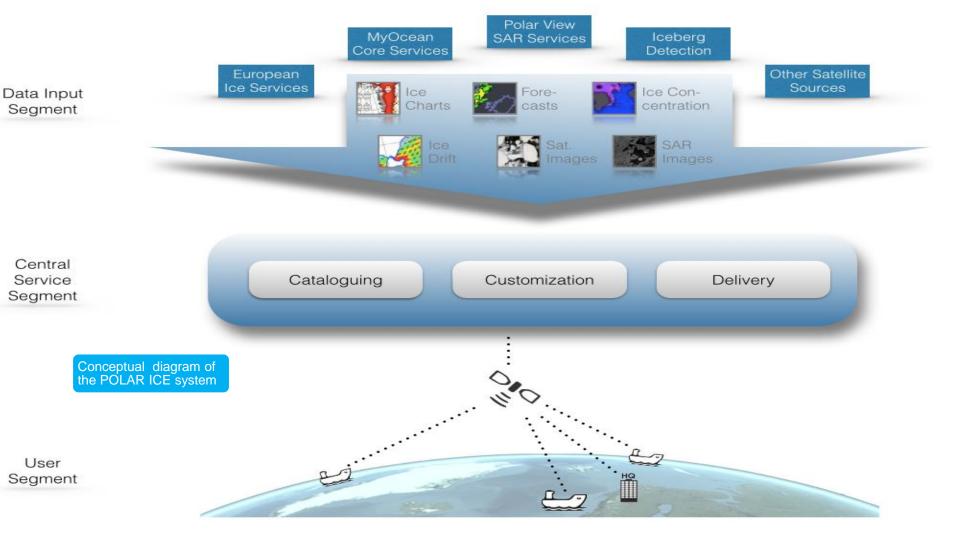
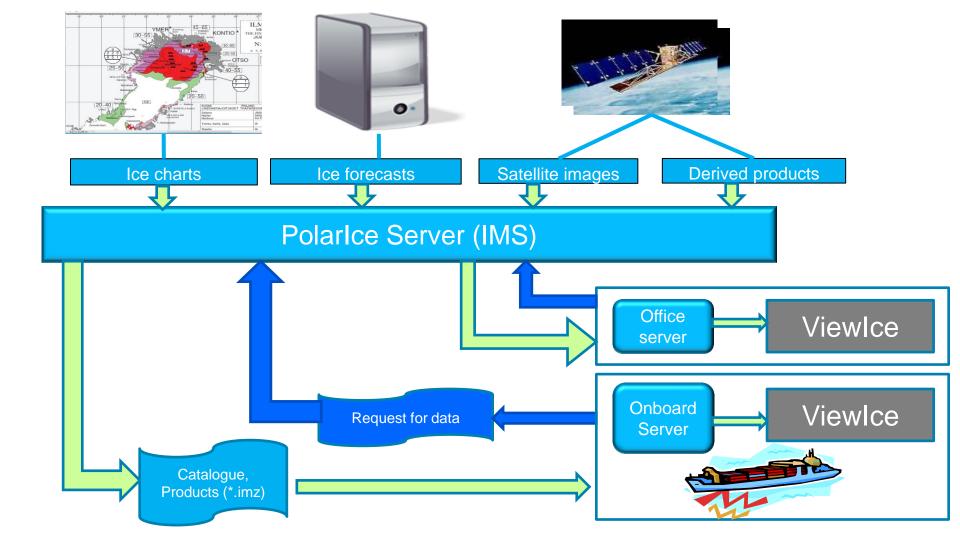
# **PolarViewIce**

This slide show illustrates the visualisation tool called ViewIce developed by VTT in the project Polar Ice supported by EC in the 7th Framework Programme for Research and Technological Development (FP7).

# http://www.polarice.eu/

April 2016



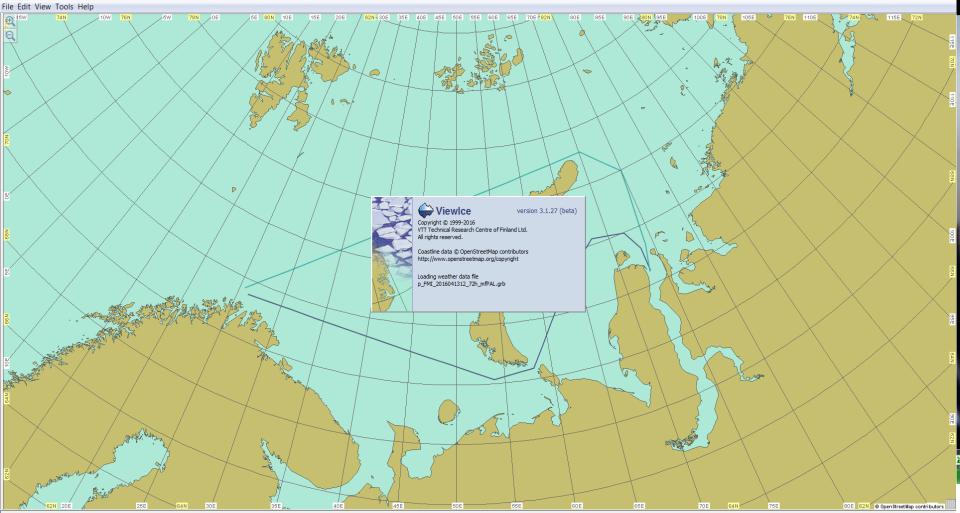




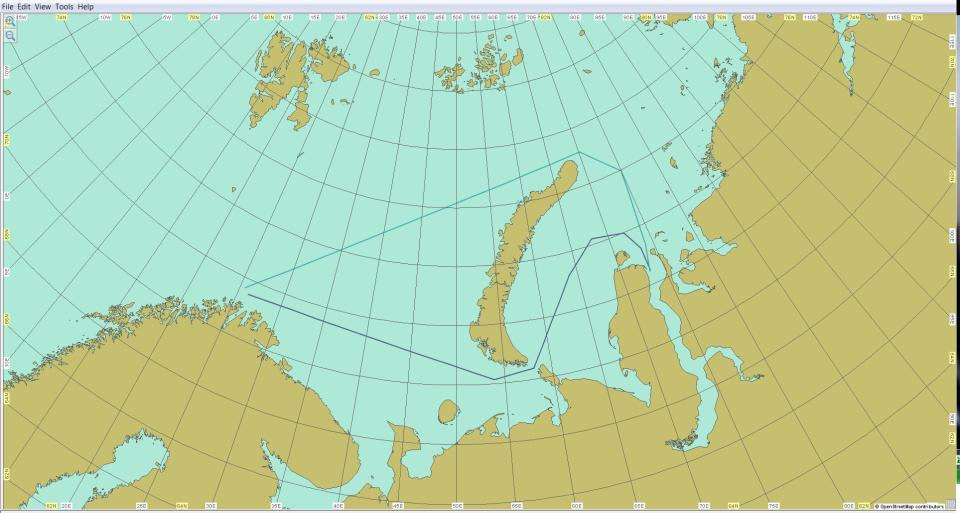
# **Scenario**

Which route would be better – North or South of Novaya Zemlya?

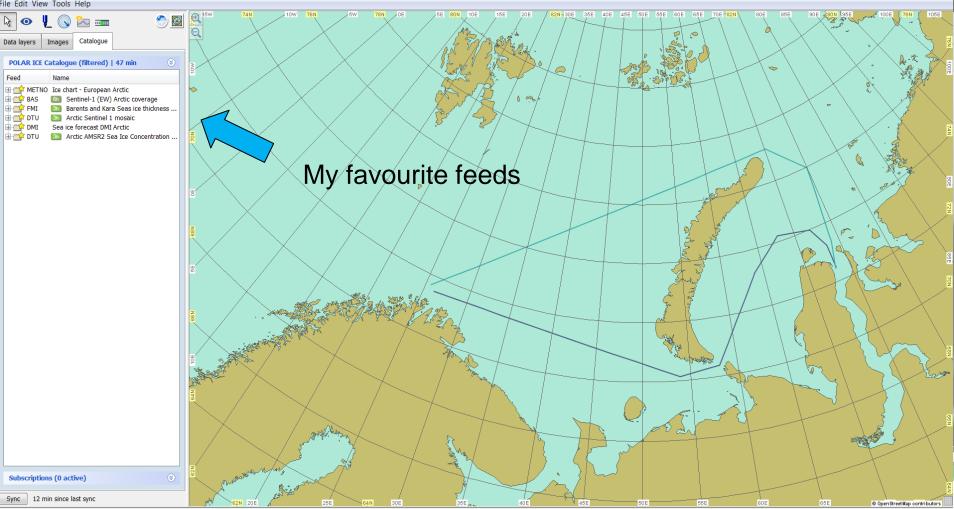














Subscriptions (0 active)

Sync 14 min since last sync

| k 💿 🖡                                     | . 🔇 🚵 🚥  🕙 💹                              |  |  |  |
|---|---|--|--|--|
| Data layers Ir                            | nages Catalogue                           |  |  |  |
| POLAR ICE Catalogue (filtered)   49 min 🛞 |   |  |  |  |
| Feed                                      | Name                                      |  |  |  |
| H 😭 METNO                                 | Ice chart - European Arctic               |  |  |  |
| 🕀 📫 BAS                                   | 6h Sentinel-1 (EW) Arctic coverage        |  |  |  |
| 🖨 🚭 FMI 🔰                                 | 3h) Barents and Kara Seas ice thickness   |  |  |  |
| 🗖 -61 m                                   | Barents and Kara Seas ice thickness chart |  |  |  |
| - 🔁 22h                                   | Barents and Kara Seas ice thickness chart |  |  |  |
| - 🗌 1d 22                                 | Barents and Kara Seas ice thickness chart |  |  |  |
| 🖳 🛄 2d 22                                 | Barents and Kara Seas ice thickness chart |  |  |  |
| 🕀 📫 DTU 🛛                                 | 3h Arctic Sentinel 1 mosaic               |  |  |  |
| 🕀 📫 DMI                                   | Sea ice forecast DMI Arctic               |  |  |  |



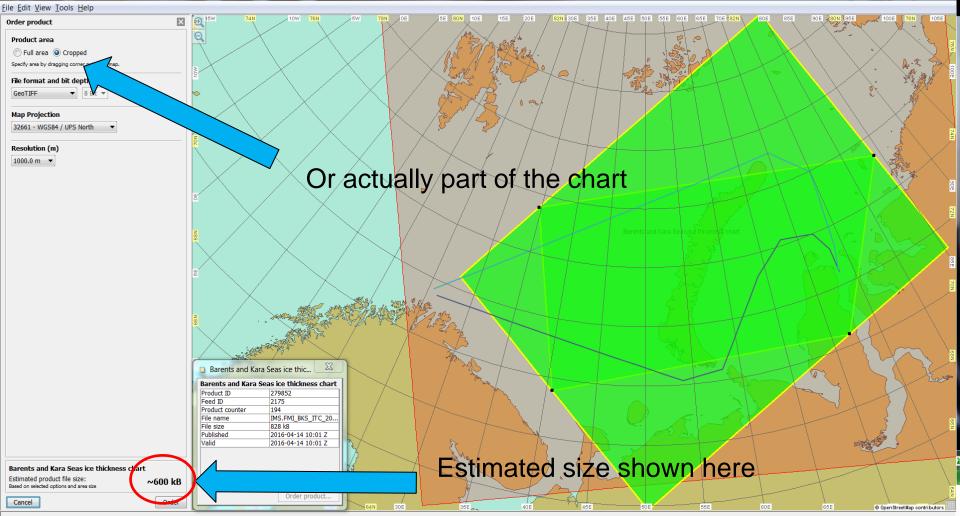


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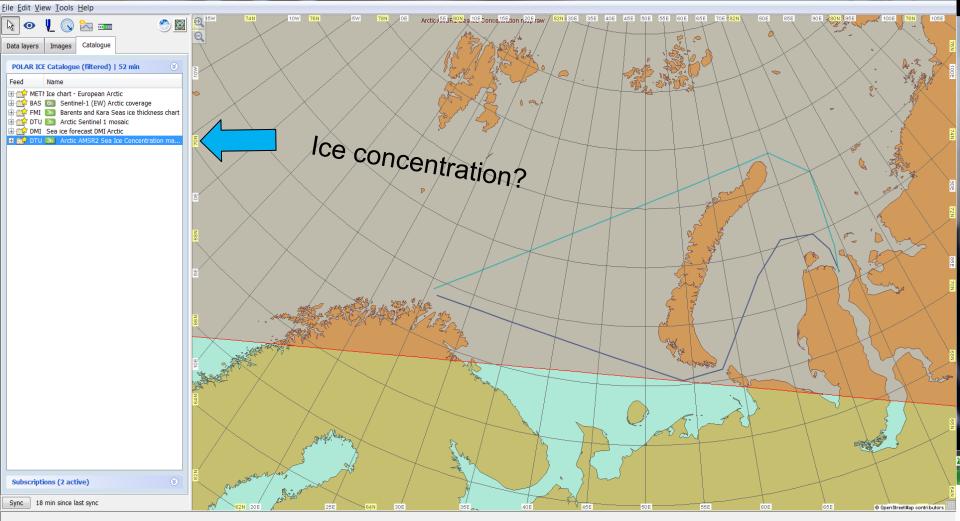












File Edit View Tools Help

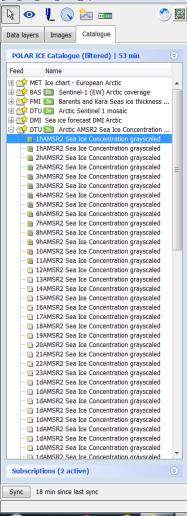


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AMSR2 Sea Ice Concentration ...

