

高等学校航海类专业教材
海船船员GMDSS适任证书考证必备教材

GMDSS通信英语

主编 范耀天 曹志平 主审 黄立文



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高等学校航海类专业教材

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· 武汉 ·

内 容 提 要

本教材针对《GMDSS 英语阅读》考试大纲和《GMDSS 听力》评估纲要的要求,包括了 GMDSS 概念、功能、人员及设备要求,卫星通信系统业务,地面通信系统业务,遇险、紧急和安全通信业务,海上安全信息的播发,GMDSS 特别业务,国际上有关海上无线电通信的规定和规则,GMDSS 无线电通信码语听力,VHF 对话听力练习,GMDSS 短文听力练习,GMDSS 英语听力样题、《GMDSS 英语阅读》考试大纲和《GMDSS 听力》评估纲要等内容。

本书可作为高等院校航海技术专业、海事管理专业“GMDSS 业务”课程的教材,也可作为高级海员 GMDSS 适任证书培训专用教材,还可作为海船驾驶员、GMDSS 岸站无线电人员、航运企业管理人员、搜救中心值班人员和其他有关人员业务学习、培训的参考书籍。

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出版说明

进入 21 世纪以来,经济全球化和国际航海业的发展促进了世界远洋船舶数量的急剧增加,对船员的需求量也急剧增大,出现了海运专业人才的严重短缺。为此,2006 年 7 月,交通部徐祖远副部长在河南新乡召开的“推进中西部海员发展工作座谈会”上,提出了推进我国中西部海员发展工作的“海员战略配套工程”策略,以服务地方经济发展。2008 年 4 月 16 日,交通部海事局常务副局长刘功臣在深圳召开的我国首届“船员发展大会”上表示,当前以及今后一段时期推进我国船员科学发展的总体思路是:以科学发展观为指导,以市场为导向,以企业为主体,以院校培养为基础,以专业培训为补充,坚持改革创新,加快队伍发展,推进结构调整,规范有序流动,争取到 2020 年成为船员劳务输出大国,实现我国从船员大国到船员强国的目标。为此,要重点做好六项工作:第一,扩大培养规模,提高培养质量;第二,提升船员素质,优化船员结构;第三,加强在职培养,健全考评机制;第四,保障合法权益,营造发展环境;第五,推进电子政务,构建船员服务平台;第六,宣扬航海文化,增强航海意识。

在世界航运事业快速发展和国际海员市场需求急剧增大的背景下,组织出版一套反映当前航运业发展现状、适合我国船员培训教育特点的高质量的船员培训教材就显得尤为重要。武汉理工大学出版社在华中、华东、西南地区众多航海类院校的大力支持下,组织了 10 余所航海类院校、培训机构中长期从事船员培训工作的 60 余位专家、教师共同编写了本套“船员培训教材”。本套教材在编写过程中得到了长江海事局、江苏海事局、浙江海事局的大力支持,有关海事局的领导及职能部门高度重视并结合船员培训及船员日后船上工作提出了许多指导性意见,从而保证了本套培训教材的权威性和先进性。

本套船员培训教材具有以下特点:

1. 与时俱进,体现行业最新进展

本套培训教材把最新的国际公约、国内法规、规范、指南、国家标准等内容以及最新的《中华人民共和国海船船员考试大纲》的要求融入其中,是一套知识内容最新、实操内容科学系统、紧跟国际航运事业发展的船员培训教材。

2. 定位准确,服务船员培训

本套培训教材依据培养具有一定理论水平、有较强实际操作技能的复合型专业人才的船员培训目标,改变过去重视知识的传授,强调学科体系的严密、完整的做法,精选船员能够实际应用的基础知识和基本技能,重在提高船员的实际操作能力和应对突发事件的能力,充分体现了行业需要、实际应用和船员身心发展三者有机

的统一。

3. 可读性强，体例新颖

针对船员培训特点，结合船员考证，本套培训教材设置了基本理论、实操训练、练习与测试等内容，保证理论知识够用，实操部分结合实际，练习与测试贴近船员考试，同时，使教材从内容到体例、从栏目到版式上耳目一新。

4. 应用性强，强调技能训练

将实操内容纳入课程体系是海员培训教学模式的特点。本套培训教材力争做到：基本理论、实操训练、练习与测试相配套；实操内容的设置与理论知识以及海员的实际作业相吻合；同时，考虑到航海设备的不断更新，实操内容及设备也进行了相应的更新，并考虑其应用性及可操作性。

