



国际海事组织



IMO 示范课程 2.03

MODEL COURSE

高级消防培训 (2000版)

ADVANCED TRAINING IN FIRE FIGHTING

中英对照

中华人民共和国海事局 译



大连海事大学出版社
DALIAN MARITIME UNIVERSITY PRESS

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国际海事组织 1991 年第一次出版
4 Albert Embankment, London SE1 7SR
2000 年修订版

图书在版编目(CIP)数据

高级消防培训:IMO 示范课程 2.03 = Advanced Training in Fire Fighting / 国际海事组织著. —大连:大连海事大学出版社, 2005.5

IMO 示范课程

ISBN 7-5632-1848-3

I. 高… II. 国… III. 消防—技术培训—教材—英文 IV. TU998.1

中国版本图书馆 CIP 数据核字(2005)第 028094 号

大连海事大学出版社出版

地址:大连市凌海路 1 号 邮编:116026 电话:0411-84728394 传真:0411-84727996

<http://www.dmupress.com> E-mail: cbs@dmupress.com

大连海事大学印刷厂印装 大连海事大学出版社发行

2005 年 12 月第 1 版 2005 年 12 月第 1 次印刷

幅面尺寸:210 mm×297 mm 印张:19.5

字数:535 千字 印数:1~2000 册

责任编辑:姚文兵 封面设计:王 艳

定价:70.00 元

IMO 示范课程

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序

在中华人民共和国海事局的组织下,中文版国际海事组织(IMO)《示范课程》出版发行了,这不仅有助于我国在船员教育、培训和发证方面全面有效地履行《1978年海员培训、发证和值班标准国际公约》(STCW 78),也标志着我国在由海运大国向海运强国转变的进程方面迈出了重要的一步,是我国海运界的一件大事。

IMO《示范课程》是国际海事组织为了更好地履行 STCW 78 及其他相关公约,根据一些成员国的建议编写而成的。随着航海科技的进步,现代航运对船员知识和技能的要求也不断提高,为了满足培养适应现代航海需要的高素质船员,IMO 在一些成员国的协助下,组织专家设计和编写了这一系列示范课程。示范课程针对 STCW 78 公约对各等级船员知识、能力和适任的要求及标准,按照教学和培训规律,安排了教学和培训大纲、内容、课时、参考书目等。到目前为止,IMO 已经先后出版了英文版课程 47 种,为各成员国特别是以英文为母语的国家有效履行 STCW 78 公约做出了卓越贡献。

为了更好地履行经修正的 STCW 78 公约,一些非英语国家特别是发展中国家考虑到受训船员的语言能力,以该国母语翻译出版了示范课程,目前已经出版了部分法语和西班牙文的版本,但还没有中文版本。目前我国商船船队吨位居世界第 4 位,拥有的海船船员数量大约 50 万,我国在国际海事组织已经连续 8 次当选 A 类理事国。因此,这套中文版示范课程的问世,体现了我国在提高船员素质方面的决心,表达了我国参与国际海事组织活动的积极态度,也是在全球海事界填补空白的一大工程。

在中文版示范课程的编译和出版过程中,航海教育领域和海事系统的专家及编辑出版人员做了大量工作并付出了很大的努力,在此,我对他们的工作及成果表示由衷的谢意。

在航海科技迅速发展的今天,希望海事管理机构、航海教学领域的专家继续研究与跟踪国际海事公约,结合我国国情,不断完善示范课程,大力开展与示范课程相关项目的研究与开发利用,为提高我国海员的整体素质,增强我国海员在国际市场的竞争力作出更大的贡献。



中华人民共和国海事局常务副局长

2005 年 9 月 28 日

Foreword

Since its inception the International Maritime Organization has recognized the importance of human resources to the development of the maritime industry and has given the highest priority to assisting developing countries in enhancing their maritime training capabilities through the provision or improvement of maritime training facilities at national and regional levels. IMO has also responded to the needs of developing countries for postgraduate training for senior personnel in administration, ports, shipping companies and maritime training institutes by establishing the World Maritime University in Malmö, Sweden, in 1983.

Following the earlier adoption of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, a number of IMO Member Governments had suggested that IMO should develop model training courses to assist in the implementation of the Convention and in achieving a more rapid transfer of information and skills regarding new developments in maritime technology. IMO training advisers and consultants also subsequently determined from their visits to training establishments in developing countries that the provision of model courses could help instructors improve the quality of their existing courses and enhance their effectiveness in meeting the requirements of the Convention and implementing the associated Conference and IMO Assembly resolutions.

