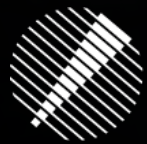


How To Monitor and Protect **Critical Maritime Infrastructure**

Live webinar | September 2024



Gatehouse
Maritime

Agenda

- **Welcome** and introductions
- **Today's theme:** Maritime Asset Protection in 3 acts.
- **Proactive:** Optimizing the planning of any subsea or offshore asset.
- **Real-Time:** 24/7 real-time protection of critical, maritime infrastructure.
- **Reactive:** Gathering evidence if an incident occurs.
- **Key take aways**
- **Q & A session**

Presenters



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**Gatehouse
Maritime**

We are Gatehouse Maritime

- Delivering maritime safety and domain awareness for +25 years.
- Offices in Nørresundby, Denmark and in Tampa, Florida.
- Our customers range from private companies to governmental/defense agencies and authorities.
- Experts in Maritime Domain Awareness and Protection of Critical Maritime Infrastructure.
- Most of our software products can be accessed through our own visualization platform – **Maritime Domain Monitor**. Many can also be delivered through an API into your existing systems.



Today's Theme: Safeguarding **critical** maritime infrastructure

PROACTIVE

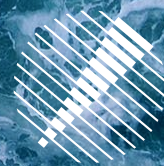
You are in charge of planning the deployment of a subsea cable or an offshore rig – your challenge is to find the best suitable and safest location.

REAL-TIME

You want to minimize the risk of damage to an existing cable, pipeline or rig. How do you do that?

REACTIVE

Your cable has been damaged. It's costly in any way imaginable. You want to find evidence of who and what caused the damage to take legal actions.



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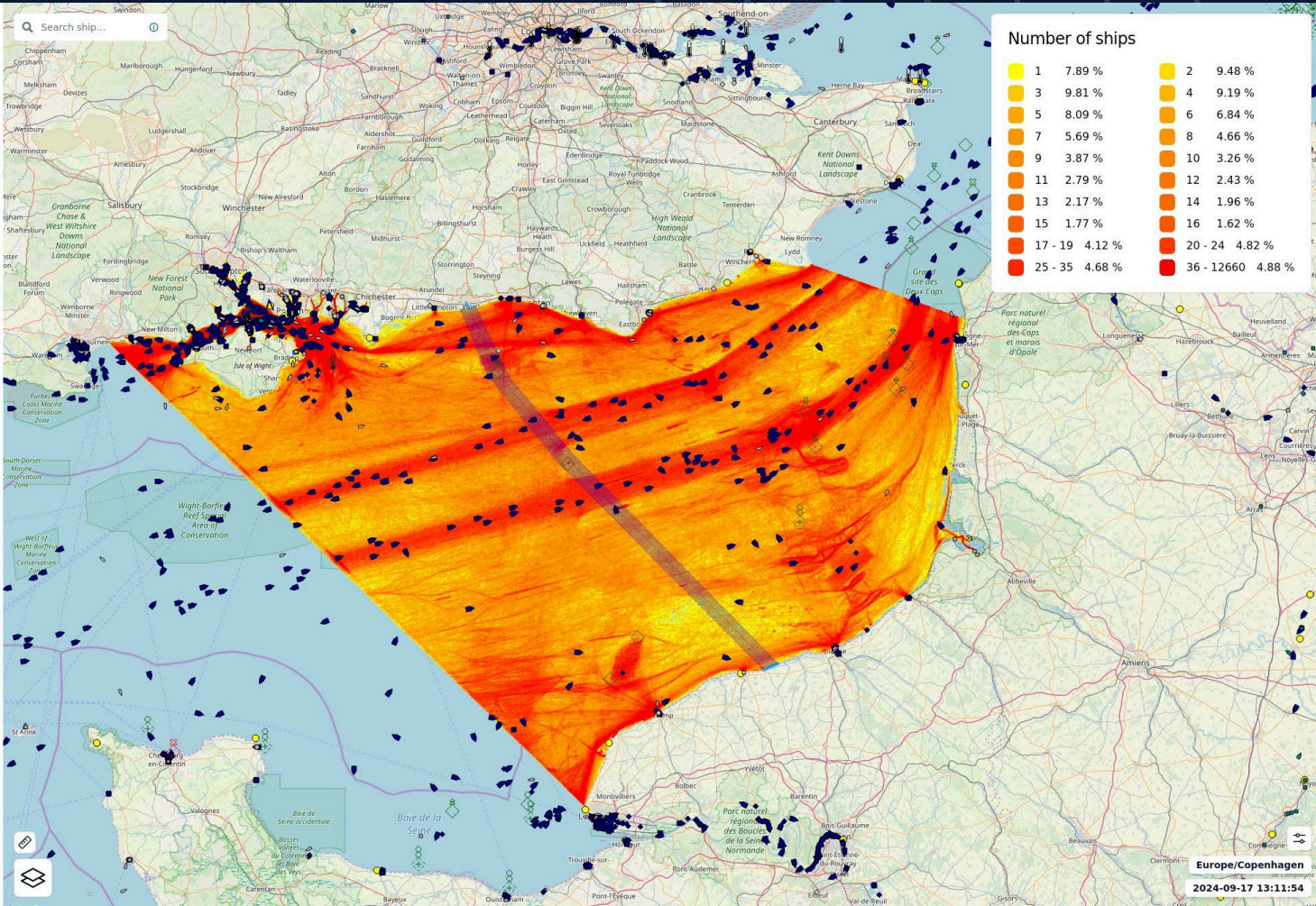
Proactive Measures

