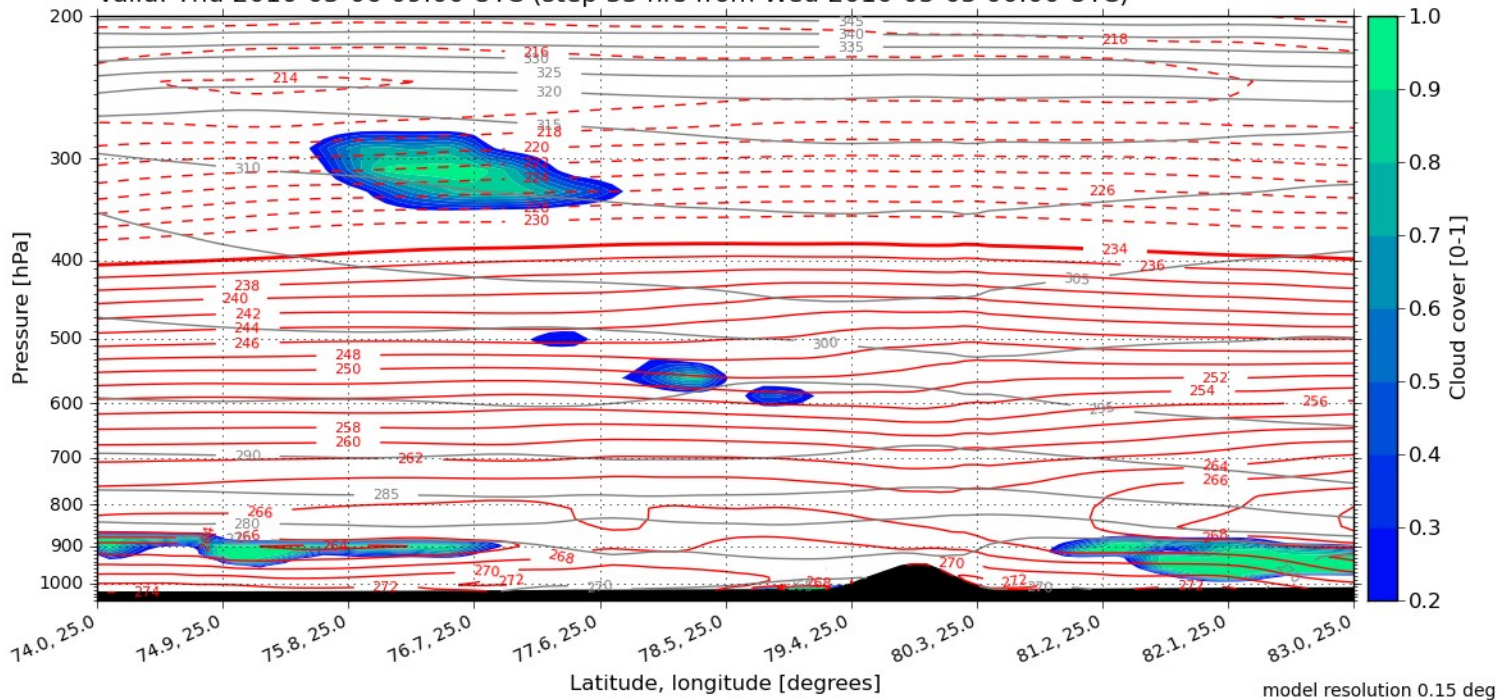
model resolution 0.15 deg

Total Cloud Cover
 valid: Thu, 06 May 2010, 09 UTC (init: 20100505 00 UTC +033 h)



