

PRACTICAL ENGLISH FOR NAVIGATION

金受琪 编

实用 航海英语



海 军 出 版 社

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NAVIGATION

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张敬荣 校审

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内 容 提 要

本书是为了培养和提高远洋舰船驾驶人员实用航海英语的听、说、读、写能力而编写的。

全书分为四个部分。第一部分为英版航海图书资料选编。共选编了远洋航行必须的、最新版本的十种图书资料。对于各书,既描述了它们的全貌,又选编了典型章节内容;第二部分为标准航海用语(IMO)及其应用;第三部分为天气报告及气象导航报文;第四部分为事故报告及海事声明。为了便于教学和自学,各部分都给出适当的词汇表和中文注释或译文。

本书可作为航海专业英语(不含货运等)课程的教学用书或参考书,也可供具备理工科大学基础英语水平的舰船驾驶人员自学。

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金 受 琪 编

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说

明

一、本书编写目的是为了适应远洋航行的需要, 培养和提高舰船驾驶人员实用航海英语的听、说、读、写能力。这里所说的能力, 主要是指:

1. 顺利阅读、准确理解和正确使用英版主要航海图书资料的能力;
2. 使用 IMO 推荐的标准航海用语通话的能力;
3. 顺利阅读、准确理解气象报告和岸对船的气象导航报文以及编拟船对岸的气象导航报文的能力;
4. 编写事故报告和海事声明的能力。

根据上述目的, 在确定内容时, 着重突出了远洋实际航海工作所必须的专业英语知识, 并且尽量使其比较完整系统, 而未编入货运等其它专业英语内容。

二、本书选编的英版航海图书资料, 除了《Guide to port Entry》以外, 全为 1985 年《英版海图和其它海道图书目录》(Catalogue of Admiralty Charts and Other Hydrographic publications)中所列出的最新版本。由于《Guide to port Entry》不是英国海道测量部出版的, 所以不列在上述目录内, 但它也是现在的最新版本。本书选编的《标准航海用语》(IMO) 同样也是国内刚收到的最新的 1985 年版本。

三、为了便于教学和自学, 各部分均给出适当的词汇表、注释或译文。由于各部分内容的性质不尽相同, 给出的数量和方式也有所区别。其中外国地名译名是以中国地名委员会编的《外国地名译名手册》(商务印书馆 1983 年出版) 为准。如果该手册没有, 则参照海军航海保证部出版的海图和《世界地图集》等译名。关于航海、气象、海洋等专业词汇及术语, 凡是国家标准局统一规定的, 一律遵照统一规定。凡是国内没有统一的, 则以《英汉航海词典》(交通出版社); 《英汉海洋学词汇》(科学出版社), 《英汉气象学词汇》(科学出版社) 以及《航海学》(交通出版社) 作为基本依据。仅有很少数是经过研究按照我们自己的理解翻译的。

四、选编的图表除《世界大洋航路》中的两张航线图由彩色改为黑白略有改动外, 均保持原样不变。为便于阅读, 本书第一部分中的图号均为原书的图号, 相应的正文说明也均按原书未动。

五、在编写此书过程中, 上海船舶运输科学研究所高级工程师张敬荣同志除了对全部书稿进行详细校审外, 还给予多方面的指导。大连海运学院外语部张炳中, 航海教研室李景芳、施荣康, 上海海运学院航海系印文甫, 外语系王根兴以及海军何明德、唐建华、郭成森、刘中洲、吴修垣、姚伯茂、宗福修、方英、黄以杰等同志都曾提出宝贵意见, 其中吴修垣同志还给予不少具体帮助。此外, 海军司令部航海保证部, 大连远洋公

司，广州远洋公司、天津海运公司和大连海运学院缪思丹同志等在资料保证方面也都作出贡献，在此一并向他们表示衷心感谢。

六、由于编者水平有限，同时编写时间仓促，错误和不妥之处在所难免，恳请读者多加指正。

海军大连舰艇学院 金受琪

一九八六年五月

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Unit 1

The Mariner's Handbook

FIFTH EDITION

1979

This volume should not be used without reference
to the latest supplement

PUBLISHED BY THE HYDROGRAPHER OF THE NAVY

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CHAPTER 1

CHARTS AND BOOKS

1. NAVIGATIONAL INFORMATION

World-wide hydrographic activity caused by the increasing size of shipping, the construction of new ports and terminals, as well as a greater interest in the marine sciences, has resulted in a growing volume of information being received by the Hydrographic Department regarding depths, navigational aids, facilities, and other matters affecting the Mariner.

