**PRIMAR Report 2012**

**1. Introduction**
The PRIMAR international co-ordinating centre for electronic navigational charts (ENCs) has been operated by the Norwegian Hydrographic Service (NHS) since 1. April 2002.

PRIMAR'sVision.
**In order to enhance safety at sea and protect the maritime environment, PRIMAR's vision is to be the most efficient model for the provision of ENC services and maritime geospatial data worldwide**

Since the last NHC meeting no new nations has joined the, but 106 GB cells is made available through the agreement with IC-ENC. Including the agreement with IC-ENC, the PRIMAR ENC service now distributes ENCs from  44 nations. The following countries are members of the Regional ENC Coordination Centre regime (RENC): Brazil, Croatia, Denmark, Estonia, Finland, France, Greece, Latvia, Mozambique, Norway, Poland, Russia and Sweden.

PRIMAR makes its database of ENCs available through 65 distributors located in 25 countries, and serving all the major markets. This also includes data from the other RENC and HOs, and is distributed within their own tailored, integrated service as described in the WEND Principles.

PRIMAR today provides the world's widest official ENC coverage with 6833 ENCs from PRIMAR cooperating nations (RENC members and non-members) and 3919 ENCs from IC-ENC, a total of 10752 ENCs; an increase of 617 ENCs since the last meeting.  A total of 24386 ER- updates have been provided to mariner's world wide.

**2. Quality Assurance**
All ENCs that are delivered to PRIMAR undergo a set of checks before they are released into the market. The data is uploaded to the Virtual PRIMAR Network (VPN). The VPN technology is a set of tools and functionality to give Hydrographic Offices or other data producers a possibility to get a closer participation in the operations in a database of ENCs. It also enables a HO to have a much better control and management of its own information stored in an ENC database. When data is uploaded, the system performs a set of checks on the data, e.g. S-57 data structure, filenames, issue dates, external files, order of updates, geo limits etc.

In the VPN the data is validated using Validation Report Checker (VRC). The VRC is an internet based software tool linked to the Errors Database and allows upload of validation reports into a data management production database. The uploaded reports are "verified"

against the Errors Database using an interactive process to accept or reject errors and warnings that are reported. The input validation reports that are loaded into the VRC are three different validation logs.

ENCs in the same navigational band should not have data overlap and all data that is uploaded to the PRIMAR database is therefore checked for overlap against the whole PRIMAR database containing 10752 ENCs.

The final check that is done is to upload all data into two different ECDIS systems to see that it is no problem to import the data.

When all checks above are done, the ENCs can be released.

## 3. Distribution
During 2011 3 new distributors were added to the distribution network,
A business to business (B2B) interface was successfully launched in 2007 allowing distributors to integrate their own business-systems with PRIMAR.

The NHS and its cooperating HOs are continuously working to include new nations to the PRIMAR quality service. Discussions have taken place with the Norwegian Embassies in China, Thailand, Indonesia, Malaysia and the Philippines to set up meetings with the individual nations, but so far no formal meetings have been held.  We have made good progress with Lithuania, and at the moment discussions are continuing in order to sign an RENC agreement. A couple of other nations has also contacted NHS for possible cooperation, but nothing has been settled.
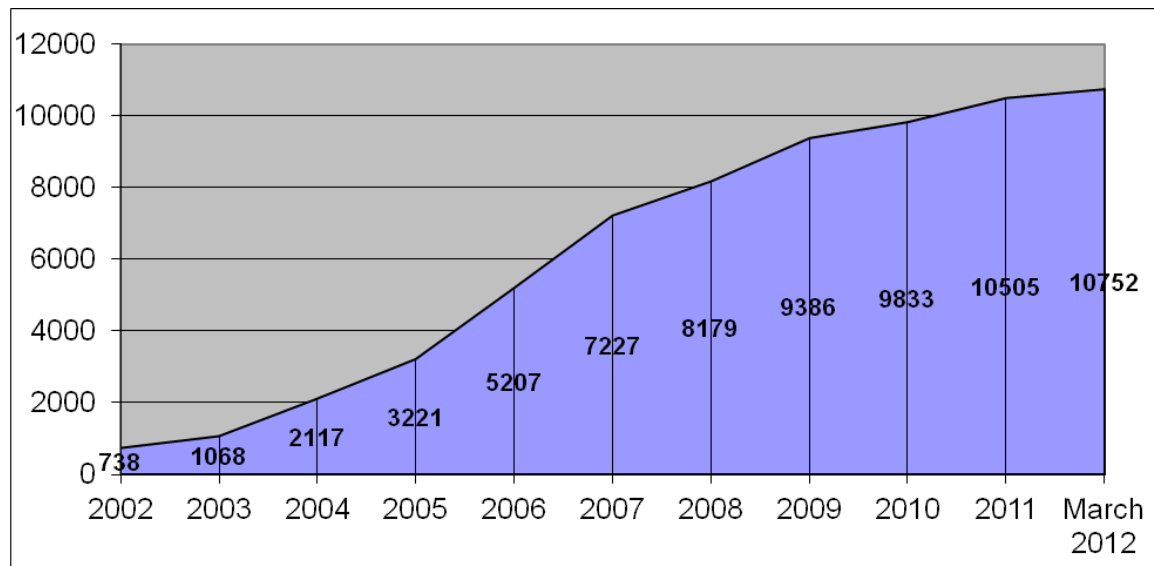


**Figure 1 Development of PRIMAR database. Numbers of ENCs**

PRIMAR is unique in offering a virtual solution (Virtual PRIMAR Network) which gives all member countries full access to and control over own data within a secure network.

