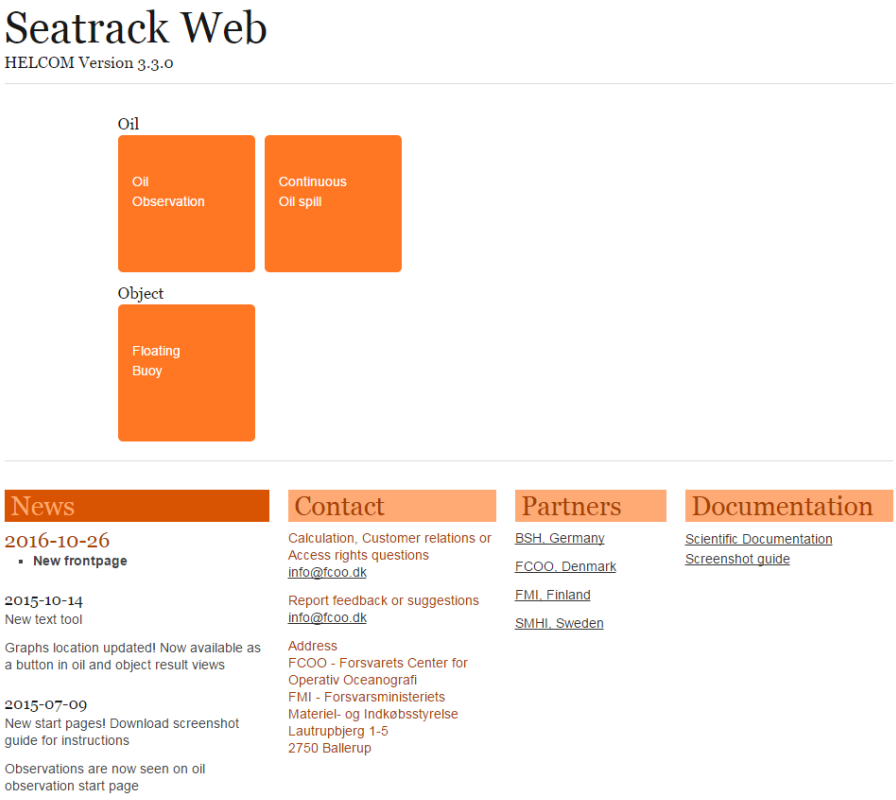
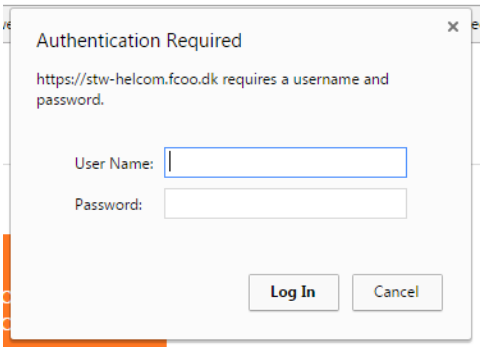
1 Introduction

Below follow simple screenshots of what to expect when selecting the orange boxes. This is the start page for Seatrack Web located at https://stw-helcom.fcoo.dk/. To use Seatrack Web it is recommended to use the latest version of Google Chrome, latest version FireFox or latest version of Internet Explorer. Older versions can also work but it is not guaranteed.



1.1 Clicking on any orange box shows the login window



2 Oil Observation

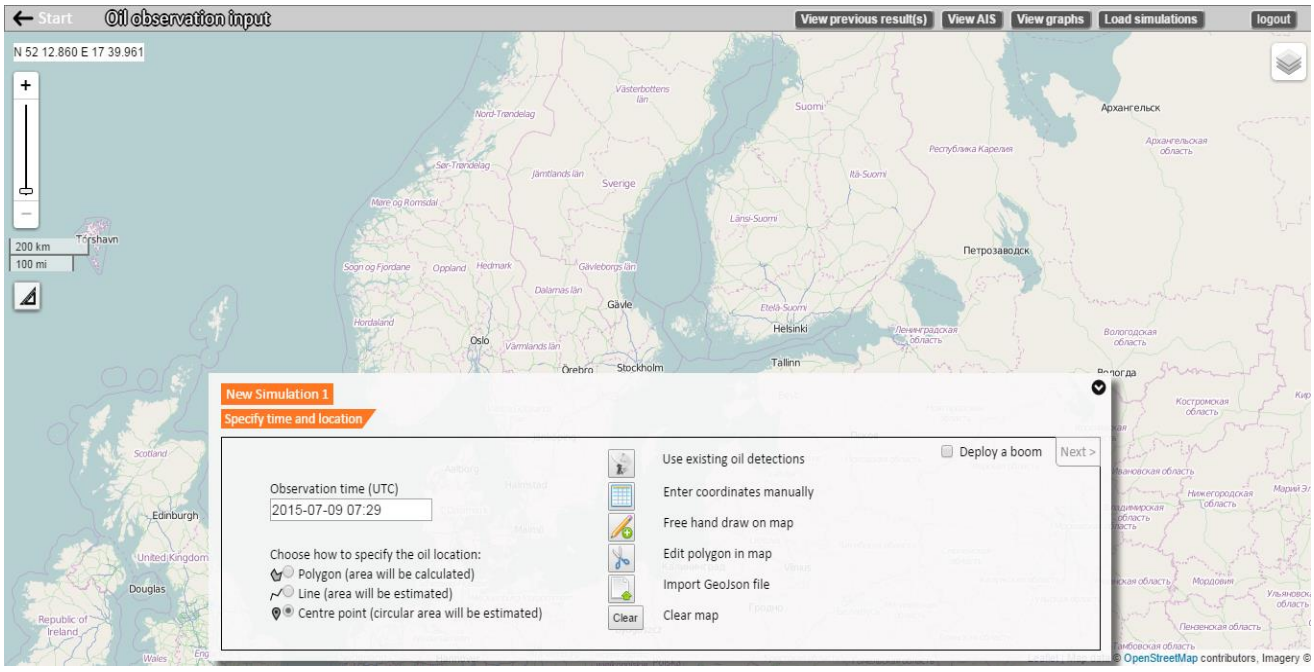
2.1 Click on the orange Oil Observation box shows the login screen

Enter your user credentials and click Log In button.

2.2 Now you are logged in

Note that you should see this screen when logging in from *Oil Observation*.

The URL for this is https://stw-helcom.fcoo.dk/oil/observation/



2.3 *Specify time and location*. Specify observation time. Draw coordinates on map or enter them manually. A polygon or line is drawn by holding down left mouse button. Optionally you view and select an existing observation (i.e. satellite). You can zoom in/out of the map by pressing the middle key of the mouse and scrolling. Then click next.

Use existing oil detections shows oil observations detected, by for example satellite, as rings in a map.

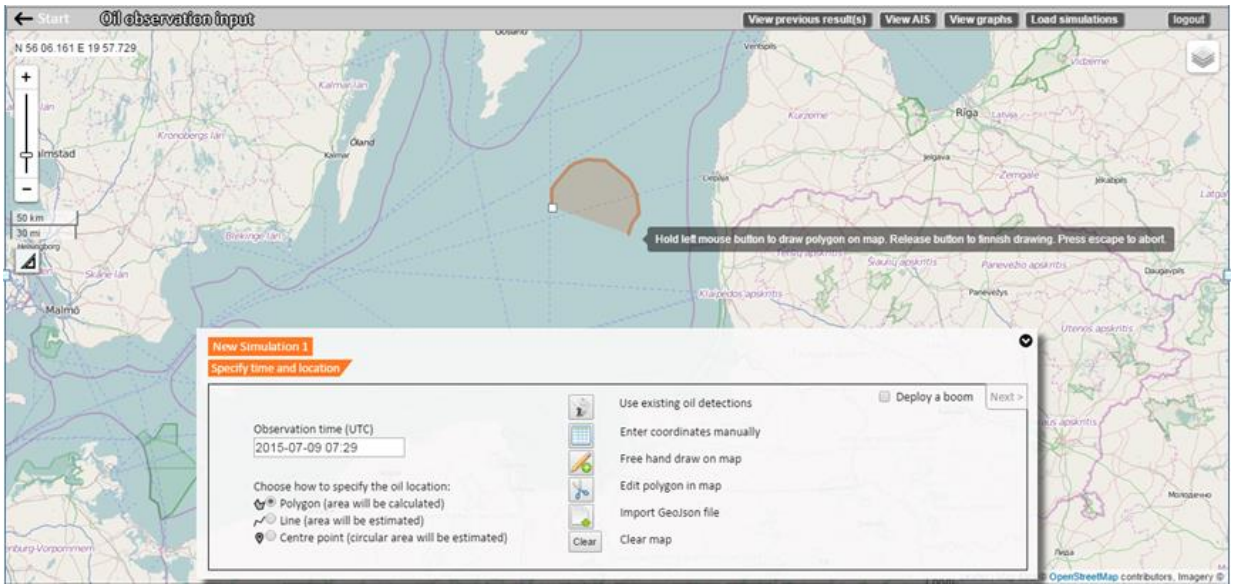
Enter coordinates manually lets you enter positions in either Degrees Decimal Minutes or Decimal Degrees format by a text field.

Free hand draw on map lets you enter positions by drawing shapes on the map. Depending on outlet type (i.e. Polygon, Polyline, Point etc) you hold down your LEFT mouse button while drawing. Release the mouse button to end. If you want to abort your ongoing drawing press the ESC button. Note that you can view your exact drawn coordinates by pressing the manual coordinate button after you made a drawing.

