The Electronic Chart: Functions, Potential and Limitations
A Textbook for ECDIS Use and Training

Xx March 2011, Netherlands - Geomares Publishing, publisher of Hydro INTERNATIONAL, is proud to announce the release of the third and totally revised edition of the book *The Electronic Chart*, by the highly respected Horst Hecht, Bernhard Berking, Mathias Jonas and Lee Alexander.

The structure and content of this third edition has been designed to meet the specific needs of the ECDIS stakeholder community. The book is structured into five major parts, each building sequentially upon the last:

Part A (Chapters 1 – 6) introduces the subject and explains the basic fundamentals that make up an ECDIS, ranging from architecture to electronic-chart data structure and methods of display.

Part B (Chapter 7 - 13) describes the primary functions of ECDIS and its practical use, presenting a comprehensive account of ECDIS use in practice, including its potential, requirements and limitations from the point of view of a navigator. ECDIS functioning is explained based on the ECDIS fundamentals.

Part C (Chapters 14 - 15) details the means and process of providing the electronic chart data required to use ECDIS worldwide. This includes official services for ENC data provision, distribution and updating.

Part D (Chapters 16 - 18) discusses the need for and primary objectives and content of ECDIS training. It gives guidance on how to design training courses, including simulator training, supported by ECDIS Demonstration software developed by a leading ECDIS manufacturer (*Transas Marine*).The IMO ECDIS training requirements and a cross-reference between training subjects and book chapters are given in the Appendix.

Part E (Chapters 19 – 24) describes key aspects of ECDIS beyond its practical use, such as adequate backup arrangements, safety issue considerations, regulatory and legal implications, and some economic aspects. The book concludes with an overview of supplementary information layers and other uses of ECDIS, and an outlook on future development.

The audience to which the authorial team address themselves includes electronic-chart user groups such as:

- maritime users (navigators, ship-owners)
- ECDIS producers/developers (manufacturers, data providers, hydrographers…)
- maritime authorities (testers, Port State Control…)
- ECDIS trainers (teachers at maritime schools and other training institutes)
- maritime students, ECDIS trainees.

Collectively, this 3rd Edition is intended as a comprehensive textbook on ECDIS in which each

topic is systematically built upon using information covered in earlier chapters. The book can also be used selectively as handbook, with various ECDIS-related topics covered in a stand-alone manner. In addition, an effort has been made to cite references to international standards and requirements, or for gaining further information about a specific topic. Thus the book may be used for self-teaching or in conjunction with ECDIS training, as well as reference book. On a cautionary note, it does not replace a user manual for a specific type of ECDIS equipment.

The CD-based ECDIS Demonstration software can be operated on a personal computer. It can be used by individuals or in conjunction with ECDIS training courses.

The book was reviewed and edited by Adam Kerr, former director of the International Hydrographic Bureau. As an early driving force behind the development and use of ECDIS, he was instrumental in its early development and adoption. The authors are greatly indebted to him for his insight and useful suggestions.

The Electronic Chart, priced at €59(excl VAT and shipping costs), can be purchased via the Electronic Chart website www.electronic-chart.com or by email trea.fledderus@geomares.nl.

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