

## **Status IC-ENC**

### **Introduction**

The International Centre for ENC's (IC-ENC) was formed on 1st July 2002, and is one of the two RENCs in the NSHC region. IC-ENC provides independent ENC quality assurance and international distribution services on a not-for-profit basis to its members. IC-ENC's mission is to contribute to safety of life at sea by promoting the creation and use of fit for purpose ENC's

IC-ENC's straightforward and cost efficient operational model has led to its rapid expansion, so that IC-ENC now has agreements with 24 member nations, 15 of which currently have ENC data flowing through IC-ENC appointed re-sellers to the market. Since the last NSHC meeting IC-ENC has added Argentina, Australia, Bahrain, Chile, Cuba, Iceland, Indonesia, Mexico, Mozambique, Pakistan, Peru, Philippines, Russia, Turkey and Venezuela to its list of member nations.

As part of this expansion, the IC-ENC framework has been broadened to encompass a second regional co-ordinating centre, operated by the Australian Hydrographic Service, which provides the same level of quality assurance services as the original centre based in Taunton, and operated by the UK Hydrographic Office.

IC-ENC is also in discussions with several other nations who are interested in joining IC-ENC, or in establishing further regional centres within the IC-ENC framework. IC-ENC provides training, workflow systems, process documentation and support to those nations wishing to establish and operate new regional centres.

### **Quality Assurance**

The IC-ENC members consider it essential to apply a final independent quality assurance process, prior to ENC release, to ensure the supply of high quality consistent data to end users. This promotes confidence in the use of ENC's and enhances the total credibility of an ENC service.

By having a central and independent office conducting validation, IC-ENC members benefit from:

- An experienced team which form a centre of expertise in the field of ENC validation, often identifying errors which the member has missed, or more typically has not seen before in their data but which the team has seen in another nation's data.
- A consistent validation standard is applied across all nations who contribute to the overall IC-ENC database, which is particularly important given the complex and often ambiguous nature of S-57, and of the various validation tools which regularly change and report erroneously.
- A streamlined and cost-effective validation service which takes full advantage of economies of scale, and uses dedicated systems which improve the efficiency of the validation service.

In 2004, a series of ENC consistency recommendations were published by IHB, and arose from the earlier research undertaken by IC-ENC, and which IC-ENC reported to TSMAD. IC-ENC is now in the process of working with its members to agree how best to incorporate these recommendations fully into its independent validation process.

## **Distribution**

IC-ENC does not operate an end-user service of its own but prefers to take advantage of the expertise and experience of existing major service providers within the industry, allowing these companies to develop their own tailored and integrated services based on the ENC data. This significantly reduces the cost and technical complexities of IC-ENC, leaving it to focus on providing support to its members to improve the quality and consistency of the ENC product.

At the same time, this flexible and open system of distribution helps to maximise the availability of the ENCs for the user and encourage the development of a number of competing and integrated services for the mariner to choose from.

IC-ENC therefore delivers its ENC database to the market through specialist distributors, known as Value Added Resellers (VARs).

## **Sales**

IC-ENC uses a “Unit” concept which groups ENC cells into units which are broadly equivalent to a paper chart in terms of coverage, and these are then sold to the VARs at the wholesale price set by each member nation. IC-ENC recovers its costs by retaining a fixed amount of the revenue it receives from its VARs for every unit sold.

At the time of writing, IC-ENC has 1,563 ENC cells grouped into 818 “paper chart equivalent” units available to the market. Sales of these ENCs have continued to grow at an annual rate of over 300% over the past year.

For details of the latest coverage please see the graphical catalogue on the IC-ENC website at [www.ic-enc.org/page\\_coverage\\_catalogue.asp](http://www.ic-enc.org/page_coverage_catalogue.asp).

## **Wider Issues**

IC-ENC remains concerned about the relatively slow uptake in ENCs when compared to other non-official digital chart products. Lack of coverage and the availability of customer friendly integrated end-user services; confusion in the carriage regulations and the policies of national maritime administrations; and the variable quality and consistency of the ENCs which are currently available appear to remain major obstacles to the wider adoption of ECDIS and ENCs.

IC-ENC therefore fully supports the work of the WEND Task Group, and encourages nations who are not currently a member of one of the existing RENCs to join one to ensure their ENC products are made available to the market within integrated services, and can become part of a high quality and consistent world-wide ENC database.

IC-ENC has worked closely together with PRIMAR-Stavanger since the last NSHC meeting on issues related to encryption, distribution, data consistency and helping to clarify the carriage regulations in order to address these obstacles.

For example, there is now an exchange of encryption keys by both RENCs to simplify the development of integrated services. IC-ENC is also funding a new online digital signature service, hosted by IHB and using software developed by PRIMAR-Stavanger's technical partner, ECC, to help resolve problems many integrated service providers have encountered when trying to put together an S-63 protected service.

Furthermore, IC-ENC has appointed The Norwegian Hydrographic Service, operator of PRIMAR-Stavanger, as a Value Added Reseller to ensure ENC data from IC-ENC members are automatically included within the "PRIMAR-Stavanger Official ENC Service" in addition to the services of the other VARs. Together, these various measures have significantly improved distribution, and encouraged the development of integrated services, for the members of both RENCs.

The technical working groups of both RENCs now meet regularly to discuss issues of common importance, and to push forward the data consistency agenda. The Chairmen of each RENC now also attend open sessions of the respective Committee meetings of the other RENC.

A new joint information working group, comprising members of both RENCs, has also been established to create, promote, and maintain a "Facts about charts and carriage requirements" document. IC-ENC encourages all nations to promote this document nationally, and a free copy can be found on the websites of both RENCs. Copies in French and Spanish are also available.

IC-ENC therefore believes that the future of ENCs will depend heavily on fully realising the international cooperation and harmonisation which are fundamental in the WEND principles; and supporting the work of existing RENCs, and where appropriate creating new RENCs within a common operational framework.

For the most up-to-date information, please refer to [www.ic-enc.org](http://www.ic-enc.org)