

**MODEL
COURSE
3.19**

SHIP SECURITY OFFICER

2012 Edition

MODEL COURSE 3.19

SHIP SECURITY OFFICER

2012 Edition

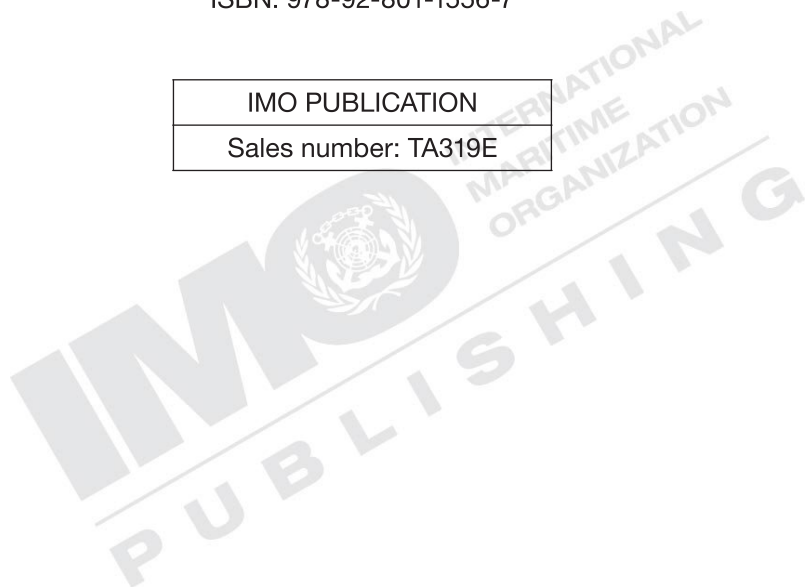


Published in 2012
by the INTERNATIONAL MARITIME ORGANIZATION
4 Albert Embankment, London SE1 7SR
www.imo.org

Printed by CPI Group (UK) Ltd, Croydon, CR0 4YY

ISBN: 978-92-801-1556-7

IMO PUBLICATION
Sales number: TA319E



ACKNOWLEDGEMENTS

This course for Ship Security Officer is based on material developed jointly by the Government of the United States of America and the Director General of Shipping, Government of India.

This edition and the 2003 edition were prepared by the United States Merchant Marine Academy at Kings Point, New York and the Anglo Eastern Maritime Training Centre, Mumbai.

IMO wishes to express its sincere appreciation to the Governments of the United States of America and India for their provision of expert assistance, valuable co-operation, and generous funding in support of this work.

Copyright © International Maritime Organization 2012

All rights reserved.
No part of this publication may be reproduced,
stored in a retrieval system, or transmitted in any form or by any means,
without prior permission in writing from the
International Maritime Organization.

Contents

	Page
Foreword	v
Introduction	1
Purpose of the model courses	1
Use of the model course	1
Lesson plans	2
Presentation	2
Implementation	2
Part A: Course Framework	3
Scope	3
Objective	3
Entry standards	4
Course certificate, diploma or document	4
Course delivery	4
Course intake limitations	4
Staff requirements	4
Teaching facilities and equipment	4
Teaching aids (A)	5
Bibliography (B)	5
IMO/ILO references (R)	5
Textbooks (T)	6
Part B: Course Outline and Timetable	7
Course Outline	7
Course Timetable	9
Part C: Detailed Teaching Syllabus	10
Note	10
Competences	11
Part D: Instructor Manual	22
Guidance Notes	23
Part E: Evaluation	40
Introduction	40
Method of evaluation	40
Validity	40
Reliability	41
Subjective testing	41
Objective testing	41
Distracters	41
Guess factor	42
Scoring	42

Information requested of instructors who implement IMO Model Courses

Introduction

Information requested and its format.

Guidance on the Implementation of Model Courses

43

43

43

45



Foreword

Since its inception the International Maritime Organization (IMO) 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 administrations, ports, shipping companies and maritime training institutes by establishing the world Maritime University in Malmö, Sweden, in 1983.

Following the adoption of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW), 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 implementation of 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. With the generous assistance of the Government of Norway, IMO developed model courses in response to these generally identified needs and now keeps them updated through a regular revision process taking into account any amendments to the requirements prescribed in IMO instruments and any technological developments in the field.

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

K. SEKIMIZU
Secretary-General



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 audio-visual 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 to specify clearly the technical content and levels of knowledge and skill necessary to meet the 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 the 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 analysing 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 that 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 entry requirements of the course. The instructor should therefore review these assessments and may need to re-allocate the time required to achieve each specific learning objective.