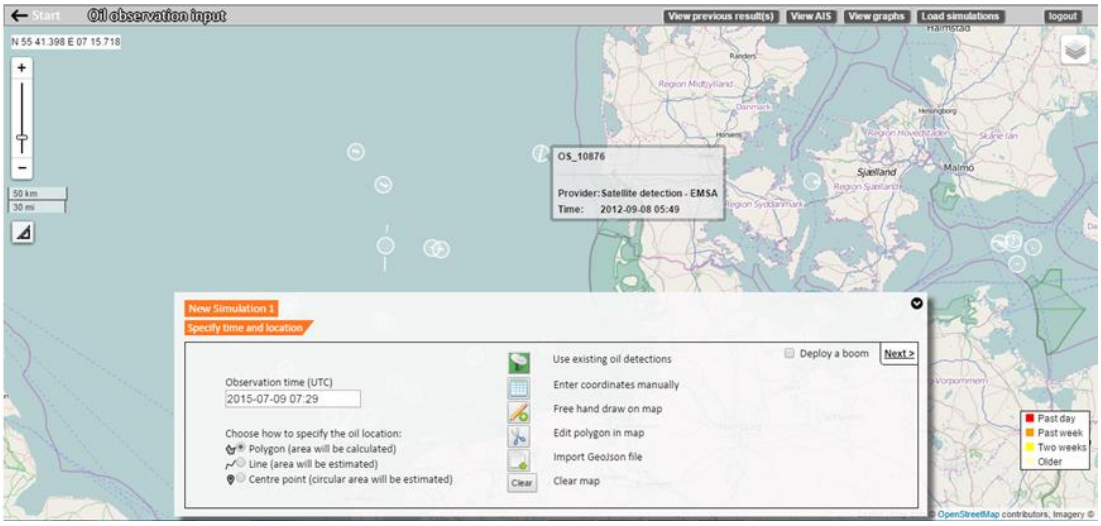
Edit polygon in map lets you cut the shape of an existing polygon by drawing a crossing line. Only works on polygons

Import GeoJson file lets you add shapes from an existing file.

Clear map removes all drawn shapes from map.



Drawing free hand polygon

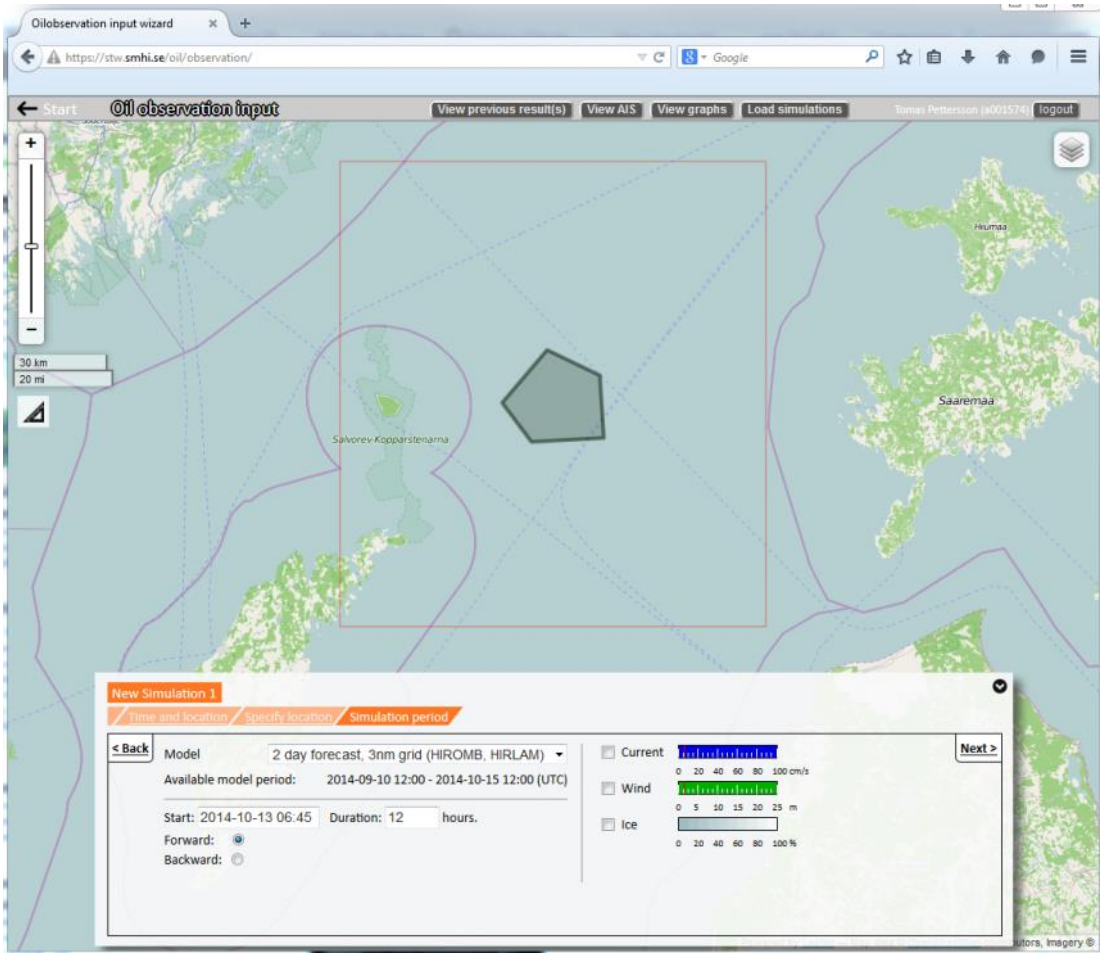


Showing satellite detections

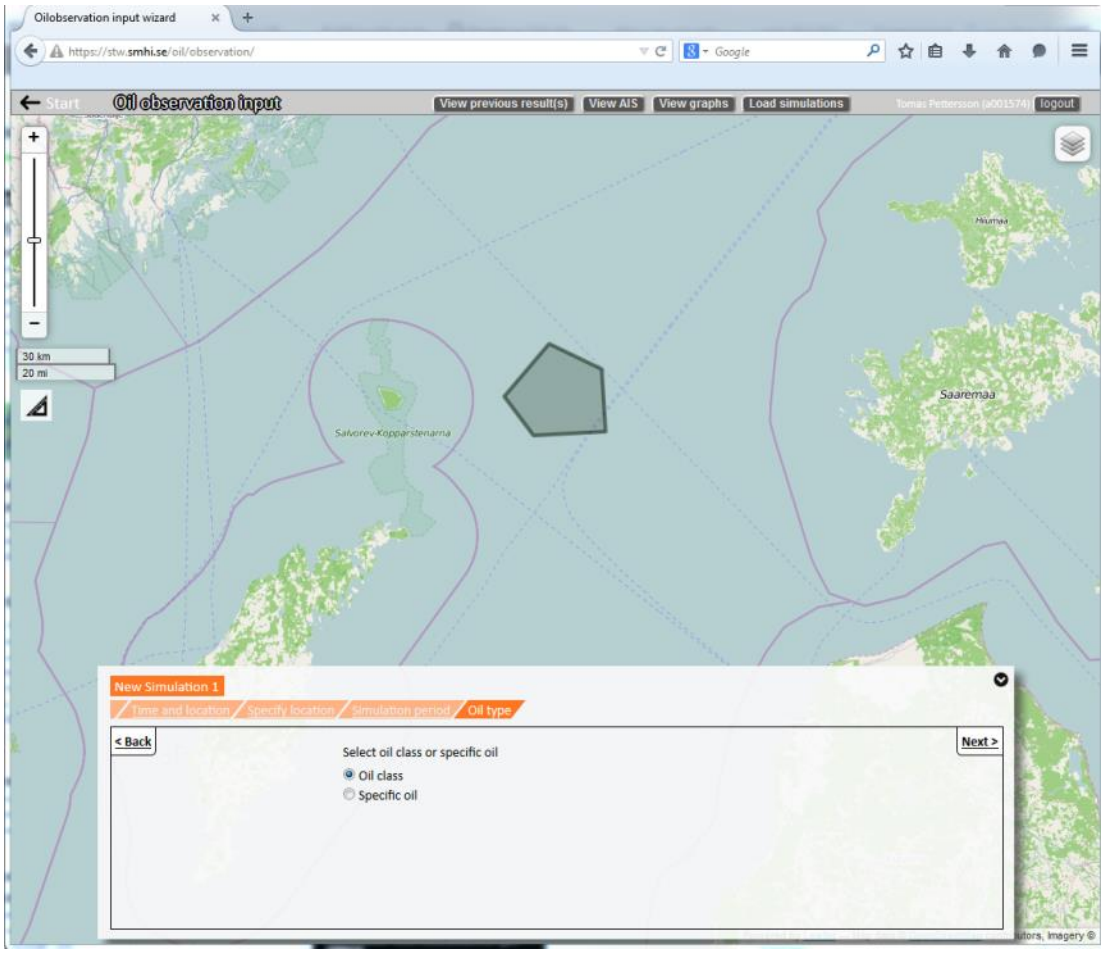
2.4 *Specify time and location* leads you to *Simulation period*. Specify a model from the drop-down menu, a start date and time of simulation, and the duration in hours. Note that if the duration you enter is too long the "Next" button remains un-clickable (light gray instead of black) until you have shortened the duration enough. Then click next.

The Start date and time are copied from 2.3 Observation time within 15 minutes accuracy, unless the observation date and time do not fall into the limits of the model data.

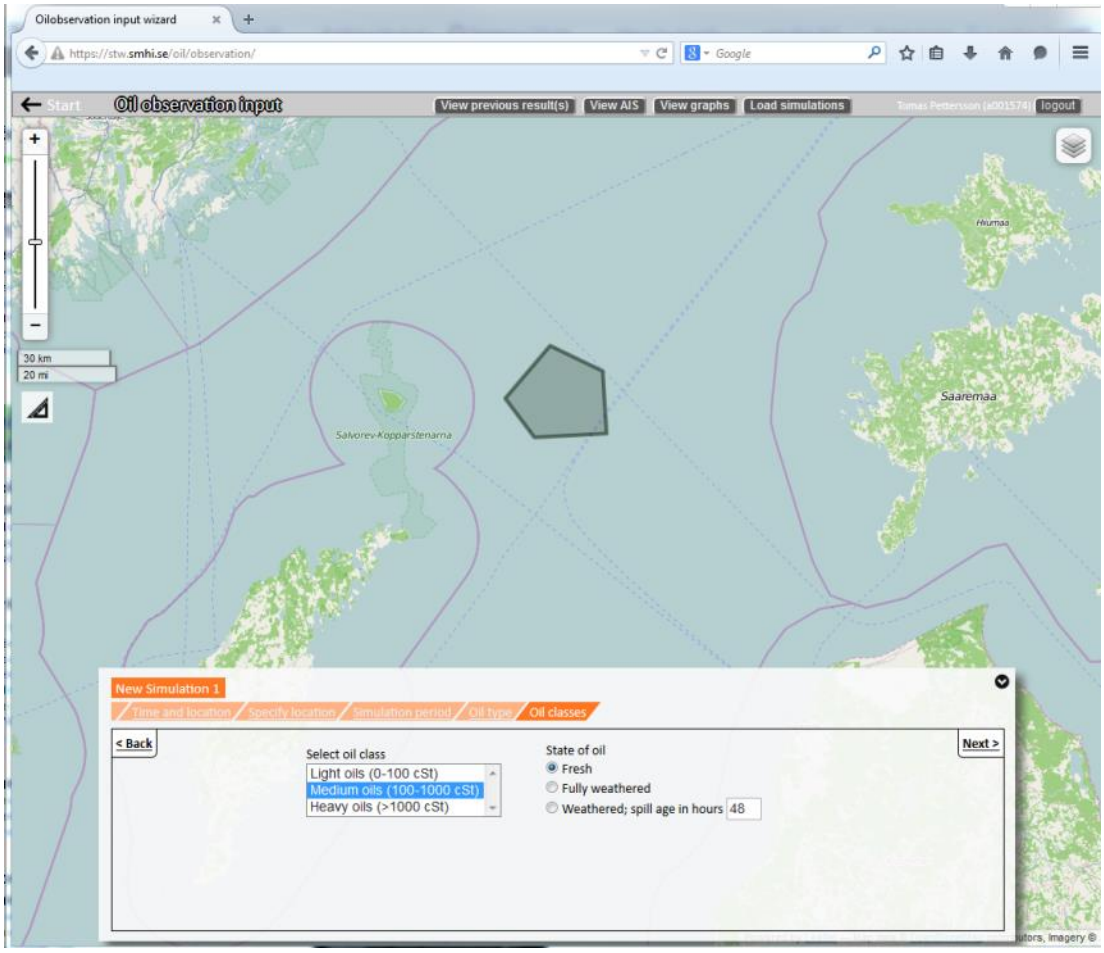
Note that you can also view current, wind and ice arrows to get an early understanding on where the simulation might end up.


