

**19th CHRIS MEETING  
Rotterdam, Netherlands, 5-9 November 2007**

**Printed ENC  
USA (NOAA)**

## **1. Introduction**

Hydrographic offices that make ENC's would like to use one production system and database for all their products: paper charts, raster charts, ENC's, etc. Such a consolidated production system is desirable to keep cost and manpower requirements low, and to keep all products synchronized.

Reaching this goal is difficult because it is hard to exactly reproduce a traditional paper chart from an S-57 database. Examples of problems include the placement of text; features that coincide; and items that are on paper charts but not in the S-57 database. Solutions emerging from companies making ENC production systems involve complicated additional software, and/or substantial extra attribution and its maintenance by the hydrographic offices.

To improve this situation, it has been proposed that the paper chart be redesigned, or a new paper chart be created and standards written. This "printed ENC" would be designed to be manufactured directly from an ENC while still providing a regulation-compliant printed product.

## **2. Status**

The USA (NOAA) has completed 2 studies on the subject of printed ENC's:

- "A Comparison of ENC Plots with NOAA Paper Charts" prepared by USA (NOAA) cartographers, and
- "Printed ENC: An Analysis of Impediments to Printing Paper Charts Directly from IHO-Compliant ENC's" prepared by Guy McGarva of Laser Scan, Inc.

Both studies document issues that would need to be overcome in order to prepare a suitable paper chart directly from an ENC. Neither study was tasked with finding solutions to those issues. Electronic copies of the studies are available on request from [Dave.Enabnit@NOAA.gov](mailto:Dave.Enabnit@NOAA.gov).

No further work is being performed on this task at the present time.