



# European Maritime Safety Agency

SafeSeaNet  
STIRES USER MANUAL

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# INTRODUCTION



It gives me great pleasure to introduce the user manual for the new module of SafeSeaNet (known as STIRES).

This document will provide Member State users with the information they need on how to use the new SafeSeaNet graphical interface. While the SafeSeaNet database and system contains much useful information, there is a saying that “a picture paints a thousand words,” and having the ability, not only to access, but also to display extensive information on ships, hazardous cargoes and much else on interactive electronic maps is a very important step in bringing ship monitoring into the 21st century.

The new module of SafeSeaNet will enable the pictorial display of a multitude of different functionalities, and will bring many benefits to current Member State surveillance capabilities. Subject to access rights, users will be able to zoom in at all levels, from the whole EU to individual quays at ports, and view the locations of all ships in selected areas of interest. They will also be able to choose to view only ships in a particular category (ie those carrying hazardous cargoes or those with problems) or to interrogate their historical movements.

Although the new module of SafeSeaNet already provides these advanced functionalities, further steps are planned in the near future. In particular, Member State users will soon be able to have combined SafeSeaNet, LRIT and CleanSeaNet information using an integrated platform, and subject to defined access rights, will be able to view the latest locations of all at-sea pollution in and around EU waters, and to see, through LRIT, the positions of commercial ships around the world.

I would like to take this opportunity to welcome new users to the system, and I would particularly encourage you to make the most of the EMSA training opportunities so that you are in a position to maximise the associated benefits.

Willem de Ruiter  
Executive Director  
European Maritime Safety Agency

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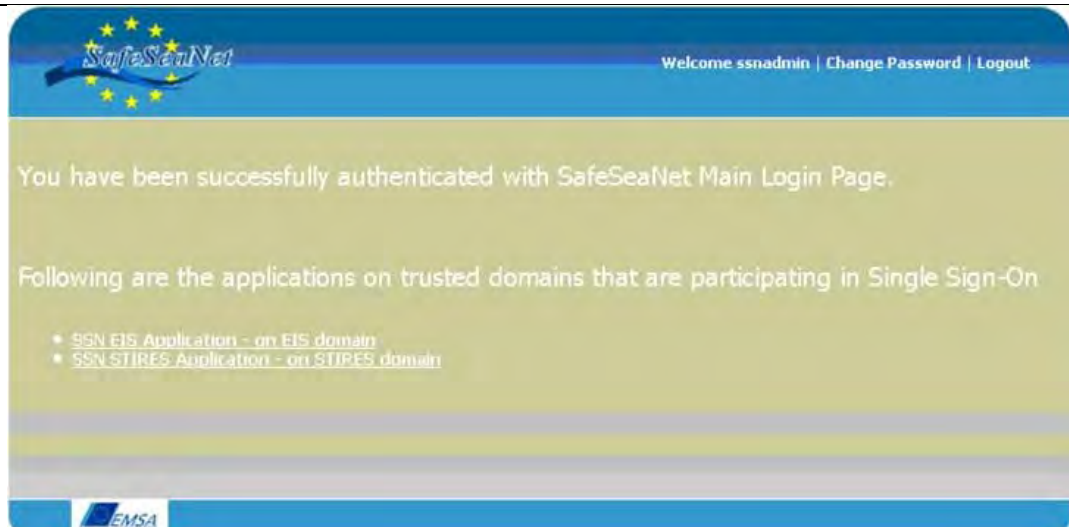
## 1 STIRES – Home Page

Objective	<p>This document describes all Web application functionalities of the SSN STIRES system.</p> <p>The application is optimized to run using the following web browsers:</p> <ul style="list-style-type: none"><li>➤ MS Internet Explorer version 7;</li><li>➤ Mozilla Firefox version 3.</li></ul>
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Starting the Application	<p>The users will be able to enter the STIRES application opening an internet browser and navigating directly to the SafeSeaNet Login Page.</p>  <p><b>Figure 1: SafeSeaNet System – Public Login Page</b></p> <p>Once the system granted access, following the provision of the proper credentials, the user will be redirect to a page containing suitable links providing access to the SSN applications (see figure below).</p>
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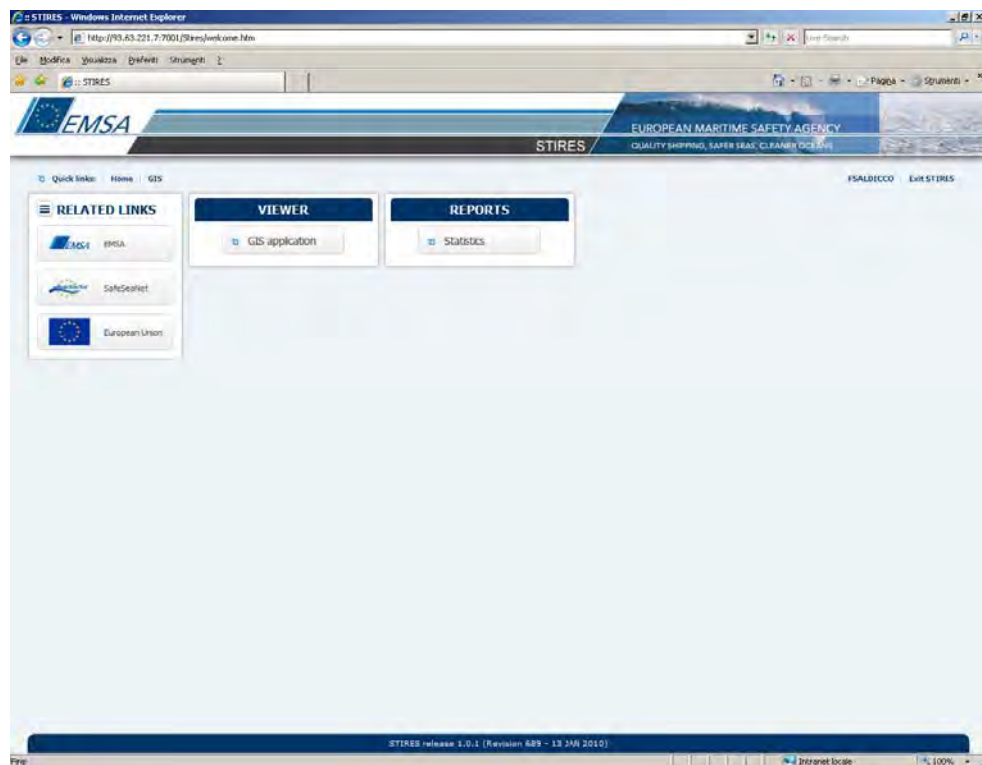


Organisation  
of the Home  
Page



**Figure 2: SSN Applications URLs page**

Clicking the STIRES hyperlink the related Home Page will be opened.



**Figure 3 : SSN STIRES system – Home page**

Once the user has been successfully logged-in by the system, the SSN STIRES System Home page will be presented.

This page consists of 3 sections:

1. **Related links** – providing some links to other related web applications/sites.
2. **Viewer** – giving access to GIS application facilities
3. **Reports** – this section assists the user when generating reports.

The user can logout from the system simply by clicking on the “**Exit STIRES**” hyperlink.

Logout



## 2 STIRES – Geographical Information System (GIS) interface

Organisation  
of the GIS  
Page

The following screenshot depicts the GIS main page.

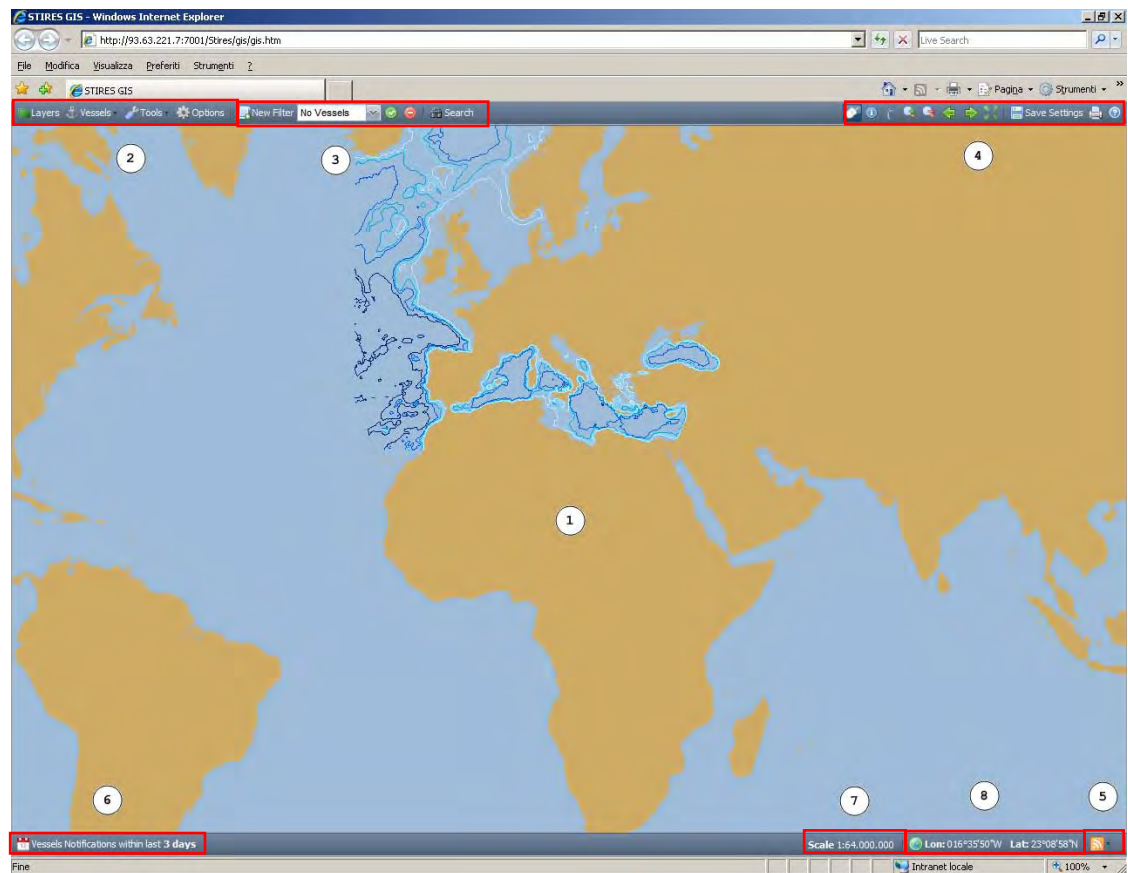


Figure 4 : GIS page

This page consists of the following sections (identified by a numbered icon):

1. The main area, included between the header and footer sections, where the cartography and the other graphical layers are displayed.
2. The **GIS Menu** that is used for calling some of the GIS functionalities, collected in different groups (Layers, Vessels, Tools, Options), by means of suitable drop-down menus.
3. The **Filters** section buttons allow users to create some filtering options on the vessels tracks layer. In the drop-down menu, the user can select one of the available filters and activate filtering by means of the green button next to the menu.
4. Further GIS functionalities allowing STIRES users to interact with the cartography and the overlapped entities. By means of the available buttons the user can activate the following functionalities: PAN, Identify vessel, Measure Distance, Zoom In, Zoom out, Previous Extent, Next Extent, Zoom to full extent and Save Settings.
5. The **system updates** button, allowing STIRES users to access the results of calculations related to crossing lines and areas as well as the details of SSN notifications following a request to the data providing Member State via SSN European Index Server application.<sup>1</sup>
6. The timeframe window of the displayed tracks.

<sup>1</sup> The System Update button is to be moved (in the next release of the application next to the SEARCH button in the header bar of the GIS application

7. The actual scale of the map.

8. A text box containing the information of the latitude and longitude of the actual position of the mouse pointer when moving over the map.

This section describes the GIS functionalities. The user can navigate to the GIS main page selecting the “**GIS Application**” menu in the Viewer section, from the STIRES system home page.

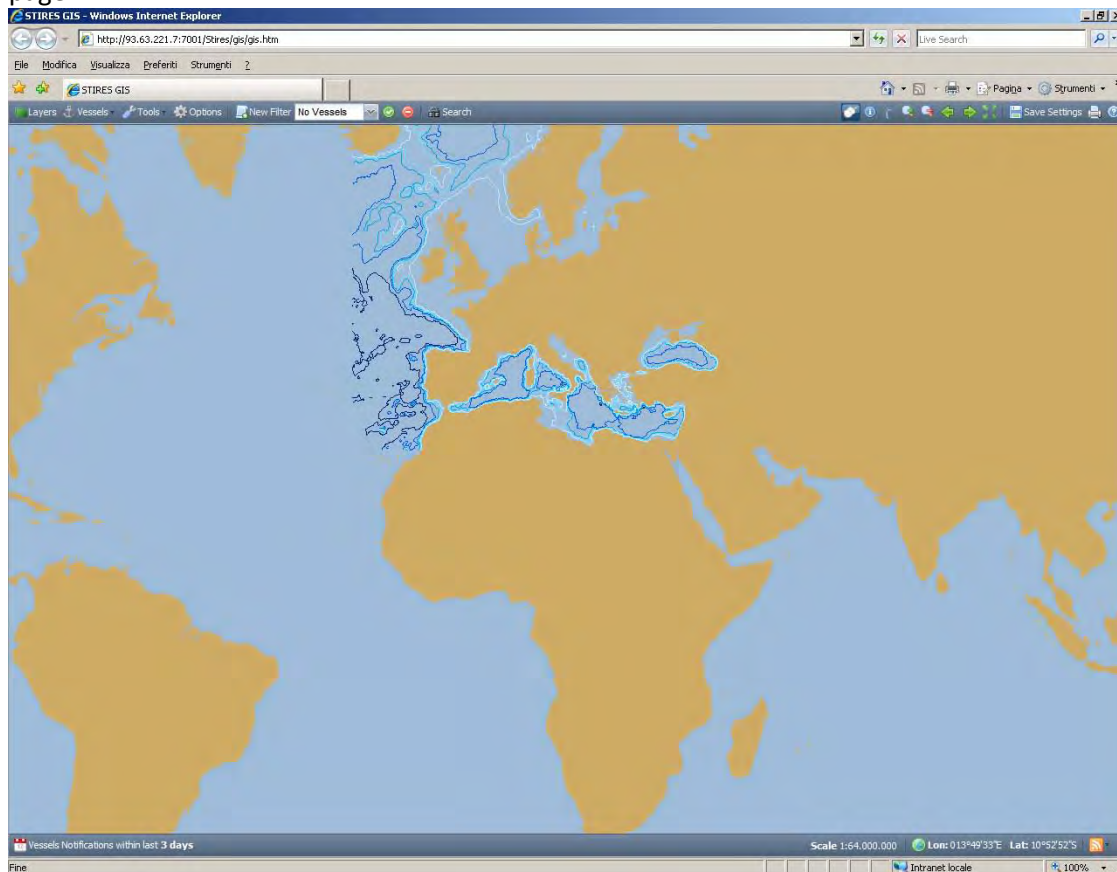


Figure 5 : GIS page

The GIS menu contains the following groups of functionalities:

- **Layers**, contains the layers that the STIRES users can display on the GIS interface. Every activated layer shows different information to the logged user.
- **Vessels**, permits STIRES users to select the type of information to be displayed on the actual picture.
- **Tools**, contains the following additional GIS functionalities: Passage by Line or Area, Playback, and Web Sightseeing;
- **Options**, a set of functionalities that may be used to customize the view of the vessels tracks (e.g. defining the tracks' validity time, in order to see the vessel tracks received during the last six minutes, changing the measurements units, etc.).
- **New filters**, this functionality allows the creation of a customizable filter on the vessel tracks, specifying a combination of filtering options. The filter is added to the list of the available filters and may be applied to the actual visualization and/or used in the future.
- **Search**, allows STIRES users to perform several customizable searches on vessels currently shown on the vessels layer.
- **Functionalities** The remaining GIS functionalities are contained in the toolbar on the right side of the page header. By pressing the correspondent button the user may

GIS menu

access the following functionalities: PAN, Identify vessel, Measure Distance, Zoom In, Zoom out, Previous Extent, Next Extent, Zoom to full extent and Save Settings.

## 2.1 – View functionalities

### 2.1.1 – Pan

Pan  
functionality

All the basic functionality, located on the right side of the header, can be accessed by a suitable button. The functionality currently active is showed by the pressed button image. The PAN functionality allows a user to move the map with the mouse and it is represented by an icon with the mouse image.

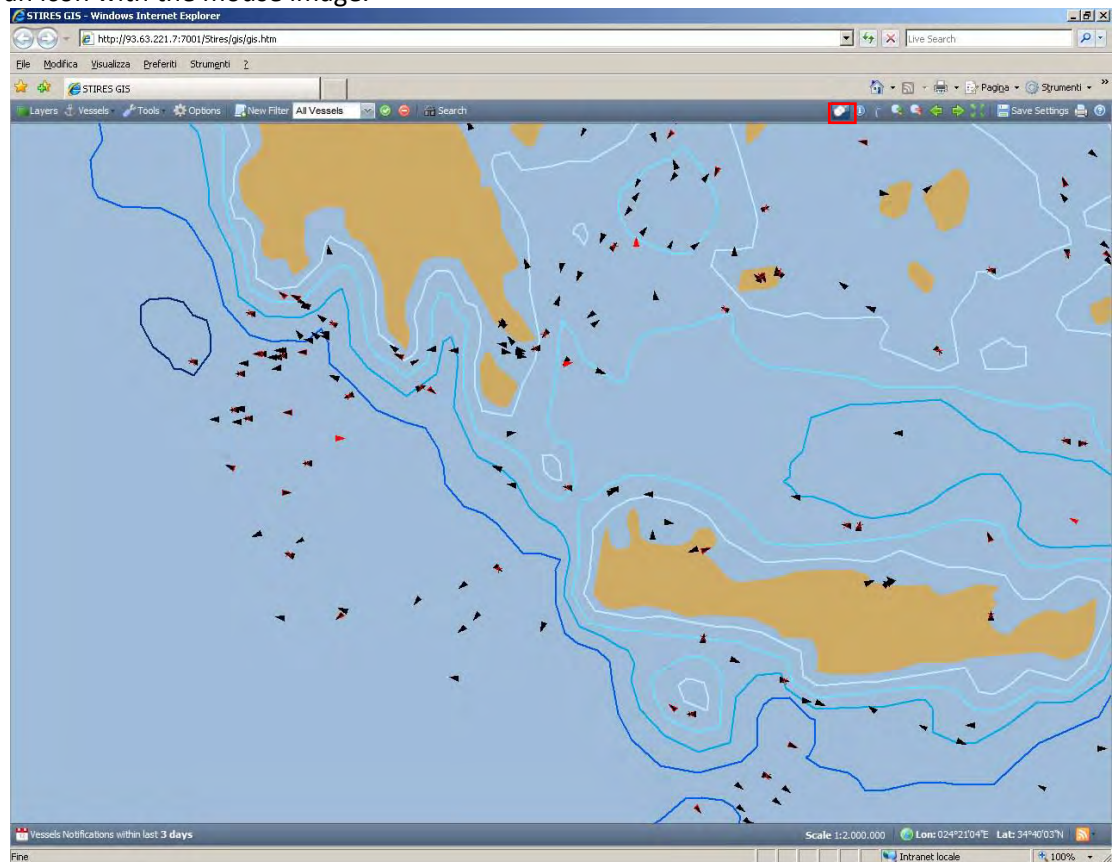




Figure 6 : View menu

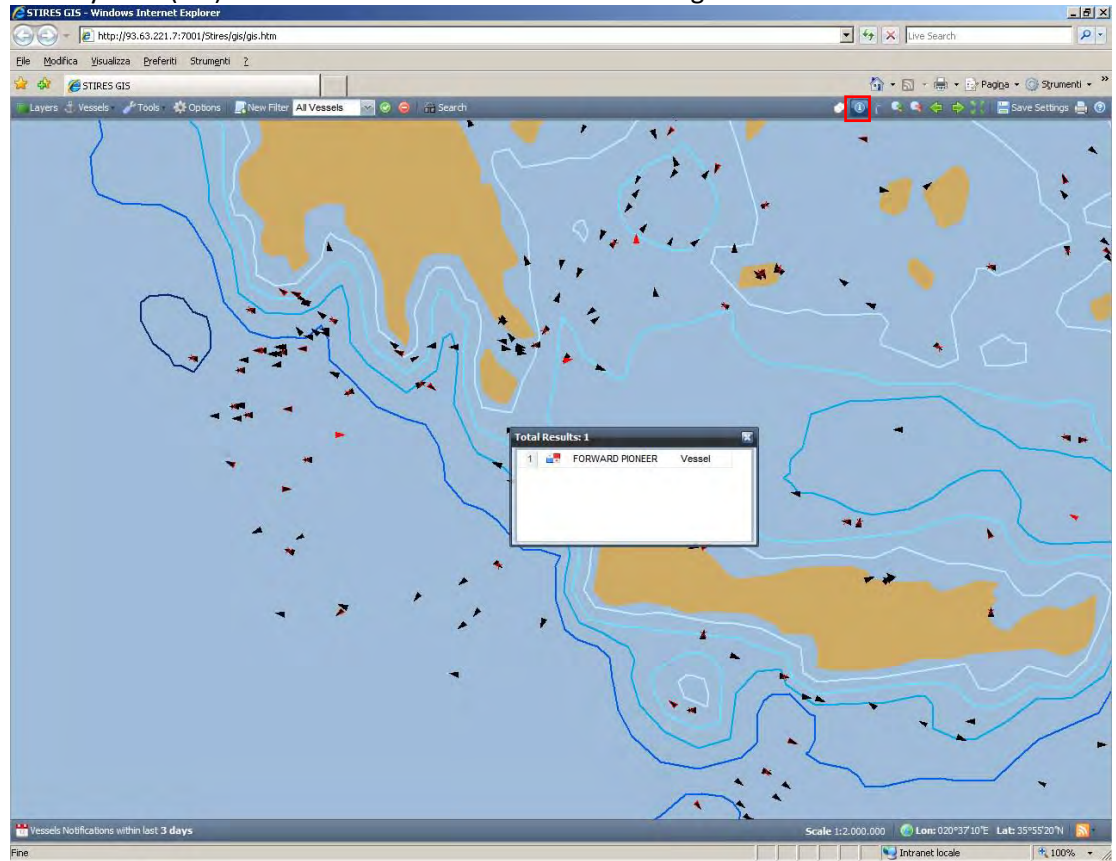
To execute a panning, the user can press the related button (  ) and then drag the map to the target position by means of the mouse.

## 2.1.2 – Identify function

Identify function

The identify button allows to interact directly with the vessel tracks. Using this functionality, the user can see the vessel information.

To use the identify function, the user must click with the left button on the on the blue icon with *i* symbol (  ) on the toolbar and then click on the target vessel.



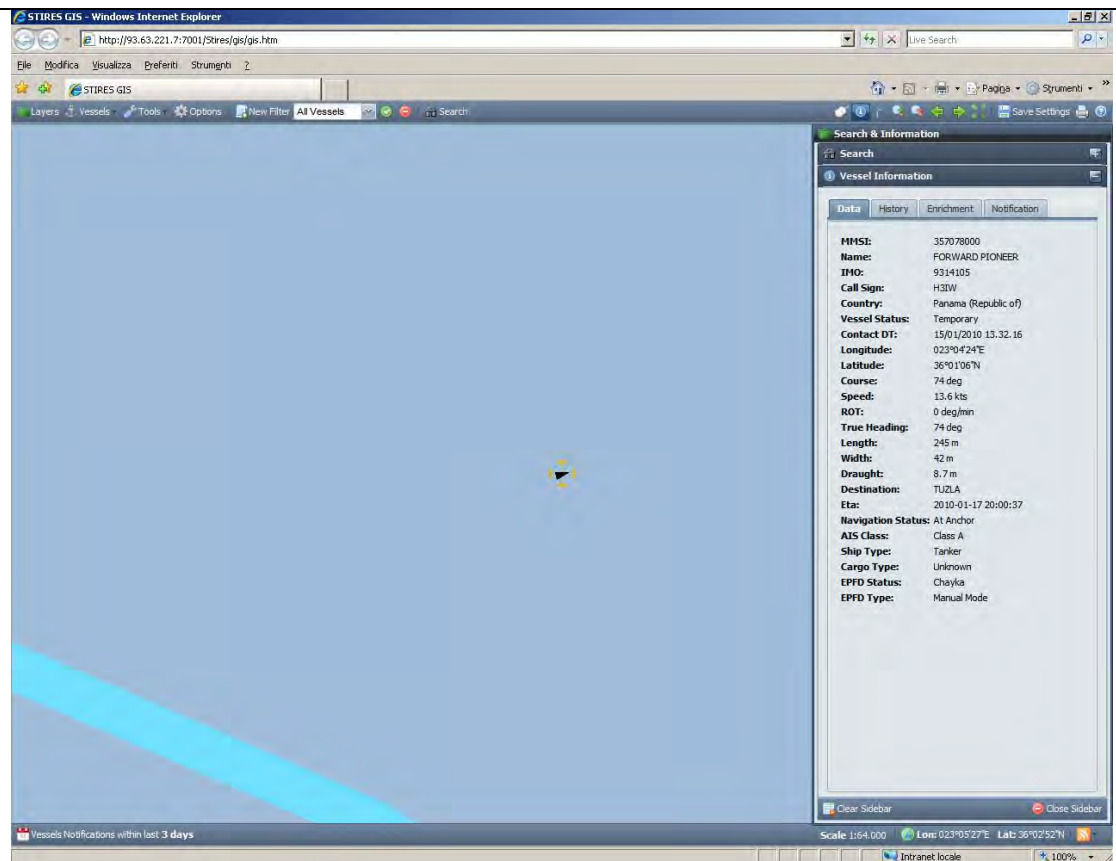
**Figure 7 : Identify function – step 1**

When the user clicks on a vessel, a small window with vessel name appears (if the name is not included in the AIS position transmission, the ship's MMSI, as reported by the AIS transponder will be displayed).

By a single click on the selected vessel's row, in this small window, the vessel track will be highlighted in the screen (a yellow polygon will appear around the vessel track)

By double clicking on the vessel in the small window, the right sidebar with the vessel information is opened. In parallel the zooming level on the map is changed and the map is centred around the vessel track.




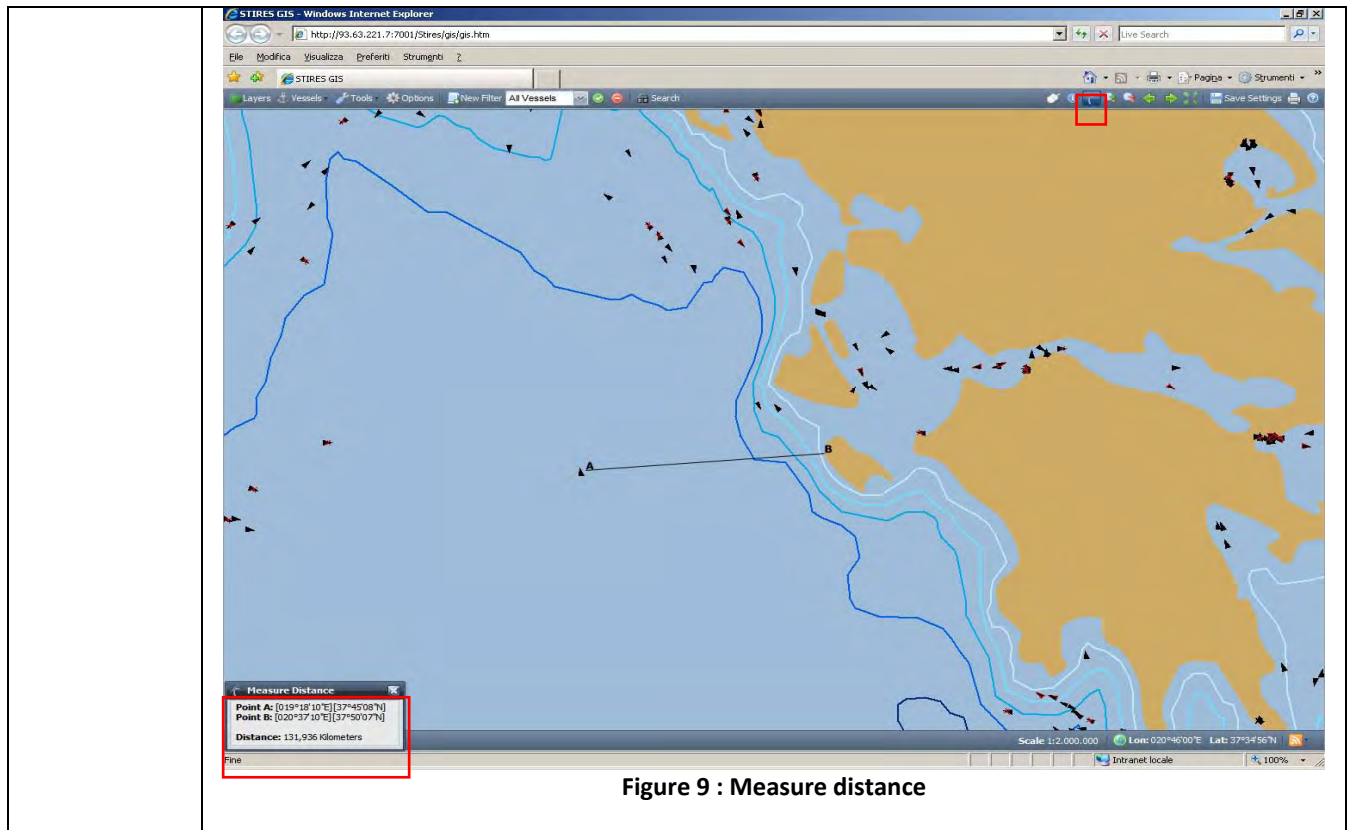


**Figure 8 : Identify function – step 2**

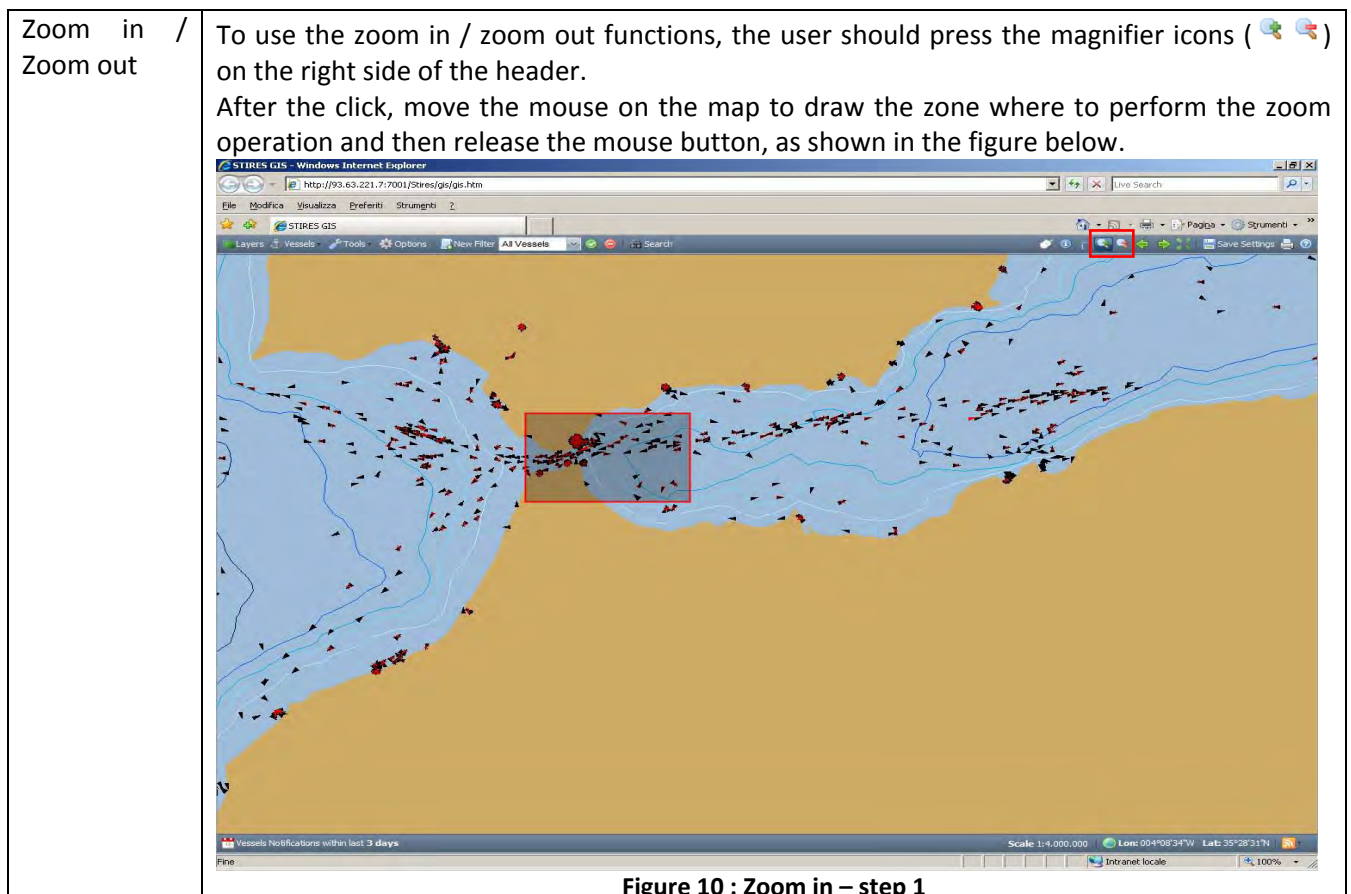
In the right sidebar, the user can perform the same operations described in the next Search functionality section.