Oilobservation input wizard
https://stw.smhi.se/oil/observation/
Start
Oil observation input
View previous result(s)
View AIS
View graphs
Load simulations
logout
Hiiumaa
Saaremaa
Salvorev-Kopparstenarna
30 km
20 mi
New Simulation 1
Time and location
Specify location
Simulation period
< Back
Next >
Model
2 day forecast, 3nm grid (HIROMB, HIRLAM)
Available model period:
2014-09-10 12:00 - 2014-10-15 12:00 (UTC)
Start: 2014-10-13 06:45
Duration: 12
hours.
Forward:
Backward:
Current
0 20 40 60 80 100 cm/s
Wind
0 5 10 15 20 25 m
Ice
0 20 40 60 80 100 %

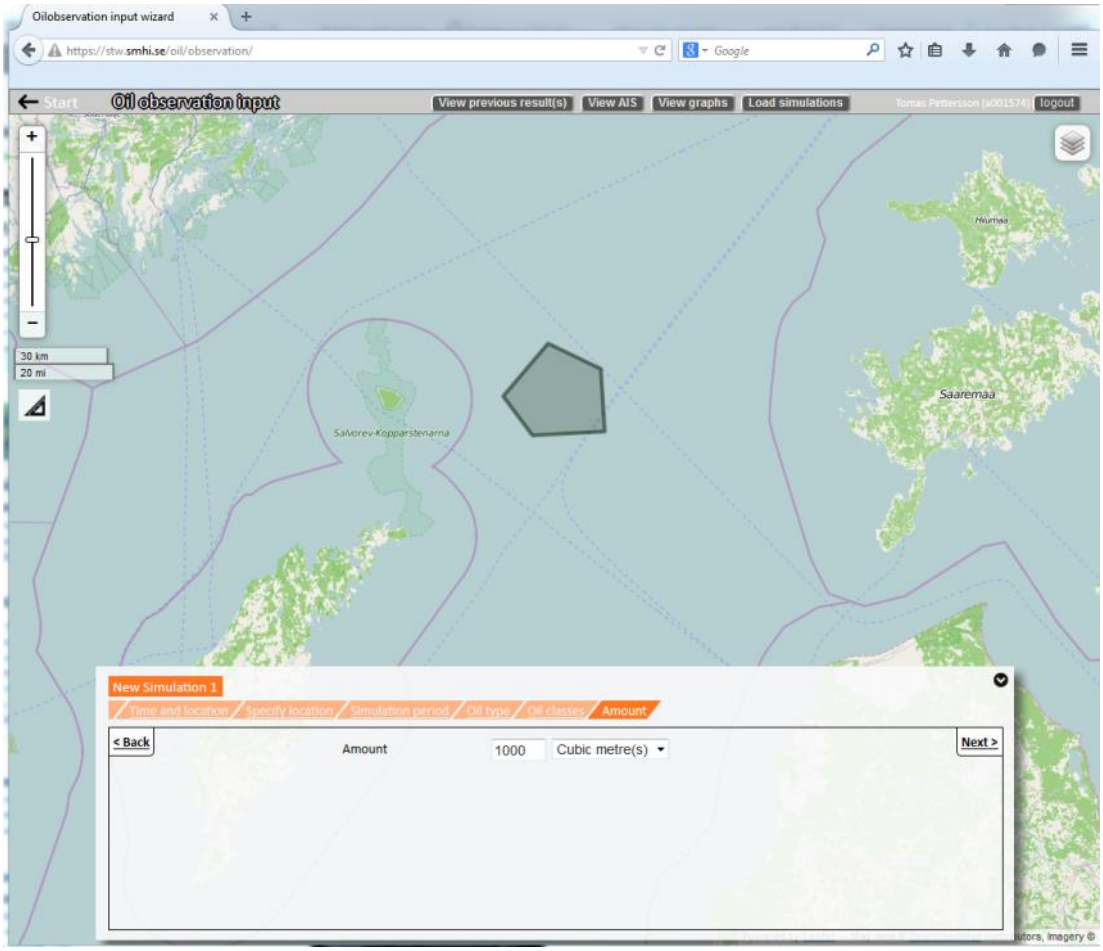
2.5 *Simulation period* leads you to *Oil type*. Select Oil class (gives you 3 options: light/medium/heavy) or Specific oil (if you know what oil it is) and click next.



2.6 *Oil type* leads you to *Oil classes* (picture below) or to *Specific Oil*. Select oil class / specific oil, and the State of oil. Then click next.

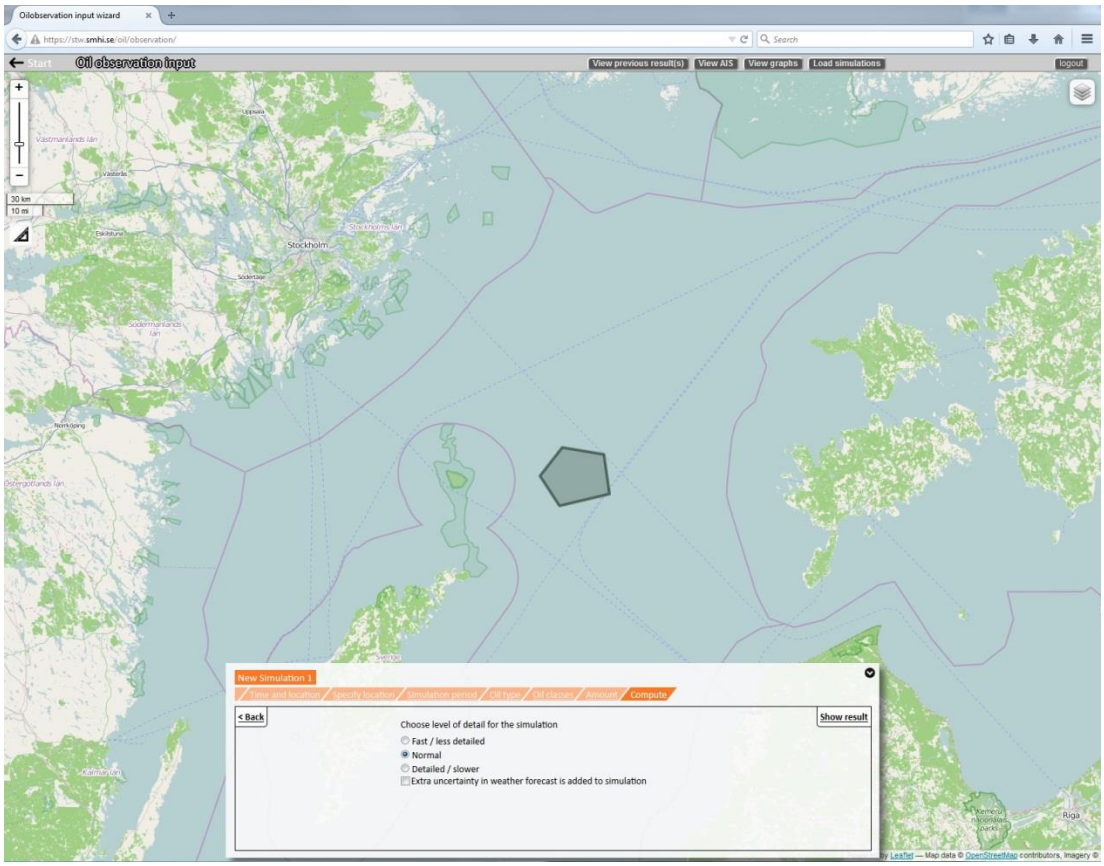


2.7 *Oil classes / Specific oil* both lead you to *Amount*. Select the estimated amount of oil you would expect in the observed case and then click next.