Product ID

Product counter

Feed ID

File name

File size

Published

Valid

AMSR2 Sea Ice Concentration grayscaled

279866

IMS.20160413 DTU

2016-04-14 07:22 Z

Order product...

2816

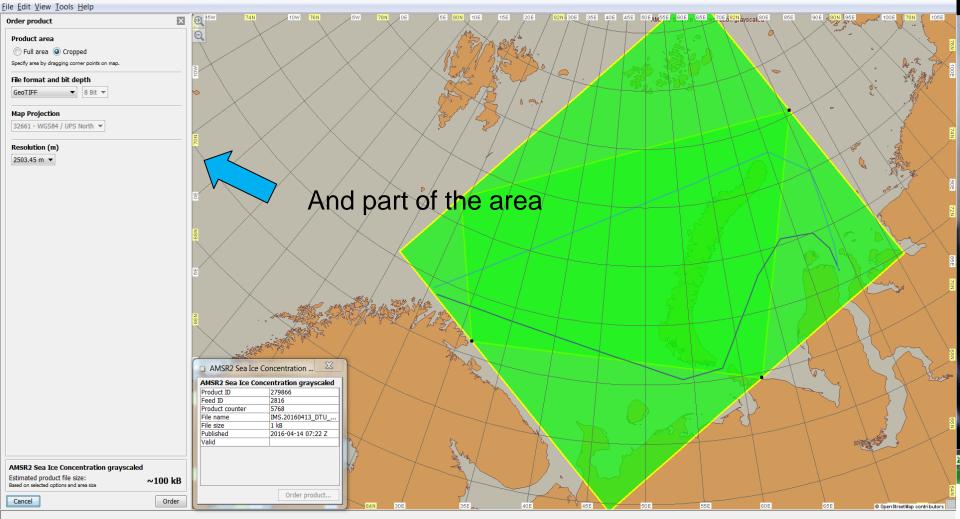
5768

1 kB

# Select the most recent product

40E







| File Edit View Tools Help   |  |
|---|--|
| Data lay rs Images Capalogue  |  |
| Opened Satellite and Ice Images 🛞   |  |
| Import images     Animate images     Close all images   |  |
| Received Images (18)     Size       Type     Name     Age   |  |
| GeoTIFF Barents and Kara Sea 556 min 1 MB A<br>GeoTIFF Sentinel-1 (EW) Arctic c 1d 5h 9 MB<br>GeoTIFF Sentinel-1 (EW) Arctic c 1d 5h 9 MB<br>SIGRID-3 Ice chart - European Arctic 1d 19h 844 kB   |  |
| GeoTJFF         Barents and Kara Seas I         1d 23h         7 MB           GeoTJFF         Arctic AMSR2 Sea Ice C         2d         28 MB           GeoTJFF         Sentinel-1 (EW) Arctic c         2d 6h         208 MB           GeoTJFF         Sentinel-1 (EW) Arctic c         2d 6h         204 MB   | Now the ordered product has arrived (shown in bold)  |
| GeoTiFF Sentinel-1 (EW) Articic c 20 mm         20 mm           SIGRID-3 (Ge chart - European Articic) 20 19h         845 kB           GeoTiFF Sentinel-1 (EW) Artic c 20 19h         152 MB           GeoTiFF Sentinel-1 (EW) Artic c 3d 20h         117 MB  |  |
| GeoTJFF         Sentinel-1 (EW) Arctic c         3d 20h         117 MB           SIGRID-3         Ice chart - European Arctic 5d 19h         814 kB           GeoTJFF         Arctic Sentinel 1 mosaic         6d         13 MB           GeoTJFF         Arctic AMSR2 Sea Ice C         6d         28 MB           GeoTJFF         Sentinel-1 (EW) Arctic c         6d         20 MB |  |
| GeoTJFF  Sentinel-1 (EW) Arctic c  6d 209 MB<br>SJGRID-3  Ce chart - European Arctic 6d 931 kB  |  |
|   |  |
|   |  |
| Show all footprints on map  | B And the second s |
|   |  |



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|-----------------------|--------------|---------------|-------------------|
| Data layers           | Images       | Catalogue     |                   |
| Opened S              | atellite and | d Ice Image   | s (               |
| Transparent           | -            | Barents and H | Kara Seas ice t 🔻 |
| 🔄 Import<br>🗊 Close a | -            | ▶ An          | imate images      |

#### Received Images (17)

| Received mages (17) |                             |        | <u></u> |   |
|---------------------|-----------------------------|--------|---------|---|
| Туре                | Name                        | Age    | Size    | 6 |
| GeoTIFF             | Sentinel-1 (EW) Arctic c    | 1d 5h  | 208 MB  | - |
| GeoTIFF             | Sentinel-1 (EW) Arctic c    | 1d 6h  | 9 MB    |   |
| SIGRID-3            | Ice chart - European Arctic | 1d 19h | 844 kB  |   |
| GeoTIFF             | Barents and Kara Seas i     | 1d 23h | 7 MB    |   |
| GeoTIFF             | Arctic AMSR2 Sea Ice C      | 2d     | 28 MB   |   |
| GeoTIFF             | Sentinel-1 (EW) Arctic c    | 2d 6h  | 208 MB  |   |
| GeoTIFF             | Sentinel-1 (EW) Arctic c    | 2d 6h  | 204 MB  |   |
| SIGRID-3            | Ice chart - European Arctic | 2d 19h | 845 kB  |   |
| GeoTIFF             | Sentinel-1 (EW) Arctic c    | 2d 19h | 152 MB  |   |
| GeoTIFF             | Sentinel-1 (EW) Arctic c    | 2d 20h | 153 MB  |   |
| GeoTIFF             | Sentinel-1 (EW) Arctic c    | 3d 20h | 117 MB  |   |
| GeoTIFF             | Sentinel-1 (EW) Arctic c    | 3d 20h | 117 MB  |   |
| SIGRID-3            | Ice chart - European Arctic | 5d 19h | 814 kB  |   |
| GeoTIFF             | Arctic Sentinel 1 mosaic    | 6d     | 13 MB   |   |
| GeoTIFF             | Arctic AMSR2 Sea Ice C      | 6d     | 28 MB   |   |
| GeoTIFF             | Sentinel-1 (EW) Arctic c    | 6d     | 209 MB  |   |
| SIGRID-3            | Ice chart - European Arctic | 6d     | 931 kB  |   |

# Let's have a look at the ice thickness chart

30E

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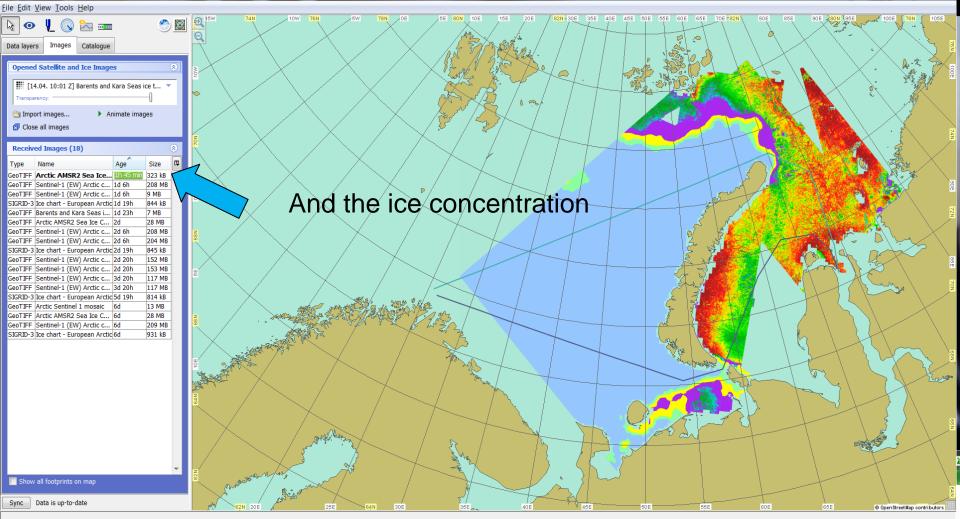
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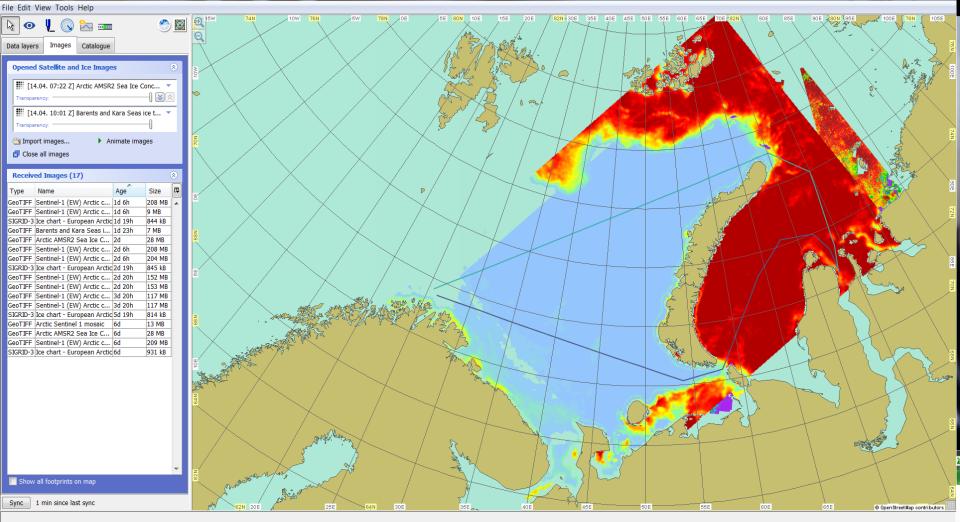
Show all footprints on map

Sync 21 min since last sync

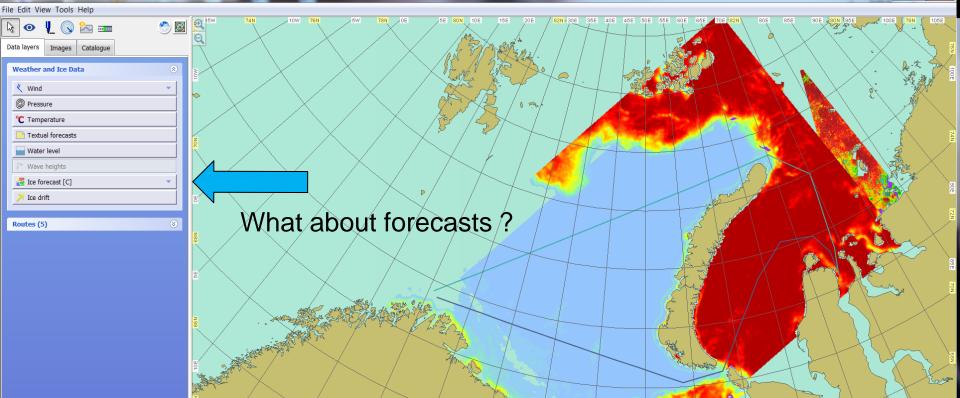








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35E

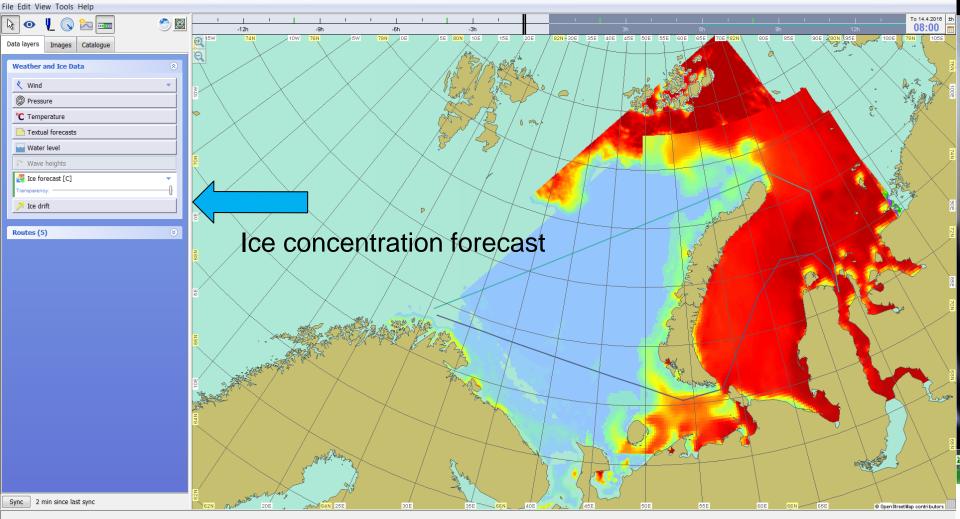
40E

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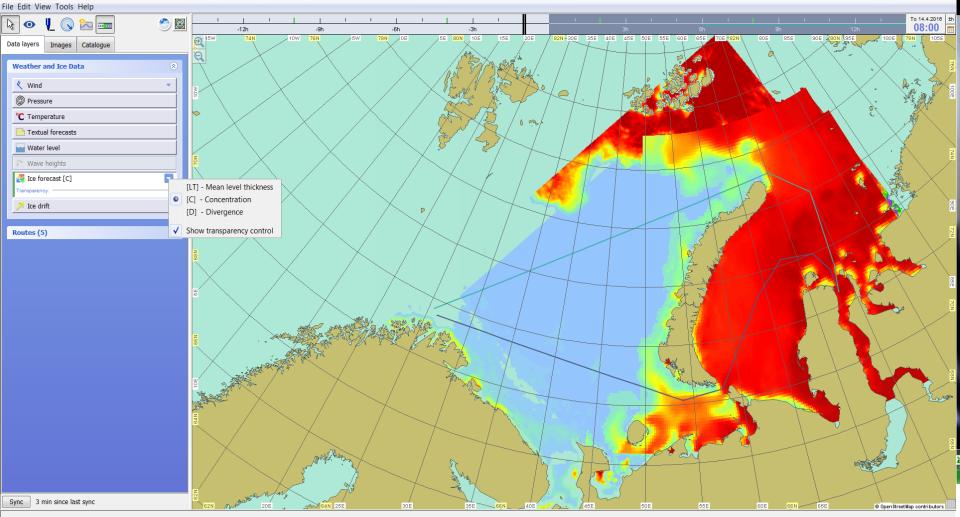