Typical challenges

- How can I minimize future risks to offshore structures in the planning phase?
- I need to get a clear picture of vessel movements and potential dangers in the area, that we are planning to place the cable, pipeline or rig.
- I need visualized and comprehensive movement and behavioural illustrations to be added into our reports.
- I need a preliminary risk assessment.



- Shapes
- Filters
- Reports
- Events
- Replay
- Atons
- Routes
- Messages



Back to reports

Report details

View details for report

Basic Details

Name	ID
AOI Density	2968366455743531
Type	Generated
Density Report	2024-09-17 12:37:24
Created by	Status
mcl (MCL)	Finished

Duration

28 minutes 34 seconds

Period

Period start time	Period end time
2024-04-01 00:00:00	2024-09-16 23:59:00

Shape and Filter

Shape

AOI

Miscellaneous

Color scale	Color by
yellow to red	number of ships
Number of colors	Cell size
20	1000

Delete

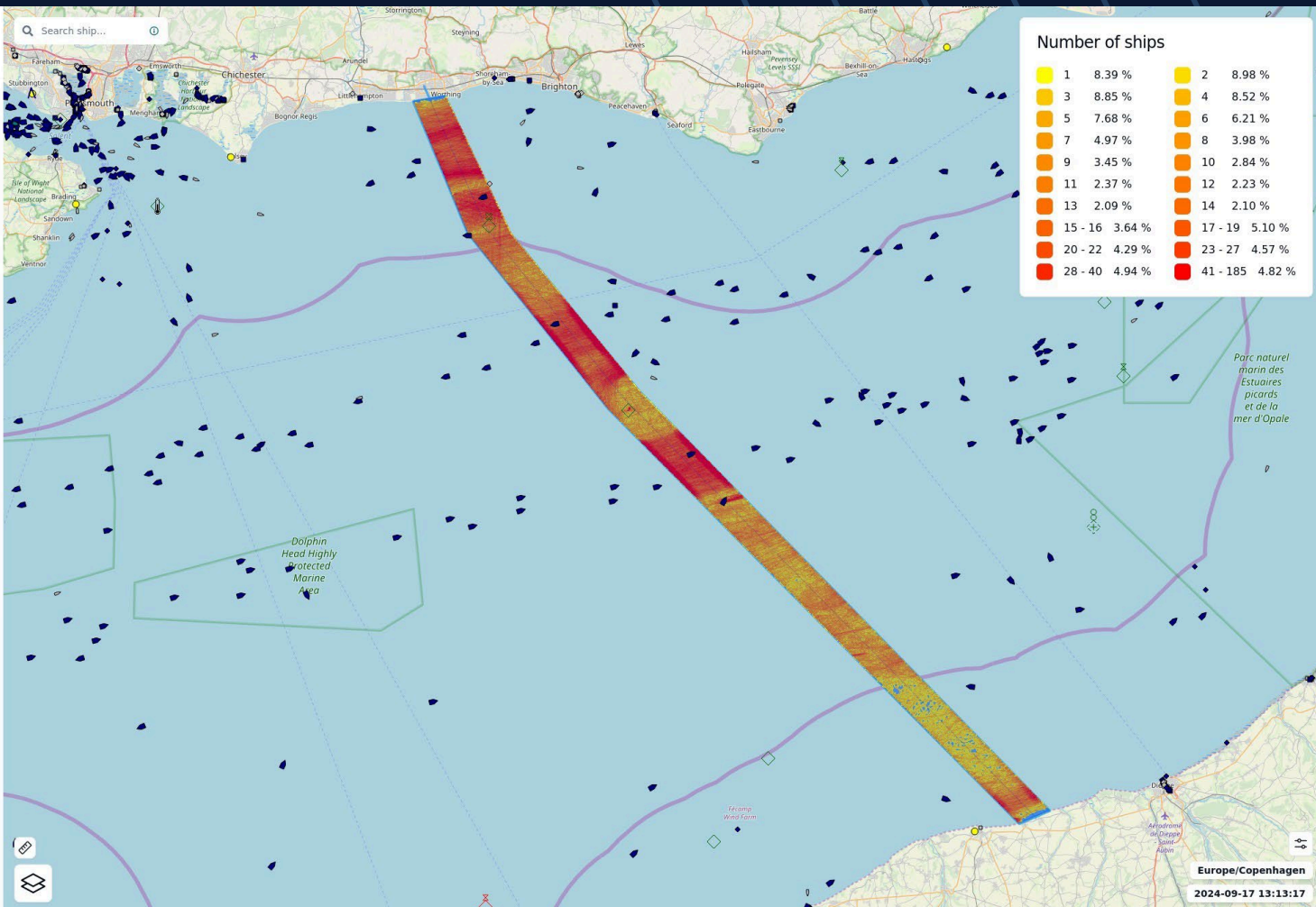
Actions

Europe/Copenhagen

2024-09-17 13:11:54

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- Shapes
- Filters
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- Events
- Replay
- Atons
- Routes
- Messages



Number of ships

1	8.39%	2	8.98%
3	8.85%	4	8.52%
5	7.68%	6	6.21%
7	4.97%	8	3.98%
9	3.45%	10	2.84%
11	2.37%	12	2.23%
13	2.09%	14	2.10%
15 - 16	3.64%	17 - 19	5.10%
20 - 22	4.29%	23 - 27	4.57%
28 - 40	4.94%	41 - 185	4.82%

[Back to reports](#)