■ 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 for use in the course. 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 that the trainee has attained each specific learning objective. The syllabus is laid out in learning-objective format and each objective specifies *what the trainee must be able to do* as the learning outcome.

■ 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; and
- other reference material.

Thorough preparation is the key to successful implementation of the course. IMO has produced “Guidance on the Implementation of IMO Model Courses”, which deals with this aspect in greater detail and is included as an attachment to this course.

Part A: Course Framework

■ Scope

This model course is intended to provide knowledge to those who may be designated to perform the duties and responsibilities of a Ship Security Officer (SSO), as defined in section A/2.1.6 (and section A/12) of the ISPS Code and in section A-VI/5 of the STCW Code, as amended, and in particular the duties and responsibilities with respect to the security of a ship, for implementing and maintaining a Ship Security Plan and for liaising with the Company Security Officer (CSO) and with Port Facility Security Officers (PFSOs).

With this revision of the Ship Security Officer course, specific training to address the problem of piracy and armed robbery against ships is emphasized. The framework for these revisions is found in Section A-VI/5 of the 2010 amendments to the STCW Code.

■ Objective

Those who successfully complete this course should be able to undertake the duties and responsibilities as Ship Security Officer, as defined in section A/12.2 of the ISPS Code and in section A-VI/5 of the STCW Code, as amended, which include, but are not limited to:

- .1 undertaking regular security inspections of the ship to ensure that appropriate security measures are maintained;
- .2 maintaining and supervising the implementation of the Ship Security Plan, including any amendments to the plan;
- .3 coordinating the security aspects of passengers, and/or the handling of cargo and ship's stores with other shipboard personnel and with the relevant Port Facility Security Officers;
- .4 proposing modifications to the Ship Security Plan;
- .5 reporting to the Company Security Officer any deficiencies and non-conformities identified during internal audits, periodic reviews, security inspections and verifications of compliance and implementing any corrective actions;
- .6 enhancing security awareness and vigilance on board;
- .7 ensuring that adequate training has been provided to shipboard personnel, as appropriate;
- .8 reporting all security incidents;
- .9 coordinating implementation of the Ship Security Plan with the Company Security Officer and the relevant Port Facility Security Officer; and
- .10 ensuring that security equipment is properly operated, tested, calibrated and maintained, if any.

■ Entry standards

No specific entry requirements are contemplated. However, to obtain a Certificate of Proficiency as Ship Security Officer, the trainee shall have obtained approved seagoing service as mentioned in STCW Regulation VI/5 as amended.

■ Course certificate, diploma or document

Documentary evidence should be issued to those who have successfully completed this course indicating that the holder has completed training as “Ship Security Officer” based on this model course.

■ Course delivery

The outcome of this course may be achieved through various methods, including classroom training, in-service training, distance learning, computer-based training or combinations of these methods.

■ Course intake limitations

The maximum number of trainees should depend on the facilities and equipment available, bearing in mind the aims and objectives of this course.

■ Staff requirements

The instructor in charge of the course should have adequate experience in maritime security matters and should have knowledge of the requirements of Chapter XI-2 of SOLAS 74 as amended, the ISPS Code, and security-related provisions of the STCW Code, as amended.

It is recommended that instructors should either have appropriate training in or be familiar with instructional techniques and training methods.

■ Teaching facilities and equipment

An ordinary classroom or similar meeting room with a blackboard or equivalent is sufficient for the lectures. In addition, when making use of audiovisual materials, it should be ensured that appropriate equipment is available. Finally, the use of shipboard environments (vessels or mock-ups) for certain segments of the course may enhance the overall effectiveness of this training.

■ Teaching aids (A)

- A1 Instructor Manual (Part D of the course)
- A2 Audiovisual aids: video player, TV, slide projector, overhead projector, etc.
- A3 Photographs, models, or other representations of various vessels and vessel parts to illustrate operational elements and security vulnerabilities.
- A4 Video(s)
- A5 Distance learning package(s)
- A6 National legislative and regulatory references

■ Bibliography (B)

