

Niord System User Manual for Editors

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Chapter 1. Introduction

Niord (Nautical Information Directory) is a system for producing and publishing Navigational Warnings (*NW*) and Notices to Mariners T&P (*NM*).

It was originally developed as part of the [EfficienSea2](#) EU project and subsequently implemented as a production system for the [Danish Maritime Authority](#).



Some of the main features of Niord area:

- Niord provides an advanced and highly customizable production system for NW and NM T&P.
- It includes a plug-in architecture for NW and NM message promulgation via e.g. mailing lists and Twitter.
- Niord also integrates with the [Maritime Cloud](#) by defining a Maritime Cloud Service Specification and making NW & NM messages accessible via a [Public REST API](#)
- The [combined NW & NM message model](#) adopted by Niord has been devised to make data future-compatible with the upcoming IHO S-124 specification.

Chapter 2. Editors Manual

A user in Niord always works in the context of a *current domain*. Domains are used to separate NW & NM messages into more manageable lists - you could e.g. have a domain for NW messages, a domain for NM messages, a domain for firing exercises (also NWs), or indeed domains for separate regions with separate time-zones, etc.

A user has separate roles in each domain. The available roles are:

- *User*: The *user* role can be assigned to e.g. case officers that should have access to see, proof-read and comment on un-published NW and NM messages.
- *Editor*: Editors compose and manage the life cycle of an NW or NM message.
- *Admin*: An administrator of a domain will have additional access to e.g. manage the base data (sea charts, publications, etc.) of the Niord system.
- *Sysadmin*: A very special role that should be held only by the person(s) actually setting up and managing the Niord system.

The roles listed above are hierarchical in the sense that a *sysadmin* can do anything an *admin* can do, who in turn can do anything an *editor* can do, and so forth.

This document serves as a user manual for *editors* of a domain.

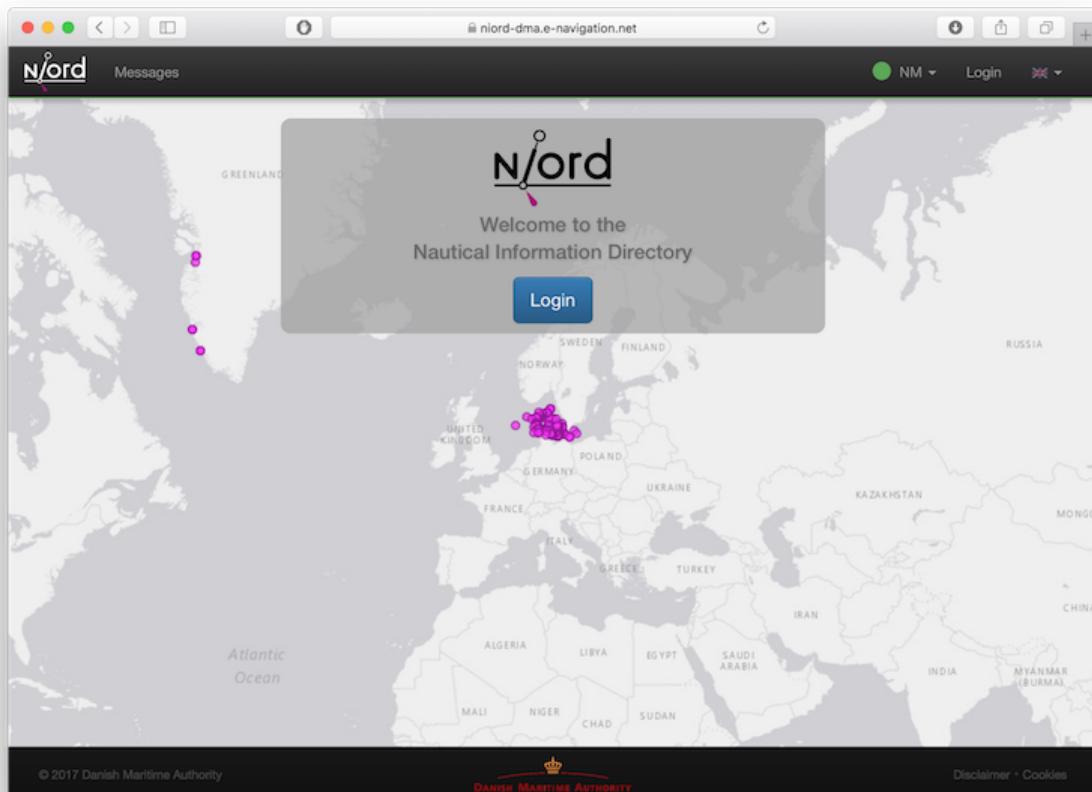


Please use a newish Chrome, Safari or Firefox browser when using Niord.

Chapter 3. Home

The *Home* page of Niord is little more than a splash screen that displays a map with the list of in-force NW and NM messages of the currently selected domain.

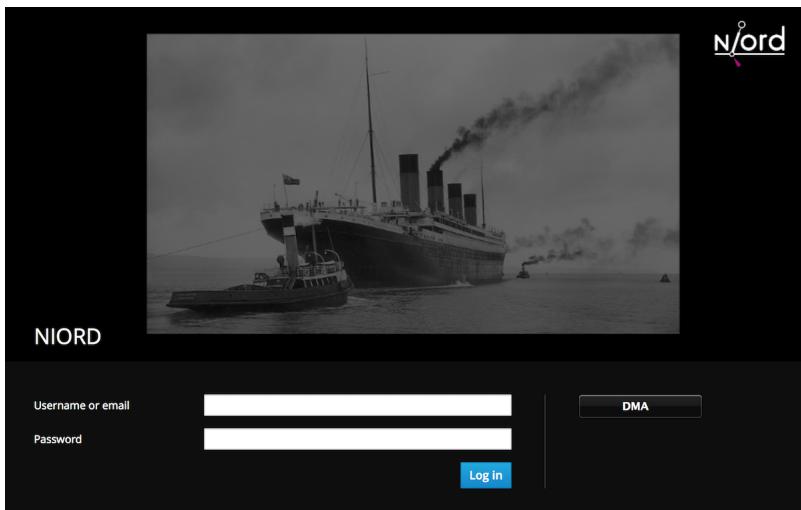
The page shares its main menu (top) with all other pages. This chapter details the common functionality of the Niord system, such as log-in, domain and language selection; all accessible via the main menu.



3.1. Login

Prior to logging in to Niord, the user should contact a Niord administrator to ensure that she is a registered user and has the proper roles assigned for the respective domains.

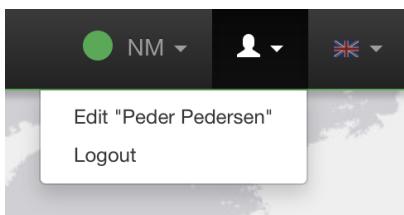
In order to log in, click the *Login* link of the main menu, or the *Login* button of the Home page.



The actual login mechanism is configured by a Niord system administrator. The set-up used by the Danish Maritime Authority (DMA) is as follows:

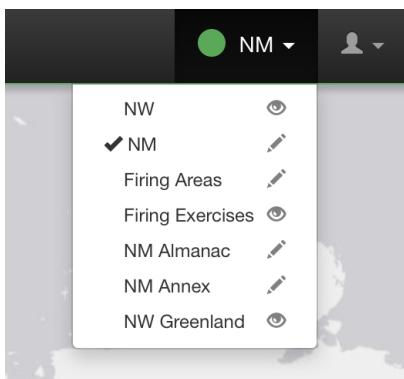
- When the user is an employee working within the DMA network (either *in situ* or via VPN), she can click the "DMA" button on the login page. Since Niord is integrated with the DMA ADFS, the user may then use the usual DMA work place credentials for authentication.
- Outside the DMA network, or indeed for Niord users that are not DMA employees, the user can log in using a pre-assigned username and password. For added security, the user will subsequently be asked for a *one-time code* as provided by the *Google Authenticator* App on their mobile phone.

Once the user has successfully logged in, the main menu *Login* link will be replaced with a user menu, containing the options to log out and edit the user profile - including setting a new password.



3.2. Domain Selection

As described in the [Editors Manual](#) section, you always work within a current *domain* in Niord. The current domain is selected from the domain menu:



Next to each domain name, there is a symbol that indicates if the user can edit messages of that domain (pencil symbol), or only view public messages (eye symbol).

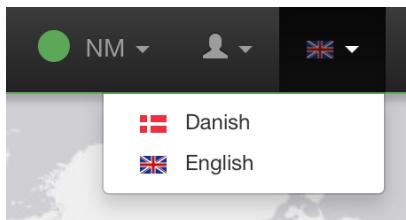
The current domain selection is stored in a cookie in the web-browser, and so, will also be the selected domain next time the user access Niord.

To make the current domain selection more visible to the user, each domain is assigned a colour that is displayed in the main menu (green for NM in this example).

3.3. Language Selection

Niord can be configured to support any number of website languages (i.e. the language used for menus, text and labels in the Niord website) and any number of NW-NM message model languages (i.e. the languages that the produced NW and NM messages include). Typically, however, a Niord system supports two languages; the local language and English.

The currently selected website language is selected from the Language menu:



As with the current domain selection, the current language selection is stored in a cookie in the web-browser, and so, will also be the selected language next time the user access Niord.

Chapter 4. Messages

The *Messages* page of Niord is always accessible via the main menu. It lists the NW and NM messages of the system according to the selected filter criteria, sorting and view mode.

ID	Follow-up date	Title	Area
NM-391-17	(P) Nov 1, 2017	Denmark. The Baltic Sea. Stevns. Radvig. Kriegers Flak. High voltage power cables to be deployed. Prohibited area established.	Denmark - The Baltic Sea
NM-383-17	(P) Aug 1, 2018	Denmark. The Baltic Sea. Kriegers Flak. Construction works. Restricted buoyaged areas to be established.	Denmark - The Baltic Sea
NM-395-17	(T) Aug 31, 2017	Denmark. The Baltic Sea. Kriegers Flak. Seabed surveys.	Denmark - The Baltic Sea
NM-375-17	(T) Aug 31, 2017	Denmark. The Baltic Sea. Kriegers Flak. Seabed surveys.	Denmark - The Baltic Sea
NM-176-17	(T) Feb 2, 2018	Denmark. The Baltic Sea. Bornholmsgat. Davids Banke E. Salvage operations.	Denmark - The Baltic Sea
NM-426-17		Denmark. The Baltic Sea. Waters around Bornholm. Pipeline survey completed.	Denmark - The Baltic Sea
NM-003-17	(T) Jul 3, 2017	Germany. Baltic. Sasanitz NE. Restricted area established.	Denmark - The Baltic Sea
Denmark - The Sound			
NM-429-17	(T) May 27, 2017	Denmark. Sweden. The Sound. Helsingør N. Seabed surveys.	Denmark - The Sound
NM-428-17	(T) May 29, 2017	Denmark. The Sound. Tuborg Havn. Construction work.	Denmark - The Sound
NM-427-17		Denmark. The Sound. Tuborg Havn. Pipeline established. Normal depth.	Denmark - The Sound
NM-363-17	(T) Jul 3, 2017	Denmark. The Sound. Copenhagen Harbour. Nordhavnen. Kalkbrænderihavnen. Construction work.	Denmark - The Sound
NM-325-17	(T) May 15, 2017	Denmark. The Sound. Copenhagen Harbour. Færgegården Nord. Reduced depth.	Denmark - The Sound
NM-330-17	(T) Jun 2, 2017	Denmark. The Sound. Copenhagen Harbour. Inderhavnen. Nyholm E. Repair works. Reduced depths.	Denmark - The Sound
NM-333-17	(T) Oct 23, 2017	Denmark. The Sound. Copenhagen Harbour. Inderhavnen. Frederiksholms Kanal. Construction work. Canal closed for traffic.	Denmark - The Sound
NM-290-17	(P) Jul 2, 2018	Denmark. The Sound. Copenhagen Harbour. Inderhavnen. Christians Brygge. Construction work. Buoyed prohibited area established. Buoyage deployed.	Denmark - The Sound
NM-265-17	(P) Jul 2, 2018	Denmark. The Sound. Copenhagen Harbour. Inderhavnen. Christians Brygge. Construction work. Buoyed prohibited area established. Buoyage deployed.	Denmark - The Sound
NM-421-17		Denmark. The Sound. Københavns Havn. Sydhavnen. Kalvebod Brygge. Construction work completed.	Denmark - The Sound
NM-364-17	(P) Oct 30, 2017	Denmark. The Sound. Københavns Havn. Amagerverket. Construction work.	Denmark - The Sound
Denmark - The Waters South of Zealand			
NM-365-17	(T) May 18, 2017	Denmark. The Waters South of Zealand. Begestrem. Sandhage Rende. Less depth.	Denmark - The Waters South of Zealand
NM-366-17	(T) May 18, 2017	Denmark. The Waters South of Zealand. Begestrem. Sandhage Rende. Dredging.	Denmark - The Waters South of Zealand
NM-369-17	(T) Jun 5, 2017	Denmark. The Waters South of Zealand. Begestrem. Jungshoved Kirkehavn. Reduced depth.	Denmark - The Waters South of Zealand

4.1. View Modes

The current selection of messages can be displayed in four different view modes: *Table*, *Grid*, *Details* and *Map*, any of which may be selected in the *Messages* sub-menu.

Table Grid Details Map

4.1.1. Table View Mode

The default view mode is the *Table* view mode, where the filtered list of messages is presented in a compact table-like list. See example above.

The user can easily sort the message list by either message ID, date or area by clicking the respective column name in the header row. Click the same header name to toggle between ascending and descending sort order.

The date column can either display the publish dates, the event dates or the follow-up dates of the messages. Click the ellipsis in the header menu to switch between the date types.

4.1.2. Grid View Mode

When selecting the *Grid* view mode, messages are listed in a semi-compact fashion with an auto-generated thumbnail image for each message.

The screenshot shows a software interface for managing maritime notices. At the top, there are tabs for 'Table', 'Grid' (which is selected), 'Details', 'Map', 'Selection', 'Filter', and 'Action'. Below the tabs, the main area is divided into two sections: 'Denmark - The Baltic Sea' and 'Denmark - The Sound'.

Denmark - The Baltic Sea: This section contains eight messages, each with a thumbnail map and a detailed description. The messages are:

- NM-391-17 (P)**: Denmark, The Baltic Sea, Stevns, Rødvig, Kriegers Flak. High voltage power cables to be deployed. Prohibited area established. Details: In the time period until end October 2017 High voltage power cables will be laid and trenched between positions 1) - 7), 8) - 15) and 16) - 20).
- NM-363-17 (P)**: Denmark, The Baltic Sea, Kriegers Flak. Construction works. Restricted buoyaged areas to be established. Details: In the time period between 1 June 2017 - 31 July 2018 2 platforms will be build in prohibited areas defined by positions 1) - 4) and 5) - 8) respectively.
- NM-392-17 (T)**: Denmark, The Baltic Sea, Kriegers Flak. Seabed surveys. Details: In the time period between 14 May - 30 August 2017 seabed surveys is carried out in the areas bounded by lines through positions 1) - 6) and 7) - 15).
- NM-375-17 (T)**: Denmark, The Baltic Sea, Kriegers Flak. Seabed surveys. Details: In the time period between mid-May - end August 2017 seabed surveys will be carried out in the area around the line through position 1) - 8).
- NM-195-17 (T)**: Denmark, The Baltic Sea, Bornholmsgat, Davids Banke E. Salvage operations. Details: Until 1 February 2018 salvage operations are carried out at the wreck in position:
 - 55° 21.810'N - 014° 43.089'E.
- NM-424-17**: Denmark, The Baltic Sea, Waters around Bornholm. Pipeline survey completed. Details: Danish/Swedish border. Coordinates: 1) 55° 32.317'N - 015° 42.538'E.
- NM-403-17 (T)**: Germany, Baltic, Sassnitz NE. Restricted area established. Details: Until further notice a restricted area defined by a radius of 0.5 NM around the position is established.
 - 54° 41.120'N - 013° 52.040'E.

Denmark - The Sound: This section contains four messages, each with a thumbnail map and a detailed description. The messages are:

- NM-426-17 (T)**: Denmark, Sweden, The Sound, Helsingør N. Seabed surveys. Details: Lolland.
- NM-428-17 (T)**: Denmark, The Sound, Tuborg Havn. Construction work. Details: Hellerup.
- NM-427-17**: Denmark, The Sound, Tuborg Havn. Pipeline established. Normal depth. Details: Hellerup.
- NM-352-17 (T)**: Denmark, The Sound, Copenhagen Harbour, Nordhavnen, Kalkbrænderihavnen. Construction work. Details: Region Hovedstaden, København, Malmö.

4.1.3. Details View Mode

In the the *Details* view mode, each message is listed in detail, similarly to when a message is displayed in the [Message Details](#) dialog.

Denmark - The Baltic Sea sort...

NM-391-17 (P)

Denmark. The Baltic Sea. Stevns. Rødvig. Krigers Flak. High voltage power cables to be deployed. Prohibited area established.

References NM-302-17 (updated repetition).

Details High voltage power cables to be deployed.
In the time period until end October 2017 High voltage power cables will be laid and trenched between positions 1) - 7), 8) - 15) and 16) - 20).