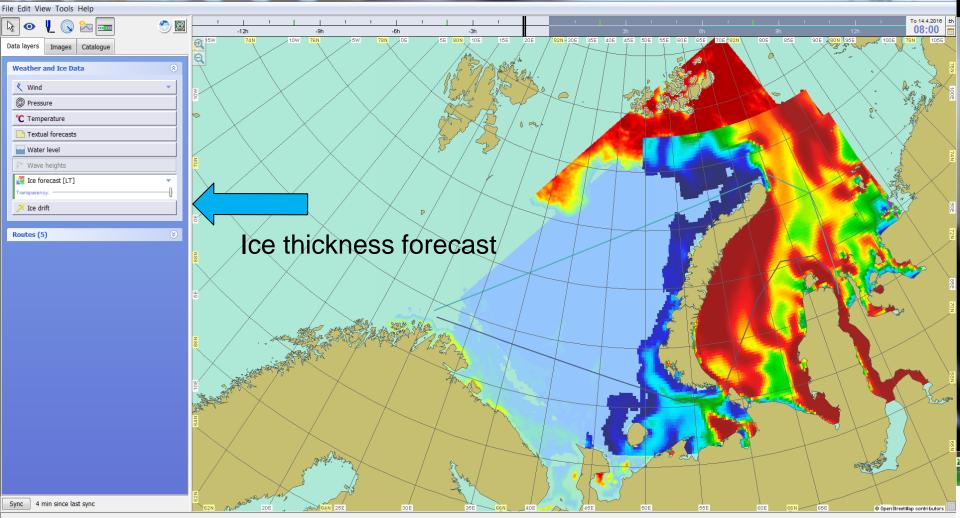


## Ciewlce version 3.1.27 (beta) (NON-REAL TIME 2016-04-14 08:00 Z) - Latest data issued: 2016-04-14 07:00 Z

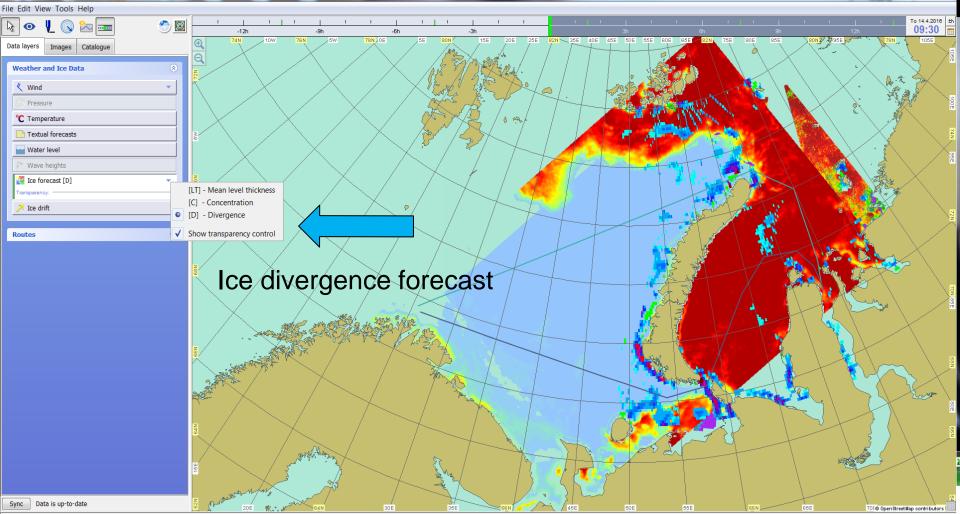




# ViewIce version 3.1.27 (beta) (NON-REAL TIME 2016-04-14 08:00 Z) - Latest data issued: 2016-04-14 07:00 Z

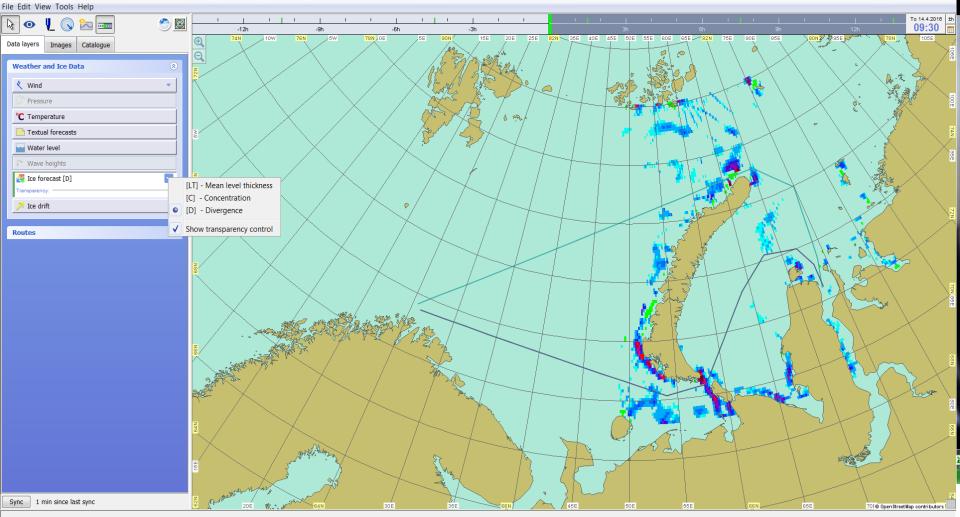


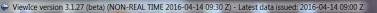
#### ViewIce version 3.1.27 (beta) (NON-REAL TIME 2016-04-14 09:30 Z) - Latest data issued: 2016-04-14 09:00 Z



### Ciewlce version 3.1.27 (beta) (NON-REAL TIME 2016-04-14 09:30 Z) - Latest data issued: 2016-04-14 09:00 Z

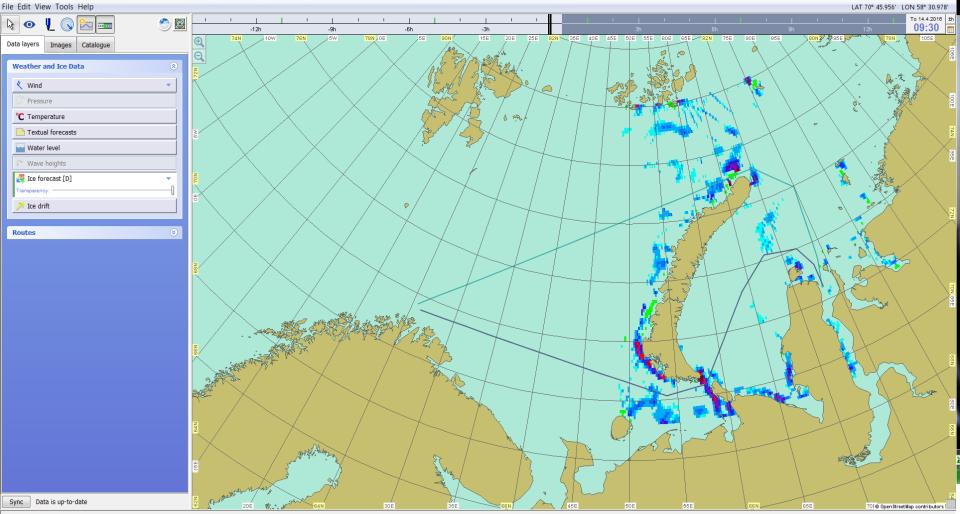


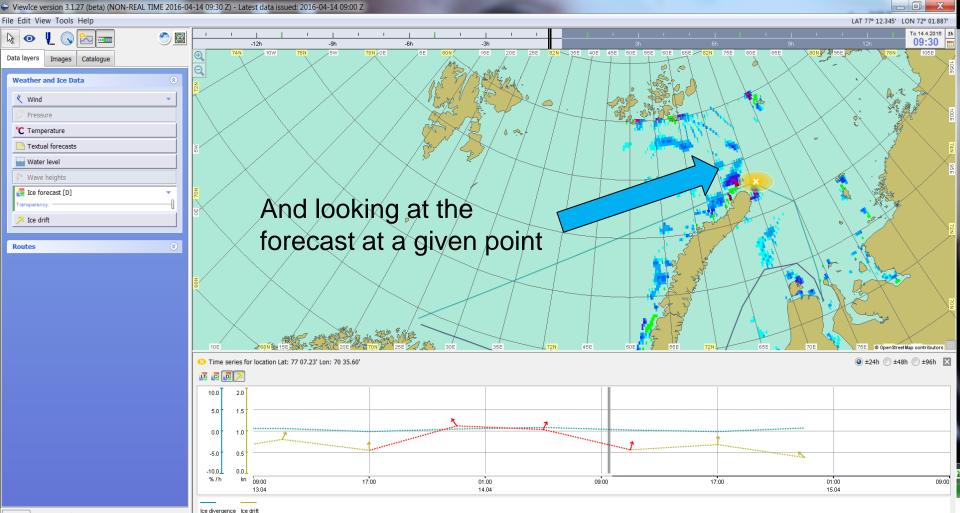






LAT 70° 45.956' LON 58° 30.978'



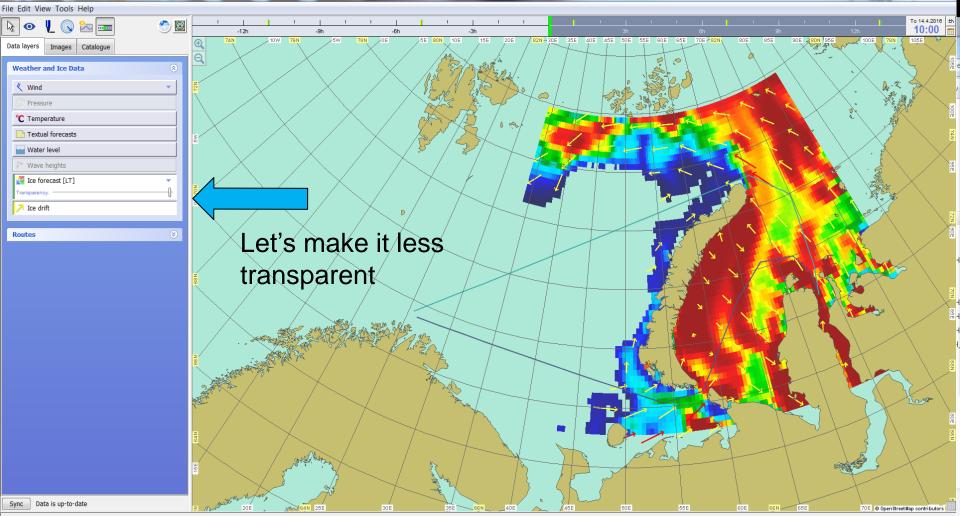


Sync 1 min since last sync

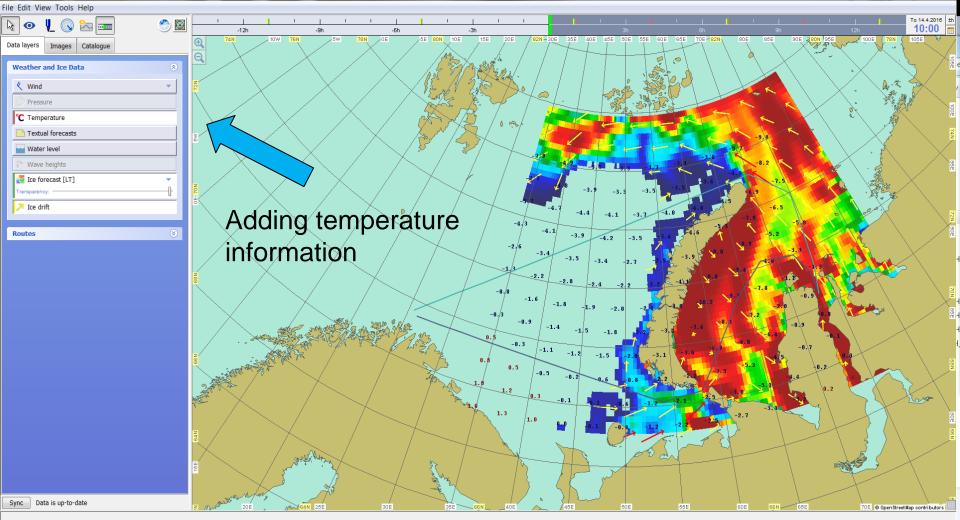
OTHER

OTHER

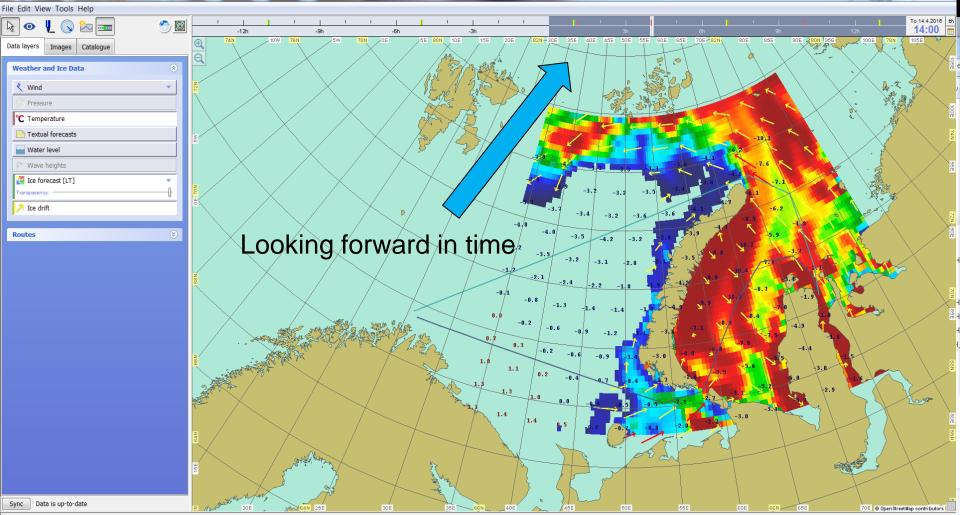
## ViewIce version 3.1.27 (beta) (NON-REAL TIME 2016-04-14 10:00 Z) - Latest data issued: 2016-04-14 09:00 Z



