

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

WORLDWIDE PRODUCTION OF ELECTRONIC CHART DATA

D R A F T

RNC Development

**AUSTRALIA
(September 2000)**

RNC Availability and Usage

1. The entire folio of Australian charts is commercially available in HCRF form on one CD-ROM. In addition, GeoTIFF charts are available for use in GIS.
2. RNCs are being used by the Royal Australian Navy in submarines, ships, and aircraft. They are also be used by, amongst others, the Army, Customs, Water Police, Port Authorities, Government Authorities, Maritime training institutions, Maritime Museums, the Australian National Library, The Sydney Olympics Organising Committee and The Department of Environmental Protection.

Seafarer[®] Viewer Software

3. *Seafarer[®] Viewer* is a raster chart viewer for non-navigation and reference uses. This desktop software package has had the pleasing effect of increasing public and government service awareness of the availability and utility of official charts.

Chart Production Benefits

The use of raster as the basis for paper chart maintenance has continued to provide savings in manpower and materials. Repromat is now routinely produced from print ready negatives generated directly from raster files.

**NEW ZEALAND
(October 1999)**

New Zealand is currently investigating the production of RNC's. A dual fuel approach is being investigated for the main shipping routes around New Zealand.

UNITED KINGDOM
(March 2000)

Report on Admiralty Raster Chart Service (ARCS)

1. The UKHO's ARCS is in its sixth year of commercial service. It comprises nearly 3,000 charts, providing near worldwide cover. New charts, new editions and updates are produced routinely in step with the equivalent updates to the Admiralty paper chart services.
2. ARCS continues to achieve good sales and very positive feedback is obtained from users.

USA (NOAA)
(March 2000)

Raster Nautical Chart Plans at the Office of Coast Survey

The Office of Coast Survey (OCS) produces raster versions of each of its 1000 nautical charts. These raster nautical charts (RNCs) are available on CD-ROM and distributed by the NOAA Cooperative Research and Development Agreement (CRADA) partner, Maptech. Each CD-ROM covers a region of the United States, containing about 20-30 charts along with the appropriate Coast Pilot information. The entire suite of raster charts consists of 21 CD-ROMS. They retail for about \$200.00 (US) each, but single charts are available at prices comparable to the paper chart. Very recently, OCS was pleased to announce the availability of a weekly, electronic updating service for its raster nautical charts. This service distributes electronic "patches" by e-mail to subscribers of the service on a weekly basis. The "patches" are then automatically applied to the raster charts, thus correcting them for critical chart changes published in the Notice to Mariners. This service is unique in the world. With the availability of this service, the raster nautical charts are suitable for use by professional mariners and will meet international standards for electronic charts. The cost of the Update Service rasters is \$500 per region. This includes a copy of the most recent CD-ROM and a one year subscription to the Update Service.

Raster nautical charts are an integral part of NOAA's long term strategy for meeting the demand for electronic charts of U.S. waters. Although the Office of Coast Survey has begun a program for production of Electronic Navigational Charts (ENCs) covering 40 major ports, it will continue to rely on raster charts to meet electronic charting needs for areas not covered by ENCs. As resources become available, OCS will expand its ENC coverage to include other ports and harbors, approaches, coastal waters, and ocean areas. However, until such time, the raster chart will serve as an essential tool to safe and efficient electronic navigation in U.S. waters. Presently, there are over 60 licensed vendors writing software to use NOAA Raster Nautical Charts. To date, over 2,000,000 raster charts have been sold.