This information is closely examined in the Hydrographic Department ③ and is promulgated by means of a wide range of charts, diagrams, books and pamphlets. These are kept up to date by the regular issue of Notices to Mariners and by the frequent publication of corrections and supplements to the books.

From these publications, the Mariner must select those with the information he may require, and acquaint himself with their methods of correction. He must always be careful to appreciate the limitations imposed on the accuracy of the information in both charts and books ④ as described in later chapters.

Regarding laws and regulations in particular, he is advised as follows, —

While in the interests of the safety of

shipping, the Hydrographic Department makes every endeavour to include in its publications details of the laws and regulations of all countries appertaining to navigation, it must be clearly understood,

- (a) that no liability whatever can be accepted for failure to publish details of any particular law or regulation, ⑤ and*
- (b) that publication of the details of a law or regulation is solely for the safety and convenience of shipping and implies no recognition of the international validity of the law or regulation. ⑥*

Only the principal charts and volumes required by the Mariner, together with details of their supply and correction, are described in this chapter. The full range of charts and publications produced by the Hydrographic Department is listed in *Catalogue of Admiralty Charts*. A Home Edition of the Catalogue lists only those covering the British Isles and part of the coast of NW Europe. Both charts and catalogues are obtainable through any of the Admiralty Chart Agents or Depots quoted in the relevant Annual Notice to Mariners.

2. GENERAL REMARKS ON CHARTS

Chart coverage. In Home waters and

certain British Commonwealth and other areas, the policy followed by the Hydrographer of the Navy is to chart all waters, ports and harbours on a scale sufficient for safe navigation. ⑦ Elsewhere overseas, Admiralty charts are schemed to enable ships to cross the oceans and proceed along the coasts of the world to reach the approaches to ports, using the most appropriate scales. In general foreign ports are charted on a scale adequate for ships under pilotage but a number of major ports are charted on larger scales commensurate with their importance or intricacy.

In some overseas areas, therefore, Admiralty charts are not published on scales large enough to meet more detailed needs, and accordingly recourse must be had, where necessary, to the charts of other National Hydrographic Offices (see below).

Metric charts. From 1800 to 1968 Admiralty charts were published with fathoms and feet as the units for depths, and feet as the units for heights. However, since 1968 Admiralty charts have been gradually converted to metres, thus conforming with charts of almost all other countries. It will be many years before all charts are converted, but by 1978 20% of Admiralty charts were in metres.

The policy is to metricate blocks of charts in specific areas, but at the same time almost all new charts outside these specific areas will also

be published in metres. In addition, the two series of small-scale International charts (see below) are being published in metres.

Metric charts differ in appearance from older charts, as can be seen from the diagram facing this page. The stipple tint used on land areas is replaced by a flat buff tint, and the sand and mud symbols by a green tint. ⑧ More use is made of magenta and the general appearance is clearer.

Charts of Australian and New Zealand waters. By arrangement between Australia, New Zealand and the United Kingdom, facsimile copies of selected Australian and New Zealand charts are now reprinted by the Admiralty Hydrographic Department and form part of the Admiralty series. These charts retain their Australian and New Zealand chart numbers and are corrected by Australian and New Zealand Notices to Mariners, which are reprinted in the Admiralty Series. They are included in *Catalogue of Admiralty Charts* and are available in the usual way through Admiralty Chart Agents and Depots. Eventually, it is intended that all medium and large scale Admiralty charts of Australian and New Zealand waters will be withdrawn and replaced by facsimile copies of suitable Australian or New Zealand charts.