Report details

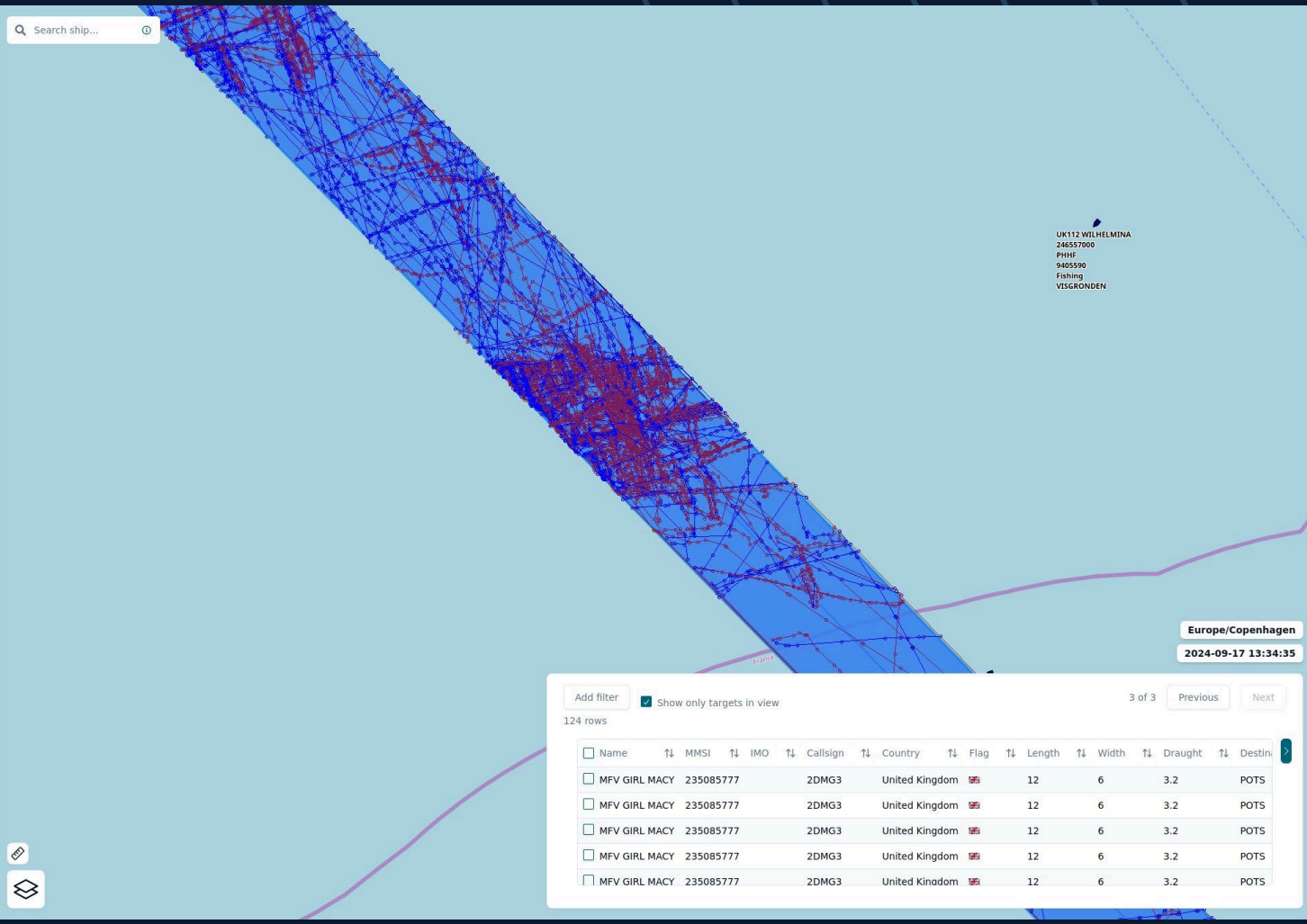
View details for report

Basic Details

Name	ID
Safety Zone Density	2968366640686271
Type	Generated
Density Report	2024-09-17 12:37:47
Created by	Status
mcl (MCL)	Finished
Duration	
28 minutes 10 seconds	
Period	
Period start time	Period end time
2024-04-01 00:00:00	2024-09-16 23:59:00
Shape and Filter	
Shape	
Com Cable Safety Zone	
Miscellaneous	
Color scale	Color by
yellow to red	number of ships
Number of colors	Cell size
20	1000

Europe/Copenhagen
2024-09-17 13:13:17

Delete Actions



UK112 HTLHELMINA
246557000
PHHF
9405590
Fishing
VISGRÖNDEN

Europe/Copenhagen

2024-09-17 13:34:35

Add filter Show only targets in view 3 of 3 Previous Next

124 rows

<input type="checkbox"/>	Name	MMSI	IMO	Callsign	Country	Flag	Length	Width	Draught	Destin.
<input type="checkbox"/>	MFV GIRL MACY	235085777		2DMG3	United Kingdom		12	6	3.2	POTS
<input type="checkbox"/>	MFV GIRL MACY	235085777		2DMG3	United Kingdom		12	6	3.2	POTS
<input type="checkbox"/>	MFV GIRL MACY	235085777		2DMG3	United Kingdom		12	6	3.2	POTS
<input type="checkbox"/>	MFV GIRL MACY	235085777		2DMG3	United Kingdom		12	6	3.2	POTS
<input type="checkbox"/>	MFV GIRL MACY	235085777		2DMG3	United Kinadom		12	6	3.2	POTS

< Back to reports

Report details

View details for report

Basic Details

Name	ID
Safety Zone Fishing	2968367011440150
Type	Generated
Fishing Report	2024-09-17 13:05:59
Created by	Status
mcl (MCL)	Finished
Duration	
19 minutes 4 seconds	

Period

Period start time	Period end time
2024-06-01 00:00:00	2024-09-16 23:59:00

Shape and Filter

Shape
Com Cable Safety Zone

Miscellaneous

Delete

Actions

Real-time Protection

Typical challenges

- I need to monitor and protect a subsea cable or pipeline to minimize the risk of damage.
- I want real warnings – only when for example a vessel is fishing on top of a cable.
- Millions of people will be affected if my offshore wind farm or oil rig are damaged. I need a series of warnings around these structures with increasing severity.
- I need warnings sent to my team AND to the vessel, that's a threat to my assets.
- My insurance company demands that I take measures to minimize the risk of damage to my assets.

Real-time protection – In action

- Defining geofences and rules
- System operators are automatically notified when vessels posing a threat enter defined area.
- Rules can be associated with the protection zones, helping ensure that only the vessels of interest trigger the alarm.





Events

Events Detectors

View and act upon events.

