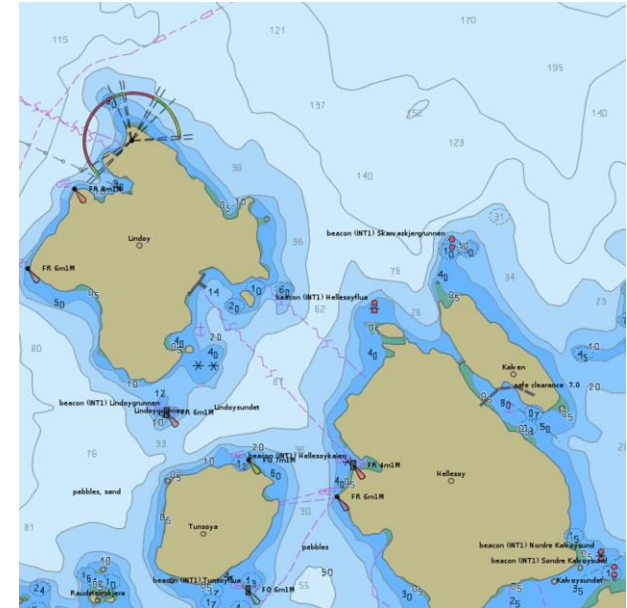


PRIMAR RENC services and updates NIOHC 2016

Hans Chr. Lauritzen, Director PRIMAR

What is PRIMAR?

- PRIMAR is a Regional ENC Coordinating Centre (RENC)
- PRIMAR is operated on a non-profit basis by the **Norwegian Hydrographic Service** in close cooperation with the **Electronic Chart Centre (ECC)**.
- PRIMAR operates fully compliant with IHO guidelines, principles and standards.
- PRIMAR has been ISO certified since 2005.
- PRIMAR is located in Stavanger, Norway



Governing Body and Sub-Groups

PRIMAR Advisory Comitee (PAC)

**PRIMAR
Strategic
Working
Group
(PSWG)**

**PRIMAR
Financial
Working
Group
(PFWG)**

**PRIMAR
Marketing
Working
Group
(PMWG)**

**PRIMAR
Technical
Working
Group
(PTWG)**

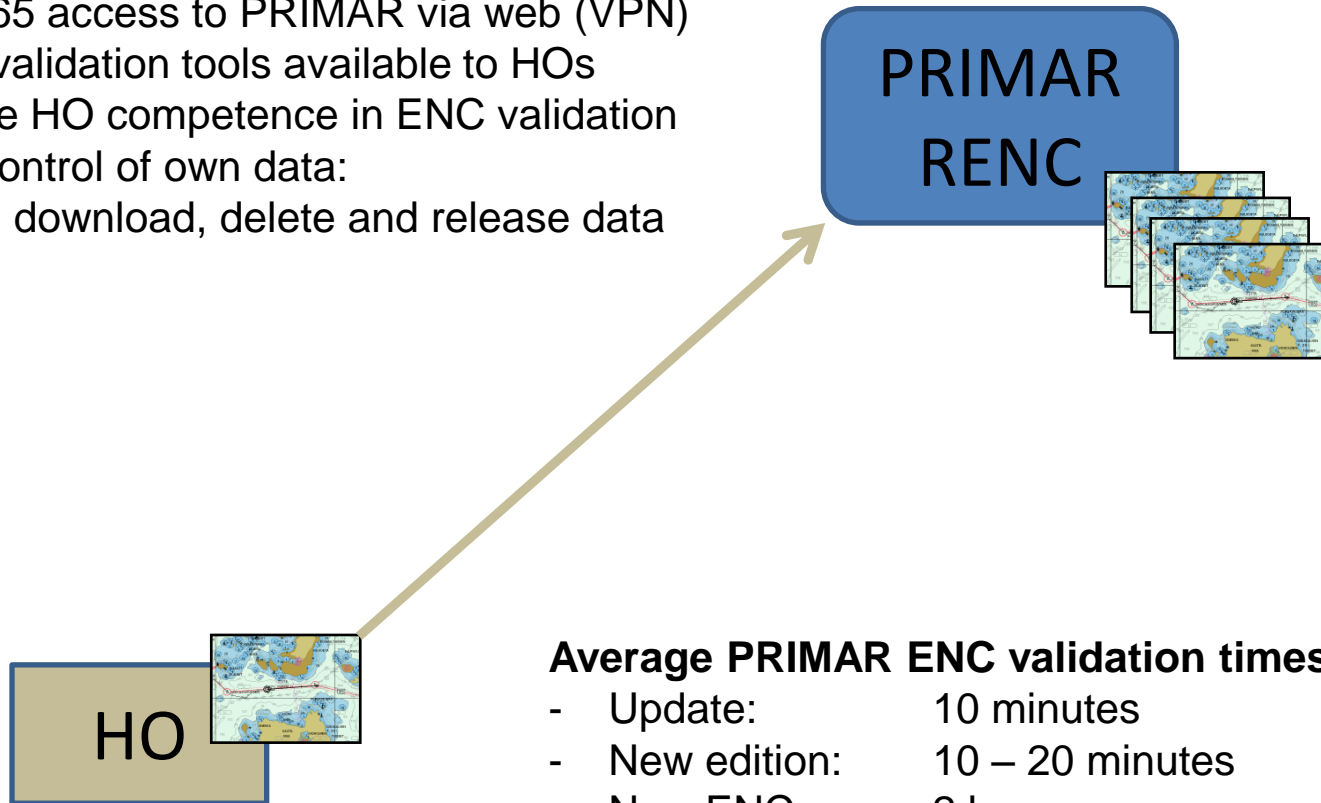
What does PRIMAR?

- Provide cooperating hydrographic offices with operational and technical support and services in their work to produce, quality control and deliver harmonized ENC's compliant with all relevant international standards.
- Provides a consistent and reliable electronic navigational chart (ENC) service world-wide.
- Provide all actors with responsibilities for safety of navigation and protection of the maritime environment with accurate up-to-date maritime geospatial data.
- Has a continuous focus on technology and innovation.

PRIMAR validation and ENC database

PRIMAR ENC validation philosophy:

- 24/7- 365 access to PRIMAR via web (VPN)
- Online validation tools available to HOs
- Increase HO competence in ENC validation
- HO in control of own data:
Upload, download, delete and release data in VPN.