### 2.1.3 – Measure distance

Measure distance	<p>To measure distances on the map, the user can click on the suitable icon () on the right side of the toolbar.</p> <p>Once the functionality is active, the user can simply click the mouse left-button on the map and draw a line (drag and drop) in order to calculate the distance between two points as shown in the figure below. The result is shown in the Measure distance window that appears on the GIS interface. The user can change the unit of measurement in the Options section.</p>
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## 2.1.4 – Zoom in / Zoom out



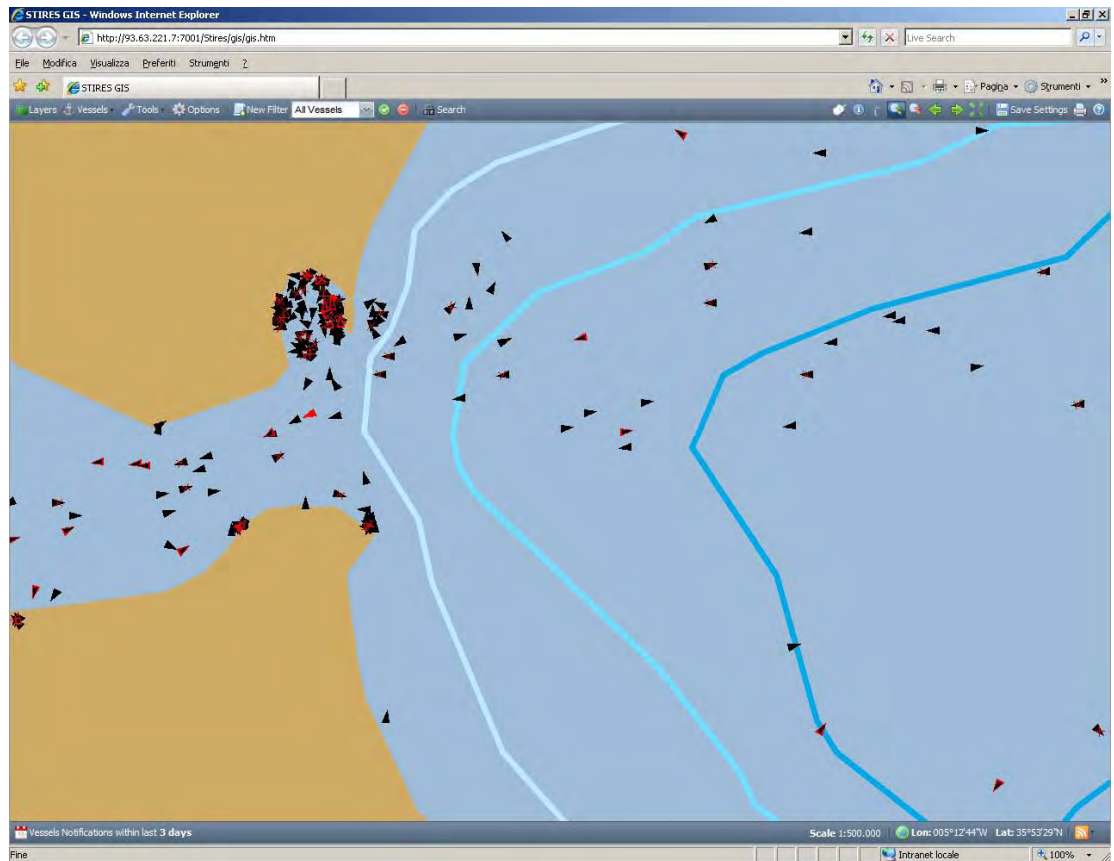


Figure 11 : Zoom in – step 2

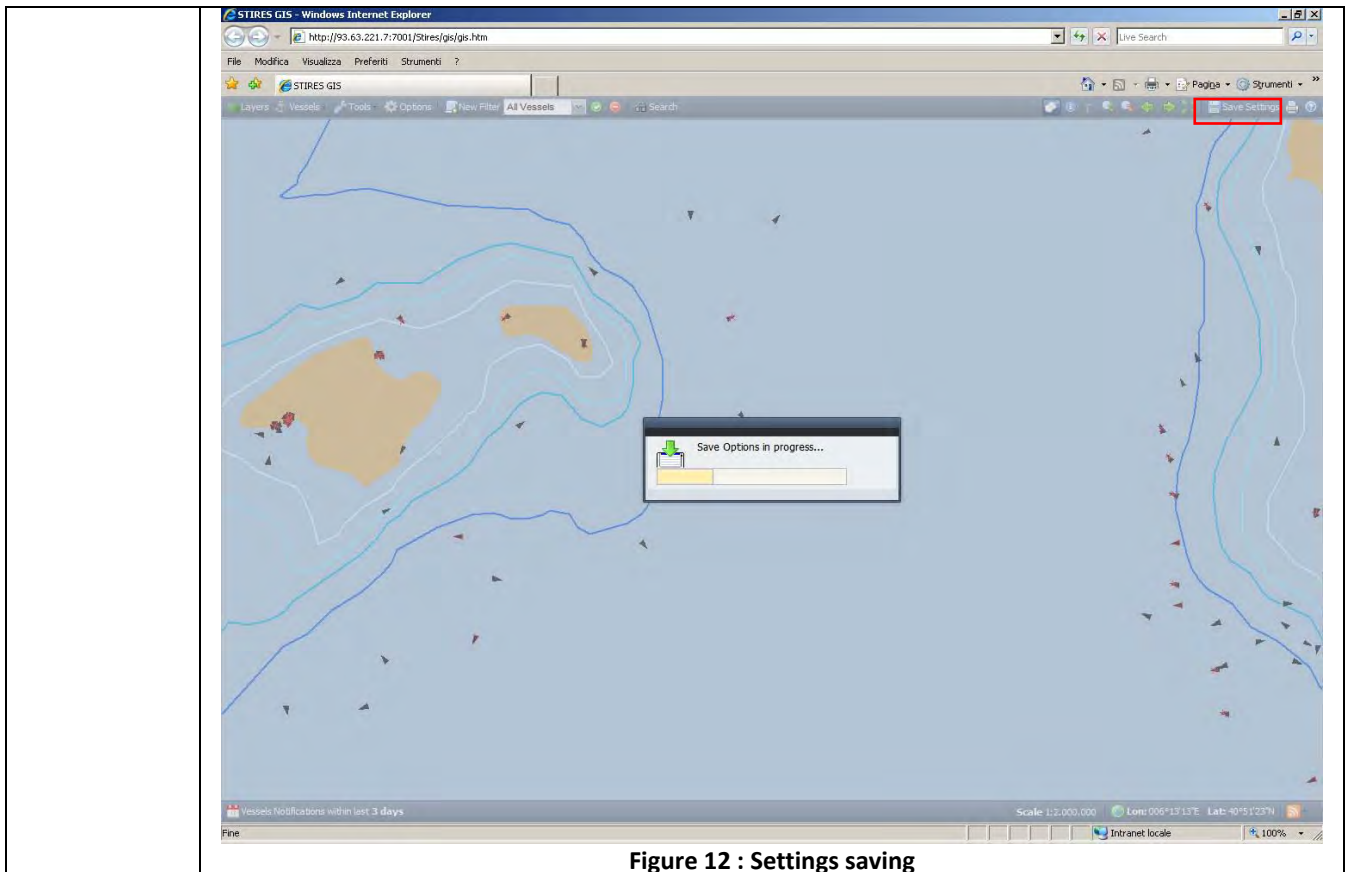
### 2.1.5 – Zoom Extent function

Extent function	<p>The green arrows buttons in the right side of the header allow user to navigate the map extent history rapidly.</p> <p>In fact, using the left and right arrows (← →) the user can switch between the latest map extents being set by the user.</p> <p>The Zoom to full extent function, represented by the four arrows icon, the GIS interface performs a zoom out displaying a world map (X).</p>
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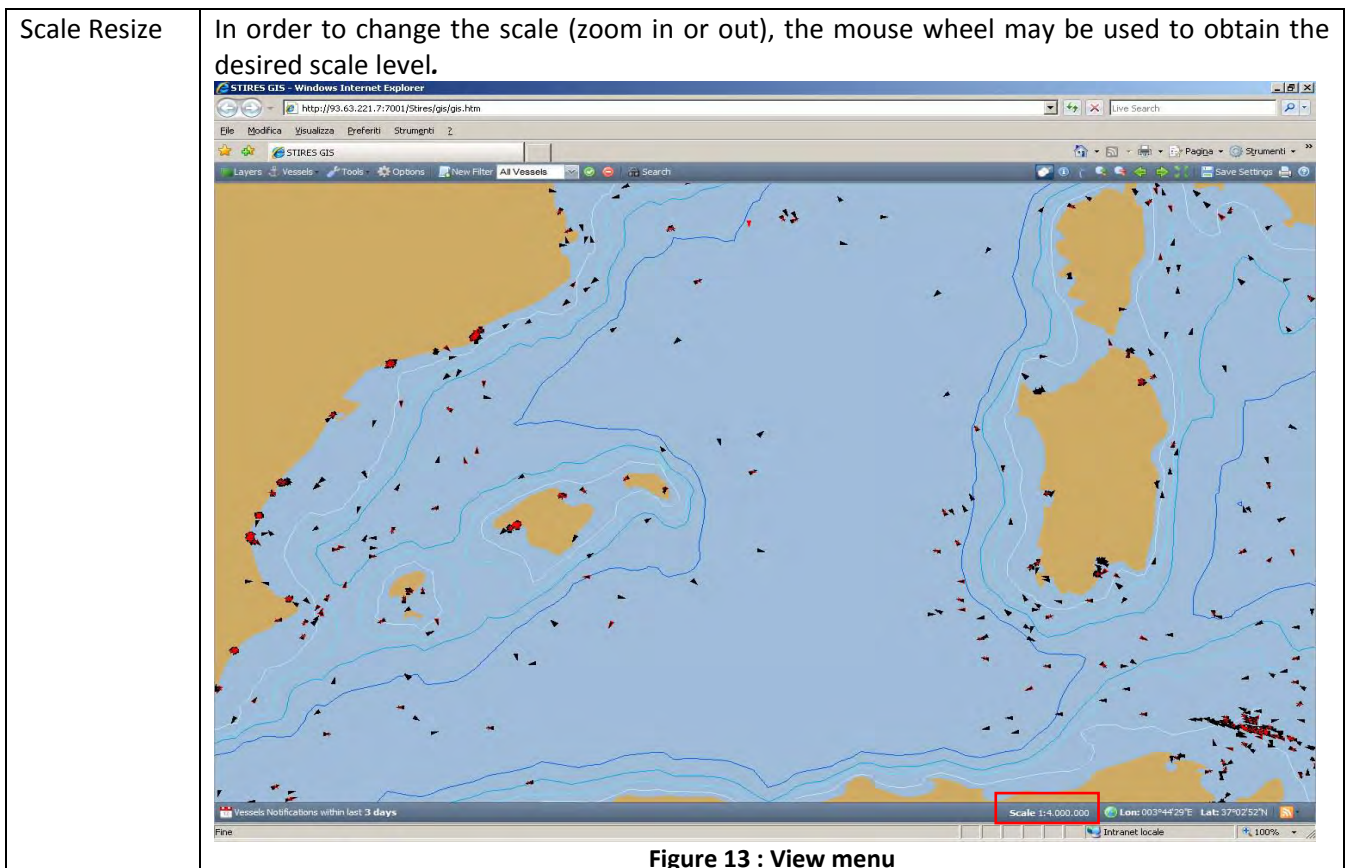
### 2.1.6 – Save Settings

Save Settings	<p>The Save Settings button allows the user to save the preferences being set during the use of the GIS interface, such as filters or options parameters, bookmarks and sequences in the web-sightseeing etc.</p> <p>In this way, whenever the session is closed or expired, these information are not lost and when the next login is performed the user can access again the preferences previously set.</p>
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### 2.1.7 – Scale resize by using the mouse wheel



When the wheel is moved, the scale changes. The user can see the scale level actually set, at the scale indicator in the bottom bar.

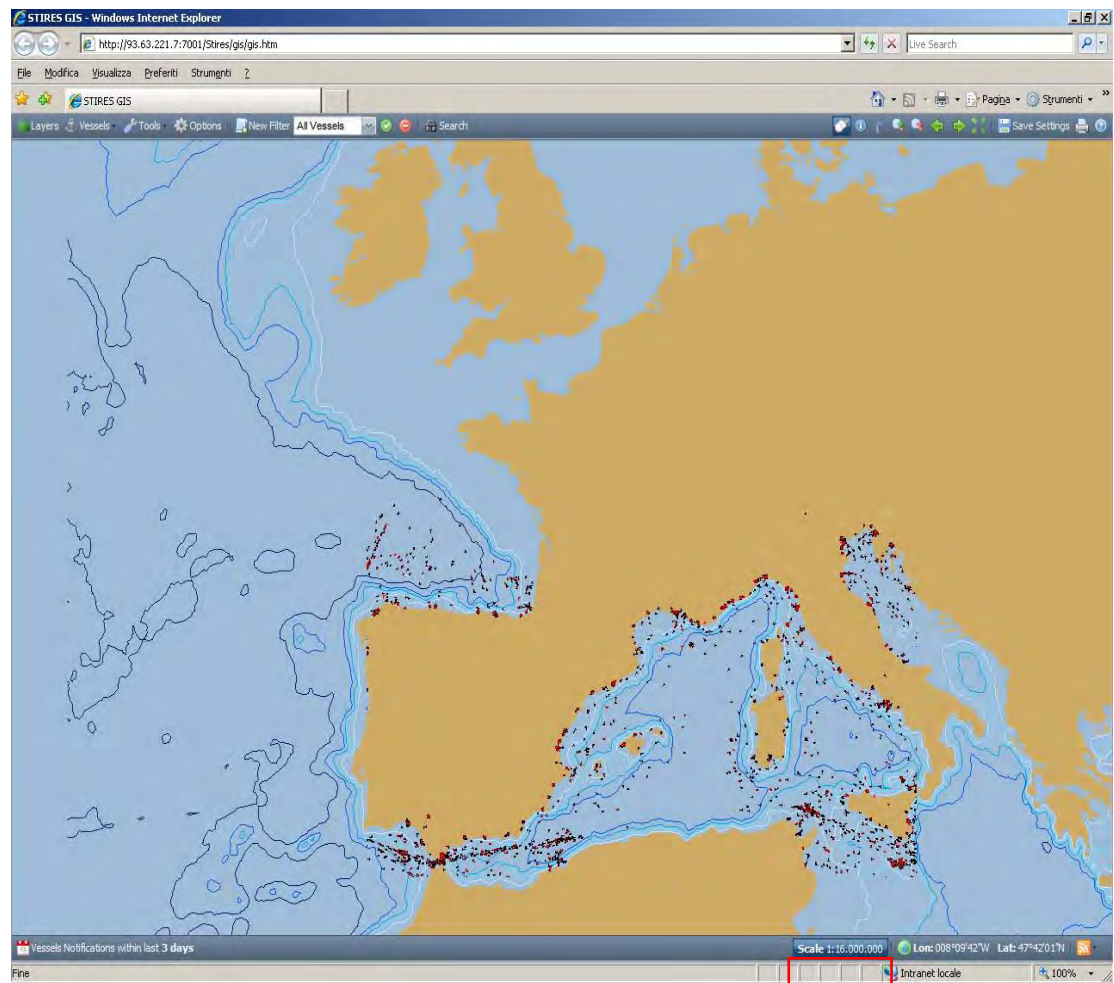


Figure 14 : GIS page with the scale changed

## 2.1.8 – Layers Menu

Layers menu

In order to activate or de-activate a map layers, you should press the **Layers** button on the left side of the header.

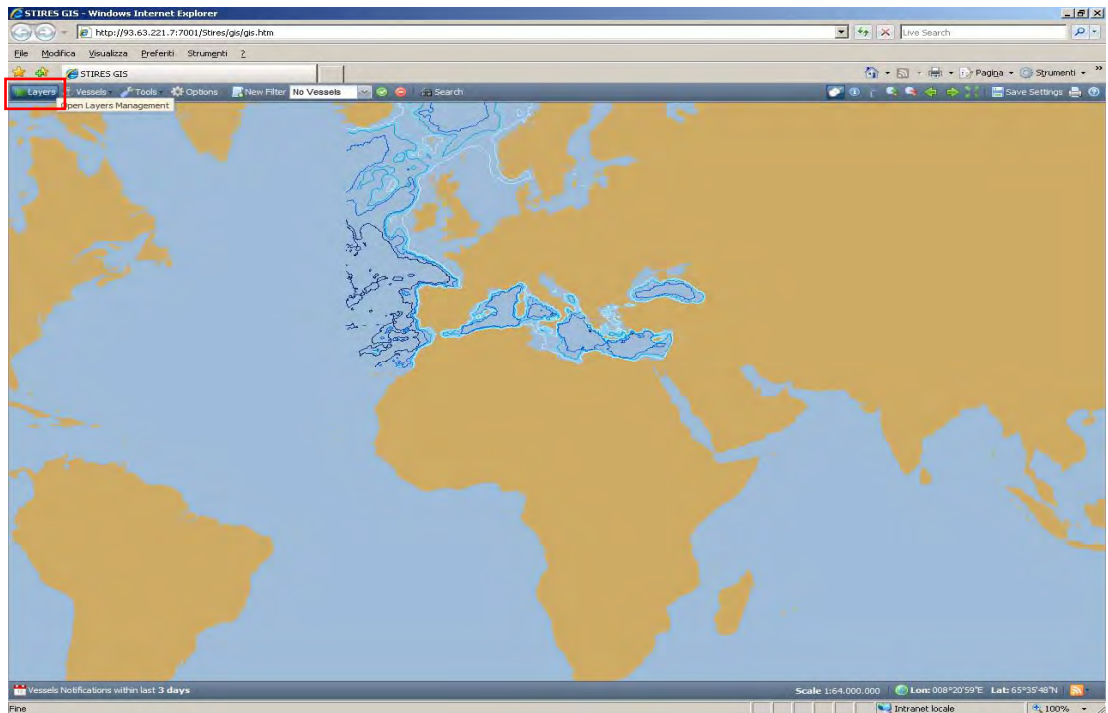


Figure 15 : Layer menu

The **Map Layers** navigation menu will be presented containing the list of all the available layers grouped by category.

Maps Layers  
Menu

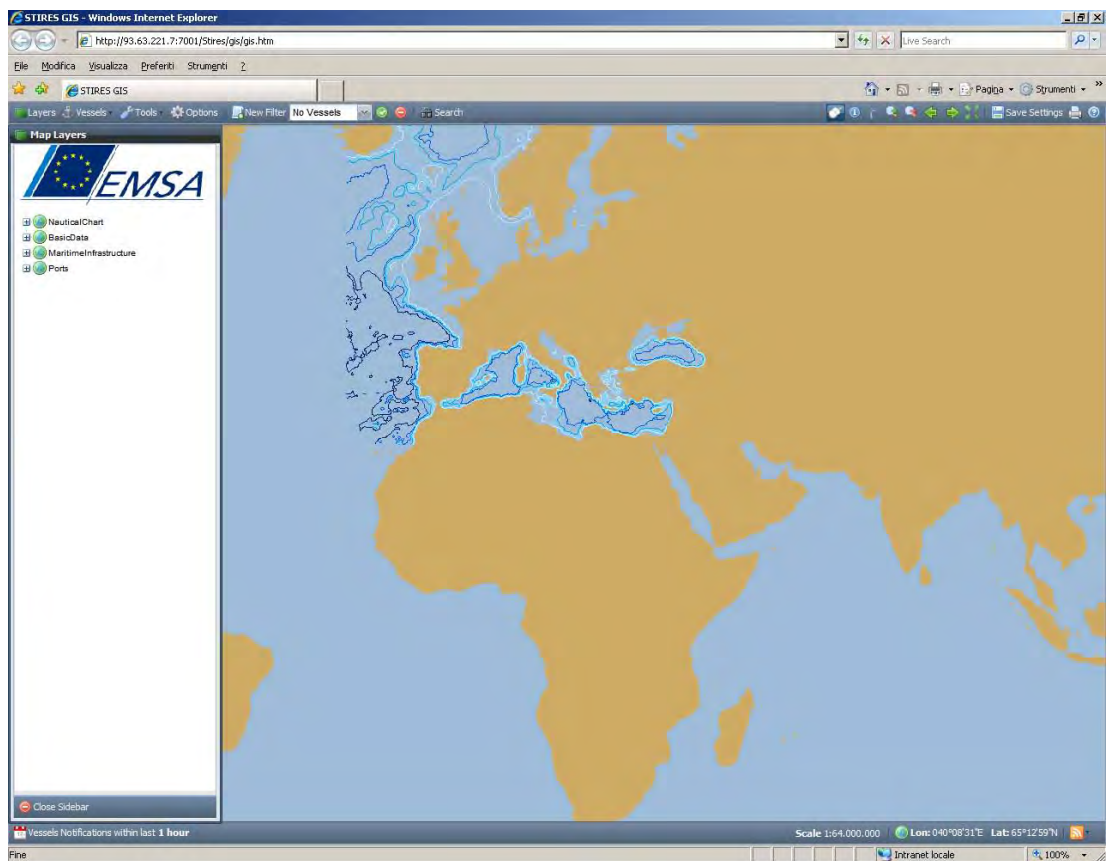


Figure 16 : GIS page with the layers sidebar activated

The STIRES user can select a layer to be activated navigating the tree of the following available categories:

- Nautical Chart
- Basic Data
- Maritime Infrastructure
- Ports

Each menu item can be expanded by clicking the plus button and collapsed by the minus button. The user can activate a specific layer by selecting the associated check-box.

It is worthwhile to mention that whilst the last three items in the above classes (and all the available layers) are statically configured into the GIS application, the list of the layers and the related maps (ENC charts) contained into the Nautical Chart category is dynamically retrieved by the invocation of a suitable web service exposed by the STIRES map server using the Web Map Service (WMS) protocol. Following the list of the available layers:

**Nautical chart**

- Ship Routing Syst
- Navigation aid
- Nautical Background
- Adm Boundaries
- Danger
- Harbor
- S52 Base
- S52 full
- S52 Standard

Following the list of the available layers for the remaining categories:

**Basic Data**

- Geographical Grid – Draws parallels and meridians lines
- Countries – Shows country names and boundaries
- Cities – Indicates location and name of the cities
- Sea – Shows the names of the seas
- TSS – Display Traffic Separation Schemes on map

**Maritime Infrastructure**

- AIS Stations – Provides indication (position and name) of the AIS Stations

**Ports**

- Media – Provide access to the available media (Web Cam, movies, pictures, etc.) for a port
- Ports – Shows port name and location

In the example shown in the figure below, the user selected the S52 standard chart display to visualise traffic around the island of Sicily.



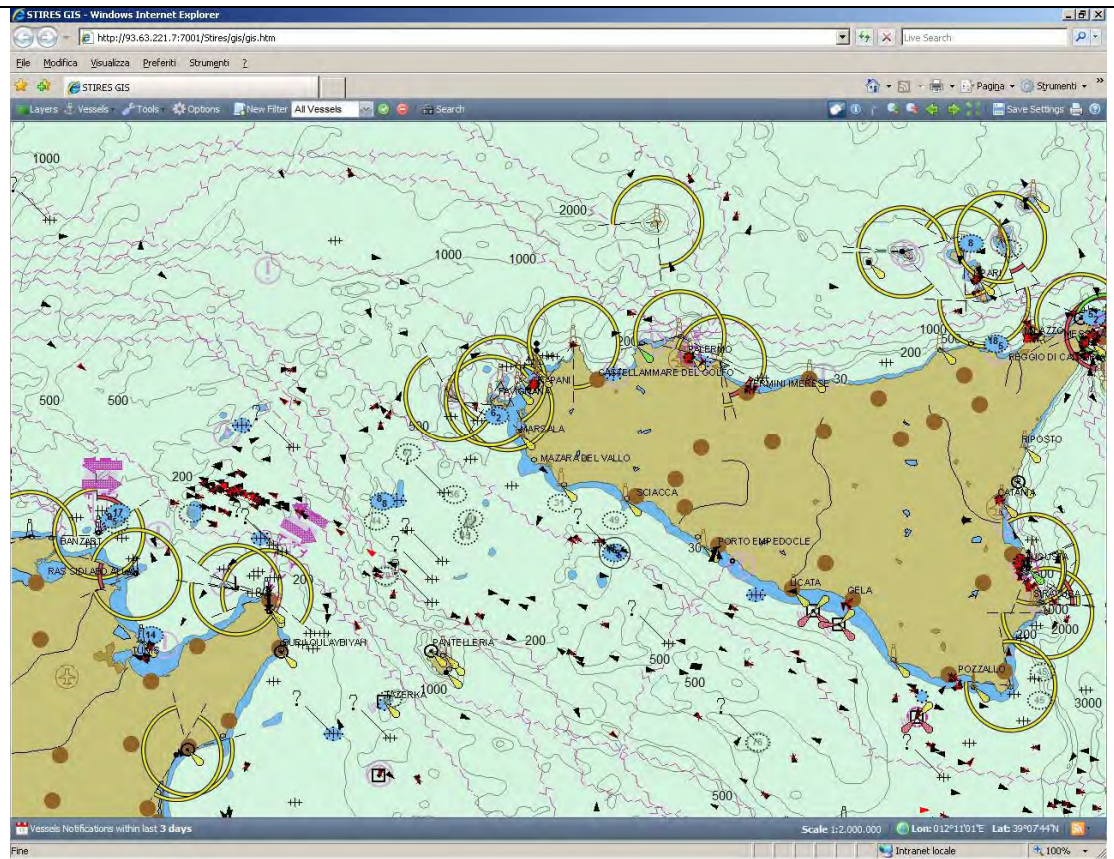


Figure 17 : S52 Standard chart showed on the GIS interface

In the example shown in the figure below, the user selected the Ports layer and the Countries layer.

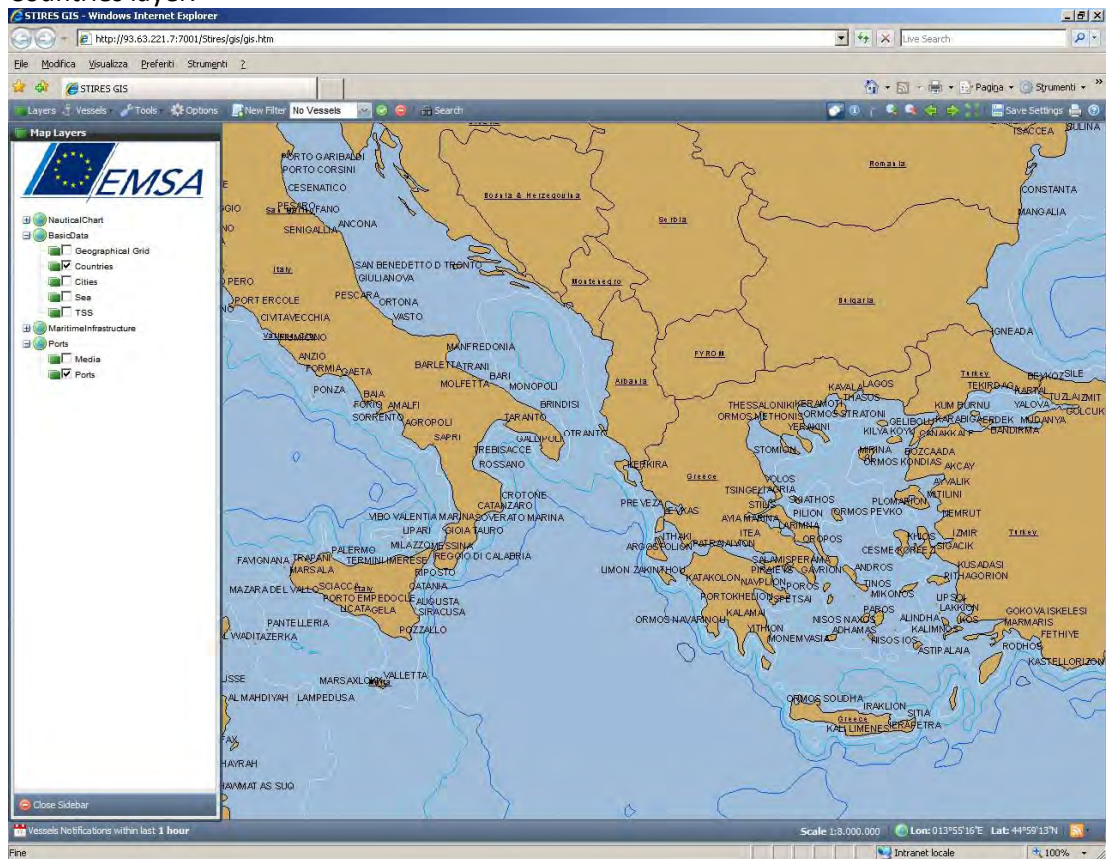


Figure 18 : GIS page with the Ports and Countries layers activated

## 2.1.9 – Vessels Menu

Vessels  
menu

The user can access the Vessels menu, clicking on the **Vessels** menu button, as shown in the figure below.

The drop-down menu appears showing the possible vessel track layer options.

**Since the functionalities contained within this menu affect the way the tracks are displayed on the map and related information visualized, at least a number of tracks should be present on the map (this can be achieved by applying one of the available filters as described in the related section).**

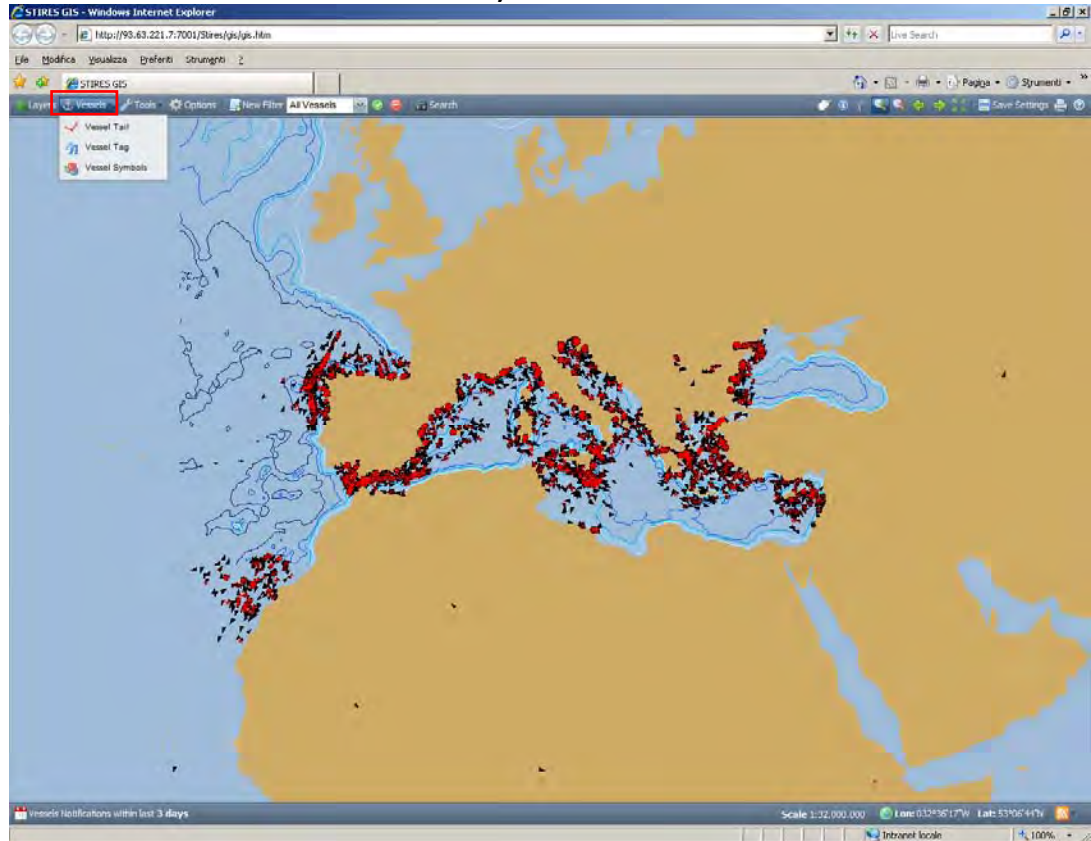


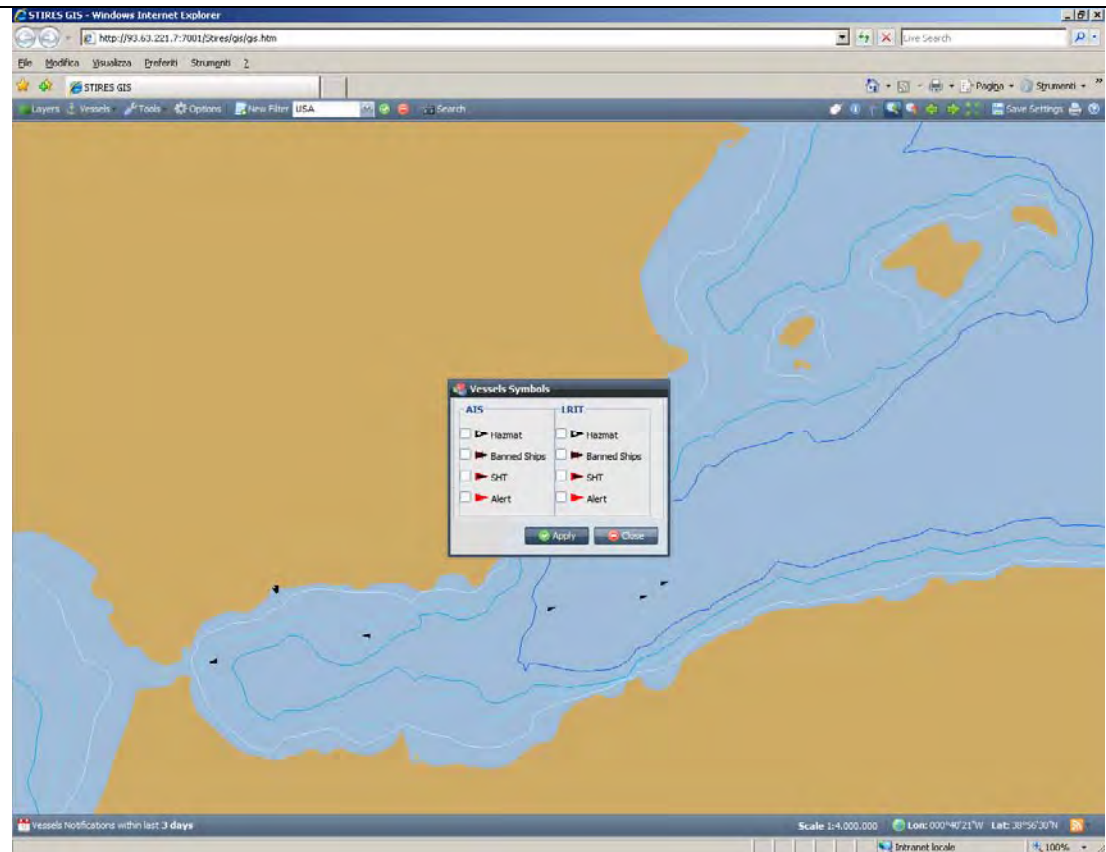
Figure 19 : Vessels Menu

Vessels  
Symbols

The **Vessels Symbols** option allows STIRES users to set which symbol is associated to specific targets on the GIS map.

By default any track showed on the map is represented with a black triangle icon. According to the information associated to the track (e.g. an Hazmat information or an Alert could be present regarding a vessel, a ship could be a Banned or a Single Hull Tanker one) the operator can use the following settings to customize their view, and the tracks will be represented with a different symbol depending on the characteristics associated to that track (e.g. the user can set the system so that vessels having an alert notification associated will be represented by a red triangle instead of the default black triangle).



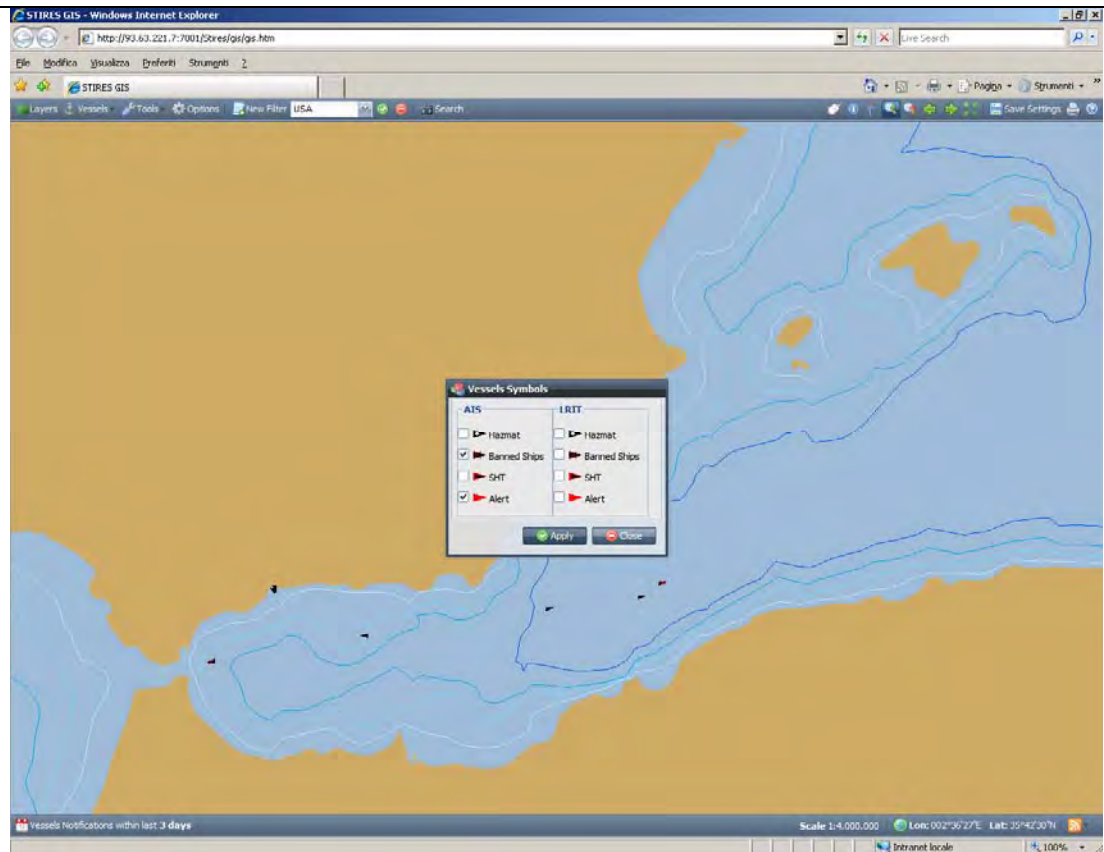


**Figure 20 : Vessels Symbols window**

Once the *Vessel Symbols* option is selected, the related window appears and the user can activate/deactivate the specific icon for the associated vessel category (Hazmat, Banned Ships, SHT, Alert) and originating system (AIS, LRIT) by selecting/deselecting the related check-button.

When the user clicks on the apply button, the actual preferences are applied to the current vessels track layer, and the icons associated to any track are updated according to the user settings as shown in the figure below.





**Figure 21 : Vessels Symbols preferences applied**

Clicking on the close button, the **Vessels Symbols** window is closed.

By means of the **Vessel tag** option the user have the capability to select the desired vessels information to be displayed on the vessel tracks layer organized by category. Following the list of the possible classes:

- **Show Tags** – shows a text label containing the vessel related information being set by the **Visible Fields** drop-down menu, containing the following couples:
  - [Name][MMSI]
  - [Name][IMO]
  - [Name][CALLSIGN]
  - [Name][Acquisition Time]
  - [MMSI][Acquisition Time]
- **Information Tags** – shows a coloured text box providing indication of the following information when present: Hazard, Banned Ships, SHT, Alert.

When the **Vessel tag** option is selected the related window appears on the GIS interface, giving the user the possibility of selecting the combination of vessels information desired.

The presentation of the vessel tags may depend on the zooming level currently set by the user. In order to display the picture correctly a user should therefore re-scale the map to fit the actual settings.