2024-09-17 11:01 - 2024-09-17 13:01

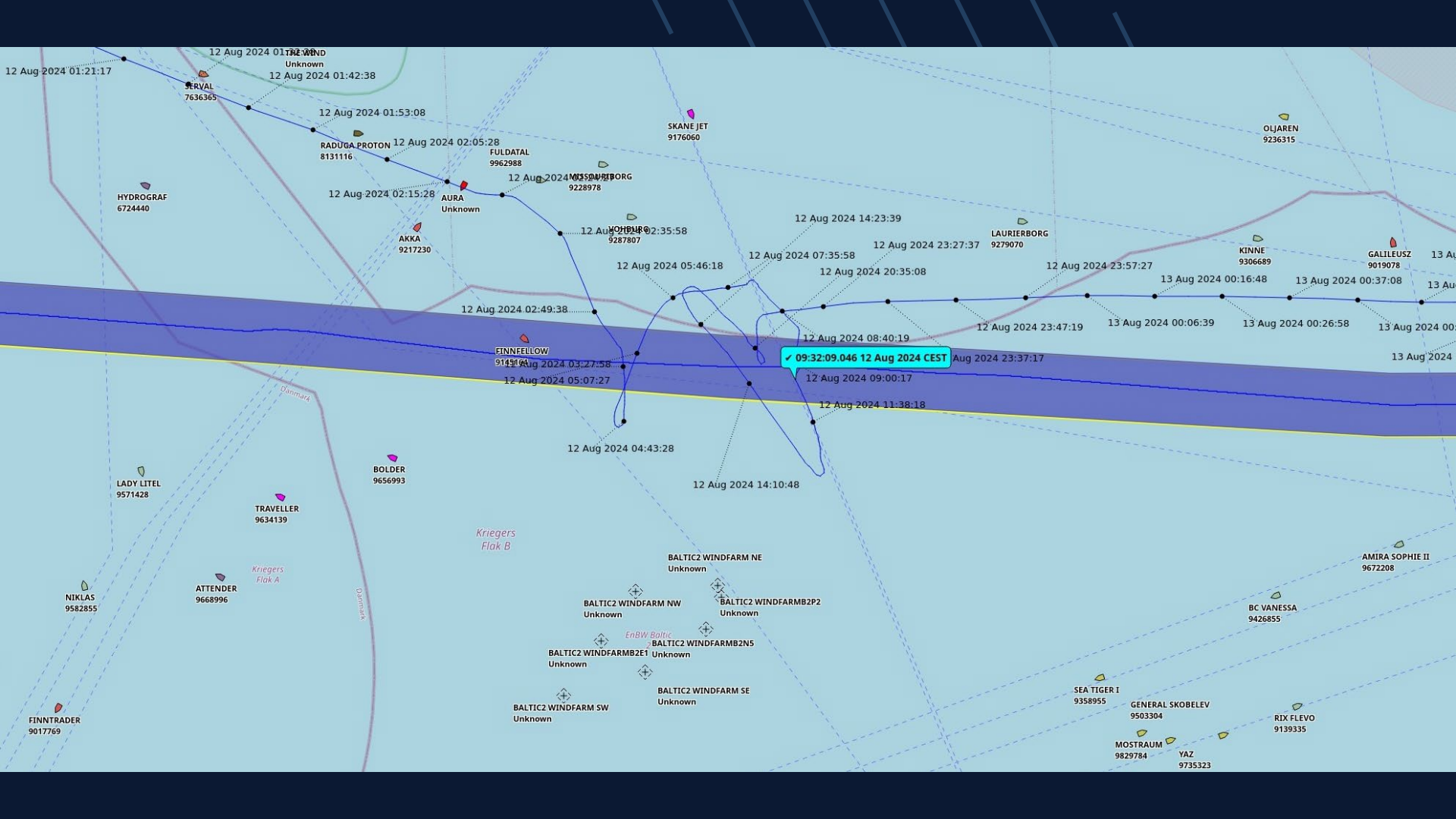
Find events...

- Nemo Link Cable - FINNWAVE
 - 5 minutes ago
- Nemo Link Cable - VERTOM ISA
 - 6 minutes ago
- Nemo Link Cable - FINNWAVE
 - 21 minutes ago

