

12th CHRIS MEETING
Valparaiso, Chile, 23-25 October 2000

PRIMAR STATUS REPORT

**Agenda of the 10th Advisory
Committee Meeting**

Gdynia, 18-19 October 2000



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- **Future Development of the RENC**
 - Revised CoA
 - PRIMAR AS
 - **Competition Issues**
 - **Non-ENC Applications**
 - **Promotion of our operational RENC**
 - **Policy on S57 Ed 3.1**

The Advisory Committee was given a progress report from the Working Group that has been tasked to revise the CoA – the Cooperation Arrangement between CHOs. CHOs were requested to supply comments on a draft within two weeks, and the Working Group was given a new mandate to continue their task.

At present, the arrangement between the "owners" of PRIMAR – UK and Norway – is a Memorandum of Understanding. Work is now underway to replace this MoU by forming a new government-owned company that will be called PRIMAR AS. UK and Norway will be the major shareholders, but other HOs will be able to buy shares and thus have a greater say in the operation of the RENC. It is hoped that PRIMAR AS will be formed on 1 July 2001.

PRIMAR has applied to the EU Commission DG4, essentially seeking confirmation that our activities are not in contravention of any EU Competition Law. CHOs have also been in contact with the Commission to explain their role in the production and maintenance of navigational data. The meeting was updated on progress.

Captain Evgeny Komrakov of TRANSAS was invited to outline his proposals on the use of CHO's S57 data as a source for Non-ENC products. The ideas were well received, and PRIMAR is following-up the proposals.

It was agreed that more needs to be done to promote world-wide awareness of the existence of PRIMAR, the RENC and the ENC Service.

It was agreed that S57 Ed3.1 data could not be distributed yet.

Objectives for 2000



- **Obtain ENC coverage for maritime activities**
 - Europe
 - Beyond Europe
- **Provide Users a premium ENC service**
 - Distributors
 - System manufacturers
 - Sales profile & potential
 - New edition of S57
 - PRIMAR notification to EU Competition Authority (DGIV)
- **Ensure CHOs control, involvement and “ownership”**
 - Security system, Access and Disaster Recovery
 - PRIMAR AS
 - Virtual PRIMAR Network

This should read "2001".

PRIMAR will continue to work with HOs in Europe to increase coverage, but will also enter into arrangements with other HOs or their representatives to obtain coverage wherever it is available. The aim is to give the best possible service to the ECDIS/ECS manufacturers, our distributors, and through them to the end-users.

PRIMAR wishes also to give CHOs greater ability to control their data whilst it is with PRIMAR. Plans are in hand to install a Virtual PRIMAR Network (VPN) that will allow CHOs to move their data to and from PRIMAR, to authorise its release, and to check on royalties.

Obtain ENC Coverage

Today's Coverage

1 November 2000

Usage band:

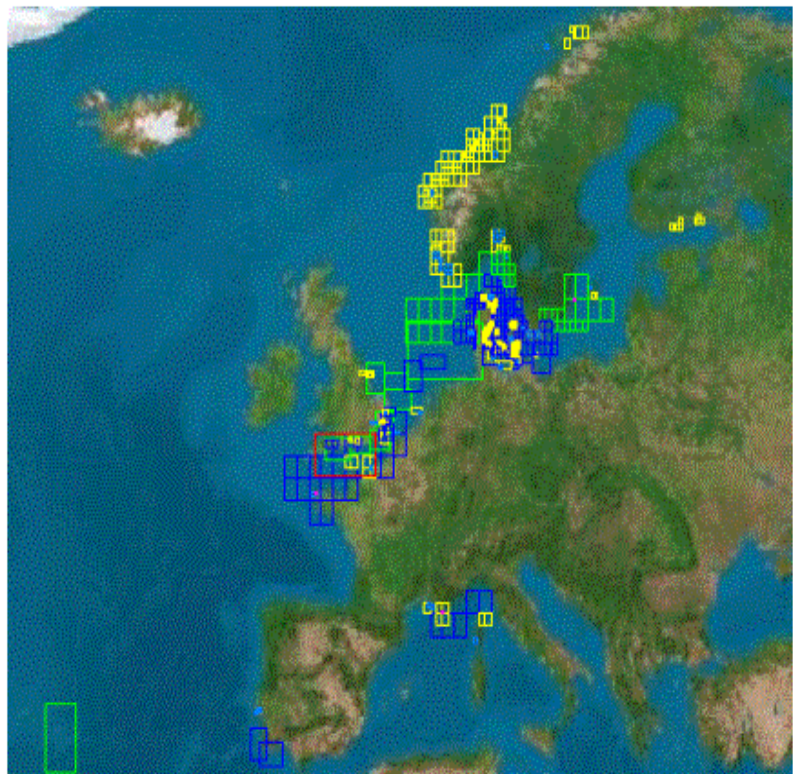
- All
- Overview
- General
- Coastal
- Approach
- Harbour
- Berthing