1)	55° 14,420'N - 012° 21,630'E
2)	55° 13,570'N - 012° 24,140'E
3)	55° 08,480'N - 012° 36,560'E
4)	55° 04,220'N - 012° 50,780'E
5)	55° 02,150'N - 012° 51,290'E
6)	55° 02,150'N - 012° 51,290'E
7)	55° 01,630'N - 012° 51,040'E
8)	55° 14,520'N - 012° 21,690'E
9)	55° 14,090'N - 012° 22,590'E
10)	55° 13,580'N - 012° 24,370'E
11)	55° 08,650'N - 012° 36,460'E
12)	55° 05,930'N - 012° 45,540'E
13)	55° 03,800'N - 012° 54,650'E
14)	55° 03,040'N - 012° 55,270'E
15)	55° 02,910'N - 012° 56,700'E
16)	55° 01,630'N - 012° 51,040'E
17)	55° 02,380'N - 012° 51,510'E
18)	55° 03,740'N - 012° 54,300'E
19)	55° 02,950'N - 012° 55,150'E
20)	55° 02,910'N - 012° 56,700'E

Divers and ROV will be used.
The work is carried out by the vessels »M/V Cable One« (OVZC2), »M/V Marcos« (OUJC), »M/V Naja« (OZSC2), »M/V Vina« (OVJJ2), »M/V Sima« (OUXR2) and »M/V Havila Jupiter« (Laza). The vessels can be contacted on VHF channel 9, 16 and 70.
Mariners are requested to pass with caution and keep a minimum distance of 500m to the vessels.
Note: The cables will be surrounded by a protection zone. The protection zone will be 200m along and on each side of the cables pursuant to Danish Maritime Authority Order no. 939 of 27 November 1992 on Protection of Submarine Cables and Pipelines. Within the protection zone anchoring, dredging, boulder removal, and any use of equipment dragged across the seabed will be prohibited.
Prohibited area established.
A prohibited area along with 200m on each side of the dredged trenches is established. Within the area unauthorized anchoring, fishing and other work on the seabed is prohibited.
Note: The prohibited area has been established by DMA in accordance with consolidated act no 72 of 17 January 2014 on safety at sea, section 6 (i) and vi). Contraventions of the prohibition are punishable in accordance with the same act, section 28 (iii).

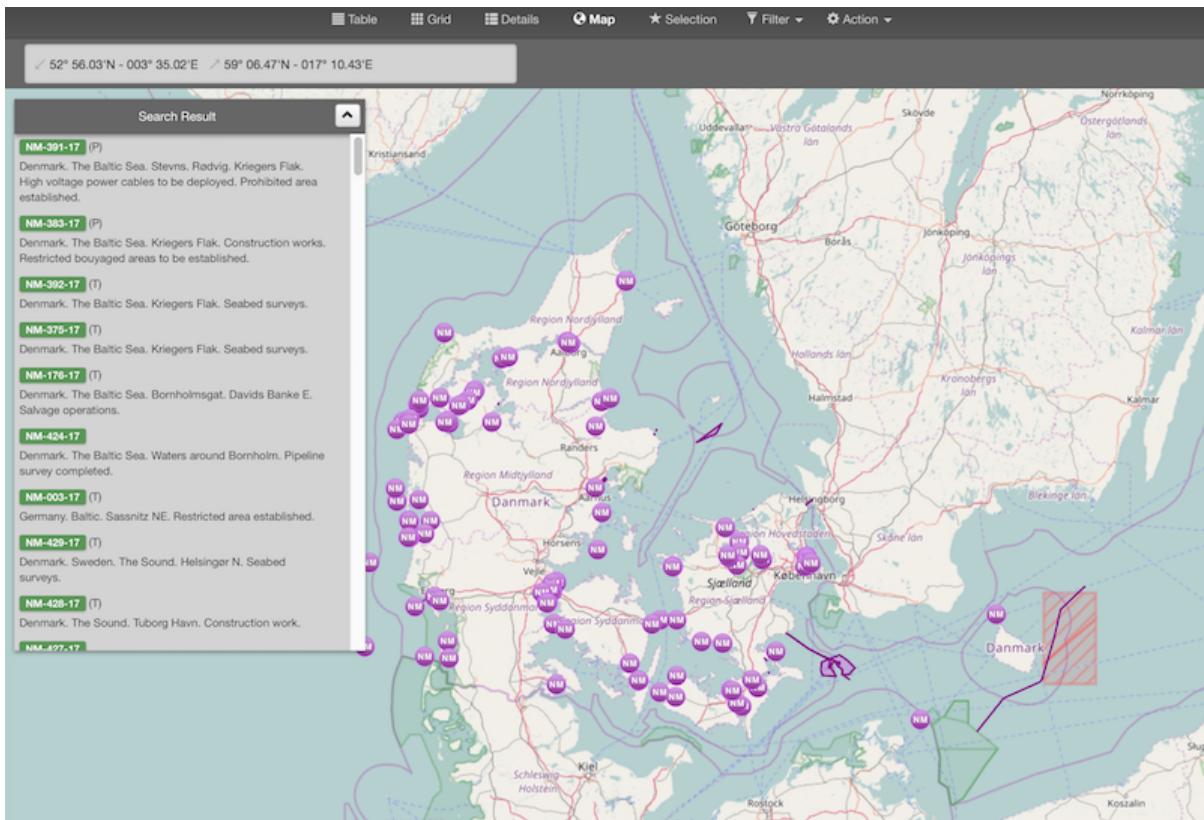
Charts 190, 198, 104.
Publication [J. no. 2014015202].

J/D Contractor A/S 27 April and DMA 28 March 2017. Published 27 April 2017)

4.1.4. Map View Mode

In the *Map* view mode, all messages are displayed in a map. The list of messages will always be filtered according to the current bounding box of the map.

There is a *Search Result* panel in the top-left part of the map which contains a compact textual listing of the current set of messages. By default, this panel is collapsed, but the user may click the toggle-expand/collapse button in the panel header to show/hide the message list.



4.2. Message Selection

Irrespective of the view mode, each message of a messages list can be *selected* by clicking the ★ selection icon. And de-selected by clicking the icon again.

The current message selection is available at the *Selection* sub-page:

Table Grid Details Map Selection 2 (x) Filter Action

NM-302-17 (T)

Denmark. The Baltic Sea. Kriegers Flak. Seabed surveys.

References NM-302-17, NM-375-17, NM-383-17.

Details In the time period between 14 May - 30 August 2017 seabed surveys is carried out in the areas bounded by lines through positions 1) - 6) and 7) - 15).

1)	55° 03.430'N - 012° 45.477'E
2)	55° 04.526'N - 012° 50.606'E
3)	55° 01.421'N - 012° 51.475'E
4)	54° 57.872'N - 012° 55.230'E
5)	54° 58.188'N - 012° 46.213'E
6)	55° 00.163'N - 012° 44.910'E
7)	55° 04.631'N - 012° 51.081'E
8)	55° 06.138'N - 012° 57.514'E
9)	55° 04.090'N - 013° 02.829'E
10)	55° 01.174'N - 013° 07.762'E
11)	54° 58.666'N - 013° 04.342'E
12)	54° 58.391'N - 012° 59.282'E
13)	55° 00.638'N - 012° 59.274'E
14)	55° 02.024'N - 012° 55.991'E
15)	55° 03.646'N - 012° 55.140'E

Mariners are requested to pass with caution.

Charts 198, 104, 188.

Publication J.U. no. 2013022436.

(Vattenfall 27 March 2017. Published 28 April 2017)

NM-375-17 (T)

Denmark. The Baltic Sea. Kriegers Flak. Seabed surveys.

Details In the time period between mid-May - end August 2017 seabed surveys will be carried out in the area around the line through position 1) - 8).

1)	54° 56.668'N - 013° 04.165'E Danish/German border
2)	54° 58.652'N - 012° 59.452'E
3)	55° 00.597'N - 012° 59.263'E
4)	55° 01.848'N - 012° 56.187'E
5)	55° 02.186'N - 012° 56.950'E
6)	55° 02.832'N - 012° 56.732'E
7)	55° 02.878'N - 012° 56.741'E
8)	55° 02.907'N - 012° 56.714'E

The work will be carried out from the vessels »Madog« (V4DR) and »Relume« (C6TR4). The vessels can be contacted on VHF channel 16. Mariners are requested to pass with caution.

Charts 190, 198, 104.

Publication J.U. no. 2015015135.

(Energinet 21 April 2017. Published 21 April 2017)

The selection list is persistent throughout the browser session, in the sense that you can perform multiple message searches, and thus build up the selection list as appropriate.

The purpose of supporting message selection, is to be able to perform certain actions on a more specific set of messages than those matching the current filtering criteria. Actions that can be applied to a selected set of messages include printing PDF reports, sending e-mails with messages, assigning messages to (and removing from) message tags, etc. These actions are detailed in the [Message Actions](#) section.

4.3. Message Filtering

When a user first enters the *Messages* page, the default set of messages being displayed consists of all published (in-force) messages associated with the currently selected domain.

The way to search for other types of messages is by applying a combination of message filters, available from the *Filter* menu:

The screenshot shows a web-based application for managing maritime notices. On the left, a search results table lists three messages under the heading 'Denmark - Kattegat'. The columns include ID, Publish date, and Title. The first message is 'Temp. NM' from May 26, 2017, to Jun 19, 2017, about Denmark, Kattegat, Roskilde Fjord, Tørslev Hage, Swimming event. The second is 'Temp. NM' from Jul 14, 2017, about Denmark, Kattegat, Isefjord, Hundested - Rørvig, Swimming competition. The third is 'Temp. NM' from May 26, 2017, to Jul 6, 2017, about Denmark, Kattegat, Ebeltoft Vig, Ebeltoft W and SW, Temporary firing practice area. At the bottom of the main area, it says '© 2017 Danish Maritime Authority' and features the 'DANISH MARITIME AUTHORITY' logo. On the right, a sidebar titled 'drafts' contains a 'Filter' section with dropdown menus for 'Area', 'Category', and 'Date', and buttons for 'Clear Filter' and 'Save Filter...'. Below this is a 'Areas' section with three items: 'Denmark - Kattegat' (selected), 'Denmark - Kattegat', and 'Denmark - Kattegat'. At the bottom of the sidebar are links for 'Disclaimer' and 'Cookies'.

Whenever a message filter is updated, the resulting list of messages will automatically be updated, and also, the address (URL) of the browser will be updated, so that you can in effect bookmark a specific message filter.

The filters will be detailed individually below.

4.3.1. Domain Filter



The *Domain* filter allows the user to search messages of another domain without switching the current domain selection. This is very useful, if you e.g. wish to base a new Notice to Mariner on a copy of an existing Navigational Warning.

As an important security constraint, when filtering on messages from a different domain only public messages will be included in the search result. Public messages are those whose status are either *Published*, *Cancelled* or *Expired*.

4.3.2. Message Series Filter



The messages of a domain will always be associated with a *message series* of that domain, which e.g. defines the message ID naming and numbering scheme, etc. As an example, an "NW" domain might have separate message series for local and coastal navigational warnings.

When applying the *Message Series* filter, the user gets to select which message series of the current domain to show messages for.

If a domain filter has been applied, as described in the previous section, the user can filter by the message series of that domain instead.

4.3.3. Text Filter



The *Text* allows the user to filter across all textual contents of a message, i.e. message title, details, areas, categories, charts, ID, etc.

The text filter supports a Google-like syntax, as described below:

Type	Description
"light buoy"	Use quotes to filter on exact sentence matches.
+light -buoy	Use + for terms that must be included and - for terms that must be excluded.
København*	Use * for partial term matches.

4.3.4. Type Filter

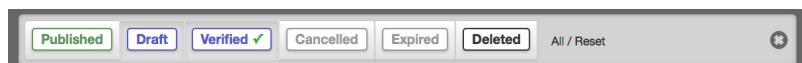


The *Type* filter allows the user to filter on one or more message types.

If the current domain supports Navigational Warnings, the types include *Local*, *Coastal*, *Subarea* and *Navarea*. Depending on the system configuration of the domain, only a subset of these types may be available.

If the current domain supports Notices to Mariners, the types include *Preliminary*, *Temporary*, *Permanent* and *Miscellaneous*. Depending on the system configuration of the domain, only a subset of these types may be available.

4.3.5. Status Filter



By default, the *Messages* page will display all published (in-force) messages of the current domain. The *Status* filter allows the user to select any combination of statuses to filter on.

As an important security constraint, only users with the *editor* (or *admin* or *sysadmin*) role can filter on all statuses.

Users with a *User* role, or indeed, users that have not logged in, can only filter on public statuses, defined as either *Published*, *Cancelled* or *Expired*.

4.3.6. Tag Filter



Message Tags plays an important role in Niord, as they may be used to persistently group sets of messages. A more detailed description can be found in the [Message Tags](#) section.

The *Tags* filter can be used to filter the search result to messages belonging to one or more message tags. Clicking the button will open the Message Tag dialog, for easy selection of

message tags.

4.3.7. Publication Filter



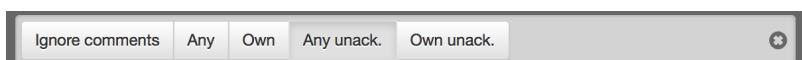
Niord allows administrators to define *publications* such as weekly Notices to Mariners digests. These publications are based on lists of messages. The *Publication* filter thus allows the user to filter on messages belonging to one or more publications.

4.3.8. User Filter



The *User* filter allows the user to filter messages on any of the registered users in Niord, and whether the selected user originally created a message, has ever updated a message, or indeed, is the last person to edit the message.

4.3.9. Comments Filter



The process of composing a new NW or NM message often involves multiple users that write up the message and proof-read it. To aid this process, users may submit new *comments* to a message, and acknowledge existing comments.

The *Comments* filter allows the user to filter on messages with different types of comments, such as comments that the user has submitted, unacknowledged comments, and unacknowledged comments by the current user.

4.3.10. Reference Filter



A message may be associated with a list of *references* to other messages. The references are typed to indicate if the message e.g. represents a "cancellation" of the referenced message, an "updated repetition", and so forth.

The *Reference* filter allows the user to search messages by reference hierarchies. The filter consists of a *message ID* field and a numeric *Level* field.

The message specified by the message ID will be the base message of the filter. With a level set to "0" only that particular message will be in the search result.

If the level is "1", all messages directly referencing the base message or directly referenced from the base message will be included.

If the level is "2", all messages referencing any of the level "1" messages or referenced from any of the level "1" messages will be included.

And so forth...

4.3.11. Chart Filter



The *Chart* filter allows the user to filter on messages that are associated with any of a list of sea charts.

4.3.12. Area Filter



Areas are defined in a hierarchical tree by administrators.

The *Area* filter allows the user to filter on messages that are associated with any of a list of areas including s-areas of the selected areas.

4.3.13. Category Filter



Categories are defined in a hierarchical tree by administrators.

The *Category* filter allows the user to filter on messages that are associated with any of a list of categories including sub-categories of the selected categories.

4.3.14. Date Filter



The *Date* filter allows the user to filter on date ranges. The date type menu has the following options:

Date Type	Description
Publish Date	The publish date interval of a message must overlap the specified date interval.
Publish From	The message must have been published within the specified date interval.
Event Dates	The event date intervals of a message must overlap the specified date interval.
Created Date	The message must have been created within the specified date interval.
Last Updated Date	The message must have been last updated within the specified date interval.

4.3.15. Clear Filter

The *Clear Filter* function of the *Filter* menu will clear any current filter.

4.3.16. Save Filter

The *Save Filter* function of the *Filter* menu will allow the user to save often-used filter combinations.

These saved filters will appear at the top of the *Filter* menu for easy access.

4.4. Message Actions

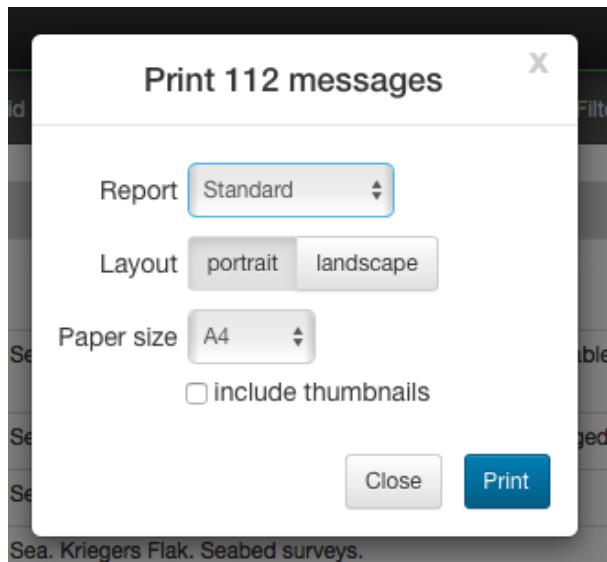
The *Action* menu lists the operations that can be performed on the current list of messages, or the current selection of messages.

The number of actions present in the menu depends on whether any messages are currently selected, and whether the user is an editor or administrator.

The screenshot shows a software interface with a toolbar at the top containing 'Table', 'Grid', 'Details', 'Map', 'Selection 2 | x', 'Filter', and 'Action'. The main area displays a table of messages with columns for 'ID', 'Publish date', and 'Title'. Two rows are highlighted in green: 'NM-391-17' (From Apr 27, 2017) and 'NM-393-17' (From Apr 24, 2017). A context menu, titled 'Action', is open over the second row. The menu items are organized into sections: 'Print...' (with a star icon), 'Print selection...', 'E-mail selection...', 'Add selection to tag...' (with a star icon), 'Remove selection from tag...', 'Select all' (with a star icon), 'Clear selection', 'Compare...', 'Export...', 'Export selection...', 'Import...', 'Update selection status...', 'Sort area...' (with a star icon), 'Areas ▾', 'ID' (with a star icon), 'Event dates', 'Publish date', and 'Follow-up date'. The 'Denmark - The Baltic Sea' section is visible above the table, and the 'Denmark - The Sound' section is visible below it.

The actions will be detailed individually below.

4.4.1. Print Action



Enacting "Print..." will print the current message list. The print dialog allows the user to adjust page size and direction.

More importantly, it allows the user to select a print report from the *Report* menu. The set of available reports and their design is configured by a system administrator on a per-domain basis.

