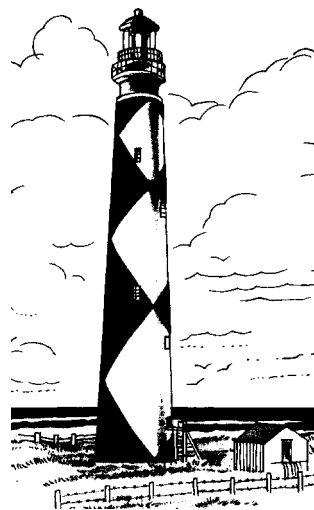


NAUTICAL CHART USER'S MANUAL



U.S. DEPARTMENT OF COMMERCE
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PREFACE AND ACKNOWLEDGMENTS

Many products are sold with user's manuals. Some, such as those for an aircraft, automobiles, or pieces of electronic equipment, are quite voluminous and complex. Others are more modest. A "patented insect destruction" novelty device sold several years ago consisted of only two small wooden blocks. Even this novelty device came with a user's manual; it consisted of a single sheet of paper with the following instruction, "place insect on face of one block and firmly place second block on top of first block."

Generally speaking, the more sophisticated and important the item, the more elaborate the user's manual. The modern nautical chart is reasonably complex and certainly an essential tool for the mariner. Yet, aside from passing mention in textbooks on navigation and the publication of Chart No. 1, no user's manual had been published for the nautical chart. Arguably, such a publication is long overdue.

This manual explains what is presented on the nautical chart, highlights the utility of this information, describes the charting conventions used to depict features and items of interest, and provides some practical pointers on how this information is used. It is written to serve many types of users, ranging from operators of recreational vessels to those who drive "heavy iron."

Abundant photographs and chart excerpts illustrate key points made in the text. All chart excerpts were current as of spring 1995.

Since this manual was published, some charts may have been revised. Even if these specific charts have been revised, the general points remain valid. It almost goes without saying that these chart excerpts should not be used for navigational purposes.

This manual also identifies other publications, such as the *U.S. Coast Pilot*, *Tide Tables*, *Tidal Current Tables*, *Notices to Mariners*, and *the U.S. Coast Guard's Light List* which give additional relevant information to chart users. Excerpts from these publications are also provided in the manual. As with chart excerpts, these may also have been revised.

The writing style is less formal than that employed in many government publications—designed to make the manual more "user-friendly" in today's vernacular. The manual is authoritative, but not encyclopedic. To keep the manual to a manageable size, only the most important topics are included.

This is a chart user's manual, and not a textbook on seamanship or navigation. Nonetheless, nautical charts are used principally for navigational purposes and, therefore, some basic elements of the theory and practice of navigation are included in this manual. References that provide additional and more detailed discussions of relevant aspects of navigation are included at the end of each chapter. Inclusion of these references in this manual does not mean that the *National Oceanic and Atmospheric Administration* (NOAA) or any other agency of the U.S. government

agrees with any findings, conclusions, or opinions contained in these references. Likewise, inclusion of any trade names or photographs of specific equipment does not constitute a product endorsement.

The creation of this manual was a cooperative project between NOAA and the *United States Coast Guard Auxiliary* (USCGAUX), the volunteer civilian component of the U.S. Coast Guard. Dr. L. Daniel Maxim (DVC-ER, USCGAUX) wrote the manual. Mrs. Virginia L. Knudsen (DC-EX, USCGAUX) ably handled the layout and graphics. Many NOAA personnel made important contributions, notably CAPT Thomas Richards, NOAA, Messrs. Harold Schantz and Jeff Stuart who shared a common vision of excellence, always responded patiently to questions and provided constructive criticism and guidance through-

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December 1997