

NAVTOR

# Ship Reporting

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# NAVTOR Suite

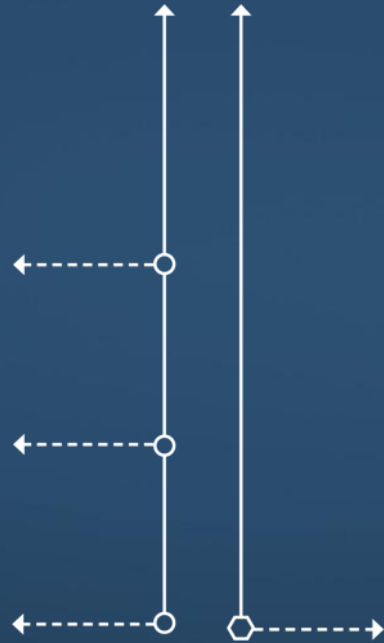
NAVTOR **Tr** **St** **Bx** **Sy** **Si** **Fl**

**NavFleet**

**NavTracker**  
Windows • iOS • Android

**NavTV**

ON SHORE



- AIS / GPS
- Other input

**NavStation**

**NavBox** CYBER SECURE

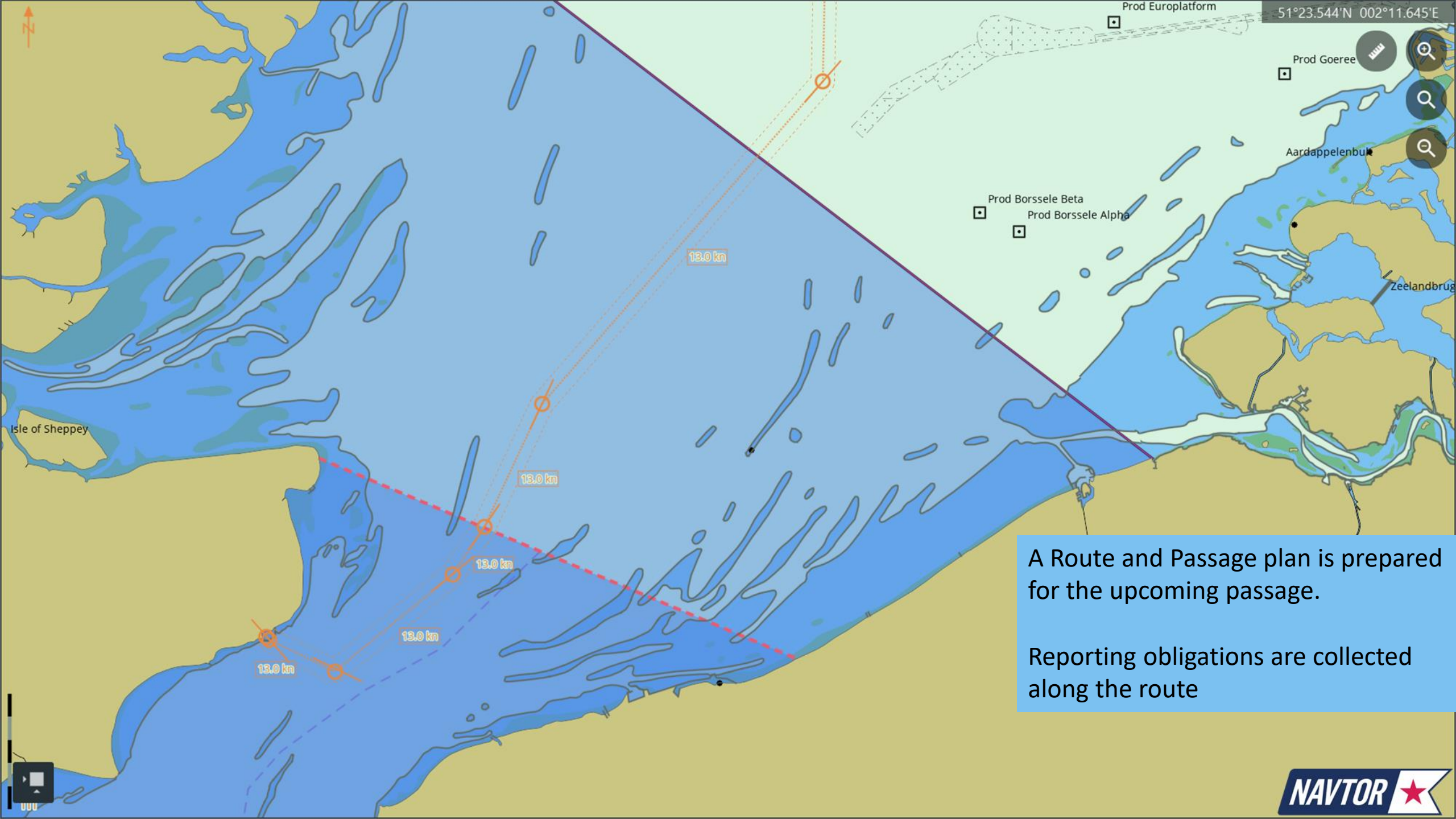
BACK OF BRIDGE

**ECDIS**  
Ecdis 1 • Ecdis 2 • Other systems

FRONT OF BRIDGE

# BACKGROUND

- As a part of SESAME II project we should send Ship to Shore reports in a standardized way, Machine to Machine
- This report should replace the Voice communication via VHF, or more important; reduce waiting time, time consuming reporting, spelling issues etc. in order to focus on vessel operation
- We would use NAVTORs Ship to Shore Infrastructure, and then we distribute reports to given MRS reporting service (VTS)
- Involved MRS': BARENTS SRS, CALDOVREP (& GOFREP supporting the BALTSAFE)



A Route and Passage plan is prepared for the upcoming passage.

Reporting obligations are collected along the route

Reporting obligations

Reporting obligations

MRS\_CALDOVREP\_EGE-DVR