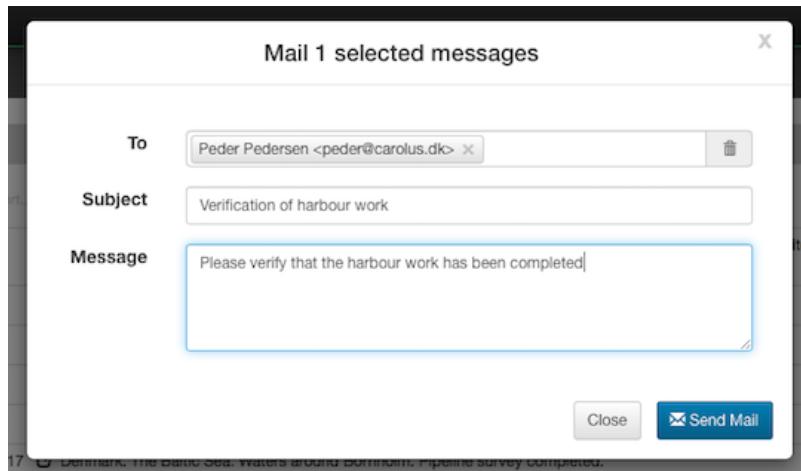
All domains include a "Standard" and a "Draft" report. The "Standard" report will print all details of the messages. The "Draft" report will print all language variants of all messages including additional fields, that makes the report useful for e.g. proof reading messages.

Additionally, a domain for Notices to Mariners will typically include reports for printing the NM list as a weekly NM digest, and a report for printing the active T&P messages.

4.4.2. Print Selection Action

Similar to the [Print Action](#), except that only the current selection of messages get printed.

4.4.3. E-mail Selection Action



The *E-mail Selection* action is only available when one or more messages have been selected. A dialog will prompt the user to fill out the recipient, email subject and an optional message to the recipients.

When clicking *Send Mail*, a mail is constructed and sent along, that contains the details of the currently selected messages.

The function can be useful when e.g. following up on the work described in a Notice to Mariner.

4.4.4. Add Selection to Tag Action

The *Add Selection to Tag* action is only available when one or more messages have been selected.

It will open the Message Tag Dialog and allow the user to select a message tag the currently selected messages should be added to.

Message Tags are described in detail in the [Message Tags](#) section.

4.4.5. Remove Selection from Tag Action

The *Remove Selection from Tag* action is only available when one or more messages have been selected.

It will open the Message Tag Dialog and allow the user to select a message tag the currently selected messages should be removed from.

Message Tags are described in detail in the [Message Tags](#) section.

4.4.6. Select All Action

Will select all messages in the message list. Please refer to the [Message Selection](#) section.

4.4.7. Clear Selection Action

Will clear the current message selection. Please refer to the [Message Selection](#) section.

4.4.8. Compare Action

The screenshot shows a 'Compare messages' dialog with two tabs: 'Side-by-side' (selected) and 'Changes' / 'Data'. The 'Side-by-side' tab displays two messages, 'Message 1' and 'Message 2', side-by-side. Both messages are about salvage operations in the Baltic Sea. The 'Details' section of both messages includes a note about salvage operations until February 2017, coordinates (55° 21.810'N - 014° 43.089'E), and a request for mariners to keep well clear.

Message 1	Message 2
References: 40/976 2012, 7/201 2016 (repetition).	References: NM-001-17 (repetition with new time).
Details: Salvage operations. Until 1 February 2017 salvage operations are carried out at the wreck in position: • 55° 21.810'N - 014° 43.089'E. Mariners are requested to keep well clear.	Details: Until 1 February 2018 salvage operations are carried out at the wreck in position: • 55° 21.810'N - 014° 43.089'E. Mariners are requested to keep well clear.
Charts: 189 (INT 1336), 188.	Charts: 189 (INT 1336), 188.
Publication: Wreck ID 2906. [J. no. 2013003533]. (Diveline and DMA 10 February 2016. Published 2 January 2017)	Publication: Wreck ID 2906. [J. no. 2013003533]. (Diveline and DMA 1 February 2017. Published 2 February 2017)

Side-by-side **Changes** **Data**

Message 1

★ NM-001-17 (T)
Denmark. The Baltic Sea. Bornholmsgat. Davids Banke E. Salvage operations.
References 40/976 2012.
7/201 2016 (repetition).
Details Salvage operations.
Until 1 February 2017 salvage operations are carried out at the wreck in position:
• 55° 21.810'N - 014° 43.089'E.
Mariners are requested to keep well clear.
Charts 189 (INT 1336), 188.
Publication Wreck ID 2906. [J. no. 2013003533].
(Diveline and DMA 10 February 2016. Published 2 January 2017)

Message 2

★ NM-176-17 (T)
Denmark. The Baltic Sea. Bornholmsgat. Davids Banke E. Salvage operations.
References NM-001-17 (repetition with new time).
Details Until 1 February 2018 salvage operations are carried out at the wreck in position:
• 55° 21.810'N - 014° 43.089'E.
Mariners are requested to keep well clear.
Charts 189 (INT 1336), 188.
Publication Wreck ID 2906. [J. no. 2013003533].
(Diveline and DMA 1 February 2017. Published 2 February 2017)

Swap messages **Show XL** **Close**

The *Compare* action is only available when precisely two messages have been selected.

The *Message 1* and *Message 2* fields allows the user to specify the ID of the two messages to compare. The ID may either be the *short ID* of the message (e.g. "NM-077-16") or the *UID* of the message (a system-specific UID that all messages have, even unpublished messages).

Next, the user may toggle between which language variant to compare.

By default, the details of the two selected messages are displayed side-by-side (see above). Alternatively, the user can choose to display the textual changes between the messages:

The screenshot shows the 'Changes' tab selected in the 'Compare messages' dialog. It displays the same two messages as the previous screenshot, but with color-coded additions and deletions. The 'Details' section of both messages is identical, but the 'References' section shows a green addition '7/201 2016' and a red deletion '40/976 2012'.

Message 1	Message 2
Comparing message 1 to message 2 with additions and deletions .	
★ NM-001-176-17 (T) Denmark. The Baltic Sea. Bornholmsgat. Davids Banke E. Salvage operations. References 40/976 2012. 7/201 2016 NM-001-17 (repetition with new time). Details Salvage operations. Until 1 February 2017 2018 salvage operations are carried out at the wreck in position: • 55° 21.810'N - 014° 43.089'E. Mariners are requested to keep well clear. Charts 189 (INT 1336), 188. Publication Wreck ID 2906. [J. no. 2013003533]. (Diveline and DMA 10 February 2016. Published 2 January 2017)	★ NM-001-176-17 (T) Denmark. The Baltic Sea. Bornholmsgat. Davids Banke E. Salvage operations. References NM-001-17 (repetition with new time). Details Until 1 February 2018 salvage operations are carried out at the wreck in position: • 55° 21.810'N - 014° 43.089'E. Mariners are requested to keep well clear. Charts 189 (INT 1336), 188. Publication Wreck ID 2906. [J. no. 2013003533]. (Diveline and DMA 1 February 2017. Published 2 February 2017)

Side-by-side **Changes** **Data**

Colour-coding is used to flag additions (green) and deletions (red) between the two messages.

Lastly, the user can choose to inspect the changes of the underlying message data:

Comparing message 1 to message 2 with changes, additions and deletions.

```

vicinity: Bornholmsgat. Davids Banke E. (string)
▼ 1: (object)
internalPublication: <a publication="800dc2c57-672a-494a-81dd-90d1c6480b32" href="http://esdh-evm-sfs/locator.aspx?name=DMS.Case.Details.12&amp;recno=48432&amp;module=Case&amp;subType=12" target="_blank">[J.nr. 2013003533]</a> (string)
lang: da (string)
publication: VragID 2906. (string)
source: Diviline og SFS 10. februar 2016 (string) => Diviline og SFS 1. februar 2017 (string)
title: Danmark. Østersøen. Bornholmsgat. Davids Banke E. Bjaergningsarbejde. (string)
vicinity: Bornholmsgat. Davids Banke E. (string)
followUpDate: 1486335600000 (number) => 1517526000000 (number)
id: b1642b6d-6441-407c-ab85-e3e3073e914c (string) => 367fb08e-b3fa-4ed0-936c-49623aedf07b (string)
mainType: NM (string)
▼ messageSeries: (object)
seriesId: dna-nm (string)
number: 1 (number) => 176 (number)
originalInformation: true (boolean)
▼ parts: (array)
▼ 0: (object)
▼ descis: (array)
▼ 0: (object)
details: <p><cem></em><strong>Until 1 February 2017</strong>&nbsp;salvage operations are carried out at the wreck in position:</p> <ul> <li>55&deg; 21.810'N - 014&deg; 43.089'E.&nbsp;</li> </ul> <p><cem></em><strong>Until 1 February 2018</strong>&nbsp;salvage operations are carried out at the wreck in position:</p> <ul> <li>55&deg; 21.810'N - 014&deg; 43.089'E.&nbsp;</li> </ul> <p>Mariners are requested to keep well clear.</p>
lang: en (string)
subject: Salvage operations. (string) => (string)

```

The data-comparison function is somewhat specialized, but also incredibly useful, and targeted advanced users. Color coding is again applied to flag changed data (yellow), added data (green) and removed data (red) between the two messages.

4.4.9. Export Action

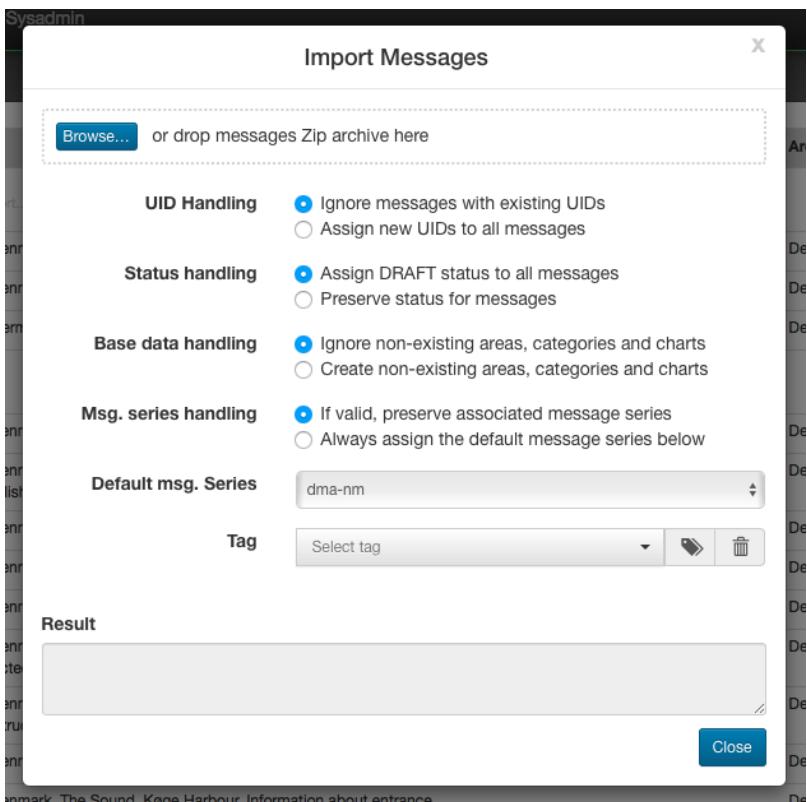
Enacting the *Export* action, will export the current message list as a zip-archive. The exported zip-archive has a format that is compatible with the *Import* function which is only available to administrators.

The exported data will include any files attached to the messages (used primarily by Notices to Mariners).

4.4.10. Export Selection Action

The *Export Selection* action is analogous to the *Export Action* except that it only exports the currently selected list of messages.

4.4.11. Import Action



The *Import* action is only available to administrators, as it is quite advanced and disruptive. It imports a zip-archive, as generated by the [Export Action](#).

The Import dialog options allows the administrator to adjust the behaviour of the import.

Setting	Description
UID Handling	Either choose to assign new UIDs to the imported messages or preserve the UID of the imported messages, but ignore messages that have UIDs that already exist in the system.
Status Handling	Either force all imported messages to have a <i>Draft</i> status, or preserve their exported status.
Base Data Handling	If the imported messages reference base data (e.g. areas, categories or sea charts) that does not exist in the system, either create the base data, or ignore it.
Message Series Handling	Either choose to preserve the message series of an imported message (if it is valid for the current domain), or force imported messages to use the specified message series.
Tag	If a message tag is specified, all imported messages will be assigned to it.

4.4.12. Update Selection Status Action

The screenshot shows a modal dialog titled "Bulk-update status". It contains a table with four rows, each representing a selected message. The columns are "ID", "Title", "Status", and "New Status". The "Status" column shows "PUBLISHED" for all four messages. The "New Status" column for each message has a dropdown menu set to "CANCELLED". A button at the bottom right says "Save Changes".

ID	Title	Status	New Status
NM-118-16 (T)	Denmark. The North Sea. Hanstholm W. Buoyed wave power plant to be withdrawn.	PUBLISHED	CANCELLED
NM-119-16 (T)	Denmark. The North Sea. Information about mobile platforms.	PUBLISHED	CANCELLED
NM-120-16 (T)	Denmark. The North Sea. Nyminddegab NW. Wreck. Salvage operations suspended. Prohibited area established.	PUBLISHED	CANCELLED
NM-121-16 (T)	Denmark. The North Sea. Horns Rev N. Mines. Warning.	PUBLISHED	CANCELLED

The *Update Selection Status* action is only available to administrators, and only if one or more messages have been selected.

The operation allows the administrator to perform bulk-updates of message statuses, that you can normally only perform message-by-message on the Editor Status page.

For all the selected messages, there is a *New Status* menu where the administrator can select any of the valid status transitions.

All status changes are applied when the "Save Changes" button is clicked.

4.4.13. Sort Area Action

The screenshot shows a modal dialog titled "Sort Messages". At the top, there is a search bar with "Østersøen" selected, and buttons for "Published", "Verified", and "Draft". The main area is a table with columns "ID", "Title", and "Area". There are seven messages listed, all belonging to the "Danmark - Østersøen" area. A "Close" button is at the bottom right.

ID	Title	Area
NM-391-17 (P)	Danmark. Østersøen. Stevns. Rødvig. Krigers Flak. Stærkstrømskabler udlægges. Forbudsområde oprettet.	Danmark - Østersøen
NM-383-17 (P)	Danmark. Østersøen. Krigers Flak. Anlægsarbejder. Afmærkede forbudsområder oprettes.	Danmark - Østersøen
NM-392-17 (T)	Danmark. Østersøen. Krigers Flak. Havbundsundersøgelser.	Danmark - Østersøen
NM-375-17 (T)	Danmark. Østersøen. Krigers Flak. Havbundsundersøgelser.	Danmark - Østersøen
NM-176-17 (T)	Danmark. Østersøen. Bornholmsgat. Davids Banke E. Bjærgningsarbejde.	Danmark - Østersøen
NM-424-17	Danmark. Østersøen. Farvandet omkring Bornholm. Rørlednings inspektion afsluttet.	Danmark - Østersøen
NM-003-17 (T)	Tyskland. Østersøen. Sassnitz NE. Forbudsområde oprettet.	Danmark - Østersøen

The *Sort Area* action allows the user to perform fine-grained persistent sorting of the messages of a certain area.

An alternative way of accessing the *Sort Area* dialog is by clicking the "Sort..." link next to the area name in the message list (when the messages area sorted by area):

Denmark - The Baltic Sea sort...

NM-066-16 (T) From Dec 22, 2016 Denmark. The Baltic Sea. Bornholmsgat.

NM-067-16 (T) From Dec 22, 2016 Denmark. The Baltic Sea. Buoy missing.

The sorting of messages by area is a fairly advanced topic. By default, messages adheres to the sorting of the area tree, as defined by an administrator:

- ▲ Denmark
 - ▷ The Baltic Sea
 - The Sound
 - ▷ The Waters South of Zealand
 - ▷ The Great Belt
 - Waters South of Funen
 - ▲ The Little Belt
 - EK R 44 Halk
 - 14 Hyby Faelled
 - ▷ Kattegat
 - The Liim Fiord
 - ▷ Skagerrak
 - ▷ The North Sea
 - Faroe Islands
 - ▲ Greenland
 - W-coast
 - E-coast

In this example, "Denmark" is sorted before "Faroe Islands", and within "Denmark", "The Baltic Sea" is sorted before "The Sound", etc.

However, it is possible to adjust this sorting administratively. So, for instance, all messages associated with "The Baltic Sea" or any of its sub-areas will be sorted clockwise around the position 54° 30'N - 012° 00'E starting at a bearing of 180°.

Similarly, all messages associated with "The Sound" or any of its sub-areas will be sorted North-to-South.

And so forth...

This automated sorting of messages by area can then be overridden manually by using the *Sort Area* action. Once an area has been selected, all the messages of the area can be re-arranged by dragging a message to its proper position using the drag handle.

4.4.14. Message List Sort Selection

The last four items of the *Action* menu let the user select which message field to sort by. This include: *Area*, *ID*, *Event Dates*, *Publish Date* and *Follow-up Date*.

Choosing the same sort field multiple times, will toggle between ascending and descending order.

A small arrow will indicate the current sort field and whether ascending or descending order is used.

4.5. Message Details

Contraventions of the prohibition are punishable in accordance with the same act, section 28 (iii).

NM-383-17 (P)

Denmark. The Baltic Sea. Kriegers Flak. Construction works. Restricted buoyaged areas to be established.

References [NM-302-17](#).

Details In the time period between 1 June 2017 - 31 July 2018 2 platforms will be build in prohibited areas defined by positions 1) - 4) and 5) - 8) respectively. The areas will be buoyaged with yellow spar buoys with topmarks and light, Fl(3)Y.10s, in the mentioned positions.

1)	55° 02.201'N - 012° 50.164'E
2)	55° 02.142'N - 012° 52.037'E
3)	55° 01.066'N - 012° 51.933'E
4)	55° 01.125'N - 012° 50.061'E
5)	55° 03.475'N - 012° 55.831'E
6)	55° 03.414'N - 012° 57.705'E
7)	55° 02.338'N - 012° 57.598'E
8)	55° 02.399'N - 012° 55.725'E

Within the area unauthorized navigation, anchoring, diving and fishing is prohibited.

Note The prohibited areas will be established by DMA in accordance with consolidated act no 72 of 17 January 2014 on safety at sea, section 6 (i and vii). Contraventions of the prohibition are punishable in accordance with the same act, section 28 (iii).

Charts 104.

Publication [J. no. 2014015202].

(Energinet.dk 21 March and DMA 5 April 2017. Published 24 April 2017)

Close

10 | 55° 01.174'N - 013° 07.762'E

Messages on the *Messages* page can be inspected in the *Message Details Dialog*.