- B1 *Best Management Practices to Deter Piracy off the Coast of Somalia and in the Arabian Sea Area* (Published by Witherby Publishing Group Ltd, Edinburgh, Scotland, UK)
- B2 Fernandez, L., & Merzer, M. (2003). *Jane's Crisis Communications Handbook*, (1st ed.). Alexandria: Jane's Information Group.
- B3 Hawkes, K.G. (1989). *Maritime Security*. Centreville: Cornell Maritime Press.
- B4 International Chamber of Shipping. (2003). *Maritime Security: Guidance for Ship Operators on the IMO International Ship and Port Facility Security Code*. London: ICS.
- B5 International Chamber of Shipping. (2003). *Model Ship Security Plan*. London: ICS.
- B6 International Chamber of Shipping/International Shipping Federation. (2004). *Pirates and Armed Robbers: A Master's Guide*. (4th ed.). London: Marisec Publications.
- B7 Sidell, F.R., et al. (2002). *Jane's Chem-Bio Handbook*. (2nd ed.). Alexandria: Jane's Information Group.
- B8 Sullivan, J.P., et al. (2002). *Jane's Unconventional Weapons Response Handbook*. (1st ed.). Alexandria: Jane's Information Group.
- B9 United States Coast Guard. (2002). *Risk-based Decision Making Guidelines*. PB2002-500115 Washington: NTIS.
- B10 United States Department of Transportation. Volpe National Transportation Systems Center. (1999). *Intermodal Cargo Transportation: Industry Best Security Practices*. Cambridge: Volpe Center.
- B11 Viollis, P., et al. (2002). *Jane's Workplace Security Handbook*. (1st ed.). Alexandria: Jane's Information Group.

■ IMO/ILO references (R)

- R1 International Maritime Organization. (2003). *International Ship & Port Facility Security (ISPS) Code, 2003 and December 2002 Amendments to SOLAS*. London: IMO. (IMO-I116E).
- R1.1 SOLAS Chapter XI-1
- R1.2 SOLAS Chapter XI-2
- R1.3 ISPS Code Part A
- R1.4 ISPS Code Part B
- R2 International Labour Organization. *Seafarers' Hours of Work and the Manning of Ships Convention, 1996*. (No. 180).
- R3 International Labour Organization. *Seafarers' Identity Documents Convention (Revised), 2003*. (No. 185).

- R4 International Maritime Organization. *Seafarers' Training, Certification, and Watchkeeping (STCW) Code, 2010*.
- R4.1 STCW Code Section A-VI/5
- R4.2 STCW Code Table A-VI/5
- R5 International Maritime Organization. (2009). "Guidance to Shipowners and Ship Operators, Shipmasters and Crews on Preventing and Suppressing Acts of Piracy and Armed Robbery against Ships." MSC.1/Circ.1334.

■ Textbooks (T)

- T1 McNicholas, M. (2007). *Maritime Security: An Introduction*. Burlington: Butterworth-Heinemann.



Part B: Course Outline and Timetable

■ Course Outline

Subject Area	Hours
1. Introduction 1.1 Course overview 1.2 Competences to be achieved 1.3 Historical perspective 1.4 Current security threats and patterns 1.5 Ship and port operations and conditions	1.5
2. Maritime Security Policy 2.1 Relevant international conventions, codes and recommendations 2.2 Relevant government legislation and regulations 2.3 Definitions 2.4 Legal implications of action or non-action by security personnel 2.5 Handling sensitive security-related information and communications	1.0
3. Security Responsibilities 3.1 Contracting governments 3.2 Recognized Security Organizations 3.3 The company 3.4 The ship 3.5 The port facility 3.6 Ship Security Officer 3.7 Company Security Officer 3.8 Port Facility Security Officer 3.9 Seafarers with designated security duties 3.10 Port Facility personnel with designated security duties 3.11 Other personnel	1.5
4. Ship Security Assessment 4.1 Risk assessment methodology 4.2 Assessment tools 4.3 On-scene security surveys 4.4 Security assessment documentation	1.25
5. Security Equipment 5.1 Security equipment and systems 5.2 Operational limitations of security equipment and systems 5.3 Testing, calibration and maintenance of security equipment and systems	1.5
6. Ship Security Plan 6.1 Purpose of the Ship Security Plan 6.2 Contents of the Ship Security Plan 6.3 Confidentiality issues 6.4 Implementation of the Ship Security Plan 6.5 Maintenance and modification of the Ship Security Plan	2.0