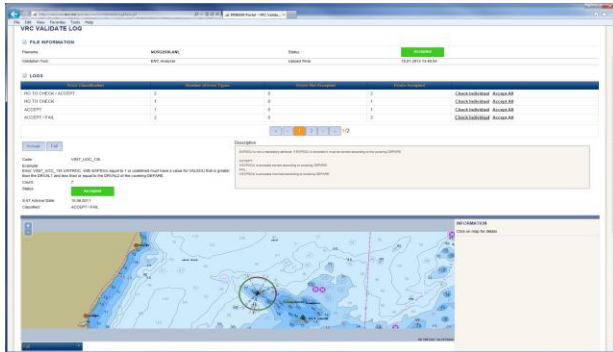
Average PRIMAR ENC validation times:

- Update: 10 minutes
- New edition: 10 – 20 minutes
- New ENC: 2 hours

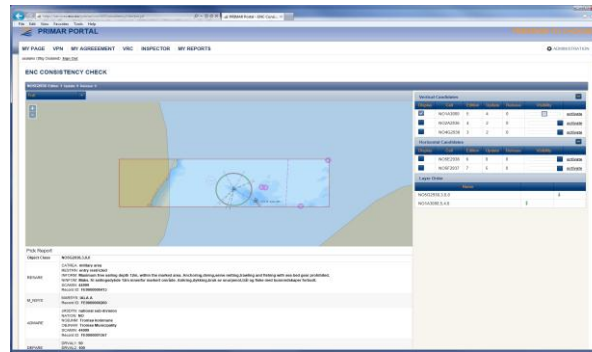
PRIMAR validation and ENC database

Virtual PRIMAR Network (VPN): Automatic S-58 checks on upload

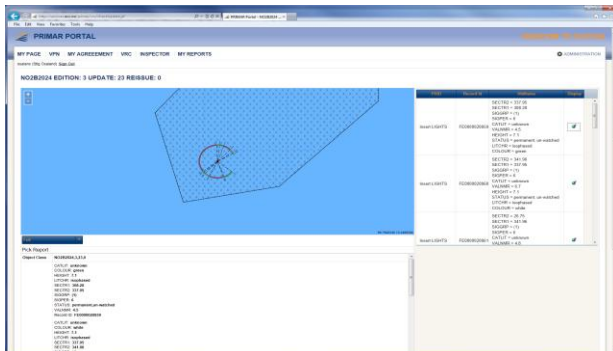
Validation Report Checker (VRC): A validation toolbox for the Hydrographic Office.



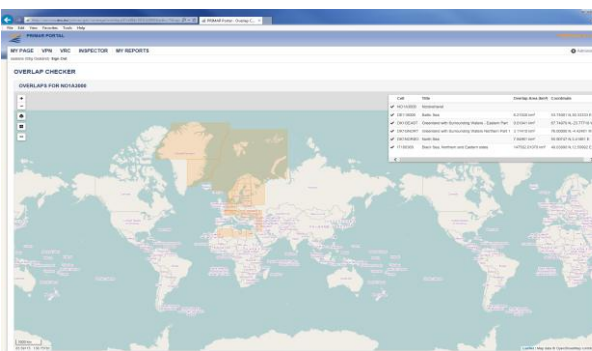
Validate logs (Errors db)