Depending on the current view mode, the user clicks the message title, the message thumbnail icon, or the message map symbol to open the details dialog.

In the top of the details dialog, the user can inspect the message positions and areas on a map. Below that, the textual details of the message is presented. Bottommost, a row of buttons allows the user to navigate the previous/next message in the list, to select or de-select the message, and an action menu with message-specific actions.

If the user clicks on a referenced message in the message details, the clicked message will be presented instead, and the previous/next navigation buttons will change to a "Back" history button.

The *Action* menu will contain *Edit* and *Copy* actions, along with some of the actions detailed in the *Message Actions* section that are message specific.

4.6. Message Tags

tag	type	created	expiry date	#messages	action
firing-areas-2017-v1	public	Jan 1, 2017		32 clear	
Godkendt	domain	Jan 31, 2017		0 clear	
Klar til korrektur	domain	Jan 12, 2017		45 clear	
nm-almanac-2017-v1	public	Jan 2, 2017		28 clear	
nm-almanac-2017-v2	public	Mar 7, 2017		28 clear	
nm-annex-istjeneste-2017	public	Jan 2, 2017		1 clear	
nm-annex-ncags-2017	public	Jan 2, 2017		1 clear	
nm-pt-w01-2017	public	Jan 1, 2017		81 clear	
nm-pt-w02-2017	public	Jan 6, 2017		82 clear	
nm-pt-w03-2017	public	Jan 13, 2017		84 clear	

Message Tags plays an important role in Niord, as they may be used to persistently group and name sets of messages.

The *Message Tags* are used many places, such as in the [Tag Filter](#), the [Import Action](#) and the Publications maintained by administrators. Everywhere tags can be selected, the user may click the button to open the Message Tag dialog.

Message tags can be either *Private*, *Domain*-specific or *Public*. The *Private* tags can only be managed and used by the user that created them, the *Domain* tags can be maintained and used within the domain they belong to, and the *Public* tags are available to all domains.

Tags can also be time-limited. When the user creates a new tag, she can specify an expiry date of the tag, after which, the tag (but not the associated messages) will be deleted automatically.

Furthermore, a message tag can be locked or unlocked. As an example, the message tag used to group the NM messages of a weekly Notices to Mariners publication, should not be modified once the digest has been published. Hence, editors should not be allowed to add or remove messages to and from the message tag. And this will be prevented by locking the message tag. Only administrators can unlock a locked message tag.

Chapter 5. Editor

The *Editor* page of Niord is accessible for logged in editors via the main menu.

It contains sub-pages for creating and editing NW and NM messages, for managing the lifecycle of the messages and for submitting comments to a message.

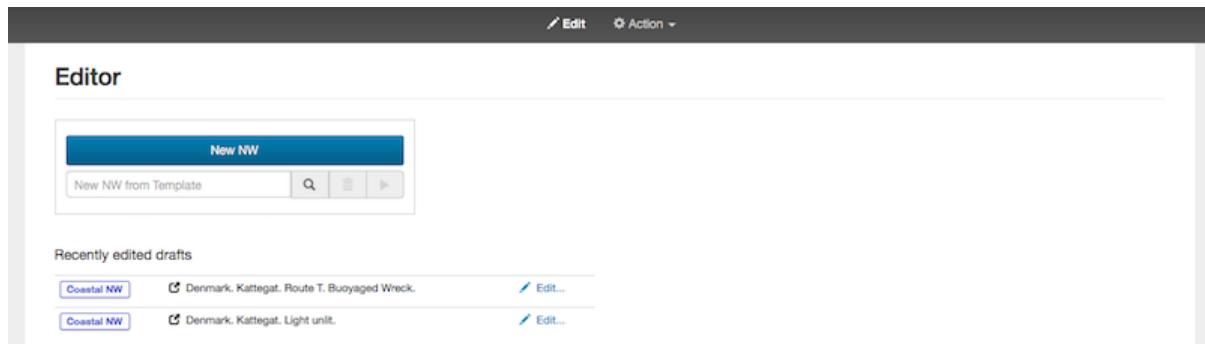
The screenshot shows the Niord Editor interface for a NM message. The message details are as follows:

- Preamble**:
 - Org. Information**: Temp. NM (NM-496-17)
 - Type**: Temp. NM
 - ID**: NM-496-17
 - Title**: Denmark. The Baltic Sea. Bornholm N. Ailinge Havn. Harbour to be closed.
 - References**: None
 - Publish date**: May 15, 2017 9:08 AM CEST - Jun 18, 2017 7:00 PM CEST
 - Areas**: Østersøen, Bornholm N. Ailinge Havn.
 - Categories**: None
- Part 1**:
 - Event dates**: Show time (radio button selected)
 - Positions**: Show positions (radio button selected)
 - Subject**: Harbour to be closed
 - Description**: In the time period 15 June 2017, hours kl. 0700 - 18 June 2017, hours 1900 will Ailinge Harbour be closed for traffic.
 - 1) 55° 16.700' N - 014° 48.100' E Ailinge Harbour.
 - 2) 55° 17.127' N - 014° 47.573' E coast.
 - 3) 55° 17.447' N - 014° 48.332' E
 - 4) 55° 16.861' N - 014° 49.191' E
 - 5) 55° 16.490' N - 014° 48.356' E coast.A prohibited area will be established within a distance of 0.5nm from the coast. The area will be bounded by a line through positions 2) - 5).
- Part 2**:
 - Description**: The prohibited area will be established by the DMA in accordance with consolidated act no. 72 of 17 January 2014 on safety at sea, section 6 (i). Contraventions of the prohibition are punishable in accordance with the same act, section 28 (iii).
- Miscellaneous**:
 - Attachments**: 189 (INT 1336), 188.
 - Charts**: www.danskehavneloeds.dk. [J. no. 2015014660].
 - Publication**: Rigspolitiet 4 and DMA 11 May 2017
 - Source**: None
 - Layout**: None

At the bottom are buttons for **Save Message...** and **Reload Message...**. The footer includes a copyright notice for 2017 Danish Maritime Authority, a logo for the Danish Maritime Authority, and links for **Disclaimer** and **Cookies**.

5.1. Blank Editor Page

If the user enters the *Editor* page directly (as opposed to clicking *Edit* on a message), the *Edit* page looks similar to this:



If the current domain supports Navigational Warnings, there will be a prominent "New NW" button for creating a new blank NW message.

Similarly, if the current domain supports Notices to Mariners, there will be a prominent "New NM" button for creating a new blank NM message.

Depending on how the current domain has been set up administratively, there may also be a *template execution field*. Navigational Warnings in particular often follow a very strict template for how to write the messages so that they adhere to the standards for MSI, NAVTEX, etc. The field thus allows the user to select and execute a template, such as "Light Unlit". Message Templates is an extensive topic, covered in greater detail in the [Message Template Execution](#) section.

Lastly, the blank editor page will list the draft messages that the current user has recently edited.

5.2. Edit Editor Page

When the user has created a new NW or NM message, as described in the previous section, or if the user clicks *Edit* on an existing message, the user will enter the *Edit* editor sub-page, which is the main page for actually editing the fields of a message. See image in the beginning of the [Editor](#) chapter.

5.2.1. General Edit Page Controls

If the user enters the *Edit* editor page by clicking *Edit* on a message in the messages list, there will be a "Back to list" button that will return the user to the *Messages* page with the same message filter applied as when entering the *Edit* page.

The "Clear" button will cancel all changes and return the user to the [Blank Editor Page](#).

If the currently edited message has any unsaved changes, there will be a red *Save* icon next to the "Editor" title:

Editor

At the bottom of the page, there is a "Save Message" button and a "Reload Message" button, which will respectively save any changes to the message and reload the message whilst discarding any changes.

The rest of the *Edit* page is dedicated to the list of field editors for all the fields that make the message being edited.

The list of fields is configured administratively per domain and message type. As an example, Notices to Mariners will support fields such as "original information", whereas Navigational Warnings may have a field for editing its NAVTEX promulgation.

In order to conserve space, all editor fields are "collapsed" by default, showing a read-only version of the field value in the currently selected language. However, clicking at the field title will expand the field and display the field editor in full. See example below with the *Areas* editor field in collapsed and expanded mode:

The screenshot shows a user interface for managing areas. At the top left, there are tabs for 'Areas' and 'Kattegat'. Below them is a search bar with the placeholder 'Kattegat' and icons for search and delete. To the right are buttons for 'Copy Locations' and 'Compute from Locations'. The main area contains two rows of data. Each row has a 'Vicinity' label, a dropdown menu with a British flag icon, and another dropdown menu with a Danish flag icon. In the collapsed state (top row), only the 'Vicinity' labels are visible. In the expanded state (bottom row), the dropdown menus are open, showing the flags.

The editor has extensive support for keyboard navigation. The user can use the arrow-up and arrow-down key to shift focus from field title to field title. Use arrow-right to expand the editor field currently selected, and arrow-left to collapse the field. Use tab, respectively shift-tab, to shift focus between the input fields of a field editor.

The remainder of this section will describe the individual editor fields one by one.

5.2.2. Orig. Information Editor Field

The screenshot shows a user interface for editing original information. At the top left, there is a tab for 'Org. Information'. To the right is a large, empty rectangular input field with a small star icon in its top-left corner.

The *Orig. Information* editor field is typically only present when editing a Notice to Mariners. The editor field contains a toggle-button that can be used to flag if the message is based on original information or not.

5.2.3. Type Editor Field

The screenshot shows a user interface for selecting a message type. At the top left, there is a tab for 'Type'. Below it is a horizontal menu with four items: 'Temp.', 'Prelim.', 'Perm.', and 'Misc.'. The 'Temp.' item is highlighted with a grey background.

The *Type* editor field allows the user specify the sub-type of the message.

For Navigational Warnings, the types include *Local*, *Coastal*, *Subarea* and *Navarea*. Depending on the system configuration of the domain, only a subset of these types may be available.

For Notices to Mariners, the types include *Preliminary*, *Temporary*, *Permanent* and *Miscellaneous*. Depending on the system configuration of the domain, only a subset of these types may be available.

5.2.4. ID Editor Field

The screenshot shows a user interface for managing an ID. At the top left is a tab labeled "ID". Below it is a dropdown menu titled "Message series" with the value "dma-nm". Underneath is a field labeled "UID" containing the string "51e52b6c-9b09-4fe5-9ea2-5ba73f089ef8". At the bottom is a field labeled "Short ID" with the value "NM-002-17" followed by a small "(T)" indicating it is a temporary ID.

All messages must be associated with a *message series*, which are defined administratively for each domain. The message series are used to group messages and define traits such as the format of the message *short ID*, and the numbering scheme. There are four possible types of numbering schemes:

Numbering Scheme	Description
yearly	Every message will automatically be assigned a number when they are published. The number sequence starts at 1 every 1st of january.
continuous	Every message will automatically be assigned a number when they are published. The number sequence is never reset.
manual	The user manually assigns a number in the <i>ID</i> editor field.
none	The message will not be assigned a number.

The *ID* editor field lets the user select any of the available message series for the current domain and message type. Often there will only be one to select from, in which case, it will be pre-selected.

If the numbering scheme of the selected message series is *manual*, the *ID* editor field will also have an input field for the user to fill out the message number.

Lastly, all messages will automatically be assigned a unique system ID, or *UID*, upon creation, which can also be found in the *ID* editor field. Although the *UID* is not very end-user friendly, it can be used to uniquely identify messages even before they are published.

5.2.5. Title Editor Field

The screenshot shows a user interface for managing a title. At the top left is a tab labeled "Title". Below it is a checkbox labeled "Auto generate" which is checked. Below the checkbox are two language dropdown menus. The first menu is set to English (UK) and contains the text "Denmark. Baltic. Bornholm NE. Allinge Havn. Buoy missing.". The second menu is set to Danish (DK) and contains the text "Danmark. Østersøen. Bornholm NE. Allinge Havn. Afmærkning forsvundet.".

The *Title* editor field allows the user to specify the main title of the message in all supported languages.

By default, the "Auto generate" option is checked, in which case the title fields are disabled and computed automatically, by concatenating the currently selected *areas*, *vicinity* and the *subject* fields of each message parts.

5.2.6. References Editor Field

References

Message	Type	Description	
NM-170-17	(repetition)	Description Description	

The *References* editor field allows the user to manage a list of typed references from the edited message to other messages. It is mainly used for Notices to Mariners, but could also e.g. be used for cancellation references in navigational warnings.

Each reference must specify a *message ID* which may either be the *short ID* or the *UID* of the referenced message.

The reference type is one of *reference*, *repetition*, *repetition_with_new_time*, *updated_repetition*, *cancelled*, and signals the nature of the relationship between the messages.

Additionally, the user may add a reference description in all supported languages.

In end-user applications, references can e.g. be used to hyperlink between messages.

5.2.7. Publish Date Editor Field

Publish date

Jan 2, 2017 8:00 AM CET		Publish To	
Follow-up date:		Mar 13, 2017	

Messages can either be scheduled for publication, or published and cancelled manually via the [Status Editor Page](#).

The *Publish Date* editor field can be used for assigning a *publish from* and/or a *publish to* date. If a message has the *Verified* status, the system will automatically publish the message when the *publish from* date is reached. Similarly, if the *publish to* date is specified for a published message, the system will automatically expire the message when that date is reached.

The user can also specify a *follow-up date* in the *Publish Date* editor field. The *follow up* date can be displayed and sorted by on the [Messages](#) page.

5.2.8. Areas Editor Field

Areas

Kattegat			Copy Locations	Compute from Locations
Vicinity	Vicinity			

The *Areas* editor field can be used to assign one or more areas to a message. The areas to select from are created and managed by administrators in a hierarchical structure - please refer to the [Areas](#) admin chapter.

So, as an example, the firing area "EK D 371 Marstal Bugt" is a sub-area of "The Baltic Sea", which is in turn a sub-area of "Denmark".

Selecting an area in the *Areas* editor field will also implicitly select all parent areas.

In addition to the main area input field, the user can also specify a *vicinity* in all supported languages. This is used for the specific location of the hazard (such as a harbour name).

If the selected area has an associated geometry, the "Copy Locations" button will copy that geometry into the [Positions Editor Field](#) of the message.

Alternatively, if no area has been selected but a geometry has been defined for the message, then clicking the "Compute from Locations" will attempt to deduce the area from the geometry.

5.2.9. Categories Editor Field



The *Categories* editor field can be used to assign one or more categories to a message. The categories to select from are created and managed by system administrators in a hierarchical structure.

Some categories have been defined as executable *message templates*. If one or more of these categories have been selected, the ► will be enabled and allow for execution.

Navigational Warnings in particular often follow a very strict template for how to write the messages so that they adhere to the standards for MSI, NAVTEX, etc. The field thus allows the user to select and execute a template, such as "Light Unlit". Message Templates is an extensive topic, covered in greater detail in the [Message Template Execution](#) section.

5.2.10. Message Parts

A message consists of a set of common *preamble* fields and a list of *Message Parts*, where each message part conceptually defines the time, place and description of a hazard.

The option for one message to describe multiple message parts is mostly used for Notices to Mariners, not so much for Navigational Warnings, which typically only define a single message part.

Each message part is headed by a *message part header panel*:



Clicking the plus sign will add a new message part below, and clicking the minus sign will delete the given message part. If more than one message part are present, there will also be an arrow-up and an arrow-down button in the message part header panel, which may be used to re-arrange the message parts.

Lastly, the message part header panel allows for the selection of a *message part type*, such as "Details", "Time", "Positions" or "Note". The only effect of selecting a message part type, is to hide some of the message part fields. The type field can also be used to improve the end-user display of a message by providing custom titles for each message part. See the example below where the first

message part is labelled "Details" and the second one is labelled "Note".

NM-009-17 (T)

Denmark. The Sound. Copenhagen Harbour. Inderhavnen. Christians Brygge. Buoyed prohibited area established. Construction work.

References 45/1119 2016 (repetition).

Details Buoyed prohibited area established. Construction work.
Until week 6 2017 construction work are conducted.
A prohibited area bounded by a line through positions 1) - 5) has been established, buoyed as mentioned. Within the area unauthorized navigation, anchoring, diving and fishing is prohibited.

1)	55° 40.327'N - 012° 34.803'E	quay
2)	55° 40.329'N - 012° 34.807'E	yellow spar bouy with topmark
3)	55° 40.310'N - 012° 34.839'E	yellow spar bouy with topmark
4)	55° 40.251'N - 012° 34.740'E	yellow spar bouy with topmark
5)	55° 40.270'N - 012° 34.707'E	quay

The sheet piling, established according to EfS 2/62 2014, will be removed.

Note The prohibited area has been established by DMA in accordance with consolidated act no 72 of 17 January 2014 on safety at sea, section 6 (i and vii). Contraventions of the prohibition are punishable in accordance with the same act, section 28 (iii).

Charts 134 (INT 1334).

Publication www.danskehavnelods.dk. [J. no. 2013000235].

(DMA 14 April and M. J. Eriksson A/S 7 November 2016. Published 2 January 2017)

5.2.11. Event Dates Editor Field

Event dates

All-day	Start	End	
<input checked="" type="checkbox"/>	Jan 24, 2017	Feb 16, 2017	
<input type="checkbox"/>	Feb 17, 2017 8:00 AM CET	Feb 17, 2017 2:00 PM CET	

Depending on the message part type, each message part can be assigned a list of event dates via the *Event Dates* editor field.

Whereas the publication date interval determines when a message is in-force, the event dates pertain to the underlying hazard, such as a future firing exercise.

For navigational warnings, though, the event dates are typically identical to the publication date. Hence, by default, the *Event Dates* editor field is not displayed for NWs. If needed, the editor field can be enabled from the *Action* menu.