Charts published by other National Hydrographic Offices. Along many of the coasts not covered in detail by

Admiralty charts, charts and plans are published by the Hydrographic Office of the country concerned usually giving larger scale coverage than Admiralty charts. These charts and plans are available, usually only from national agencies at the larger ports and from the appropriate national Hydrographic Office. The addresses of the Hydrographic Offices are listed in *Catalogue of Admiralty Charts*.

The international use of standard chart symbols and abbreviations enables the charts of foreign countries to be used with little difficulty by the Mariner of any nation. Most foreign charts express depths and heights in metres, but the unit used is invariably stated below the title of the chart. Each Hydrographic Office has a similar system to Admiralty Notices to Mariners (page 4) for keeping its charts corrected.

International Charts. Certain member states of the International Hydrographic Organization are compiling between them two small - scale schemes covering the world on scales of 1:3½ million and 1:10 million. These charts may be reprinted by any member state in its own national series. Language and chart symbol differences may cause minor modifications in the various national reprints, but these will be few as there is largely international agreement on symbols. Thus, International charts, available from different countries, will together form

the two whole schemes. ⑨ Each chart will carry its International number as well as any national number that may be allocated to it.

International charts are being reprinted in the Admiralty chart series as they become available; the Admiralty chart number will be the International number prefixed by 4, e.g. INT 701 has been published in the Admiralty series as 4701.

Being part of the Admiralty chart series, these charts will appear in *Catalogue of Admiralty Charts* and other publications under the Admiralty number, and will be corrected by Notices to Mariners in the usual way.

Decca charts. Decca Navigator chains, for coastal navigation, now cover many of the main trade routes of the world.

Navigational charts with the appropriate Decca lattice superimposed on them are published, and kept fully corrected by Notices to Mariners; they may be used in place of the corresponding basic navigational charts. The number of a Decca chart is the same as that of the basic navigational chart, but is prefixed 'L (D)' followed by the Decca chain number, e.g. L (D) 3950, L (D) (IC) 2182a.

For warning of the fixed errors of the lattices, see page 46, and for details of the Decca navigator System, see *Admiralty List of Radio Signals*.

Consol charts. Consol stations, primarily intended for aircraft navigation, but which can be used as an aid to ocean navigation, cover the approaches to western and northern Europe; Admiralty Consol charts show Great Circle bearings of these stations. There are also Consol stations in USSR and USA. Consol charts are not corrected by Notices to Mariners. For details of the Consol System, see *Admiralty list of Radio Signals*.

Loran charts. Loran chains, intended for ocean navigation, cover most of the northern hemisphere and parts of the Central Pacific Ocean. Admiralty Loran charts cover the North Atlantic, but not the Pacific Ocean; for the Pacific Ocean and other areas, charts published by the Defense Mapping Agency Hydrographic Center, Washington DC 20390, USA, must be consulted. Loran-C charts are kept corrected by Notices to Mariners, but Loran-A charts are not. For details of the Loran System, see *Admiralty List of Radio Signals*.

Omega charts, also intended for ocean navigation, are available in two scales. The smaller scale provides world cover. The larger scale covers the N Atlantic, the W coast of Africa S of the equator and most of the Indian Ocean, and will eventually be extended to provide world cover. Omega charts are kept corrected by Notices to Mariners. For details of the Omega System, see

Admiralty List of Radio Signals and page 46.

Routeing charts show at a glance important information for the planning of ocean voyages. The charts cover the oceans of the world and are compiled for each month of the year. They include recommended tracks and distances between main ports and between fuelling terminals, meteorological and ice conditions, ocean currents and load line zones. ⑩

Gnomonic charts, for great circle sailing, cover the Atlantic, Pacific and Indian Oceans, except for an equatorial belt in each ocean. A great circle course can alternatively be laid off on a Mercator chart by using *Chart 5029 (Great Circle Diagram)* ⑪ which enables the latitudes and longitudes of a series of positions along the course to be determined graphically.

Ships' Boats' charts cover the oceans of the world and each shows for the area it covers, the coastline, the approximate strengths and directions of prevailing winds and currents, limits of ice, and isogonic lines. On the reverse of each are elementary directions for the use of the chart, remarks on the management of boats and on wind, weather and currents. They can be supplied separately or in a polythene wallet, together with paper, pencil, eraser, protractor and tables of sunset and sunrise.