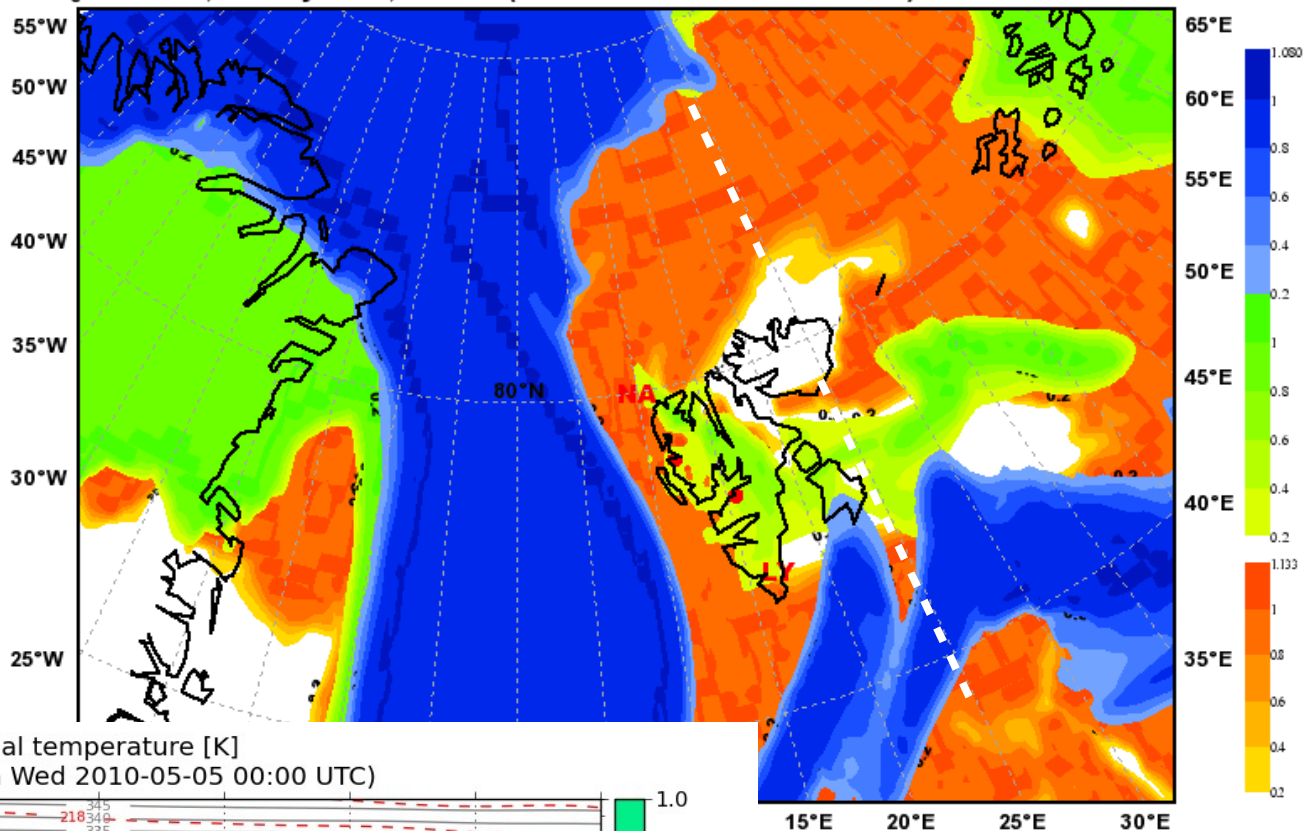
N-S along 25E

Cloud cover [0-1] with temperature [K] and potential temperature [K]
 Valid: Thu 2010-05-06 09:00 UTC (step 33 hrs from Wed 2010-05-05 00:00 UTC)