Navigation:

NW	N	NE	
W	+	·	E
SW	S	SE	

World

Zoom
 Pan
 Select

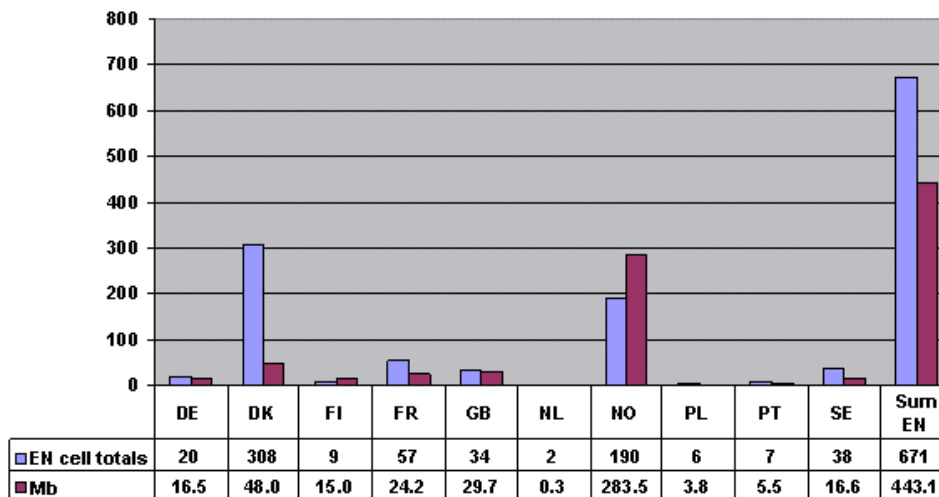


Cell Numbers v Cell Size

1 November 2000



Volume and Number of Available ENC Cells Week 44/2000
443.1 Mb 671 Cells



Cell Availability

1 November 2000



	Country										
Band	DE	DK	FI	FR	GB	NL	NO	PL	PT	SE	Sum EN
1					1						1
2	1	20			7				2	26	56
3	4	164		30	6	2			2	5	213
4	5	112	9	15	11		173	4		2	331
5	10	12		7	9		17	2	3	3	63
6				5						2	7
Sum EN	20	308	9	57	34	2	190	6	7	38	671

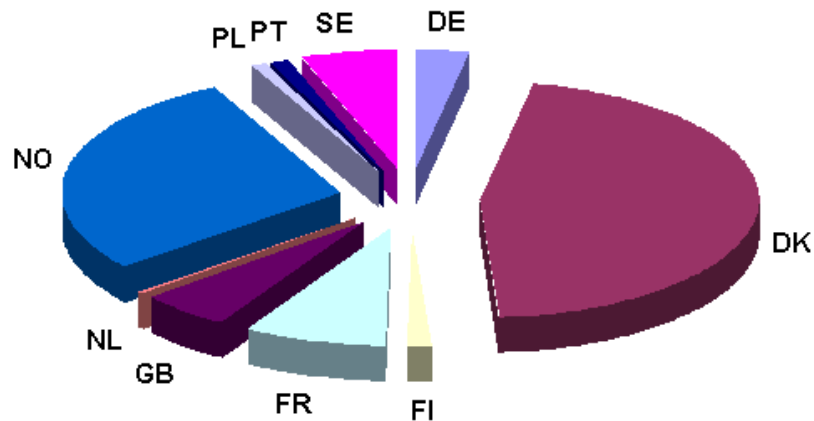
	Country										
Band	DE	DK	FI	FR	GB	NL	NO	PL	PT	SE	Kb
1					893						893
2	920	1118			8974				1065	14383	24480
3	4089	27560		7551	5661	262			1667	1346	48036
4	5876	15468	15024	6142	9845		264639	1836		233	319053
5	5577	3883		6626	6377		18876	2007	2723	503	46572
6				3902						151	4053
Kb	16462	48019	15024	24221	29650	262	283515	3843	5455	16616	443067

Cell Numbers

1 November 2000



671 Cells Available Week 44/2000



International ENC and RENC issues



- Belgium
- Spain
- Greece
- Turkey
- Russia
- Latvia
- Estonia
- Korea
- Japan
- India
- Singapore
- Malacca Strait
- Canada
- USA (NOAA)
- Chile
- Peru
- Argentina

As part of the programme to increase data coverage, PRIMAR has carried out validation of trial ENC datasets for many HOs outside of Europe.