Vessel tag

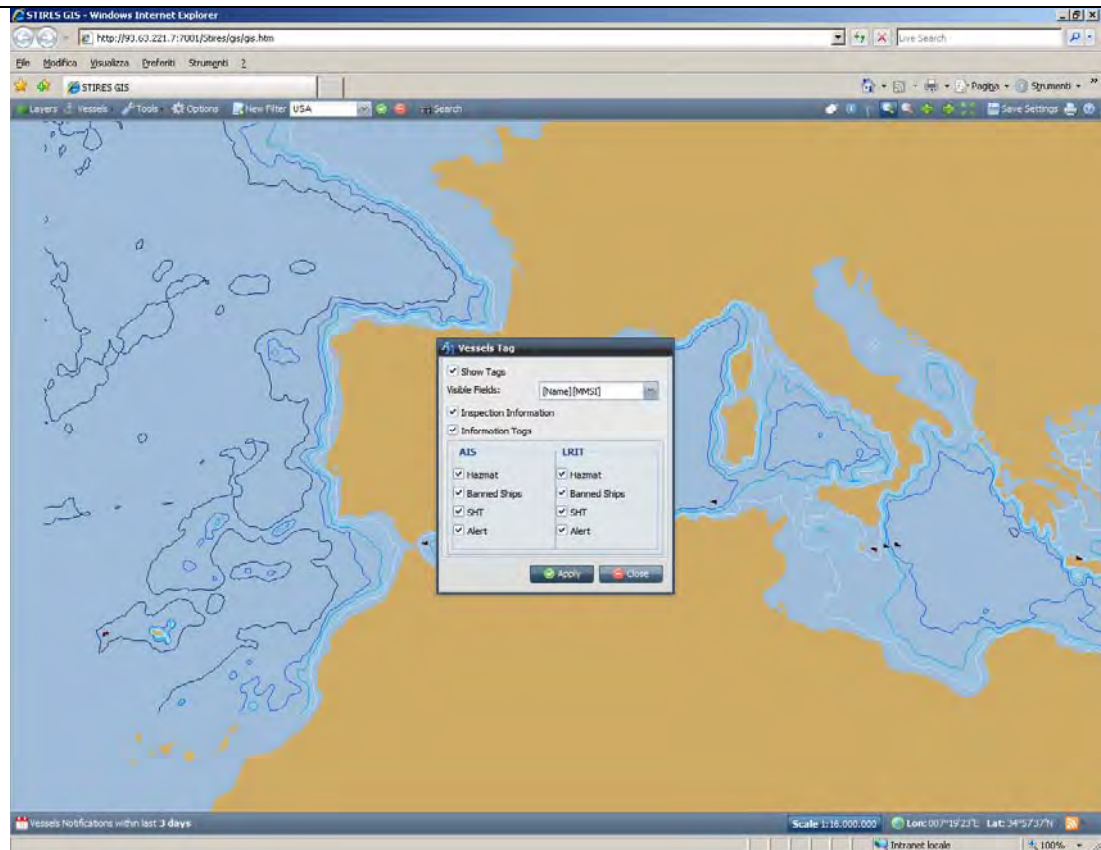
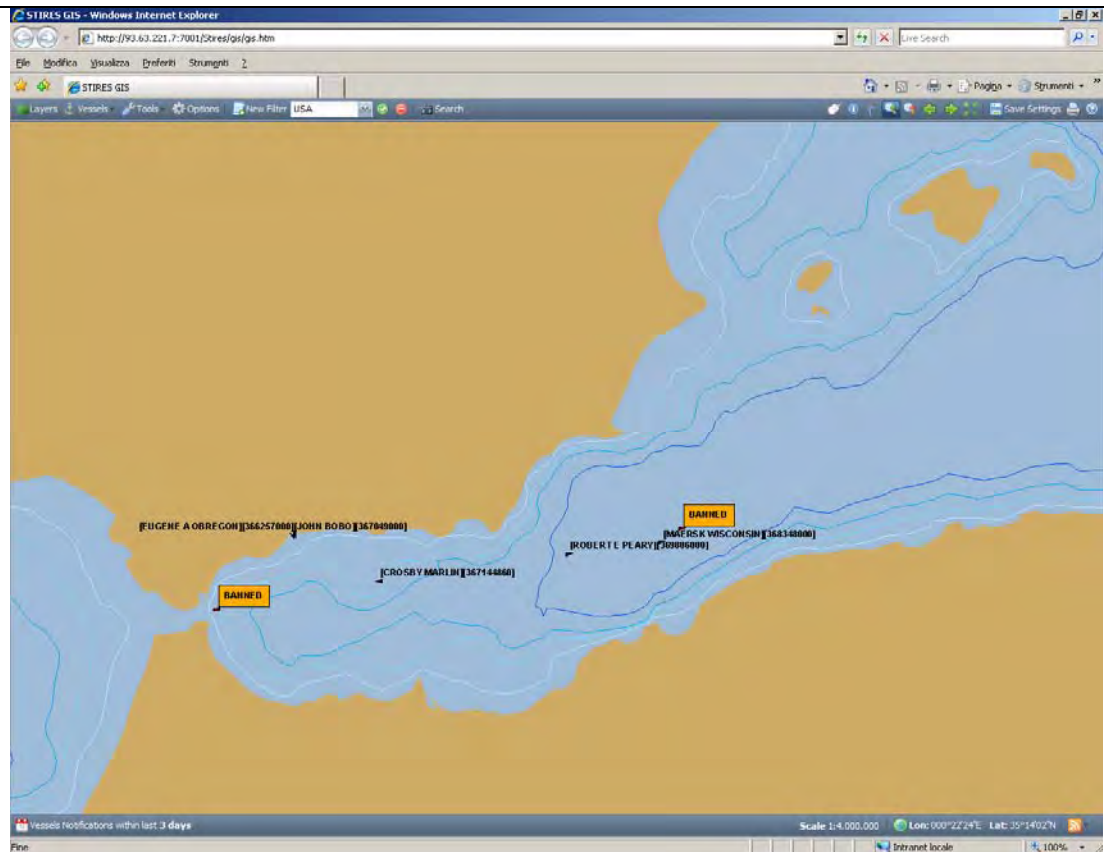


Figure 22 : Vessel Tag menu

When the user clicks on the apply button, the preferences being set are applied to the current visualization. **The user should note that the information tags are visible only at specific zoom levels.** For this reason, a zoom in to a specific area could be required in order to display properly the vessels information on the map. For the zoom functionalities refer to the related section.



**Figure 23 : Vessel Tag preferences applied**

The figure above shows an example where the name and the MMSI number of vessels are selected as visible fields and information tags are selected.

#### Vessel Tail

The **Vessel Tail** option in the **Vessels menu** allows users to visualise the most recent positions of a vessel on the GIS interface (e.g. the last three position tracks recorded by the system). Depending on the number of points to be displayed being set by the user, a line is drawn (indicating the vessel course in the recent past).

To activate this option the user can click on the **Vessel tail** button in the **Vessels menu**. The **Vessels Tail** window is opened containing a check button to activate/de-activate the tail visualization. When the **Show Tail** check button is checked, the user can choose the number of positions to be displayed. The user can press the **Apply** button to set the preferences and/or the **Close** button to exit window.

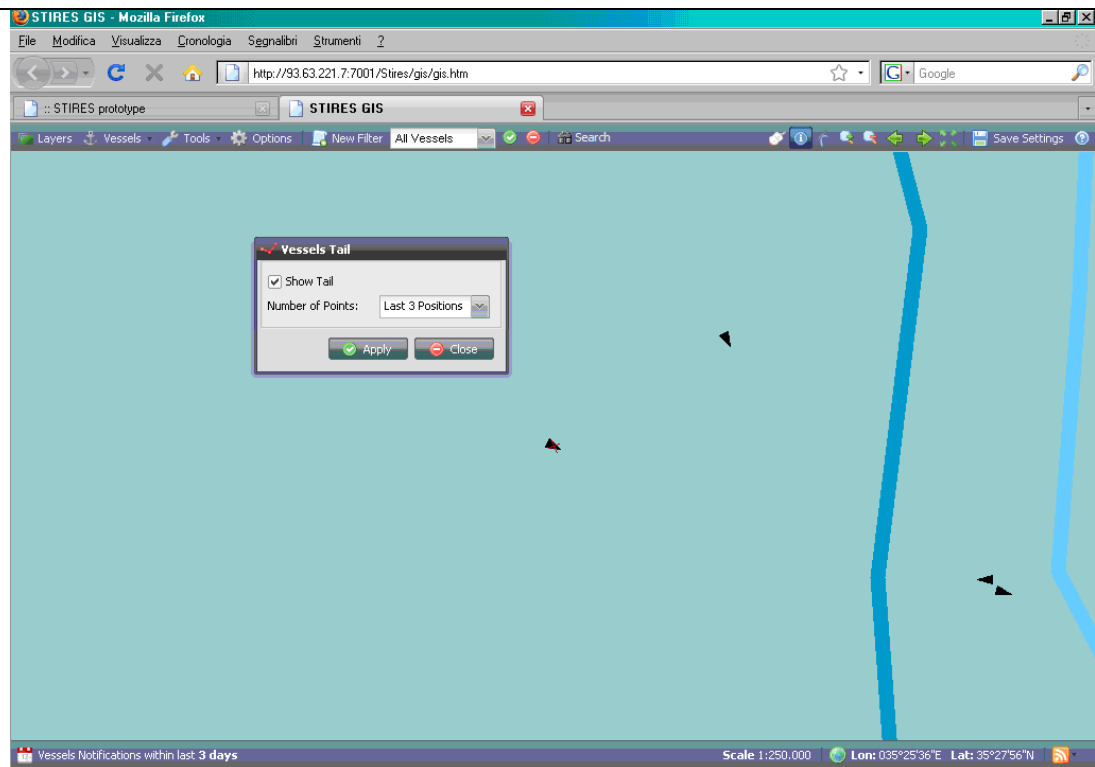


Figure 24 : Vessel Tail preferences menu

The correct representation of the vessel path may not be possible for any zoom level. In such cases the user may be required to perform a picture re-scaling to display the vessel tail properly.

After the necessary zoom level is reached, the user can press the **Identify** button and then click on the vessel icon of the target vessel.

After clicking, the vessel tail is shown as reported in the figure below and a new window containing some vessel information is opened.

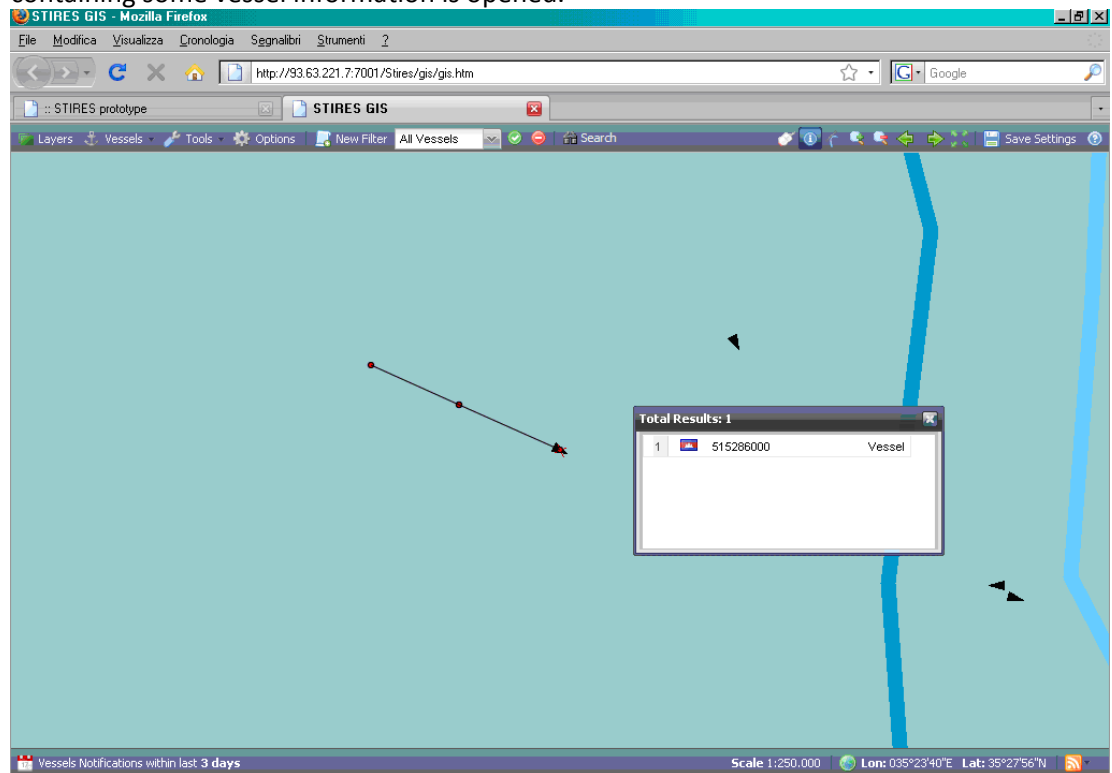
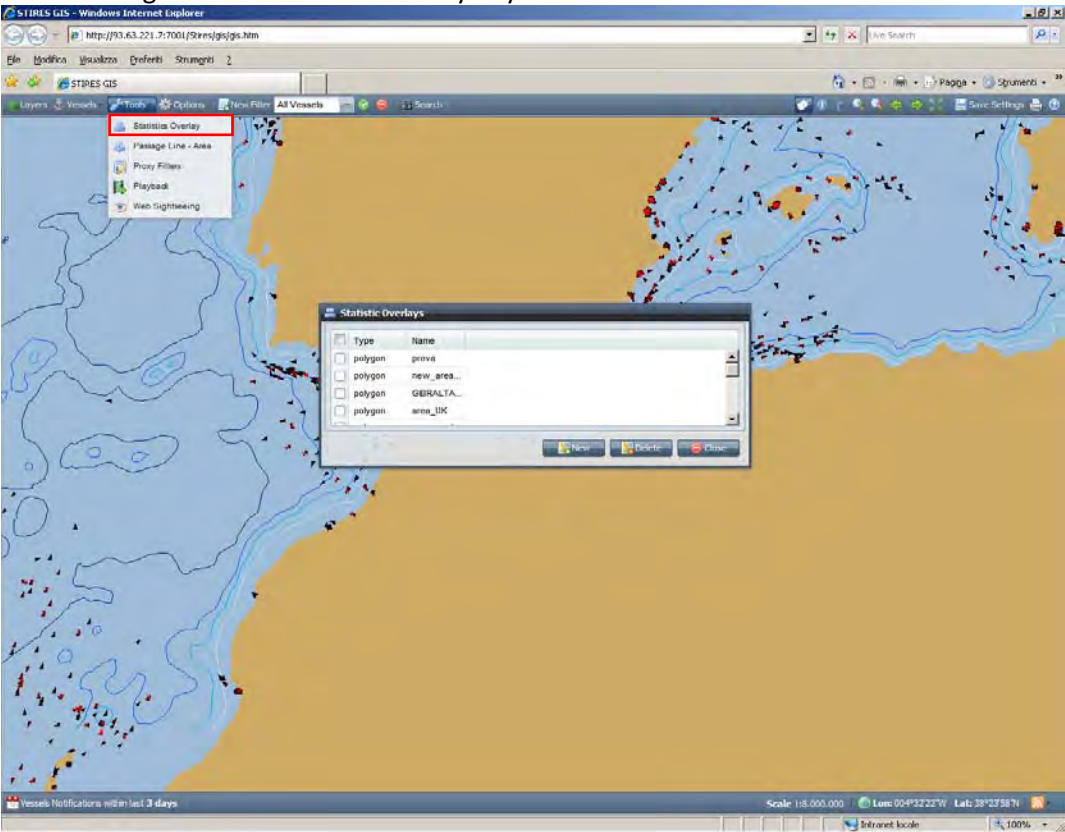


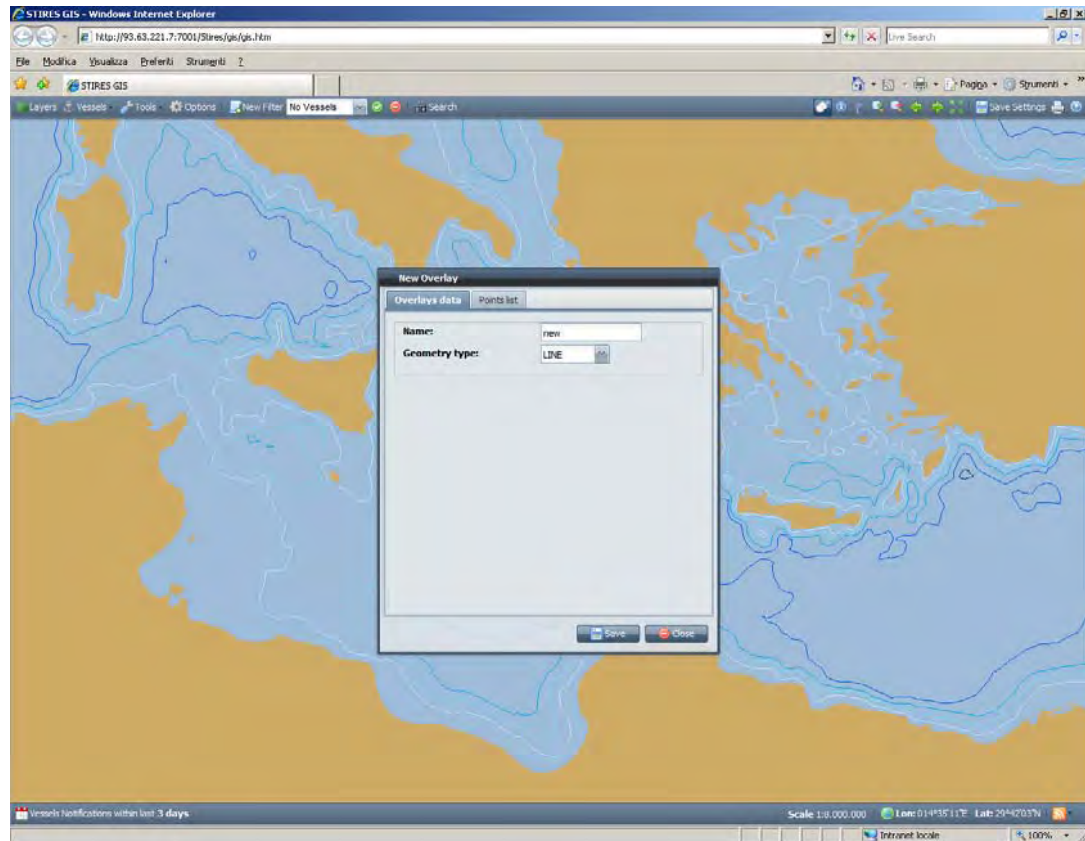
Figure 25 : Vessel Track tail active

## 2.1.10 – Tools Menu

Tools menu	<p>The tools menu contains the following advanced functionalities of the STIRES GIS system:</p> <ol style="list-style-type: none"> <li><b>1. Statistics Overlay</b> Gives the user the capability of managing the geometries to be used for generating statistic reports based upon the data collected day-by-day. The statistics for a specific geometry will be available starting from the day following the activation date of the overlay.</li> <li><b>2. Passage line-area</b> This tool allows the definition of an area or line, in order to monitor the live traffic data (ships passing these areas or lines) in a particular sea zone, and the activation of the watchdog feature for the defined geometry.</li> <li><b>3. Playback</b> It runs the playback of the ship's movements for a selected area and time</li> <li><b>4. Web Sightseeing</b> The Web Sightseeing tool allows the user to save a list of bookmarks and to create a sequence of available bookmarks. For example, a user is inspecting two specific sea zones and needs to switch between these two zones automatically. He will create two bookmarks, one per any area and then he will create a sequence to observe each zone for 10 seconds.</li> </ol>
Statistics Overlay tool	<p>By means of the <b>Statistics Overlay</b> tool the user can manage the list of the available geometries (add a new one or delete from list) that can be used for creating a statistic report (see the Reports section of this manual). When the tool is selected from the menu the Statistic Overlays window is showed and the user can create a new geometry, delete an existing one or close the window respectively by pressing the <b>New</b>, <b>Delete</b> and <b>Close</b> buttons. The counting for statistic is made every day at 24h00.</p>  <p><b>Figure 26 : Statistic Overlays window</b></p> <p>To add a new overlay the user can press the <b>New</b> button. The <b>New Overlay</b> window is</p>



opened. A name and the geometry type must be specified in the Overlays data tab, by means of the related fields.



**Figure 27: New Overlay window**

Clicking on the **Points list** tab, the sequence of points comprising the geometry may be specified. There are two different ways to add a point to the list. A manual entry by typing the latitude and longitude values of every point of the line/polygon in the requested format and then pressing the add button. Or by tracing the figure directly on the GIS map. To activate this option, the check box '*Add points from the map*' must be checked. When this check box is active, the user can draw the desired figure. To draw a line segment (LINE geometry type) the user must select the first point on the map and hold down the mouse left button dragging to the second point.

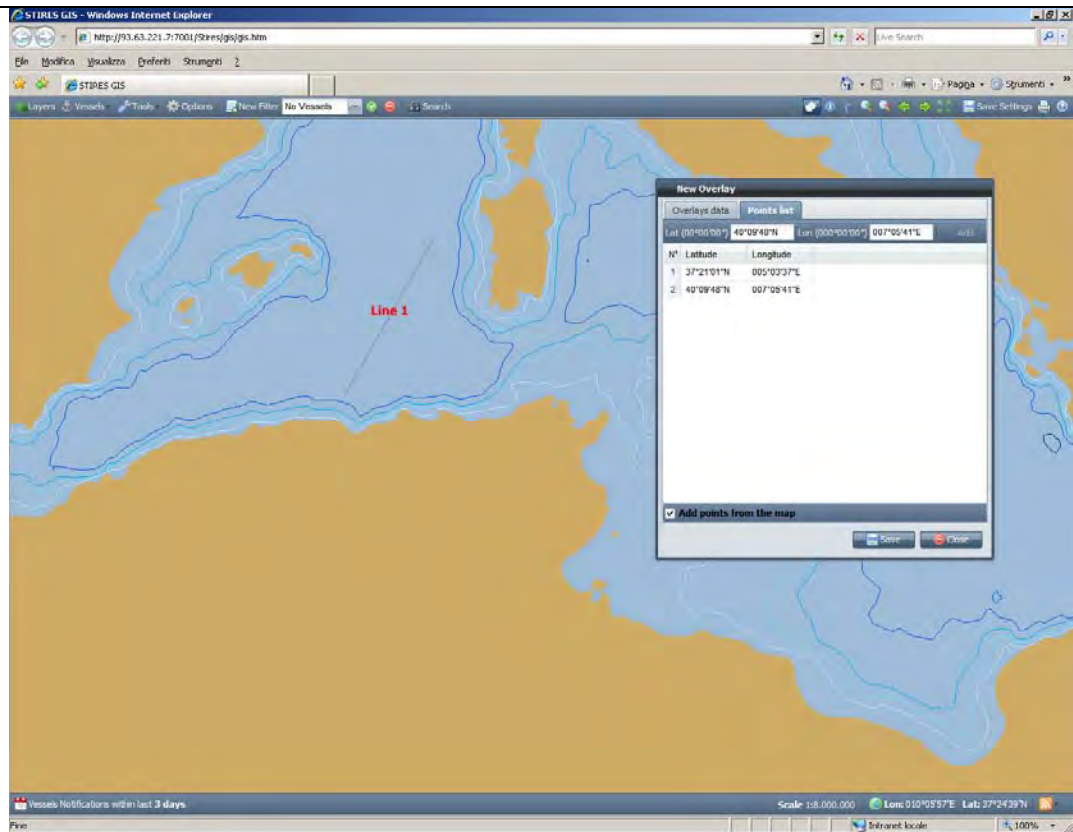


Figure 28: Drawing line segments

To draw a polygon (POLYGON geometry type) the user must select any single point that will compose the figure by clicking on the map (double-click on the last point to finish).

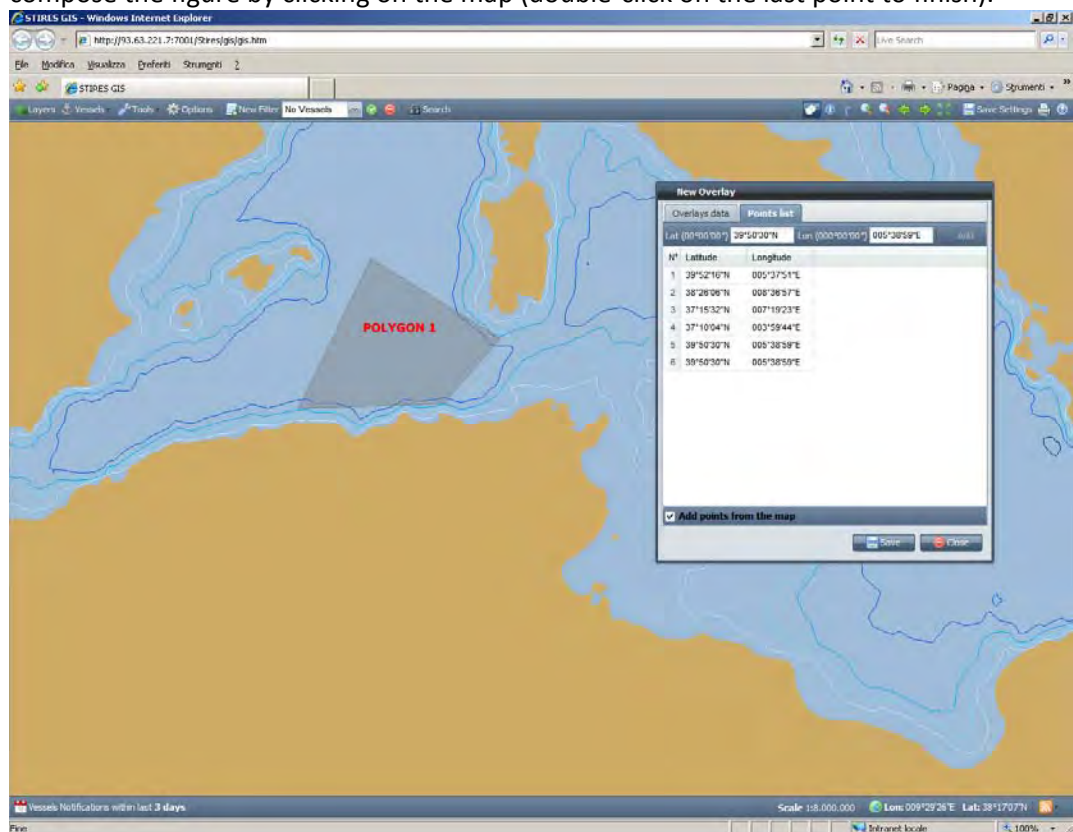


Figure 29: Drawing polygons

Passage Line  
Area

By means of the **Passage Line-Area** tool, the user can activate a predefined area or line (watchdog object) to be monitored in a near real time manner (i.e. an event or situation is depicted with a delay introduced by the data processing phase and the network transmission

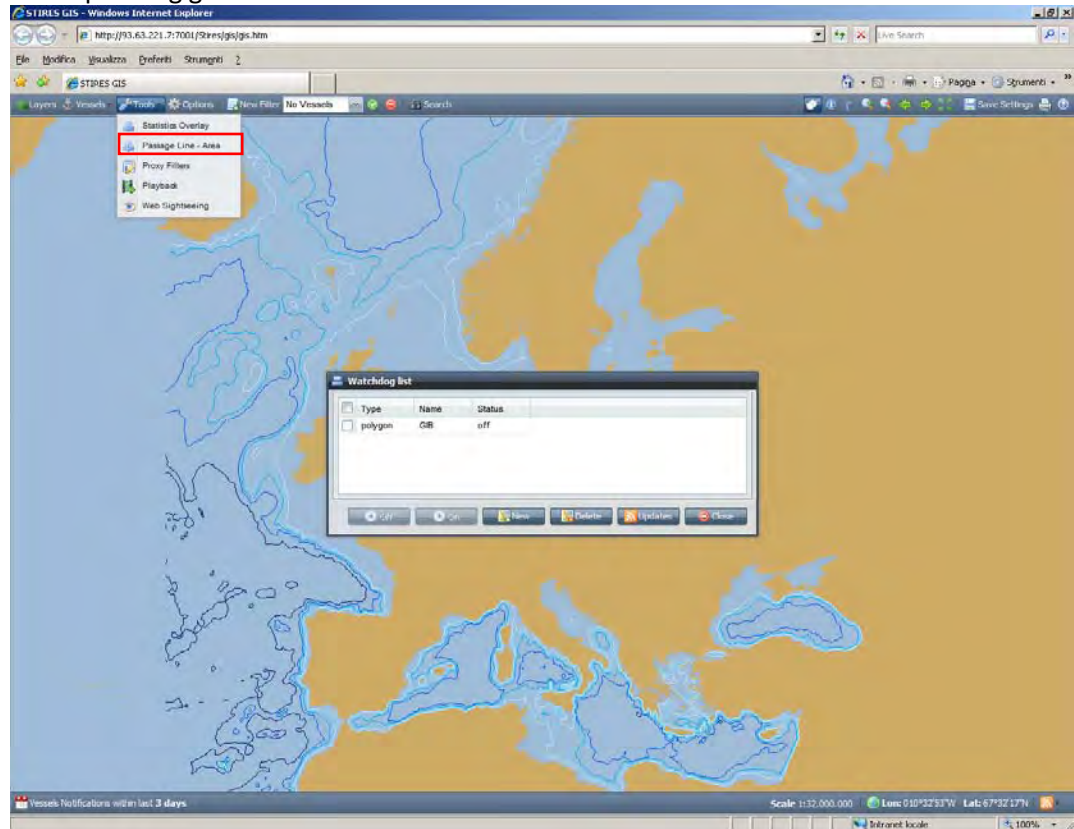


times) fashion. The transit of a vessel is registered whenever the line drawn with the last five positions, intersects the area/line being activated.

Once the **Passage Line-Area** menu item is selected in the tools menu the **Watchdog list** window is opened, and the grid with the complete list of the available geometries defined by the current user is provided.

The selected watch-dog (up to three watchdog objects can be active at a time) geometry can be activated or deactivated by pressing **On/Off** buttons. Pressing the **New** button the user can create a new item or remove selected items from the list by means of the **Delete** button.

The information of the type, name and status of the geometries are reported in the corresponding grid columns.



**Figure 30 : Watchdog list window**

To see the results of the watchdog functionality refer to the section **System updates**.

When a check box is activated, a figure and the name of the item are shown on the GIS Map representing the selected geometry, as shown in the figure below.

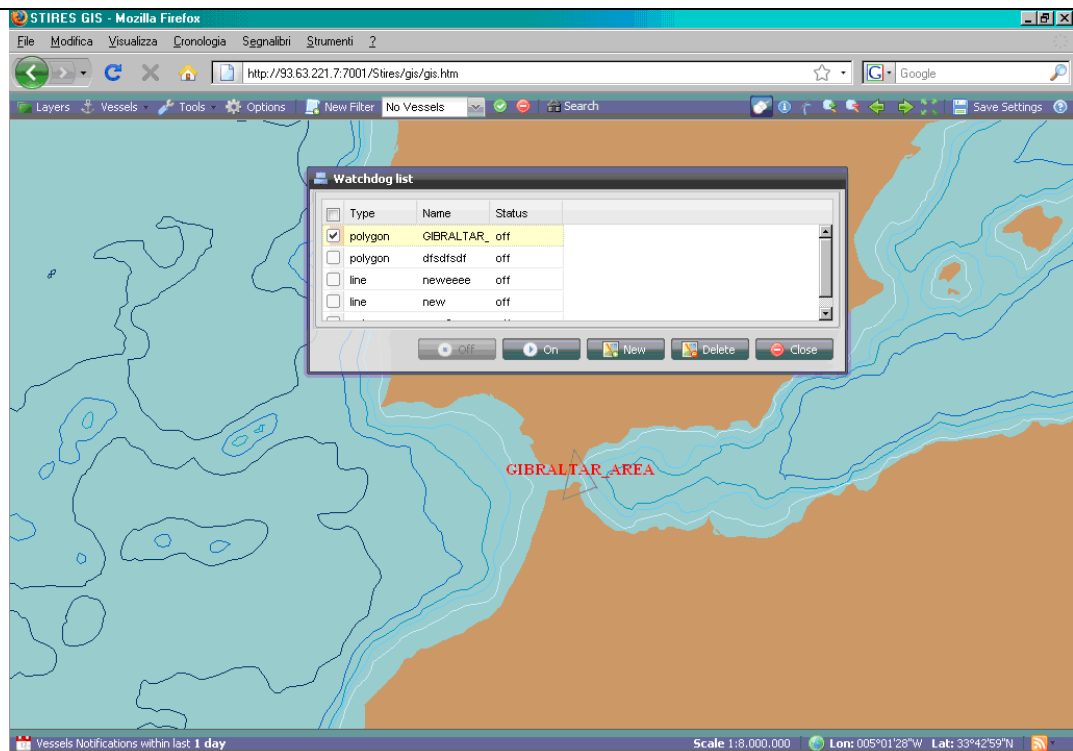


Figure 31 : Watchdog list window : Show area

When the user wishes to create a new passage line or area, he (she) clicks the **New** button. The **New Watchdog** window is presented, as shown in the figure below.

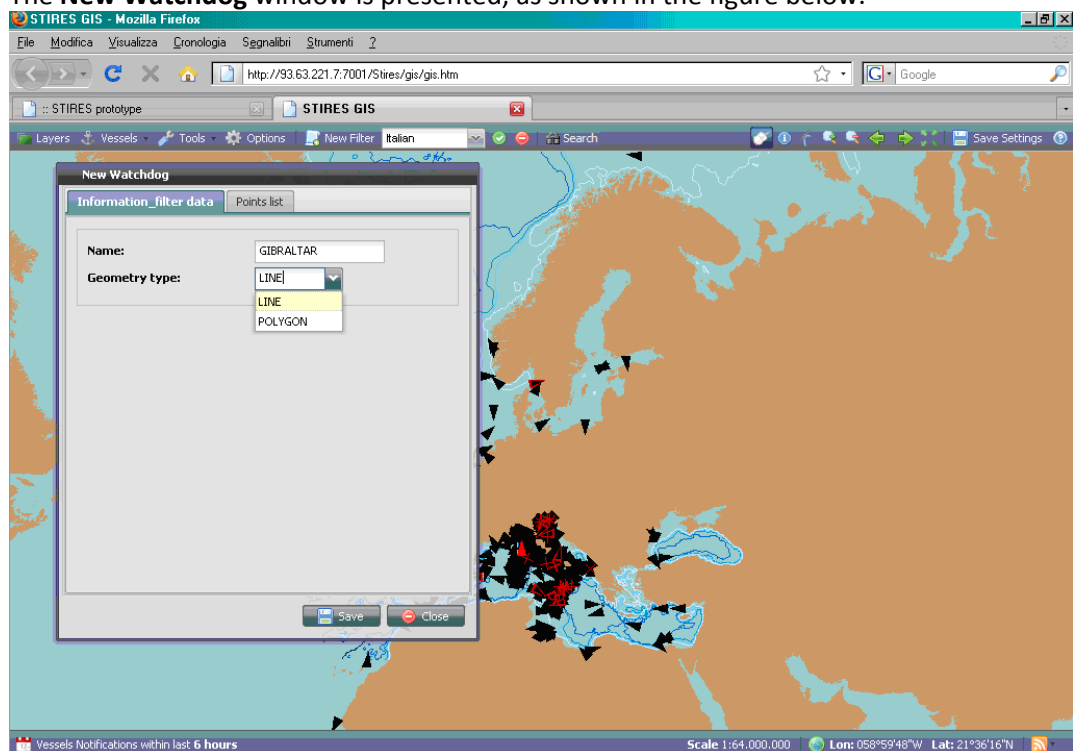


Figure 32 : New Watchdog window

By means of this window, the user can insert a name for the new geometry and its type, either a closed polygon (at least three linked points) or a line segment following the same procedure described for the generation of the statistic overlays.

Playback

The **Playback** tool allows a user to reproduce the ship movements in a specific area and during a specific timeframe.

When the user selects the **Playback** option, the configuration window where to specify the

area and the timeframe, appears as depicted by the figure below.

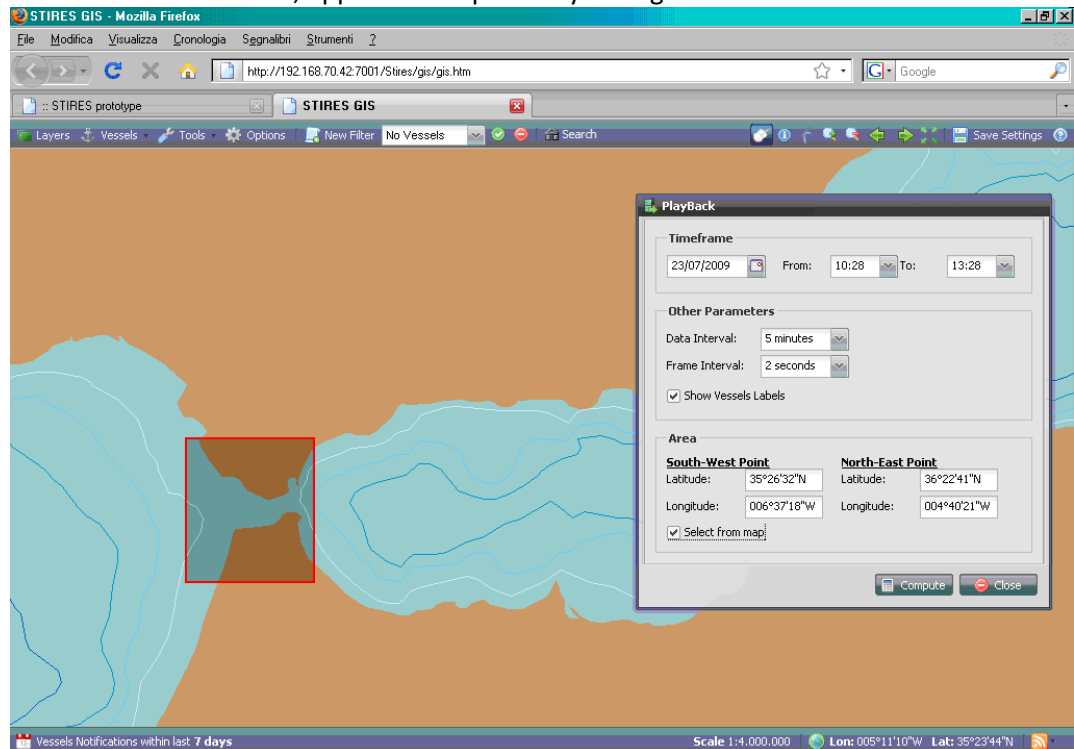


Figure 33 : Playback preferences definition

By means of the related sections: **Timeframe**, **Other Parameters** and **Area**; the user can specify the playback settings.