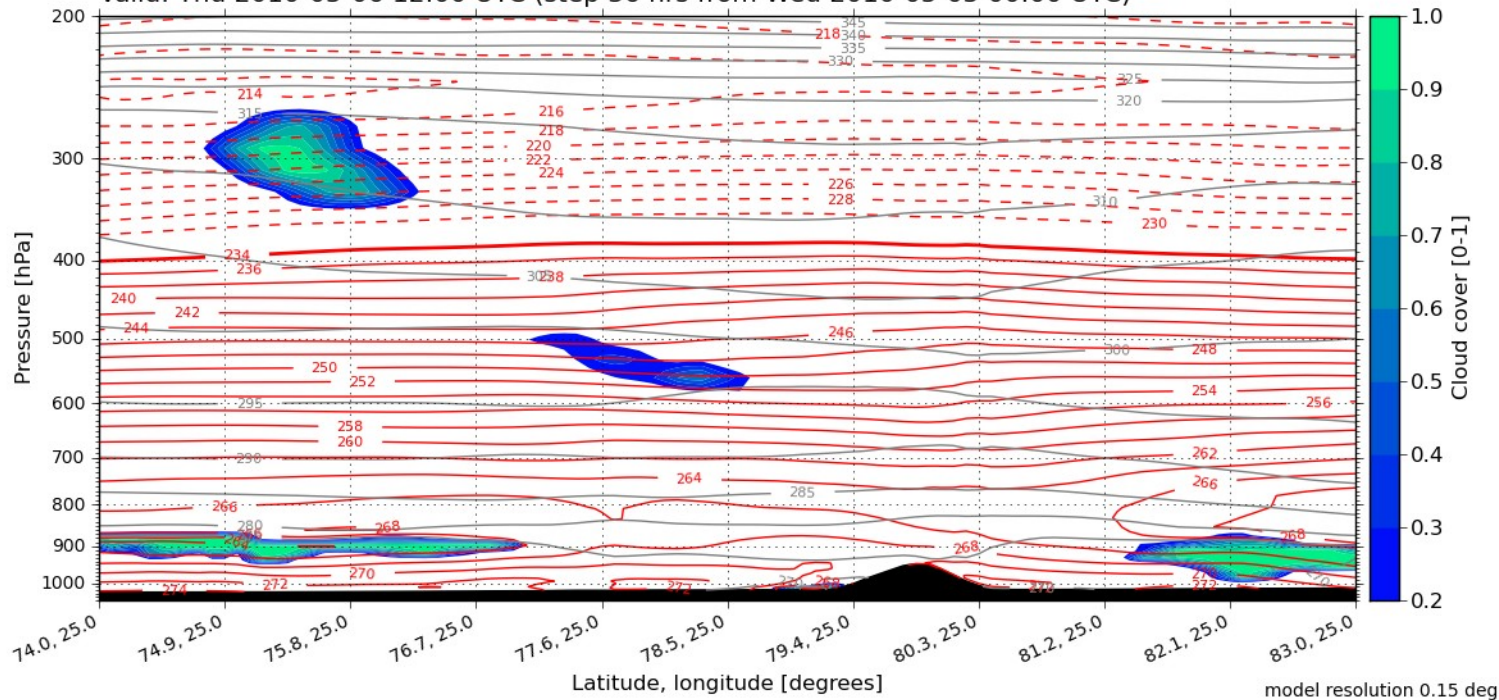
model resolution 0.15 deg

Total Cloud Cover
 Valid: Thu, 06 May 2010, 12 UTC (init: 20100505 00 UTC +036 h)