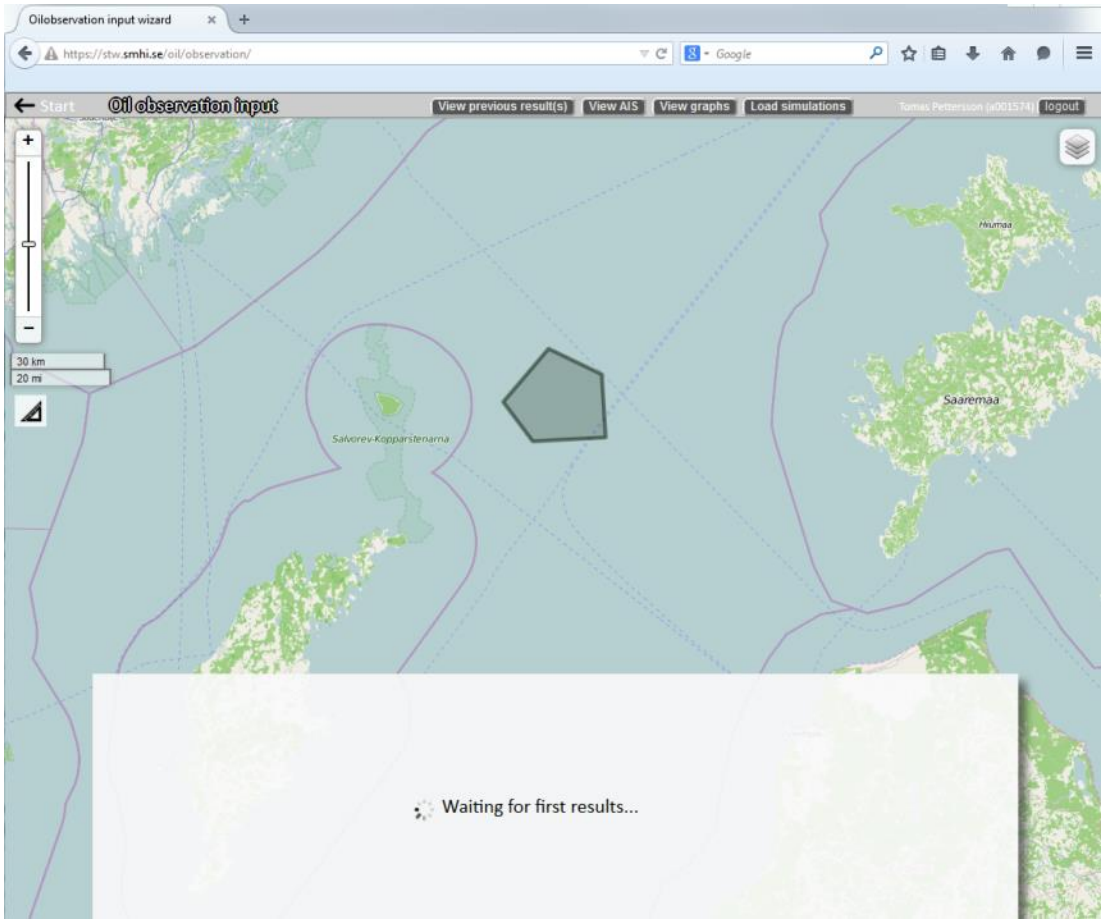


2.8 *Amount* lead you to *Compute*. Choose either "Fast / less detailed", "Normal" or "Detailed / slower". Then click Show result.

Note that you can also check the box for extra uncertainty to add a greater degree of variation in the weather forecast.



2.9 *Show result* will start the simulation and you will see a Waiting screen before the simulation is being calculated.

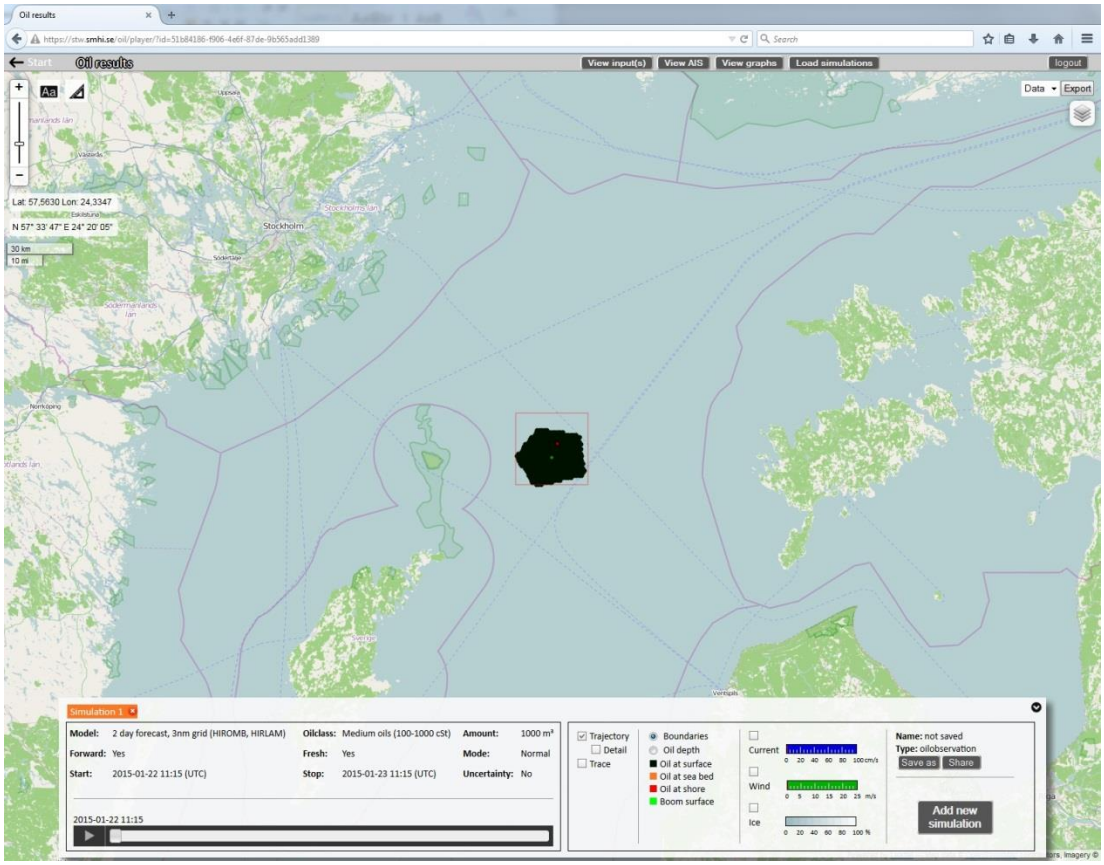


2.10 Simulation is ready to show in the player view.

Here you can animate the results, watch trajectory, see weather data, share your simulation with others or choose to add another oil observation simulation (lower panel).

You can also view the inputs, view AIS data (backward simulations only), view graphs (see 2.13, p.13) or load previous simulations (upper panel) or export the results as a table (upper right hand corner) (see 2.14, p.14).

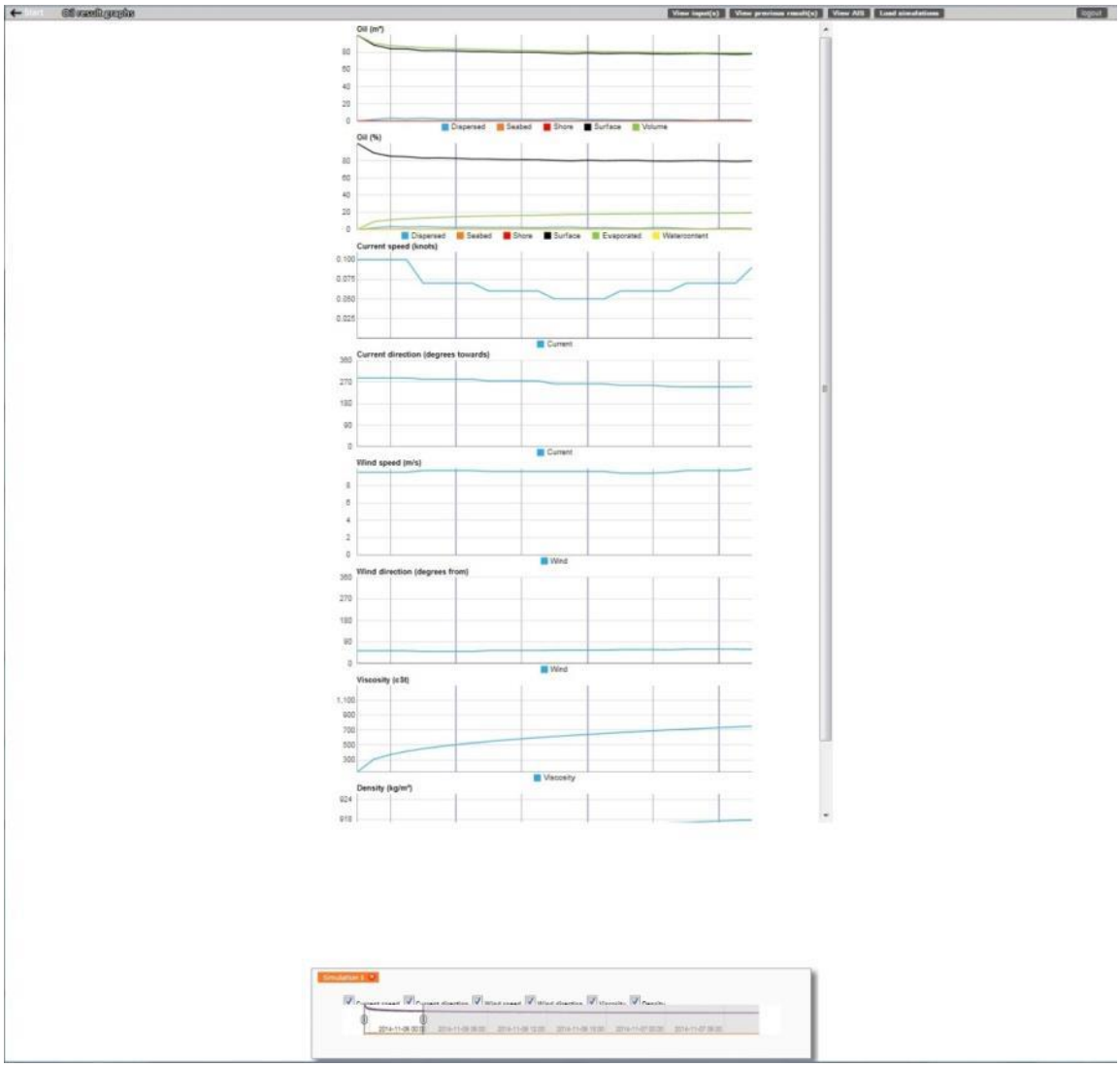
The green and red dots on the map are the start and end points of the simulation.



