

**The U.S./Canada Hydrographic Commission Meeting
Wednesday, March 30, 2005**

Hydrography - NOAA/CHS Cooperative Activities Update

I. Expertise Sharing

NOAA's Office of Coast Survey & Canadian Hydrographic Service Pacific Region participated in the "2nd Process Re-Engineering Workshop" July 28-29, 2004 hosted by CHS at the Institute of Ocean Sciences, Patricia Bay, Sidney, BC, Canada. The purpose of the workshops is to collaborate and share expertise and technology advances for advancing hydrographic data processing and compilation.

Participating staff from CHS included:

Eric Earl
David Jackson
Michael Jennings
Mark McCavour (and interpreter)
Patti Parkhouse
Brian Port
Dave Prince
Brian Wingerter
Fred Stephenson

Participating staff from NOAA included:

Alexandra Heliotis, MCD
Lt. E. J. Ven den Aamele, PHB
Cathleen Barry, PHB
Russ Davies, PHB
Kim Sampadian, PHB
Kaitlyn Van Sant, PHB
Lt. Ben Evans, CSDL
Annaliese Eibert, MCD
Bonnie Johnson, PHB
Julia Liebeskind, MCD
Jeff Ferguson, HSD
Crescent Moegling, HSD
Ada Otter, AHB
Craig Martin, CO-OPS
Staff from FAIRWEATHER led
by Commander John Lowell

Other participant:

Eric Lott, DND Contractor

Additionally

On her maiden voyage from Seattle to Ketchikan, NOAA's newly refurbished and reactivated Class II Hydrographic Ship FAIRWEATHER stopped at Sidney to participate in the workshop and to host tours for CHS personnel.

Breakout groups discussed "ENC and Chart Production Streamlining." The two major groups, NOAA and CHS were asked to separately list some of the major aspects of the programs concerning Developments and Problems.

CHS Developments

- HPD Hydrographic Production Database “Pilot Project”
- DVU Data Validation Unit “development and documentation”
- DNC Digital Nautical Chart “DND”
- BSB Raster file production
- ISO International Organization for Standard “documentation”

CHS Problems:

- Evolution of software and hardware
- Training
- Product synchronization
- Data quality (external suppliers)
- Trying to let go of old processes
- Attitudes
- Metadata
- LOS – Levels of Service (\$ - Risk Base Charting)

NOAA Developments:

- Product
- Process
- Systems
- S Cells
- H Cells

NOAA Problems:

- Post processing and validation
- Some tools of CARIS are in Beta testing for staff
- On going development of ENC base, Survey Plans, Raster base
- Need more tools to “validate the requirements”
- Need more tools to “validate the processes” and documentation
- Prototype products need to be reviewed with appropriate teams
- “end product chart developer”
- Correct tools for Phase I and Phase II development

ACTION ITEMS and STATUS

1) Exchange process documentation -- Patti Parkhouse, CHS and Alexandra Heliotis, MCD

- Time frame – by end September 2004 (completed)

2) Personnel exchange from MCD to CHS Nautical Publications, NOAA will fund -- Alexandra Heliotis, MCD to discuss with Dave Prince CHS

- Time frame – complete initial discussions end September 2004 (MCD Item)

3) Personnel exchange CHS S57 guru to Seattle (3-5 days), NOAA will fund -- E J. Van Den Ameele, PHB and Dave Prince, CHS

- Time frame – exchange originally to take place sometime between November 2004 and February 2005, but has not occurred. May happen in the future when the H Cell process is more developed

4) Forward “HOM 101” training materials to NOAA -- Patti Parkhouse, CHS and Cathleen Barry, PHB

- Time frame – (pending)

5) CHS forward HPD reports to NOAA -- Al Smickersgill, CHS and Alexandra Heliotis, MCD

- Time frame – CHS pilot project by Spring 2005 (MCD Item)

6) Possible future exchange of staff after HPD pilot is complete -- E J. Van Den Ameele, PHB and Dave Prince, CHS

- Time frame – CHS pilot project by Summer/Fall 2005

7) NOAA to set up CHS with access to their web based Power Squadron reporting process -- Dave Jackson, CHS and Alexandra Heliotis, MCD

- Time frame – complete by end of September 2004 (MCD Item)

8) NOAA’s Pacific Hydrographic Branch will plan and host a proposed 3rd Workshop between OCS and CHS, to be hosted by PHB.

- Time frame – (pending)

II. Survey collaboration

During the Re-engineering Workshop last July, CHS indicated that they would be conducting a survey in the area of Point Roberts, WA. (approximate GP: Lat. 48 deg 58 min N, Long. 123 deg 04 min W), a small U.S. peninsula which can only be accessed by land through Canada or from U.S. by water. CHS and asked NOAA for any shoreline more recent and at a better scale than the raster chart or ENC, hoping to avoid the costly and time consuming aerial photography required to update shoreline for the area.

Following research by HSD, MCD and Remote Sensing Division, Cathleen Barry, Pacific Hydrographic Branch, supplied Kal Czotter, CHS Sidney, BC with a list of all of the most recent sources of shoreline for that area, but also determined that the area was not a high priority for NOAA and what was available might not be of much relevance

Made available were:

Charts

US Chart 18421, 1:80K, 46th Ed., Oct 1, 2003 (KAP 1657)

CHS Chart 3492, 1:20K

US ENC: US3WA02M

Prior Surveys

H-8479, 1:10K, 1959 (Sndgs in fms and tenths, MLLW, NAD 27)

H-2049, 1:20K, 1890

H-709, 1:100K, 1859

H-405, 1:200K, 1853

Under better circumstances you could simply download the latest shoreline, in numerous formats including shapefile and CARIS NTX, from NOAA's ENC Direct web page. To bookmark this for future reference, go to <http://chartmaker.ncd.noaa.gov/>, click the "NEW" icon for "GIS Products and Services". From the page that opens, click "NOAA ENC Direct to GIS", then click "Proceed To NOAA ENC Direct to GIS Web Portal". Unfortunately, Point Roberts isn't yet an area with data available thru this website. Of course, from the same "chartmaker" website you can also get to the free ENC downloads by clicking the icon above "Electronic Navigational Charts". The attached image, ENC.jpg, is a screen capture from the ENC downloaded from this site.

III. Hydrographic & Cartographic Exchanges

JOINT

- NOAA Pacific Hydrographic Branch and CHS continue collaboration on development of S-57 processes . – **done & ongoing.**

NOAA possibilities

- NOAA Ship FAIRWEATHER stop in Sidney, B.C. on maiden voyage north to Ketchikan. It could host a meeting to discuss S-57 and CUBE/Navigation Surface developments. – **done**
- NOAA Ship FAIRWEATHER survey off Queen Charlotte Islands
- NOAA Ship RAINIER conduct trans-boundary survey in Strait of Juan De Fuca using CUBE/Navigation Surface technology and in support of traffic separation scheme in Boundary Pass
- NOAA hydrographer participate in CHS field operation

Proposal for CHS

- CHS survey In Puget Sound (San Juan Islands?) in exchange for FAIRWEATHER and RAINIER surveys to cover NOAA annual performance estimates for “critical survey backlog”.
- CHS Hydrographer visit the NOAA Ship THOMAS JEFFERSON on East Coast and Atlantic Hydrographic Branch or FAIRWEATHER or RAINIER followed by visit to Pacific Hydrographic Branch to participate in a survey data acquisition and processing using CUBE/Navigation Surface techniques.