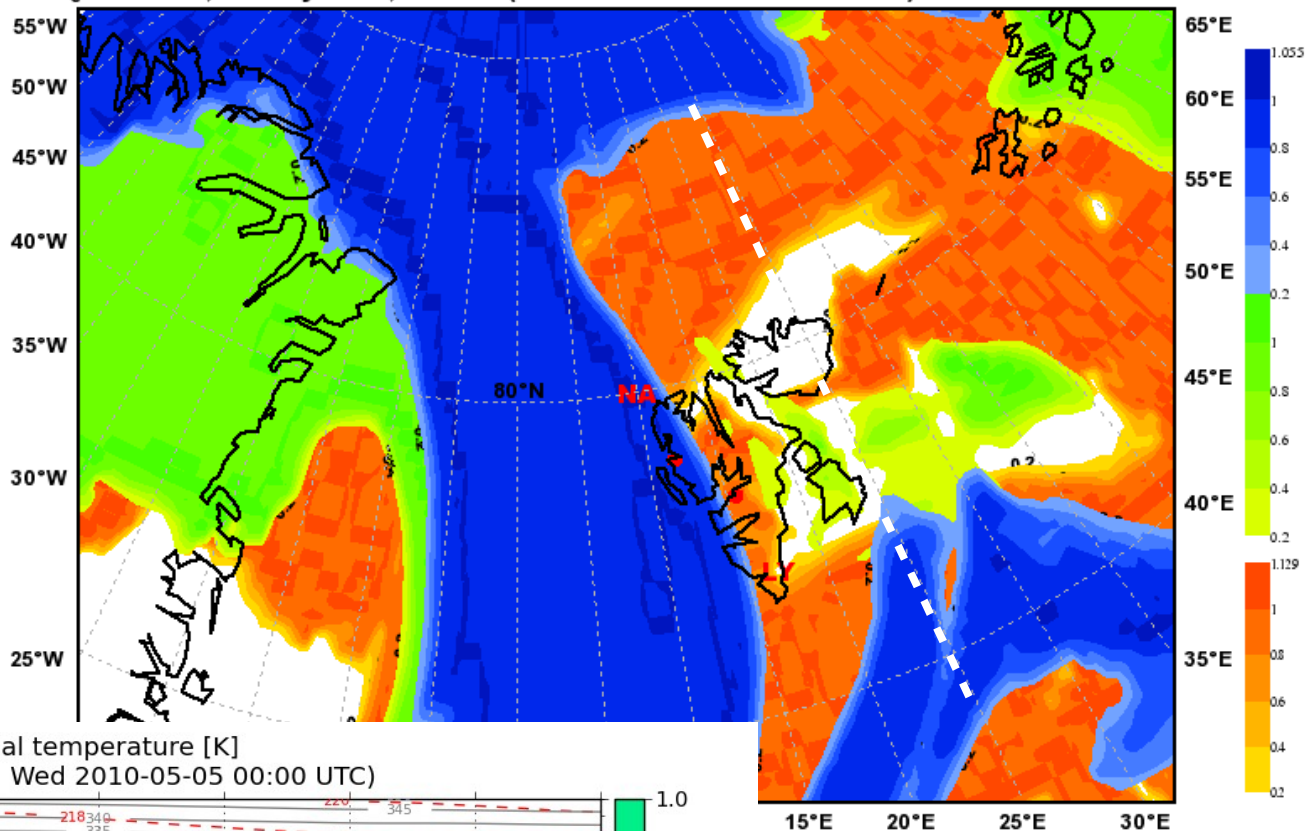


N-S along 25E

Cloud cover [0-1] with temperature [K] and potential temperature [K]
 Valid: Thu 2010-05-06 12:00 UTC (step 36 hrs from Wed 2010-05-05 00:00 UTC)