Europe/Copenhagen
2024-09-17 13:02:03

Actions

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12 Aug 2024 01:21:17

12 Aug 2024 01:42:38
Unknown

SERVAL
7636365

12 Aug 2024 01:53:08

RADUGA PROTON
8131116

12 Aug 2024 02:05:28

FULDATAL
9962988

SKANE JET
9176060

OLJAREN
9236315

HYDROGRAF
6724440

12 Aug 2024 02:15:28

AKKA
9217230

AURA
Unknown

12 Aug 2024 02:35:58

MOSBYBORG
9228978

12 Aug 2024 02:35:58

NOCHBORG
9287807

12 Aug 2024 14:23:39

LAURIERBORG
9279070

KINNE
9306689

GALILEUSZ
9019078

12 Aug 2024 02:49:38

12 Aug 2024 05:46:18

12 Aug 2024 07:35:58

12 Aug 2024 20:35:08

12 Aug 2024 23:57:27

13 Aug 2024 00:16:48

13 Aug 2024 00:37:08

12 Aug 2024 08:40:19

12 Aug 2024 23:47:19

13 Aug 2024 00:06:39

13 Aug 2024 00:26:58

13 Aug 2024 00:37:08

FINNFELLOW
9145191

12 Aug 2024 03:27:58

12 Aug 2024 05:07:27

09:32:09.046 12 Aug 2024 CEST

12 Aug 2024 23:37:17

12 Aug 2024 09:00:17

12 Aug 2024 11:38:18

12 Aug 2024 04:43:28

12 Aug 2024 14:10:48

LADY LITEL
9571428

BOLDER
9656993

TRAVELLER
9634139

Kriegers
Flak B

BALTIC2 WINDFARM NE
Unknown

AMIRA SOPHIE II
9672208

BALTIC2 WINDFARM NW
Unknown

BALTIC2 WINDFARM B2P2
Unknown

BC VANESSA
9426855

BALTIC2 WINDFARM B2E1
Unknown

BALTIC2 WINDFARM B2NS
Unknown

ATTENDER
9668996

Kriegers
Flak A

NIKLAS
9582855

BALTIC2 WINDFARM SW
Unknown

BALTIC2 WINDFARM SE
Unknown

SEA TIGER I
9358955

GENERAL SKOBELEV
9503304