Subject Area	Hours
7. Threat Identification, Recognition and Response 7.1 Recognition and detection of weapons, dangerous substances and devices 7.2 Methods of physical searches and non-intrusive inspections 7.3 Implementing and coordinating searches 7.4 Recognition, on a non-discriminatory basis, of persons posing potential security risks 7.5 Techniques used to circumvent security measures 7.6 Crowd management and control techniques	3.0
8. Ship Security Actions 8.1 Actions required by different security levels 8.2 Maintaining security of the ship/port interface 8.3 Usage of the Declaration of Security 8.4 Reporting security incidents 8.5 Implementation of security procedures	1.5
9. Emergency Preparedness, Drills and Exercises 9.1 Contingency planning 9.2 Security drills and exercises 9.3 Assessment of security drills and exercises	1.25
10. Security Administration 10.1 Documentation and records 10.2 Monitoring and control 10.3 Security audits and inspections 10.4 Reporting nonconformities	1.0
11. Security Training 11.1 Training requirements	0.5
Total:	16.0

■ Course Timetable

Day/ Period	1st Period (2.0 hours)	2nd Period (2.0 hours)	3rd Period (2.0 hours)	4th Period (2.0 hours)
Day 1	1 Introduction 1.1 Course overview 1.2 Competences to be achieved 1.3 Historical perspective 1.4 Current security threats and patterns 1.5 Ship and port operations and conditions 2 Maritime Security Policy 2.1 Relevant international conventions, codes and recommendations 2.2 Relevant government legislation and regulations 2.3 Definitions	2.4 Legal implications of action or non-action by security personnel 2.5 Handling sensitive security-related information and communications 3 Security Responsibilities 3.1 Contracting governments 3.2 Recognized Security Organizations 3.3 The company 3.4 The ship 3.5 The port facility 3.6 Ship Security Officer 3.7 Company Security Officer	3.8 Port Facility Security Officer 3.9 Seafarers with designated security duties 3.10 Port facility personnel with designated security duties 3.11 Other personnel 4 Ship Security Assessment 4.1 Risk assessment methodology 4.2 Assessment tools 4.3 On-scene security surveys 4.4 Security assessment documentation	5 Security Equipment 5.1 Security equipment and systems 5.2 Operational limitations of security equipment and systems 5.3 Testing, calibration and maintenance of security equipment and systems 6 Ship Security Plan 6.1 Purpose of the Ship Security Plan 6.2 Contents of the Ship Security Plan
Day 2	6.3 Confidentiality issues 6.4 Implementation of the Ship Security Plan 6.5 Maintenance and modification of the Ship Security Plan 7 Threat Identification, Recognition and Response 7.1 Recognition and detection of weapons, dangerous substances and devices 7.2 Methods of physical searches and non-intrusive inspections	7.3 Implementing and coordinating searches 7.4 Recognition, on a non-discriminatory basis, of persons posing potential security risks 7.5 Techniques used to circumvent security measures 7.6 Crowd management and control techniques	8 Ship Security Actions 8.1 Actions required by different security levels 8.2 Maintaining security of the ship/port interface 8.3 Usage of the Declaration of Security 8.4 Reporting security incidents 8.5 Implementation of security procedures 9 Emergency Preparedness, Drills and Exercises 9.1 Contingency planning 9.2 Security drills and exercises 9.3 Assessment of security drills and exercises	10 Security Administration 10.1 Documentation and records 10.2 Monitoring and control 10.3 Security audits and inspections 10.4 Reporting nonconformities 11 Security Training 11.1 Training requirements

Note: Teaching staff should note timetables are suggestions only as regards sequence and length of time allocated to each objective. These factors may be adapted by instructors to suit individual groups of trainees depending on their experience and ability and on the equipment and staff available for training.

Part C: Detailed Teaching Syllabus

The detailed teaching syllabus has been written in learning objective format in which the objective describes what the trainee should be able to do to demonstrate that knowledge has been transferred. All objectives are understood to be prefixed by the words, “The expected learning outcome is that the trainee...”.

In order to assist the instructor, references are shown against the learning objectives to indicate IMO/ILO references and publications, additional technical material and teaching aids, which the instructor may wish to use when preparing course material. The material listed in the course framework has been used to structure the detailed teaching syllabus; in particular:

Teaching aids (indicated by A);
Bibliography (indicated by B); and
IMO/ILO references (indicated by R);

will provide valuable information to instructors. The abbreviations used are:

add.: addendum
app.: appendix
art.: article
ch.: chapter
encl.: enclosure
p.: page
pa.: paragraph
reg.: regulation
sect.: section

The following are examples of the use of references:

R1.2 reg.1 refers to regulation 1 of December, 2002 Amendments to the 1974 SOLAS Convention;

A1 sect.5 refers to training section 5 (“Ship Security Actions”) in the guidance notes of the instructor manual.