5. 与时俱进，实现教学手段现代化

本套培训教材配备了“海员专业知识培训教学片”，实现了课堂教学与实训操作的同步，为提高船员培训质量奠定了良好的基础。

本套培训教材在 2008 年春季出版后，我们于 2008 年下半年进行了审读和订正。同时，我们将依据学科发展观的现实要求，不断补充、完善；我们的编审者、出版者一定会高度重视，兢兢业业，按最高的质量标准满足广大读者的需求。

教材建设是我们共同的事业和追求，也是我们共同的责任和义务，我们诚恳地希望大家积极选用本套教材，并在使用过程中给我们多提意见和建议，以便我们不断修订、完善全套教材。

**船员培训教材编审委员会
武汉理工大学出版社**

2009 年 6 月

前 言

近年来,随着国际海运业的快速发展,中国籍海员已越来越广泛地任职于悬挂各种国旗的船舶上。航海教育与培训作为一个与国际接轨的教育体系,在教育与培训标准和人才培养模式方面具有很强的国际性,独具特色,必须满足国际公约对这项特殊教育和培训的要求。

GMDSS 是《1974 年国际海上人命安全公约》规定的全球水上移动无线电通信系统,是国际海事组织(IMO)为了最大限度地保障海上人命与财产安全,进一步完善常规海上通信手段,利用现代化的通信技术改善海上遇险与安全通信,建立新的搜救通信网络而开发的综合系统。其目标是:使岸上搜救当局和在遇险事件发生地区附近航行的船舶能迅速得到遇险船舶的遇险报警,以便迅速协调行动进行救助;系统上提供各种紧急和安全通信手段,向船舶播发航行和气象报警。GMDSS 的实施对促进船舶遇险通信和救助的现代化,增进船舶航行安全,提高船舶营运效率,具有深远的社会和经济意义。

本书的作者在比较和参考日前国内外同类教材的基础上,将近年来有关 GMDSS 的最新国际公约、无线电规则以及相关规定的有关内容经过精心提炼和组织,并结合自己多年的教学实践,编写了《GMDSS 通信英语》(GMDSS Communications English)一书。希望本书的出版,能在航海教育和培训方面作出新的贡献。

本书比较系统地介绍了 GMDSS 的组成及各个分系统的工作方式和程序,结合新的“海船船员 GMDSS 适任证书考试大纲与评估规范”,满足新大纲和规范对于 GMDSS 通信英语知识的要求。在取材与编写上注重实用性,编排了有针对性的习题和模拟试题,并附有学习光盘,含全部听力材料,便于教学和培训的开展及读者的自学。

本书可作为我国高等院校航海技术专业、海事管理专业“GMDSS 业务”课程的教材,也可作为高级海员 GMDSS 适任证书培训专用教材,还可作为海船驾驶员, GMDSS 岸站无线电人员、航运企业管理人员、搜救中心值班人员和其他有关人员业务学习、培训的参考书籍。

本书由范耀天、曹志平担任主编,黄立文担任主审。

全书共分 10 章,其中第 1、2、3 章由范耀天编写,第 4、5、8、9 章由曹志平编写,第 6、7、10 章由谭志荣编写。

本书的编写得到了武汉理工大学航运学院、武汉航海职业技术学院、长江海事局、上海海事局有关同志的热情鼓励和帮助以及武汉理工大学出版社有关领导的积极支持,在此一并表示感谢!

由于编者水平和资料来源有限,加之时间仓促,书中难免存在一些缺点和错误,殷切希望广大读者提出宝贵意见!

编者

2009 年 10 月

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PART I

Reading Skills

Chapter 1 GMDSS Introduction

1.1 General

Radio has been the foundation of the distress and safety communications systems used by ships at sea since the first instance of the use of radio to save lives at sea in 1899. It was soon realized that an effective maritime radio system had to be founded on internationally agreed rules concerning the type of equipment, the radio frequencies used and operational procedures after Titanic tragedy.

The first international agreements were established by the International Telecommunication Union (ITU). In 1974, the International Convention for the Safety of Life at Sea (SOLAS) was adopted by International Maritime Organization (IMO) and its chapter IV, named as Maritime Radio Communications, stipulated some detailed regulations for radio system. This system, so called old system, required a continuous Morse radiotelegraphy watch on 500 kHz for all passenger ships, irrespective of size, and cargo ships of 1600 gross tonnage and upwards. It also required a radiotelephone watch on 2182 kHz and VHF Channel 16 on all passenger ships and cargo ships of 300 gross tonnage and upwards.