Collect reporting obligations

Voluntary reporting

Default values

MRS reports: CALDOVREP

ID	Value	Description
B	<b>Date and time of report:</b> 14.12.2021 15:23 UTC	Date and time of event, A 6-digit group giving day of month (first two digits), hours and minutes (last four digits). If other than UTC state time zone used
C	<b>Position latitude:</b> 51°21.805'N <b>Position longitude:</b> 001°53.300'E	Position (charlie), A 4-digit group giving latitude in degrees and minutes suffixed with N (north) or S (south) and a 5-digit group giving longitude in degrees and minutes suffixed with E (east) or W (west)
E	<b>Course:</b> 204.2°	True course. A 3-digit group
F	<b>Speed:</b> 11.2kn	Speed in knots and tenths of knots. A 3-digit group
G	<b>Port of departure:</b> Egersund <b>Port of departure code:</b> NOEGE	
I	<b>Destination port:</b> Dover <b>Destination port code:</b> GBDVR <b>Destination ETA:</b> 14.12.2021 17:02 UTC	

- Edit
- Refresh
- Print
- Send

Reporting requirements for the given MRS are presented.

The report is populated based on:

- Vessel static data
- Voyage related data
- Sensor data

51° 21.915' N SIM  
001° 53.379' E Low (>10m)