In addition, it was appreciated that a comprehensive set of short model courses in various fields of maritime training would supplement the instruction provided by maritime academies and allow administrators and technical specialists already employed in maritime administrations, ports and shipping companies to improve their knowledge and skills in certain specialized fields. IMO has therefore developed the current series of model courses in response to these generally identified needs and with the generous assistance of Norway.

These model courses may be used by any training institution and the Organization is prepared to assist developing countries in implementing any course when the requisite financing is available.

W. A. O'NEIL

Secretary-General

前 言

IMO 一开始就认识到人力资源对海运业发展的重要性,并且优先帮助发展中国家,通过提供和改善海员培训设施,来提高它们的海员培训能力。也考虑到发展中国家管理部门、港口、航运公司和海员培训机构的高级职员深造的需要,IMO 于 1983 年在瑞典马尔默建立了世界海事大学。

随着 1978 年海员培训、发证和值班标准国际公约(STCW)的提前实施,许多成员国建议 IMO 应该开展示范培训课程,以配合公约的实施,以及加快信息和技术在航海技术领域的传播和发展。IMO 培训官员在参观了发展中国家的海员培训机构之后认为,示范课程条款能够帮助教员提高现有课程质量,能更有效地满足 STCW 公约要求,并有助于相关公约以及 IMO 大会决议的执行。

此外,我们意识到在各个航海培训领域内一系列全面的短期示范课程将补充海运学院的教育,在特定专业领域内,还可让主管部门、港口和航运公司的管理人员和现有技术专家提高他们的知识和技能。因此,在挪威的大力协助下,IMO 开展了现在的这一系列示范课程以满足通常需求。

任何培训机构都可使用这些示范课程,只要有必需的资金支持,IMO 乐于帮助发展中国家开展任何课程。

W. A. 奥尼尔

国际海事组织秘书长

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Introduction

■ Purpose of the model courses

The purpose of the IMO model courses is to assist maritime training institutes and their teaching staff in organizing and introducing new training courses, or in enhancing, updating or supplementing existing training material where the quality and effectiveness of the training courses may thereby be improved.

It is not the intention of the model course programme to present instructors with a rigid "teaching package" which they are expected to "follow blindly". Nor is it the intention to substitute audiovisual or "programmed" material for the instructor's presence. As in all training endeavours, the knowledge, skills and dedication of the instructor are the key components in the transfer of knowledge and skills to those being trained through IMO model course material.

Because educational systems and the cultural backgrounds of trainees in maritime subjects vary considerably from country to country, the model course material has been designed to identify the basic entry requirements and trainee target group for each course in universally applicable terms, and the skill necessary to meet the technical intent of IMO conventions and related recommendations.

■ Use of the model course

To use the model course the instructor should review the course plan and detailed syllabus, taking into account the information provided under the entry standards specified in the course framework. The actual level of knowledge and skills and prior technical education of the trainees should be kept in mind during this review, and any areas within the detailed syllabus which may cause difficulties because of differences between the actual trainee entry level and that assumed by the course designer should be identified. To compensate for such differences, the instructor is expected to delete from the course, or reduce the emphasis on, items dealing with knowledge or skills already attained by the trainees. He should also identify any academic knowledge, skills or technical training which they may not have acquired.

By analyzing the detailed syllabus and the academic knowledge required to allow training in the technical area to proceed, the instructor can design an appropriate pre-entry course or, alternatively, insert the elements of academic knowledge required to support the technical training elements concerned at appropriate points within the technical course.

Adjustment of the course objectives, scope and content may also be necessary if in your maritime industry the trainees completing the course are to undertake duties which differ from the course objectives specified in the model course.

Within the course plan the course designers have indicated their assessment of the time which should be allotted to each learning area. However, it must be appreciated that these allocations are arbitrary and assume that the trainees have fully met all the entry requirements of the course. The instructor should therefore review these assessments and may need to reallocate the time required to achieve each specific learning objective.