2.11 View graphs will show timeseries of the results

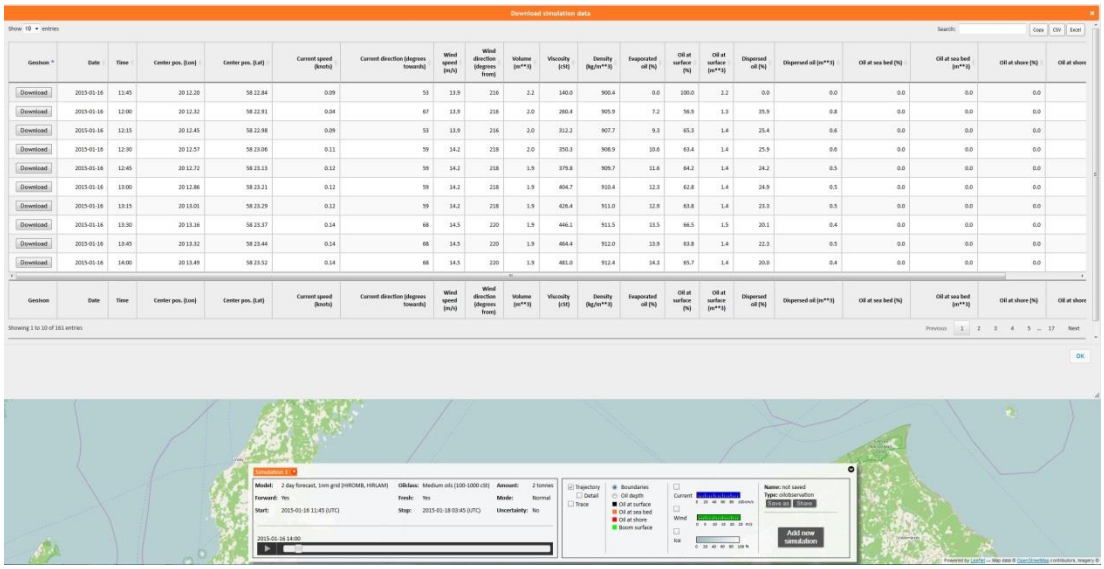
You will see

1. Oil [m^3] dispersed, on seabed, at shore, at surface
2. Oil [%] dispersed, on seabed, at shore, at surface, evaporated and the water content.
3. Current speed [kn]
4. Current direction [degrees towards]
5. Wind speed [m/s]
6. Wind direction [degrees from]
7. Viscosity [cSt]
8. Density [kg/m^3]



2.12 Export will open a table with the results

You can copy the data and paste it wherever you like or export it as a CSV or Excel table or download all or some of the data in GeoJson format. When done, click at "OK" button or at the "x" to exit this view.



3 Continuous Oil Spill

3.1 Clicking on the orange Continuous Oil Spill box shows the login screen

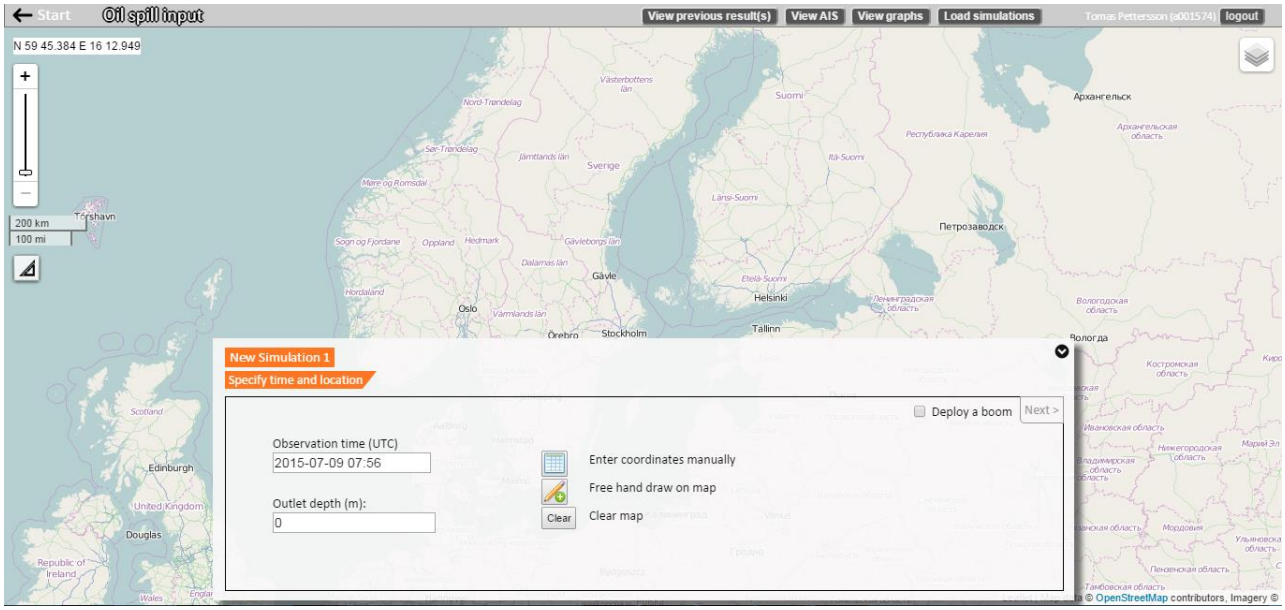
Enter your user credentials and click Log In button.

3.2 Now you are logged in

Note that you should see this *Specify time and location* screen when logging in from *Continuous Oil Spill*.

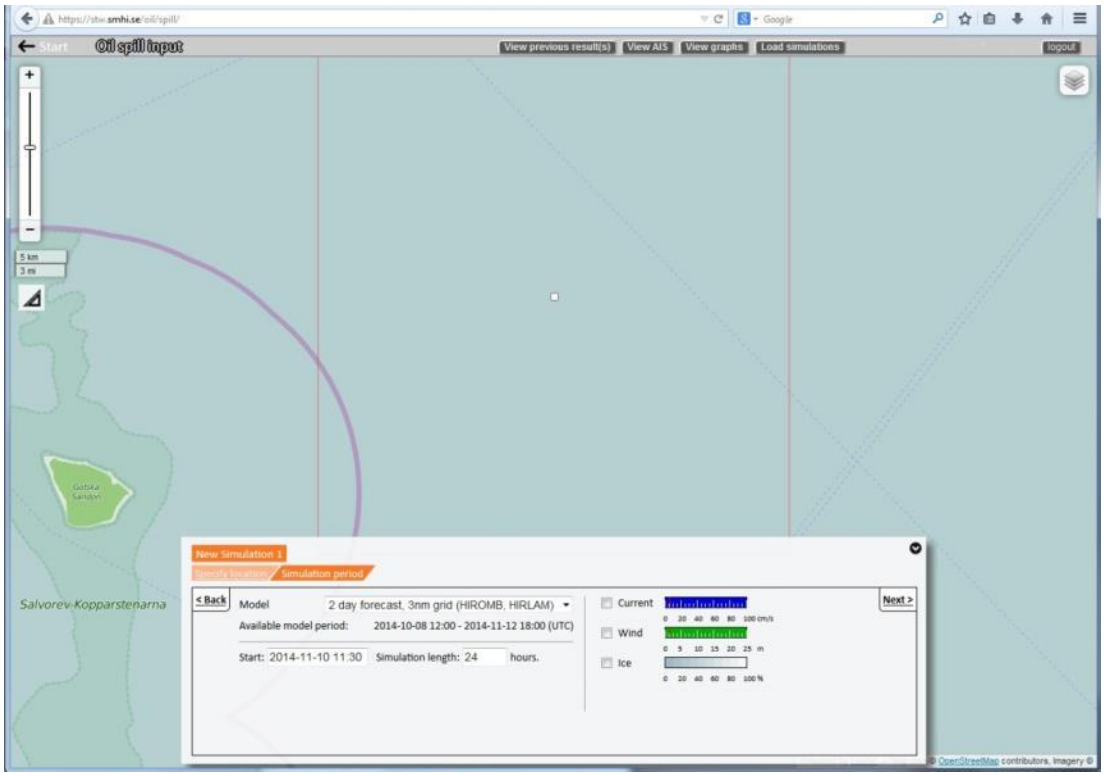
The URL for this is https://stw-helcom.fcoo.dk/oil/spill/

Specify observation time and location. Either draw coordinates on map or enter them manually. You can zoom in/out of the map by pressing the middle key of the mouse and scrolling. Only one point can be chosen. Optionally add a starting depth. Then click next.

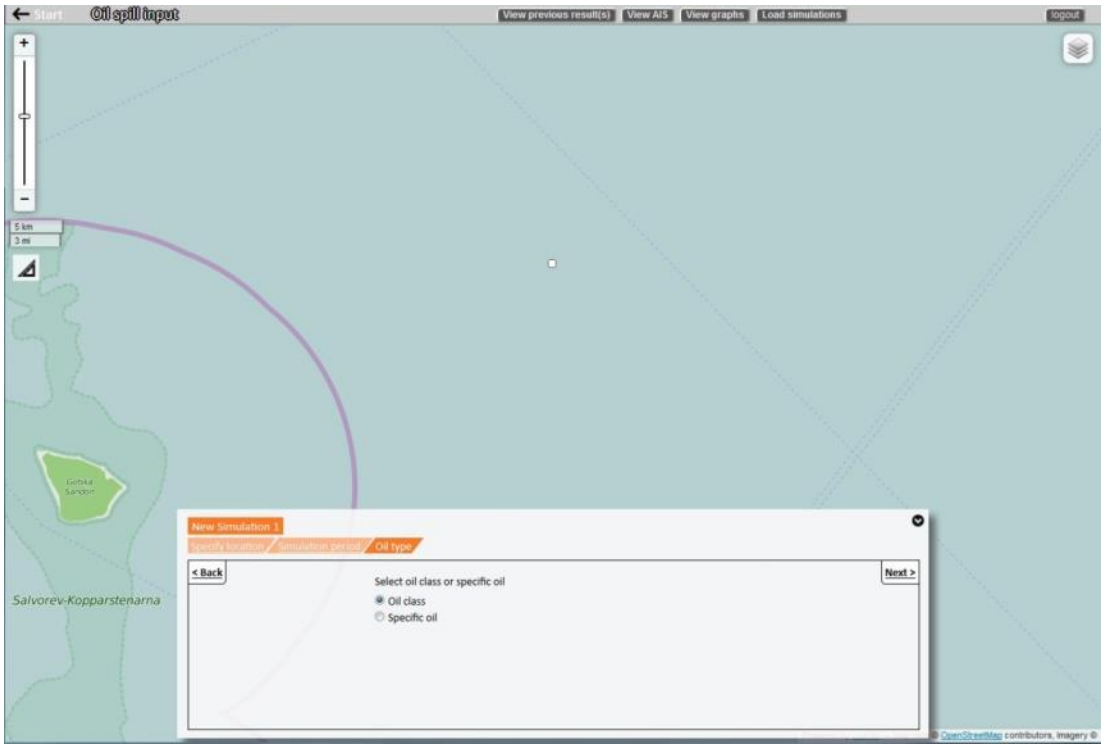


3.3 *Specify time and location* leads you to *Simulation period*. Specify a model from the drop-down menu, a start date and time of simulation, and the duration in hours. Note that if the duration you enter is too long the "Next" button remains un-clickable (light gray instead of black) until you have shortened the duration enough. Then click next.