COG 204.2° SOG 11.2 kn  
HDG SIM 204.0° ROT °/min SIM 0.0

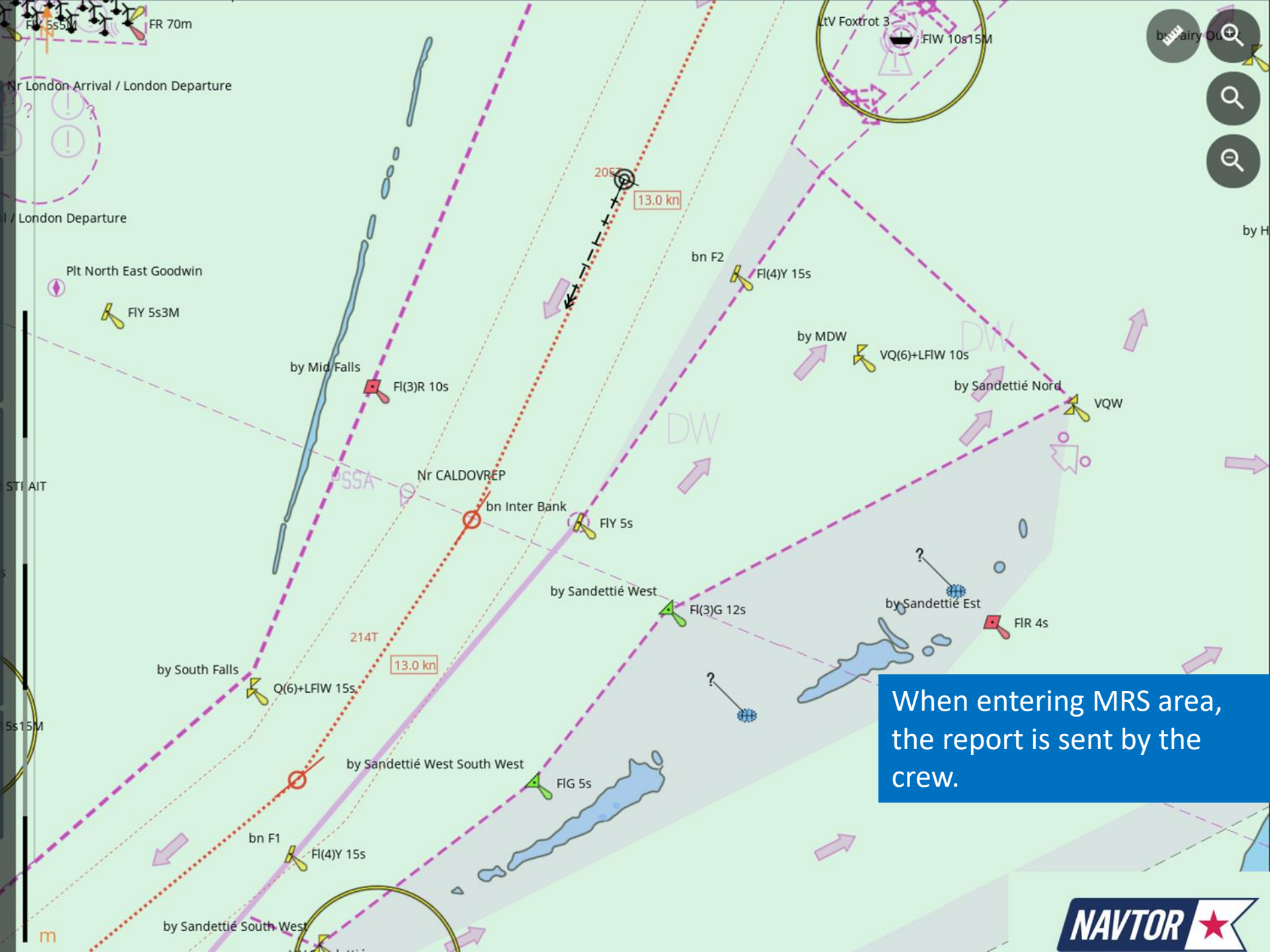
Route: MRS\_CALDOVREP\_EGE-DVR

Waypoint	TWOL	DWOL
7: CALDOVREP report	31 m 30 s	5.88 NM

XTD 176 m

Next leg

Turn radius	Course	Distance
0.40 NM	214°	4.96 NM



When entering MRS area, the report is sent by the crew.

# MRS Reporting

- Report structured according to ISO 28005-2
- A json file are posted to the MRS' API

```
"PortOfArrival": {
  "DepartureTime": null,
  "Location": {
    "CountryCode": 0,
    "CountryCodeSpecified": false,
    "FacilityCode": null,
    "FacilityName": null,
    "GLN": null,
    "Name": "Dover",
    "Position": null,
    "Track": 0,
    "TrackSpecified": false,
    "UNLoCode": "GBDVR"
  },
  "Time": {
    "DateTime": "2021-12-14T17:30:00Z",
    "TimeType": 1,
    "TimeTypeSpecified": true
  }
},
"PortOfDeparture": {
  "DepartureTime": {
    "DateTime": null,
    "TimeType": 0,
    "TimeTypeSpecified": false
  },
  "Location": {
    "CountryCode": 0,
    "CountryCodeSpecified": false,
    "FacilityCode": null,
    "FacilityName": null,
    "GLN": null,
    "Name": "Egersund",
    "Position": null,
    "Track": 0,
    "TrackSpecified": false,
    "UNLoCode": "NOEGE"
  },
  "Time": {
    "DateTime": null,
    "TimeType": 0,
    "TimeTypeSpecified": false
  }
}
```

## A – Ship ID, Name etc.

A.851

A	<b>Vessel Name:</b> BERGEN STAR
	<b>Call sign:</b> LNVH
	<b>IMO Number:</b> 9321603
	<b>MMSI:</b> 258310000
	<b>Flag:</b> NO

```
"ShipID": {
  "CallSign": "LNVH",
  "Comment": null,
  "IMONumber": "9321603",
  "MMSINumber": "258310000",
  "RegistrationPort": {
    "CountryCode": 166,
    "CountryCodeSpecified": true,
    "FacilityCode": null,
    "FacilityName": null,
    "GLN": null,
    "Name": null,
    "Position": null,
    "Track": 0,
    "TrackSpecified": false,
    "UNLoCode": null
  },
  "ShipName": "BERGEN STAR"
```