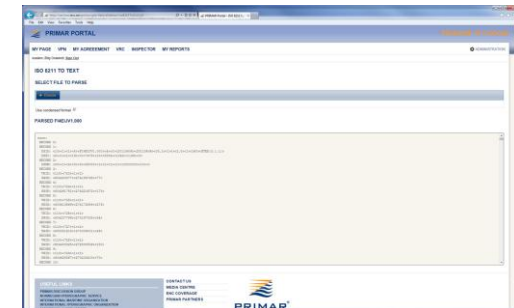
ENC Consistency Check



Check Update



Overlap checker

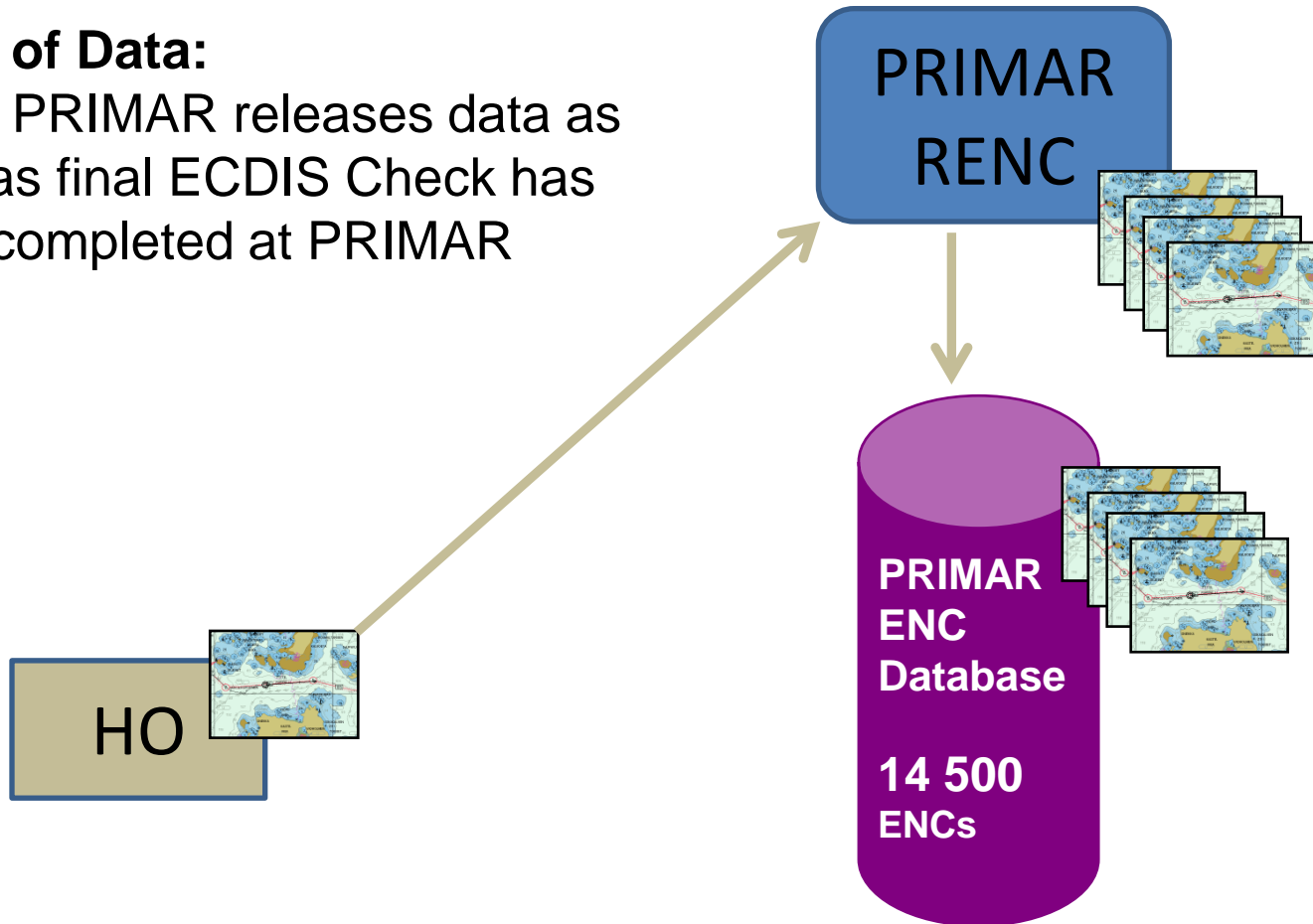


ISO8211 to text

PRIMAR validation and ENC database

Release of Data:

- HO or PRIMAR releases data as soon as final ECDIS Check has been completed at PRIMAR



PRIMAR capacity building 2015

- 3 training courses for member nations arranged in 2015.
- Training provided in ENC production support and PRIMAR tools for ENC delivery, validation and quality control.
- Training provided for 8 member nations with 37 participants in total.

**Training course
in Riga, Latvia**

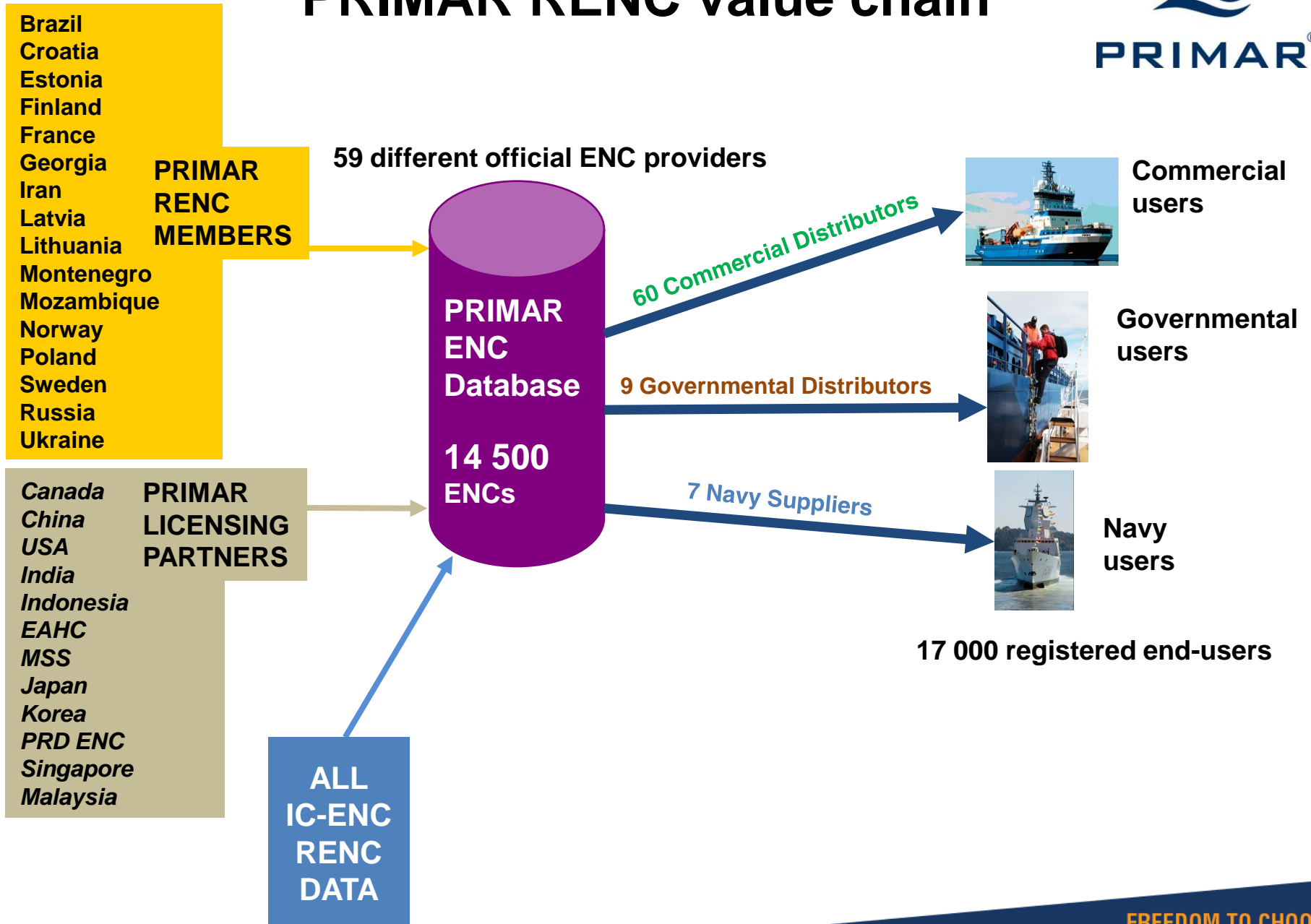


**Training course
in Split, Croatia**



**Training course
in Tehran, Iran**

PRIMAR RENC value chain



PRIMAR Navy Supplier Services



PRIMAR ENC Distribution



PRIMAR supports a wide range of services to assist hydrographic offices in meeting their national requirements.