Azimuth Diagrams to enable the

true bearing of a heavenly body to be obtained graphically from its local hour angle and declination, are published. *Charts 5000* and *5000a* are large and small diagrams respectively covering latitudes 0° to 65°, and *Charts 5001* and *5001a* similarly cover latitudes 65° to 90°.

Miscellaneous charts. Among the other series of charts published are, Charts for Astronomical purposes, Oceanographical charts, Magnetic Force charts, Instructional charts, North Sea Fisheries charts, PEXA charts (showing ranges, practice and exercise areas around the United Kingdom), Co-tidal and co-range charts (page 84), Tidal Stream Atlases, &c.

Chart Symbols and Abbreviations are given in *Chart 5011* which is published as a pamphlet, and can be kept conveniently with this book.

3. SUPPLY OF CHARTS

The Mariner can be supplied, either with individual charts, or with charts made up into Chart Folios.

Standard Chart Folios are arranged geographically, and together provide cover for the world. ⑫ Each Standard Folio contains all Admiralty navigational charts published for the area concerned, arranged, as far as possible, in geographical sequence. Where Decca charts have been published, these are supplied in place of the corresponding basic chart, unless requested to the contrary. ⑬ The charts are contained in a buck-

ram cover.

Abridged Folios, primarily intended for passage use, and consisting of a selection of charts from one or more Standard Folios, are also available.

The limits and details of folios are given in *Catalogue of Admiralty Charts*.

Charts issued by the Hydrographic Department, Admiralty Chart Depots or certain Admiralty Chart Agents are supplied corrected up to date for *permanent* Notices to Mariners, but not for Temporary or Preliminary ones. ⑭ To enable complete new outfits of charts to be corrected for existing Temporary and Preliminary Notices, a set of Weekly Editions of Admiralty Notices to Mariners from No. 1, together with *Annual Summary of Admiralty Notices to Mariners* (page 4), both for the current year, will be supplied free with the charts, on demand.

When a newly-published chart or New Edition of a chart is received, the Notices to Mariners subsequent to that announcing its publication should be examined on its arrival, to see if any Notices affecting the chart have been issued since its publication.

4. CORRECTION OF CHARTS BEFORE SUPPLY

Admiralty charts after first publication are kept corrected by means of New Editions and Small Corrections. Until 1972 Admiralty charts

were also corrected by means of Large Corrections.

Copies of charts issued by the Hydrographic Department, Admiralty Chart Depots and Admiralty Chart Agents, are invariably the latest published editions. Except for those supplied by certain Admiralty Chart Agents, they are corrected to the date of issue for all Notices to Mariners, except Temporary and Preliminary ones.

The Mariner can tell whether he has the most recently published version of a particular chart by consulting the *Catalogue of Admiralty Charts*, which is published annually and lists the publication date of each chart, the date of the latest New Edition, and the date of the latest Large Correction, if still applicable, made to it. ⑮ Details of New Charts and New Editions published later than the *Catalogue* will be found in the Notices at the beginning of Section II of the Weekly Editions of Notices to Mariners.

New Charts. The date of publication of a chart is shown outside the bottom margin, in the middle, e.g.:

Published, Taunton 12th
April 1968

New Editions. When a chart is completely or partly revised a New Edition is published, the date being shown to the right of the Date of Publication, e.g.:

New Edition 3rd Jan., 1969

All notations of earlier Small Corrections, and any Large Correc-

tions, are at the same time erased, and all old copies of the chart are cancelled.

Large Corrections. Until 1972 charts were revised by either New Editions or Large Corrections, the former term was used when the chart was revised throughout, and the latter when only a portion of the chart was revised. From 1972 the term New Edition has been used for all revisions of the chart, but where a Large Correction has been made to a chart the notation will remain on the chart until its next revision.

The dates on which Large Corrections were made to a chart appear on the chart to the right of the date of publication, thus:

Large Correction 10th Feb., 1969

All notations of Small Corrections were at the same time erased, and all old copies of the chart were cancelled.