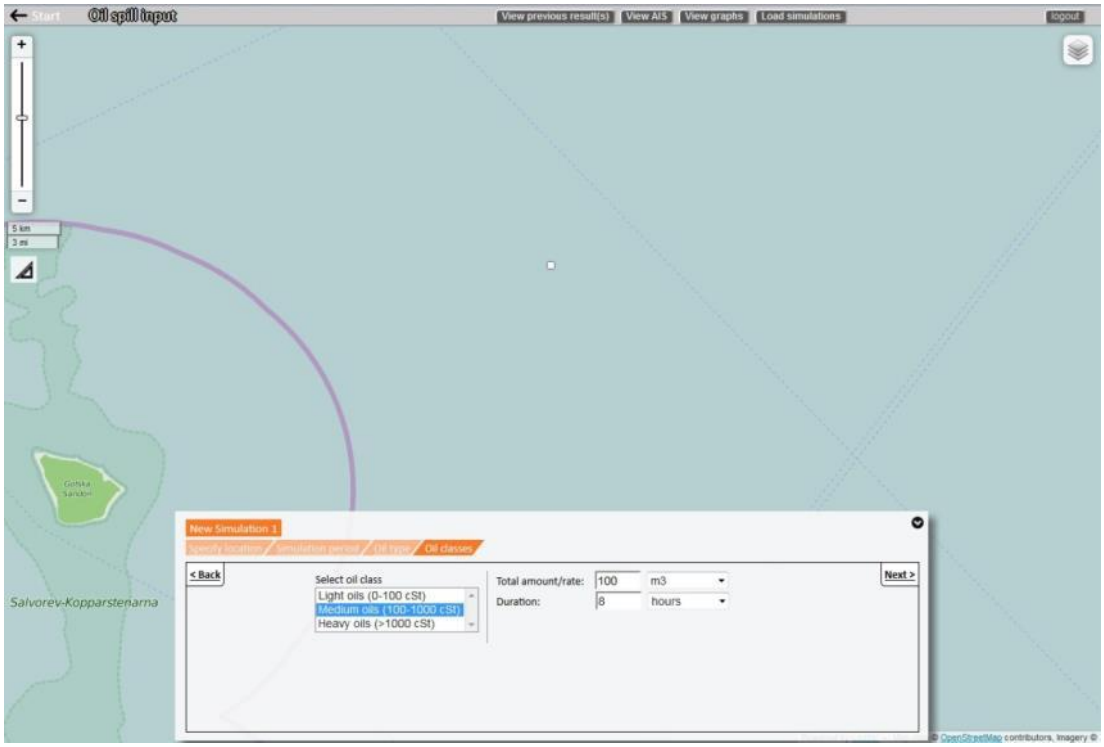
Note that you can also view current, wind and ice arrows to get an early understanding on where the simulation might end up.



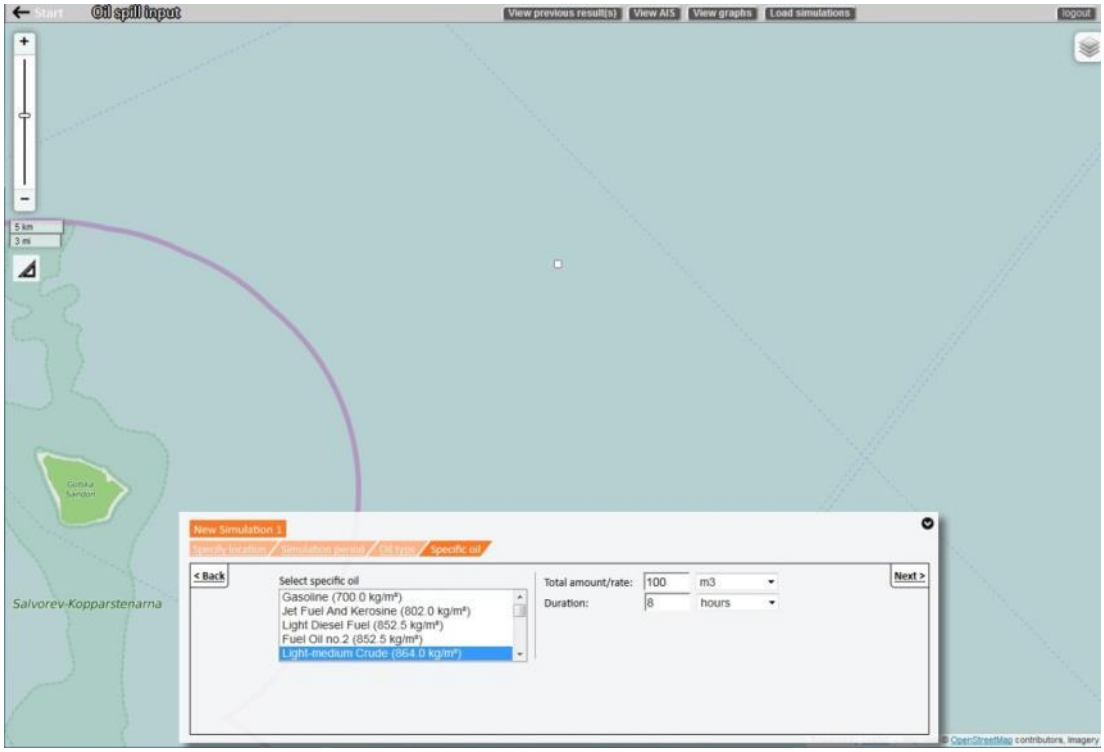
3.4 *Simulation period* leads you to *Oil type*. Select Oil class or Specific oil and click next.



3.5 Choosing Oil class in *Oil type* leads you to *Oil classes* (a). Choosing Specific oil leads you to *Specific Oil* (b). Select oil class / specific oil. Fill in the total amount or rate and the duration. Then click next.



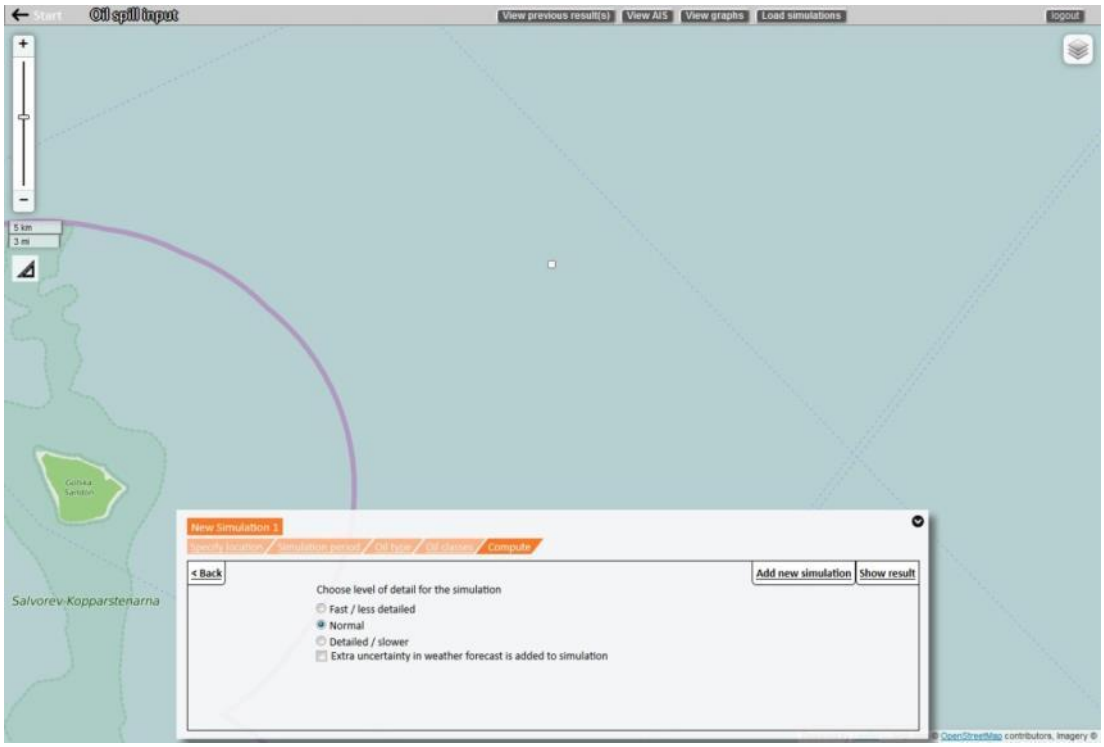
a

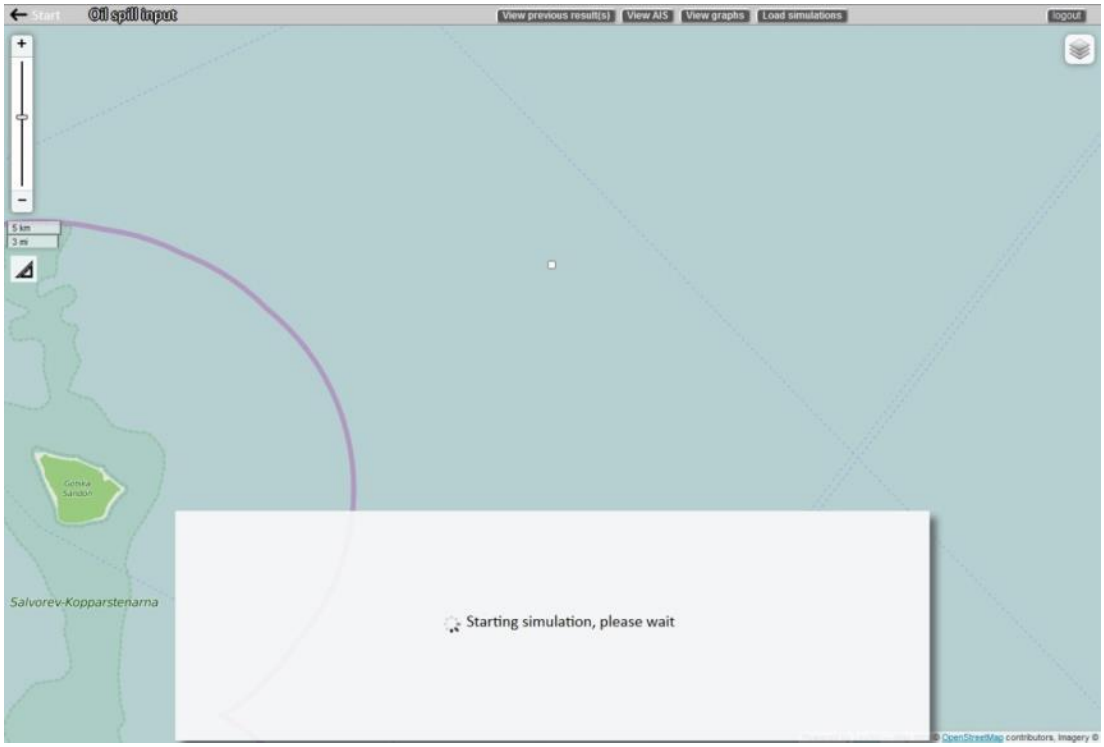


b

3.6 *Oil classes* or *Specific oil* leads you to *Compute*. Choose either Fast / less detailed, Normal or Detailed / slower. Then click Show result.