Navy Supplier / Navy User

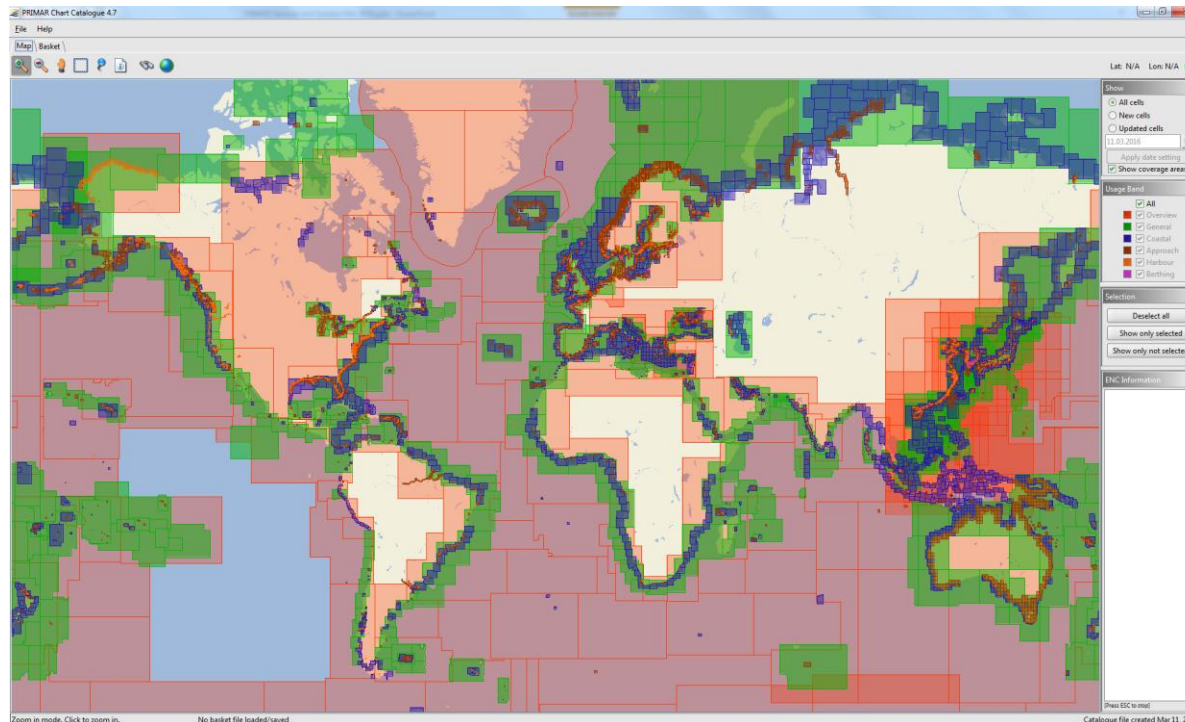
- **Navy Supplier:**
 - A distributor office for PRIMAR ENC data to national navy.
 - The Navy supplier organization must be a land based supply organization i.e. a Navy Depot.
- **Navy User:**
 - Naval defence vessel or a shore establishment which is registered and authorised by the Navy Supplier to use PRIMAR ENC data.

PRIMAR Navy Supplier Services

- Delivery of both encrypted and unencrypted ENC service to Navy users – depending on national restrictions.
- Access to all ENCs distributed by PRIMAR.
- ENCs at wholesale prices. HO's may issue a discount for their own national ENCs.
- Distribution from the Navy Supplier is strictly limited to own national navy.

PRIMAR Navy Supplier Services

- Easy operation from the PRIMAR Chart Catalogue
 - Register and add users, Create ENC portfolios, Activate area of interest, View orders/reports, View licensee status, Download ENC updates and permit files etc.





PRIMAR®

PRIMAR Navy Supplier Services

- Easy operation from the PRIMAR Chart Catalogue

PRIMAR Chart Catalogue 4.7

File Help

Map Basket

Product / Title Usage Band Price Band Existing Subscription Existing Quantity Expire Date Auto Renewal New Quantity Status