ISO  
28005

## I – Destination and ETA

I	<b>Destination port:</b> Narvik
	<b>Destination port code:</b> NONVK
	<b>Destination ETA:</b> 10.03.2022 19:40 UTC

```
"PortOfArrival": {
  "ArrivalTime": [
    {
      "DateTime": "2022-03-10T19:40:00Z",
      "TimeType": 1,
      "TimeTypeSpecified": true
    }
  ],
  "DepartureTime": null,
  "Location": {
    "CountryCode": 0,
    "CountryCodeSpecified": false,
    "FacilityCode": null,
    "FacilityName": null,
    "GLN": null,
    "Name": "Narvik ",
    "Position": null,
    "Track": 0,
    "TrackSpecified": false,
    "UNLoCode": "NONVK"
  },
  "Position": null
```



### Ship Report: BERGEN STAR / Egersund → Dover

Select vessel: BERGEN STAR | Select voyage: Egersund - Dover | Ship Report System: CalDovRep | Class: | Status: Advance

- A Name: BERGEN STAR - Callsign: LNVH - IMO Number: 9321603 - MMSI Number: 258310000
- B Date/time of Ship Report: 011348UTC DEC 2021
- C Latitude: 51°22.59N - Longitude: 001°53.69E
- E Course: 204°
- F Speed: 11.30 kts
- G Last Port: Egersund - NOEGE
- H Entry Date/Time: [DT] [TZ][MT][YR] - Position: - Latitude: dd°mm.ff'h - Longitude: ddd°mm.ff'h
- I Next Port: Dover - GBDVR - ETA at Next Port: 011532UTC DEC 2021
- O Current Draught: 6.9 m
- P IMO Cargo Type: - Description: Unknown IMO cargo type code
- Q Defects/Limitations:
- T Vessel Representative: Email:info@navtor.com, Inmarsat, Iridium, MobilePhone, Telephone:0047 92600228, Preferred communication:
- U IMO Type: Unknown - DWT: 0 - GT: 0 - Year Built: 0
- W No. Persons on Board: 26
- X Other Relevant Information: This is a test of the general remark field

+ NEW ROW DELETE ROW UPDATE TRACK

CANCEL SAVE REPORT

VOYAGE SUMMARY VIEW DETAILS

BERGEN STAR LNVH Unknown

VOYAGE - UNKNOWN STATUS END VOYAGE

Egersund → Dover



LOA	BEAM	GT	6.9 m DRAUGHT
SOG	COG	NAV. STATUS	

+ NEW REMARK

Reported data are received and available for the VTS operator

# MRS report entries in SafeSeaNet Norway

Report Type	Ship	IMO	Position Time	Current latitude	Current longitude	Destination	Destination ETA	Actions
Reported	BERGEN STAR	9321603	09.12.2021 13.52	65° 59' N	7° 25' E	Narvik (NONVK)	11.12.2021 22.45	<a href="#">View</a> <a href="#">Edit</a>
Reported	BERGEN STAR	9321603	09.12.2021 13.52	67° 10' N	12° 20' E	Bodo (NOBOO)	11.12.2021 12.45	<a href="#">View</a> <a href="#">Edit</a>
Reported	BERGEN STAR	9321603	09.12.2021 13.52	65° 59' N	7° 25' E	Narvik (NONVK)	11.12.2021 12.45	<a href="#">View</a> <a href="#">Edit</a>
Reported	BERGEN STAR	9321603	09.12.2021 13.31	67° 10' N	12° 20' E	Narvik (NONVK)	10.12.2021 00.37	<a href="#">View</a> <a href="#">Edit</a>

## Current position

Latitude:  °  '

Longitude:  °  '

Position time: 09.12.2021 13.31.00

## Entering position

Latitude:  °  '

Longitude:  °  '

Position time: 09.12.2021 13.31.00 (estimated)

## Misc

Departure:

Destination:

Destination ETA:

True course:

Speed:

Draught:

Total persons on board:

Defect or restrictions in maneuverability:

# Summary and some lessons learned

- Standardization is a key word – and Implementation as well
  - Not only for a given «datafield», but also related to data validation, APIs, mandatory fields vs optional, use of report Ids/journal# etc.
- Mapping «free text» report requirements to an specific ISO field is hard...
- In order to be able to generate a good USER interface, we need a full framework for given «report type», and can from that limit information based on receiver requirements