RIX FLEVO
9139335

FINNTRADER
9017769

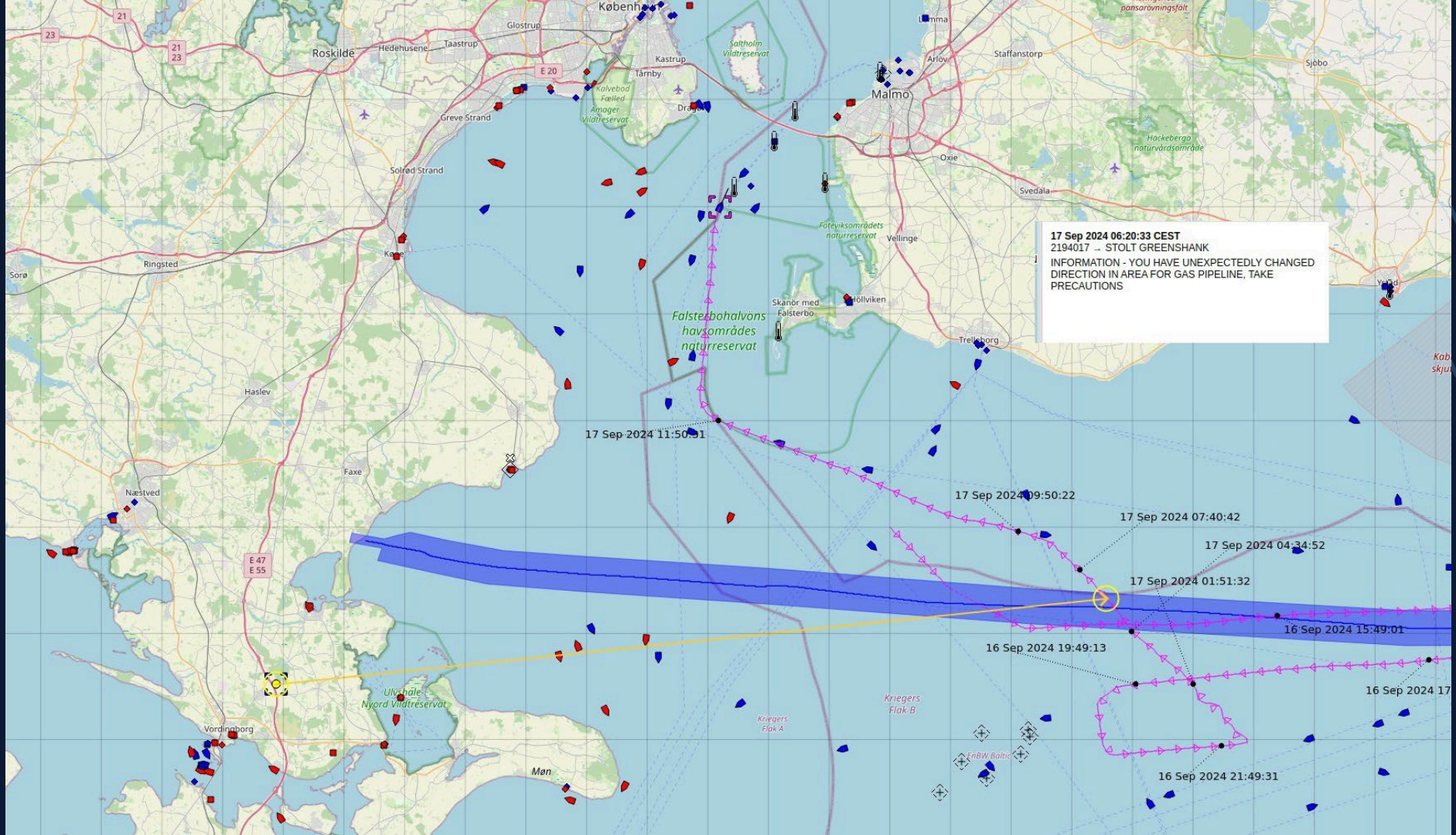
MOSTRAUM
9829784

YAZ
9735323

Danmark

Danmark

EnBW Baltic



17 Sep 2024 06:20:33 CEST
2194017 ... STOLT GREENSHANK
INFORMATION - YOU HAVE UNEXPECTEDLY CHANGED
DIRECTION IN AREA FOR GAS PIPELINE, TAKE
PRECAUTIONS

17 Sep 2024 11:50:11

17 Sep 2024 09:50:22

17 Sep 2024 07:40:42

17 Sep 2024 04:34:52

17 Sep 2024 01:51:32

16 Sep 2024 15:49:01

16 Sep 2024 19:49:13

16 Sep 2024 21:49:31

16 Sep 2024 17:49:01

Reactive Measures



Typical challenges after an accident damaging infrastructure

- Our cable, pipeline or offshore structure has been damaged, and I need to find out what happened?
- I need clear evidence of the accident that I can bring to legal procedures.
- I need information on similar incidents or near-misses in the vicinity to take reactive measures.
- I need to avoid accidents in the future – how do I ensure that?

- Shapes
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- Messages

Watchdogs

Search ship...



Back to reports

Report details

View details for report

Basic Details

Name	W7 - NEMO	ID	753
Type	Event Report	Generated	2024-02-16 06:21:12
Created by	elia_gh (Ella GateHouse Account)	Status	Finished
Duration	3 seconds		

Period

Period start time	2024-02-08 00:00:00	Period end time	2024-02-15 23:59:00
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Shape and Filter