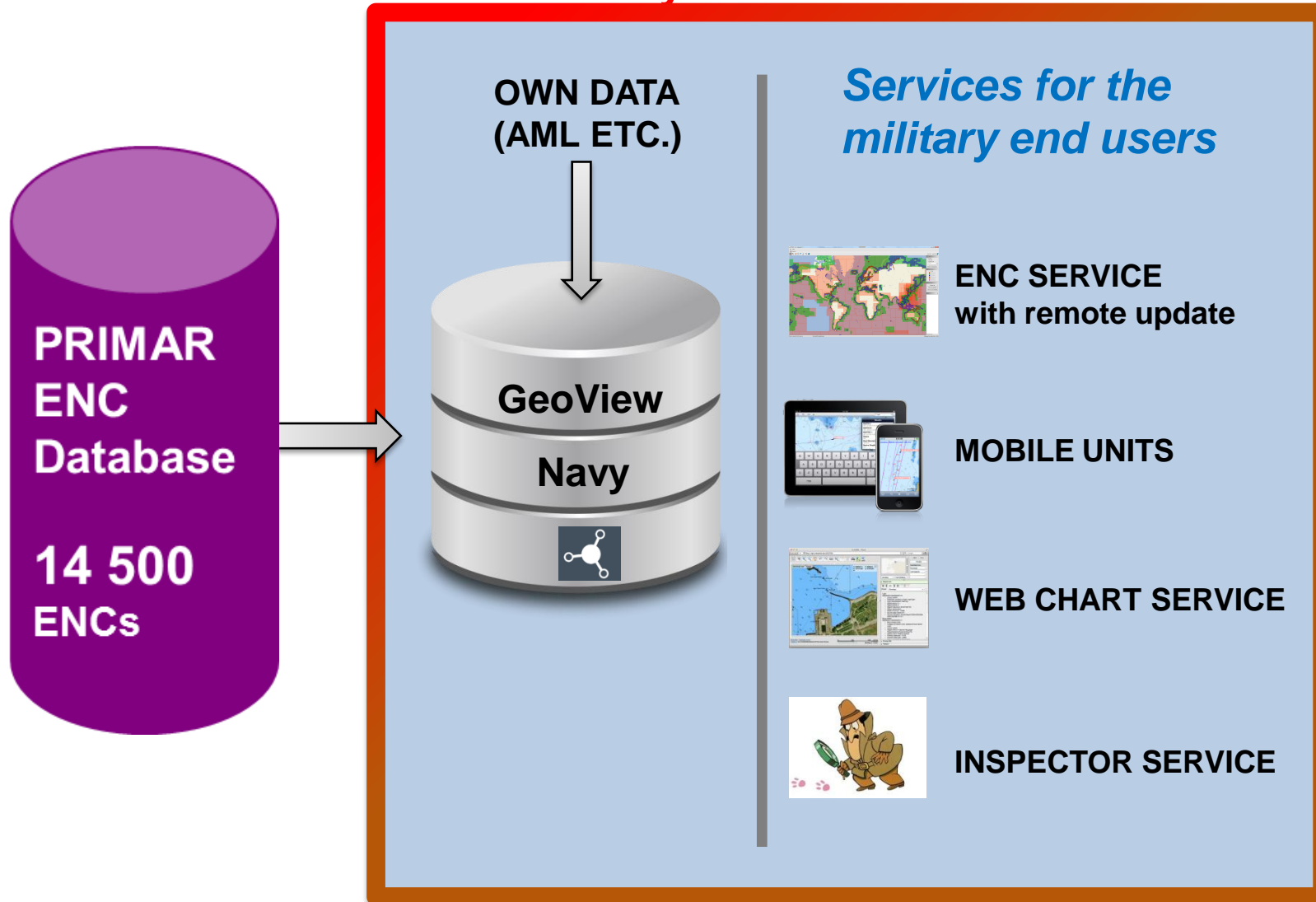
AR201130	Rio de la Plata Exterior	General	Large					1	Order
AR420010	Pontón Prácticos Recalada. Canal Punta ...	Approach	Large					1	Order
AR420020	Canal Punta Indio de Km 230 a Km 207	Approach	Large					1	Order
FR274860	Mozambique Channel - Northern part	General	Large					1	Order
GB104201	South Atlantic Ocean - South East Coast ...	Overview	Large					1	Order
GB104204	South Atlantic Ocean - Cape Basin	Overview	Large					1	Order
GB104208	South Atlantic Ocean - Brazil Basin to Ca...	Overview	Large					1	Order
GB104700	Indian Ocean - Mozambique Basin	Overview	Large					1	Order
GB104701	Indian Ocean - Maputo to South West of...	Overview	Large					1	Order
GB104703	Indian Ocean - Somalia to the Chagos Ar...	Overview	Large					1	Order
GB200716	Indian Ocean - Seychelles Group to Agal...	General	Large					1	Order
GB202949	Mtwara to Lamu	General	Large					1	Order
GB300740	Indian Ocean - The Seychelles Group	Coastal	Large					1	Order
GB302926	Mozambique - Porto de Mozambique to...	Coastal	Large					1	Order
GB302927	Africa - East Coast - Mozambique and T...	Coastal	Large					1	Order
GB302933	Africa - East Coast - Mozambique - Ilha ...	Coastal	Large					1	Order
GB30724A	Indian Ocean - Les Amirantes - Desroches	Coastal	Large					1	Order
GB400742	Indian Ocean - Seychelles Group - Mahe ...	Approach	Large					1	Order
GB40724J	Indian Ocean - Les Amirantes - D'Arros a...	Approach	Large					1	Order
GB50724G	Indian Ocean - Seychelles Group - Baie C...	Harbour	Large					1	Order
GB50724H	Indian Ocean - Seychelles Group - Baie S...	Harbour	Large					1	Order
GB50724I	Indian Ocean - Seychelles Group - Grand...	Harbour	Large					1	Order
GB55301A	Port Victoria and Approaches	Harbour	Large					1	Order
IN122MCC	BOMBAY TO CAPE COMORIN	Overview	Large					1	Order
IN2257MC	Malvan to Coondapoor	General	Large					1	Order
IN2293MN	Mumbai to New Mangalore	General	Large					1	Order
IN32158B	Betul to Belekeri	Coastal	Large					1	Order
IN3216BK	Belekeri to Kundapura	Coastal	Large					1	Order
IN62515P	Port Victoria	Berthing	Large					1	Order
PT281101	Mozambique Channel	General	Large					1	Order
UY200001	Aproximacion al Rio de la Plata	General	Large					1	Order
UY300003	Desde Arroyo Chuy hasta Montevideo	Coastal	Large					1	Order
UY300050	Desde Montevideo hasta Colonia del Sac...	Coastal	Large					1	Order
UY400020	Aproximacion a Bahia de Maldonado De...	Approach	Large					1	Order
UY400030	Desde Punta Ánimas hasta Atlántida	Approach	Large					1	Order
UY400040	Aproximación al Puerto de Montevideo ...	Approach	Large					1	Order
ZA100010	Western Waters of South Africa	Overview	Large					1	Order
ZA100020	Southern Waters of South Africa	Overview	Large					1	Order
ZA100030	Eastern Waters of South Africa	Overview	Large					1	Order
ZA200020	Cape Columbine to Cape Infanta	General	Large					1	Order
ZA200030	Cape Barracouta to Cape Padrone	General	Large					1	Order
ZA200040	Great Fish Point to Cape Hermes	General	Large					1	Order
ZA200050	South Sand Bluff to Ponta do Ouro	General	Large					1	Order
ZA300040	Dassen Island to Kaap Hangklip	Coastal	Large					1	Order
ZA300050	Mudge Point to Cape Infanta	Coastal	Large					1	Order
ZA300060	Cape Barracouta to Cape Seal	Coastal	Large					1	Order