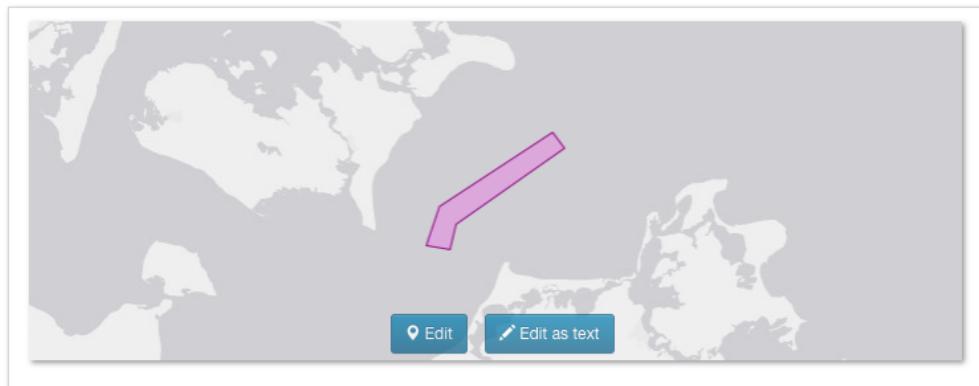
If no event dates are specified when a message is published, an event date interval is automatically added to the first Details message part, thereby synchronizing the event date interval with the publication date interval. This interval is updated when the message is subsequently cancelled or expires.

The main purpose of event dates, is for clients to be able to use it in route planning, and so forth.

The event date intervals has an *all-day* flag that can be used to switch between specifying date-and-time or date only.

5.2.12. Positions Editor Field

Positions



Depending on the message part type, each message part can be assigned a geometrical extent in via the *Positions* editor field.

The positions can either be entered as text or via a graphical editor. This is detailed further in the [Position Editor chapter](#).

5.2.13. Subject Editor Field

Subject

Depending on the message part type, each message part can be assigned a subject, i.e. a short title for the message part in all supported model languages, via the *Subject* editor field.

When the full message title is auto-computed, as detailed in the [Title Editor Field](#) section, it will be assembled by concatenating the message area, vicinity and the subjects of all message parts.

The *Hide Subject* checkbox is used to indicate if the subject should be displayed as a heading for each message part, when rendering the message details. Since the subject of a message part is already likely to be part of the message title, there is often no reason to repeat the subject in the message body. However, if the message contains multiple message parts, it may improve the legibility, if each message part is headed by its subject. See example below:

★
NM-488-17 (P)

Denmark. The Waters South of Zealand. Lolland NW. Vindeby wind farm NW. Wind turbines to be removed. Prohibited area to be established.

References NM-192-17 (updated repetition).

Details Wind turbines to be removed.

In the time period between 1 March - mid-July 2017 the wind turbines in the area around position 1) will be removed.

1)	54° 58.200'N - 011° 07.800'E	Vindeby wind farm
----	------------------------------	-------------------

The work will be carried out from the vessels »Sound Prospector« (SDKF), »Aarsleff Jack VI« (OWBL), »Sound Horizon« (ZDKY7) and »Sound Provider« (SDLC), which can be contacted on VHF channel 16.

Mariners are requested to pass with caution.

Prohibited area to be established.

Surrounding the wind farm a prohibited area bounded by a line through positions 2) - 5) will be established. Within the area unauthorized navigation, diving and fishing will be prohibited.

2)	54° 58.7'N - 011° 07.1'E
3)	54° 58.6'N - 011° 08.4'E
4)	54° 57.1'N - 011° 08.5'E
5)	54° 57.1'N - 011° 07.6'E

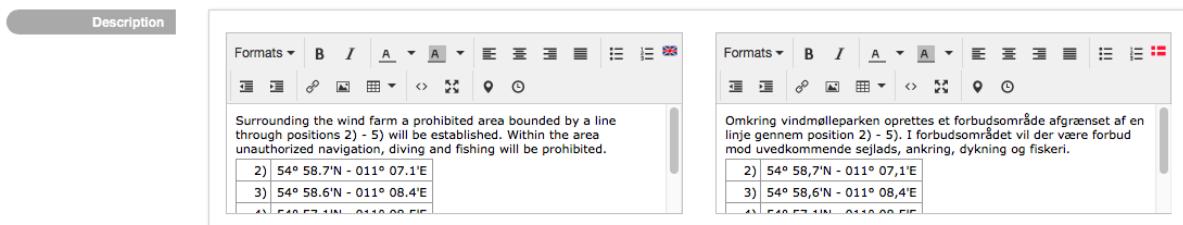
Note The prohibited area will be established by DMA in accordance with consolidated act no 72 of 17 January 2014 on safety at sea, section 6 (I and vii). Contraventions of the prohibition are punishable in accordance with the same act, section 28 (vii).

Charts 160, 142 (INT 1368), 103 (INT 1303).

Publication [J. no. 2015026224].

(DMA 24 January and Dong Energy A/S 8 February 2017. Published 26 May 2017)

5.2.14. Description Editor Field



Depending on the message part type, each message part can be assigned a rich-text description in all supported model languages, via the *Description* editor field.

Most of the editor tools are standard text editor tools for controlling e.g. the text style and color, alignment, bullet and numbered lists, etc.

However, some of the editor tools will be detailed further below.

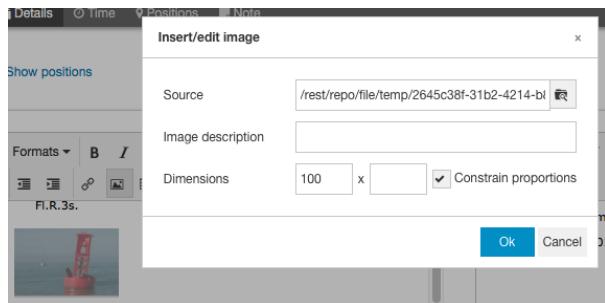
Fullscreen

Probably the single most important tool, is the *Full-Screen* tool. It will toggle between showing the editor in full-screen mode.

For marginally complex message descriptions, editing in the standard layout is plainly too cramped.

Insert/edit Link and Insert/edit Image

Adding links and images to the rich-text description, ties in with the attachments added to the message via the [Attachments Editor Field](#). If e.g. the user uploads a PDF or a photo as an attachment to the message, the user can subsequently add links to the file in the rich-text description, or indeed, insert the image directly in the text.



In the example above, the *Insert/edit image* tool was enacted, opening the image dialog. Click the *Source* field button to select the attached image to insert or edit.

The same procedure applies when inserting links to attachments.

Table

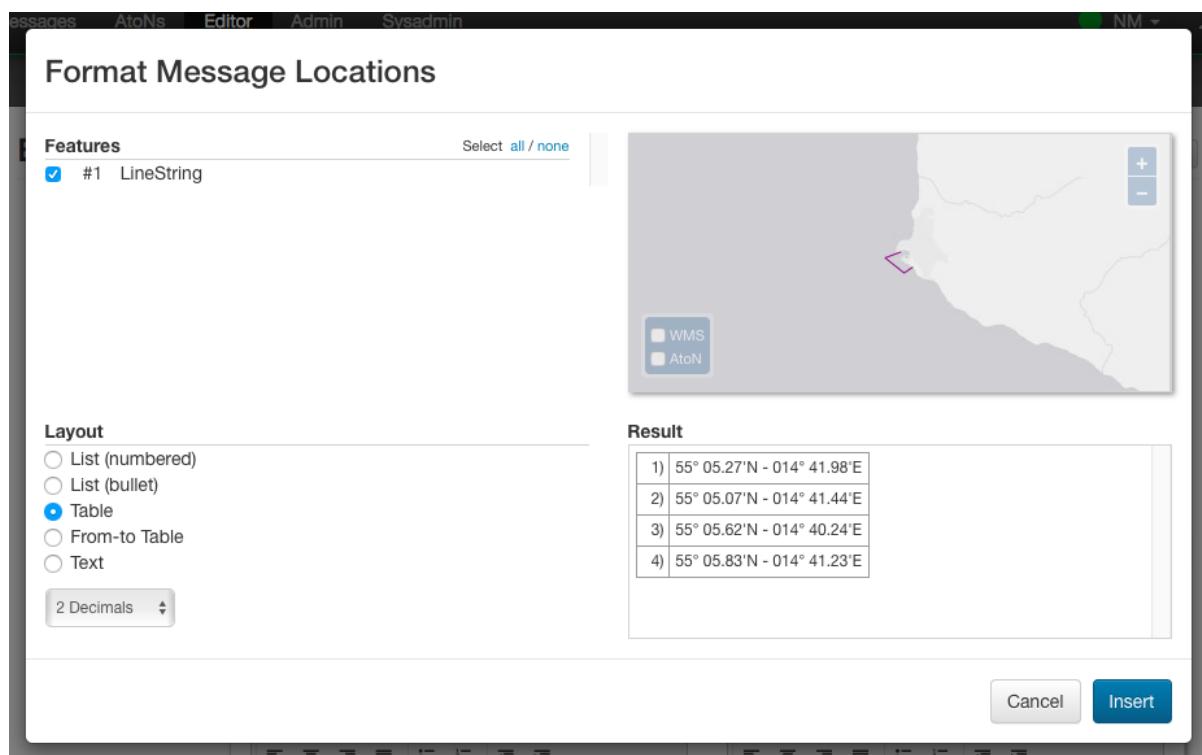
The *Table* tool is fairly advanced, with lots of context-dependent functions. When the cursor is within a table many of these will be available via a table toolbar above the table. Even more options are available in the context menu, when right-clicking in a table. Of special interest are the *Class* options, which can be used to control the appearance of the table, rows and cells:

- **Table Properties:** Select between the classes "None", "No border", "condensed", "No border + condensed", "Positions" and "Position table", to change the layout of the entire table.
- **Row Properties:** You find the *Row Properties* in the right-click context menu. Select between the classes "None" and "Underline" to change the layout of the current or the selected rows.
- **Cell Properties:** You find the *Cell Properties* in the right-click context menu. Select between the classes "None", "Underline", "Position" and "Pos. Index" to change the layout of the current or the selected cells.

Insert Locations

The *Insert Locations* tool is a very useful tool that may be used to format and insert the positions defined in the [Positions Editor Field](#) in the rich text description. The generated text will adhere to the language of the description field.

Clicking the *Insert Locations* tool will open the *Format Message Locations* dialog:



The *Features* panel allows the user to select which geographical feature to insert. Message positions are defined via geometrical features such as points, polygons, line-strings, etc, each of which will define a list of positions. The position list only contain the positions that makes sense in a textual description. So for instance, if the geometrical feature is a polygon with holes in, only the positions of the exterior ring is included.

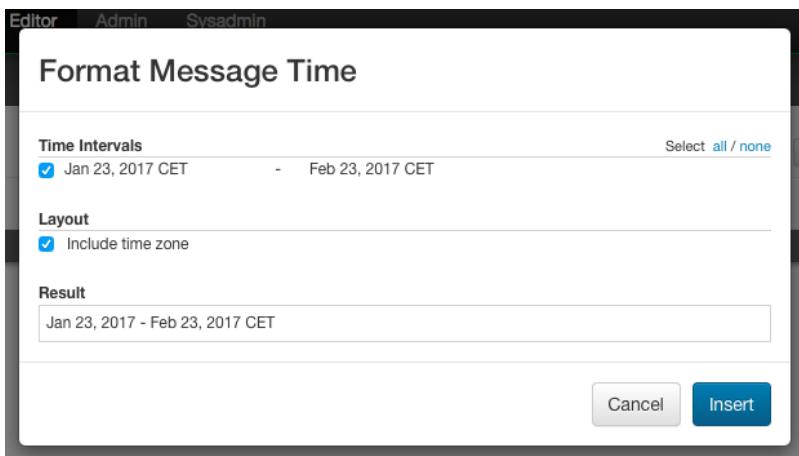
The *Layout* panel is used to select a layout template used for rendering the positions, that is, if the list of positions should be rendered in a table, a bullet list or as text. The user may also select the position format, such as "NAVTEX", "Seconds" or various "Decimal" formats.

The *Result* panel will preview the result.

Insert Time

The *Insert Time* tool may be used to format and insert the event time intervals defined in the [Event Dates Editor Field](#) in the rich text description. The generated text will adhere to the language of the description field.

Clicking the *Insert Time* tool will open the *Format Message Time* dialog:

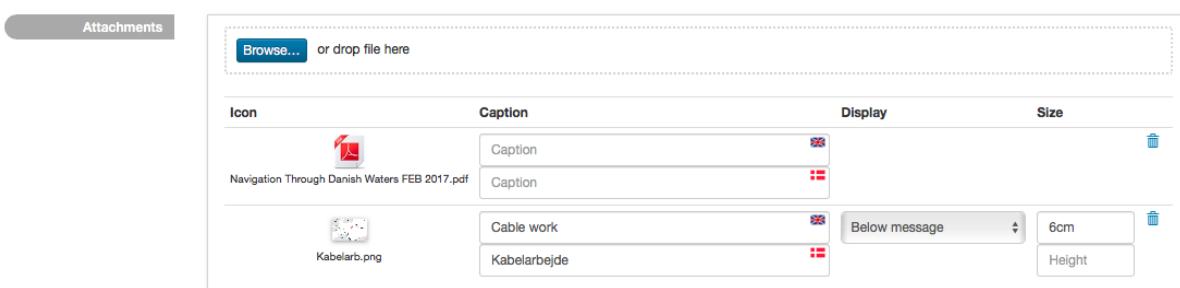


The *Time Intervals* panel allows the user to select which of the event date intervals to format and insert.

The *Layout* panel let the user select whether or not to include the time-zone in the formatted text.

The *Result* panel will preview the result.

5.2.15. Attachments Editor Field



The screenshot shows the 'Attachments' editor field interface. It has a tab labeled 'Attachments' at the top left. Below it is a section with a 'Browse...' button and a placeholder 'or drop file here'. A table lists attachments with columns for 'Icon', 'Caption', 'Display', and 'Size'. There are two rows. The first row has an icon of a person, a caption 'Navigation Through Danish Waters FEB 2017.pdf', and a display setting 'Below message'. The second row has an icon of a document, a caption 'Kabelarb.png', and a display setting '6cm'. Both rows have a 'Height' input field set to '100px'.

Icon	Caption	Display	Size
	Caption Navigation Through Danish Waters FEB 2017.pdf	Below message	100px
	Cable work Kabelarbejde	6cm	100px

The *Attachments Editor Field* can be used to associate files, such as PDFs and photos, with a message.

If a message has an associated list of attachments, the attachments can be viewed and downloaded by end-users when viewing the message details. See example below:

Denmark. Navigation through Danish Waters. New edition.

Details [Navigation through Danish Waters. New edition.](#)

The publication "Navigation through Danish Waters, version 12.0 2017" is published. The former edition of "Navigation through Danish Waters, version 11.0 2014" is hereby cancelled.

The New edition is added to this EoS message and can be found on the homepage of the Danish Maritime Authority, www.dma.dk.

Attachments [Hide attachments](#)



[Navigation Through Danish Waters FEB 2017.pdf](#)

Publication [Navigation through Danish Waters. \[J. no. 2013003402\].](#)

(DMA February 2017. Published 22 February 2017)

Attachments can also be linked or inserted directly in the rich-text description field of a message part, as described in the [Insert/edit Link](#) and [Insert/edit Image](#) sub-section.

A new file is attached to a message by clicking the "Browse..." button and selecting the file, or by dragging the file into the dotted-line panel surrounding the "Browse..." button.

An existing attachment can be deleted by clicking the trash icon next to the attachment.

An additional caption can also be specified for attachments in all supported model languages.

For embeddable attachments, such as images and videos, an extra *Display* option will be available:

Display Value	Description
Above Message	If the <i>Above Message</i> option is selected, the attachment (i.e. image or video) will be displayed above the message when rendering the message details, or generating a print report.
Below Message	If the <i>Below Message</i> option is selected, the attachment (i.e. image or video) will be displayed below the message when rendering the message details, or generating a print report.
Separate Page	If the <i>Separate Page</i> option is selected, the attachment (i.e. image or video) will be displayed on a separate page when generating a print report.

If either of the display options above is selected, the size of the embedded attachment can be specified in the *Width* and *Height* field. If only one of these fields is filled out, the embedded attachment will be scaled proportionally.

As part of the *Width* or *Height* values, the user must also specify the unit, which must be one of "em", "px", "%", "cm", "mm", "in", "pt" or "pc".

5.2.16. Promulgation Editor Field

Promulgation

NAVTEX Audio

DANISH NAV WGNR \${number-year-id}

DENMARK. KATTEGAT. RANDERS FJORD.
PORT HAND LIGHT BUOY 56-34.6N 010-15.9E
UNLIT.

Transmitter
 Baltico Rogaland

Priority
Routine

Generate Format

For Navigational Warnings, there may be a need to promulgate specialized versions of a message to external channels. The availability of these *promulgations* is configured by system administrators on a per-domain basis.

Niord has a plug-in architecture for adding new promulgation types. By default, it supports distributing *NAVTEX* versions of navigational warnings via mailing lists, and support for posting messages at Twitter upon publication.

Furthermore, the Danish version of Niord supports generating an *Audio* promulgation for navigational warnings. This will promulgate a verbose textual version of the messages, suitable to be read up on radio by non-maritime personal, to a mailing list.

In most cases, the user will create new Navigational Warnings by executing message templates - please refer to [Message Template Execution](#). The templates will automatically produce the promulgations needed for a message.

However, before publishing a message, the promulgations should be proof-read and updated as appropriate. The *Promulgation Editor Field* thus allows the user to choose which promulgation types to support (via a checkbox in the promulgation tabs), and to update the promulgation contents.

For the *NAVTEX* promulgation (see screenshot above), ensure that *Priority* and *Transmitter* selection is correct, and that the text adheres to *NAVTEX* standards.

Most promulgation types will have a "Generate" button, that can be used as a starting point if the message has not been created by executing a message template. This will create a crude starting point, that must subsequently be edited and polished.

The *NAVTEX* promulgation also contains a read-only field for the *NAVTEX* preamble. This may contain *replacement tokens* such as "\${publish-date}" and "\${number-year-id}" that will automatically be substituted upon publication of the message.

5.2.17. Charts Editor Field

Charts

189 (INT 1336) 188

Horizontal Datum

The *Charts* editor field can be used to assign one or more nautical charts to a message. The charts to select from are created and managed by administrators - please refer to the [Charts](#) admin chapter.

If the "Sort" button is clicked, the current selection of charts will be sorted according to their scale.