Although the old system has proven itself reliable over many years, its limitations of short range, manual alerting and aural watchkeeping have become a matter of increasing concern. Moreover its concept is that it is mainly dependent on the vessel in the vicinity to coordinate the SAR operation, and the carriage requirement of radio equipment was determined according to ship's size.

Advances of technology led IMO to develop a new system based on modern technology and automation. This new system was introduced by the 1988 amendment to SOLAS in 1988. There was a transition period from the old to the new system in order to allow the industry to overcome any unforeseen problems in implementation of the new system. The transition period began on 1 February 1992 and continued to 1 February 1999.

1.1.1 GMDSS Implementation

The new system is called the Global Maritime Distress and Safety System (GMDSS). The system was adopted by the IMO in 1988 and replaces the old radio system. The GMDSS applies to all cargo ships of 300 gross tonnage and above, and

to all passenger ships, regardless of size, on international voyages.

GMDSS began a phased implementation on Feb. 1992. For instance, GMDSS ships have to carry NAVTEX receivers for the reception of maritime safety information and satellite EPIRBs (Emergency Position Indicating Radio Beacons) from 1 August 1993. However, GMDSS began a full implementation on Feb. 1999.

1.1.2 Basic Concept of the GMDSS

Prior to the introduction of the GMDSS, maritime distress communications relied primarily on the capability of a ship in distress to alert the vessel in vicinity for assistance. The GMDSS emphasizes the ability to alert search and rescue (SAR) authorities ashore as well as shipping in the vicinity in order to achieve a rapid coordinated response to distress alert with minimum delay. GMDSS vessels should be able to communicate with a shore station no matter where they are and what time it is.

The basic concept of GMDSS is that no matter which sea area the ship is sailing in or intends to navigate, she always has the ability of sending its distress alert to shore-based station when she is in distress, and the shore-based rescue authorities now have the primary role of coordinating search and rescue operation following a distress alert (see Fig. 1-1 ~ Fig. 1-4). The method of distress alerting can depend on the sea area in which the ship is sailing and on the equipment carried.

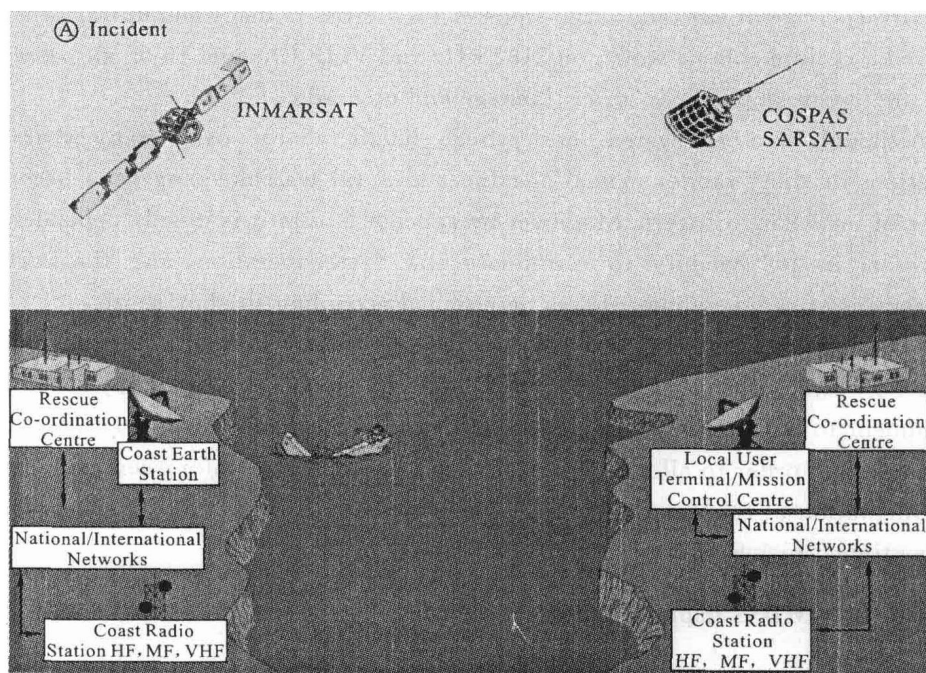


Fig. 1-1 Integral facilities of the GMDSS