PRIMAR Navy Supplier Services – development



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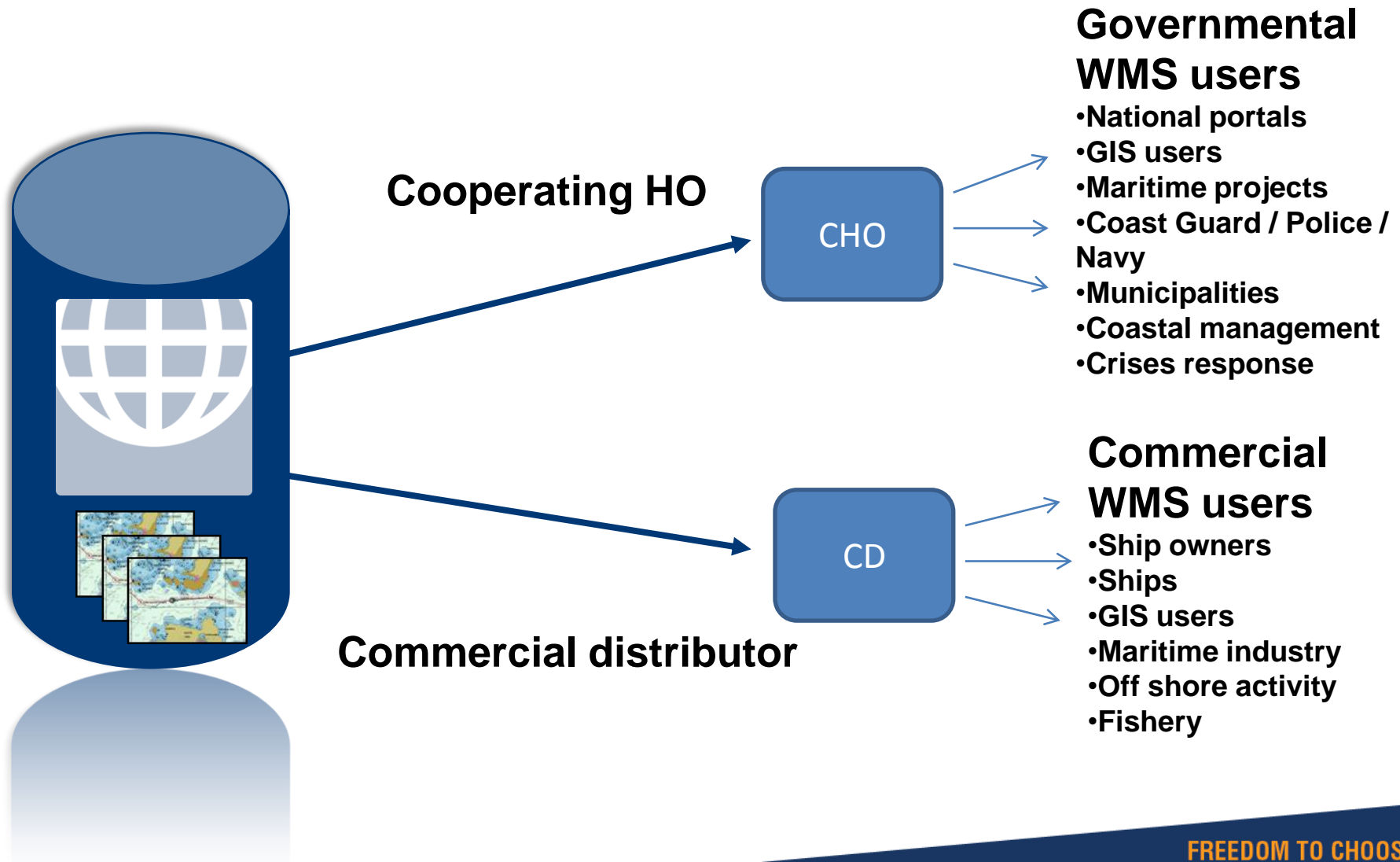
Own Navy Classified Defense Grid



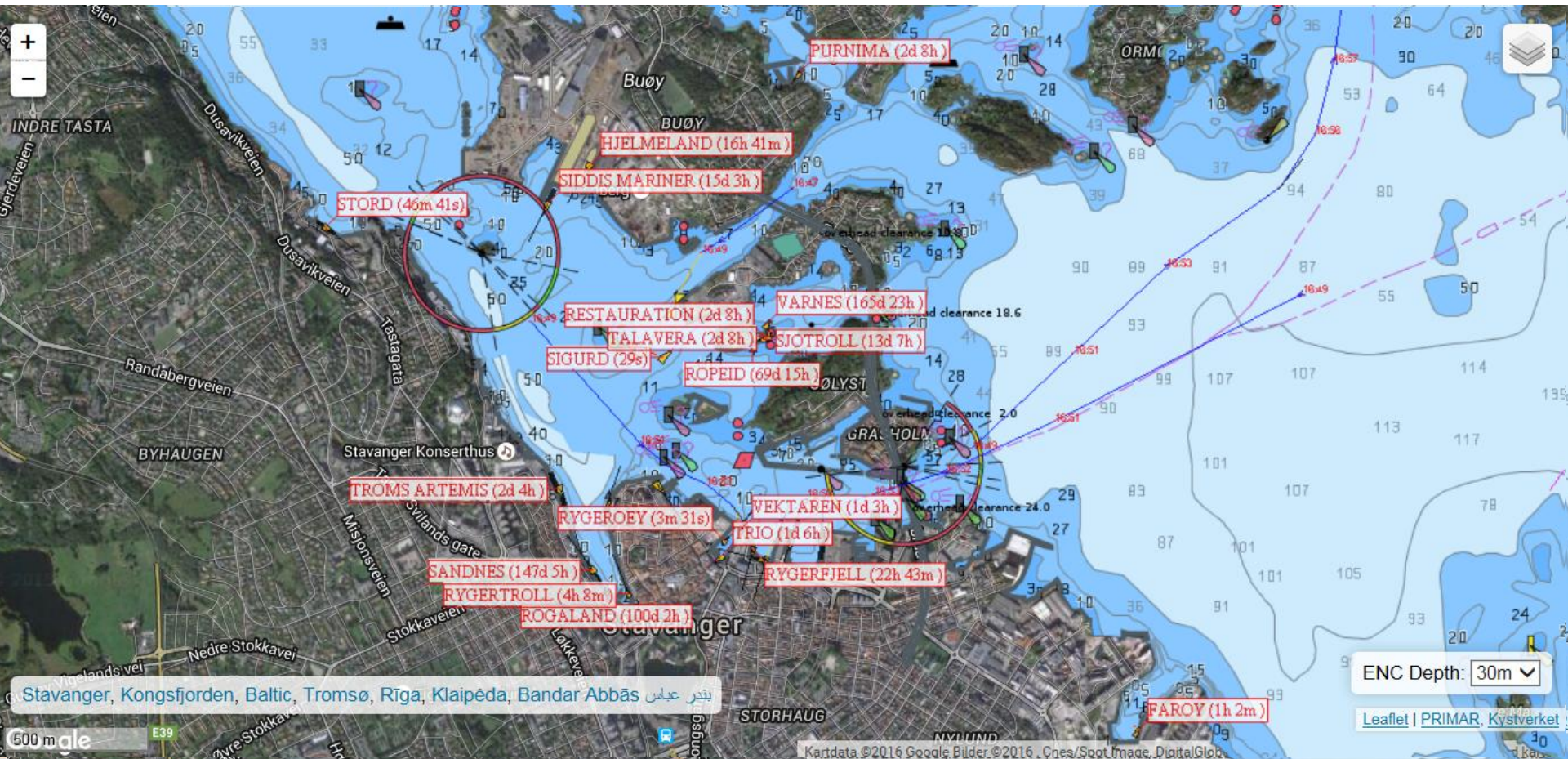
PRIMAR Navy Supplier Agreement

- Signed between the NHS (operator of PRIMAR) and the Navy Supplier.
- Invoicing conducted from NHS.
- Delayed reporting and anonymous users for security purposes.
- PRIMAR provides training for the Navy Supplier.
- Documents:
 - Navy Supplier Agreement
 - Schedule 1 Navy Supplier ENC Pricing
 - Schedule 2 Navy Sales report scheme and payment
 - Annex 1 PRIMAR Navy ENC Service Description