Once the required information are specified, the user can click on the **Compute** button to run the playback.

The playback is reproduced into a different window, including a toolbar containing the following basic functionalities: **Stop**, **Start**, **Pause**, **Reward**, **Forward**; provided by common viewers.

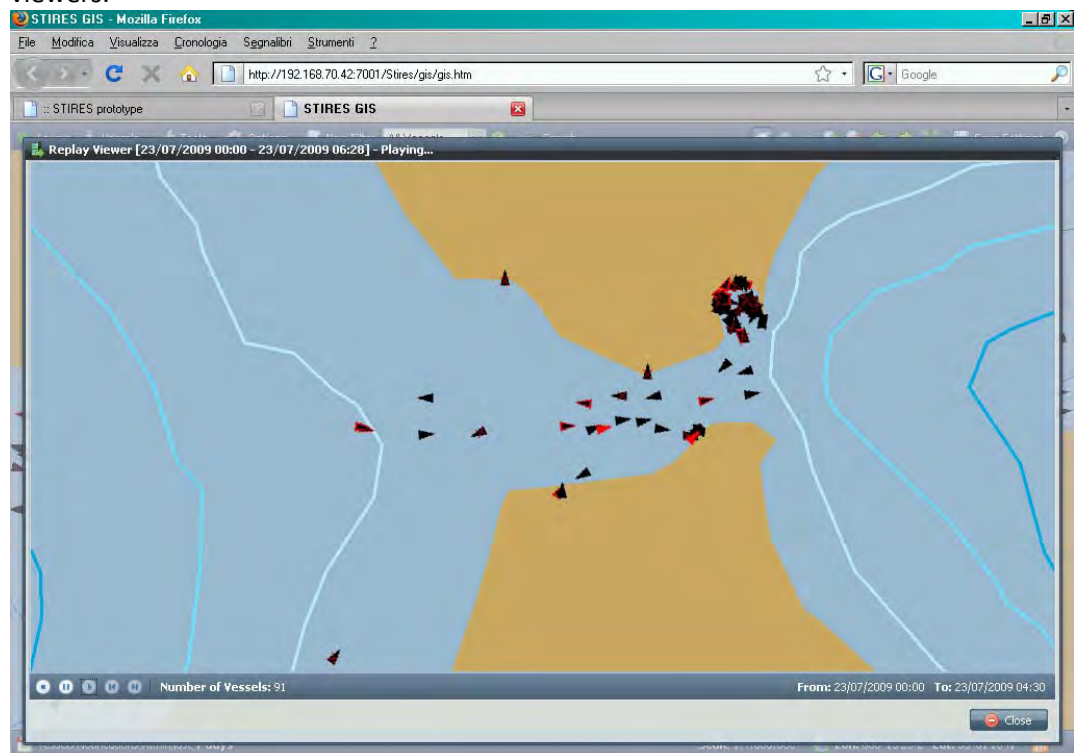


Figure 34 : Playback playing-step 1

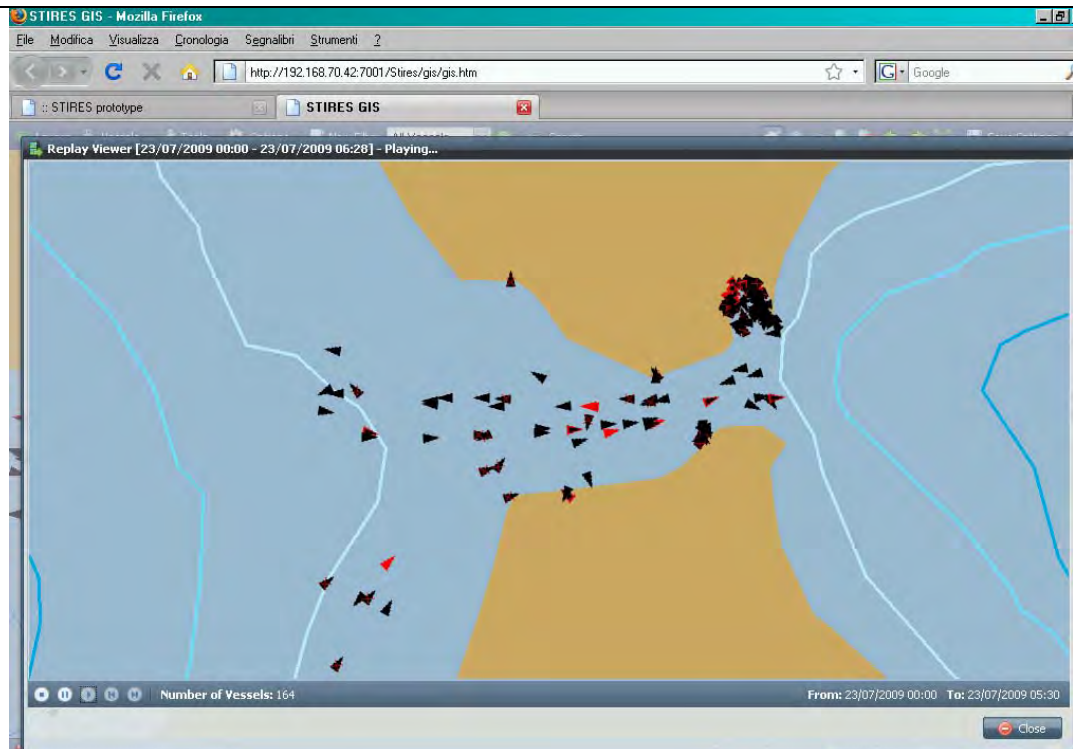


Figure 35 : Playback playing-step 2

Pressing the **Close** button, the playback window disappears.

The **Web Sightseeing** tool allows the user to save some bookmarks (an actual representation or view of the GIS map given by its position, scale and extension) and create sequences of the available bookmarks to be reproduced.

When the user clicks on the Web Sightseeing tool, the related window appears, as shown in the figure below.

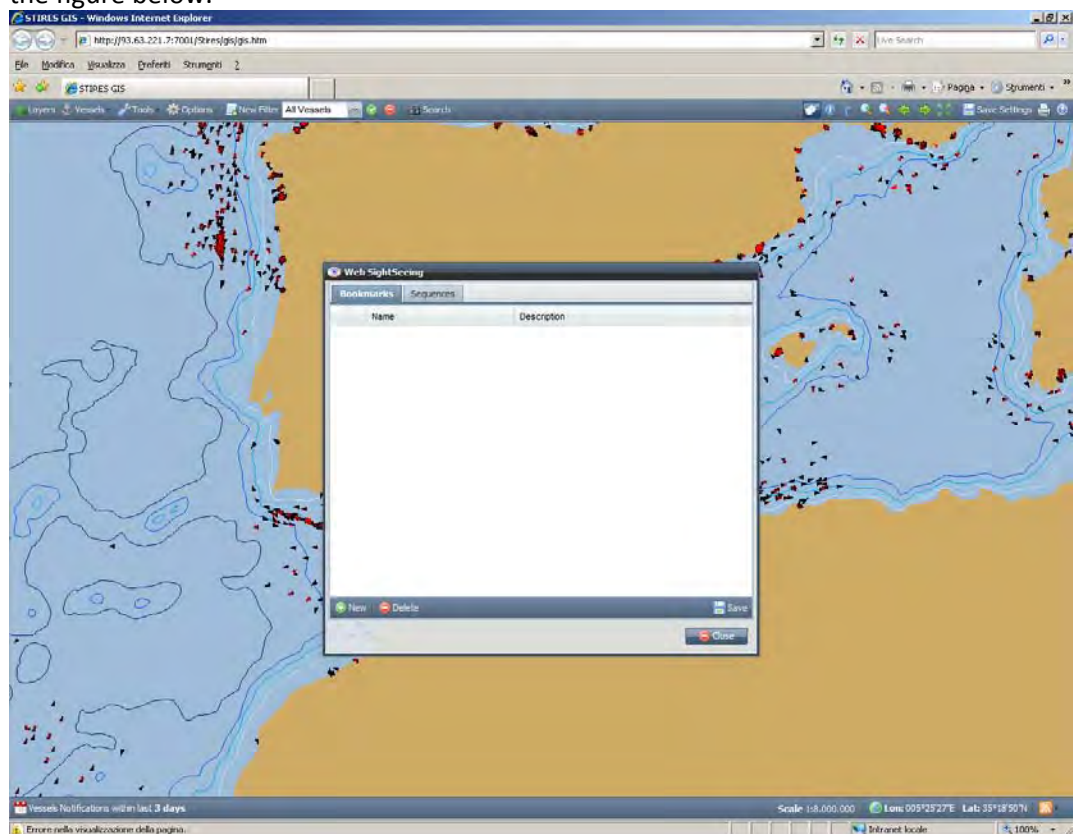
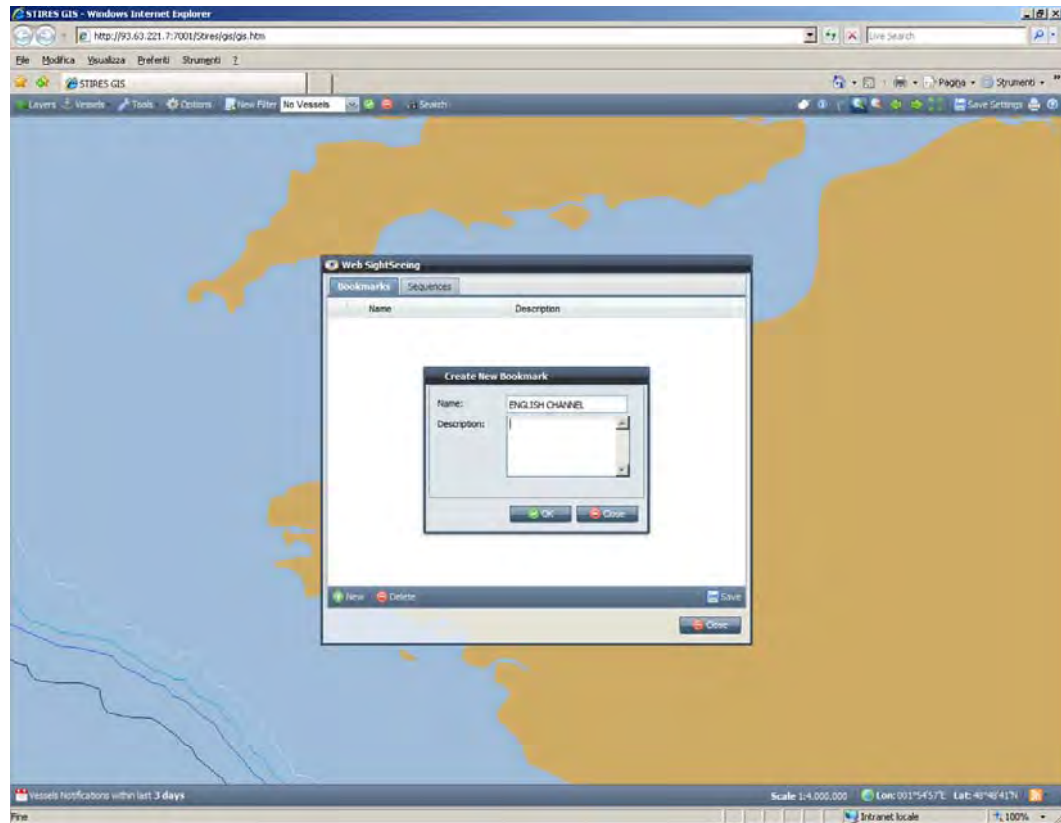


Figure 36 : Web Sightseeing main window



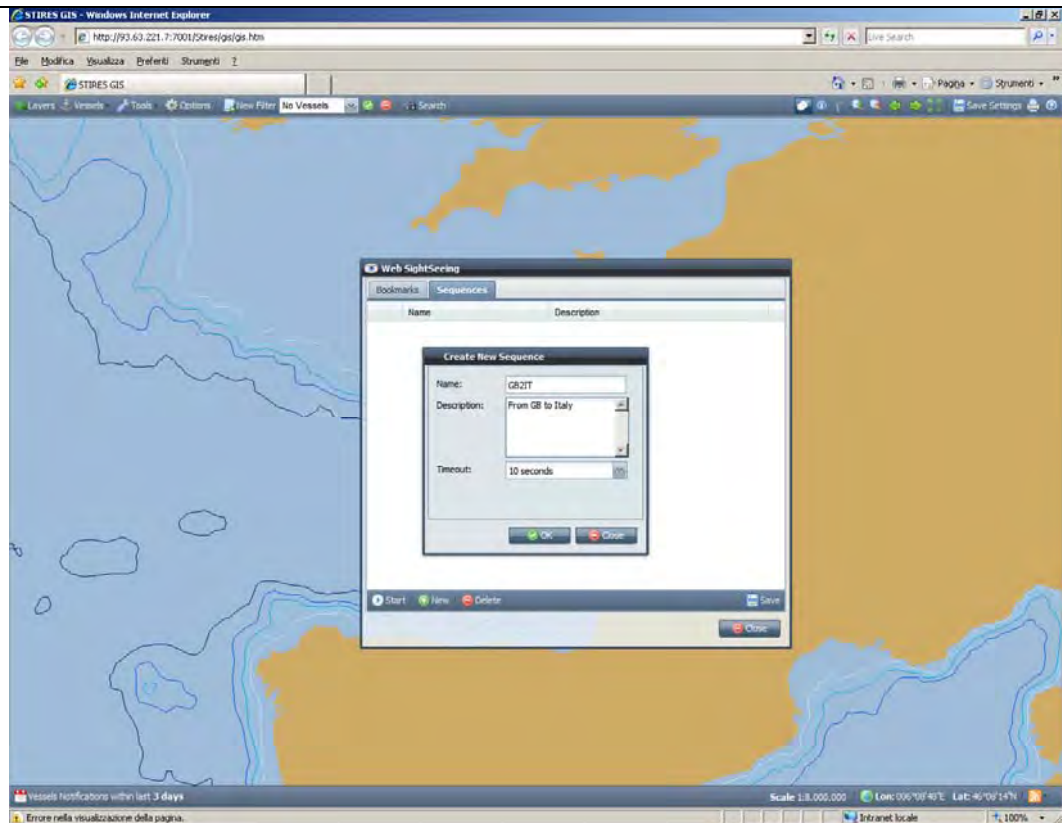
This window contains the **Bookmarks** and the **Sequences** section.

In the Bookmarks section, the user can create or delete the bookmarks. When the **New** button is pressed and a **Name** and **Description** information are added in the **Create New Bookmark** window, the characteristics of the actual map (centre position, extent and scale) are retrieved and associated to the bookmark. When the **Save** button is pressed, the actual view of the map is associated to the newly created bookmark.



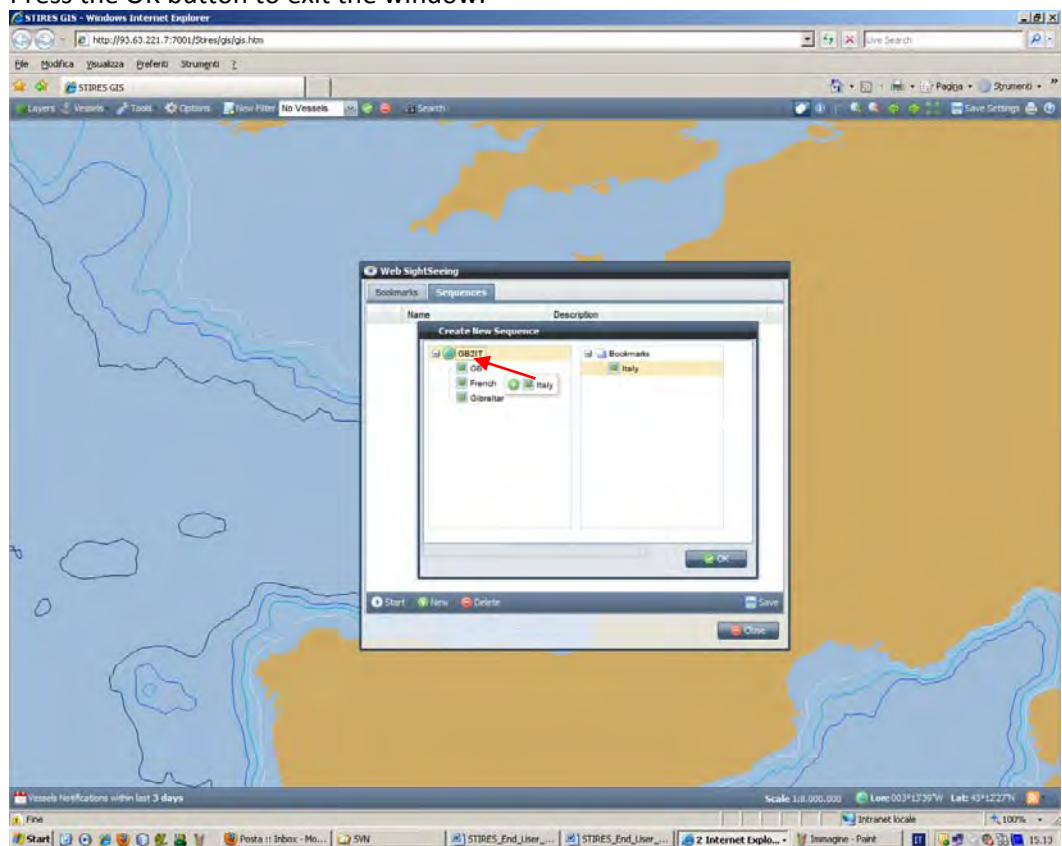
**Figure 37: Create New Bookmark window**

Differently, In the **Sequences** section, the user can define a sequence that automatically switch the current bookmark to the next one in the sequence, after a specified number of seconds.



**Figure 38 : Web Sightseeing sequence creation window**

When the new button is pressed, the name and timeout of the sequence can be defined. Clicking on the OK button, the window to create the sequence is opened and the selected bookmarks can be dragged to the left panel and placed in the correct order of the sequence. Press the OK button to exit the window.



**Figure 39: Create New Sequence window**

	<p>To play a sequence, the user can select the target sequence in the <b>Web Sightseeing</b> window and press the <b>Start</b> button.</p> <p>The sequence playing starts and the user can see the bookmarks loaded dynamically.</p> <p><b>The user should note that the save button in the Web Sightseeing window saves the sequences and the bookmarks in a temporarily fashion. The user can access them only within the current session. When the session expires the bookmarks information are lost.</b></p> <p><b>To store permanently the bookmarks into the database the Save Settings button at the right side of the header must be pressed. Refer to the related section for further details.</b></p>
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### 2.1.11 – GIS options

GIS options	<p>Clicking on the <b>Options</b> button the user can access the <b>GIS Options</b> window in order to specify some GIS parameters.</p> <p>In the <b>GIS</b> frame, the user can set the unit of measurement (Km or Knots) being used when the Measure distance functionality (see related section for further details) is activated.</p> <p>In the Vessels Preferences frame the user may specify the following parameters:</p> <ul style="list-style-type: none"> <li>• <b>Refresh interval</b> – defines the time instants when the positions of the tracks, and related information, represented on the map are refreshed (if <b>6 minutes</b> is set, the picture is updated every six minutes)</li> <li>• <b>Validity Time</b> – determines the visualization of the tracks depending on their associated timestamp (tracks older than the validity date being set are discharged).</li> </ul> <p>The system automatically perform a down sampling of the tracks updates limited to a timeframe configurable by an administrator (usually set to six minutes).</p> <p>The actual release of the system does not permit to limit the available options to a set having this setting as a lower bound, so whenever the user selects a refresh interval less than the down sampling timeframe, the set of tracks actually showed on the map could not be updated at any refreshing cycle.</p> <p>The following figure depicts a situation with a 7 days validity timeframe being set.</p>
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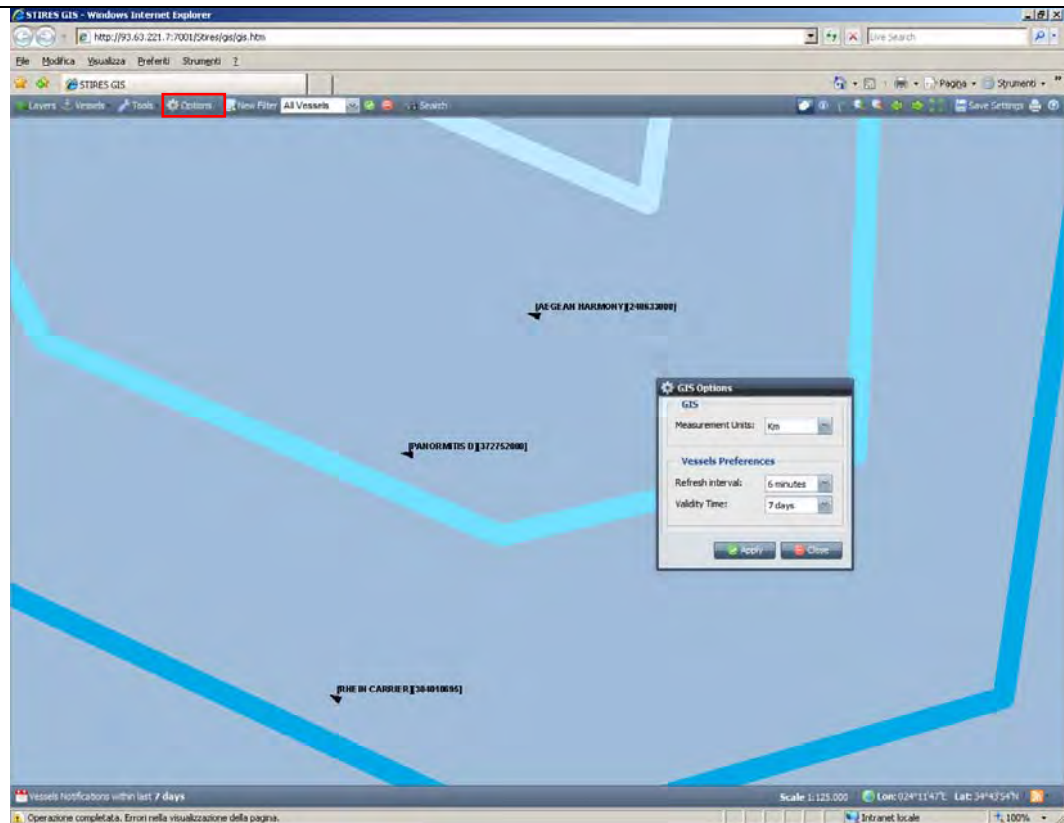


Figure 40: GIS Options (7 days timeframe)

The following figure shows the previous map when a 1 day timeframe has been set (note that the older tracks disappeared).

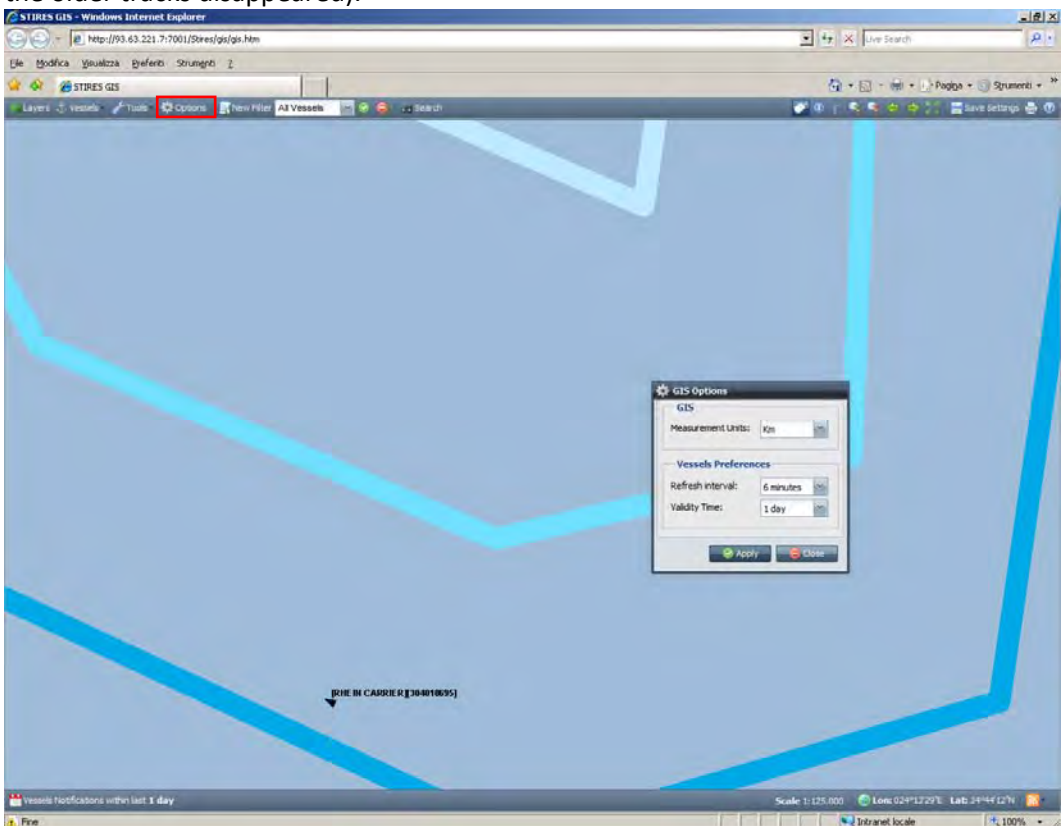


Figure 41: GIS Options (1 day timeframe)

## 2.1.12 – New Filter

## New filter

Clicking on the **New Filter** button, the user can apply some filters on the vessel tracks layer. Once the **New Filter** option is selected the **Create New Filter** window is opened and the user will be able to specify the following information:

- **Filter Name** – Name of the filter (an item with such label will be added to the drop-down list included in the menu bar)
- **Filter Description** – Textual description of the filter
- **Data Source** – Name of the originating system (AIS or LRIT)
- **Filter Type** – Specifies whether the system will use Vessel Data or IMO/MMSI information when filtering. Vessel data option includes the specification of the following parameters: AIS Ship Type, Flag State and Enrichment data. When IMO/MMSI option is selected the user may set a specific IMO and/or an MMSI as a filtering parameter.

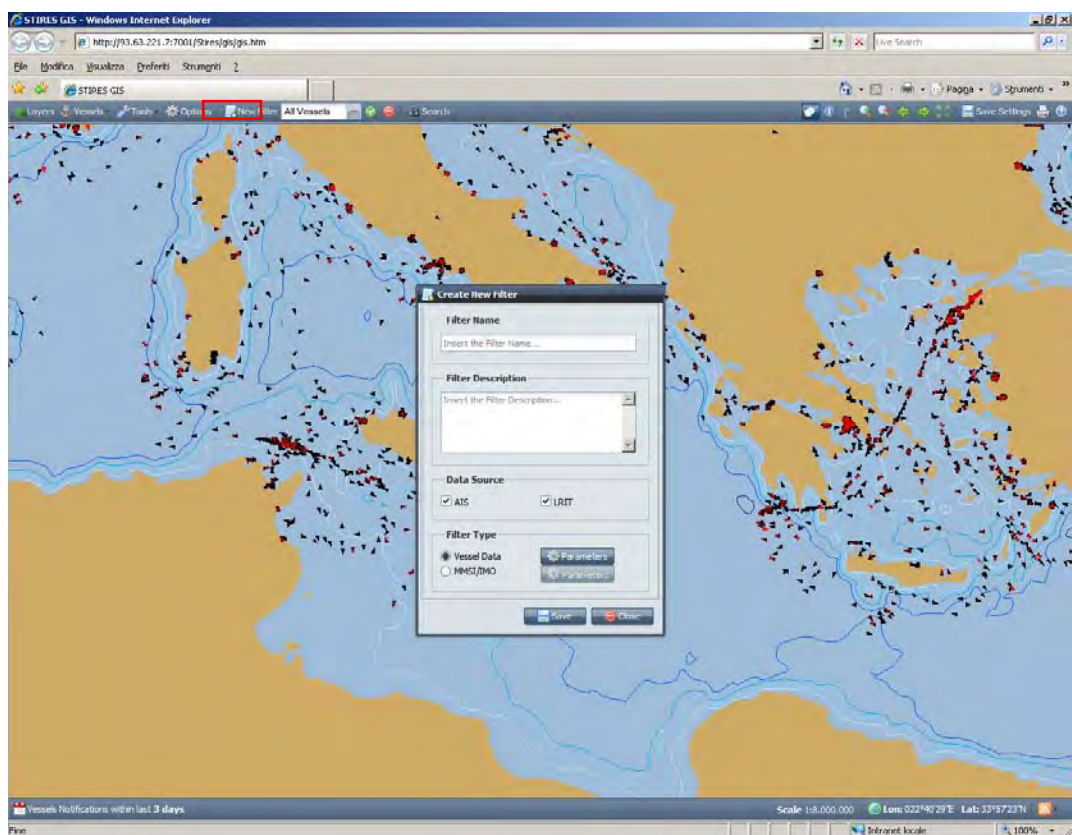


Figure 42 : Vessel track layer interaction

Whenever the required set of filtering options is defined, the user can store the information by pressing the **Save** button. **This operation only stores the information temporarily within the current session. To store these information permanently the user should press the Save Settings button of the toolbar.**

The drop-down list window of the menu bar will contain the list of all the available filters either the default (any user have at least the **No Vessels** and **All Vessels** default filters) and the customized ones.

## Select filter

To activate one of the available filters, the user can select the target filter from the drop-down list window and press the button identified by the green icon (✓). The current map will be updated and the set of tracks displayed will vary according to the filtering criteria specified by the selected filter.

The screenshot below shows an example where the custom filter named USA (including all vessels having the U.S. flag state code) is applied to the current map.

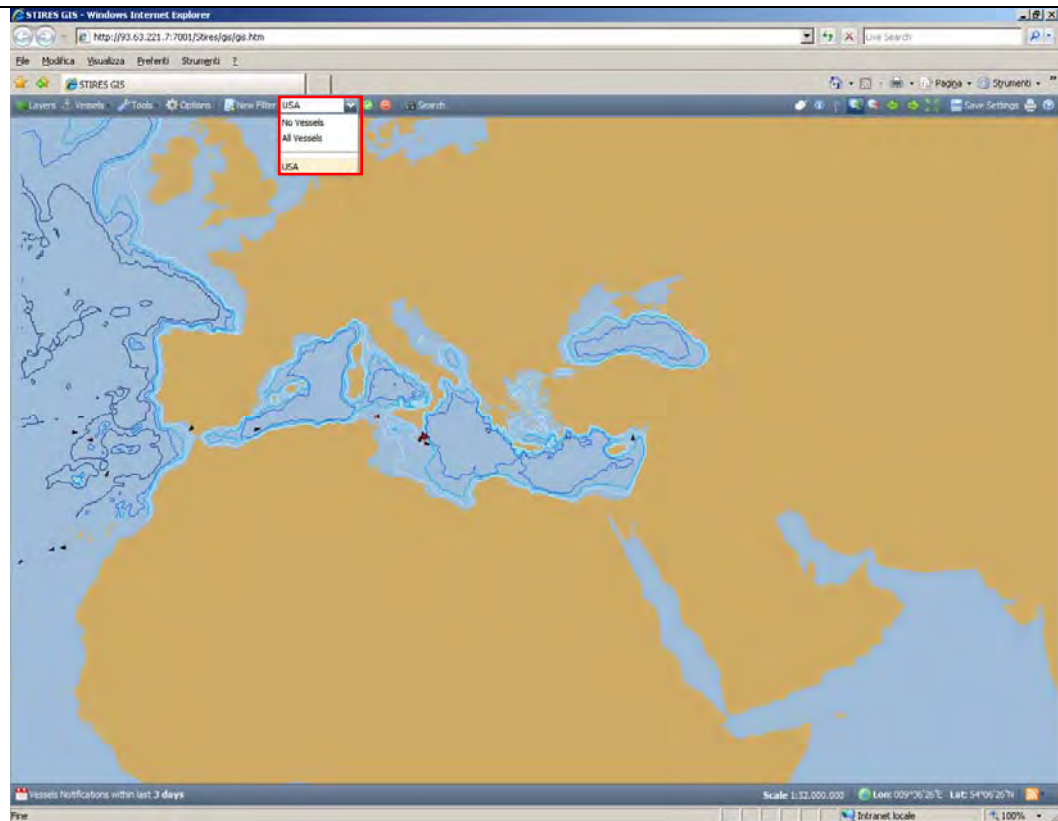


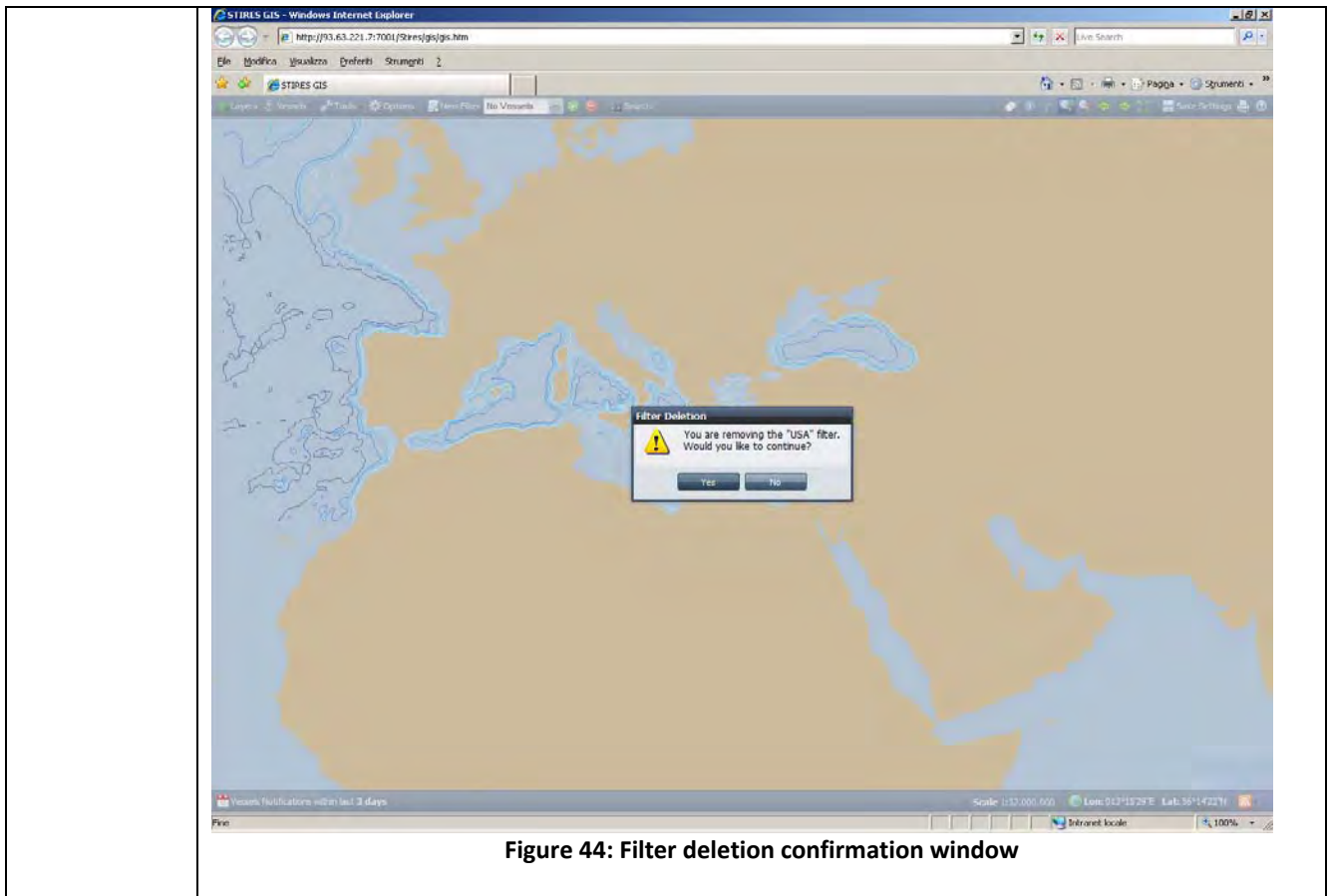
Figure 43 : GIS page with the EMSA fleet filter activated

The default filters are:

1. **No vessels** – No vessels will be displayed on the map
2. **All vessels** – All the available vessels will be displayed on the map

Delete filter

To remove an item from the list of the available filters, the user can select the target filter from the drop-down list and press the **Delete** button identified by the red icon (🔴) from the menu bar. The user will be asked to confirm deletion (**Yes** button to confirm, **No** button to abort cancellation) and the filter will be permanently removed as depicted by the following screenshot.