Small Corrections embody in a chart, either essential information for navigation which has been announced by Notice to Mariners, or information of secondary importance, which is added to the chart plates by Bracketed Correction as opportunity affords.

(a) Notices to Mariners from which charts have been corrected are indicated by the year and number of the Notice in the Small Corrections at the bottom left-hand corner of the chart, e.g.:

Small Corrections

1972—794

or, on certain charts which have been affected only by Notices to Mariners.

Notices to Mariners

1972—794

Admiralty charts corrected for Australian or New Zealand Notices to Mariners have the number of the Notice, prefixed AUS or NZ, entered in sequence in the list of Small Corrections. Some small scale charts include areas for which more than one authority is responsible, and are corrected in different areas by Notices to Mariners of the appropriate series. In these cases the prefix BA, AUS or NZ ⑯ is used when entering the number of the Notice.

- (b) **Bracketed Corrections** are used to incorporate in charts information of use to the Mariner but not essential for navigation. ⑰ This is done by an unpromulgated correction to the plate at a routine printing of the chart, so that the Mariner replacing his copy of the chart has this information made available to him before the next New Edition of the chart. The New Edition will include the information, but more important information affecting other charts may prevent the

production of the New Edition for a considerable time.

The fact that a Bracketed Correction has been made to the plate is shown in the bottom left-hand corner of the chart in one of three ways, namely:

(i) Small corrections 1947

— [5.15]

(ii) Small corrections 1954

— (V.15)

(iii) Small corrections 1972

— [15.5]

These indicate that on 15th May of the year quoted the chart plate received minor corrections which would appear on all later printings.

The date on which a chart is actually printed from the plate is shown by the date on the thumb-label on the reverse of the chart, e.g.:

Printed May 70

Until 1954 Bracketed Corrections could be made to any part of a chart and were indicated by either (i) or (ii).

From 1954 to 1972 such corrections were restricted to the correction of magnetic compass roses and magnetic variation values, and were indicated by (ii).

Since 1972, information of secondary importance has been incorporated on all metric charts and all other

charts which have been corrected by new Editions since that date, whenever a new printing plate has to be made. ⑱ Such corrections are indicated on the charts by (iii). For other charts this secondary information will be included in the next New Edition of the chart, or in a later Notice to Mariners if circumstances alter the importance of the information.

For the correction of charts after their supply, see page 4.

5. NAVIGATIONAL WARNINGS

The two main systems used to provide the Mariner with the latest navigational information are Admiralty Notices to Mariners, and Radio Navigational Warnings for more urgent information.

Admiralty Notices to Mariners are described in the next section.

Radio Navigational Warnings contain urgent information, such as particulars of recent dangerous wrecks, casualties or alterations to navigational aids, movements of cumbersome tows and drilling rigs near shipping lanes, cables and salvage buoys, naval and air exercises affecting shipping, drifting mines, ice reports, &c.

The information is primarily to assist the Mariner in coastal navigation up to the entrance to ports, so that information on a matter

within a harbour entrance, though warranting a subsequent Notice to Mariners, ⑲ may not be broadcast as a Warning.

Though most Radio Navigational Warnings are of a temporary nature, some may remain in force for several days or weeks before cancellation, or supersession by Notice to Mariners.

On charts affected, information received by Radio Navigational Warnings should be noted in pencil and erased when the relevant messages are cancelled or superseded by Notices to Mariners.

There are two types of Radio Navigational Warnings: Local Warnings and Long Range Warnings. Details of them are given in an Annual Notice to Mariners and in *Admiralty List of Radio Signals*.

6. ADMIRALTY NOTICES TO MARINERS

Admiralty Notices to Mariners, containing important information for the Mariner and enabling him to keep his charts and books corrected for the latest information, are issued daily to Admiralty Chart Depots and certain Admiralty Chart Agents by the Hydrographic Department, and are published in Weekly Editions.

Since Australian and New Zealand Notices are now the sole authority for correcting all Admiralty, Australian and New Zealand charts of Australian and New