PRIMAR Web Chart Service



PRIMAR Web Chart Service

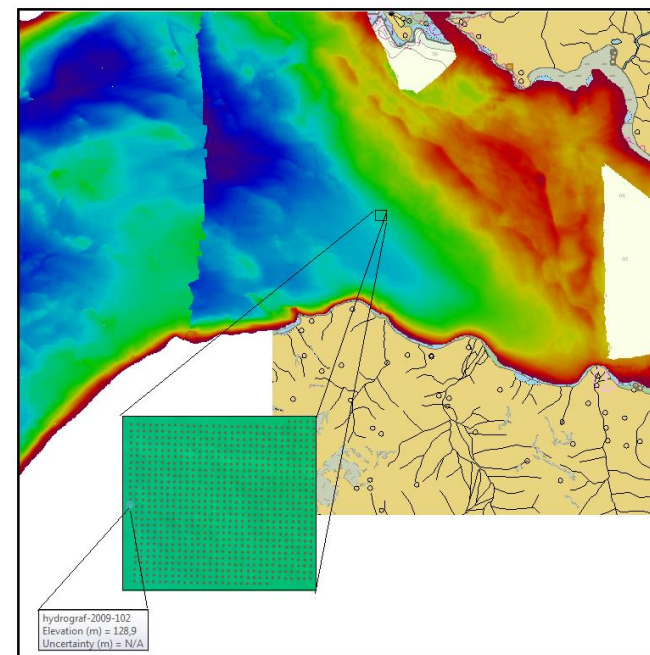
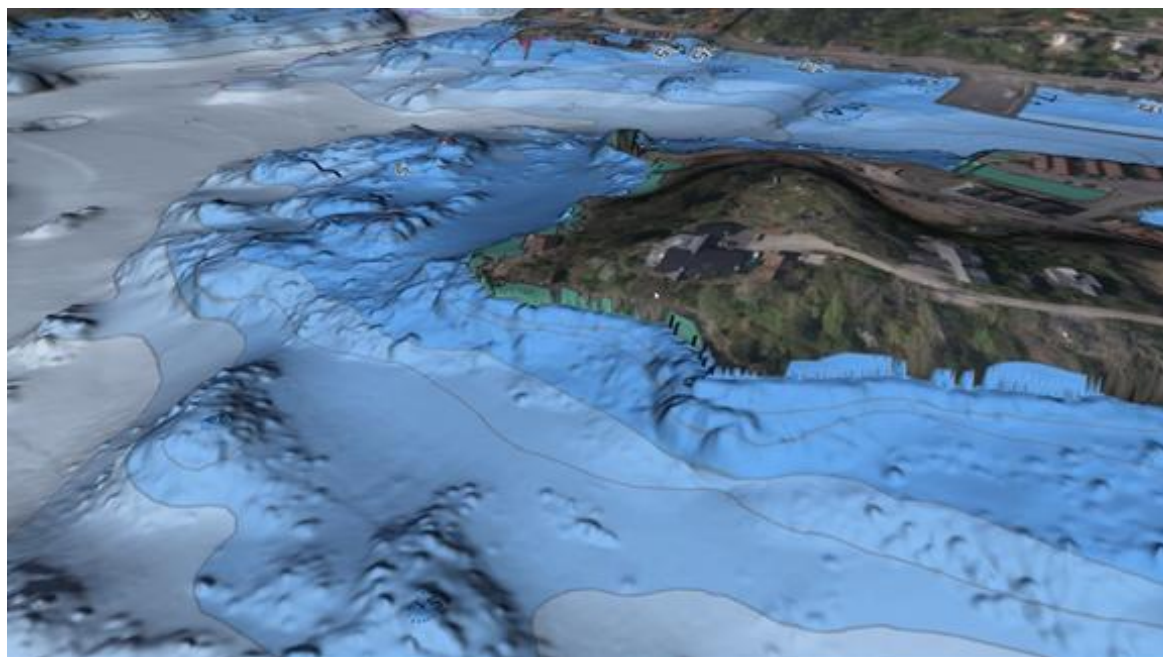


PRIMAR S-102 project

- Expanding the PRIMAR ENC service with distribution, sales and customer support for bathymetric data on the S-102 format.
- Protecting the S-102 service with the new edition of IHO S-63 for access control and authentication.
- Allowing a Hydrographic Office to distribute its S-102 data to governmental and commercial end-users through PRIMAR.
- Development and testing of upload, validation, viewer, encryption and distribution modules ongoing.
- Cooperation with HOs, system manufacturers and end-users.

S-102 Product

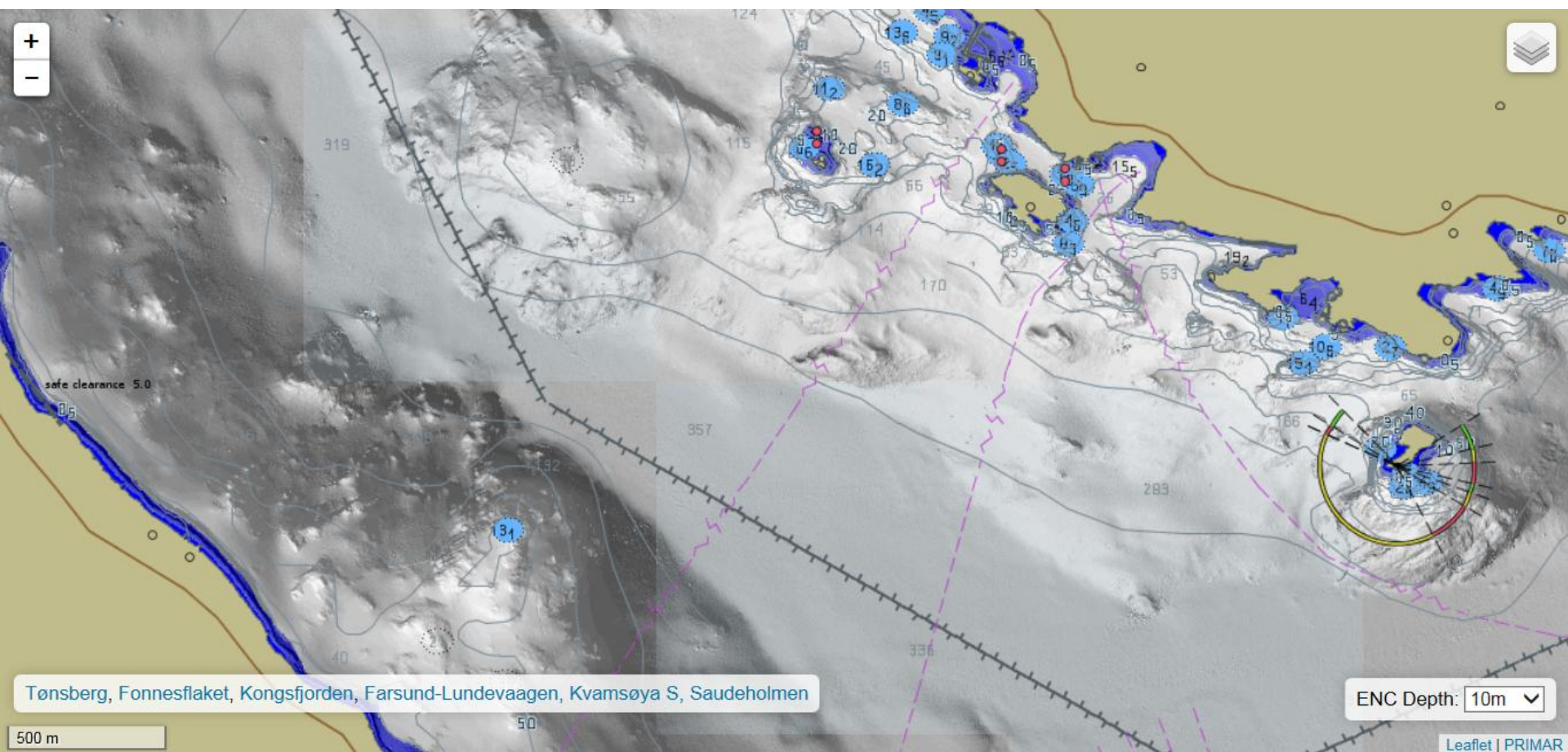
- **Main purpose:** To support safe navigation as a supplementary aid.
- **Product:** High resolution gridded bathymetry – bathymetric model.
- **Usage:** Navigational and planning purposes
(safe depth, anchorage areas, Under Keel Clearance)
- **Innovative:** Allows ECDIS to calculate contour intervals on the fly.