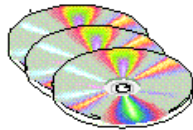
We are in discussion with Transas (exclusive distributor for Russian ENCs), Maptech (exclusive distributor for NOAA ENCs), NDI (exclusive distributor for Canadian data), and the Indian HO.

We are conducting outline discussions with others.

Provide Users an ENC service

Authorised Distributors

16 October 2000



**31 Distributors
in 16 countries**



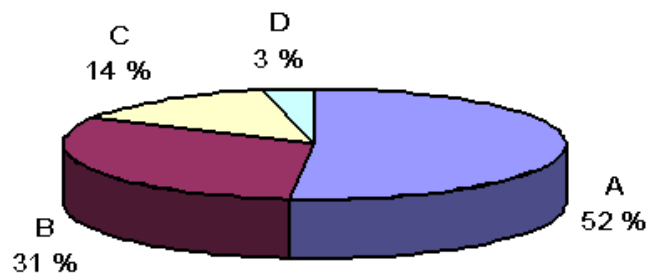
31 Authorised Distributors



Breakdown of Distributors by Category



- A Charts and Publications Agents / Ship Supply providers
- B ECDIS, ECS and OEM manufacturers
- C Marine Electronic suppliers / Ship Electronic Service Contractors
- D Hydrographic Offices



Breakdown of Distributors by Country and Region



EUROPE

Finland	2
Germany	4
Netherlands	2
Poland	1
Denmark	2
UK	5
Norway	4
Belgium	1
Sweden	2
Greece	1
Spain	1

World-Wide Coverage



NORTH AMERICA

Canada 2

SOUTH AMERICA

Uruguay 1

ASIA

Japan 1

Korea 1

Indonesia 1

Original Equipment Manufacturers (OEMs)



Company Name	Logo	ECDIS / ECS	Compatible with PRIMAR service	End Users
Navintra		ECDIS	X	3
FURUND		ECDIS	X	1
Kelvin Hughes		ECDIS	X	2
MARIS		ECS	X	8
SAM Electronics		ECDIS	X	1
Transas		ECDIS	X	0
TRESCO		ECS	X	2

Note: Litton was type approved at DnV on 12 September. Interested to become distributor ASAP. Will support security by the end of October (e-mail 02.10. 00)