### 2.1.13 – Search tool & Information

Search tool	<p>By means of this tool the user can search for a specific vessel or set of vessels on the actual vessels tracks layer.</p> <p>Pressing on the <b>Search</b> button, the <b>Search &amp; Information</b> panel appears on the right side of the page. This panel is composed by the <b>Search</b> pane, that can be used to specify the searching criteria, and the <b>Vessel Information</b> pane where the result of the search is displayed.</p> <p>Use the minus/plus button on the right side of the pane to hide/show the content of the current pane.</p>
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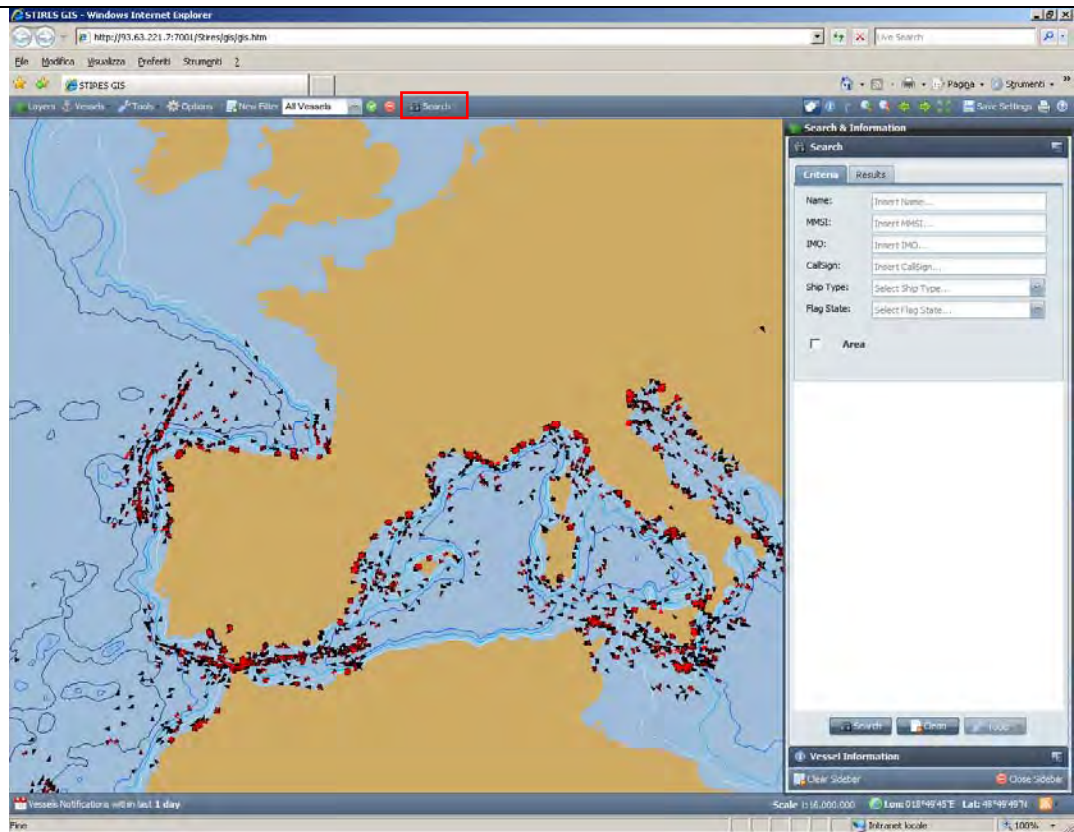
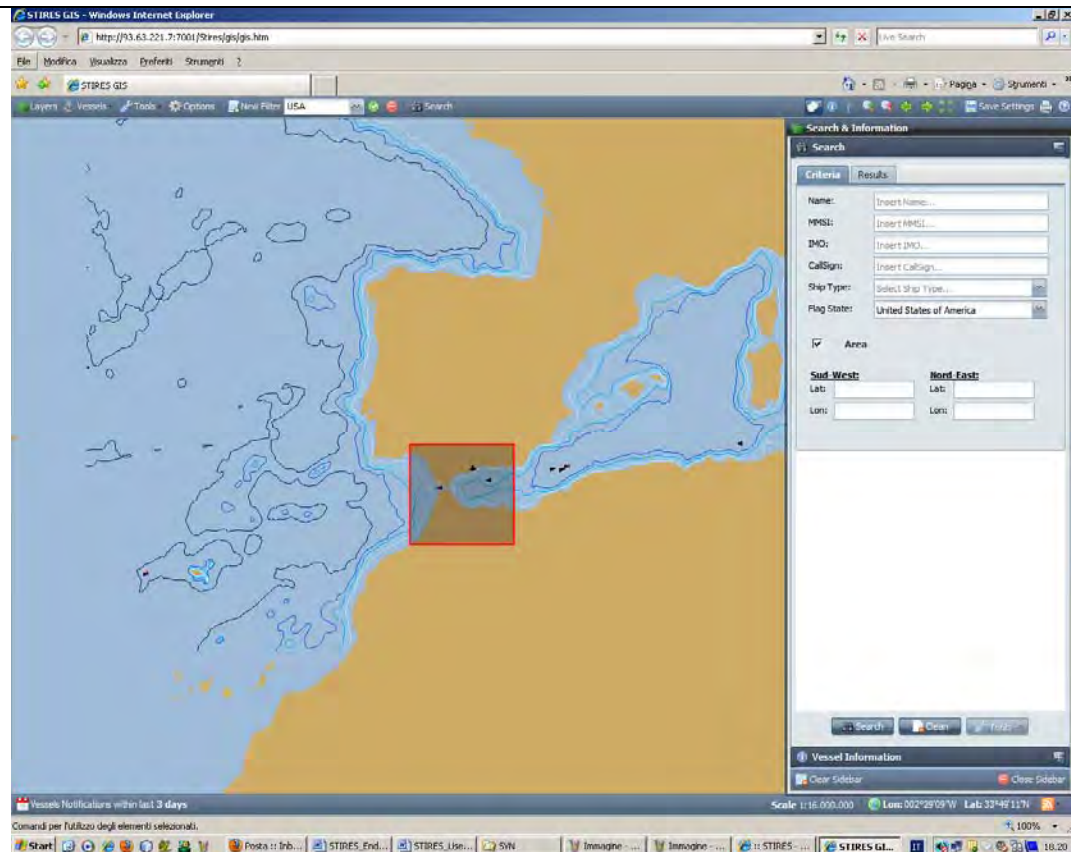


Figure 45 : STIRES GIS search menu

The **Search** pane contains two additional tabs, named **Criteria** and **Results**.

The **Criteria** tab shows several text boxes where the user can specify a search criteria by means of a combination of vessel information as MMSI, IMO, Name, Callsign and ship type or flag.

A search by area may also be specified by selecting the **Area** check-box. When selected, the user can select the area of interest simply by drawing a square on the map using the mouse as depicted in the following picture.



**Figure 46 : STIRES GIS search – A search example**

The text boxes identified by the labels: Name, MMSI, IMO, CallSign; are wildcard enabled. Consequently when the user inserts a partial information (e.g. the first three numbers of the IMO number) all similar information matching that pattern are returned (all vessels having IMO the number starting with the given numbers).

Press the **Clean** button re-set the search criteria and insert new search parameters. Press **Search** button to start the search.

The search outcome will be shown in the **Results** tabs, where the list of vessels that fulfils the search criteria is shown.

By clicking on the target vessel the user can see the vessel information, activating the vessel information tab.

The figure below shows the **Results** tab listing all the vessels having US Flag State that are present into the area being specified.

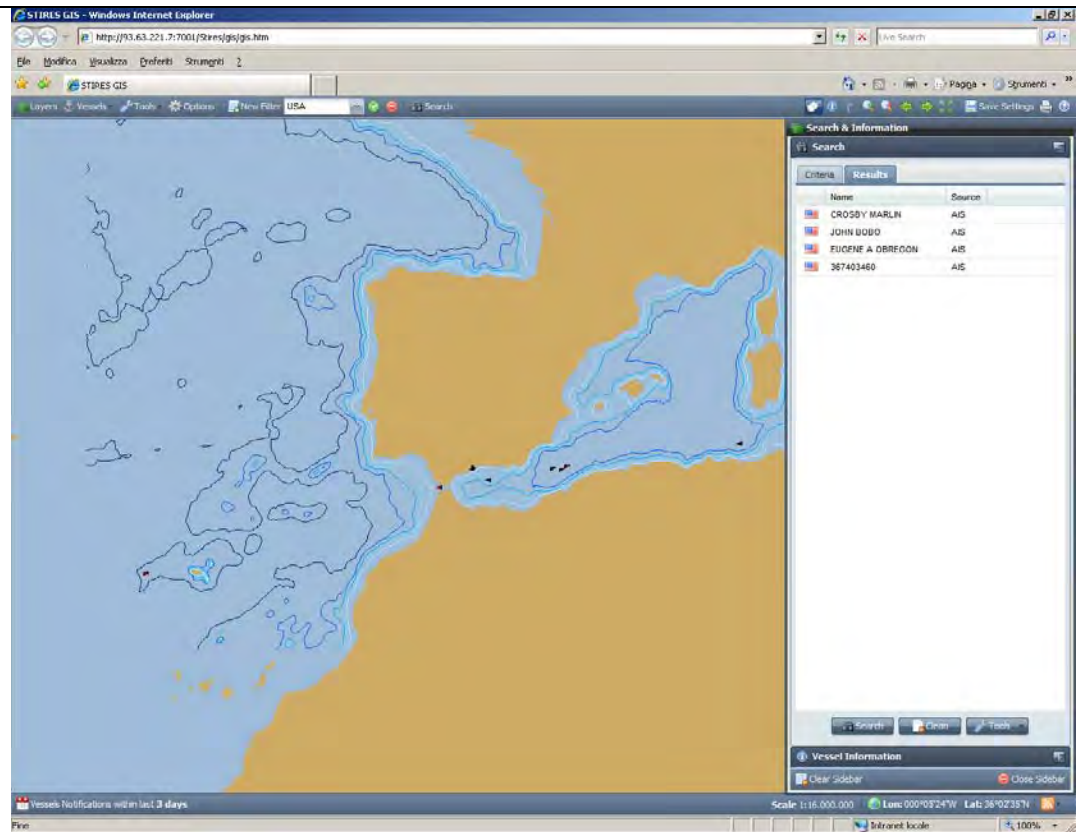


Figure 47 : STIRES GIS search – search results

Clicking on a specific vessel in the list, the target vessel is highlighted on the map.

Double-clicking on a specific vessel in the list the **Vessels information** pane is showed and the user can check vessel's data. The related vessel track displayed on the map is highlighted and the zooming level is increased to avoid cluttering.

When the **Vessel information** tab is opened the following information may be accessed:

In the **Data tab** all the information received from the AIS system, as they are actually transmitted by the vessels, are listed (Except "Vessel Status" which is a SSN database information).

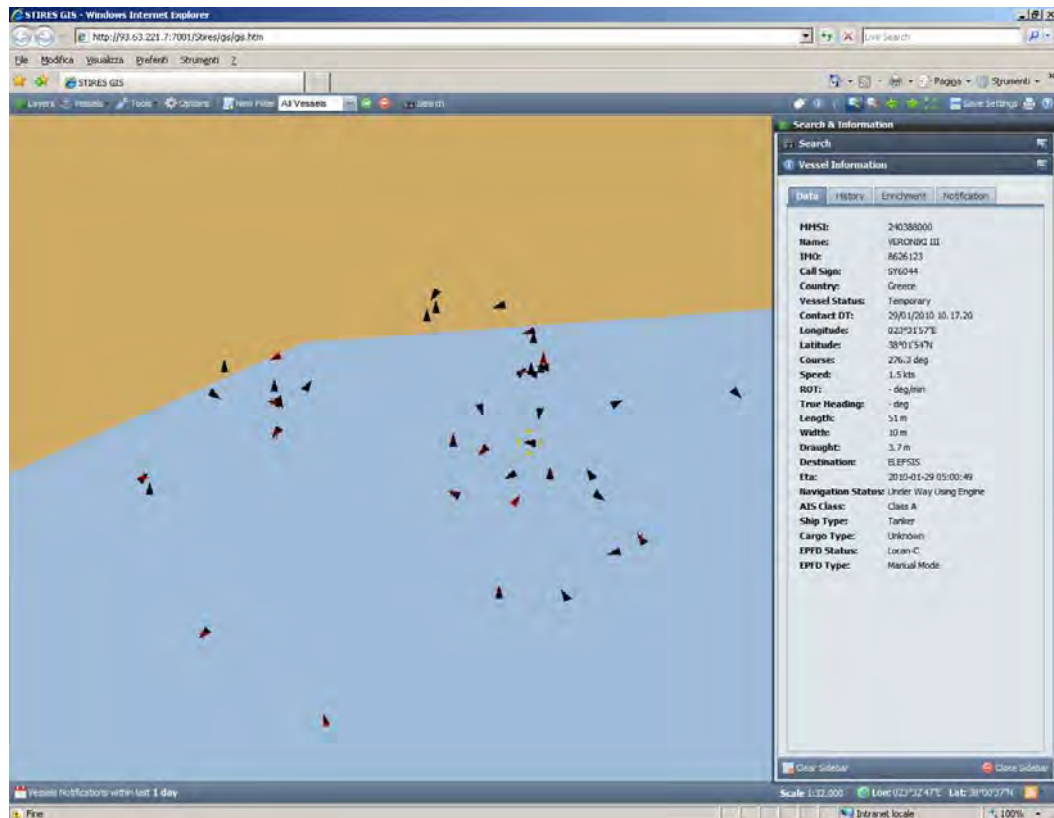


Figure 48: Vessel information data tab

History tab

In the **History tab** the user can see the positions of the vessel within a window of 7 calendar dates (the date the search is performed plus 6 days in the past). This allows the plotting of the route of the vessel on the GIS window. Upon clicking on the Load History button, the history of the positions is shown in the grid. The list shows the position expressed in Latitude and Longitude with the Contact date timestamp.

Clicking on the Show on Map button, the route is drawn on the GIS. Now, the user can click on the positions in the list to see them on the GIS.



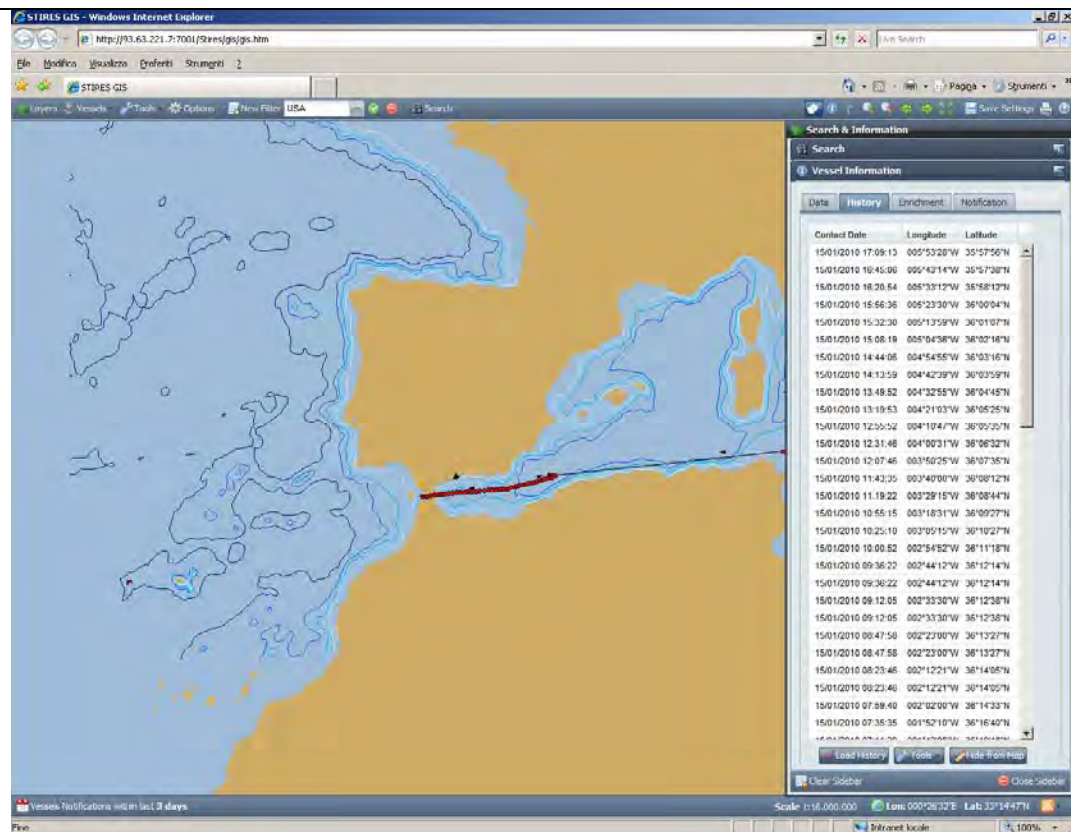


Figure 49 : STIRES GIS search – History results

Enrichment  
tab

By using the **Enrichment tab**, the user can see additional information on the selected vessel and its voyage based on information recorded by the European Index server (EIS) of SafeSeaNet. The information included in the enrichment tab are:

1. The ship particulars included in the SSN reference registry. The information mentioned here are verified against external sources. If no information are presented for the vessel particulars, means that at the moment the search is activated, SSN application has no means to verify ( by cross-checking with additional sources) , if the vessel particular information displayed in the data tab (essentially transmitted by the ship's AIS transponder) are correct. In such a case the "vessel status" tag in the data tab will include the word "temporary" or "unknown" meaning that the SSN application tries to verify the vessel particulars. **During the time a vessel is indicated with temporary or unknown status no enrichment information will be provided in the Enrichment tab.**
2. An indication of the port of destination from EIS port notification. This indication can be used in order to verify if the information transmitted by the AIS device (indicated in the data tab) is correct.
3. Indication of other data existing in EIS for the ship and the voyage (such as a Hazmat, incident report)
4. Other status indicators for the vessel (if she is banned, Single hull tanker)

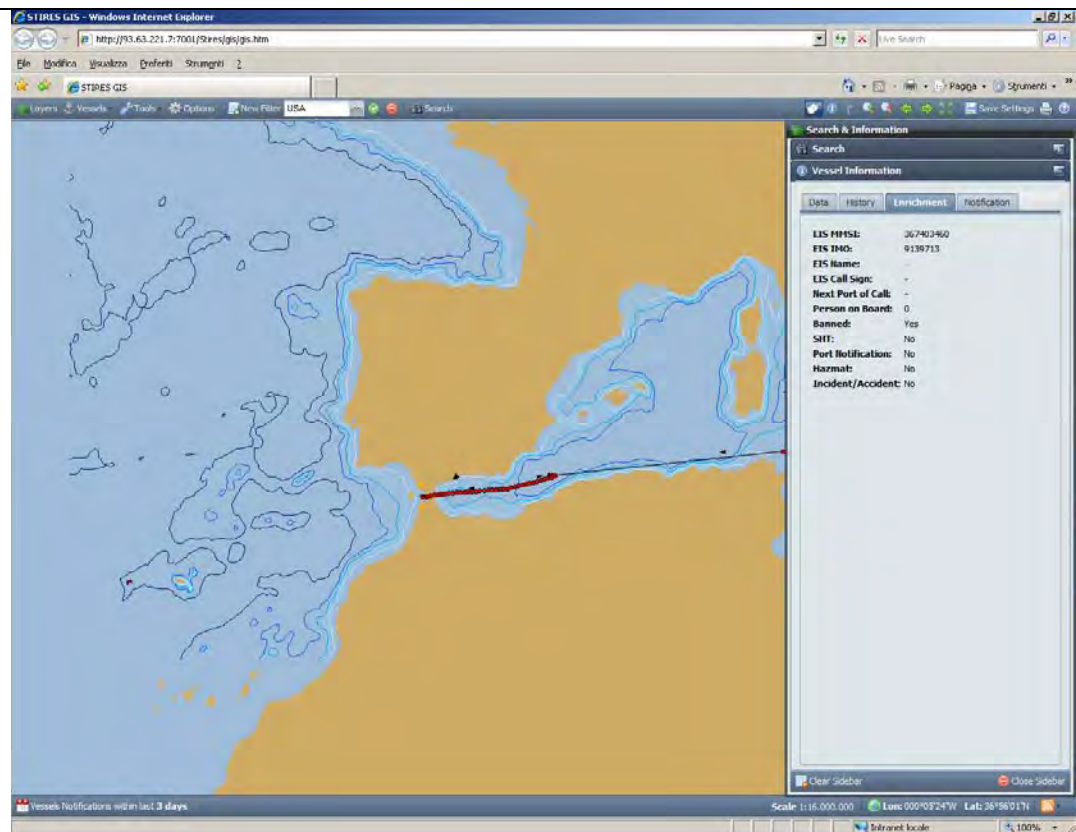


Figure 50 : STIRES GIS search – Enrichment button

When in the enrichment is indicated that a Hazmat or incident report exists (the “yes” indication is activated), a further request of the notification details to SafeSeaNet can be sent, via SSN EIS application, to the actual data provider (by clicking on the YES button).

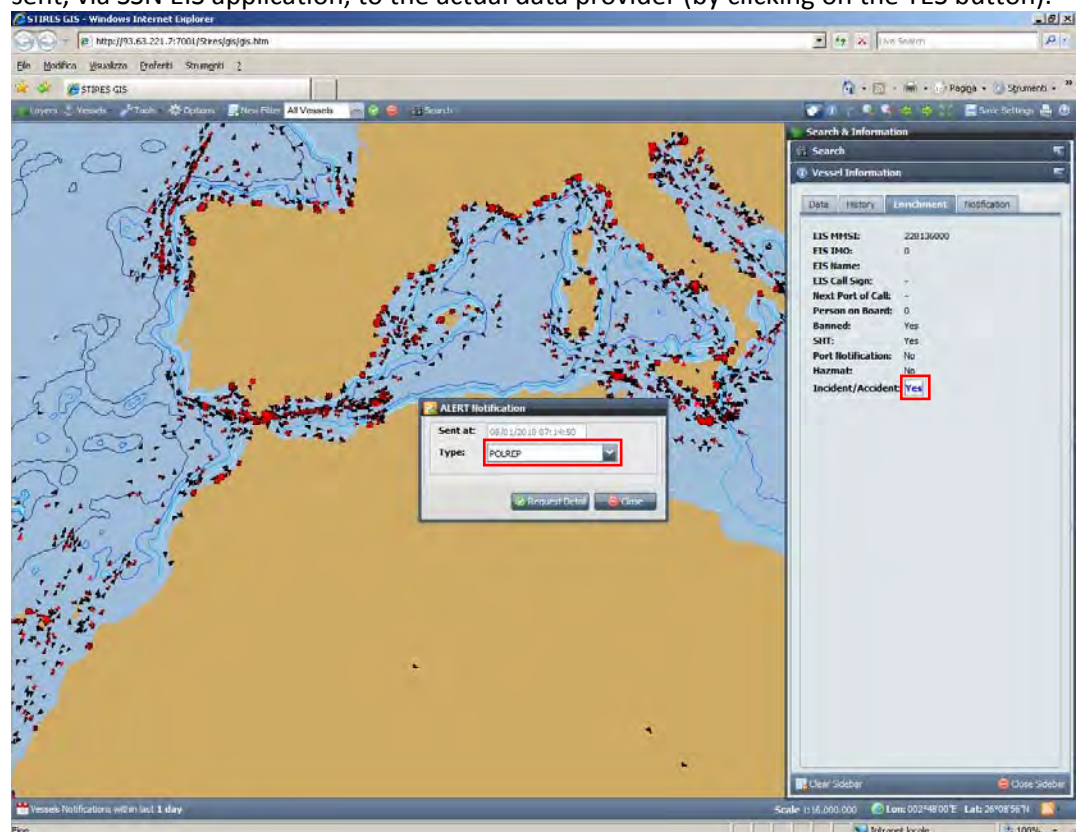


Figure 51 : STIRES GIS search – Notification detail request

After the click, a new window with the notification is opened. Should the user will choose to

	<p>request for the details (by clicking on the Request Detail button), a request is sent to the data providing M.S. via SafeSeaNet.</p> <p>The response on the request can be seen in the System Updates screen. Please, refer to the “System Updates” section regarding this functionality.</p> <p>Important to note:</p> <ol style="list-style-type: none"> <li>1. STIRES will display enrichment information only for vessels whose vessel ship particulars have been verified against external sources (noted “Validated” in “Vessel status” field in the Data tab). Hazmat, incident reports, etc for vessels indicated as “temporary” may be sought only via the SSN EIS web or XML - interfaces</li> <li>2. Due to restrictions in the currently used SSN XML protocol, the correlation of information (positions recorded in STIRES/ voyage information recorded in SSN EIS) is not always accurate). This limitation will be removed after the launch of SSNv2 in 2011.</li> <li>3. Should the same Member State has sent to EIS two Hazmat notifications concerning the same ship b (with future ETAs, in relation to the current vessel positions) a request for details will return always the information included in the latest Hazmat. That is , there is a very small chance, in such a rear case, that the information returned will concern the next voyage of the ship and not the current one.</li> </ol>
Notifications tab	<p>The <b>Notifications tab</b> allow the display of information related to all the available notifications, sent to the SafeSeaNet system, for the selected vessel. This section has two tabs: <b>Relevant notification</b> (contains the list of the 6 latest Hazmat and Port notifications and the 3 latest Alert notifications related to the vessel) and <b>All Notifications</b> (depending on the settings of the data purging routine, all the notifications actually present into the database for the selected vessel).</p>
Relevant notifications	<p>Given the restrictions in the current implementation of the SSN protocols (at present there is no transmission by the M.S of the ShipCallID allowing SSN to establish a database of the past, current and future voyages of a ship) there is no 100% certainty of the latest notifications made available by EIS are really relevant to the current voyage of the ship (tracked in the STIRES application). That is why the <b>Relevant notification</b> tab, contains a number of notifications (among those recorded in EIS) according to the rules agreed between the M.S. following the submission of the papers of the data quality work-group in the SSN9 work-shop (which resulted in the modification of the EIS application). The information provided here are the same as the information provided to a user if a search for relevant notifications is performed via the EIS web interface</p> <p>From these notifications, based on a set of business rules agreed with EMSA experts, STIRES application attempts automatically to choose the notifications (e.g. Port or Hazmat) that are actually relevant to the voyage of the vessel shown in the GIS. These notifications are highlighted with magenta colour.</p> <p>Clicking on the highlighted notification, the user can perform a request to SafeSeaNet for the notification details.</p>

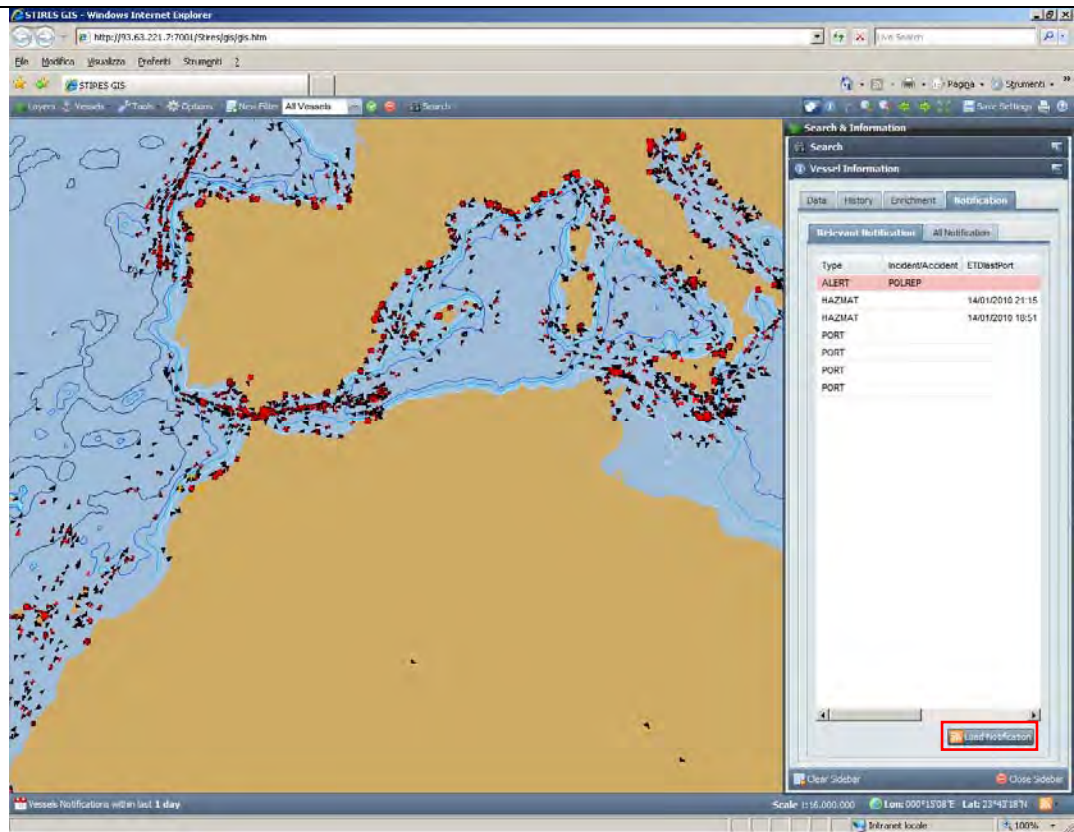


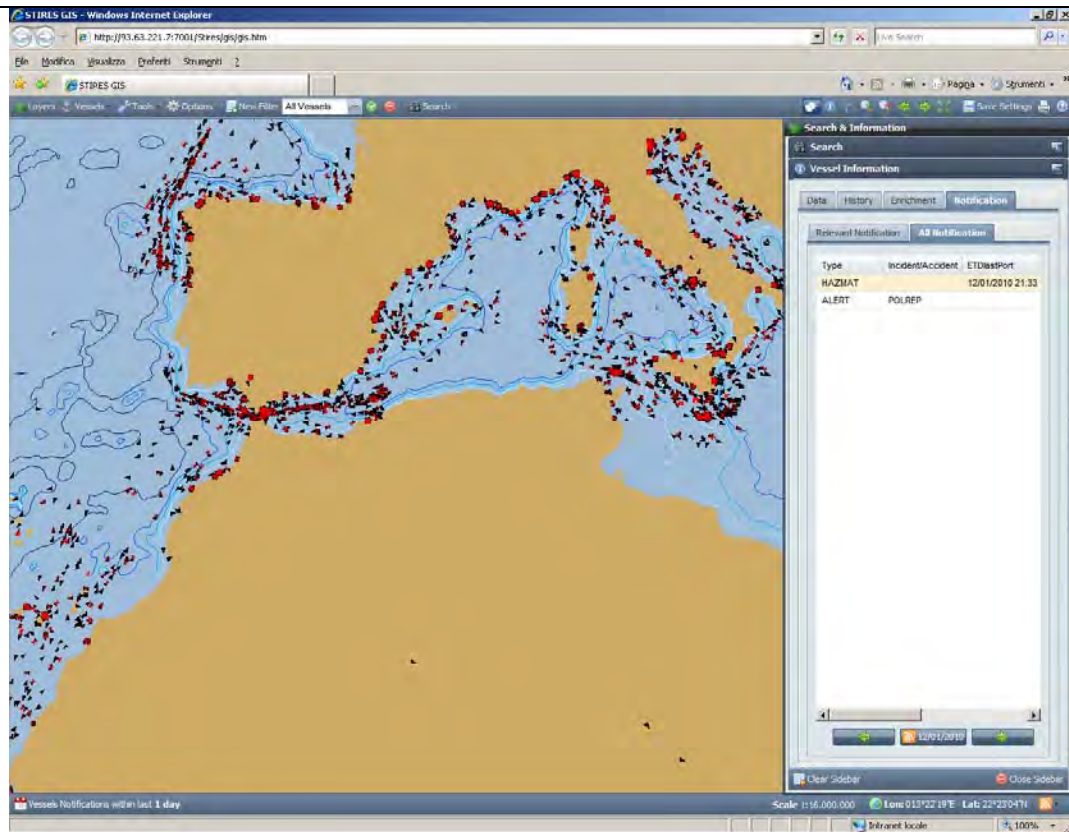
Figure 52 : STIRES GIS search – Relevant notifications

The user should note that the enrichment process (correlation of STIRES with EIS information) is running every two hours, For this reason, it is possible that STIRES will display with an up to two hours delay e.g. a new Hazmat notification arriving to SSN.

All  
Notifications

In the **All notifications** tab the user can load all the history of notifications relative to a vessel. To load the notifications stored in the SSN DB, the user needs to click on the Load Notification button. Then, by selecting a specific day in the past, the user may load all the notifications recorded by SSN on a given date.





**Figure 53 : STIRES GIS search – Relevant notifications**

In the figure above, the user is visualising all the notifications recorded on the 12/01/2010. An Hazmat Report and a POLREP alert notification was sent to SafeSeaNet for the requested vessel at that date.

#### 2.1.14 – System updates

<p>System updates</p>	<p>In the system updates, the user can access information that could not be obtained instantly and require processing (either by STIRES or the EIS applications). These data are:</p> <ol style="list-style-type: none"> <li>1. Notification details requested to M.S via SSN EIS</li> <li>2. Information on vessels crossing a line or area</li> </ol> <p>The user can activate the relevant functionalities in the way that it was described in the previous sections. Then he (she) must wait for a few seconds/ minutes the results to be displayed in the System Updates screen.</p> <p>This screen can be accessed by clicking on the orange (📡) button (currently placed at the right side of the footer, the button will be re-allocated to the header bar in the forth-coming release of the application), as shown in the figure.</p>
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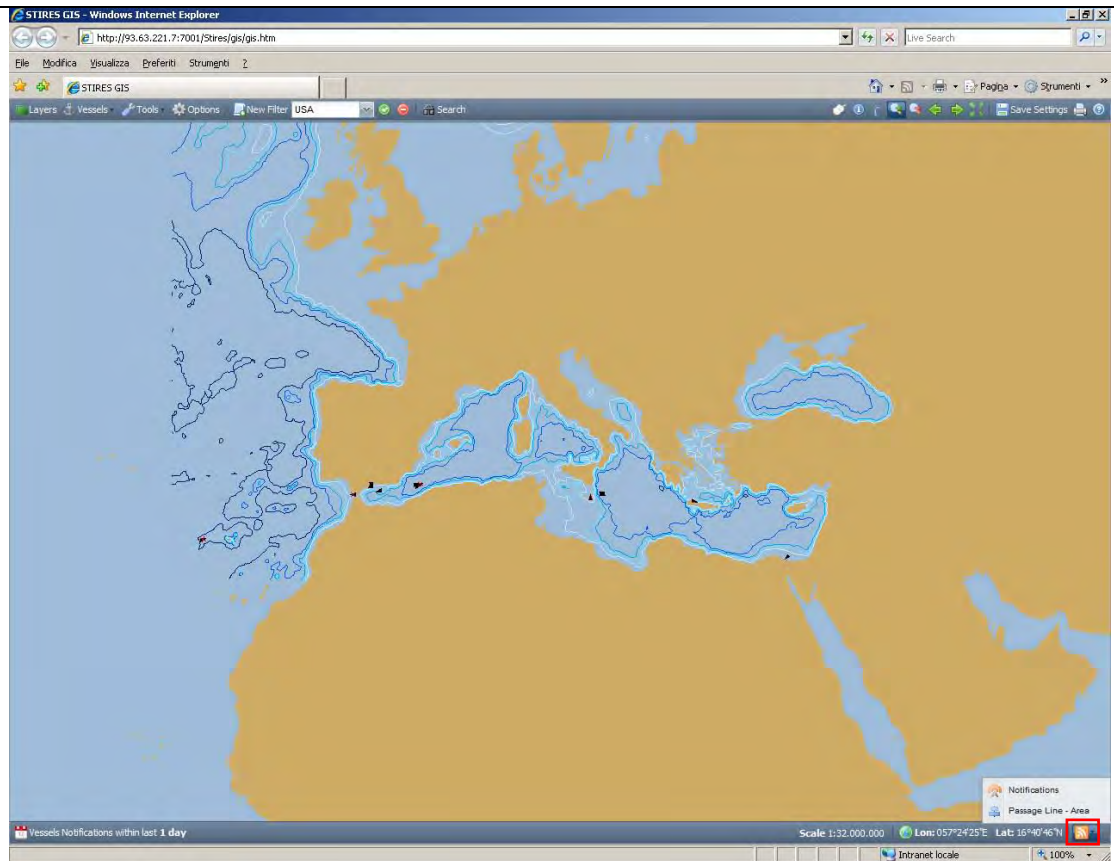


Figure 54 : System updates

After the click, the user must choose one out of the two available options: the Notifications or the Passage Line-Area

Notifications

Clicking on the **notifications**, a new window where a list of requests performed by the user to SSN is opened. (please refer to the previous section of this chapter explaining how to perform a request for notification details)

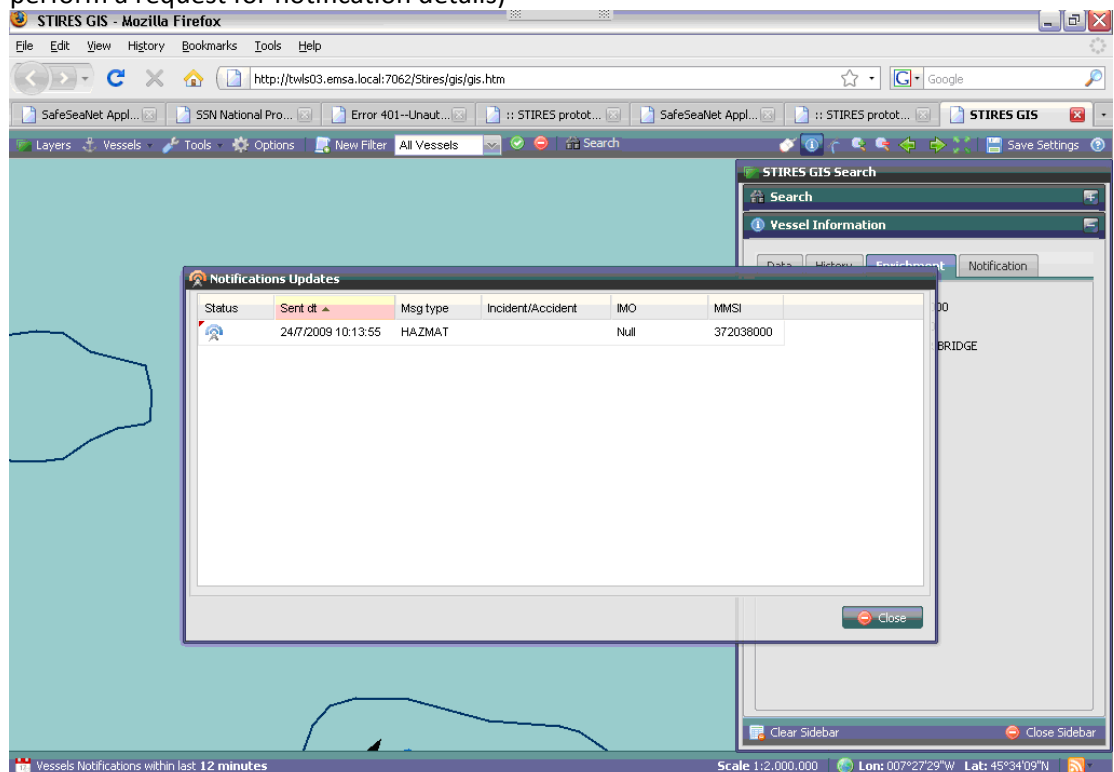
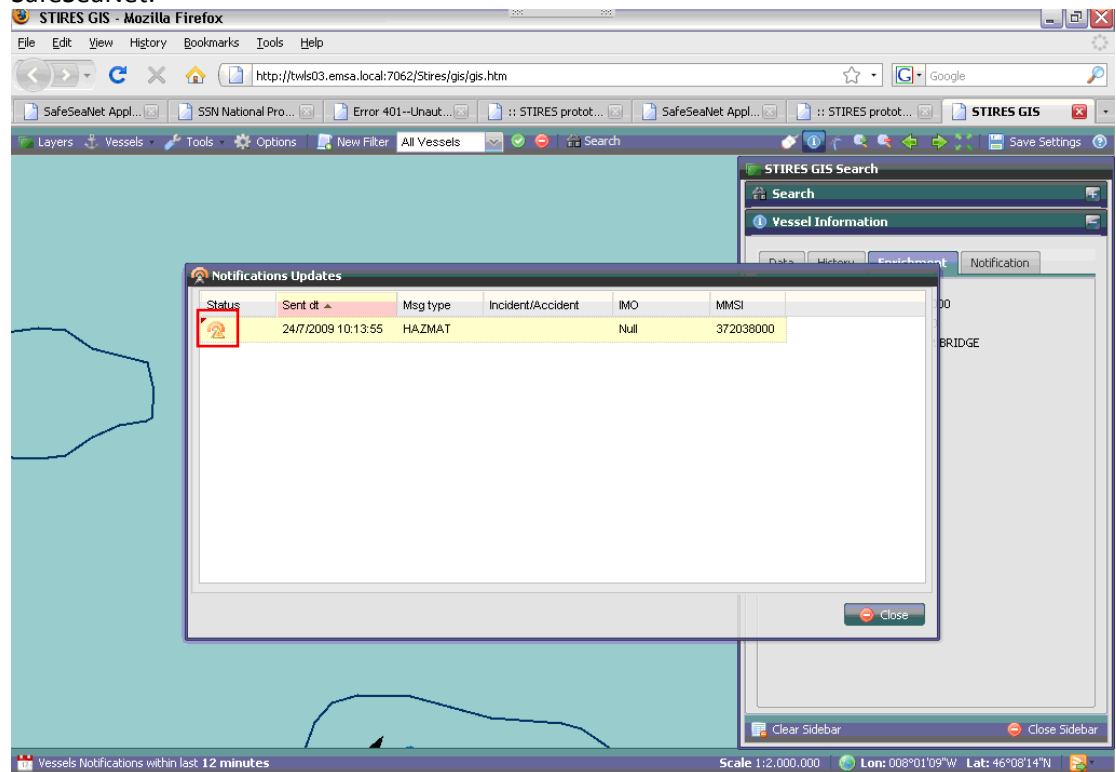


Figure 55 : Notifications updates

In the above figure, the user performed a hazmat detail request to SafeSeaNet. Now, the user must check the antenna icon associated to the request. The colour of the icon has different meanings and changes with the elapsing time. The blue icon says to user that the request was sent correctly and now, the STIRES system is waiting the response from SafeSeaNet.