PRIMAR S-102 project



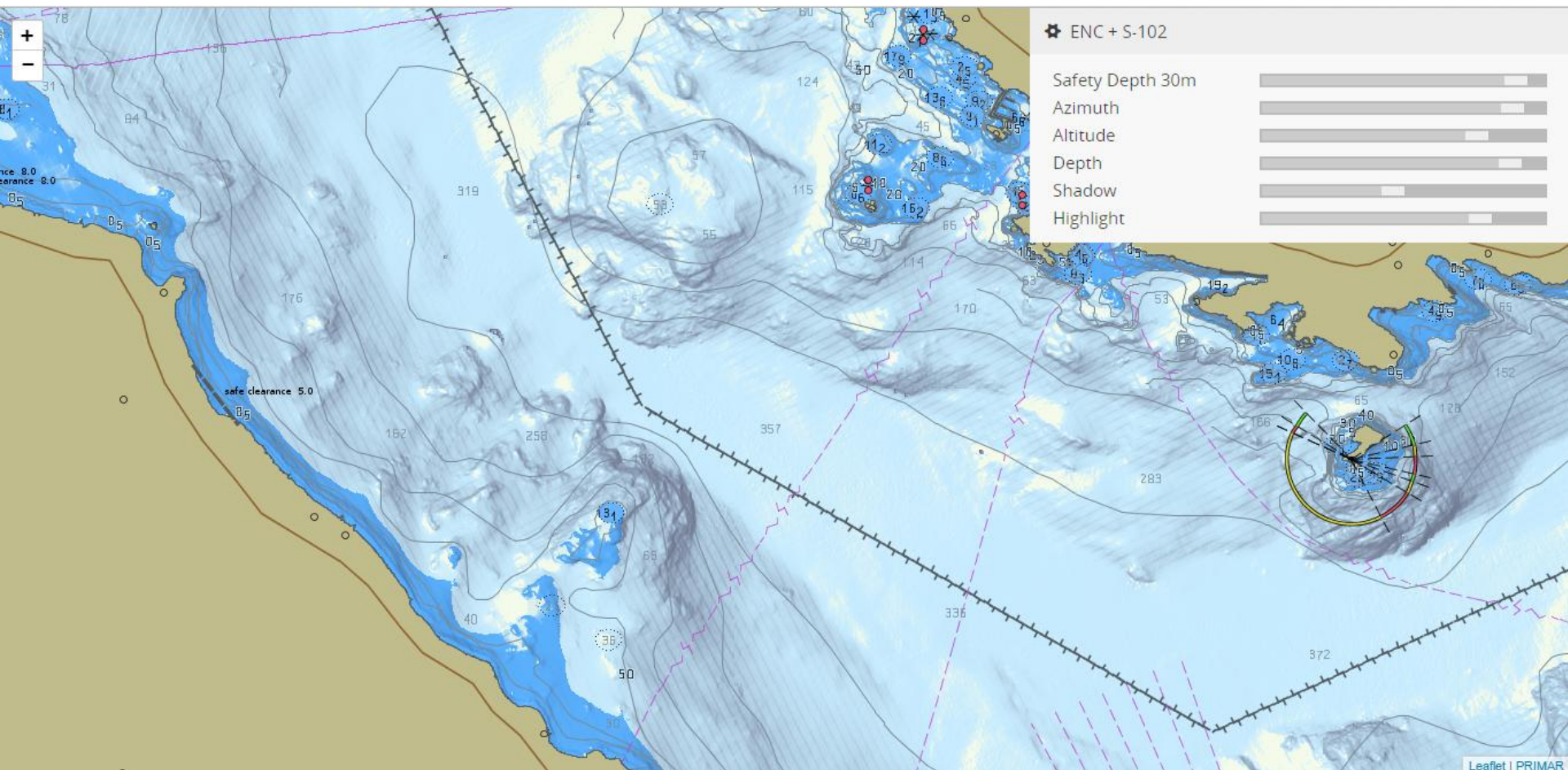
PRIMAR S-102 viewer: S-102 data in combination with ENC



PRIMAR S-102 project



PRIMAR S-102 viewer: S-102 data in combination with ENC



Maritime Safety Circle

Through PRIMAR, all actors have access to the
SAME CHARTING INFORMATION



More information available from...

- www.primar.org
- [PRIMAR Annual Report 2015](#)
 - Further details on technological developments and ongoing activities in PRIMAR.
- lauhan@kartverket.no

Thank you for your attention
Questions?

www.primar.org