Note that you can also check the box for extra uncertainty to add a greater degree of variation in the weather forecast.

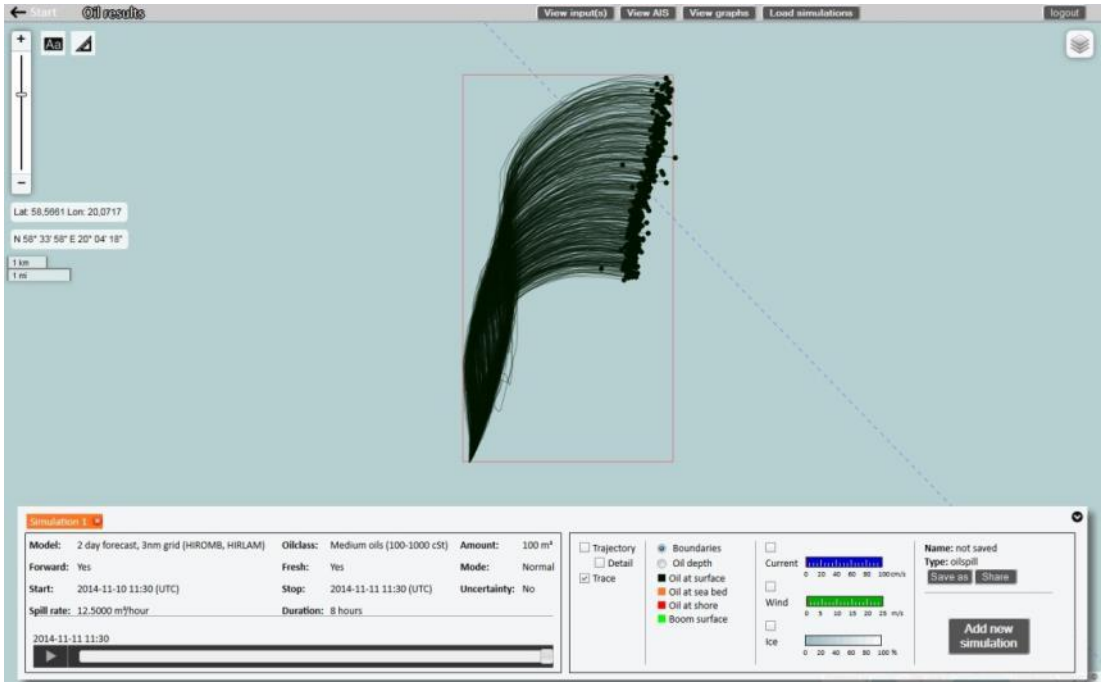




3.7 Simulation is ready to show in the player view.

Here you can animate the results, watch trajectory, see weather data, share your simulation with others or choose to add another continuous oil spill simulation (lower panel).

You can also view the inputs, view graphs (see 4.7, p.24) or load previous simulations (upper panel).



3.8 View graphs will show timeseries of the results

You will see

1. Oil [m^3] dispersed, on seabed, at shore, at surface
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4. Current direction [degrees towards]
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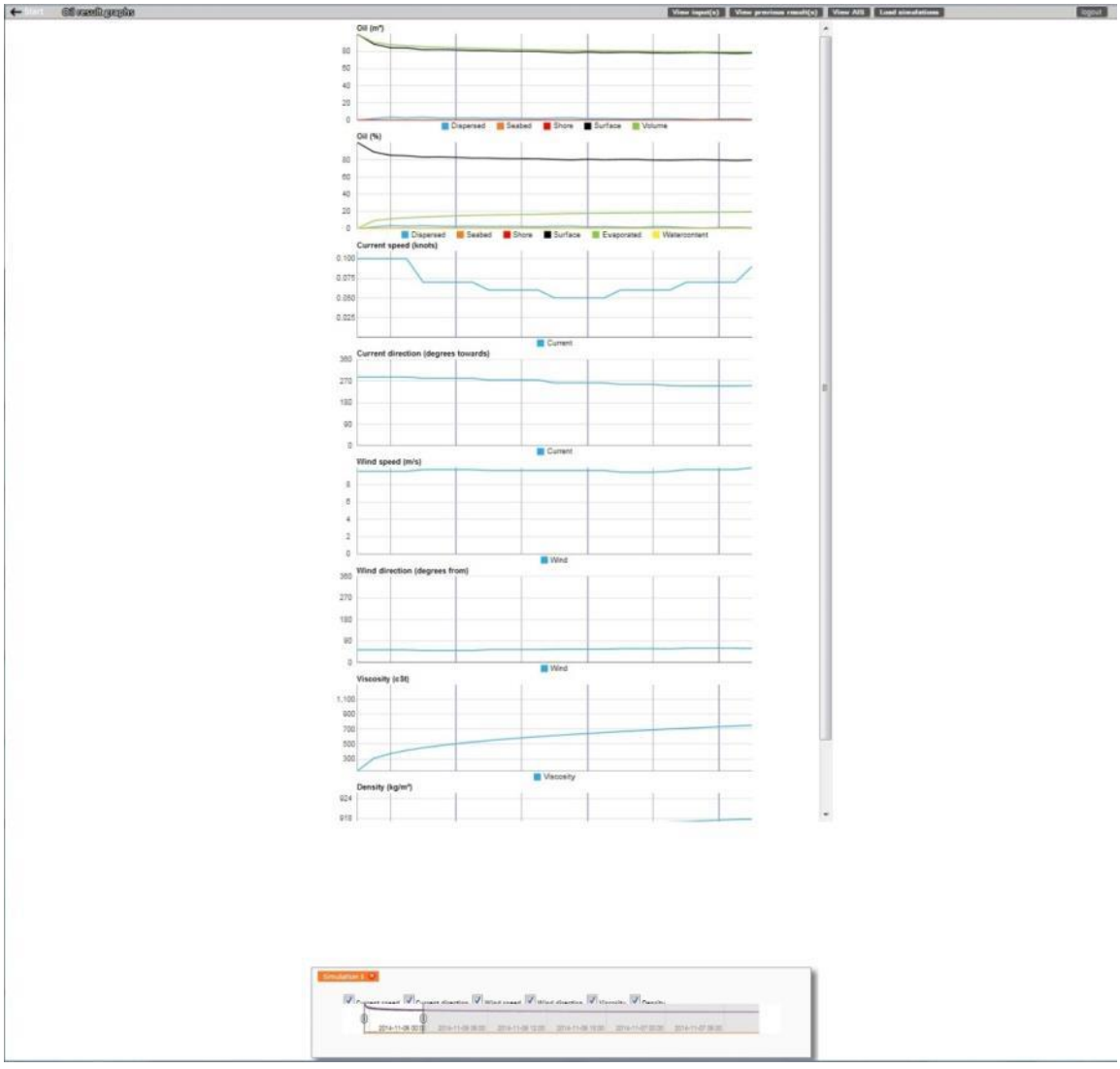
6. Wind direction [degrees from]
7. Viscosity [cSt]
8. Density [kg/m^3]



4 Floating Buoy

4.1 Clicking on the orange Floating Buoy box shows the login screen

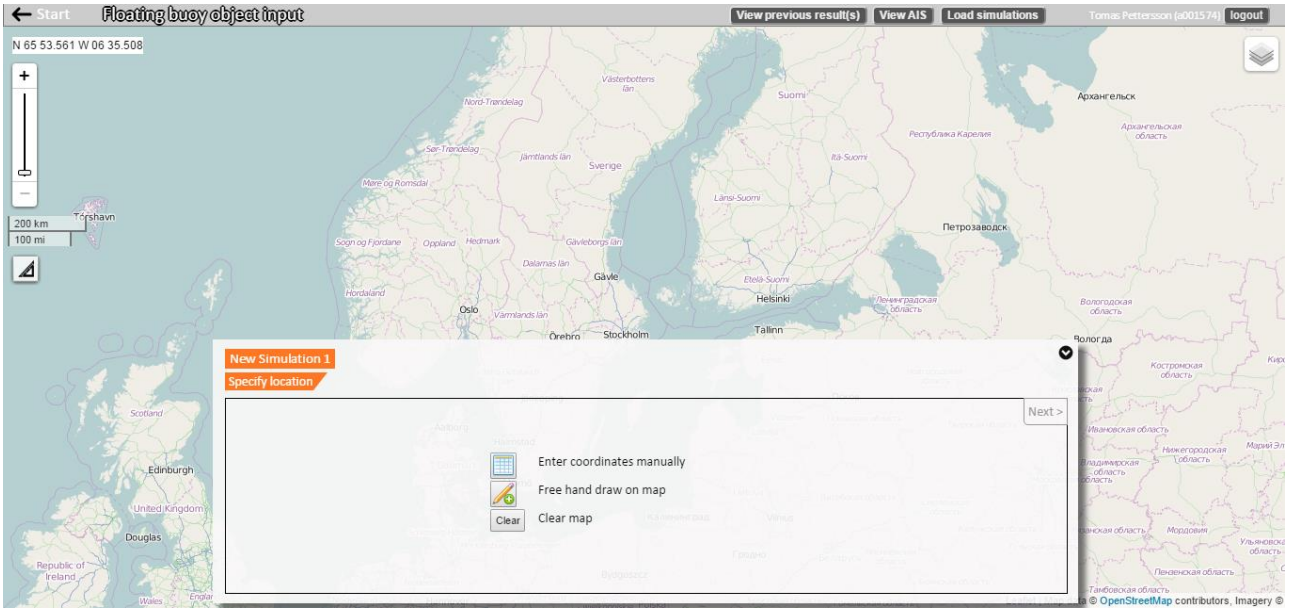
Enter your user credentials and click Log In button.