If the "Compute from Locations" button is clicked, the charts field will be instantiated with the sorted list of all nautical charts whose geographical extent overlaps with the positions defined for the message will be included. This list should subsequently be verified by the user, since some of the charts may not actually contain the feature (say, a light) referenced by the message.

The *Horizontal Datum* field can be used to specify the horizontal datum, typically WGS84. The horizontal datum is not currently used anywhere in Niord.

5.2.18. Publication Editor Field

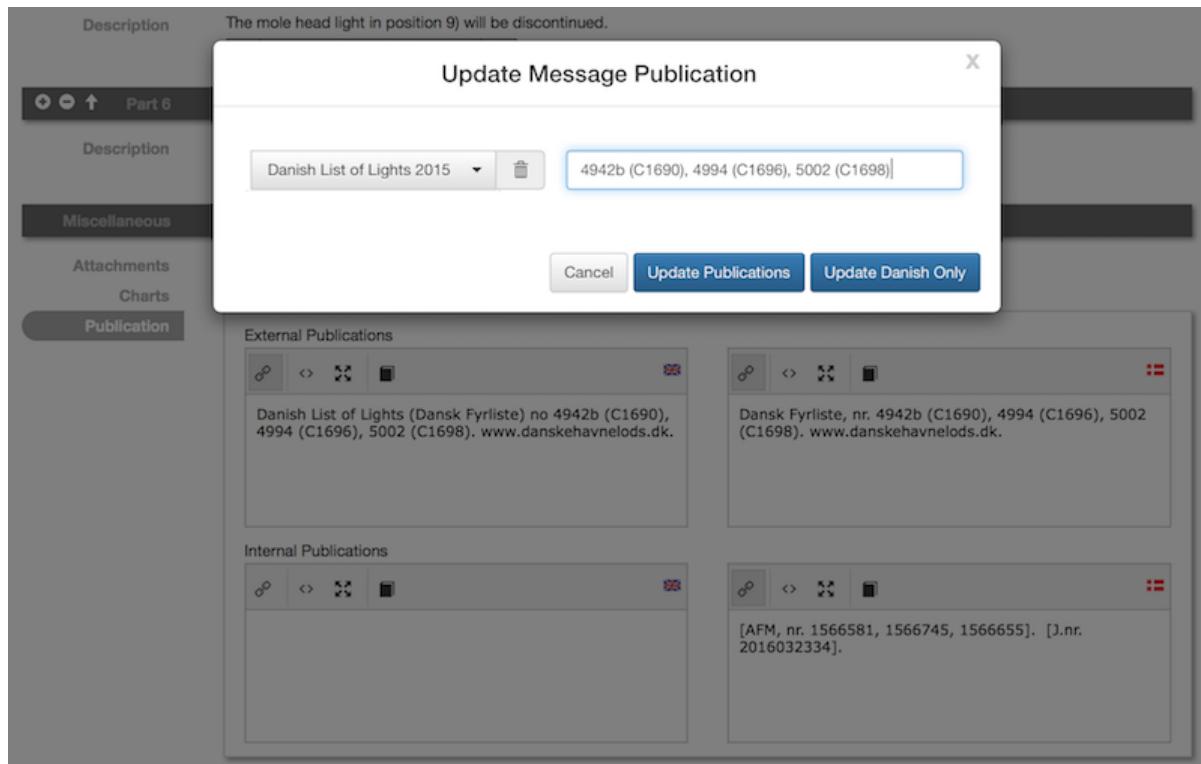


The *Publication* editor field is used to list the publications relevant to the message, such as the List of Lights, Aids to Navigation, the journal number for an associated case in a content management system, etc.

The publications are maintained in rich-text editor fields, mainly to facilitate hyperlinks to the referenced publications. There is one set of *internal publication* and one set of *external publication* fields for each supported model language. Only the external publications will be displayed to end-users, whereas internal publications will be viewable to registered users of Niord as well.

The user can use the tool to insert one of the publications created and managed by administrators in Niord - please refer to the [Publications](#) admin chapter.

When the *Insert Publication* tool is clicked, a dialog pops up that allows the user to add or edit a pre-defined publication:



Some publications will display a parameter input field, where the user can specify additional parameters. This is typically used to e.g. specify relevant light numbers for the List of Light publication, etc.

The user can choose to update only the publication field where the *Insert Publication* tool was clicked, or update all language versions.

5.2.19. Source Editor Field

The *Source* editor field is used to list the sources of the hazard described by the message, such as a harbour authority, a Government department, etc. If a standard abbreviation exists for a source, this should be used to keep the information short and concise. Along with the source, the date of contact should be listed.

The user can click "Add sources..." to insert one or more of the sources created and managed by administrators in Niord - please refer to the [Sources](#) admin chapter.

Upon clicking the "Add sources" button, a dialog pops up that allows the user to select and add one or more of the pre-defined sources along with the date of contact:

NM-007-17 (repetition with new time).

Add message sources

Danish

Royal Danish Navy	RDN
The Danish Energy Agency	ENS
The Danish Maritime Authority	DMA
The Danish Meteorological Institute	DMI
The Danish Road Directorate	VD

Selection:

The Danish Maritime Authority 4/5/2017

Cancel Add selection

www.danskehavnelods.dk. [J. no. 2016025831].

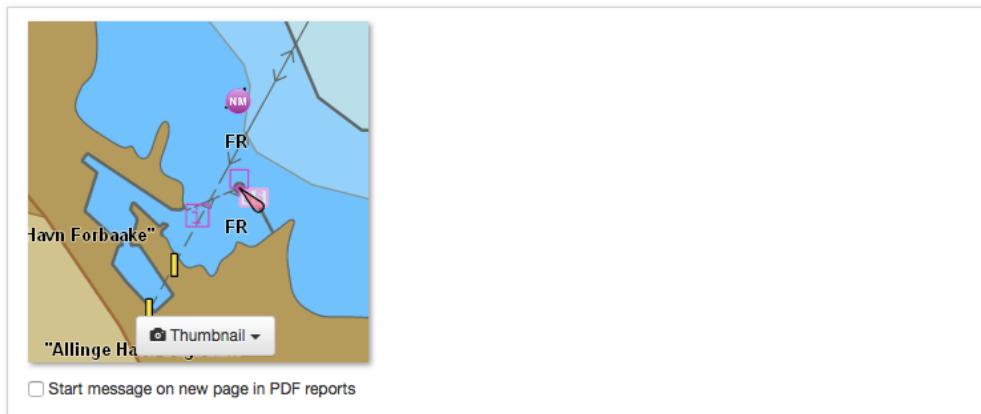
KDI 5 September 2016 and Per Aarsleff A/S 4 April 2017

KDI 5. september 2016 og Per Aarsleff A/S 4. april 2017

Add sources...

The *Source* field for all supported model languages will be updated with the selected sources.

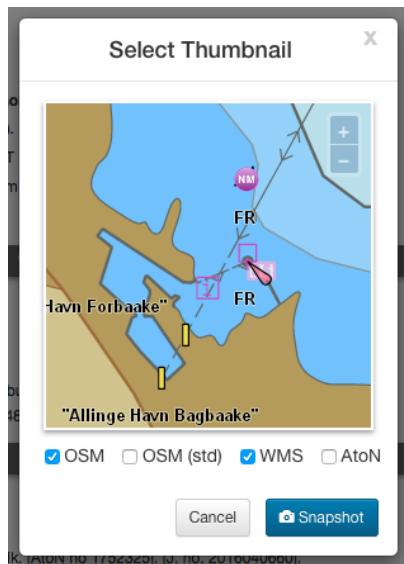
5.2.20. Layout Editor Field



The *Layout* editor field is used for controlling the layout of message lists within Niord, and in print reports.

When working with messages in **Grid View Mode** or **Details View Mode**, each message will show a thumbnail image. By default, the thumbnail is automatically generated, but the user may specify a custom thumbnail image in the *Layout* editor field.

From the thumbnail menu, they can either chose to upload a thumbnail image, or generate one using the "Select thumbnail..." option. This will open the Thumbnail Selection Dialog:



Here, the user can zoom and pan the map, and turn layers on and off, before taking a snapshot to be used as the message thumbnail.

The *Layout* editor field also has a checkbox option, "Start message on new page in PDF reports". If this option is checked, the message will be forced to start on a new page when printing a message list as PDF. This is particularly useful for long Notices to Mariners messages.

5.3. Status Editor Page

The *Status* editor page is where the user manages the status of a message.

At the left side of the page, the user may preview the message details in all supported model

languages.

At the right side, there is a status panel listing the current status of the message, and buttons for manually changing the message status.

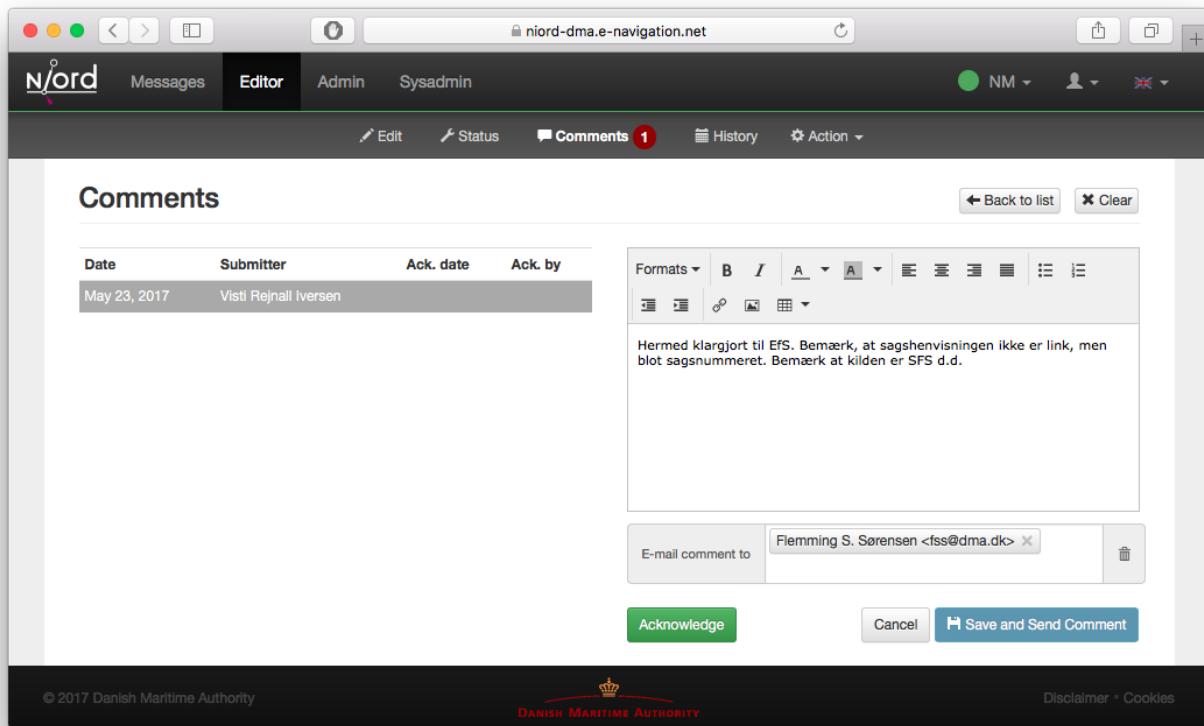
The valid status transitions are listed below. The state change buttons are only visible when they are valid.

From Status	To Status	Description
Draft	Deleted	A draft can be deleted clicking the "Delete Message" button.
Draft	Verified	After proof-reading a message, it can be flagged as <i>Verified</i> by clicking the "Verify Message" button, signalling that it is ready for publication.
Verified	Draft	If a verified message is altered, it will automatically be reassigned the <i>Draft</i> status.
Verified	Deleted	A verified message can be deleted clicking the "Delete Message" button.
Verified	Published	A verified message can be published manually by clicking the "Publish Message" button. If a verified message has a <i>publish from date</i> , it will automatically be published by the system upon reaching the publication date.
Published	Cancelled	A published message can be manually cancelled by clicking the "Cancel Message" button.
Published	Expired	A published message with a <i>publish to date</i> will automatically be expired by the system upon reaching that date.

In addition to the state change buttons, there will always be "Copy Message" button, that may be used for creating an unsaved copy of the message and opening the copy in the editor.

When a verified draft is published by clicking the "Publish Message" button, and if the message contains cancellation-references to another message that is still published, the user will be given an option to automatically cancel the referenced message.

5.4. Comments Editor Page



The *Comments* editor page is where users can submit comments to a message. Users, such as case officers, that do not hold the *Editor* role, may submit comments even if they cannot modify the message.

The *Comments* feature thus assists the process when a whole team of users are involved in writing and proof-reading messages.

The left side of the *Comments* page will list all submitted comments. When clicking on a comment, or if the "New Comment" button is clicked, the comment editor panel will be displayed in the right side of the *Comments* page. See screen-shot above.

When a comment is created or modified, it will be flagged as *unacknowledged*. The comment will stay in this state until the "Acknowledge" button is clicked. If there are any unacknowledged comments for a message, there will be a dark-red badge listing the number of unacknowledged comments next to the *Comments* link in the editor-page selection menu.

Lastly, the user can type a list of e-mail addresses along with a comment. When the comment is saved, all the specified mail recipients will receive an e-mail with the comment and a link to the message.

5.5. History Editor Page

Revision	Date	User	Status
10	May 12, 2017 11:59 AM	System	EXPIRED
9	May 3, 2017 2:32 PM	Visti Rejnall Iversen	PUBLISHED
8	May 3, 2017 2:32 PM	Visti Rejnall Iversen	VERIFIED
<input checked="" type="checkbox"/> 7	May 3, 2017 2:31 PM	Visti Rejnall Iversen	DRAFT
<input checked="" type="checkbox"/> 5	May 3, 2017 10:03 AM	Rune Larsen	DRAFT
3	May 3, 2017 10:02 AM	Rune Larsen	DRAFT
1	May 3, 2017 10:02 AM	Rune Larsen	DRAFT

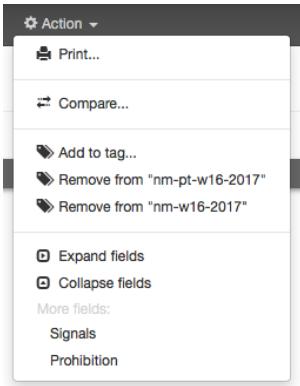
The *History* editor page lists the complete revision history of a message, and allows an advanced user to inspect the underlying data of a message for a particular revision, and indeed to compare revisions.

The table in the left side of the page contains the actual revision list, along with information about when the revision was created, the user who created it, etc.

There is also a checkbox next to each revision that allows the user to *select* the revision. If a single revision is selected, the revision panel in the right side of the page will list the underlying structured data of the revision. If there are any attachments for the selected revision, these are displayed at the bottom of the revision panel.

If two revisions are selected, the revision panel will again display the underlying data in the revision panel, and flag changes using color-coding: Yellow for changes, red for deletions and green for additions.

5.6. Editor Actions



The *Action* menu of the *Editor* page contains the following actions:

5.6.1. Print Action

The *Print* action will print the currently saved version of the message being edited. Please refer to the [Print Action](#) action for message lists.

5.6.2. Compare Action

The *Compare* action will open the message comparison dialog with the currently edited message pre-selected. Please refer to the [Compare Action](#) action for message lists.

5.6.3. Add to Tag Action

The *Add to Tag* action will add the currently edited message to a message tag via the *Message Tag Dialog*. Please refer to the [Message Tags](#) section.

5.6.4. Remove from "Tag Name" Actions

For each message tag that the edited message is assigned to, there will be a *Remove from "Tag Name"* action that will remove the message from that tag.

5.6.5. Expand Fields Action

The *Expand Fields* action is a short hand function that will activate (expand) all field editors on the editor *Edit* page.

5.6.6. Collapse Fields Action

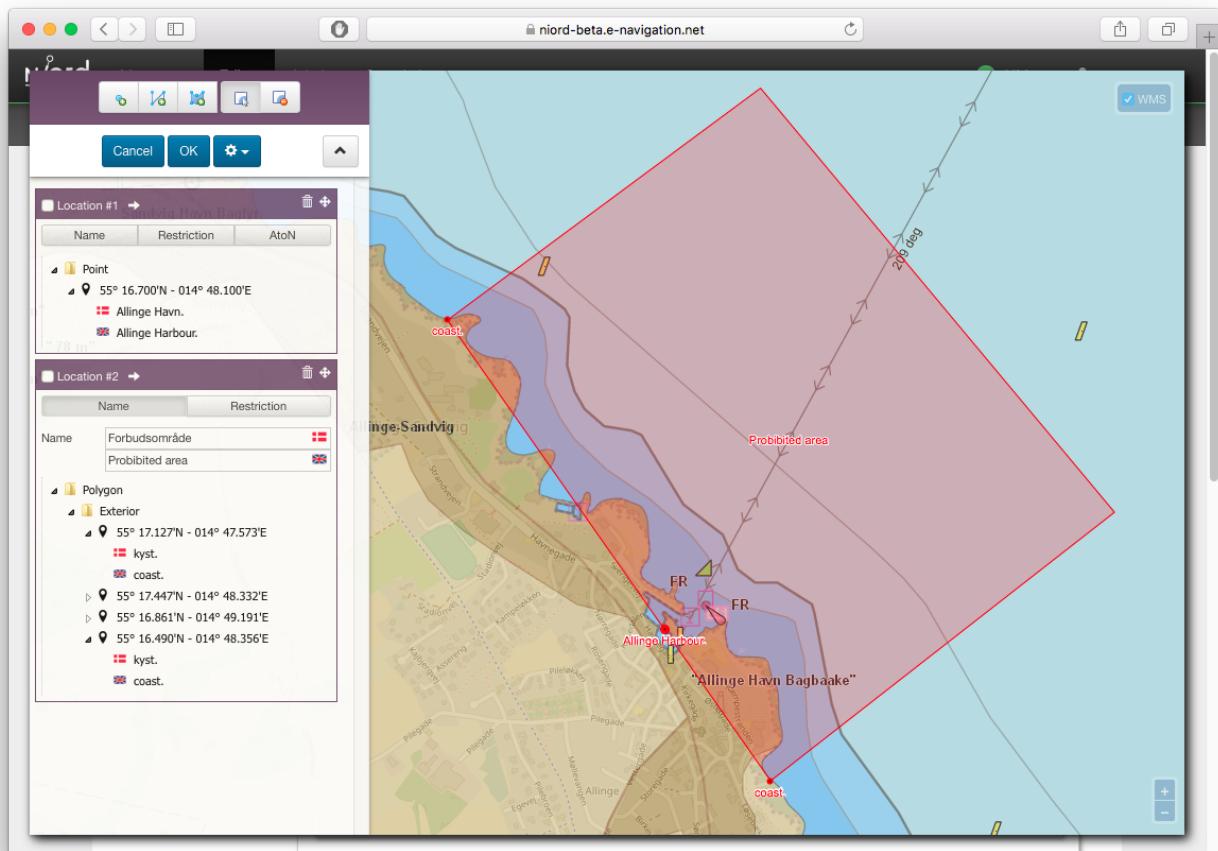
The *Collapse Fields* action is a short hand function that will deactivate (collapse) all field editors on the editor *Edit* page.