#### ViewIce version 3.1.27 (beta) (NON-REAL TIME 2016-04-14 10:00 Z) - Latest data issued: 2016-04-14 09:00 Z

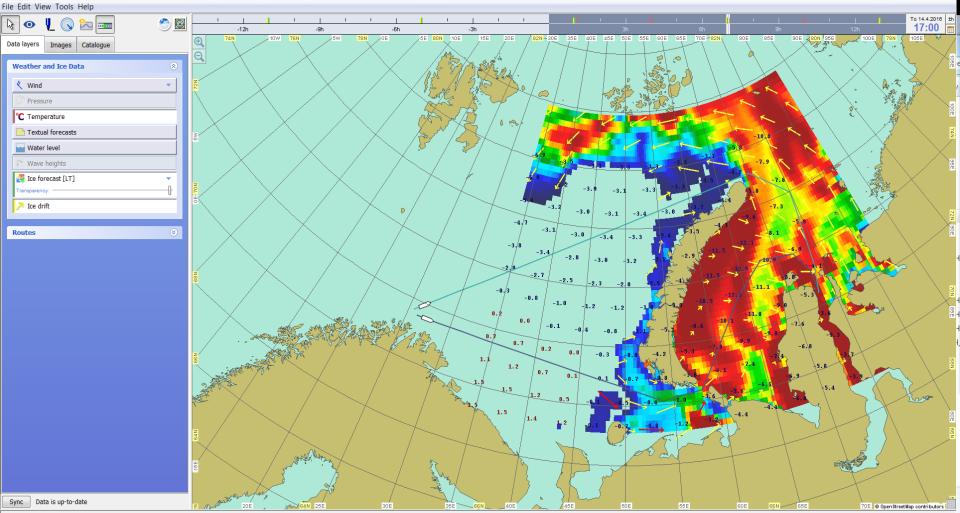


#### ViewIce version 3.1.27 (beta) (NON-REAL TIME 2016-04-14 14:00 Z) - Latest data issued: 2016-04-14 09:00 Z



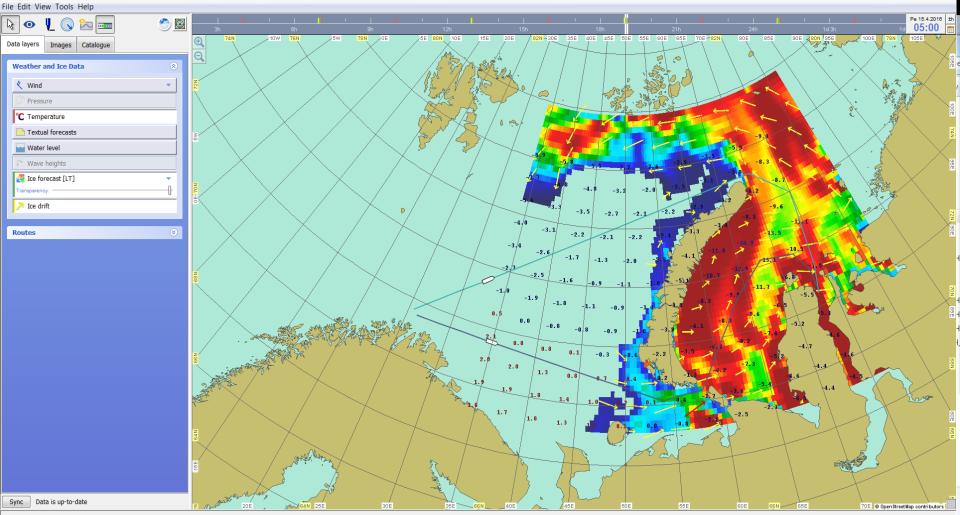
#### ViewIce version 3.1.27 (beta) (NON-REAL TIME 2016-04-14 17:00 Z) - Latest data issued: 2016-04-14 09:00 Z





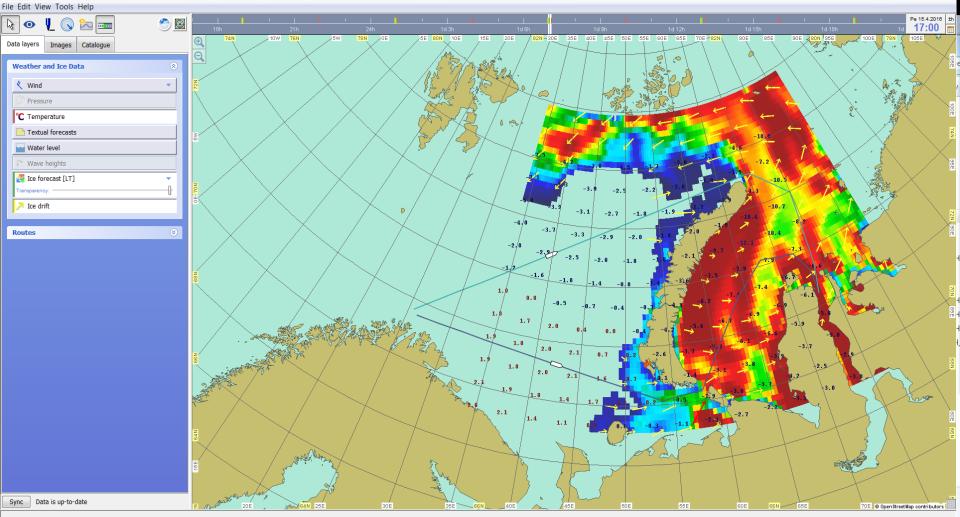
### ViewIce version 3.1.27 (beta) (NON-REAL TIME 2016-04-15 05:00 Z) - Latest data issued: 2016-04-14 09:00 Z





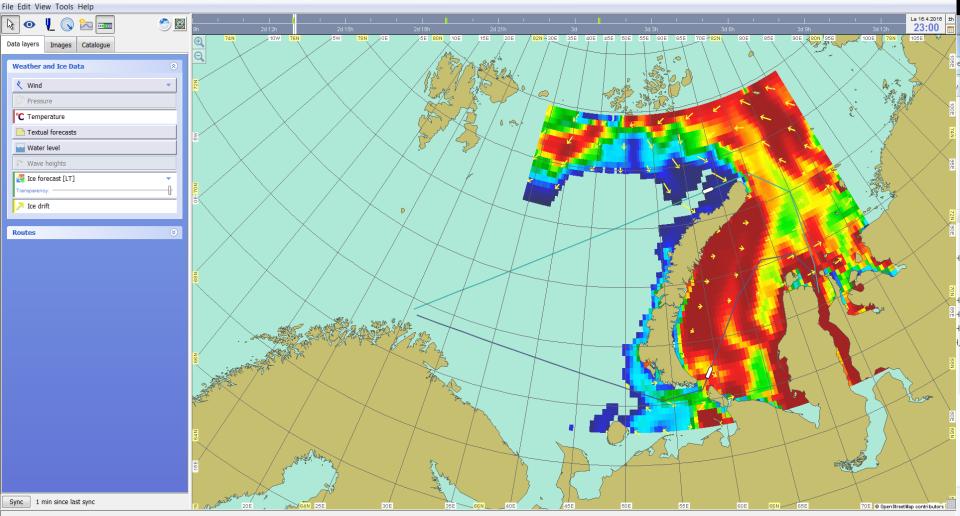
# ViewIce version 3.1.27 (beta) (NON-REAL TIME 2016-04-15 17:00 Z) - Latest data issued: 2016-04-14 09:00 Z





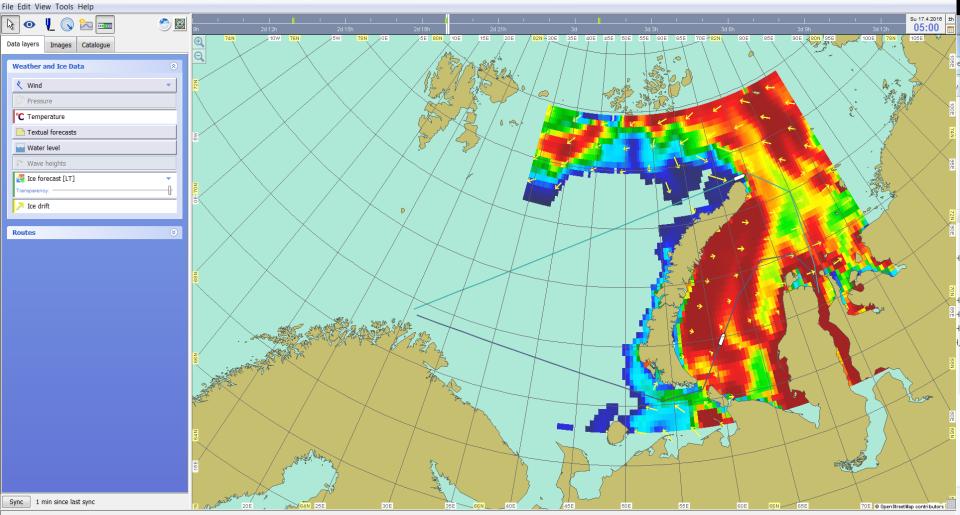
# CiewIce version 3.1.27 (beta) (NON-REAL TIME 2016-04-16 23:00 Z) - Latest data issued: 2016-04-14 09:00 Z





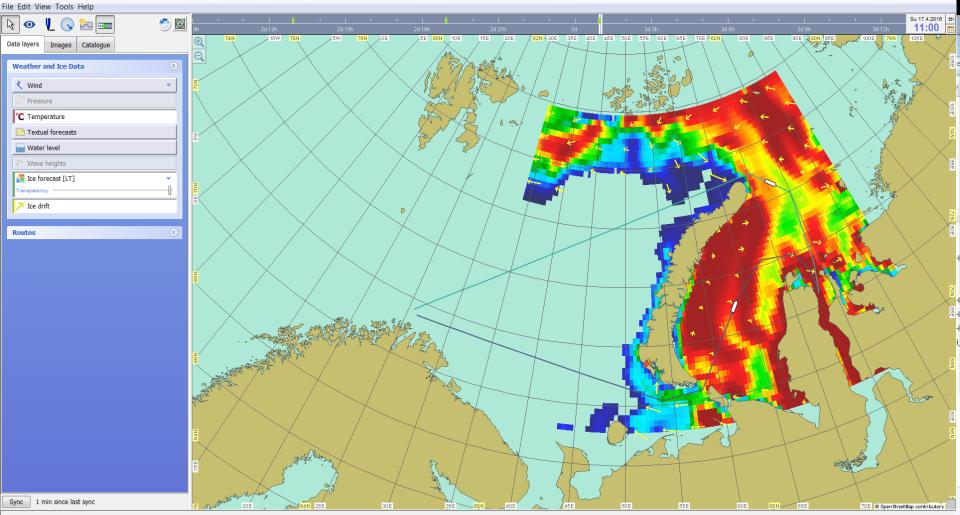
# CiewIce version 3.1.27 (beta) (NON-REAL TIME 2016-04-17 05:00 Z) - Latest data issued: 2016-04-14 09:00 Z