Automatic integrated operations check data quality, particularly in overlap zones. This provides additional security, allowing charts from different nations to work together without problems. Maintaining good control of data is also important in ensuring than none of the available navigation systems have problems reading the formats.

Customer folio planning and ordering is automatic via the PRIMAR Chart Catalogue enabling distributors to perform ordering and sales 24/7. A new version of the Chart Catalogue, version 4.6, with some new functionality was launched in January 2012.
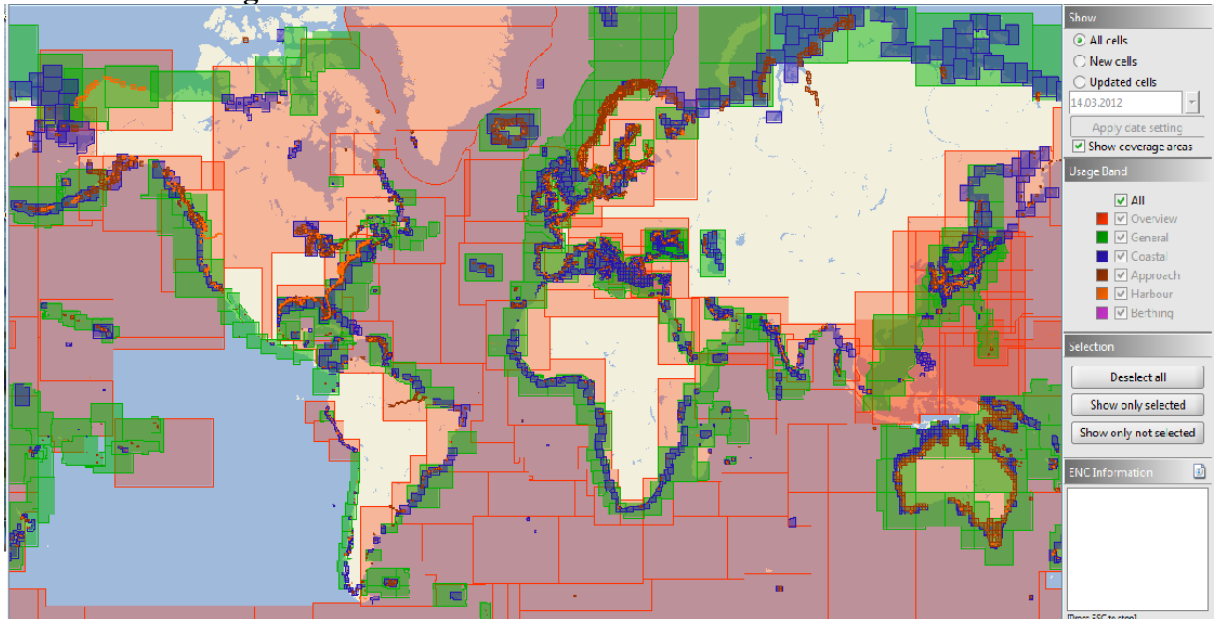
**PRIMAR Coverage March 2012**



**Figure 2 Coverage in PRIMAR database March 2012**

**Increasing demand for ENCs**
The PRIMAR service continues to experience substantial growth in the number of ENC subscriptions and the number of end users. By March 2012 we had 7148 unique users and more than 1, 4 mill ENCs in daily use.
The IMO mandatory requirement of ECDIS, which will start from July 2012 will hopefully add an increase to the use of ENCs worldwide.

PRIMAR has also been focusing on implementing standardised efficient national services for navies and governmental organisations (pilots, VTS, maritime authorities etc). The Web Map Service (WMS) based on the ENC data has been in operation since 2009, but it is still only available to national governmental users.
The Inspector tool which was released in 2009 as a project between the Norwegian Maritime Directorate and PRIMAR/ECC has also proven to be an efficient tool and provides port state control inspectors with information of the status of ENCs on board the vessels, and enables them plan the PSC inspections more efficiently.

**RENC- RENC Cooperation**
The two RENCs and the operators have agreed a structured engagement plan for continued cooperation, including a formal annual programme of meetings and agendas. In addition, it has been agreed an annual programme of meetings between the two RENC operators, combined PAC and IC-ENC meetings and a joint RENC conference for all members

It has been recognized that the two RENCs have, over time, evolved two different operating models which both comply with the WEND principles.  At the same time it has been agreed that the Concept Model from 2009 will be very difficult to fully achieve in the short term.  Agreement has been reached on several important topics, but at present, however, there are remaining areas where the views on the vision and role of the RENCs need to be discussed.

For more information visit www.primar.org