5.6.7. More Fields Actions

As described in the [General Edit Page Controls](#) section, the set of editor fields displayed by default on the editor *Edit* page depends on the message type, and may also depend on the selected area, category, etc. For instance, the "Orig. Information" editor field will only be displayed for Notices to Mariners, not for Navigational Warnings.

However, in the bottom part of the *Action* menu, the user can choose to enable any of the editor fields not displayed by default.

Chapter 6. Position Editor



The *Position Editor* is used for editing the geographical extent of various entities in Niord. Most prominently, the *Position Editor* is used to define the geographical extent of message parts - please refer to the [Positions Editor Field](#) section.

However, the position editor is also used by administrative users to define the geographical extent of e.g. charts and areas - please refer to the [User Manual for Admins](#).

6.1. GeoJSON

Internally, Niord has adopted the GeoJSON format for position lists and geographical extents. Please refer to [use of GeoJSON in Niord](#) for more information.

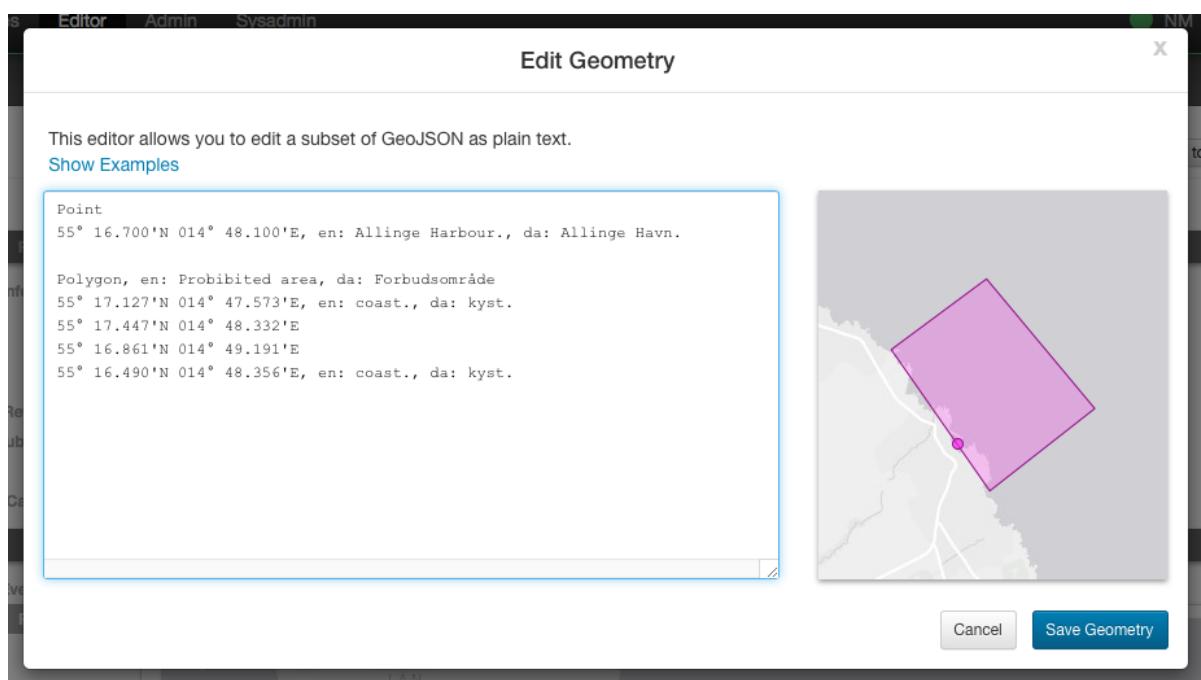
The following geometry types are supported in the Niord *Position Editor*

Geometry Type	Description
Point	A single longitude-latitude position
MultiPoint	A list Points
LineString	A connected list of longitude-latitude positions
MultiLineString	A list of LineStrings

Geometry Type	Description
Polygon	A polygon consists of an exterior ring, plus an optional list of interior rings that represents holes in the exterior ring.
MultiPolygon	A list of Polygons
GeometryCollection	A list of any of the geometry types described above.
Feature	A feature encapsulates one of the geometry types listed above, plus some extra attributes such as <i>properties</i> object. The <i>properties</i> object is used by Niord to store various auxiliary information, such as feature names, restriction flags, etc.
FeatureCollection	A list of Features. This is in fact the geometry type that all message parts are associated with.

Of all these geometry types, the user will usually only deal with *Points*, *LineStrings* and *Polygons*.

6.2. Text Editor



For relatively simple geometries, the user may choose to use the Text-based *Position Editor* (by clicking the "Edit as Text" button). The textual editor is also quite useful if the user wants to create a geometry based on a position list copied from a different source, such as an e-mail.

The main format of the textual representation is:

```

<<Feature 1 Geometry Type>>, <<Feature Name>>
<<Feature 1, Coordinate #1>>, <<Coordinate Name>>
...
<<Feature 1, Coordinate #X>>, <<Coordinate Name>>

<<Feature 2, Geometry Type>>, <<Feature Name>>
<<Feature 2, Coordinate #1>>, <<Coordinate Name>>
...
<<Feature 2, Coordinate #Y>>, <<Coordinate Name>>

...

```

So, each feature starts with a header line stating the geometry type (*Point*, *LineString*, etc). Next, there will be a new line for each coordinate of the geometry. If there are multiple features, each feature must be separated with one or more blank lines.

The feature names and coordinate names are optional, but may be useful when displayed as a label on a map. For instance, if the feature is a polygon that represents a restricted area, then it may be useful to display the buoy types that span the area on the map. The feature or coordinate names are defined by prefixing the name with a two-letter language code, e.g. "en: yellow spar bouy with topmark., da: gul stage med krydstopbetegnelse."

6.2.1. Examples

Create a simple point by simply typing a latitude-longitude position on a separate line. When no geometry type is specified, and only a single position defined, then it is assumed to be a *Point*:

```
56N 11 30.23E
```

Create a named polygon plus a line-string with named coordinates (the rather elaborate format of the positions in this example, is there to illustrate the flexibility of the text editor):

```

Polygon, da: ES D 139 Bornholm Ø., en: ES D 139 Bornholm E.
54° 54.967'N 015° 49.961'E
54° 54.969'N 015° 15.029'E
55° 03.006'N 015° 15.029'E
55° 19.930'N 015° 49.942'E
54° 54.967'N 015° 49.961'E

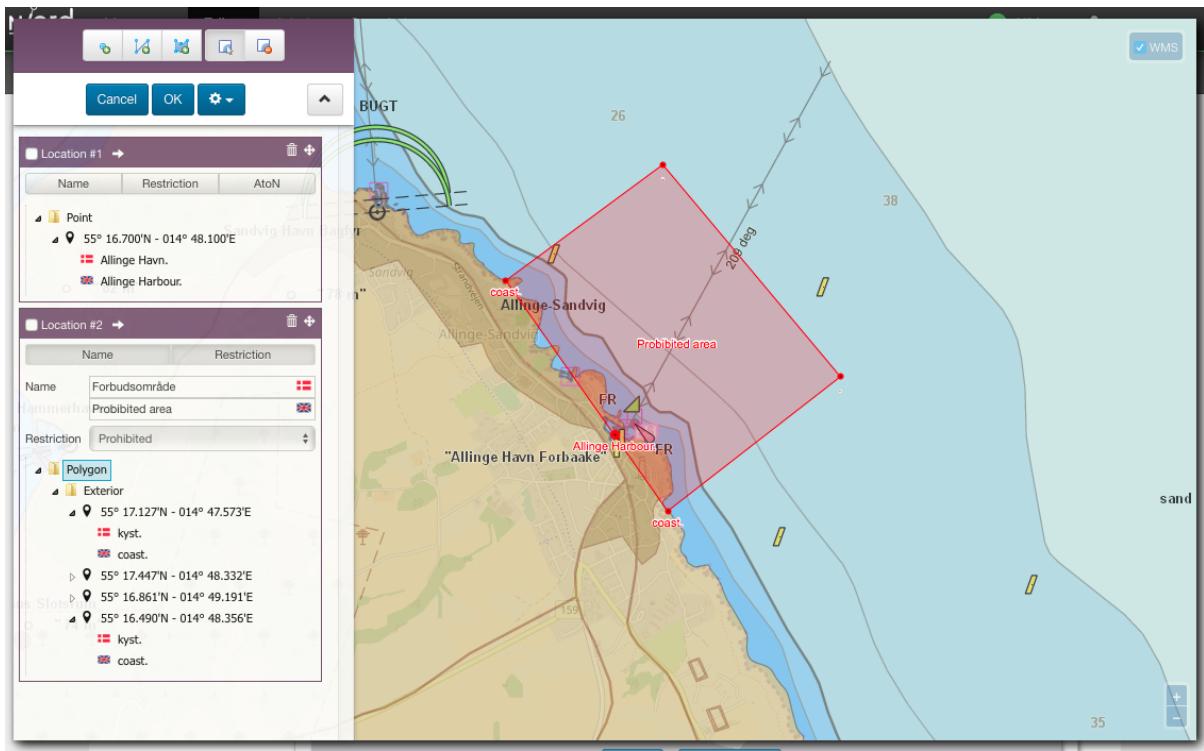
```

```

LineString
1) 54° 53.397'N 009° 53.071'E, da: kyst, en: coast
2) 54° 53.982'N 009° 52.170'E, da: kyst, en: coast

```

6.3. Graphical Editor



In order to create and manipulate more advanced geometries, than can feasibly be handled by the text editor described above, the user may use the *Graphical Position Editor* (by clicking the "Edit" button).

6.3.1. Graphical Editor Tools

The topmost row of tools are used for drawing and manipulating features directly on the map. The tools are detailed below.

No matter which tool is selected, the user can always pan the map by clicking and dragging directly on the map.

Point Tool

When the *Point Tool* is selected, a new single-point position will be inserted every time the user clicks on the map.

Path Tool

When the *Path Tool* is selected, a new *LineString* path will be inserted when the user clicks the map. The first click will place the first position of the path. Subsequent clicks will add a new segment to the path. The user must double-click at the map to place the last segment of the path.

Polygon Tool

When the *Polygon Tool* is selected, a new *Polygon* will be inserted when the user clicks the map. The first click will place the first position of the polygon. Subsequent clicks will add a new segment to the polygon. The user must double-click at the map to place the last vertex and complete the polygon.

Modify Tool

When the *Modify Tool* is selected, the user can select and manipulate existing features directly in the map.

A single click directly on a feature will select the feature. If the shift key is pressed, the feature will be added to an existing selection.

If the user keeps the shift key pressed and drags the mouse, all features within the bounding box will be selected.

Otherwise, if the user clicks and drags the mouse on top of a feature, the feature will be moved.

If the user clicks a segment of a selected LineString, or the border of a selected Polygon, a new point will be inserted at that position.

If the user keeps the shift key pressed and clicks on a vertex of a selected LineString or Polygon, then that vertex will be removed from the feature.

Delete Tool

When the *Delete Tool* is selected, the user can quickly delete all the features that the user clicks on in the map.

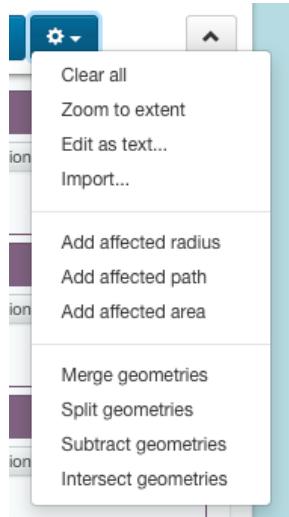
6.3.2. Action Button Panel

The next row of buttons is for various actions. Clicking the "Cancel" button will cancel all changes and close the editor.

Clicking "OK" will update the underlying graphical model and close the editor.

Clicking the  Show/Hide Features toggle button will alternately show and hide the *Features Panel*.

6.3.3. Action Menu



The *Action Menu* contains a multitude of functions for manipulating the features of the *Position*

Editor.

The actual list of functions in the menu depends on the current feature selection.

Clear All Action

The *Clear All* action will clear the editor.

Zoom to Extent Action

When enacting the *Zoom to Extent* action, the editor map will pan and zoom so as to include all the features of the geographical model.

Edit as Text Action

The *Edit as Text* option is only available when the no geometry has been defined, or the geometry is sufficiently simple.

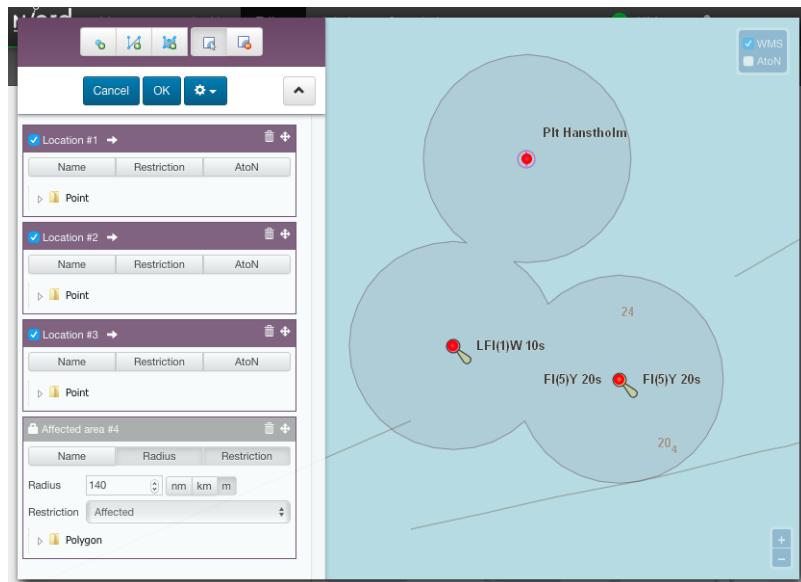
The edited geometry will be opened in the [Text Editor](#) described in a previous section.

Import Action

The *Import* action will open a dialog and allow the user to import any geometry defined for an existing area.

Add Affected Radius Action

If one or more features are selected, the user can enact the *Add affected radius* action to add an affected area with a certain radius around the selected feature(s).



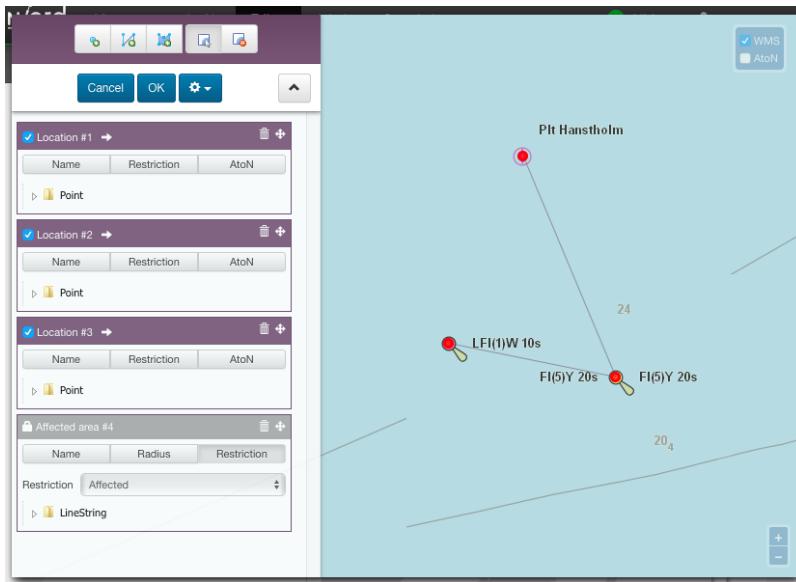
The affected radius feature is tied to the features it was created from (its *parent features*), so, if the user moves or modifies any of the parent features, the affected radius feature will be re-computed.

The user can also update the radius distance of the affected radius feature, whereupon its geometry will be re-computed.

Lastly, the user can select the type of restriction that applies to the affected area. By default the value is "Affected". However, the user can choose "Restricted", "Speed restricted", "Prohibited" and "Stopping prohibited" as well.

Add Affected Radius Action

If two or more *Point* features are selected, the user can enact the *Add affected path* action to add an affected path as defined by the points in the order they appear.

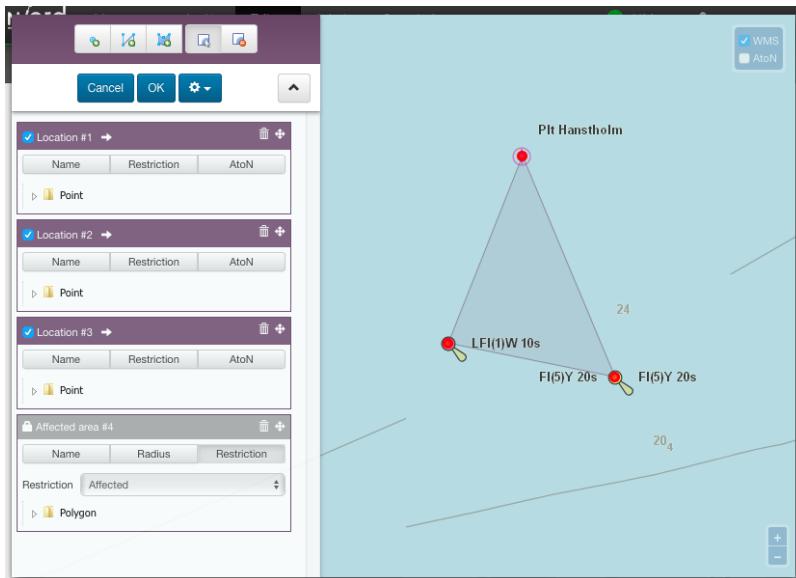


The affected path feature is tied to the points it was created from (its *parent features*), so, if the user moves any of the parent features, the affected path feature will be re-computed.