# CiewIce version 3.1.27 (beta) (NON-REAL TIME 2016-04-17 11:00 Z) - Latest data issued: 2016-04-14 09:00 Z



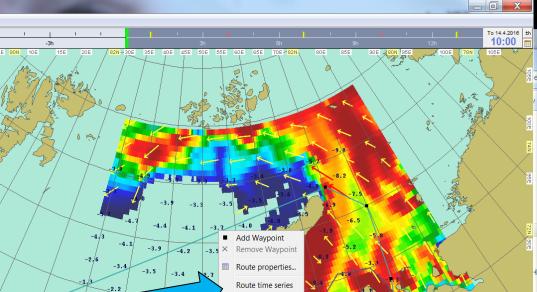


# ViewIce version 3.1.27 (beta) (NON-REAL TIME 2016-04-14 10:00 Z) - Latest data issued: 2016-04-14 09:00 Z

Q

-12h

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Remove route

70E OpenStreetMap contributors

-0.9

0.5

1.3

35E

-1.4

-0.1

-1.1 -1.2

-0.5

-1.5

-1.8

-1.5

And from the perspective of the planned route -0.3

-6h

-9h

Sync Data is up-to-date

File Edit View Tools Help

Weather and Ice Data

Tce forecast [LT] ansparency 🔁 Ice drift

Routes

Q

Catalogue

Images

R Ο

Data layers

K Wind Pressure °C Temperature Textual forecasts Water level Wave heights

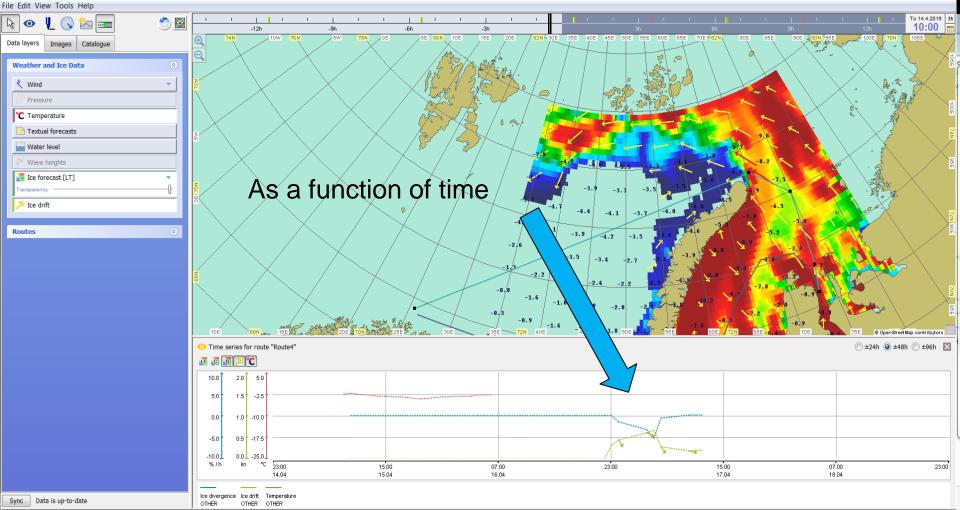
Actor 1

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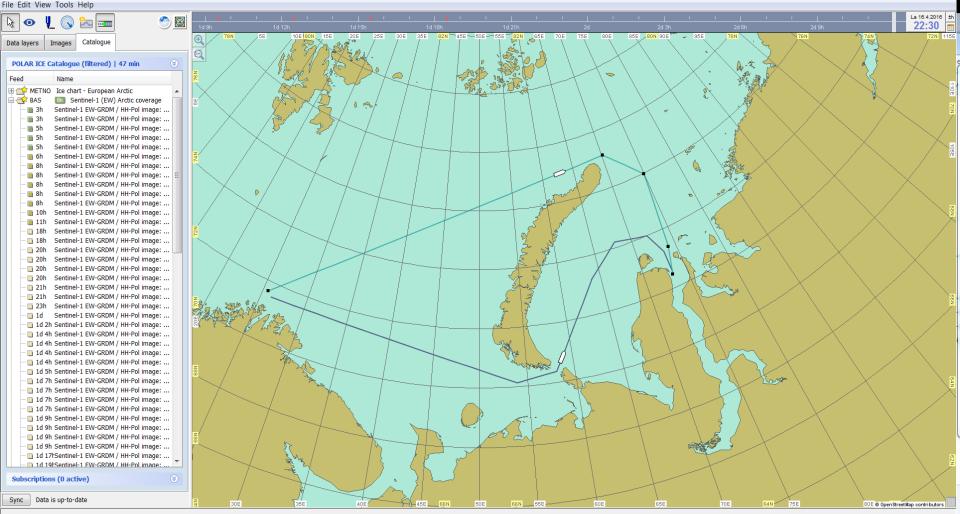
#### ViewIce version 3.1.27 (beta) (NON-REAL TIME 2016-04-14 10:00 Z) - Latest data issued: 2016-04-14 10:00 Z





#### ViewIce version 3.1.27 (beta) (NON-REAL TIME 2016-04-16 22:30 Z) - Latest data issued: 2016-04-14 10:00 Z

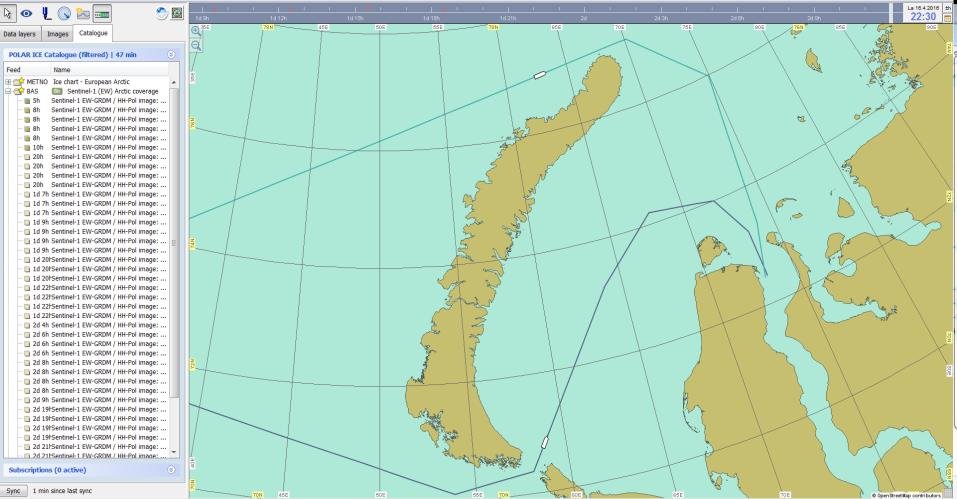




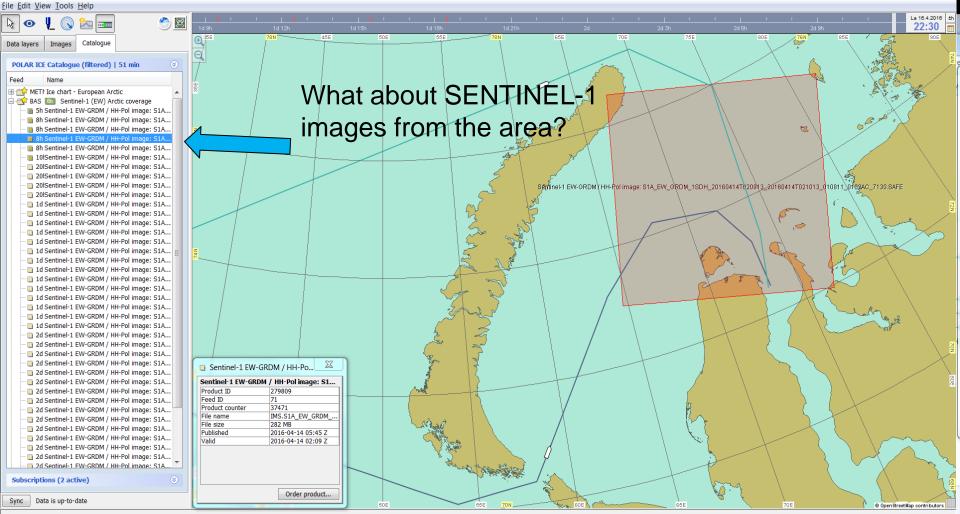
File Edit View Tools Help



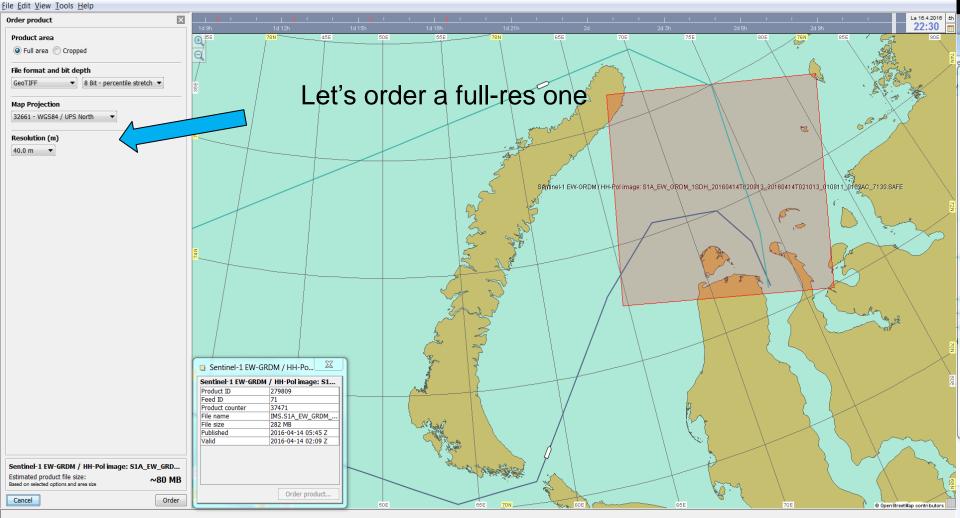
LAT 73° 49.548' LON 62° 05.054'



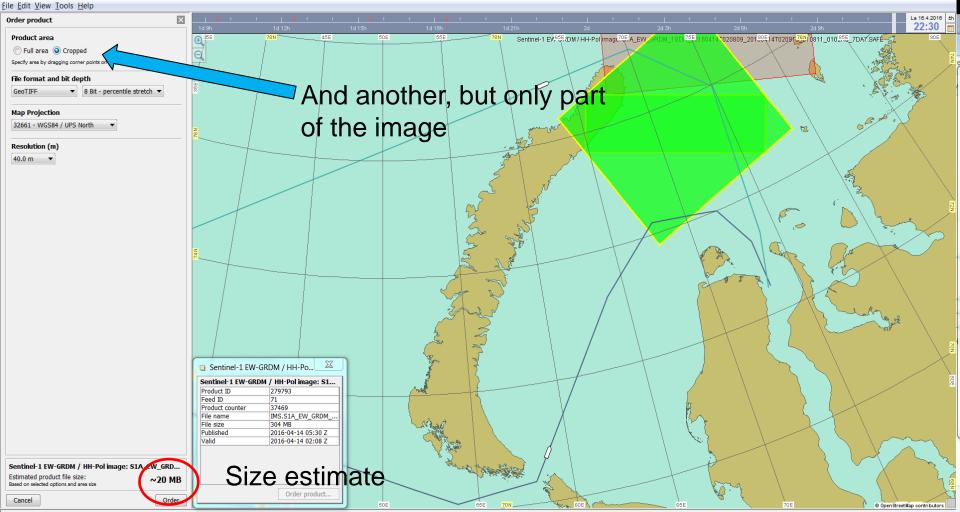






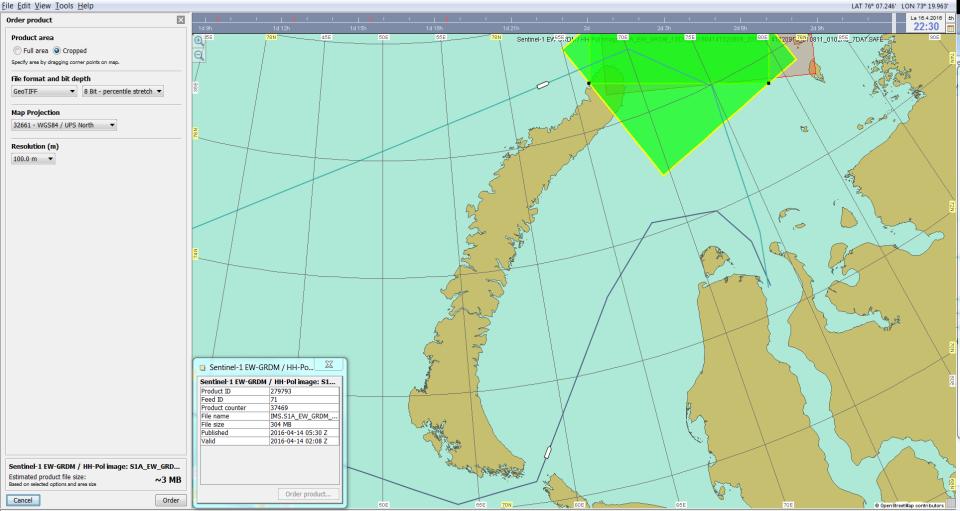






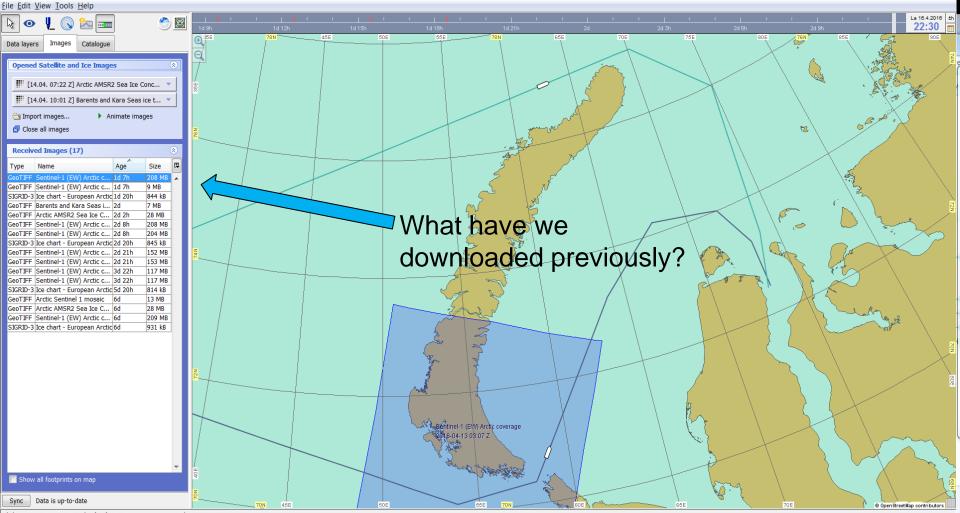


LAT 76° 07.246' LON 73° 19.963'