**Figure 56 : Notifications updates – response time out**

The orange icon, instead, says to the user that some problem occurred, because the time for the response has expired. There are several reasons that cause this time out. For example, the SafeSeaNet system is not accessible or the response contains errors, or simply the notification requested is not available.

When the icon becomes green, it means that a response by SafeSeaNet was received.

Now, the user can click on the notification with the green icon to see the response in a new window.

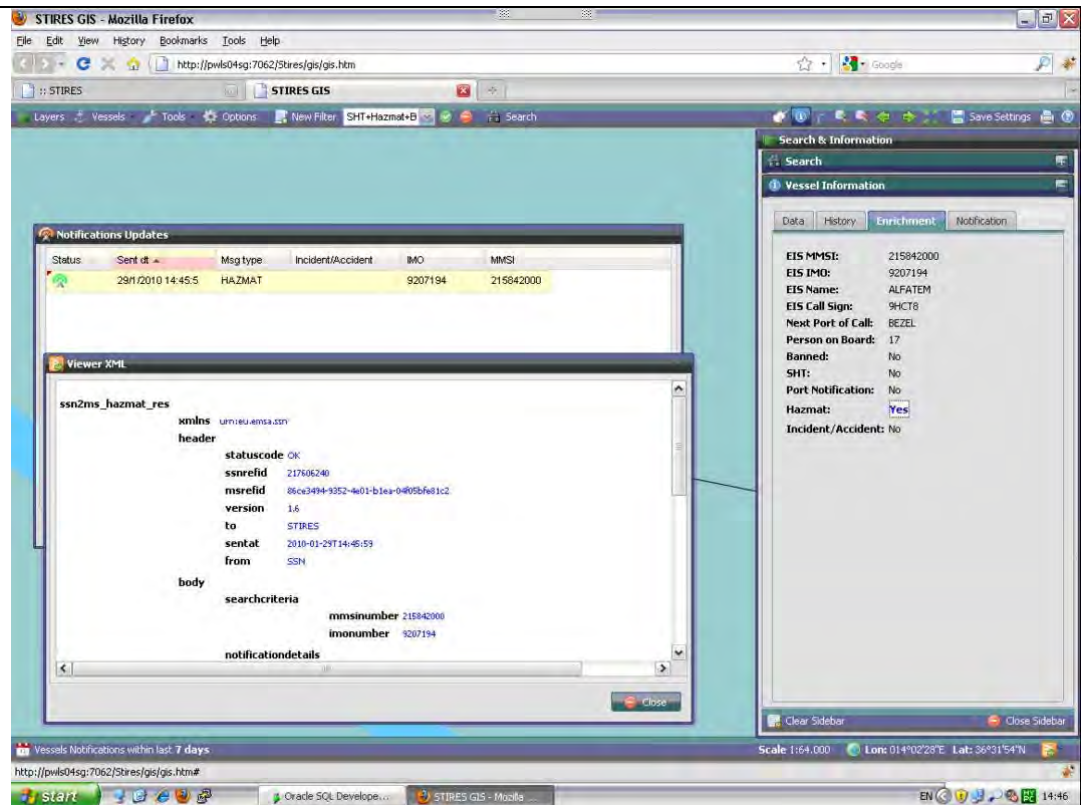


Figure 57: Notification detail window

When a watchdog object is activated with the tool passage by line/area (see the respective section), in the system updates it is possible to see which vessels are crossing the area or the line in near real time. **The user should note that the crossing monitor is performed on the vessels track layers and for this reason, also the visibility criteria and validity time window are important.**

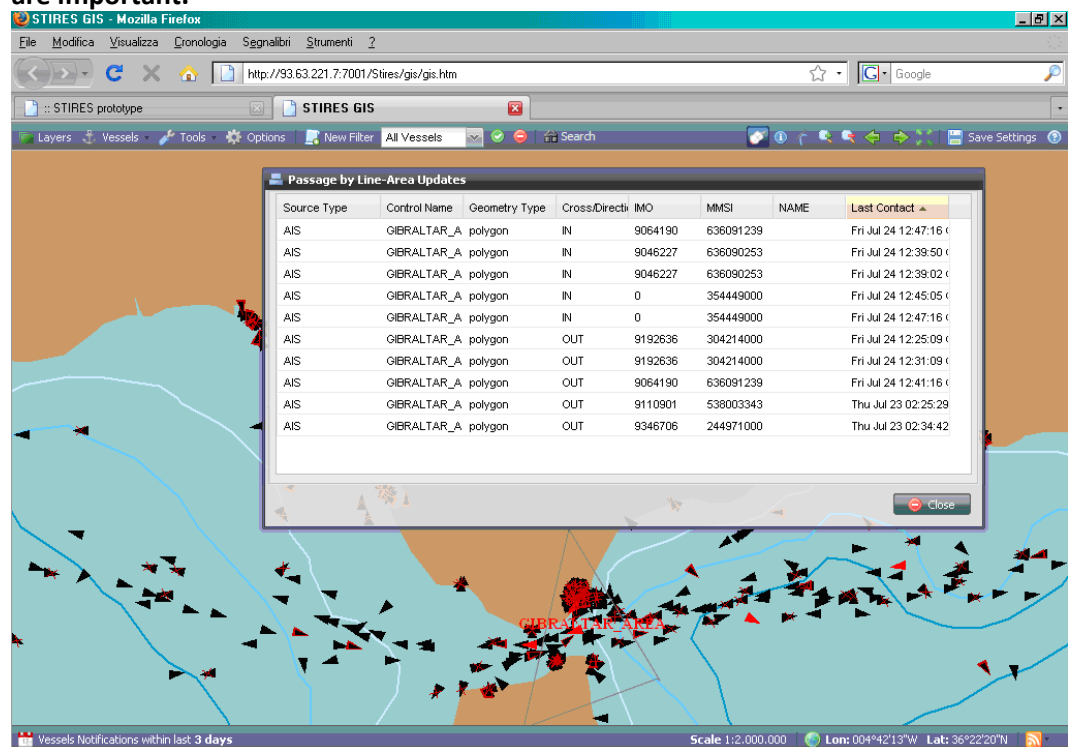
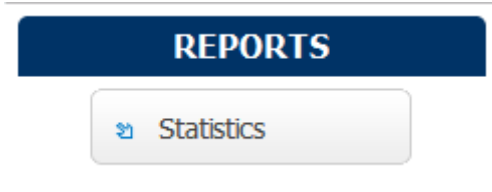
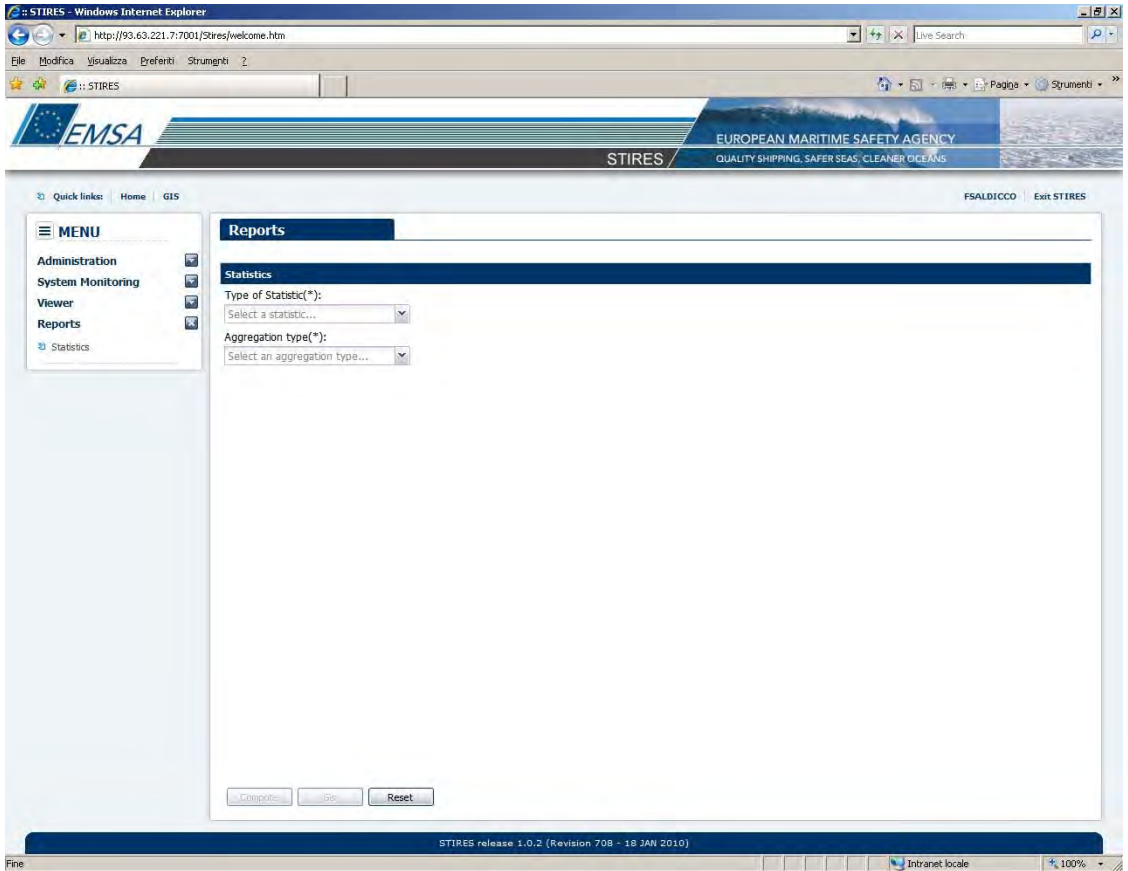


Figure 58 : Passage by line /area updates

To see the results of the tool, the user must click on the system updates icon (📡) and go to the passage line-area section. In the new window, there is a list of vessels that crossing the sea zone in near real time, as shown in the above figure.



### 3 Reports

Introduction	This section describes the functionalities contained within the menu <b>“Reports”</b> .
Reports menu	 <p>Figure 59 : Reports menu</p>
Statistics page	<p>In order to monitor the statistics page, the user can press the <b>“Statistics”</b> button from the <b>“Reports”</b> menu.</p> <p>The system will present the <b>“Statistics”</b> page.</p>  <p>Figure 60 : Statistics page</p> <p>This page consists of 2 parts:</p> <ol style="list-style-type: none"> <li><b>1. Type of statistics</b>, the user will be able to select the type of statistic to be performed in the following list: Cargo type, Crossing Line (Country, Ship or Ship type), Draught, Length, SOG, Ship type, Traffic density, Travel through an area (Country, Ship, Ship type).</li> <li><b>2. Aggregation type</b>, the user will be able to select the type of aggregation required for the</li> </ol>

	<p>generation of the statistics of the selected type. Possible types are: Day, Month, Four month period, Six month period, Year.</p> <p>Once both Statistics and Aggregation types have been entered the generation of the required report can be started by pressing the button <b>“Compute”</b>.</p> <p>By pressing the button <b>“Reset”</b> the operator can delete previously inserted values and re-start selection from the beginning.</p>
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### 3.1 – Cargo type

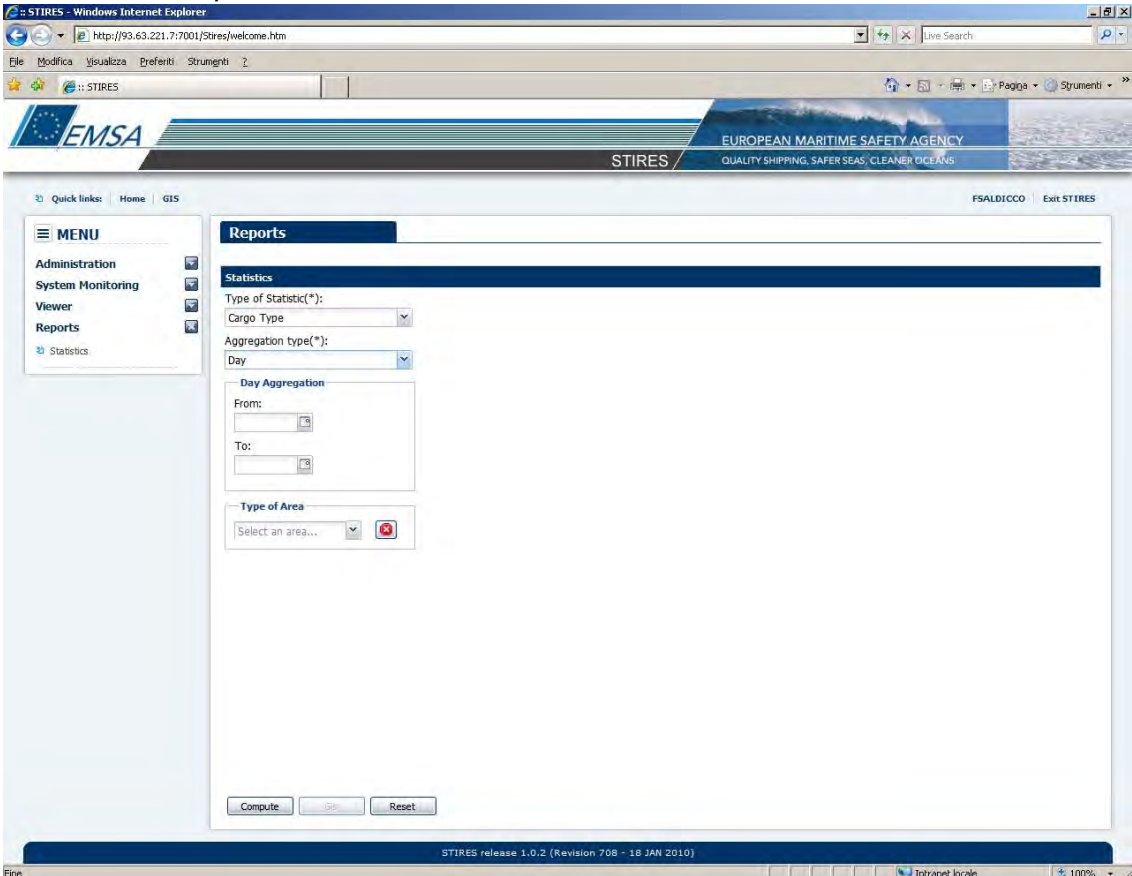
Cargo type statistic	<p>This statistic calculates the number of vessels, received by the system during the period defined by the user, grouped by cargo type (notified by the AIS system). The possible <b>Aggregation types</b> are: day, month, four month period, six month period and year. The user can restrict the elaboration for a specific area. Activating the restriction by area, only the vessel that crossed the area during the period defined by the user are counted in the statistics report.</p> <p>Note: the area must be already defined within the system, through the statistic overlays tool on the GIS. The user should note that the elaboration is pre calculated (it is not performed in real time but it is performed during the night of the next day) and for this reason he will be able to find results restricted to a specific area, only if the aggregation period selected is successive than the creation date of the defined area.</p> <p>This means, for example, that if a user creates an area/line on 25<sup>th</sup> of January 2010, he can see reports restricted for this area the next day and only with aggregation period beginning since the 25<sup>th</sup> of January.</p> 
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Figure 61 : Statistics – Cargo type

Click on the **Reset** button in order to clear all fields.

Once all parameters have been specified, the user can click on the **Compute** button to activate the elaboration of the statistics. The result is displayed within the **Reports** section. This section will show a report for each day/month/four month/six month/year period chosen in the aggregation type drop-down menu.

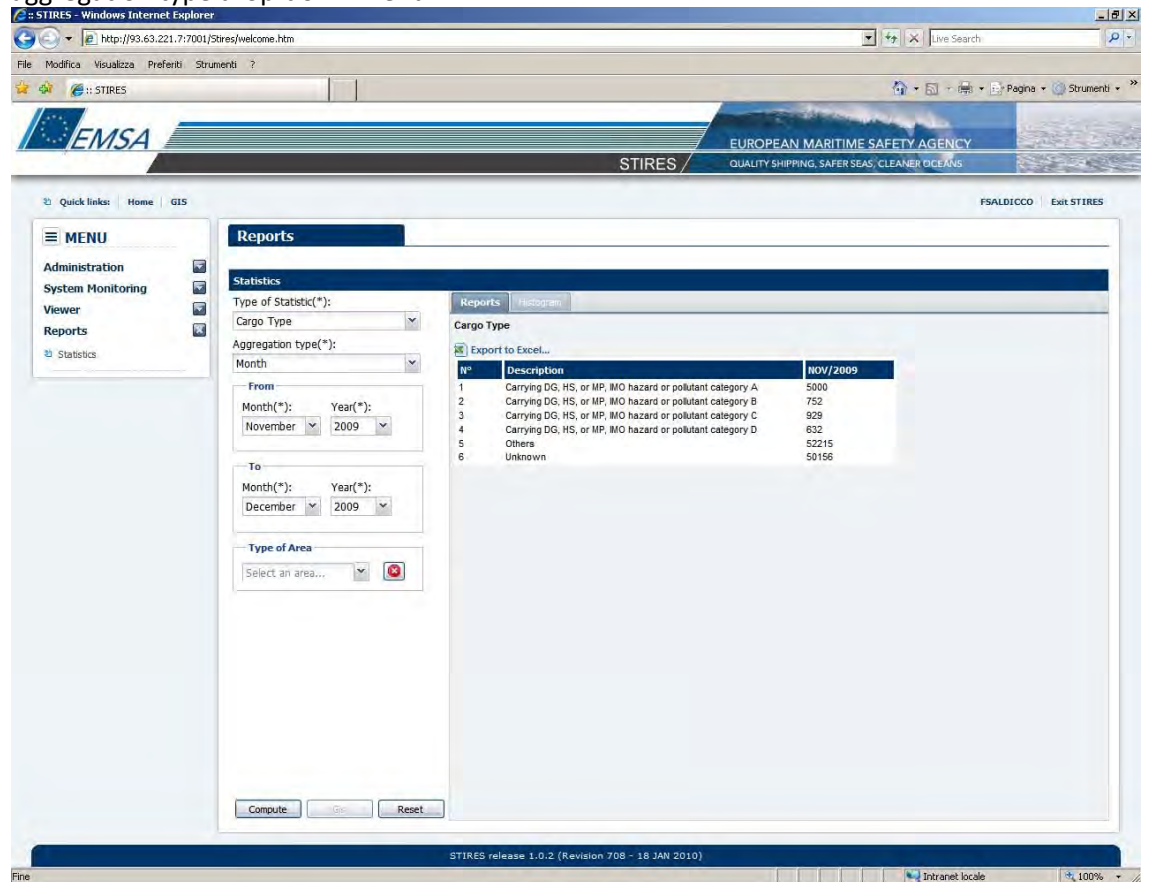
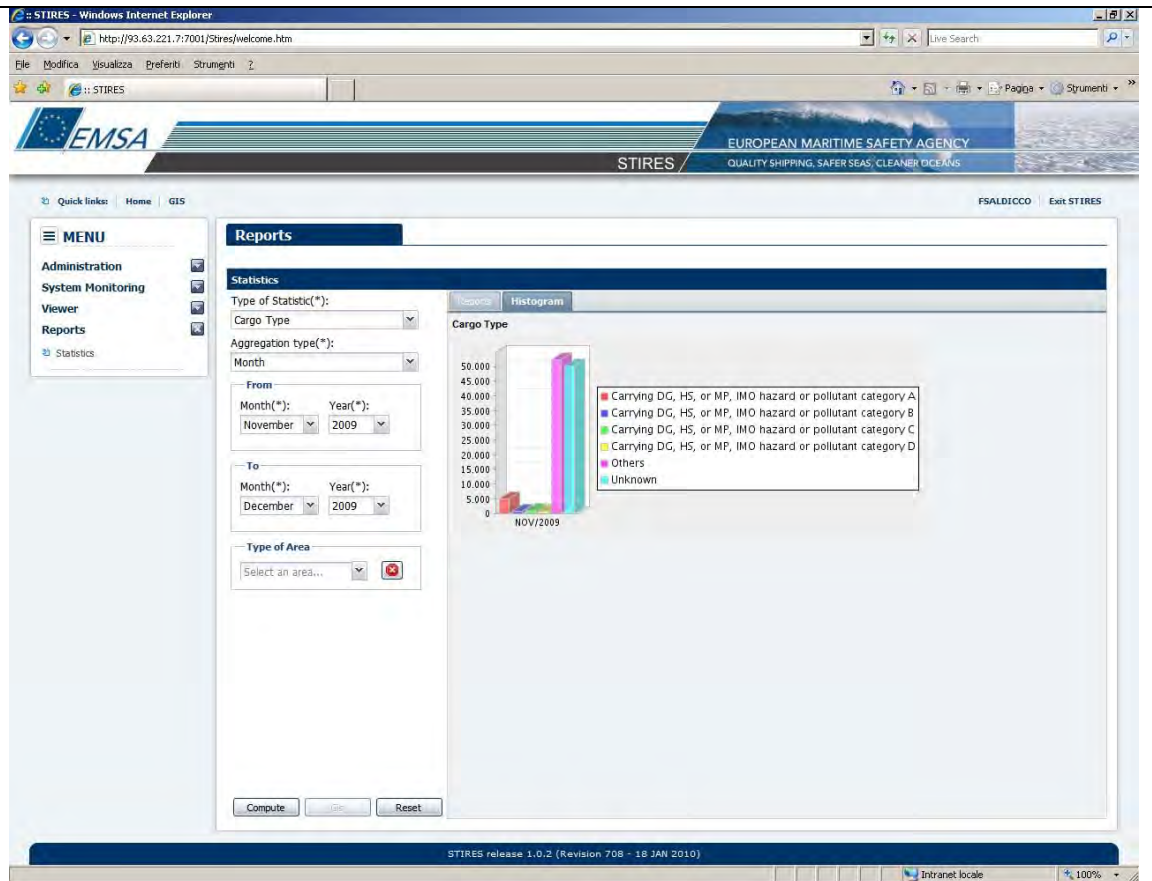


Figure 62 : Statistics – Cargo type in Table format

By clicking on **Histogram** section, the result is displayed in graphical format. Each histogram's column represents a different cargo type and the height of the column defines the number of vessels with a specific cargo type tracked by the system during the aggregation period.



**Figure 63 : Statistics – Cargo type in Histogram format**

In the reports tab, the operator will be also able to export the statistic into a spreadsheet, using the **Export to Excel** button.

## 3.2 – Crossing Line (Country)

Crossing Line (Country) statistic	<p>This statistic calculates the number of vessels, whose flag is of the selected Country that crossed a specified Crossing line in the timeframe specified. Note that the crossing line must be already present within the system. The possible <b>Aggregation types</b> are: day, month, four month period, six month period and year. The crossings are calculated for the following directions: North to South (NS) and South to North (SN) or East to West (EW) and West to East (WE).</p> <p>To compute the statistic report the user shall select the desired line and country. These information are mandatory.</p>
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The screenshot shows a web browser window displaying the STIRES application. The browser's address bar shows the URL `http://93.63.221.7:7001/Stires/welcome.htm`. The page features the EMSA logo and the text "EUROPEAN MARITIME SAFETY AGENCY" and "QUALITY SHIPPING, SAFER SEAS, CLEANER OCEANS". The main content area is titled "Reports" and contains a "Statistics" section. This section has several dropdown menus and buttons:

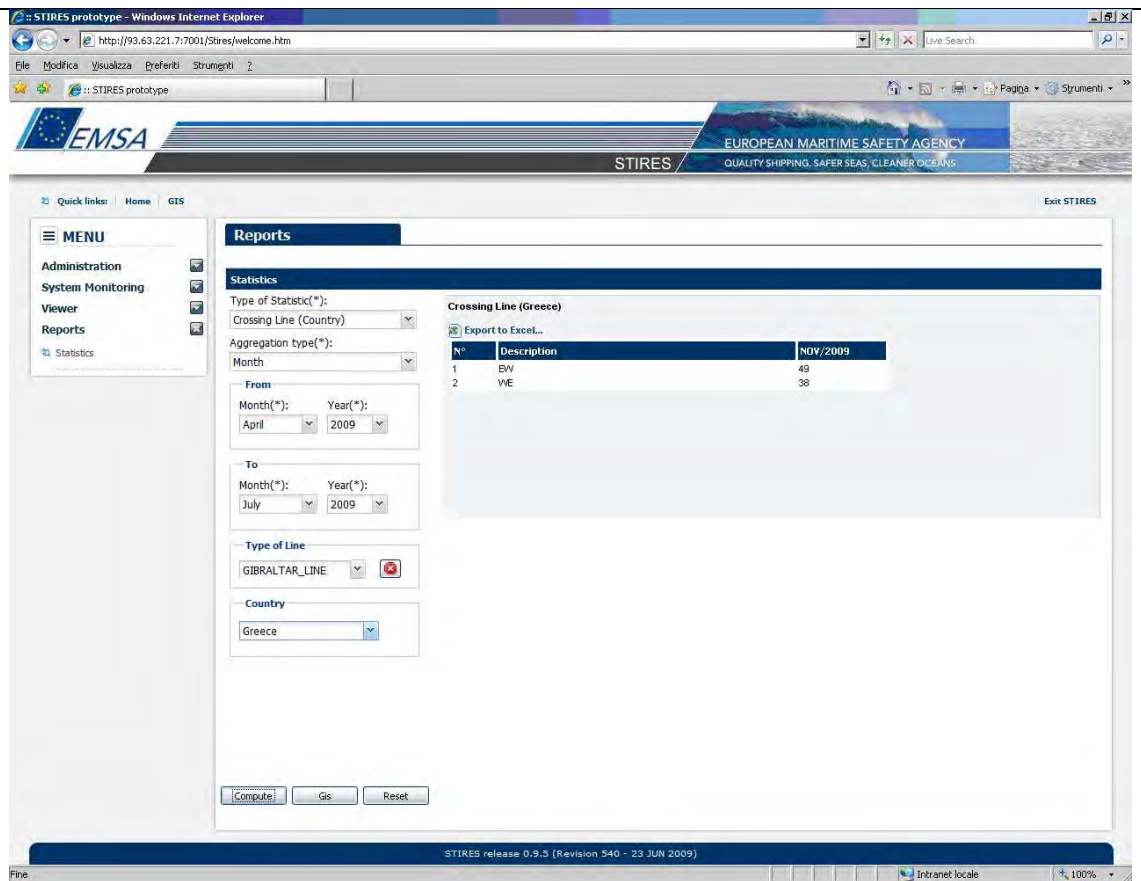
- Type of Statistic(\*)**: A dropdown menu with "Crossing Line (Country)" selected.
- Aggregation type(\*)**: A dropdown menu with "Month" selected.
- From**: Two dropdown menus for "Month(\*)" (April) and "Year(\*)" (2009).
- To**: Two dropdown menus for "Month(\*)" (July) and "Year(\*)" (2009).
- Type of Line**: A dropdown menu with "GIBRALTAR\_LINE" selected.
- Country**: A dropdown menu with "Greece" selected.

At the bottom of the form are three buttons: "Compute", "Gis", and "Reset". The footer of the page indicates "STIRES release 0.9.5 (Revision 540 - 23 JUN 2009)".

**Figure 64 : Statistics – Crossing Line (Country)**

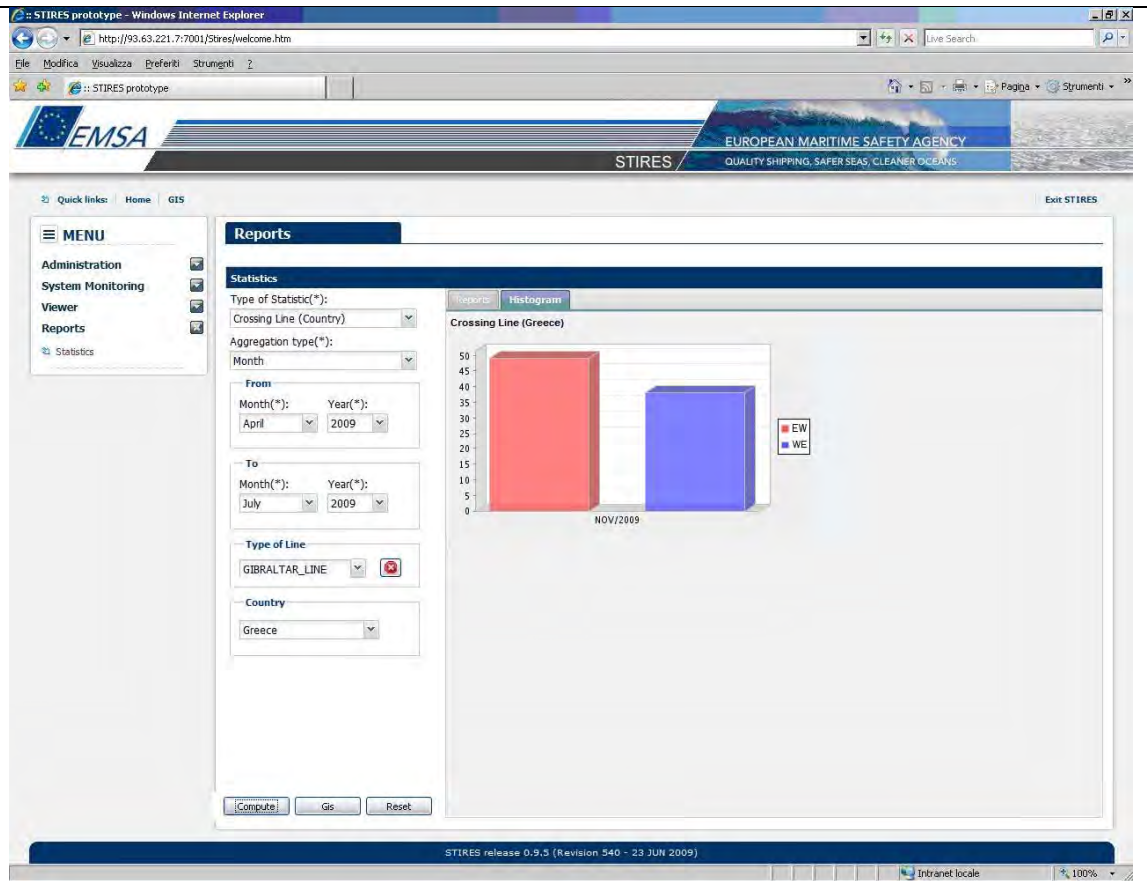
Click on the **Reset** button in order to clear all fields.

Once all parameters have been specified, the user should click on the **Compute** button to activate the elaboration of the statistic. The result is displayed within the **Reports** section.



**Figure 65 : Statistics – Crossing line (country) in Table format**

When the user click on the **Histogram** tab, the result is displayed in graphical format. Each histogram's column represents a different type of crossing (as reported in the legend) and the height of the column defines the number of vessels with a specific country's flag that crossed the line during the aggregation period.



**Figure 66 : Statistics – Crossing line(country) in Histogram format**

The user will be able to export the statistic into a spreadsheet, using the **Export to Excel** button.

The crossing line statistics provide also a GIS representation that can be viewed clicking on the GIS button.

After the click, a GIS instance is opened in a new browser's tab where the user will be able to see the line and the histogram representing the crossing line statistics.

In particular, the user will be able to see the line chosen by the user divided in ten different segments. On each segment, the user will see an histogram representing the number of vessels (with country flag) that crossed the lines in that specific segment. The cardinality is reported also in a numeric way on the histogram's column. Also the colour of the column gives to the user a feedback about the number of vessels crossed the lines as described in the legend (The histogram indicates where the ships are coming from).



### 3.3 – Crossing Line (Ship)

Crossing Line (Ship) statistic	<p>This statistics calculates, for a specified ship identified by its MMSI number, the number of times that the vessel crossed the given Crossing line. Note that the crossing line must be already present within the system. The possible <b>Aggregation types</b> are: day, month, four month period, six month period and year. The crossings are calculated for the following directions : North to South (NS) and South to North (SN) or East to West (EW) and West to East (WE).</p> <p>In order to compute the statistics report the user shall select the desired line and insert the MMSI of the desired vessel. These information are mandatory.</p>
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The screenshot shows the STIRES web application in a Windows Internet Explorer browser. The address bar displays the URL <http://93.63.221.7:7001/Stires/welcome.htm>. The page features the EMSA logo and the text "EUROPEAN MARITIME SAFETY AGENCY" and "QUALITY SHIPPING, SAFER SEAS, CLEANER OCEANS". The main content area is titled "Reports" and contains a "Statistics" section. The form fields are as follows:

- Type of Statistic(\*): Crossing Line (Ship)
- Aggregation type(\*):
- Month:
- From: Month(\*) November, Year(\*) 2009
- To: Month(\*) December, Year(\*) 2009
- Type of Line: GIBALTAR\_LINE
- Ship (MMSI): 224641000

At the bottom of the form are three buttons: "Compute", "Gis", and "Reset". The status bar at the bottom of the browser window indicates "STIRES release 1.0-2 (Revision 708 - 18 JAN 2010)".