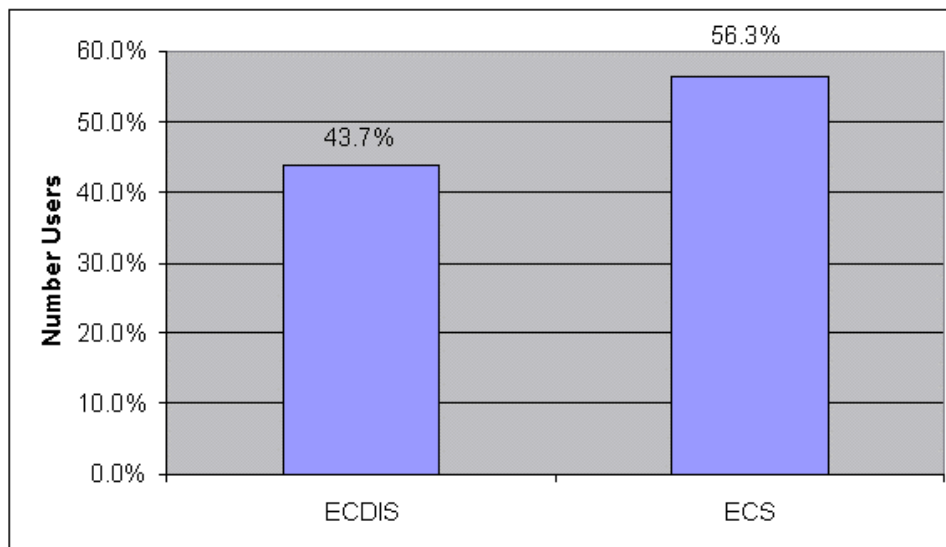
Sales Profile

12 October 2000

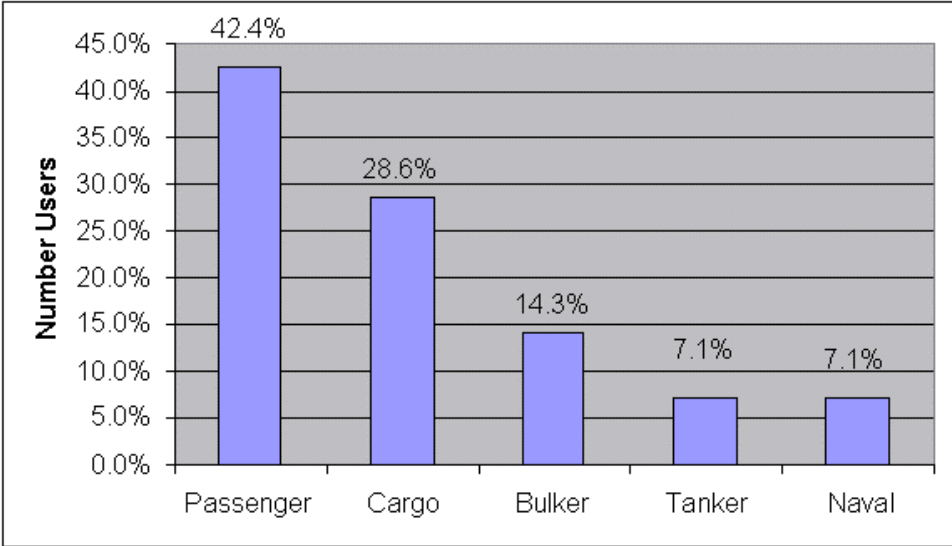


- 17 End-Users registered
- 6 distributors selling (75% revenue from ECS)
- Total NOK 100,492.00 revenue
- Average of 25 cells on subscription per End-User
- Largest order 62 cells, 29 September

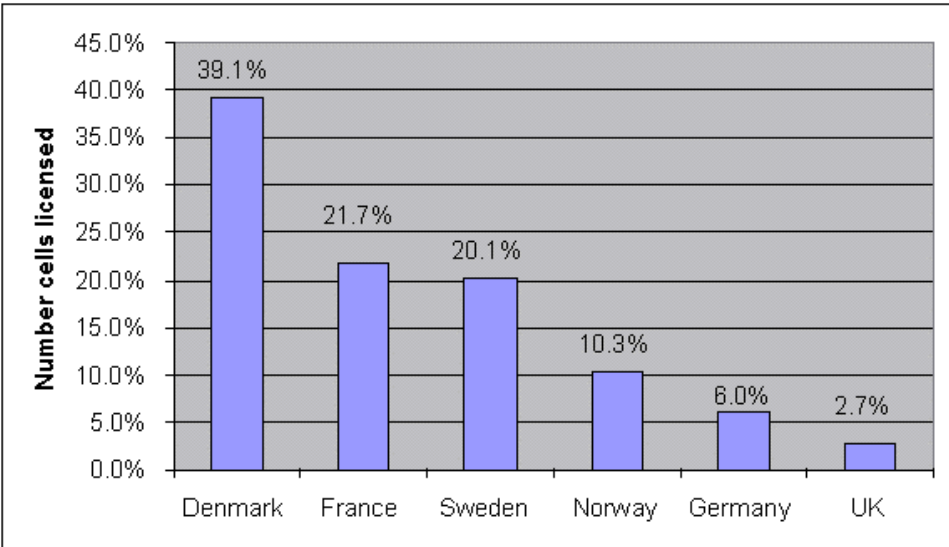
Breakdown of Users by System Type



Breakdown of Users by Vessel Type



Breakdown of Sales by Nation



OEM Survey 2000

10 OEMs Preliminary Info.



- Security Implementation
 - 80 % by spring 2001
- Transport Protocol
 - 50 % by spring 2001
- Type Approval (ECDIS)
 - 80 % by spring 2001



The survey involved 10 OEMs.

8 said they would have the PRIMAR security system implemented by the Spring of 2001.

5 said that they would have the PRIMAR on-line functionality implemented by Spring 2001.

8 expected that their systems would be type-approved by Spring 2001.