介 绍

■ 示范课程的目的

IMO 示范课程旨在帮助海事培训院校及教员组织并介绍新的培训课程,提高、补充和更新现有培训教材,以改善培训课程的质量和效果。

示范课程的目的不是要给教师一个严格的教学模式去“盲目照搬”,它也不是替代教师教学的视听教材。类同于所有的培训,教师的知识、教学技巧及奉献精神是 IMO 示范课程知识和技巧转换的关键因素。

由于不同国家海事学科的教育体系、文化背景不同,示范教材已经就每一科目确定了普遍适用的入学要求及学员目标群体,并清晰详细地列出了其技术内容、知识水平和必要技巧以满足国际海事组织公约和相关建议的要求。

■ 示范课程的使用

使用示范课程,教师必须审核课程计划和具体大纲,重视课程框架中详细列出的入学要求。审核过程中必须牢记学员实际知识水平、技能和先前的技术培训,要特别注意大纲细则内任何因学员实际入学水平与课程设计者假设水平不同而可能造成的差异。为弥补这种差异,教师可删除或缩减学员已经掌握的内容,同时还应确定学员可能未掌握的理论知识、技巧和技术培训。

通过分析大纲细则和培训的理论知识,一方面,教师可设计一套适当的学前课程;另一方面,可以在技术课中适当地插入技术培训所要求的相关理论知识。

如果学员毕业后要担任的工作不同于示范课程中列出的课程目标,那么课程目标、范围及内容的调整也是必要的。

课程计划内,设计者已经指出每一学习领域估计应分配的时间。但是,这些时间分配都是很武断且是假设学员已经完全满足课程入学要求的。因此,教师应当认真研究这些时间分配,可能还需要重新分配以达到每一具体学习目标所用的时间。

■ Lesson plans

Having adjusted the course content to suit the trainee intake and any revision of the course objectives, the instructor should draw up lesson plans based on the detailed syllabus. The detailed syllabus contains specific references to the textbooks or teaching material proposed to be used in the course. An example of a lesson plan is shown in the instructor manual on page 53. Where no adjustment has been found necessary in the learning objectives of the detailed syllabus, the lesson plans may simply consist of the detailed syllabus with keywords or other reminders added to assist the instructor in making his presentation of the material.

■ Presentation

The presentation of concepts and methodologies must be repeated in various ways until the instructor is satisfied, by testing and evaluating the trainee's performance and achievements, that the trainee has attained each specific learning objective or training outcome. The syllabus is laid out in learning objective format and each objective specifies a *required performance* or, *what the trainee must be able to do* as the learning or training outcome. Taken as a whole, these objectives aim to meet the knowledge, understanding and proficiency specified in the appropriate tables of the STCW Code.

■ Implementation

For the course to run smoothly and to be effective, considerable attention must be paid to the availability and use of:

- properly qualified instructors
- support staff
- rooms and other spaces
- equipment
- textbooks, technical papers
- other reference material.

Thorough preparation is the key to successful implementation of the course. IMO has produced "Guidance on the implementation of model courses", which deals with this aspect in greater detail and is included as an attachment to this course.

■ Training and the STCW 1995 Convention

The standards of competence that have to be met by seafarers are defined in Part A of the STCW Code in the Standards of Training, Certification and Watchkeeping for Seafarers Convention, as amended in 1995. This IMO model course has been revised and updated to cover the competences in STCW 1995. It sets out the education and training to achieve those standards set out in Chapter VI Table A-VI/3.

Part A provides the framework for the course with its aims and objectives and notes on the suggested teaching facilities and equipment. A list of useful teaching aids, IMO references and textbooks is also included.

■教案

完成了课程内容的调整和课程目标的修订,教师应当根据大纲细则拟写教案。大纲细则包括课程中使用的课本或教学材料特定的参考书,教师手册第 52 页提供了一份教案范例,若大纲细则中没有学习目标的调整之处,则教案可只包括大纲细则的关键词句,或其他教辅人员授课的提示性材料。

■教学

教师对概念的讲解和教学方法的运用必须以各种方式进行重复直到学员掌握了每一个具体学习目标。大纲以学习目标的形式列出,每一个学习目标具体列出了学员学习或培训后要达到的目的。总体上讲,这些目标是为了达到 STCW 规则中相应表格所规定的知识、理解和精通。

■实施

为使课程顺利有效进行,必须充分注意下列人员与设备:

- 称职的教员
- 教辅人员
- 教室和其他场所
- 设备
- 教材、技术资料
- 其他参考资料

完善的备课是成功的关键,国际海事组织出版了《示范课程实施指南》,更加详细地解释了教学要求,本书后附有该指南。

■培训与 STCW'95 公约

STCW'95 公约的第一章规定了船员经过培训应达到的要求,本示范课程经过修订和更新,其内容满足了 STCW'95 公约提出的标准,其教学和培训可以达到公约第六章表 A-VI/3 的标准。

示范课程第一章规定了课程框架、目的、教学目标和建议使用的教学设备和设施,并列举了供使用的教具、国际海事组织的参考书和教材。

Part B provides an outline of lectures, demonstrations and exercises for the course. A suggested timetable is included but from the teaching and learning point of view, it is more important that the trainee achieves the minimum standard of competence defined in the STCW Code than that a strict timetable is followed. Depending on their experience and ability, some students will naturally take longer to become proficient in some topics than in others. Also included in this section are guidance notes and additional explanations.