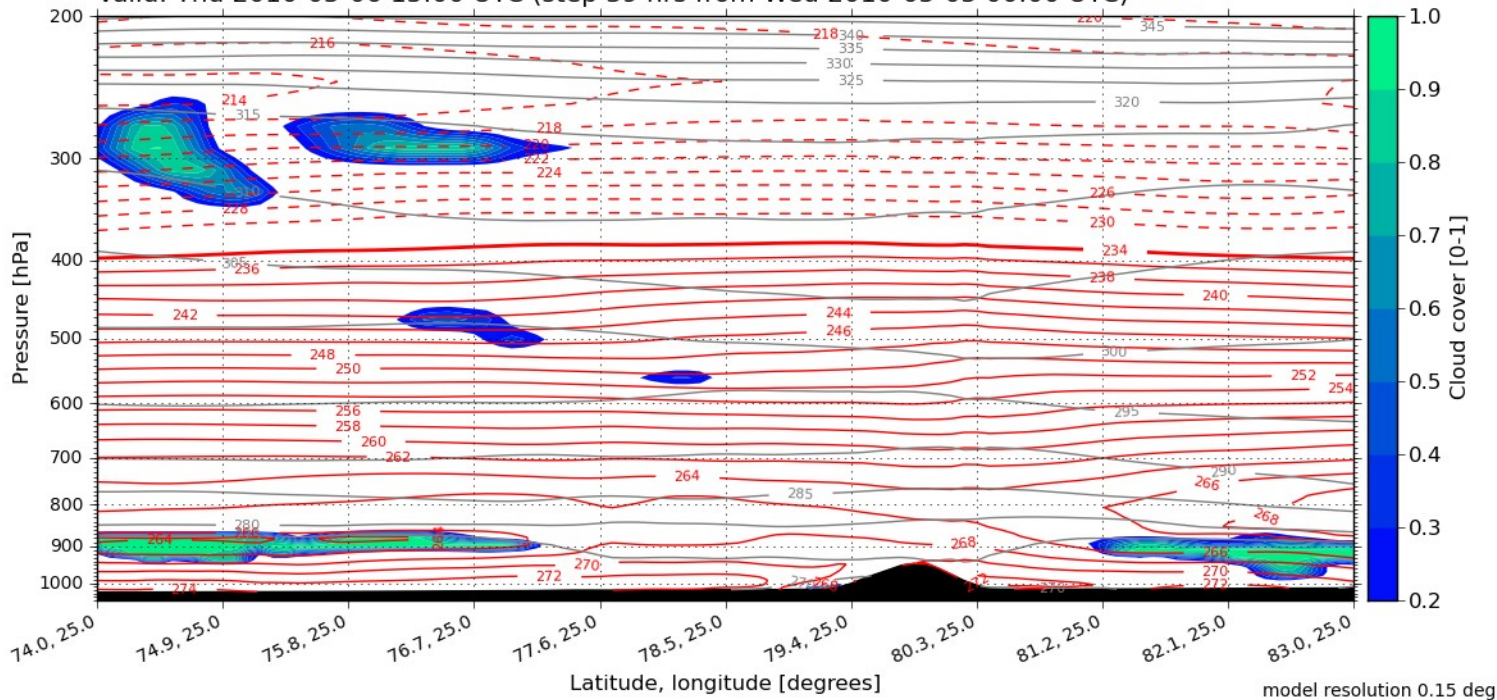


Total Cloud Cover
 Valid: Thu, 06 May 2010, 15 UTC (init: 20100505 00 UTC +039 h)



