

Expanding the Customer (Data)base

A number of contributors to this column have discussed the benefits that information technologies bring to the conduct of hydrographic surveys and the production of nautical charts. Likewise, these technologies foster easier access and use of hydrographic data in non-navigational pursuits while offering a vehicle for hydrographic offices to expand their customer base.

I was pleased to read the November issue of Insider's View on the subject of Web-based GIS for Nautical Charts. As Dr Mahmoud noted, Web-based GIS applications offer great potential in managing hydrographic information to support the practice of navigation. Similarly, Internet-based GIS tools are allowing users to capture and apply hydrographic information in support of a wide range of policy and management needs not directly associated with navigation. These include natural resource management, hazard assessment, and property protection. The application of hydrographic data in non-traditional areas will continue to grow as improvements are made to Internet-based tools that integrate data of different types from a variety of sources.

ENC Direct to GIS, a service of the U.S. National Oceanic & Atmospheric Administration (NOAA), is an example of a stand-alone Internet-based application that enables users to extract feature information from Electronic Navigational Charts (ENCs) of U.S. waters and convert it to multiple formats using off-the-shelf feature manipulation software. Also, NOAA has developed extensions to simplify the use of ENCs in standard GIS operating systems. These extensions, which can be downloaded at NOAA's Coastal Services Center Web site, have proved to be popular and are in wide use by resource management professionals.

At a recent workshop for resource managers on the subject of ocean observation systems in the southeastern United States, participants expressed the need for accessible, "raw" data that can contribute to hydrologic modelling, bottom characterisation studies, and other environmental research activities in the coastal zone. The bathymetry, shoreline, channel, and boundary datasets from which nautical chart products are compiled are at an ideal spatial scale and resolution, and of a documented quality, to support this work as well as emerging efforts in ocean planning and management, emergency response, and homeland security.

Now that tools are available to convert nautical data to standard GIS formats, hydrographic offices should make their source datasets more widely available through the use of Web-accessible data interfaces. In this way, users can 'pull' the data they need on demand. By using the power of the Internet, hydrographic offices can build a broader customer base for their data without departing from the mission of navigation safety.