

# GLOBAL NAVIGATION: A GPS USER'S GUIDE

by Neil Ackroyd and Robert Lorimer

*"The definitive textbook on the Global Positioning System . . . for anyone wanting to know what satellite navigation and communications could do . . . this is the way to find out."*

Australasian Ships and Ports

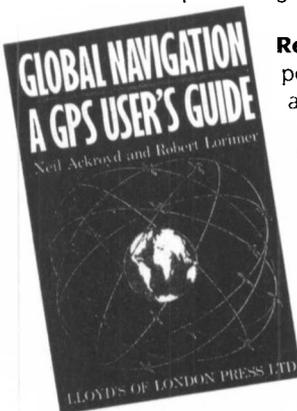
A number of satellite navigational systems will become available over the next few years. This recent book is aimed at those who are having to come to terms with the new equipment, its usage and its potential for improved safety at sea.

Not a training manual, but a guide to the uses and operation of GPS, it provides a wealth of practical information on the applications and implications of Global Positioning Systems for the maritime industry.

It investigates low-cost global communications for the mariner, offers practical advice on the setting up of integrated systems for ship managers and considers the application of GPS in a port environment, where considerable savings can be made in such areas as surveys and dredging.

This useful and comprehensible guide also offers:

- ★ Significant detail on both GPS (Navstar and Glonass) as well as on Standard C
- ★ Many illustrations and photographs
- ★ Coverage of position reporting services, port applications, coastal navigation and safety at sea
- ★ Technical and practical guidance on the purchase of a GPS receiver



**Readership:** Ship managers, ships' officers, rescue services, port authorities, those operating shipping vessels, maritime and shipping institutions.

**Selected Contents:** List of Illustrations; List of Tables; Satellites and Navigation; Global Positioning; The Global Positioning Systems, GPS and the Ship; GPS and the Electronic Bridge; The GPS Receiver; Differential GPS; The Differential Concept; Data Links; GPS Application and Implications; GPS and Coastal Navigation; GPS for Port Positioning; Position and Data Reporting; The GPS Detail; The System Design and Implementation; GPS; The Signals; Pseudo-ranging for Position; GPS Positioning Quality – Standard C Detail; INMARSAT and Global

Satellite Communications; History in Brief; The INMARSAT Organisation; The INMARSAT Standard A Service; The INMARSAT Standard C System; Standard C Services; Index.

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# Guidance for Authors

Papers of navigational interest may be submitted directly to the editor. Papers will normally be refereed, and it may therefore be a few weeks before the editor can make a decision as to whether a contribution can be accepted for publication. Authors need not be members of the RIN.

Copy should be clearly typewritten **with double spacing throughout**, on one side only of A4 paper, and with a margin of at least 3 cm all round. Footnotes should be avoided, and authors are advised to consult a recent issue of the *Journal* for the style of paragraphing and the format for references.

The title of a paper should be concise, and should be followed by the author's name and place of work. Papers are generally of the order of 5000 words or less. Units, symbols and abbreviations should, as far as possible, conform with the recommendations contained in the Royal Society publication *Quantities, Units and Symbols* (1975).

Illustrations should be kept to a minimum and, where possible, original artwork should be provided in camera-ready form. Long descriptions should appear as captions rather than on the figures themselves. Line drawings should conform to the *Journal* style. Preferably, the original artwork should not be labelled, but a duplicate should be supplied showing lettering correctly positioned. Where photographs are necessary, they should be supplied as unmounted glossy prints. Colour illustrations can only be included if the cost is met by the author.

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The objects of the Institute are to unite in one body those who are concerned with or who are interested in navigation and to further its development. Navigation is conceived as applying to locomotion of all kinds and is perceived as encompassing aspects of: command and control, psychology and zoology, operational research, risk analysis, theoretical physics, operation in hostile environments, instrumentation, ergonomics, financial planning and law as well as electronics, astronomy, mathematics, cartography and other subjects traditionally associated with navigation.

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