OEM Survey 2000

10 OEMs Preliminary Info.



-
- Installation Forecasts, PRIMAR Security
 - 223 systems by end of 2000
 - 745 systems by end of 2001
 - PRIMAR Security
 - 43 % express the desire for security to become IHO Standard
 - S57 ed.3.1 Compatible systems
 - 57 % not ready before mid 2001
 - 44 %, S57 ed 3.1 upgrading not part of standard maintenance contract

OEM Support

Toolkits for implementation of the service



-
- Developed toolkit for OEMs to ease, simplify and reduce development time
 - Full support for PRIMAR Transfer Protocol and Security Interface
 - Provided as DLL library for Windows development environment
 - Provided with source code to licensed developers

This toolkit has been developed to make it easier for OEMs to implement the PRIMAR Security and on-line systems.

Ensure CHOs control, involvement and ownership

Security System IHB Circular Letter 38/2000

- Questionnaire
- Annex A: *Security Scheme Outline*
- Transfer of Copyright and Support to the IHO
- HOs to Vote by 15 October
 - No Results available yet

This questionnaire was sent out as IHB Circular Letter 38/2000.

The questions asked were:

- Do you intend to encrypt your data?
- Should there be one IHO recommended Security System?
- if yes, should the PRIMAR System become the standard?

Access and Control Evolution



From centralised, via "virtual", to a distributed
ENC database service

Enhancement of Security Point-to-point supply of ENC



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- Encrypted delivery of ENC from CHOs
 - Enhanced security for Distributor Internet Communications
 - Enhanced monitoring of Internet traffic by Intrusion Detection System as compliment to existing Check Point Firewall-1
 - In addition – installed the 2nd Firewall as part of the implementation of Disaster Recovery Infrastructure

Following an independent review of the systems used by PRIMAR, the above security enhancements have been implemented. The use of PGP is part of this.

VPN Security

(Virtual Private Network)



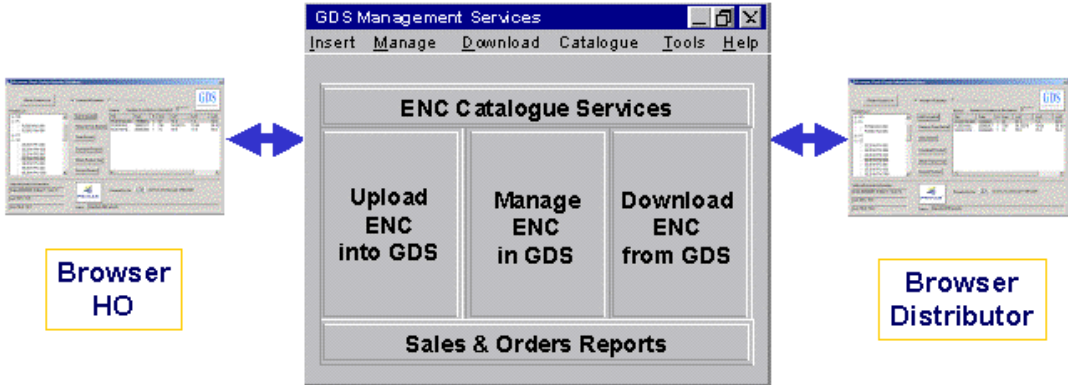
The use of security between users on a VPN ensures the link is private even if it is running over shared media

- Authentication: Ensure data is coming from the source from which it claims to come
- Access control: Restricting unauthorised users from gaining admission to your network
- Confidentiality: Preventing anyone from reading or copying your data as it travels across the VPN
- Data integrity: Ensure no one tampers with the data as it travels across the VPN

As discussed earlier, the VPN is designed to give HOs greater involvement and access to their data. It is important that all aspects of confidentiality and access control are reviewed and resolved.

Virtual PRIMAR Network

Selective access to resources



GDS Access Rights					
	Upload	Manage	Download	Sales&Order	Catalogue
HO	✓	✓	✓	✓	✓
Navy	✗	✗	✓	✗	✓
Distributor	✗	✗	✓	✓	✓
PRIMAR	✓	✓	✓	✓	✓

The GDS is the Geodata Server that lies at the heart of the PRIMAR business system.

The VPN will allow different access rights to different sets of users as shown in the table above.

Virtual PRIMAR Network

Step 1 – Research Project, demonstration



Objectives

- to research and recommend a technology based on the current industry standards for Virtual Private Networks (Extranet)
- to implement a secure demonstration network using above recommendations
- to create a report for the AC (CHOs) based on the results from the use of the demonstration network

Deliverables

- a set of recommendations to the AC(CHOs) for implementing and using a secure Extranet to access the RENC resources

Scale

- limited to one-month-effort by the partners

CHOs (proposal) – Denmark, Germany, Sweden, Norway

This Project has started.