**Figure 67 : Statistics – Crossing Line (Ship)**

Click on the **Reset** button in order to clear all fields.

Once all parameters have been specified, you should click on the **Compute** button to activate the elaboration of the statistic. The result is displayed within the **Reports** section.

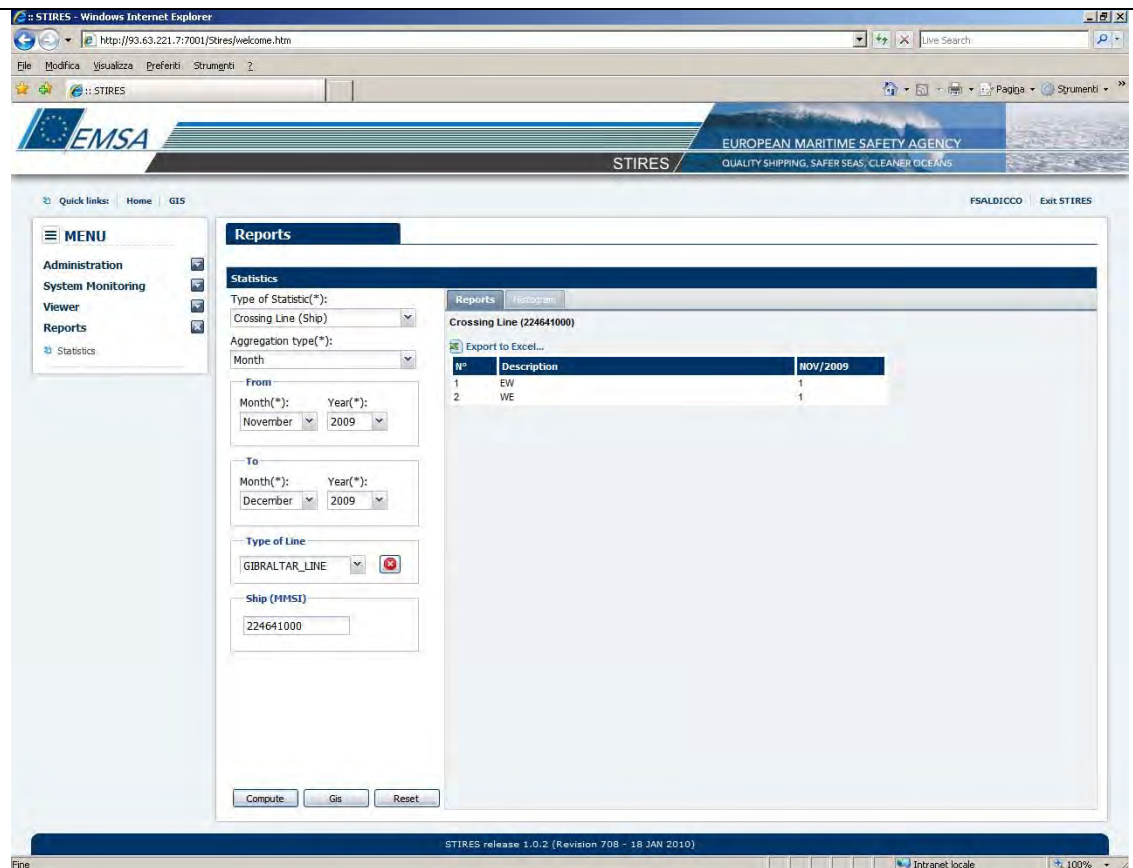


Figure 68 : Statistics – Crossing Line (Ship) in Table format

When the user select the **Histogram** tab, the result is displayed in graphical format.

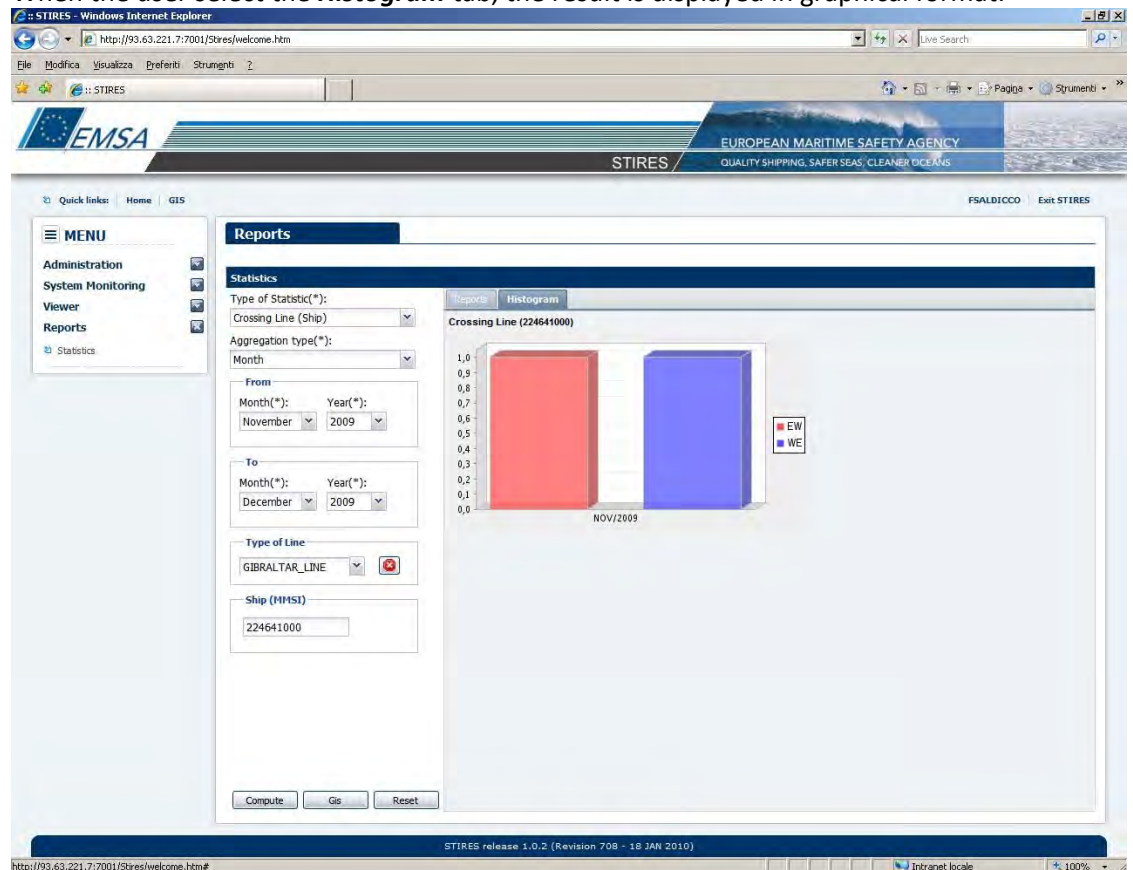


Figure 69 : Statistics – Crossing Line (Ship) in Histogram format

The user will be able to export the statistic into a spreadsheet, using the **Export to Excel** button.

The crossing line statistics provide also a GIS representation. In order to see it, the user shall click on the GIS button.

After the click, a GIS instance is opened in a new tab where the user will be able to see the line and the histogram representing the crossing line statistic.

### 3.4 – Crossing Line (Ship type)

Crossing Line  
(Ship type)  
statistic

This statistics calculates, for a specified ship type, the number of vessels of the given type (reported in the AIS messages) crossed the Crossing line selected by the user. Note that the crossing line must be already present within the system. The possible **Aggregation types** are: day, month, four month period, six month period and year. The crossings are calculated for the following directions: North to South (NS) and South to North (SN) or East to West (EW) and West to East (WE).

In order to compute the statistics report the user shall select the desired line and ship type. These information are mandatory.

Figure 70 : Statistics – Crossing line(ship type)

Click on the **Reset** button in order to clear all fields.

Once all parameters have been specified, you should click on the **Compute** button to activate the elaboration of the statistic. The result is displayed within the **Reports** section.

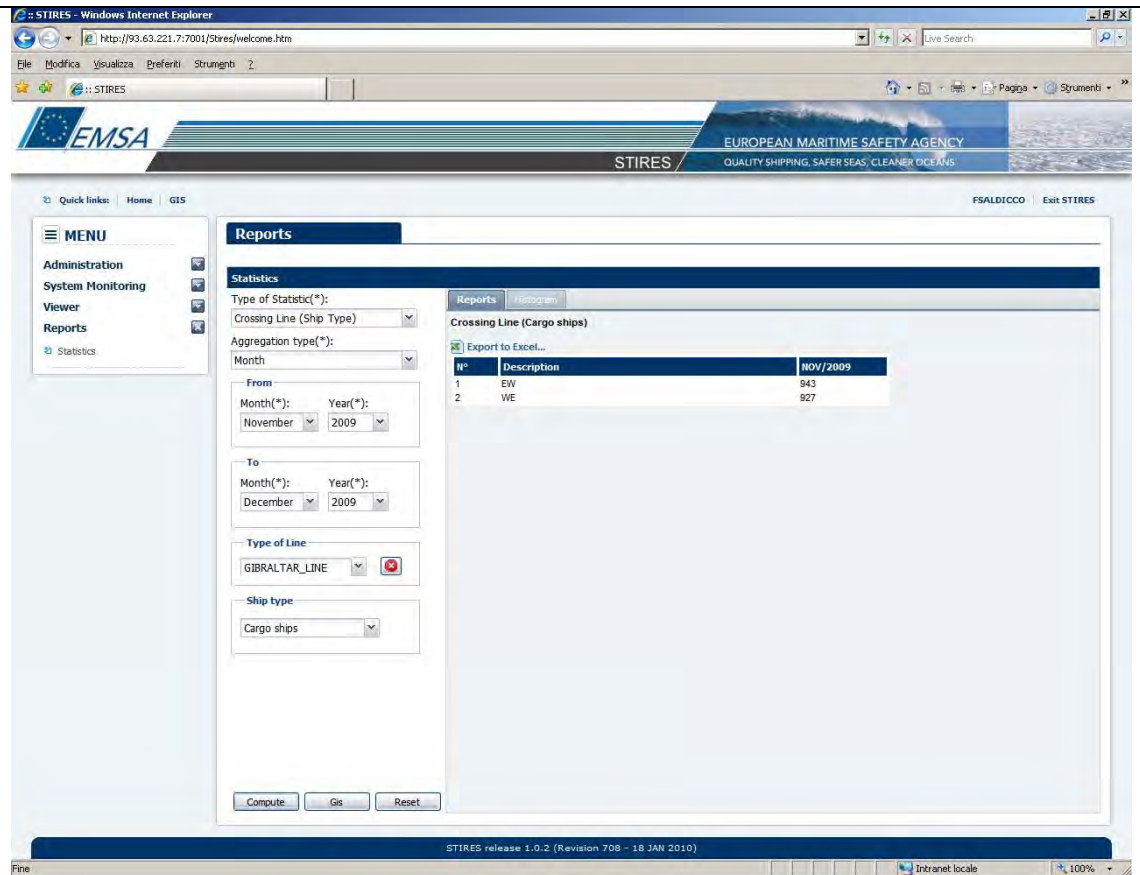


Figure 71 : Statistics – Crossing line(ship type) in Table format

When the user select the **Histogram** tab, the result is displayed in graphical format.

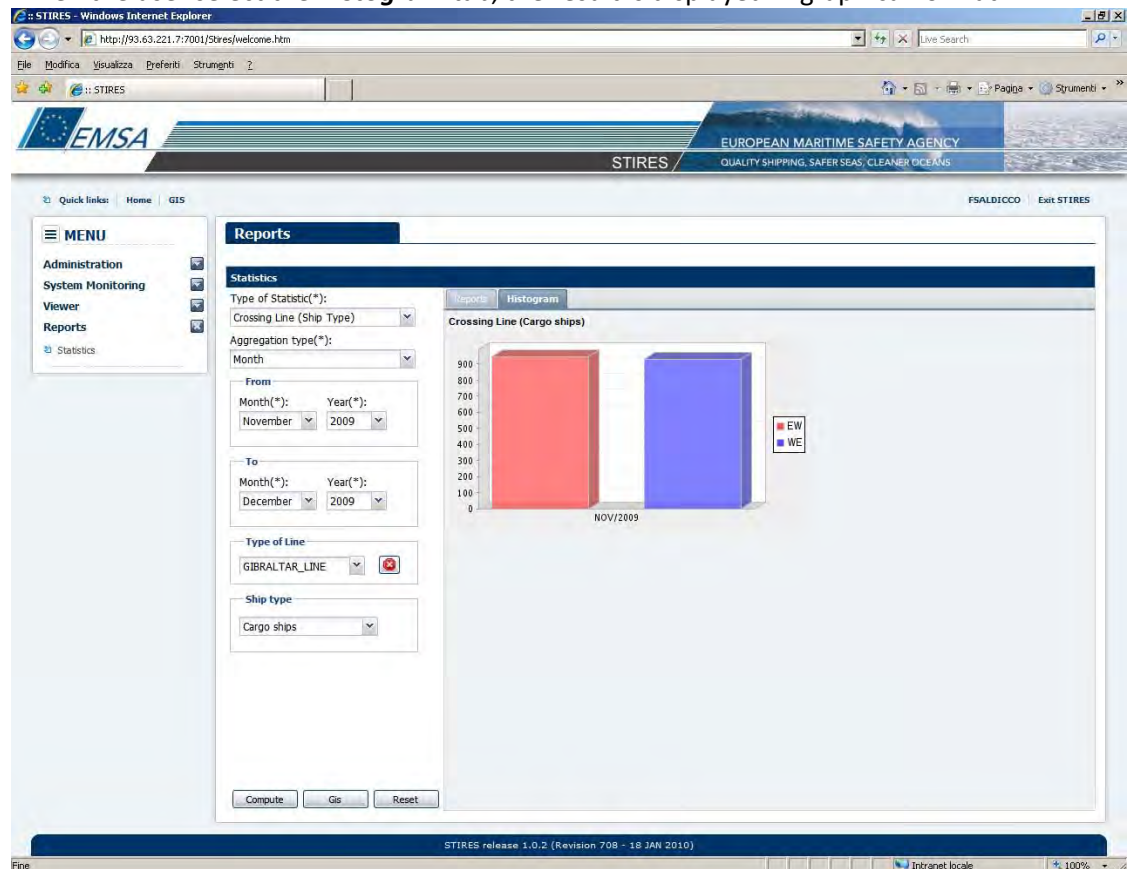


Figure 72 : Statistics – Crossing line(ship type) in Histogram format

The user will be able to export the statistic into a spreadsheet, using the **Export to Excel**



button. The crossing line statistics provide also a GIS representation. In order to see it, the user shall click on the GIS button. After the click, a GIS instance is opened in a new tab where the user will be able to see the line and the histogram representing the crossing line statistic.

### 3.5 – Draught

Draught statistic

This statistic calculates the number of vessels received by the system during the specified aggregation period, grouped by draught values. The possible **Aggregation types** are: day, month, four month period, six month period and year. You can restrict the elaboration for a specific area (note: the area must be already present within the system).

**Figure 73 : Statistics – Draught**

Click on the **Reset** button in order to clear all fields. Once all parameters have been specified, you should click on the **Compute** button to activate the elaboration of the statistic. The result is displayed within the **Reports** section.

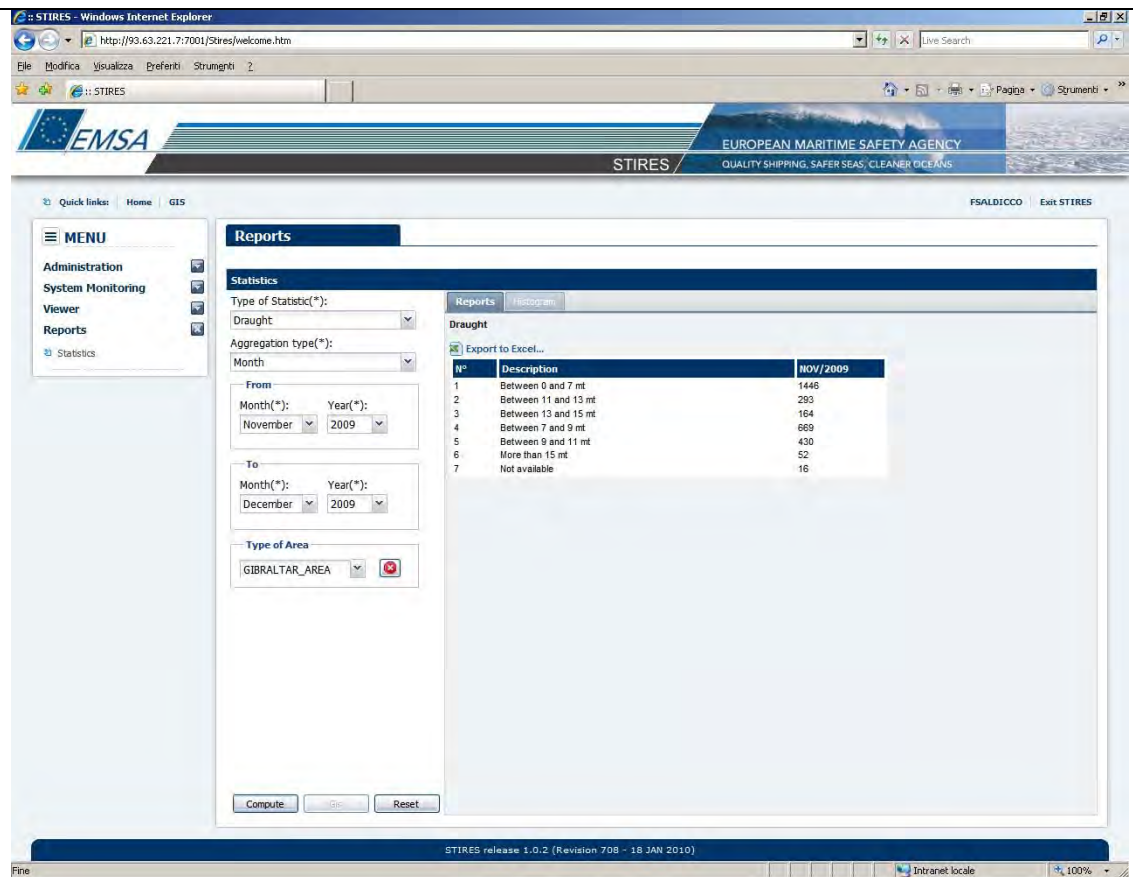


Figure 74 : Statistics – Draught in Table format

When the user click on **Histogram** section, the result is displayed in graphical format.

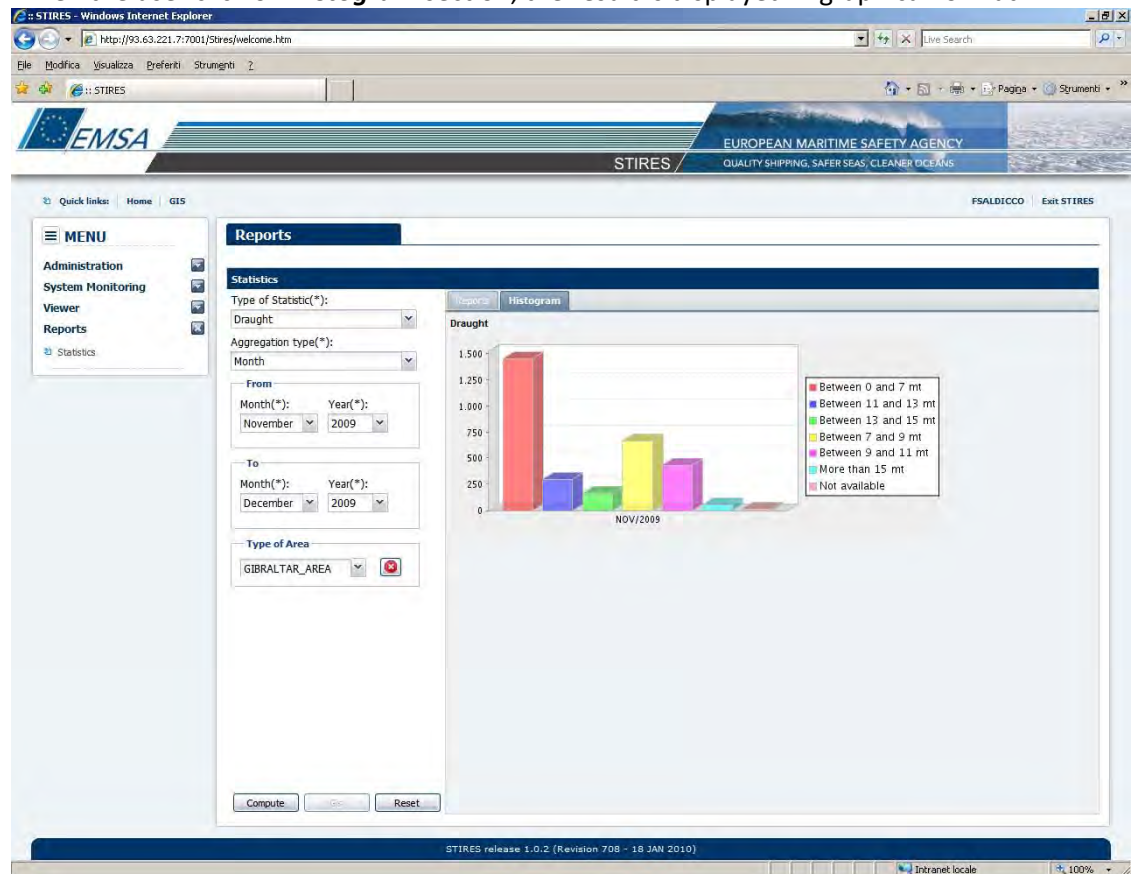


Figure 75 : Statistics – Draught in Histogram format

The user will be able to export the statistic into a spreadsheet, using the **Export to Excel** button.

### 3.6 – Length

Length  
statistic

This statistic calculates the number of vessels received by the system during the specified aggregation period, grouped by length values. The possible **Aggregation types** are: day, month, four month period, six month period and year. You can restrict the elaboration for a specific area (note : the area must be already present within the system).

**Figure 76 : Statistics – Length**

Click on the **Reset** button in order to clear all fields. Once all parameters have been specified, you should click on the **Compute** button to activate the elaboration of the statistic. The result is displayed within the **Reports** section.

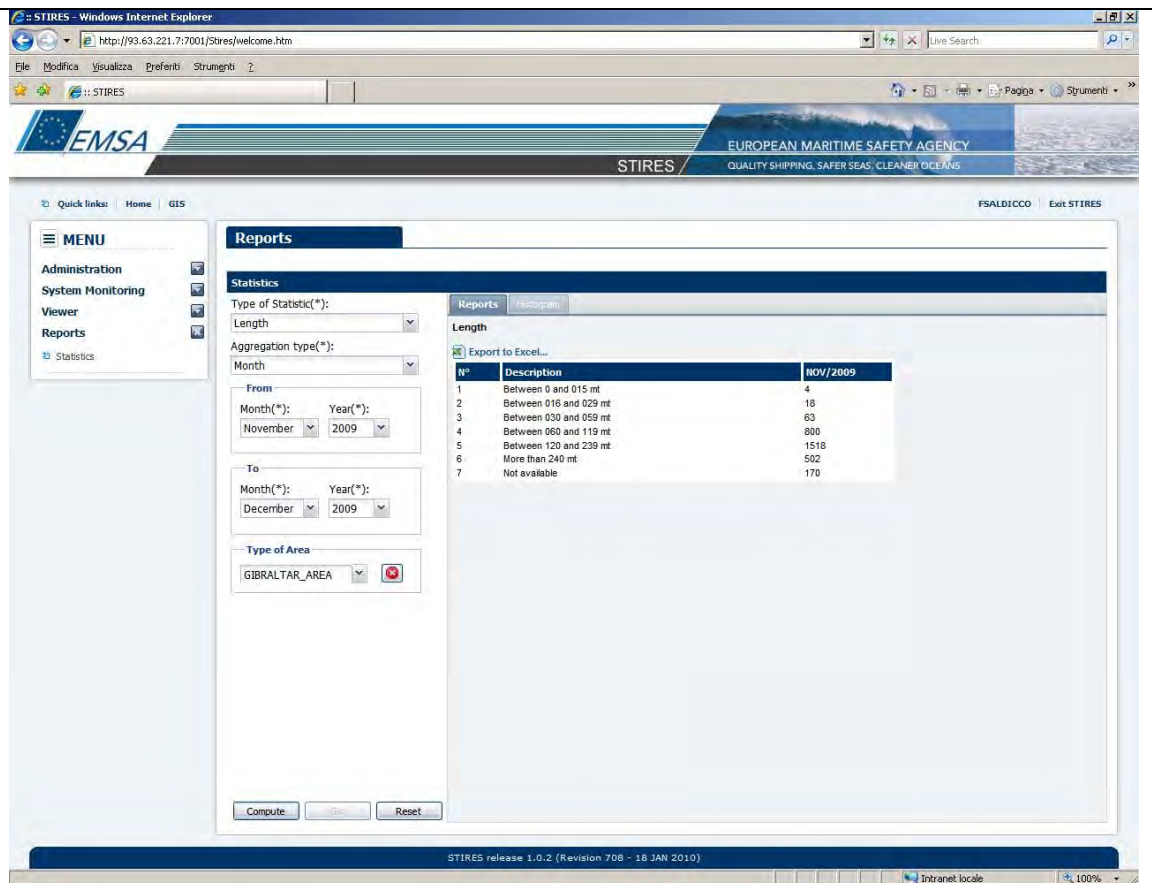


Figure 77 : Statistics – Length in Table format

When the user click on **Histogram** section, the result is displayed in graphical format.

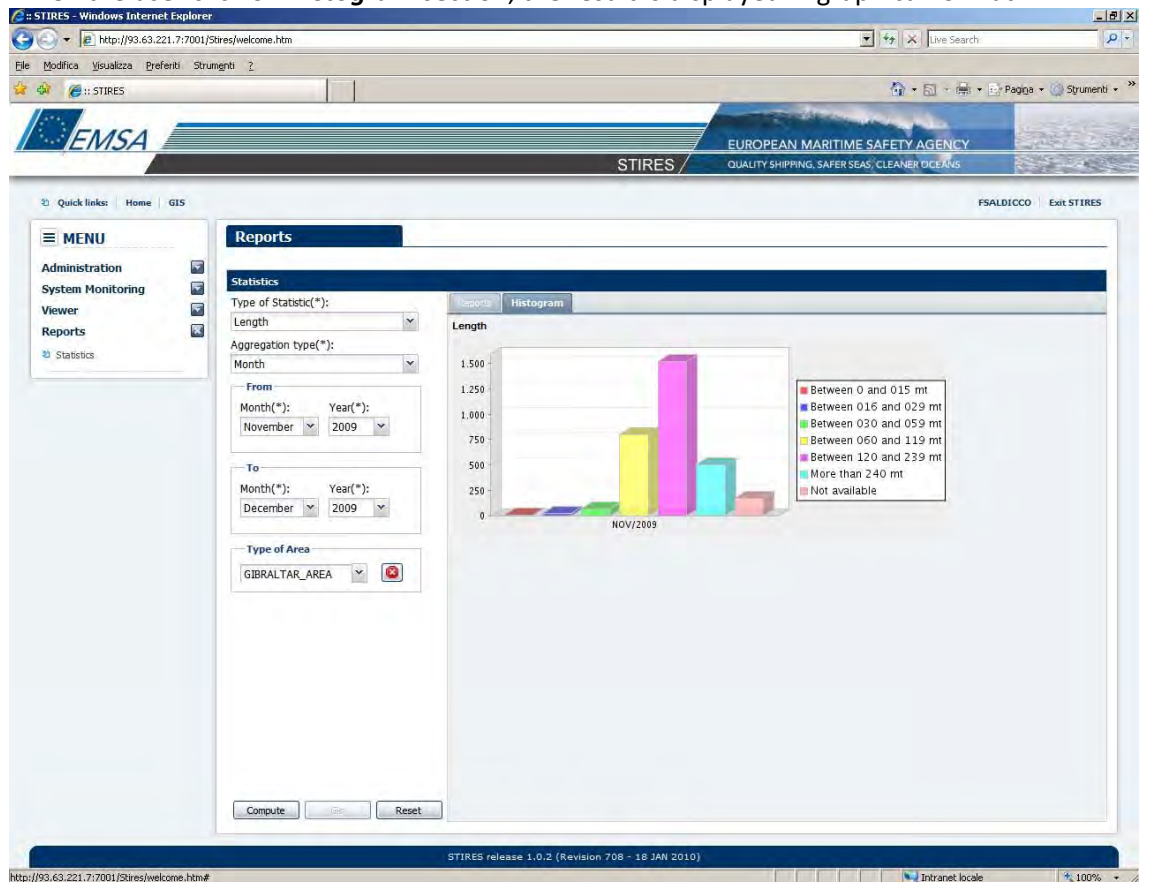
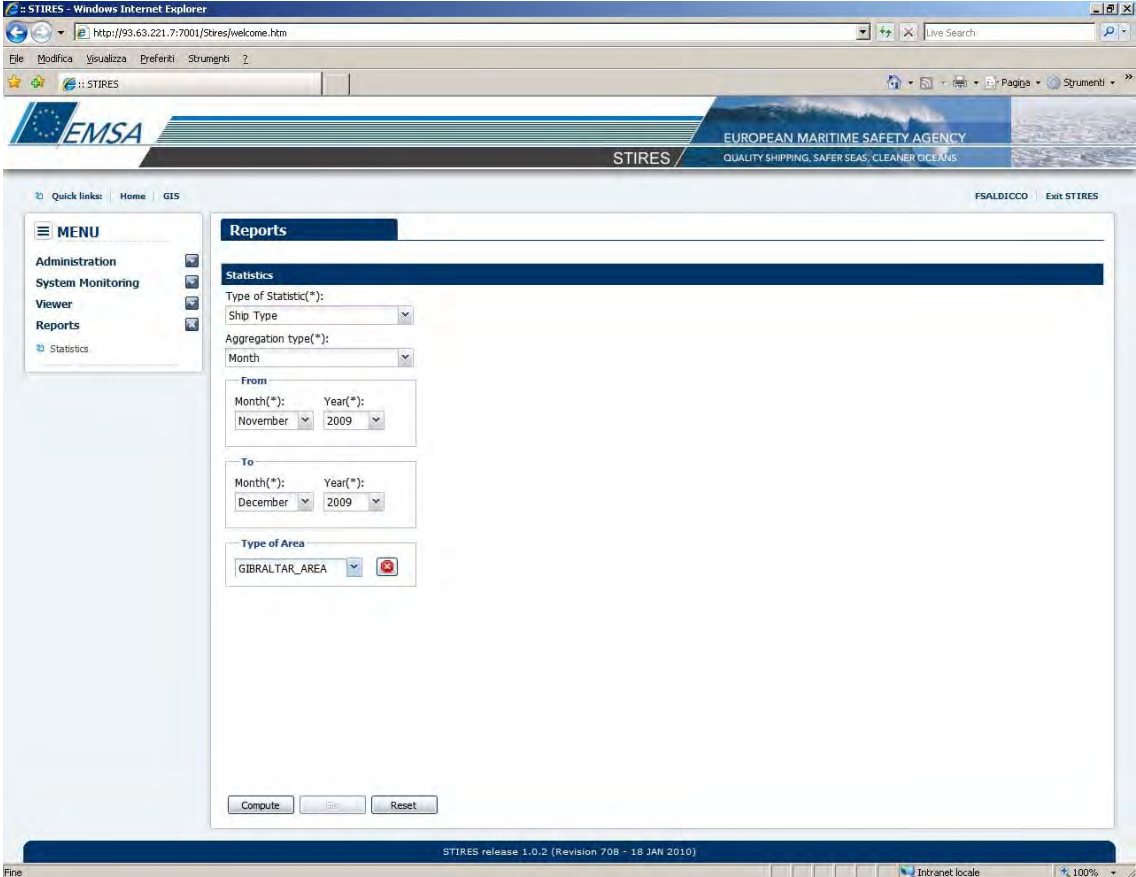


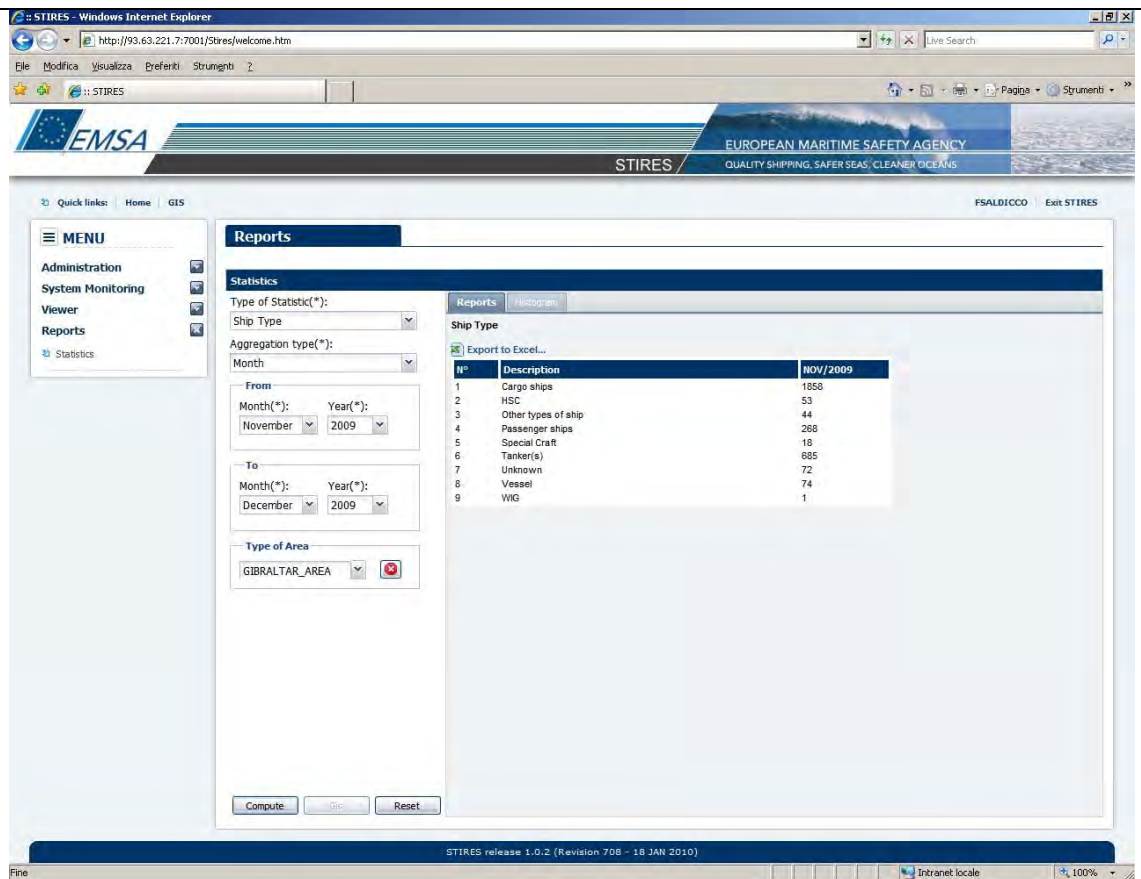
Figure 78 : Statistics – Length in Histogram format



The user will be able to export the statistic, using the **Export to Excel** button.

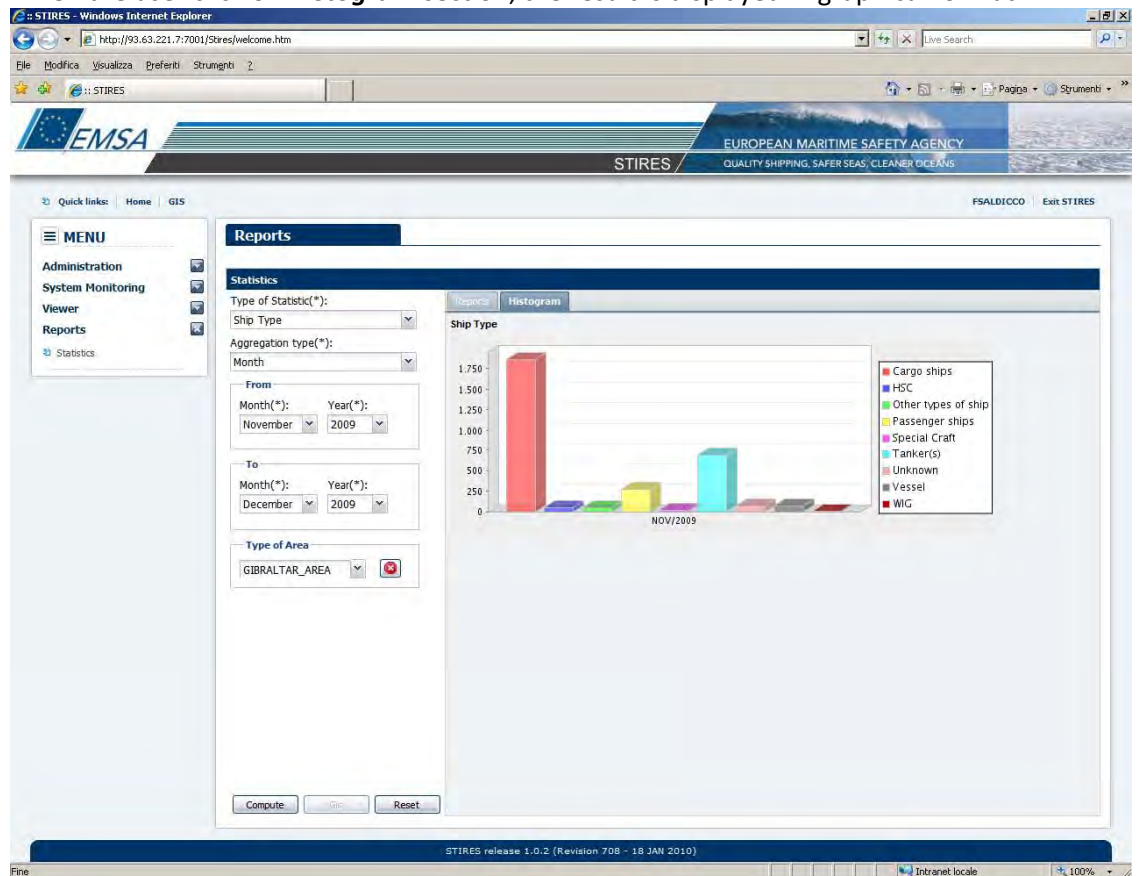
### 3.7 – Ship Type

Ship type statistic	<p>This statistic calculates the number of vessels received by the system during the selected aggregation period, grouped by ship type. The possible <b>Aggregation types</b> are: day, month, four month period, six month period and year. The user can restrict the elaboration for a specific area (note : the area must be already present within the system).</p>  <p><b>Figure 79 : Statistics – Ship type</b></p> <p>Click on the <b>Reset</b> button in order to clear all fields.</p> <p>Once all parameters have been specified, the user should click on the <b>Compute</b> button to activate the elaboration of the statistic. The result is displayed within the <b>Reports</b> section.</p>
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**Figure 80 : Statistics – Ship type in Table format**

When the user click on **Histogram** section, the result is displayed in graphical format.