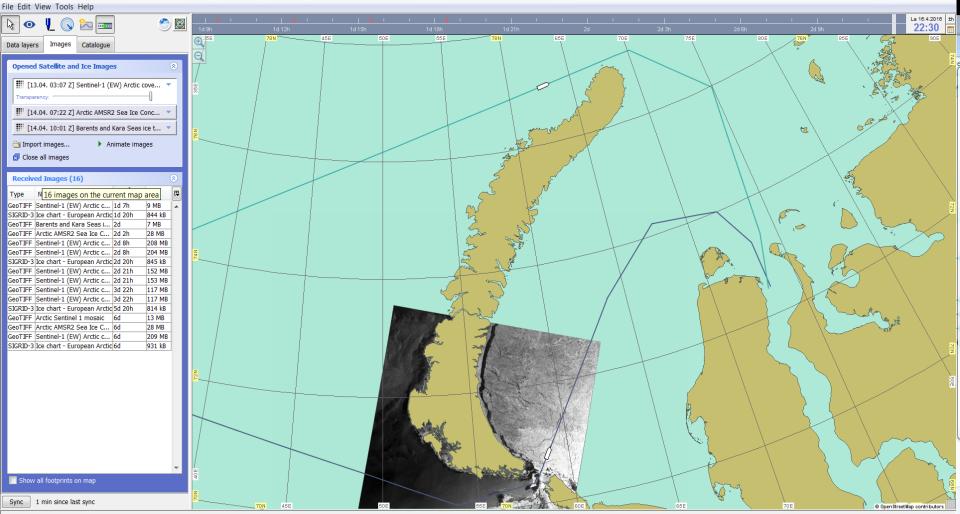
Cropped product area - move area by dragging



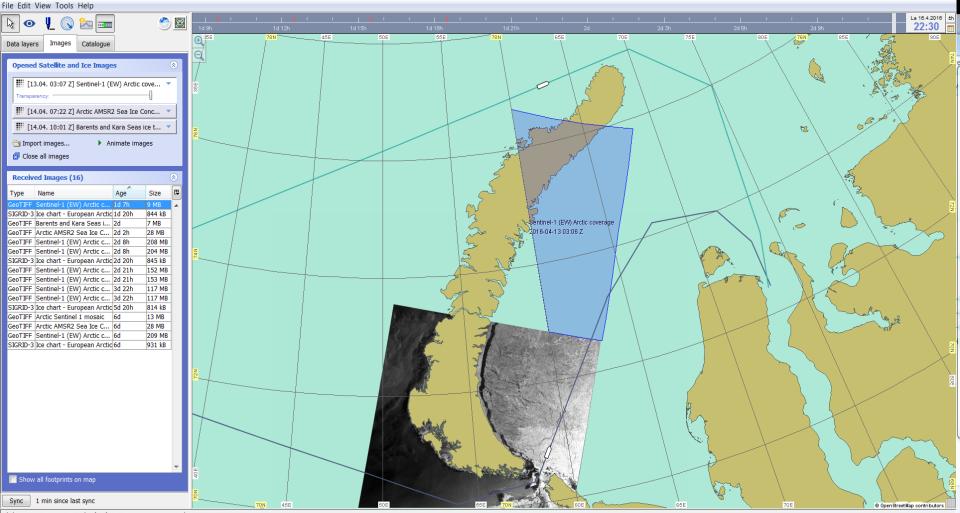


Click to open image: Sentinel-1 (EW) Arctic coverage - Acquired: 2016-04-13 03:07 Z



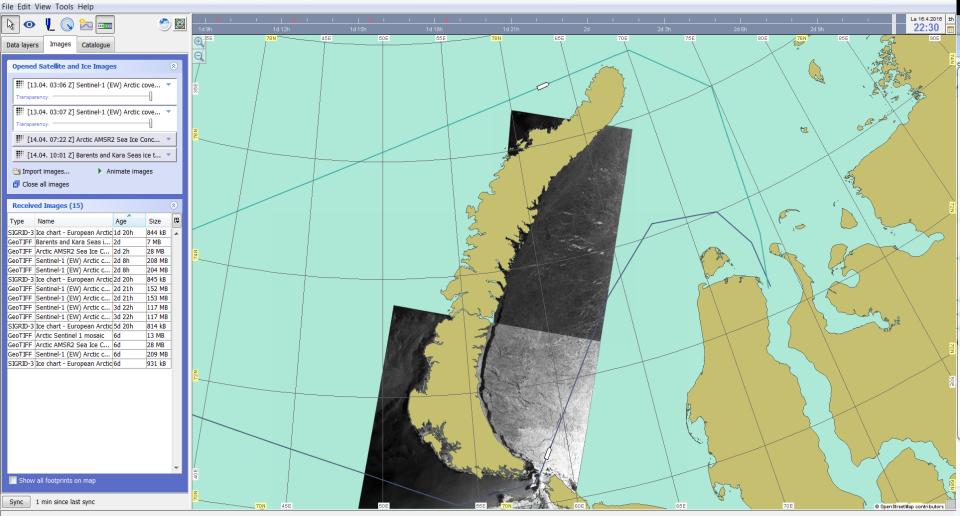


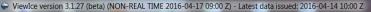




Click to open image: Sentinel-1 (EW) Arctic coverage - Acquired: 2016-04-13 03:06 Z

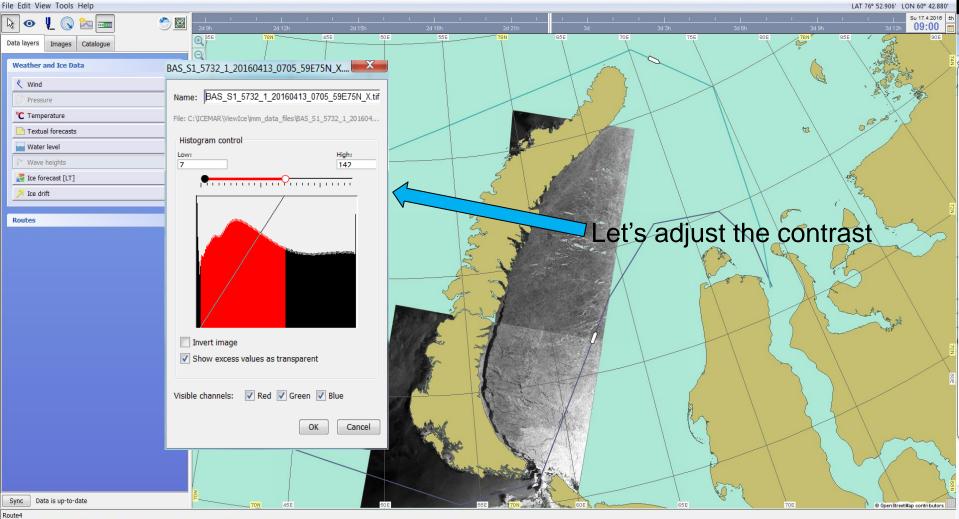


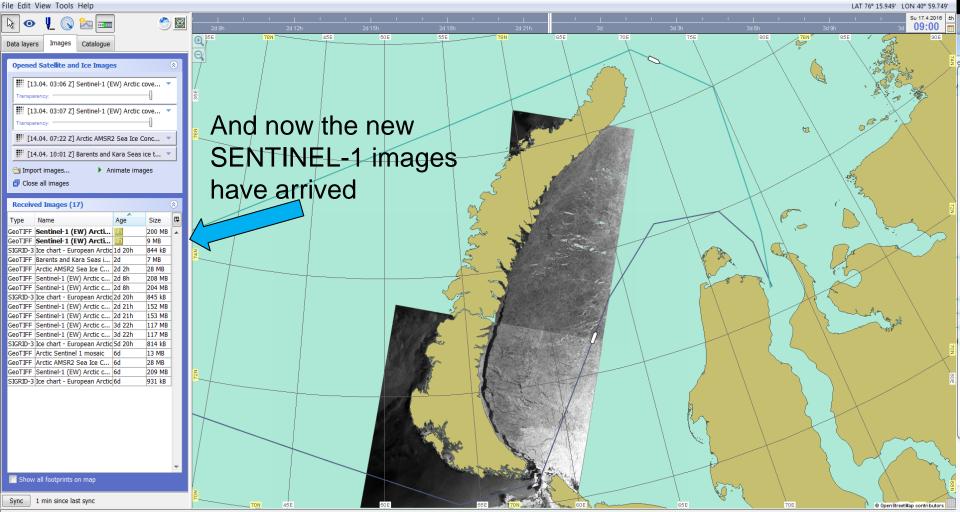




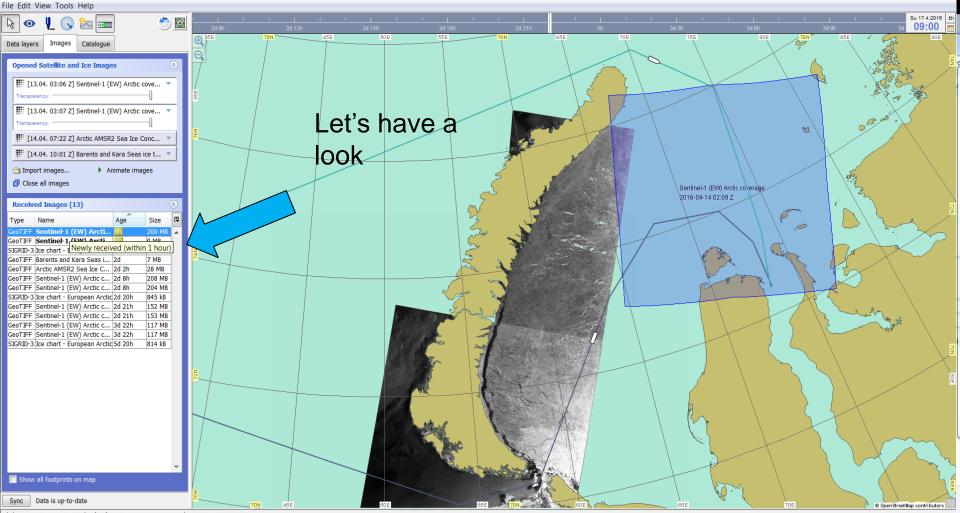


LAT 76° 52.906' LON 60° 42.880'



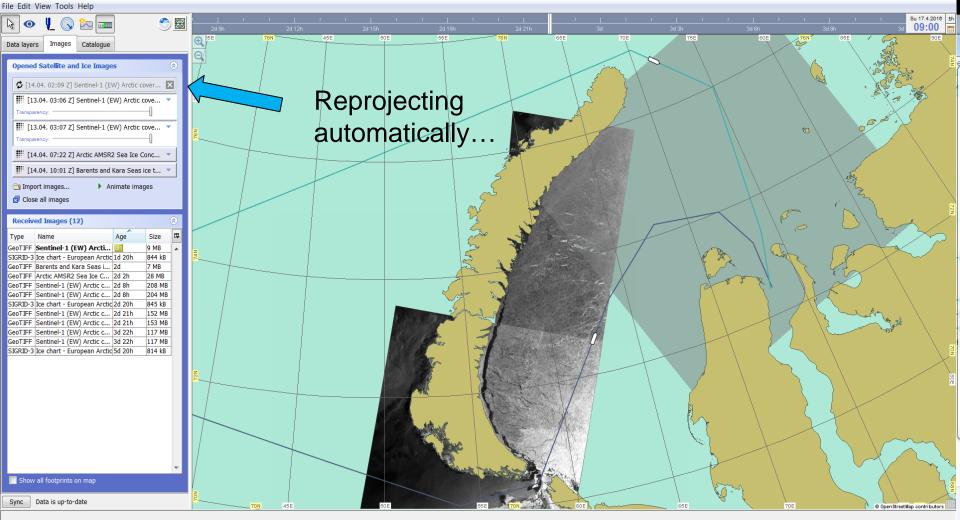




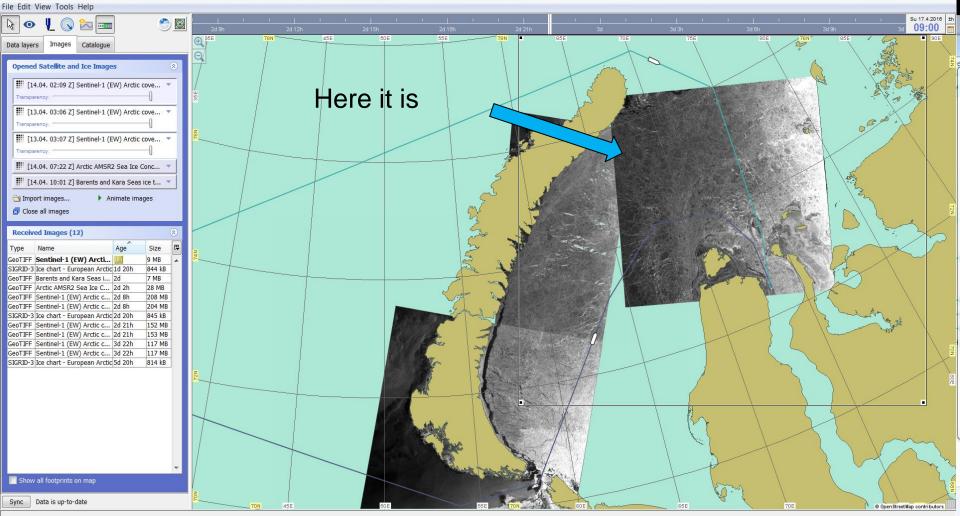


Click to open image: Sentinel-1 (EW) Arctic coverage - Acquired: 2016-04-14 02:09 Z