The user can also select the type of restriction that applies to the affected path. By default the value is "Affected". However, the user can choose "Restricted", "Speed restricted", "Prohibited" and "Stopping prohibited" as well.

Add Affected Area Action

If three or more *Point* features are selected, the user can enact the *Add affected area* action to add an affected area spanned by the points in the order they appear.



The affected area feature is tied to the points it was created from (its *parent features*), so, if the user moves any of the parent features, the affected area feature will be re-computed.

The user can also select the type of restriction that applies to the affected area. By default the value is "Affected". However, the user can choose "Restricted", "Speed restricted", "Prohibited" and "Stopping prohibited" as well.

Merge Geometries Action

If two or more features are selected, the user can enact the *Merge Geometries* action.

The merge function will attempt to be intelligent, depending of the type of the selected features.

- If all the selected features are of type *Point* or *MultiPoint* the resulting feature will be of type *MultiPoint*.
- If all the selected features are of type *LineString* or *MultiLineString* the resulting feature will be of type *MultiLineString*.
- If all the selected features are of type *Polygon* or *MultiPolygon* the resulting feature will be of type *MultiPolygon*.

If none of these criteria applies, the resulting feature will be of type *GeometryCollection*.

Split Geometries Action

If one or more features are selected, the user can enact the *Split Geometries* action.

The split function will attempt to be intelligent, depending of the type of the selected features.

- A *MultiPoint* feature will be split into separate *Point* features.
- A *MultiLineString* feature will be split into separate *LineString* features.
- A *MultiPolygon* feature will be split into separate *Polygon* features.
- A *GeometryCollection* feature will be split into its individual geometries.
- A *LineString* feature will be split into separate *Point* features.
- A *Polygon* feature will be split into separate *Point* features.

Subtract Geometries Action

If two or more *Polygon* features are selected, the user can enact the *Subtract Geometries* action. The resulting polygon will be identical to the first selected polygon, but with all other polygons subtracted (i.e. leaving holes).

Convert to LineString Action

If a *MultiPoint* or a *Polygon* feature is selected, the user can enact the *Convert to LineString* action. The resulting *LineString* feature will form a path between all involved coordinates.

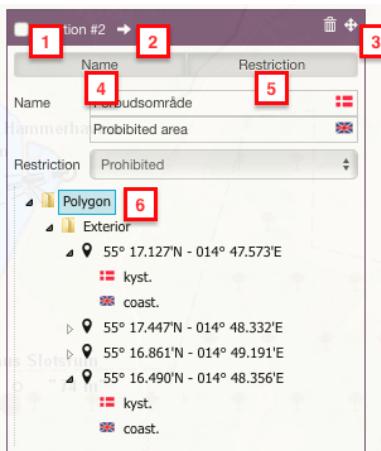
Convert to Polygon Action

If a *MultiPoint* or a *LineString* feature is selected, the user can enact the *Convert to Polygon* action. The resulting *Polygon* feature will form a polygon spanned by all involved coordinates.

Convert to MultiPoint Action

If a *Polygon* or a *LineString* feature is selected, the user can enact the *Convert to MultiPoint* action. The resulting *MultiPoint* feature will contain all involved coordinates.

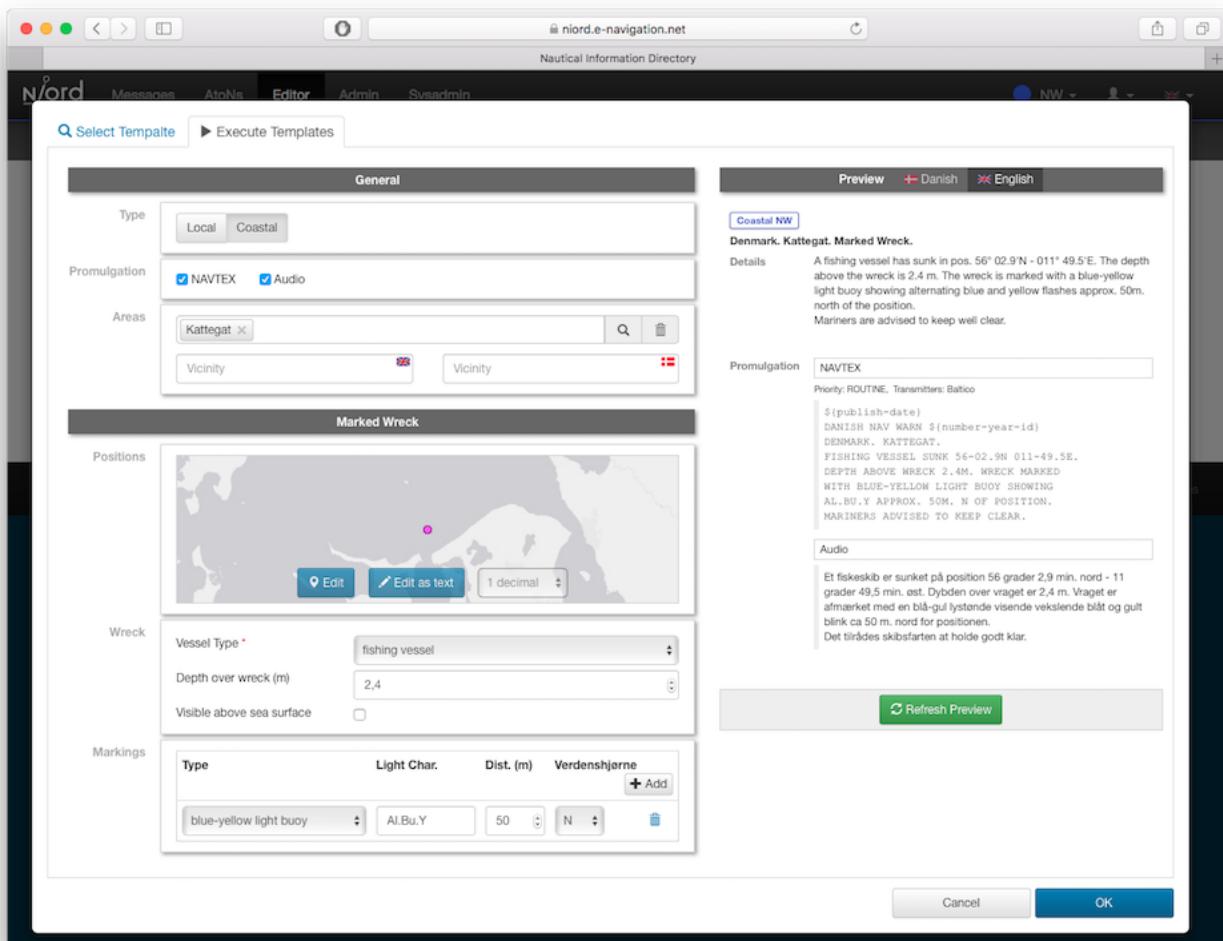
6.3.4. Features Panel



When the *Features Panel* is visible, it will list a *Feature Panel* for all defined features.

1. The feature selection checkbox will toggle the selection state of the feature.
2. The zoom-to-extent arrow will pan and zoom the map to the extent of the given feature.
3. The trash icon will delete the feature, and the drag-handle icon can be used to re-arrange the features in the *Features Panel*.
4. When the *Name* toggle-button is pressed, there will be *feature name* input fields for all supported model languages. A client (e.g. an ECDIS-client) may chose to display the label at the center of the feature.
5. When the *Restriction* toggle-button is pressed, there will be a *restriction* menu for selecting a restriction that applies to the feature. Possible values are "Affected", "Restricted", "Speed restricted", "Prohibited" and "Stopping prohibited". A client (e.g. an ECDIS-client) may chose to use the restriction flag to drive portrayal or have an effect in route computations, etc.
6. The geometry tree will allow a user to inspect and modify the coordinates and coordinate names of the actual feature geometry. The geometry tree can be navigated using the mouse or keyboard keys such as arrow-up, arrow-down, arrow-left (collapse node), arrow-right (expand node), F2 or enter (start editing coordinates or coordinate names) and enter to submit changes. The coordinate names, nested below each coordinate, and available in all supported model languages, may be displayed by a client (e.g. an ECDIS-client) next to the actual position on a map. To a certain extent, the user can also add or remove coordinates by clicking the plus or minus sign displayed next to a selected coordinate.

Chapter 7. Message Template Execution



The *Message Template Execution* feature is set up and configured per domain by a system administrator.

The overarching idea is to allow the user to select and execute a message template for a specific hazard, such as "Light Unlit". The user will be asked to fill out a few standard template-specific parameters, and then a message will be composed and opened in the [Edit Editor Page](#) with most of its fields filled out in a standardized manner.

This mechanism is particularly suitable for generating Navigational Warnings, since they are mostly short and concise, and follow very strict guidelines for how to formulate the messages so as to adhere to the standards for MSI, NAVTEX, etc.

Notices to Mariners are much less suitable, since they are often longer, more varied and written in a more free prose.

A *Message Template* is actually just another name for a *category* that can be executed as described above. *Categories* are assigned to a message in the editor, as described in the [Categories Editor Field](#) section, and they are created and managed by system administrators. Please refer to the System Administrator Manual.

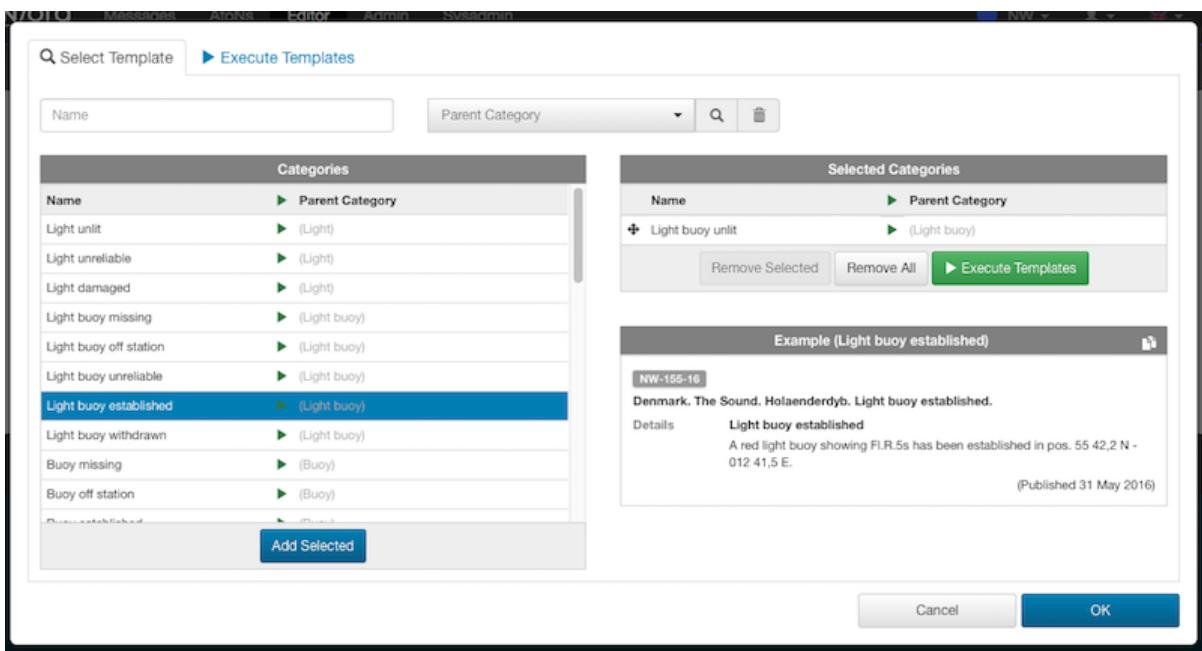
7.1. Template Selection Dialog

The most direct way to commence executing a message template, however, is from the template field of the [Blank Editor Page](#) (in domains that support template execution):



If the user knows in advance which template to execute, she can type it directly into the field.

If the user does not know in advance which template to execute, she can click the selection button in the template field, thereby opening the *Template Selection Dialog*:



The main panel, "Categories", in the left side of the dialog, lists all available executable categories (templates). The user can select one or more of the categories in this list, and click the "Add Selected" button below to add these to the "Selected Categories" panel in the right side of the dialog.

For many of the categories, an example message will be displayed in the bottom-right side of the dialog to assist the user.

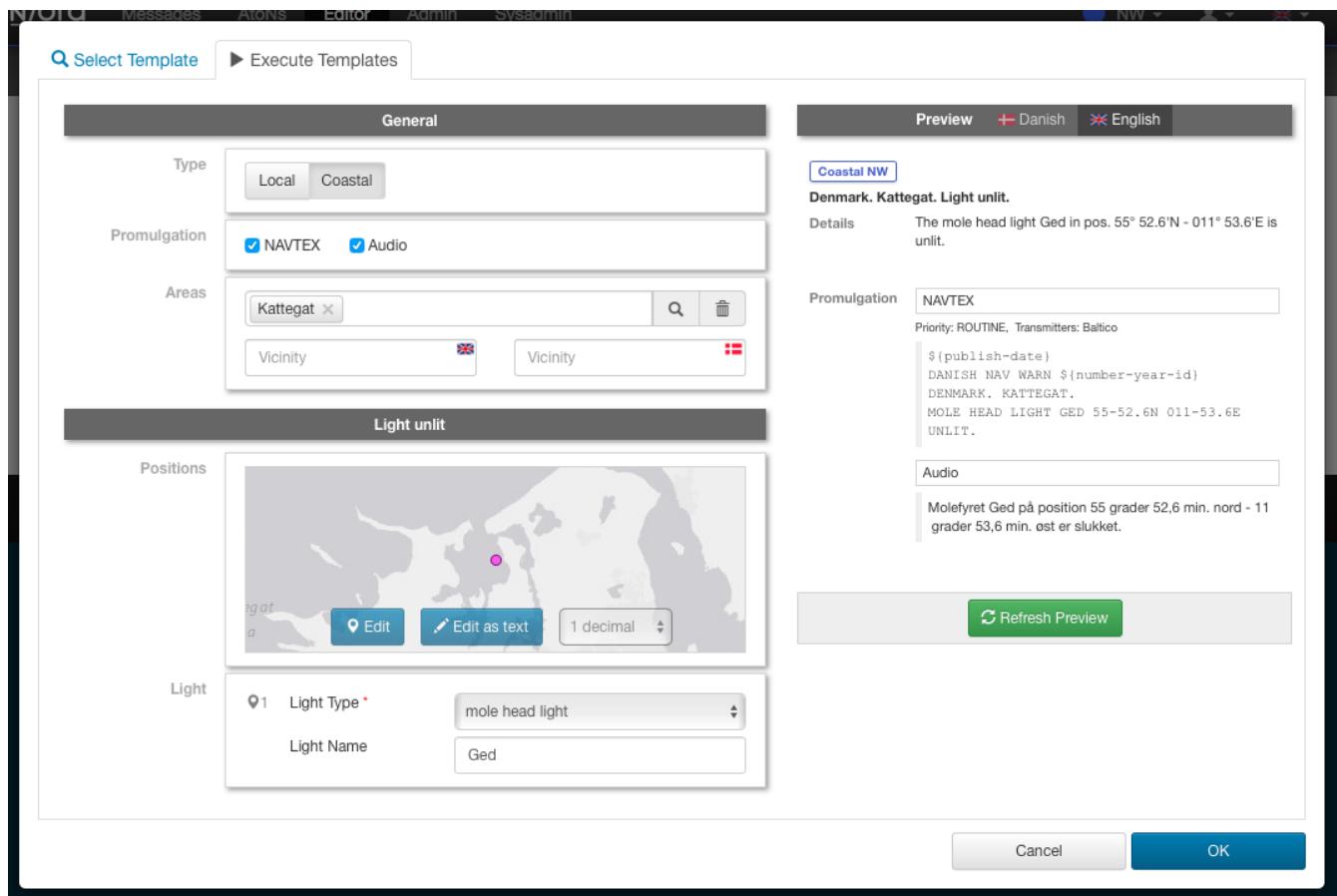
Most often, only a single template will be executed, but it is actually possible to execute multiple template at once, which will produce a message with one message part per templates.

Above the "Categories" panel, there are a couple of fields to filter the available set of categories. A "Name" input field that may be used to filter categories by name, and a "Parent Category" field that will restrict the categories to a specific parent category (e.g. "Buoy").

Once the selection is complete, the user can either click "OK" and return to the *Blank Editor Page* with the updated template selection, or the user may progress directly to the actual template execution, by clicking the "Execute Template" button or tab.

7.2. Template Execution Dialog

As mentioned above, the user can enter the *Template Execution Dialog* directly from the *Template Selection Dialog*. Alternatively, the user can click the ► execution button in the template field.



The dialog is divided into three main sections: The general template parameter panels and the template-specific parameter panels, both at the left side of the dialog, and the preview panel at the right side of the dialog.

The user must first fill out the parameters, typically in a top-to-bottom fashion, in the parameter panels. At any point of time, the user may click the "Refresh Preview" button to actually execute the template, and inspect the result in the preview panel in all supported languages.

When the user is satisfied with the result, she can click "OK", upon which, the generated message will be opened in the [Edit Editor Page](#) - still unsaved. Here, the user should polish the remaining fields and eventually save the message as a new draft.

Most of the general template parameters are (sometimes simplified) versions of the corresponding editor field described in the [Edit Editor Page](#) chapter.