**Figure 81 : Statistics – Ship type in Histogram format**

The user will be able to export the statistic into a spreadsheet, using the **Export to Excel** button.

### 3.8 – SOG

#### SOG statistic

This statistic calculates the number of vessels received by the system, grouped by Speed Over Ground values reached by the vessels during the selected aggregation period. The possible **Aggregation types** are: day, month, four month period, six month period and year. The user can restrict the elaboration for a specific area (note : the area must be already present within the system).

**Figure 82 : Statistics – SOG**

Click on the **Reset** button in order to clear all fields. Once all parameters have been specified, you should click on the **Compute** button to activate the elaboration of the statistic. The result is displayed within the **Reports** section.

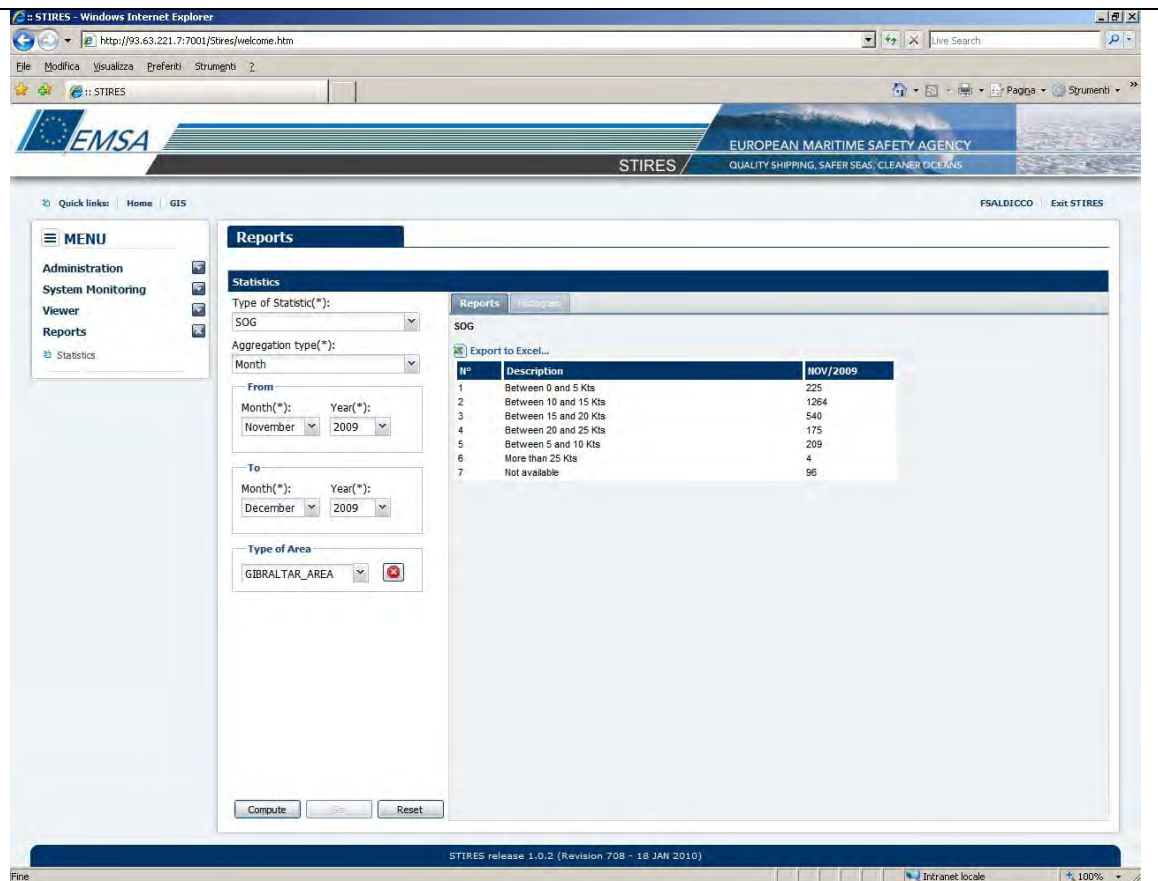


Figure 83 : Statistics – SOG in Table format

When the user click on **Histogram** section, the result is displayed in graphical format.

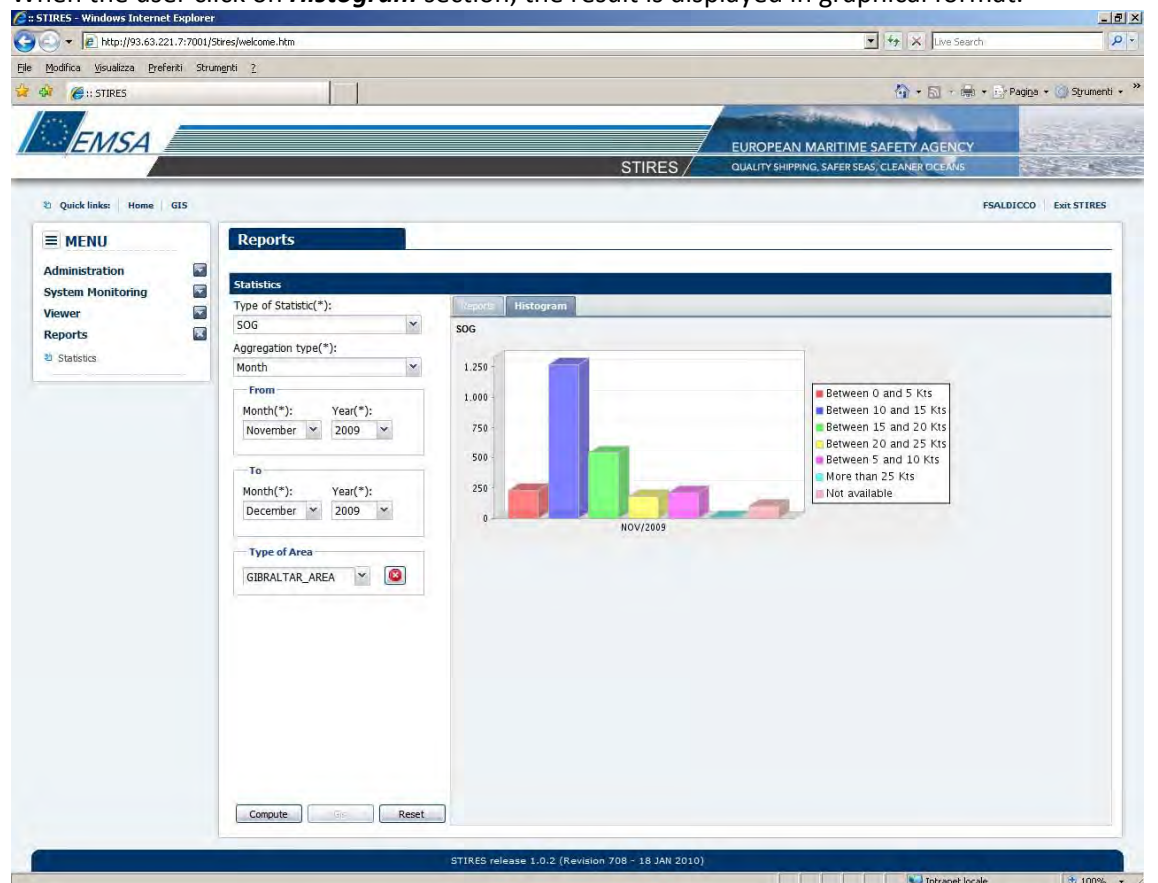


Figure 84 : Statistics – SOG n Histogram format

The user will be able to export the statistic into a spreadsheet, using the **Export to Excel** button.

### 3.9 – Traffic density

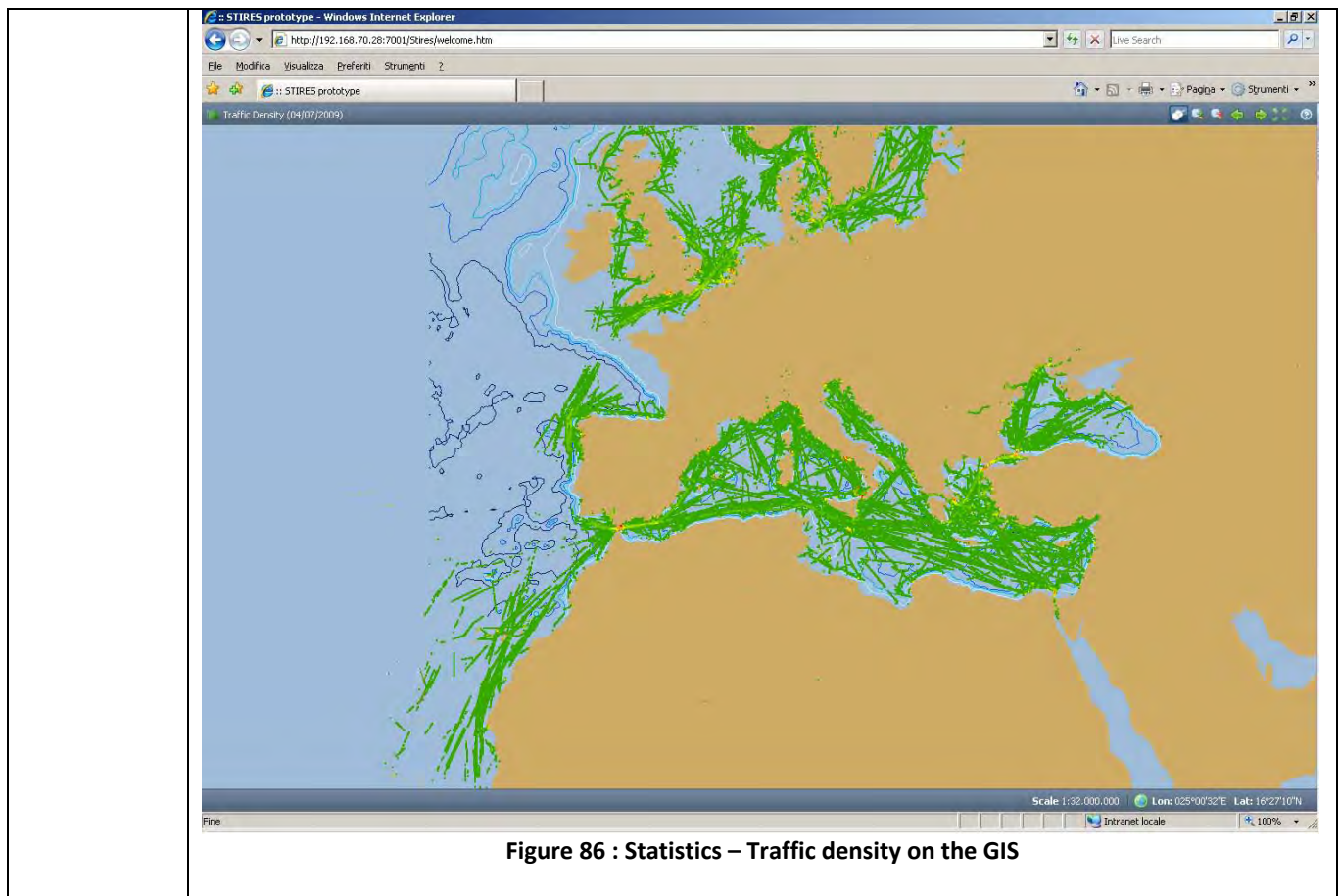
Traffic density

This statistic displays the traffic density on the GIS. The possible **Aggregation types** are: day or month. Every colour reported in the legend, indicates the number of vessels that crossed a specific sea zone.

**Figure 85 : Statistics – Traffic density**

Click on the **Reset** button in order to clear all fields. Once all parameters have been specified, the user can click on the **GIS** button to activate the elaboration of the statistic. The result is displayed within a new GIS window.





### 3.10 – Travel through an area (Country)

Travel through an area (Country) statistic	This statistic calculates the number of vessels, whose flag is of the selected Country that crossed a specified area during the aggregation period selected by the user. Note that the area must be already present within the system. The possible <b>Aggregation types</b> are: day, month, four month period, six month period and year.
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The screenshot shows the STIRES web application running in a Windows Internet Explorer browser. The browser's address bar displays the URL `http://93.63.221.7:7001/Stires/welcome.htm`. The page features the EMSA logo and the text "EUROPEAN MARITIME SAFETY AGENCY" and "QUALITY SHIPPING, SAFER SEAS, CLEANER OCEANS".

The main content area is titled "Reports" and contains a "Statistics" section. The form includes the following fields and controls:

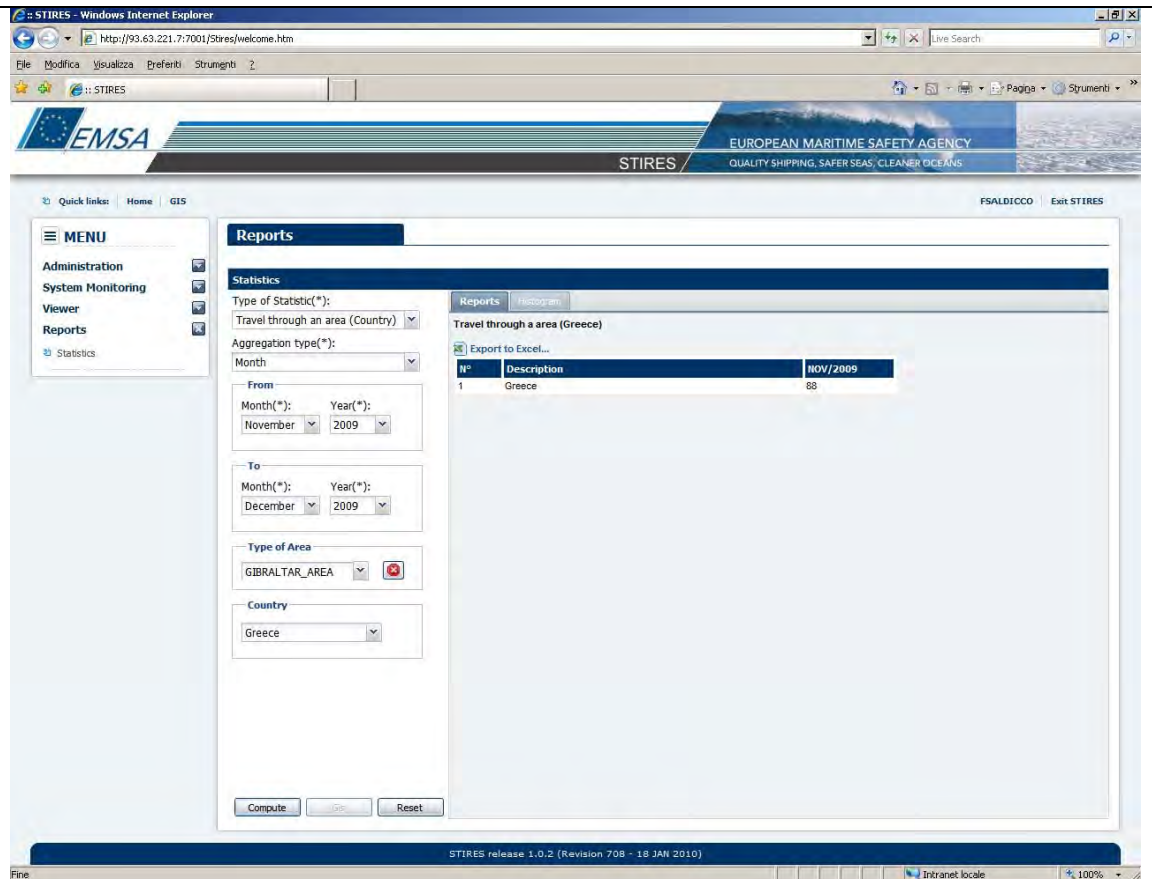
- Type of Statistic(\*)**: A dropdown menu with the selected option "Travel through an area (Country)".
- Aggregation type(\*)**: A dropdown menu with the selected option "Month".
- From**: Fields for "Month(\*)" (selected "November") and "Year(\*)" (selected "2009").
- To**: Fields for "Month(\*)" (selected "December") and "Year(\*)" (selected "2009").
- Type of Area**: A dropdown menu with the selected option "GIBRALTAR\_AREA" and a red circular icon to its right.
- Country**: A dropdown menu with the selected option "Greece".

At the bottom of the form are three buttons: "Compute", "Go", and "Reset".

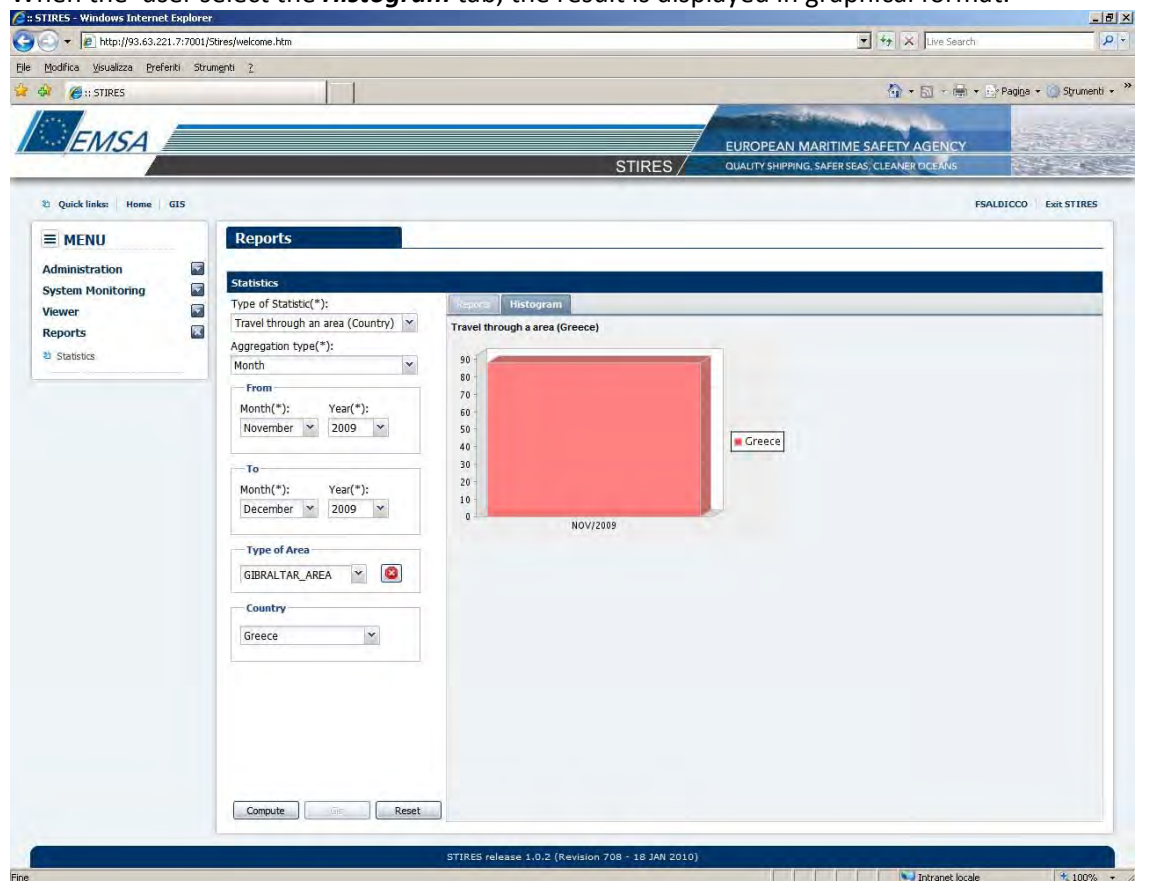
The footer of the page displays "STIRES release 1.0.2 (Revision 708 - 18 JAN 2010)" and "Intranet locale".

**Figure 87 : Statistics – Travel through an area (Country)**

Click on the **Reset** button in order to clear all fields. Once all the parameters have been specified, you should click on the **Compute** button to activate the elaboration of the statistic. The result is displayed within the **Reports** section.



**Figure 88 : Statistics – Travel through an area (Country) in Table format**  
When the user select the **Histogram** tab, the result is displayed in graphical format.



**Figure 89 : Statistics – Travel through an area (Country) in Histogram format**

The user will be able to export the statistic into a spreadsheet, using the **Export to Excel** button.

### 3.11 – Travel through an area (Ship)

Travel through an area (Ship) statistic

This statistics calculates, for a specified ship identified by its MMSI number, the number of times that vessel travelled (in and out) through a specified area during the selected aggregation period. Note that the area must be already present within the system. The possible **Aggregation types** are: day, month, four month period, six month period and year.

The screenshot shows the STIRES web application interface. The browser window title is "STIRES - Windows Internet Explorer". The address bar shows "http://93.63.221.7:7001/Stires/welcome.htm". The page features the EMSA logo and the text "EUROPEAN MARITIME SAFETY AGENCY" and "QUALITY SHIPPING, SAFER SEAS, CLEANER OCEANS". The main content area is titled "Reports" and contains a "Statistics" section. The "Statistics" section has the following fields:

- Type of Statistic(\*): Travel through an area (Ship)
- Aggregation type(\*): Month
- From: Month(\*): November, Year(\*): 2009
- To: Month(\*): December, Year(\*): 2009
- Type of Area: GIBALTAR\_AREA
- Ship (MMSI): 224641000

At the bottom of the form are two buttons: "Compute" and "Reset". The footer of the page indicates "STIRES release 1.0.2 (Revision 708 - 18 JAN 2010)".

Figure 90 : Statistics – Travel through an area (Ship)

Click on the **Reset** button in order to clear all fields. Once all parameters have been specified, you should click on the **Compute** button to active the elaboration of the statistic. The result is displayed within the **Reports** section.



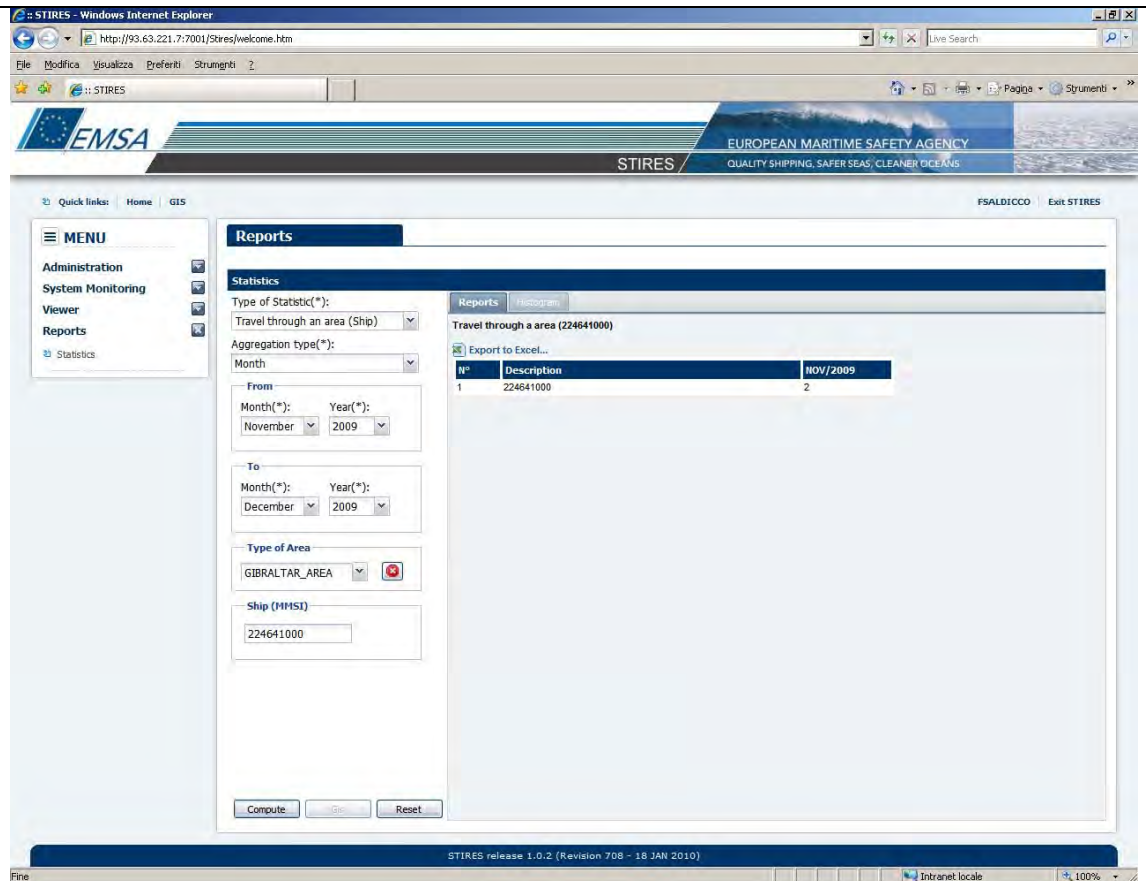


Figure 91 : Statistics – Travel through an area (Ship) in Table format

When the user select the **Histogram** tab, the result is displayed in graphical format.

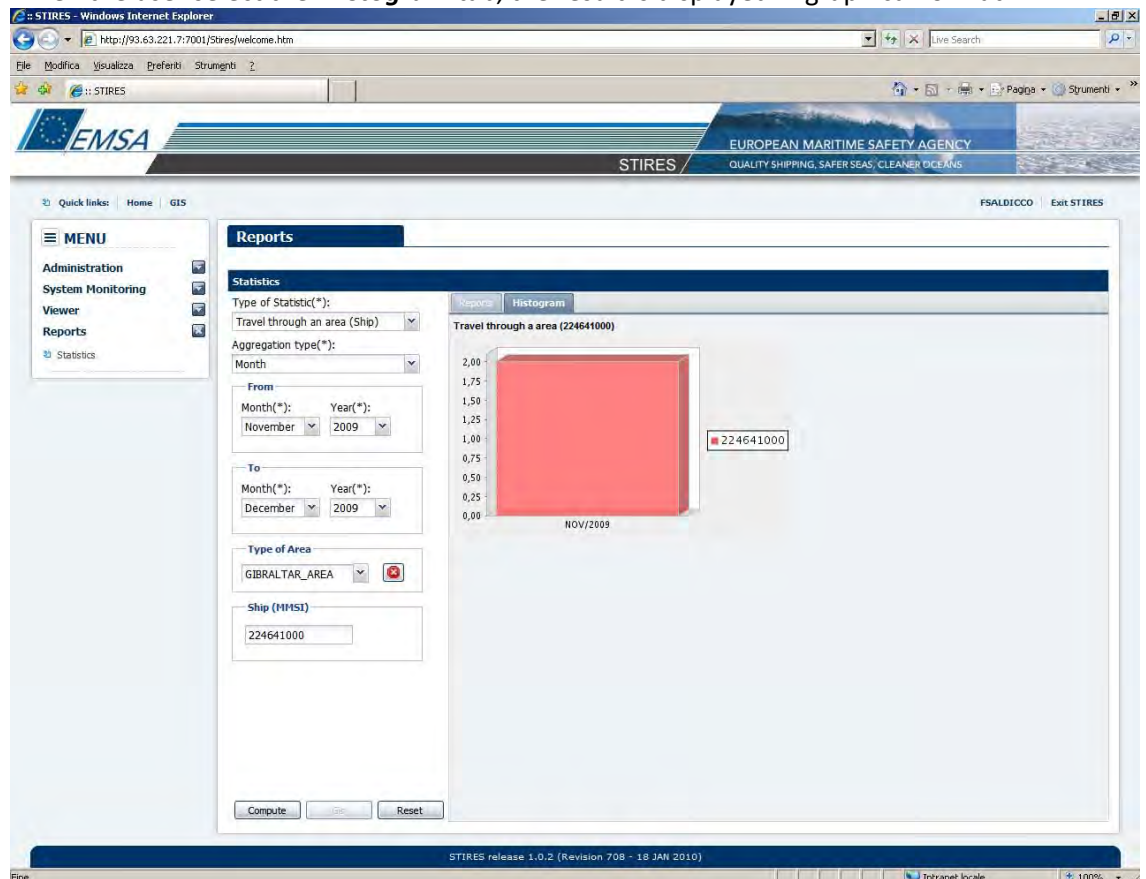


Figure 92 : Statistics – Travel through an area (Ship) in Histogram format



The user will be able to export the statistic into a spreadsheet, using the **Export to Excel** button.

### 3.12 – Travel through an area (Ship type)

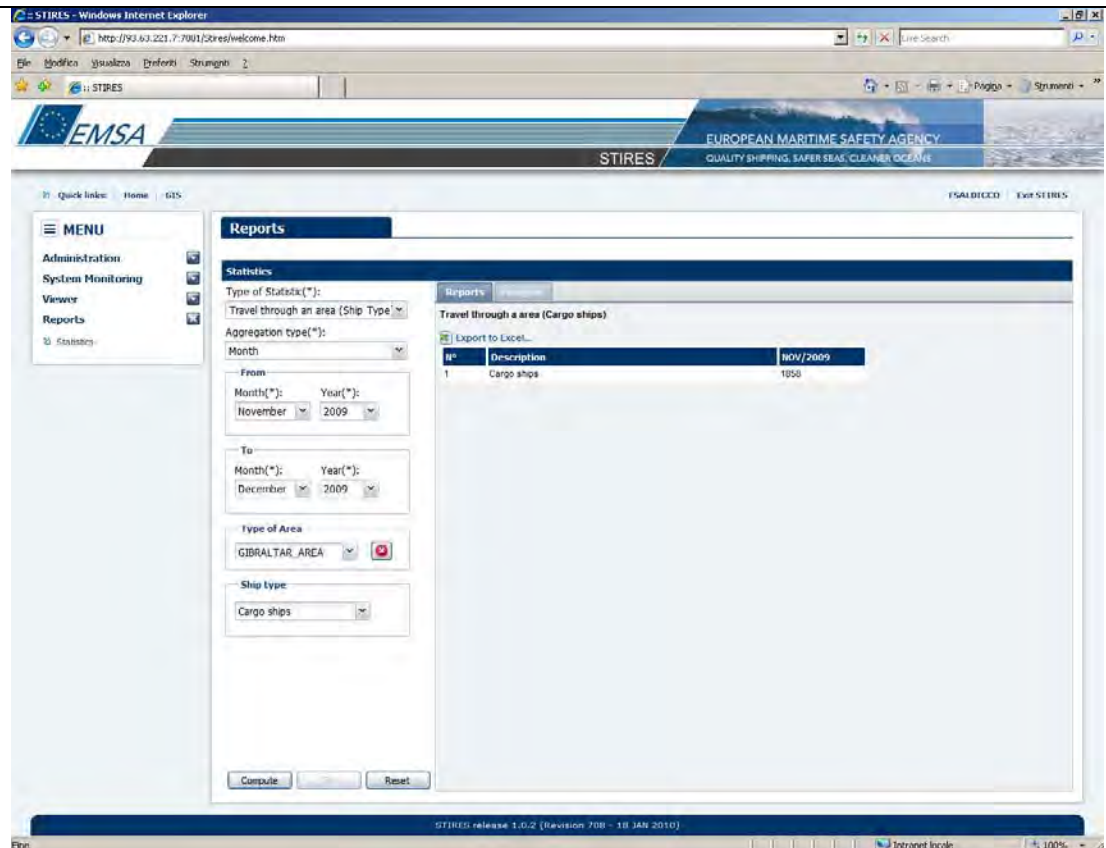
Travel through an area (Ship type) statistic

This statistics calculates, for a specified ship type, the number the vessels of the given type crossed the specified area. Note that the area must be already present within the system. The possible **Aggregation types** are: day, month, four month period, six month period and year.

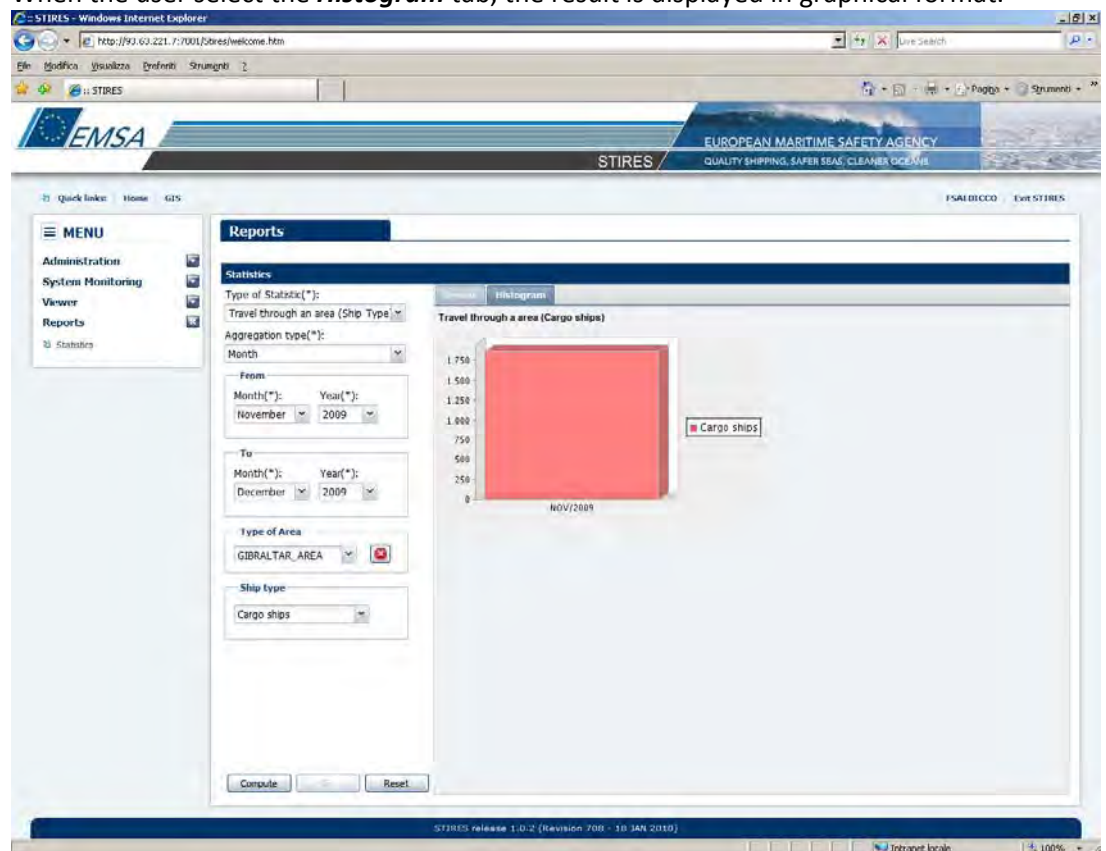
The screenshot shows the STIRES web application interface. The browser window title is "STIRES - Windows Internet Explorer". The address bar shows "http://93.63.221.7:7001/Stires/welcome.htm". The page features the EMSA logo and the text "STIRES" and "EUROPEAN MARITIME SAFETY AGENCY". The main content area is titled "Reports" and contains a "Statistics" section. The "Type of Statistic(\*)" is set to "Travel through an area (Ship Type)". The "Aggregation type(\*)" is set to "Month". The "From" date is set to "November 2009" and the "To" date is set to "December 2009". The "Type of Area" is set to "GIBALTAR\_AREA" and the "Ship type" is set to "Cargo ships". At the bottom of the form are buttons for "Compute", "Export", and "Reset". The footer of the page indicates "STIRES release 1.0.2 (Revision 708 - 18 JAN 2010)".

Figure 93 : Statistics – Travel through an area (Ship)

Click on the **Reset** button in order to clear all fields. Once all parameters have been specified, you should click on the **Compute** button to active the elaboration of the statistic. The result is displayed within the **Reports** section.



**Figure 94 : Statistics – Travel through an area (Ship type) in Table format**  
When the user select the **Histogram** tab, the result is displayed in graphical format.



**Figure 95 : Statistics – Travel through an area (Ship type) in Histogram format**  
The user will be able to export the statistic into a spreadsheet, using the **Export to Excel** button.