Miscellaneous

Delete Actions

2024-09-17 12:56:37

02 Oct 2022 18:20:26

02 Oct 2022 12:09:16

02 Oct 2022 16:16:15

FINNTRADER
266239000
9017769
Engine
18.0 kn
SEMMA<-DETRV

02 Oct 2022 22:26:45

02 Oct 2022 10:09:15

NOORCAT
211278920
9569322
Moored
4.9 kn
BUOY MAINTENANCE

YULA 1
232056447
Unknown
Unknown value
3.4 kn

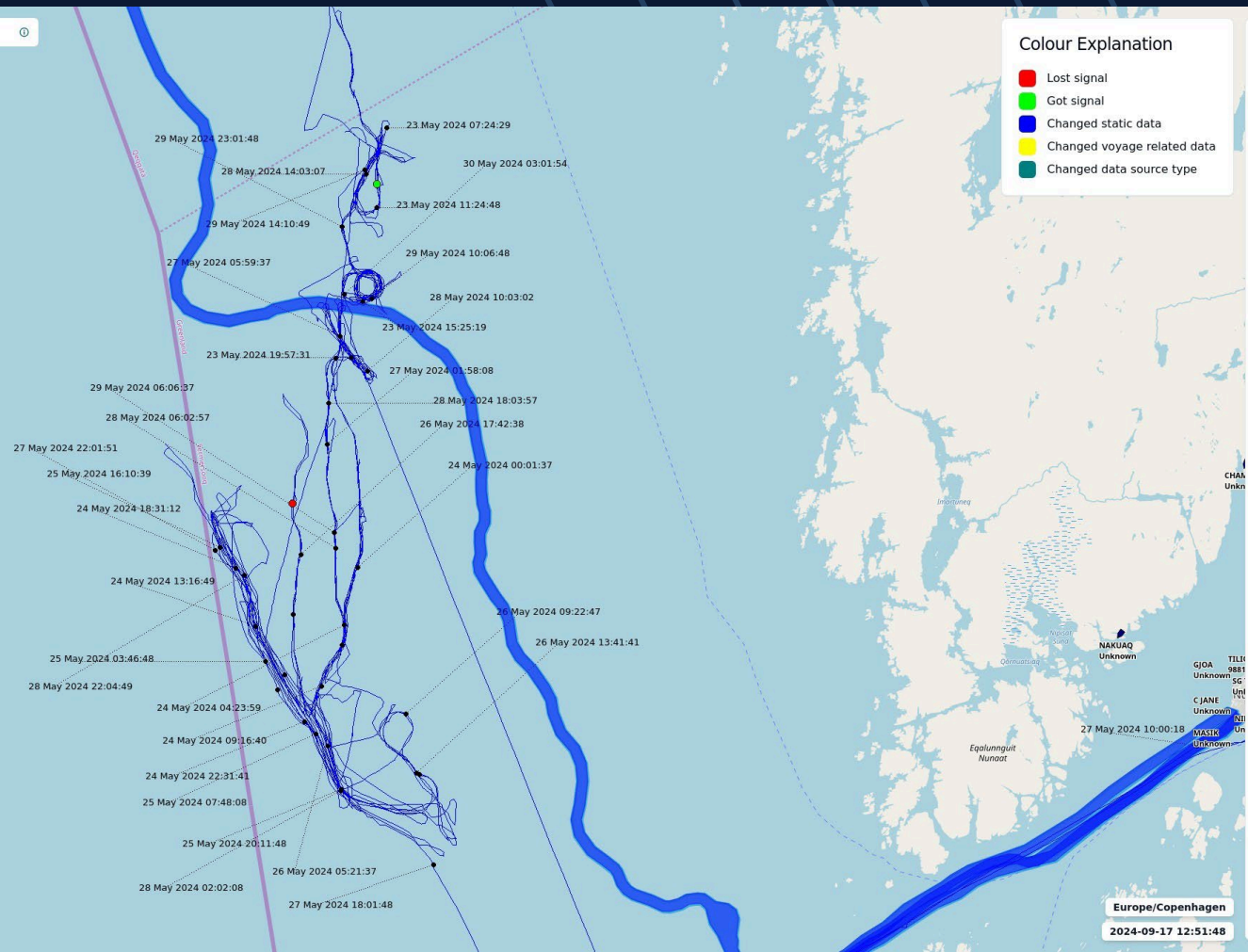
Danmark

Danmark

- Shapes
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Colour Explanation

- Lost signal
- Got signal
- Changed static data
- Changed voyage related data
- Changed data source type



< Back to reports

Report details

View details for report

Basic Details

Name	ID
Vessel Track	2891068789982231
Type	Generated
Ships Report	2024-05-31 07:34:53
Created by	Status
tg_gh	Finished
Duration	
0 seconds	

Period

Period start time	Period end time
2024-05-23 02:00:00	2024-05-31 01:59:00

Shape and Filter

Ships

POLAR NATAARNAQ

Miscellaneous

Delete

Actions

Europe/Copenhagen
2024-09-17 12:51:48

Key Takeaways

PROACTIVE MEASURES

- Density plots showing ships patterns and historical tracks help you identify locations of safe passage.
- Your analysis can be exported in PDF or another relevant format ready to share.

PROTECTION IN REAL-TIME

- Geofences around your subsea or offshore assets triggers automatic alarms with various severity.
- Detection of patterns and anomalies in real-time provides proactive and action-oriented risk management.

IF ACCIDENTS HAPPEN

- The Gatehouse Maritime system allows asset owners and authorities to record and replay incidents.
- Comprehensive analysis tools are available to document incidents to be used in court.



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Q&A



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Thank you for participating

Want a demonstration or do you have a question?
Please reach out to one of our Maritime Advisors.



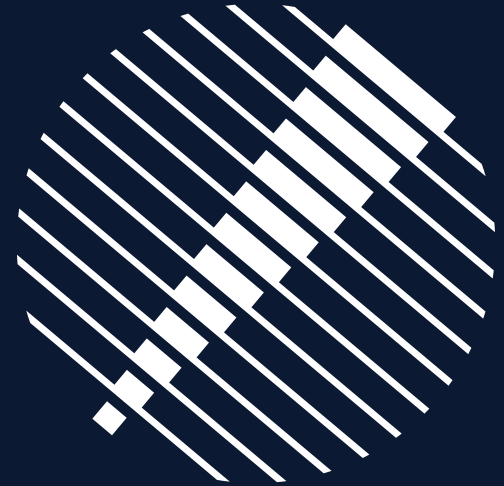
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