



## **United States – Canadian Transboundary Electronic Navigational Chart Production Summary**

At the United States–Canada Hydrographic Commission (USCHC) meeting in May 2004, the U.S. and Canada reviewed the study presented by the two countries to align their electronic chart boundary procedures with the International Hydrographic Organization's (IHO) Worldwide Electronic Navigational Chart Database (WEND) principle that calls for chart duplication to be avoided. At the meeting it was decided that Doug Brunt from the CHS and Mike Brown from NOAA would continue scoping the problem, present a work plan, and produce a final version of the draft report presented.

In October 2004, the finished document was released summarizing the issues of electronic navigational charts (ENCs) that overlap within shared waters along the international border between the U.S. and Canada. The document compiled identified data, distribution, and pricing issues, summarized three different approaches to coordinate production between each agency, and included recommendations on which approach would be best for each affected chart. The ultimate goal stated in this paper, is to provide seamless ENC coverage of the boundary waters so that a vessel transiting the boundary can sail entirely on ENC data.

The approaches addressed in the paper were Single Agency Charting, and Junction at Border. Single Agency Charting was designed so that each chart area is either the exclusive responsibility of NOAA or CHS (single ownership). Junction at Border cuts the chart data along the International boundary, so that each agency only displays data on its side of the boundary. The next step was for each agency to agree to which of the two approaches to apply.

Follow on discussion were held in Burlington, Ontario in November 2005 and in Sidney, British Columbia in April 2006 between NOAA the CHS Central and Pacific regions to discuss how overlaps between the two ENC coverages were to be eliminated. NOAA will meet with CHS Atlantic following the Hydro conference in Halifax, Nova Scotia in June 2006. These discussions addressed the ENC production only. No changes to paper or raster nautical chart productions are anticipated. It is stressed that the result of these discussion are only recommendations until approved by the headquarters of both agencies. Upon approval, both NOAA and CHS cartographers will work together to ensure that ENC cells are properly modified and do not result in an ambiguous representation to the mariner.

### **Central Region**

It became obvious in the Great Lakes that Single Agency Chart coverage or simply splitting the coverage at the international boundary was not always in the best interest of the users. Commercial traffic in the Great Lakes tends to follow recommend routes laid out on the charts. When these routes exist near the International Boundary line and also occur in restricted



## Pacific Region

Single agency coverage was determined to be, in general terms, the better option in the Straits of Juan De Fuca, Boundary Pass, and Haro Straits with some ENC cells being modified to allow for a more uniform view for the mariners. In general, NOAA will take the responsibility for the ENCs in and offshore of, the Straits of Juan De Fuca and in the Haro Straits. CHS will be responsible for ENC coverage in Boundary Pass and the waterways north of the San Juan Islands. Graphics are not yet available from these discussions.

While there were no boundary disputes in the Great Lakes, there are in the Pacific and Atlantic Oceans. These disputes exist over the locations of the Exclusive Economic Zones between the two countries. To ensure that the mariner has proper notice of the disputed boundary areas, our governments have agreed to allow both the Canadian and U.S. claims together on the ENCs with the understanding that the U.S. will show Canada's claim on its ENCs and Canada will show the U.S. claim on its ENCs. Additional work will be required between NOAA and CHS on the wording of a text note to the mariners to describe the boundary issues.