A separate IMO model course addresses Assessment of Competence. This course explains the use of various methods for demonstrating competence and criteria for evaluating competence as tabulated in the STCW Code.

Part C gives the Detailed Teaching Syllabus. This is based on the theoretical and practical knowledge specified in the STCW Code. It is written as a series of learning objectives, in other words what the trainee is expected to be able to do as a result of the teaching and training. Each of the objectives is expanded to define a required performance of knowledge, understanding and proficiency. IMO references, textbook references and suggested teaching aids are included to assist the teacher in designing lessons.

The new training requirements for these competences are addressed in the appropriate parts of the detailed teaching syllabus. These new training requirements include:

- communication and co-ordination during fire fighting
- management and control of injured persons
- procedures for co-ordination with shore-based fire fighters
- contingency plans and strategies and tactics for control
- requirements for statutory and classification surveys.

The Convention defines the minimum standards to be maintained in Part A of the STCW Code. Mandatory provisions concerning Training and Assessment are given in Section A-I/6 of the STCW Code. These provisions cover: qualification of instructors; supervisors as assessors; in-service training; assessment of competence; and training and assessment within an institution. The corresponding Part B of the STCW Code contains non-mandatory guidance on training and assessment.

As previously mentioned a separate model course addresses Assessment of Competence and use of the criteria for evaluating competence tabulated in the STCW Code.

■ Responsibilities of Administrations

Administrations should ensure that training courses delivered by colleges and academies are such as to ensure officers completing training do meet the standards of competence required by STCW Regulation VI/3.

■ Validation

The information contained in this document has been validated by the Sub-Committee on Standards of Training and Watchkeeping for use by technical advisors, consultants and experts for the training and certification of seafarers so that the minimum standards implemented may be as uniform as possible. Validation in the context of this document means that the Sub-Committee has found no grounds to object to its content. The Sub-Committee

第二章提供了课程大纲、课程示范和练习,并提供了建议使用的时间表,但是,使学员满足 STCW 公约规定的最低能力要求要比严格遵守时间表更加重要。由于学员的能力和经历不同,有些学员自然会花费更多的时间和精力。本章内容还包括了教学指导和其他的解释。

国际海事组织的其他示范课程提供了能力评估标准,本课程解释了可供评估学员的各种方法和标准。

第三章内容有关教学大纲细则,其依据是 STCW 公约的理论和实践内容。它以各种学习目标为基础,换言之,它规定了学员经过学习与培训应达到的标准。每一个目标又规定了学员应满足的知识、理解和能力标准。为帮助教师进行合理的课程设计,还提供了供使用的 IMO 参考资料、教材和教具。

教学大纲细则中也提供了为满足上述标准而应达到的最新要求。这些培训要求包括:

- 灭火作业中的通讯与协作;
- 伤员的管理与控制;
- 与岸基消防队协作的程序;
- 灭火作业的备用计划和策略;
- 强制性检验和入级检验的要求。

STCW 公约第一章规定了船员应达到的最低要求,其第六章之 A-I/6 规定了培训与评估的强制性要求。这些规定包括:教员资格、评估员资格、在职培训、能力评估及教学机构的培训与评估。公约第二章规定了对非强制性培训与评估的指导性内容。

如前文所述,示范课程的其他教材规定了能力评估的内容以及评估的标准。

■主管机关职责

主管机关要确保相关的教学与培训机构对示范课程的实施,并确保完成培训的船员能够满足 STCW 公约之 VI/3 条的能力标准。

■认可

本课程的内容业已经过培训值班标准分委会的认可,供培训教员、专家和顾问在船员培训与发证中使用,以确保实施标准的一致性。对本课程内容的认可表明分委会同意其内容的实施。然而,分委会并未授权其内容,因为本课程内容并不可视为对公约内容的解释。

has not granted its authority to the documents, as it considers that this work must not be regarded as an official interpretation of the Convention.

In reaching a decision in this regard, the Sub-Committee was guided by the advice of a Validation Group comprised of representatives designated by ILO and IMO.

为作出最终的决定,分委会得到了由 ILO 和 IMO 指定代表组成的认可小组的指导。