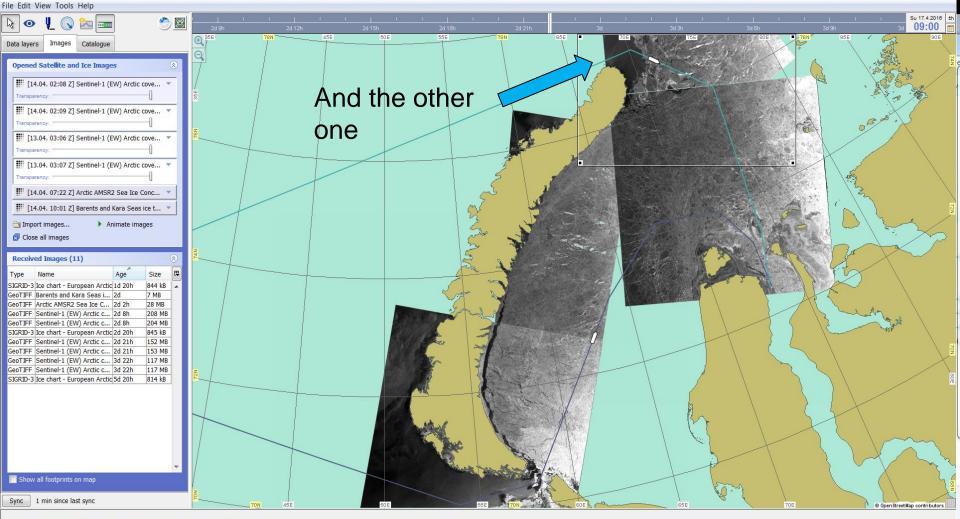




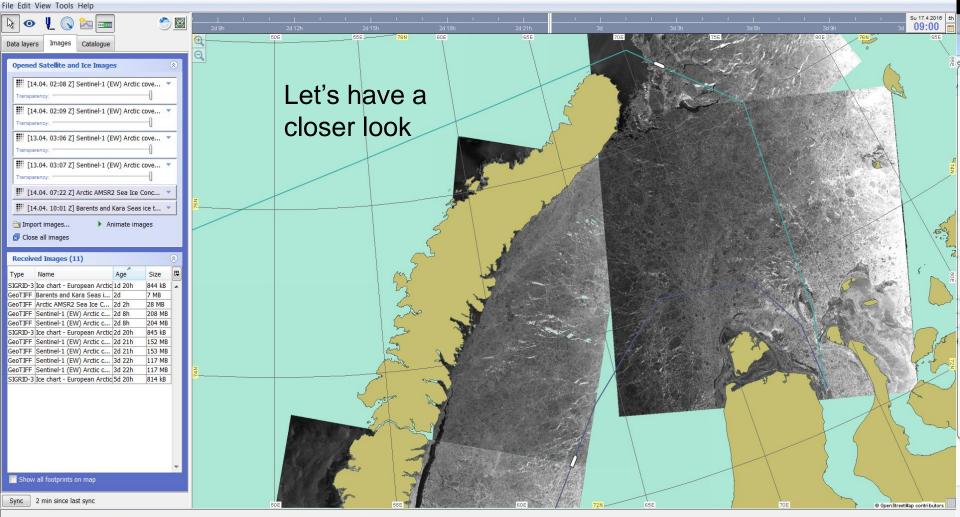








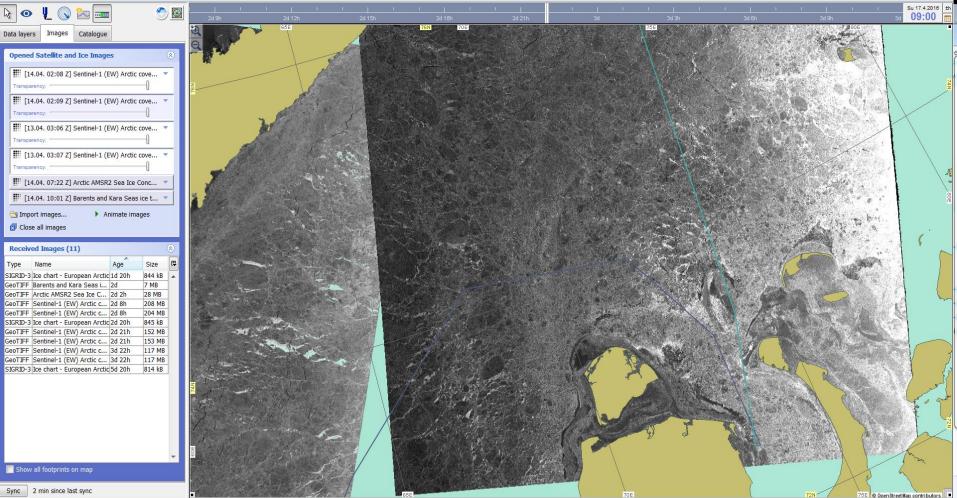




File Edit View Tools Help



LAT 73° 57.661' LON 73° 20.780'

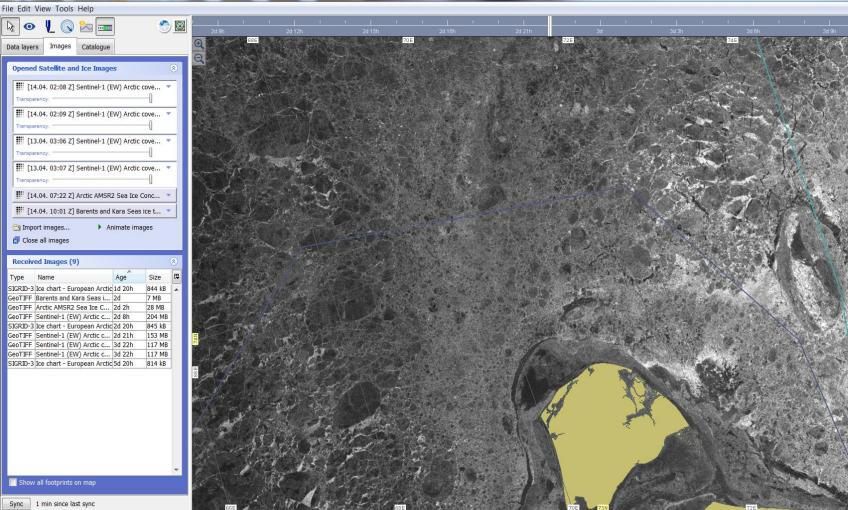




Su 17.4.2016 ±h

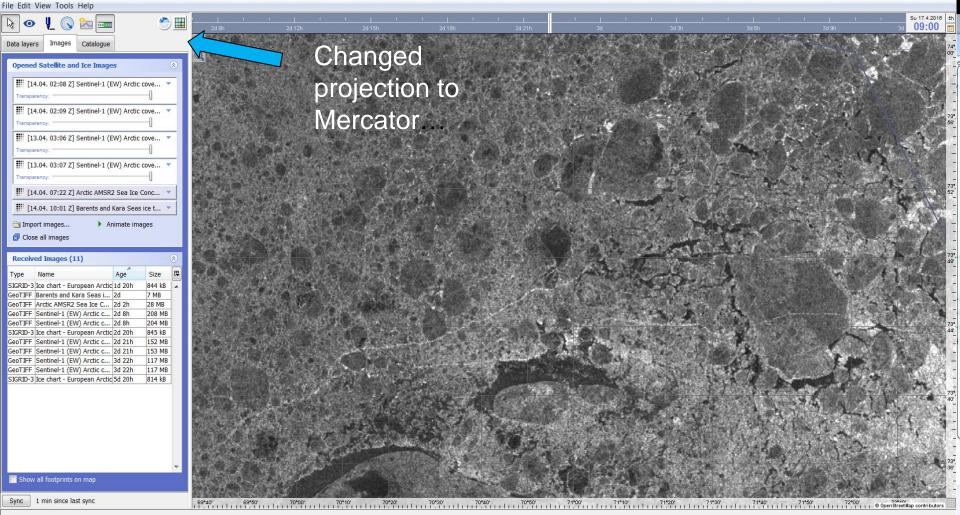
09:00

LAT 73° 44.106' LON 71° 27.228'



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Data layers

Transparency:

Transparency:

Transparency:

Transparency:

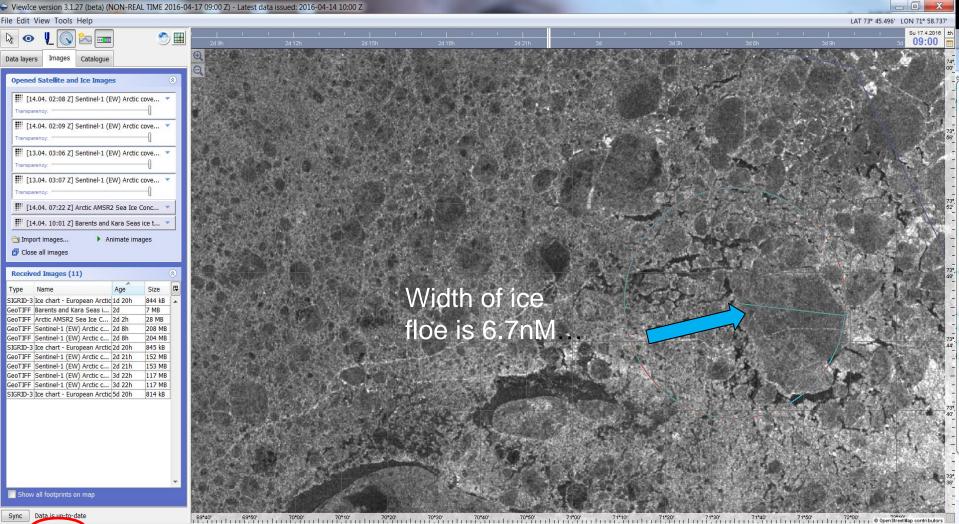
Type

Sync

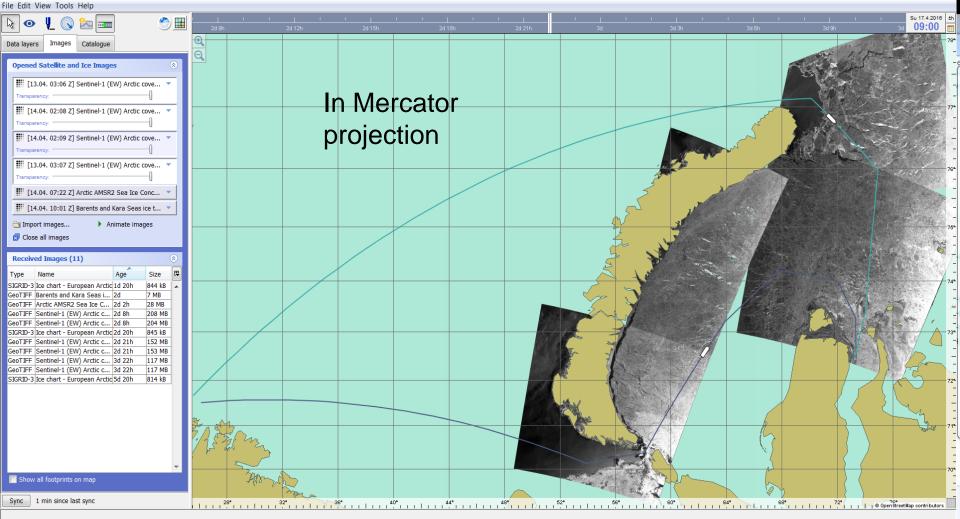
Dir: 096° Dist: 6.669 NM

Name

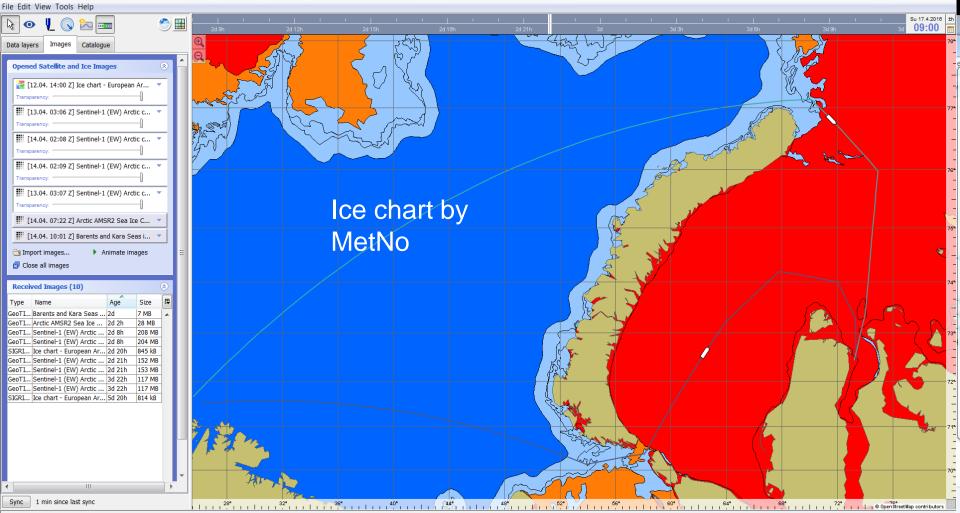




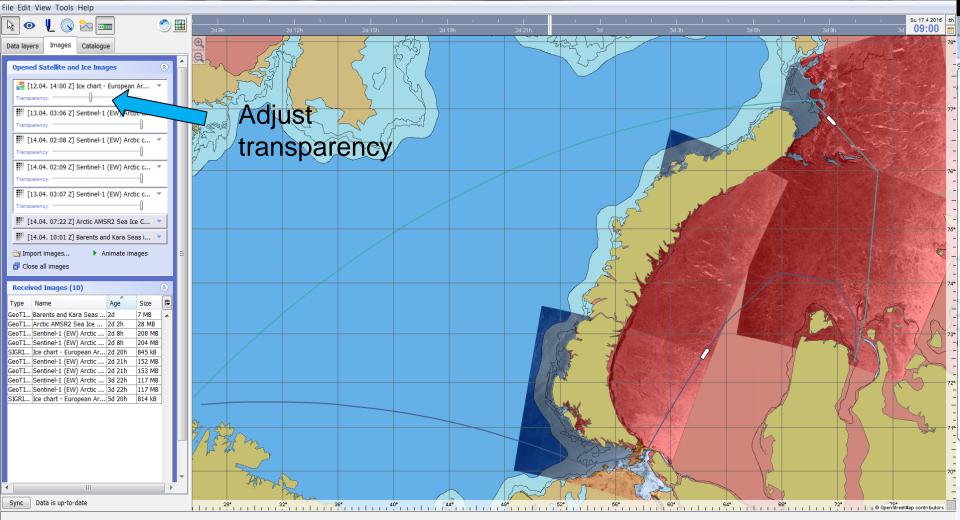




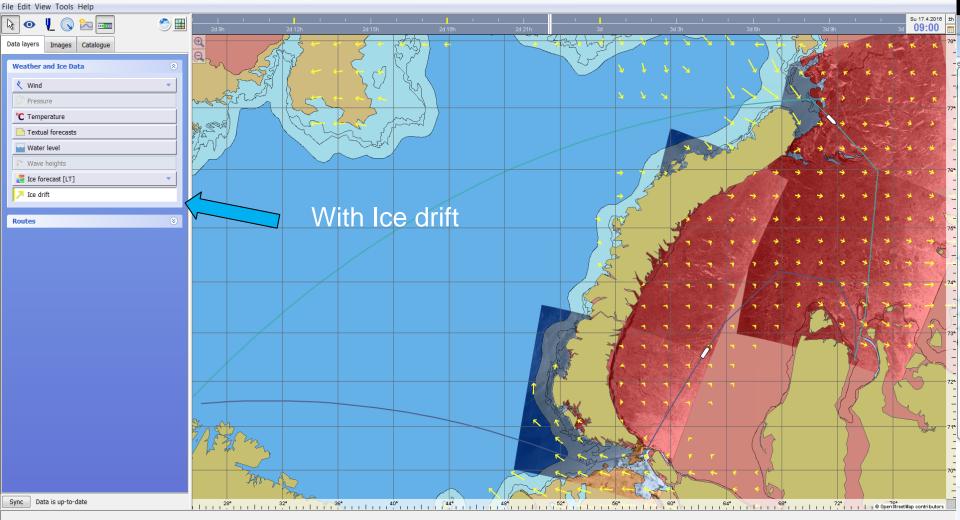




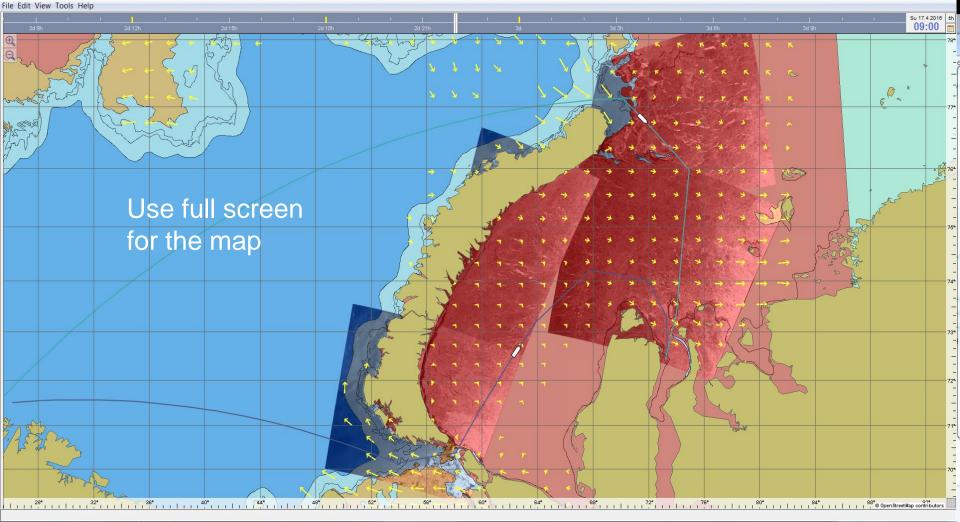




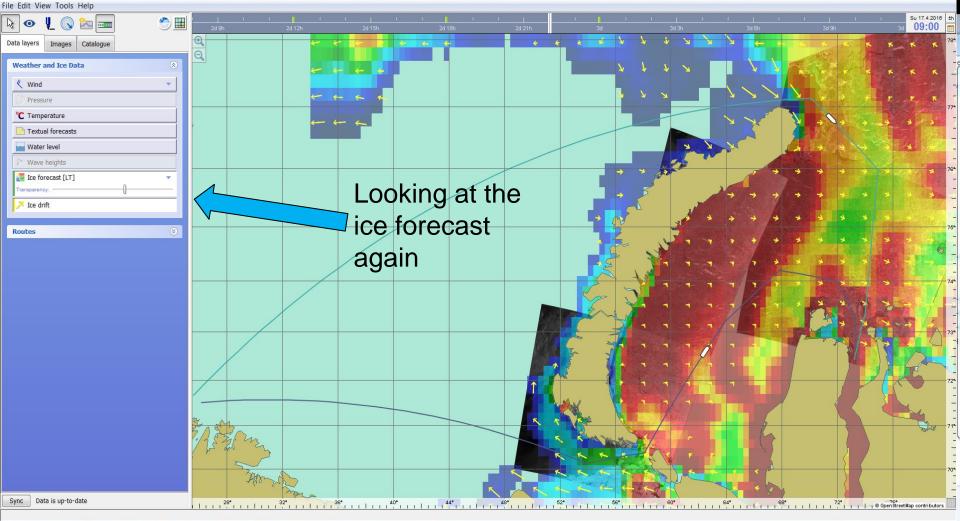




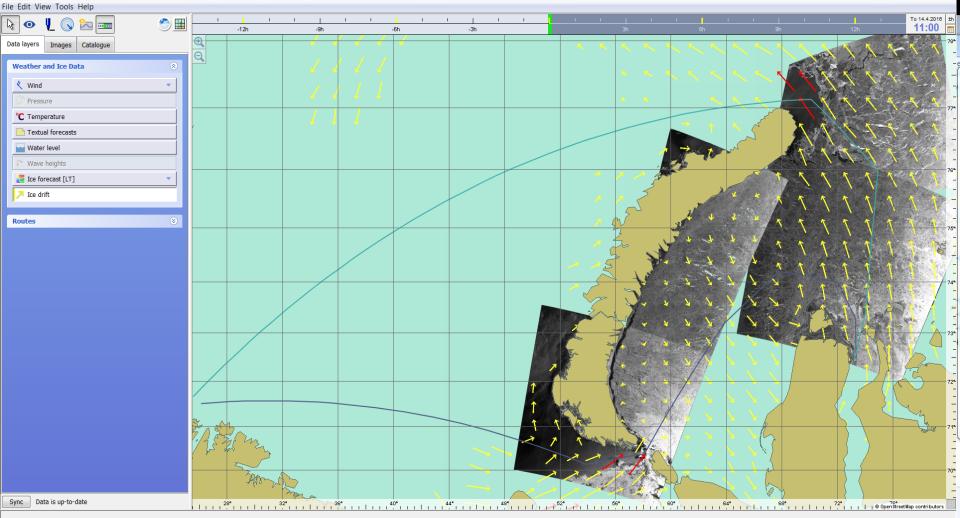


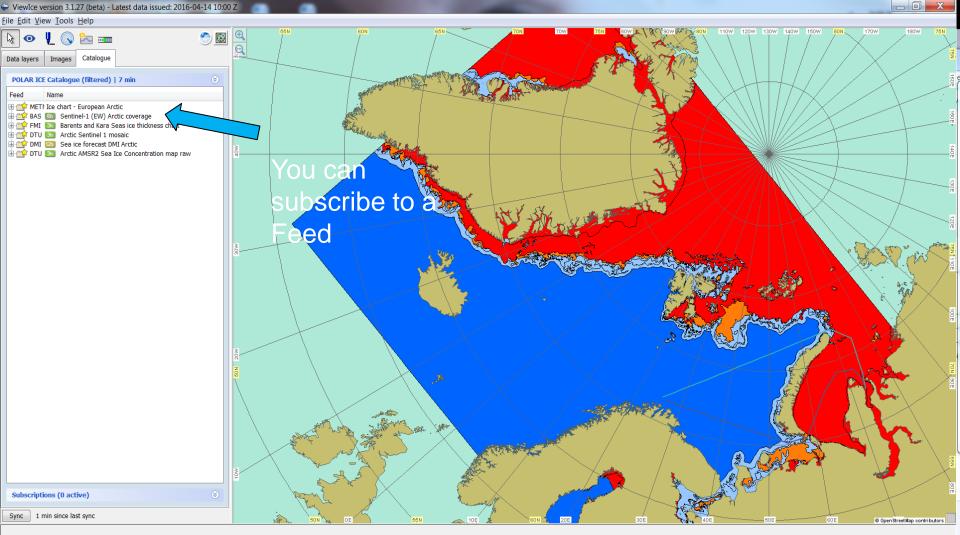






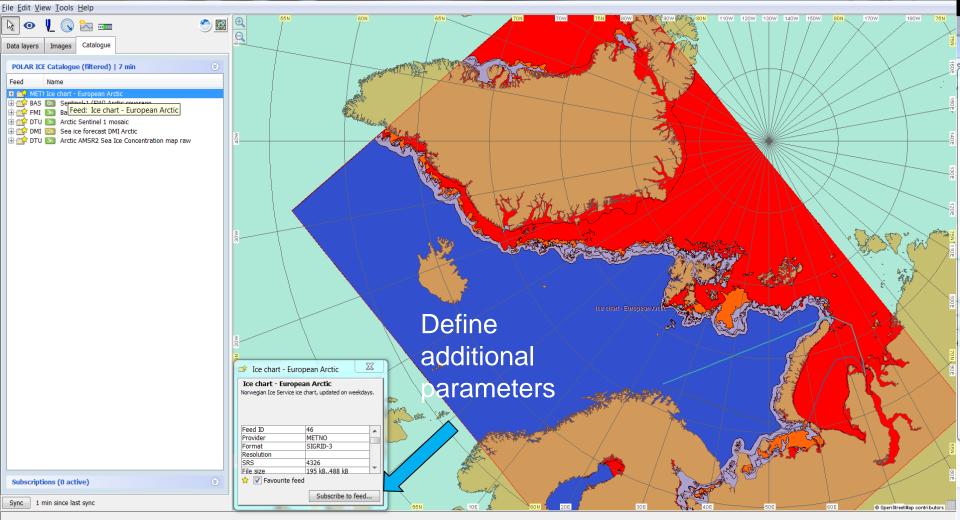












CiewIce version 3.1.27 (beta) - Latest data issued: 2016-04-14 10:00 Z



1608

# <u>File Edit View Tools Help</u>

# Subscribe to feed Product area

Full area Cropped

# Subscription time period

Start: 2016-04-14 11:57 Z

Duration: 14 days

#### File format and bit depth

SIGRID-3 🔻 N/A 💌

### Map Projection

4326 - WGS84 / Lat/Long Geographic 🔻

#### Resolution (m)

N/A 🔻

|           | Define period for  |
|-----------|--|
|           | subscription etc. The  |
|           | products will be   |
|           | prepared for you as  |
|           | new source data is   |
|           | available  |
|           | loe chart - European Arch  |
|           |  |
|           | Lee chart - European Arctic  |
|           | Lee Clart - European Arctic<br>Norwegian Ice Service ice chart, updated on weekdays. |
|           | Feed ID 46<br>Provider METNO   |
|           | Format SIGRID-3<br>Resolution<br>SRS 4326<br>File size 1195 k8,488 k8                |
| N/A       | Pite Size (155 Ab., 168 Ab )<br>↑ ▼ Favourite feed<br>Subscribe to feed              |
| Subscribe |  |

119

Ice chart - European Arctic Estimated product file size: Based on selected options and area size

Cancel

Contacts: Robin.berglund@vtt.fi