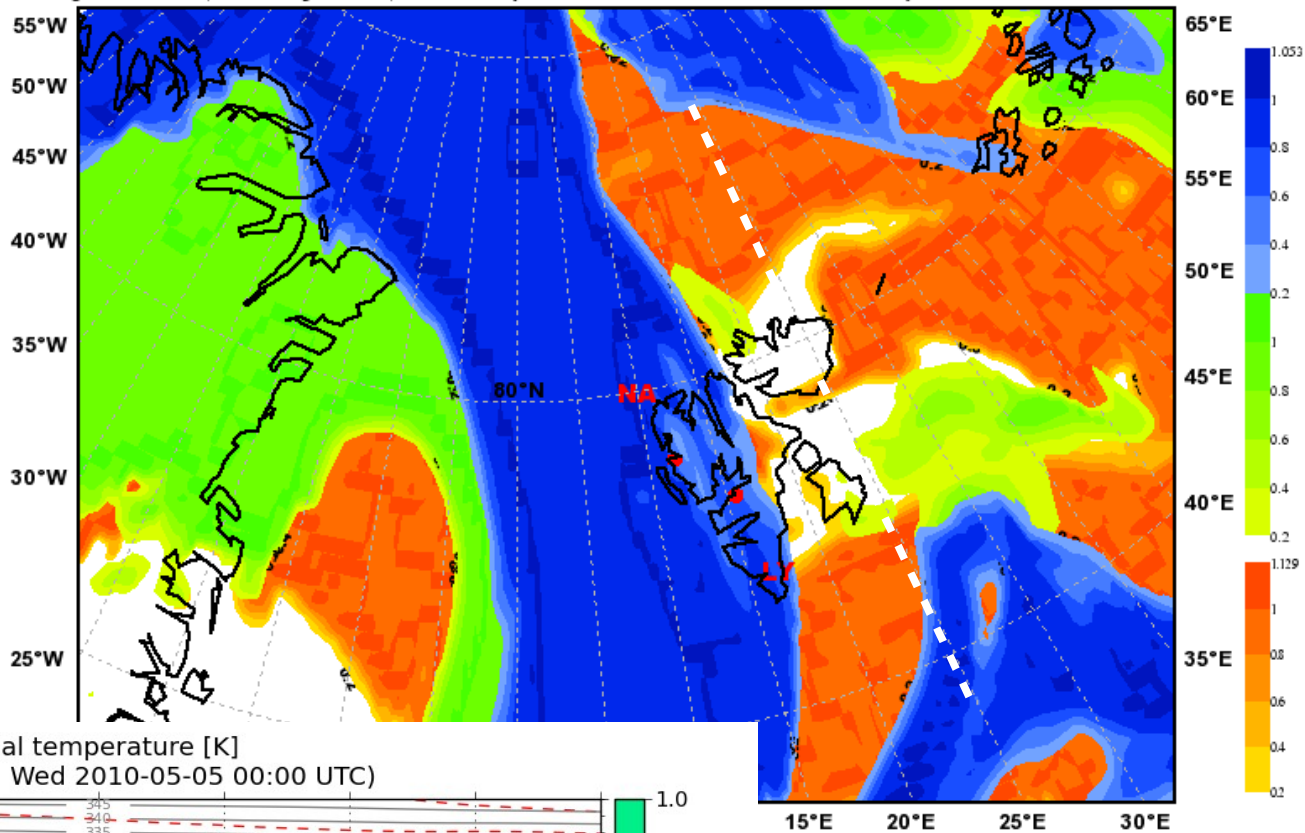
N-S along 25E

Cloud cover [0-1] with temperature [K] and potential temperature [K]
 Valid: Thu 2010-05-06 15:00 UTC (step 39 hrs from Wed 2010-05-05 00:00 UTC)



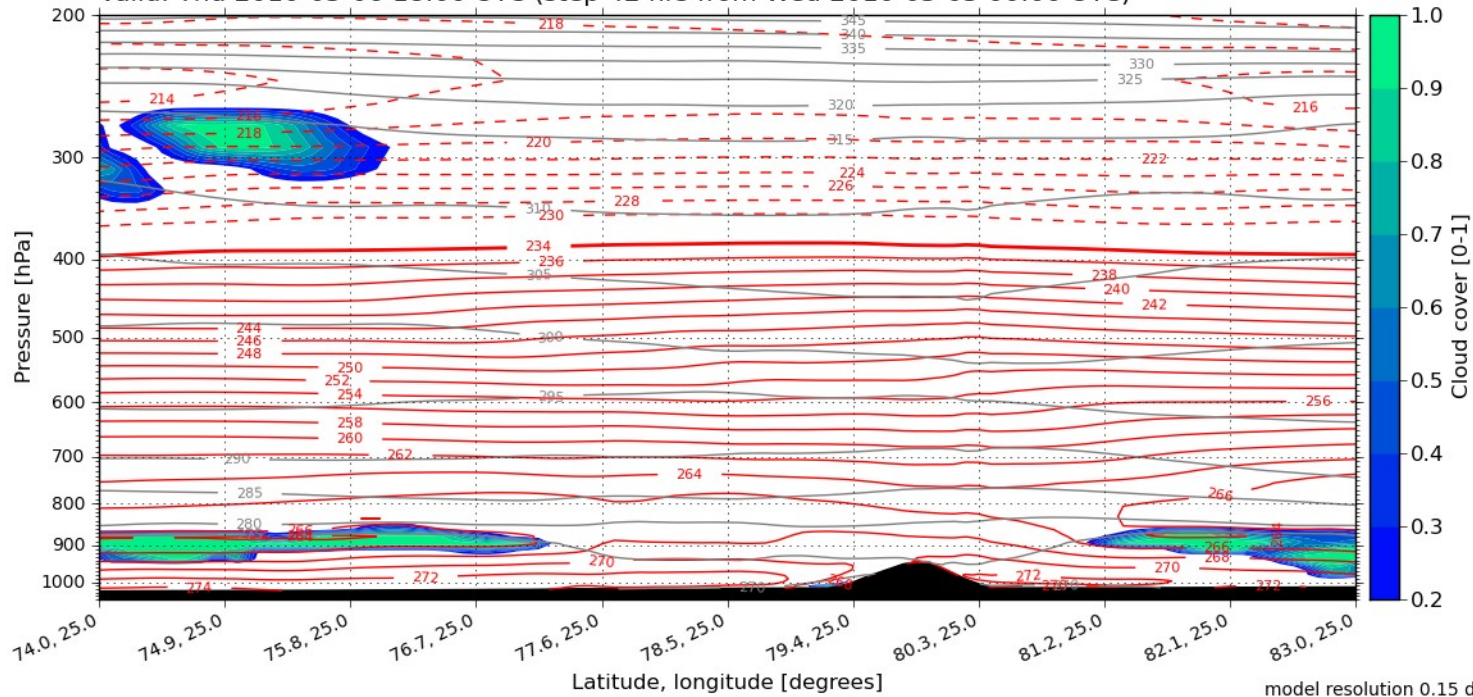
model resolution 0.15 deg

Total Cloud Cover
 Valid: Thu, 06 May 2010, 18 UTC (init: 20100505 00 UTC +042 h)

