**14ᵗʰ CHRIS MEETING**
**15-17 August, 2002, Shanghai, China**

**ELECTRONIC COMMERCE FOR NAUTICAL CHARTS**
*(August 2002)*

**United States (NOAA)**
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The United States (NOAA) submitted a report to the 13ᵗʰ CHRIS meeting describing its efforts to use electronic commerce in support of nautical charting. This report describes progress made since then.

1. NOAA's electronic commerce system (www.NauticalCharts.gov) serves 2 purposes. First, it is an Internet-based, business-to-business order entry and tracking system between NOAA and its chart agents. NOAA lithographic charts, Print on Demand charts, NIMA charts, and NOAA text publications can be ordered. Second, it translates Print-on-Demand charts that have been ordered into assembly instructions for the printing system which then dynamically assembles each chart from its component files at print time. In the business-to-business mode, it links 4 groups: NOAA, NOAA's private sector partner for Print-on-Demand (OceanGrafix, LLC), chart agents, and another federal agency that distributes the NOAA and NIMA lithographic charts.

2. This electronic commerce system has been operating successfully for 2 years. 527 of NOAA's 1,300 chart agents have logged into the system. 393 have placed a total of 8,125 orders for 309,365 items – mostly lithographic charts. Retail sales to the public is not offered. Development costs were approximately 600,000 USD. Commercial hosting costs 5,000 USD per year and software maintenance is approximately 70,000 USD per year. The system has been successfully "hacked" twice, but was restored from backups.

3. NOAA's electronic commerce system was built with sufficient generality that other supplier's products can be included. For example, NOAA and NIMA lithographic charts are distributed by another agency of the U.S. government, but can be ordered by chart agents using the e-commerce site. Those orders are automatically forwarded to the appropriate agency for fulfillment. In addition, the NOAA/Maptech raster nautical charts can be ordered using www.NauticalCharts.gov with those orders being automatically forwarded to Maptech. Multiple methods are available to forward orders to suppliers including electronic XML messages, e-mails, .ftp files, and fax.

4. Further, the electronic commerce system was built to accept orders in .XML format from retail e-commerce systems. Thus, any chart agent could add nautical charts to his retail Internet sales site, and have the orders electronically sent to www.NauticalCharts.gov where the would be processed and/or forwarded to the appropriate supplier, including to other hydrographic offices.

5. The CHRIS is invited to consider the potential of greater interconnectedness among hydrographic offices. Should benefits to mariners be identified, CHRIS is then invited to consider the advisability of establishing standards for the exchange of chart ordering information among hydrographic offices and other selected navigation product suppliers as a means of providing improved availability of official products to mariners.

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