

**3<sup>RD</sup> IHO-HSSC Meeting  
IHB, Monaco, 8-10 November 2011**

**Digital Nautical Chart (DNC®) INF Report for HSSC3**

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**1. Digital Nautical Chart Status**

NGA continues to maintain DNC in support of U.S. Navy operational requirements for worldwide navigation. Hard copy New Editions for those ships still in need of paper charts are produced from the DNC vector data using the Enterprise Products on Demand process. The NGA folio of publicly available charts is gradually declining.

NGA is an official distributor to government organizations for the NOAA ENC data. As a first step towards use of ENC by the U.S. Navy, submarines have had their navigation software upgraded to the dual fuel capability such that they now can navigate with either DNC or ENC. NGA is encouraging Navy to implement this upgrade fleet wide such that NGA can begin elimination of DNC compilations in U.S. waters for an initial transition to use of ENC using the NOAA produced ENC.

**2. DNC Updating**

The U.S. Navy is funding the development and deployment of “machine to machine” updating not only for DNC but for all NGA products, including publications. The Navy system will operate solely at the classified level. NGA is engaged in this effort through a no cost Cooperative Research and Development Agreement. By the end of 2011, the training module will be made available to Navy school houses to begin training Navy personnel on the new system. The NGA Maritime Mobile Training Teams will be a part of this and the overall NGA Maritime Safety Office will also begin training its personnel on the new update system. At sea testing of this new product updating system will continue into 2012. While about 160 ships have the new hardware, it is anticipated that it will take several years for Navy wide implementation. Once the system is implemented for Navy, NGA will consider development of a similar system for other customers in an unclassified environment, e.g., U.S. Coast Guard ships. Over 80% of subs and over 60% of the surface fleet are now operating on DNC.

**3. Applications Development**

The Maritime Safety Office and InnoVision (the R&D component of NGA) are developing applications for NGA military customers to utilize iPads and iPhones to view maritime data. This will start with Piracy and Mobile Offshore Drilling Unit data. NGA is similarly developing iPad knee boards for flight operations and a digital flight bag for aeronautical pilots. The new Director of NGA has a bachelor’s

degree in Electrical Engineering and Masters Degree in Mechanical Engineering and she is pushing “on time/on demand data for the user” applications.

#### **4. ENC/DNC**

NGA continues to work on prototyping related to the planned shift from Vector Product Format to the new IHO S-100. NOAA has been very accommodating to NGA Maritime by offering seats for NGA Maritime analysts to come work with IHO data on NOAA workstations. NGA has recently agreed to have one or more of their analysts work at NOAA to build the few NGA charts within U.S. waters as ENCs for NOAA to then incorporate into their folio for maintenance. This will be a significant step in building ENC experience within NGA and NGA is very grateful to NOAA. Also, NOAA and NGA are cooperating in the development of an on-line Chart 1 as well as an ECDIS symbols Chart 1 both of which will be brought on-line by NOAA and NGA in the near future.

#### **5. ISO and Re-organization**

The NGA Maritime Safety Office has physically re-located from the previous NGA Headquarters in Maryland to a new consolidated NGA Headquarters facility in Northern Virginia. Phone numbers and mailing address have changed and are available from the IHO Yearbook website. E-mail addresses are unchanged.

Additionally, there has been a significant re-organization. The NGA Office of Global Navigation was transferred from the Analysis and Production Directorate to the Source Operations and Management Directorate. Within “Source” a new Foundation GEOINT Group has been formed, which includes Maritime, Aeronautical, Topographic and Limits and Boundaries activities. The former Maritime Domain has been elevated to an “Office” level within NGA. Captain Raymond Chartier is the Director, Maritime Safety Office and Ms. Fran Early, former Director of the Office of Global Navigation, is now the Director of the new Foundation GEOINT Group. Chris Andreasen continues as the NGA Hydrographer within the Maritime Safety Office.

ISO 9001 certification, which is in place for the Maritime, Aeronautical and Business office will now be expanded to the remainder of the Foundation GEOINT Group.