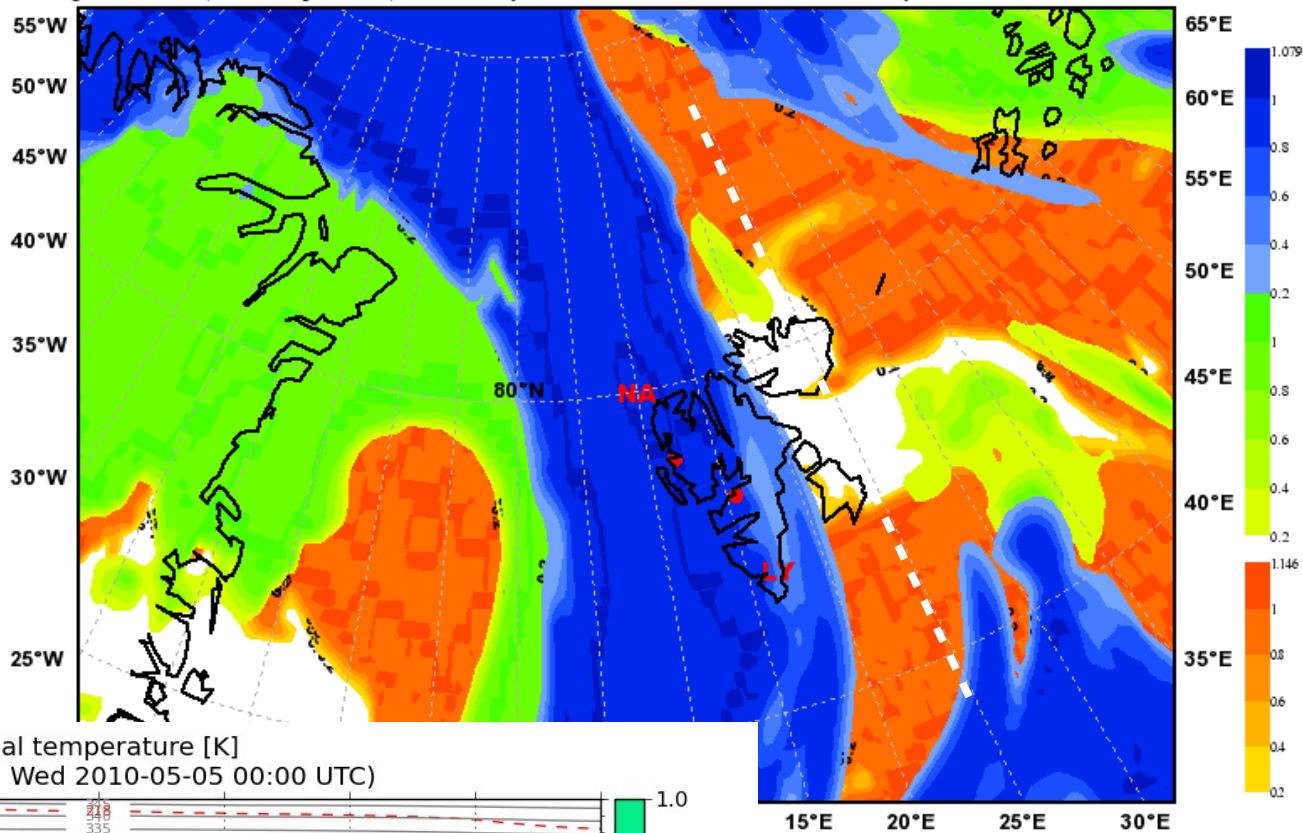


N-S along 25E

Cloud cover [0-1] with temperature [K] and potential temperature [K]
 Valid: Thu 2010-05-06 18:00 UTC (step 42 hrs from Wed 2010-05-05 00:00 UTC)



Total Cloud Cover
 Valid: Thu, 06 May 2010, 21 UTC (init: 20100505 00 UTC +045 h)



N-S along 25E

Cloud cover [0-1] with temperature [K] and potential temperature [K]
 Valid: Thu 2010-05-06 21:00 UTC (step 45 hrs from Wed 2010-05-05 00:00 UTC)

