Concerted surveying for the sake of navigation

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SWEDISH MARITIME ADMINISTRATION

http://www.famosproject.eu/

Co-financed by the European Union
Connecting Europe Facility

Speed-up re-resurveying of major shipping routes and ports

EU STRATEGY FOR THE BALTIC SEA REGION

FLAGSHIP

FAMOS

FINALISING SURVEYS FOR THE BALTIC MOTORWAYS OF THE SEA

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”Situational awareness”

- Where am I?
- How much water do I have underneath?
- What happens out there?
- How does that effect me?

Route Backup Sensors Chart Database Recording Trail ECDIS Display WGS84 GeoCalculator Configure Tides About
48 NM
5 min
N 56 57.8273 E 010 43.5334
Ready
Free
Day
TM
N Up
Other
Source: GPS 1
Mode : ????
CRS: ---.-
GPS 1
SPD: -.- kn
HDG: ---.-
UNK
Gyro 1
AIS Data
Ship Name
Dist
GULL N/A
S 127 N/A
THE AF N/A
PILOT L-233 N/A
NORDIC S... N/A
STERV... N/A
RESCUE N/A
M/T MAIN... N/A
RESCUE N/A
SUNA N/A
SEATRO... N/A
DELPHIA N/A
PILOT 777 N/A
MAERSK N/A
VIBERO N/A
AMORELLA N/A
ECKERO N/A
TORA N/A
AHLSELL N/A
OLYMPUS N/A
PRIMA DO... N/A
WILSON H... N/A
TIMCA N/A
LANGOE N/A
NAUTILUS N/A
ESTLAND N/A
Follow Actual Target
NIDINGEN
Laesoe
Stensnaes N.-lige kabelforbaake
Voersaa Fiskerleje
Asaa Havn Bagfyr
Hou Lystbaadehavn
HALS BARRE
KATTEGAT
MORUPS TÅNGE
Träslövsläge
Varberg
Getinge
Harplinge
Halmstad
Tylösand
Gjerrild
Fornaes
Grenaa
Dir Iso(1) W 4s 20m
Aarhus Havn Ø3 Bagfyr
Hjelm
Kullen Västra
Grevie
Bjärehalvön
Båstad
Angelholm
Hoganäs
Skälderviken
Over Barren Fort
Als Odde Fort
Inholt Havn
8 Kt
7 Kt
197 deg
105 deg
167 deg
230 deg
217 deg
DALEM

Safety

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Ship tracks: One week summer 2014
Passenger
Cargo
Tanker
Safety of navigation
Tønneberg Banke
1 km
Læsö Trindel
Q(3) 10s
Obstn
Fl G 5s
Læsø NE Flak
Rønne
Rev
Vesterø
Højsande
21
Østerby
SYRODDE
Fl WR 3s 8M
Knallen
Læsø
Fl 1.5s 8M
Byrum
Hornfiskrøn
New shoal: 8.7 m (in 1970s surveying 13.2 m)
4.5 m
8.5 m
12.2 m

Efficiency

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Optimising where vessels go can save a lot of fuel

SSPA

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Accuracy

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2D
(x, y)
z
UKC?

3D

“Under Keel Clearance aware navigation”

0
d

Autonomous vessels

Yes, they will come.

Image: © Rolls Royce

35%

60% of shipping areas

65%

60%

98% of shipping areas

40%

BSHC-HELCOM re-survey plan

FAMOS is about Cat I and II (main shipping areas)

https://helcomresurvey.sjofartsverket.se/

Helsinki Commission

HELCOM Copenhagen Ministerial Declaration

Taking Further Action to Implement the Baltic Sea Action Plan
- Reaching Good Environmental Status
for a healthy Baltic Sea

14 (M). RECALLING the HELCOM Copenhagen 2001, Krakow 2007 and Moscow 2010 commitments on hydrographic re-survey and COMMENDING WITH APPRECIATION the subsequent **substantial progress made in systematic re-surveying of major shipping routes** ports in the region according to the HELCOM-BSHC Re-survey Scheme aimed at ensuring that safety of navigation in the Baltic Sea region is not endangered by inadequate source information;

15 **take actions to ensure the completion of the re-surveys for areas used by navigation (CAT I and II) within the time schedules estimated** na Re-survey Scheme; to promote wider use of accurate and reliable depth information by e.g. developing existing and/or new products including an enhanced and freely accessible Baltic Sea Depth Model, and to foster CAT III re-surveys of other areas not primarily for safety of navigation purposes, e.g. for environmental protection;

– Baltic Sea environmental ministers, Oct 2013

Timeframe: 2014-2020

Costs: approx. 80 MEUR

Before FAMOS:
About 50% surveyed to modern standards

After FAMOS:
100 000 km² more (area of Portugal)

Co-financing:
Over 20 MEUR 2014-2018 from EU transport infrastructure funds

SWEDISH MARITIM ADMINISTRATION

by the European Union
rope Facility

NLS FINNISH GEOSPATIAL RESEARCH INSTITUTE FGI

LANTMÄTERIET

BSH BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE

Liikennevirasto

BALTIC SEA HYDROGRAPHIC COMMISSION BSHC

HELCOM

EU STRATEGY FOR THE BALTIC SEA REGION FLAGSHIP

TALLINN UNIVERSITY OF TECHNOLOGY

SMHI

Geodatastyrelsen Danish Geodata Agency

EESTI VABARIIK VEETEEDE AMET

SSPA

Bundesamt für Kartographie und Geodäsie

LIETUVOS SAUGIOS LAIVYBOS ADMINISTRACIJA

DTU

GFZ Helmholtz Centre POTSDAM

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http://www.famosproject.eu/
http://www.stmvalidation.eu/

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