4.2 Now you are logged in

Note that you should see this *Specify location* screen when logging in from *Floating Buoy*.

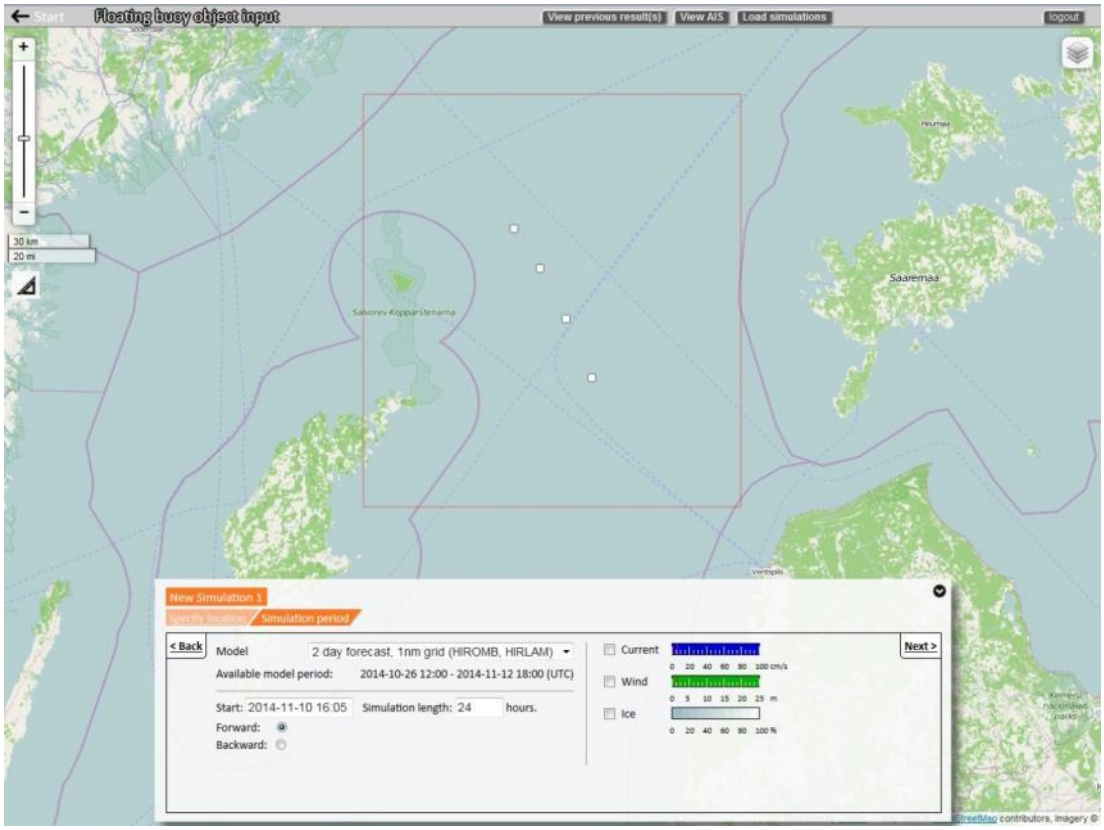
The URL for this is https://stw-helcom.fcoo.dk/object/floatingbuoy/

Either draw coordinates on map or enter them manually. You can zoom in/out of the map by pressing the middle key of the mouse and scrolling. Several points can be chosen. Then click next.

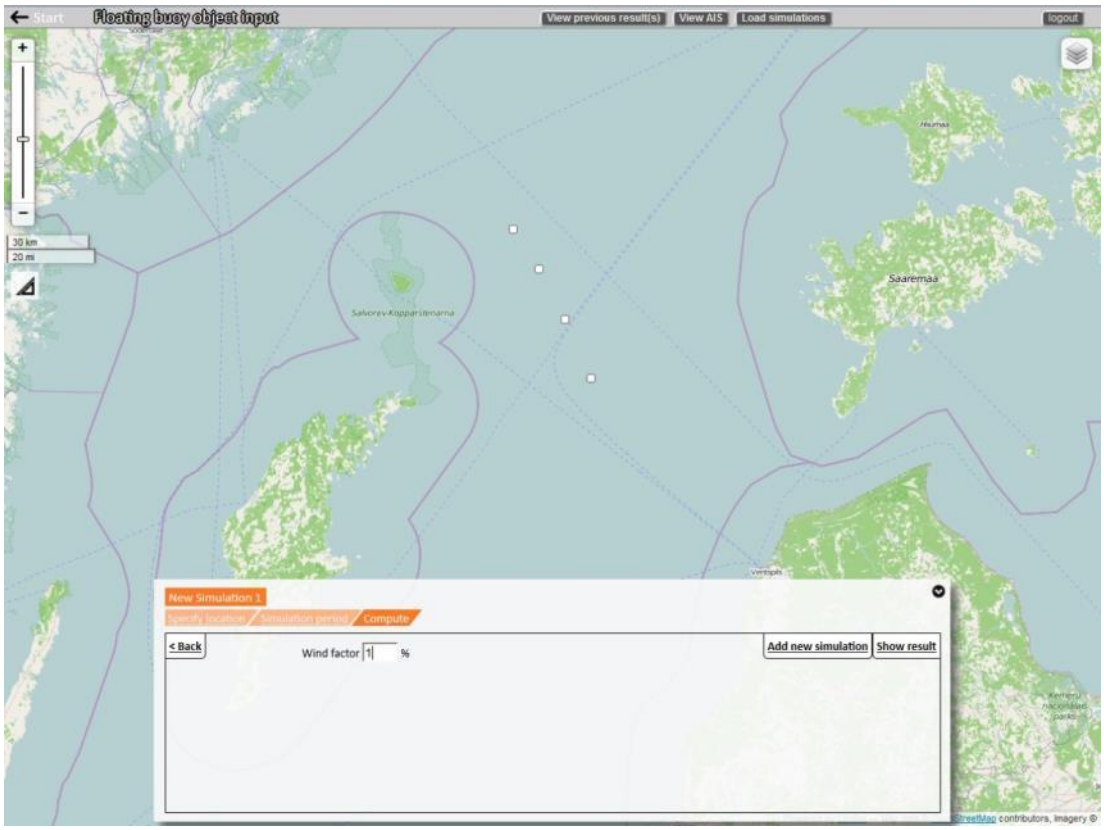


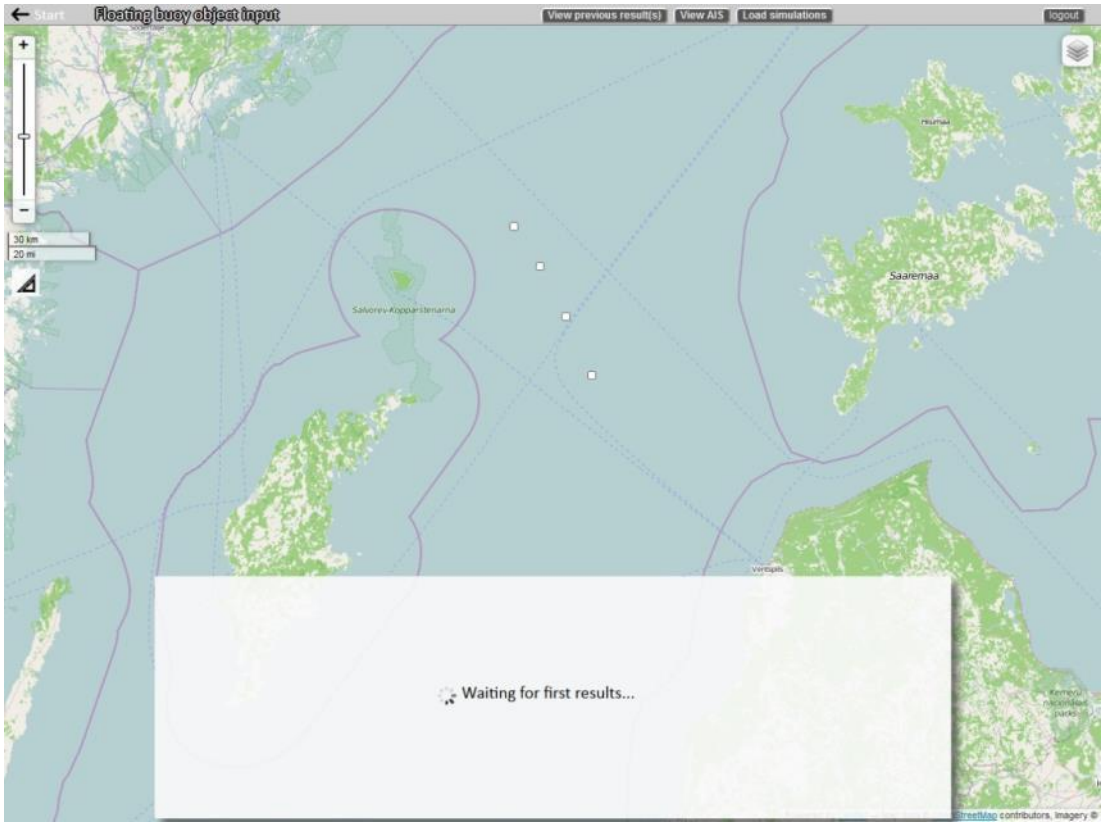
4.3 *Specify location* leads you to *Simulation period*. Specify a model from the drop-down menu, a start date and time of simulation, and the duration in hours. Note that if the duration you enter is too long the "Next" button remains un-clickable (light gray instead of black) until you have shortened the duration enough. You can choose either forward or backward computation. Then click next.

Note that you can also view current, wind and ice arrows to get an early understanding on where the simulation might end up.



4.4 *Simulation period* leads you to *Compute*. Fill in the wind factor in percentages. Then click Show result.





4.5 Simulation is ready to show in the player view.

Here you can animate the results, watch trajectory, see weather data, share your simulation with others or choose to add another floating buoy simulation (lower panel).

You can also view the inputs or load previous simulations (upper panel) or export the results as a table (upper right hand corner) (see 2.14, p.14).