■ Note

Throughout the course, safe working practices are to be clearly defined and emphasized with reference to current international requirements and regulations. It is expected that the institution implementing the course will insert references to national and/or regional requirements and regulations as necessary.

■ Competences

The competences to be demonstrated by candidates may be expressed as follows:

1. Maintain and supervise the implementation of a Ship Security Plan;
2. Assess security risk, threat and vulnerability;
3. Undertake regular inspections of the ship to ensure that appropriate security measures are implemented and maintained;
4. Ensure that security equipment and systems, if any, are properly operated, tested and calibrated; and
5. Encourage security awareness and vigilance.



AS:		
armed robbery		
smuggling	R5	B1, B6
and refugees		
damage		
ions and conditions		B10
the intermodal nature of		
and the interfaces between		
modes		
(1.0 hour)	R2, R3	
l conventions, codes, and		B4

Knowledge, Understanding and Proficiency	IMO/ILO Reference	Bibliography	Teaching Aid
2.3. Definitions .1 defines • Ship Security Plan • Company Security Officer • Ship Security Officer • Port facility • Ship / Port Interface • Ship to ship activity • Port Facility Security Officer • Designated Authority • Recognized Security Organization • Declaration of Security • Security incident • Security Level • the three security levels • terms relating to piracy and armed robbery 2.4. Legal implications of action or non-action by security personnel .1 identifies the legal limits of authority and the obligations of the Ship Security Officer and other personnel with security duties 2.5. Handling sensitive security-related information and communications .1 defines security-sensitive information and the importance of keeping it confidential 3. Security Responsibilities (1.5 hours) 3.1. Contracting governments .1 describes the responsibilities of contracting governments with respect to SOLAS Chapter XI-2, the ISPS Code and the STCW Code 3.2. Recognized Security Organizations .1 characterizes the role of the Recognized Security Organization and identifies the extent of its function 3.3. The company .1 describes the responsibilities of the company with respect to: • ensuring that the master has documents on board relating to the crewing of the vessel and its employment • ensuring that the Ship Security Plan contains a clear statement emphasizing the master's authority • designating a Company Security Officer and a Ship Security Officer and ensuring that they are given the necessary support to fulfill their duties and responsibilities	R1.2 reg. 1 R1.3 pa. 2.1.9 – 2.1.11 R5 R1.2 R1.3 sect. 4 R4 R1.4 pa. 4.3 – 4.6 R1.2 reg. 5 R1.3 sect. 6 R1.2 reg. 8 R1.3 pa. 6.1	B1, B6 B2	A1 pa. 2.2 A6 A2, A3, A4 A1 sect. 3

Knowledge, Understanding and Proficiency	IMO/ILO Reference	Bibliography	Teaching Aid
3.4. The ship .1 states that the ship shall comply with the requirements of the Ship Security Plan as per the security level set 3.5. The port facility .1 states that port facilities shall comply with the relevant requirements of Chapter XI-2 of SOLAS and the ISPS Code .2 states that the port facility shall act upon the security levels set by the Administration within whose territory it is located 3.6. Ship Security Officer .1 states that the company shall designate a Ship Security Officer for each ship .2 lists the duties and responsibilities of the Ship Security Officer 3.7. Company Security Officer .1 states that the company shall designate a Company Security Officer .2 describes that the person designated as Company Security Officer may act as Company Security Officer for one or more ships provided that it is clearly identified for which ships he or she is responsible .3 indicates that the company may designate several persons as Company Security Officer provided that it is clearly identified for which ships each is responsible .4 lists the duties and responsibilities of the Company Security Officer 3.8. Port Facility Security Officer .1 states that the Port Facility Security Officer shall be designated for each port facility .2 states that a person may be designated as the Port Facility Security Officer for one or more port facilities .3 lists the duties and responsibilities of the Port Facility Security Officer 3.9. Seafarers with designated security duties .1 states that members of the ship's crew may have designated security duties in support of the Ship Security Plan 3.10. Port facility personnel with designated security duties .1 states that port facility personnel other than the PFSO may have designated security duties in support of the port facility Security Plan	R1.3 sect. 7 R1.3 sect. 14 R1.3 sect. 12 R1.3 sect. 11 R1.3 sect. 17		

Basic principles of risk assessment day operations ols the use of checklists in conducting assessments ity surveys preparations required prior to an survey cedures and measures and s to be evaluated during an on-scene the security aspects of ship layout e survey into the following sections: al Security ural Integrity nnel Protection Systems dural Policies and Telecommunication Systems	R1.4 pa. 8.14	B3
--	--------------------------	-----------