

A-1:INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA

Name of the Convention: International Convention for the Safety of Life at Sea, 1974

Acronym or short name: SOLAS

International organisation in charge: International Maritime Organization (IMO)

Summary description: The SOLAS Convention is the most important of all international treaties concerning the safety of merchant ships. The first version was adopted in 1914, in response to the Titanic disaster. **The 1960 Convention** represented a considerable step forward in modernizing regulations and in keeping pace with technical developments in the shipping industry. **The 1974 Convention** included a new amendment procedure - **the tacit acceptance procedure** – which provides an amendment shall enter into force on a specified date unless, before that date, objections to the amendment are received from an agreed number of Parties. (Article VIII,b-vi-2)

As **the 1974 Convention** has been updated and amended on numerous occasions, the Convention in force today is sometimes referred to as “**SOLAS 1974, as amended**”.

The main objective of the SOLAS Convention is to specify minimum standards for the construction, equipment and operation of ships, compatible with their safety. Flag States are responsible for ensuring that ships under their flag comply with its requirements, and a number of certificates are prescribed in the Convention as proof that this has been done. Control provisions also allow Contracting Governments to inspect ships registered in other Contracting States when a ship calls ports in their territory if there are clear grounds for believing that the ship and their equipment do not substantially comply with the requirements of the Convention - this procedure is known as **Port State Control (PSC)**. The current SOLAS Convention includes Articles setting

out general obligations, amendment procedures and so on, followed by **an Annex divided into following 12 Chapters:**

Chapter I -General Provisions: It includes regulations concerning the survey of the various types of ships and the issuing of documents signifying that the ship meets the requirements of the Convention. The Chapter also includes provisions for the control of ships in ports of other Contracting Governments.

Chapter II-1 - Construction - Subdivision and Stability, Machinery and Electrical Installations : The subdivision of passenger ships into watertight compartments aims to ensure that the vessel will remain afloat and stable even after the ship's hull has sustained damage.

Chapter II-2 - Fire Protection, Fire Detection and Fire Extinction: It includes detailed fire safety provisions for all ships.

Chapter III - Life-Saving Appliances and Arrangements: The Chapter provides requirements for life-saving appliances and arrangements, including requirements for life boats, rescue boats and life jackets according to type of ship.

Chapter IV – Radio Communications: The Chapter incorporates the Global Maritime Distress and Safety System (**GMDSS**). All passenger ships and all cargo ships of 300 gross tonnage and upwards on international voyages are required to carry equipment designed to improve the chances of rescue following an accident, including satellite Emergency Position Indicating Radio Beacons (**EPIRBs**) and Search And Rescue Transponders (**SARTs**) for the location of the ship or survival craft.

Chapter V - Safety of Navigation : Chapter V identifies certain navigation safety services which should be provided by Contracting Governments to all ships on all voyages, such as the maintenance of meteorological services for ships, the ice patrol service etc. This Chapter also includes a general obligation for masters to proceed to the assistance of those in distress and for

Contracting Governments to ensure that all their registered ships shall be sufficiently and efficiently manned from a safety point of view. The Chapter makes mandatory the carriage of Voyage Data Recorders (**VDRs**) and Automatic Ship Identification Systems (**AIS**) for certain ships.

Chapter VI - Carriage of Cargoes : The Chapter covers all types of cargo (except liquids and gases in bulk) "which may require special precautions". The regulations include requirements for stowage and securing of cargo or cargo units (such as containers). The Chapter requires cargo ships carrying grain to comply with the IMO International Grain Code.

Chapter VII - Carriage of Dangerous Goods: This chapter requires carriage of dangerous goods to be in compliance with the relevant provisions of the International Maritime Dangerous Goods Code (**IMDG Code**).

The regulations are contained in following parts:

-Part A - Carriage of Dangerous Goods in Packaged Form - includes provisions for the classification, packing, marking, labelling and placarding, documentation and stowage of dangerous goods.

-Part A-1 - Carriage of Dangerous Goods in Solid Form in Bulk

-Part B - Construction and Equipment of Ships carrying Dangerous Liquid Chemicals in Bulk - requires chemical tankers built after 1 July 1986 to comply with the International Bulk Chemical Code (**IBC Code**).

-Part C - Construction and Equipment of Ships carrying Liquefied Gases in Bulk – requires gas carriers constructed after 1 July 1986 to comply with the requirements of the International Gas Carrier Code (**IGC Code**).

-Part D - Carriage of Packaged Irradiated Nuclear Fuel, Plutonium and high-level Radioactive Wastes on board ships- requires ships carrying such products to comply with the

International Code for the Safe Carriage of Packaged Irradiated Nuclear Fuel, Plutonium and High-Level Radioactive Wastes on Board Ships (**INF Code**).

Chapter VIII - Nuclear Ships: It gives basic requirements for nuclear-powered ships and is particularly concerned with radiation hazards. It refers to detailed and comprehensive Code of Safety for Nuclear Merchant Ships (**Nuclear Ships Code**), which was adopted by the IMO Assembly in 1981.

Chapter IX - Management for the Safe Operation of Ships: The Chapter gives mandatory status to the International Safety Management (**ISM**) Code, which requires a safety management system to be established by the ship owner or any person who has assumed responsibility for the ship.

Chapter X - Safety Measures for High-Speed Craft : The Chapter makes mandatory the International Code of Safety for High-Speed Craft (**HSC Code**) to high-speed craft.

Chapter XI-1- Special Measures to enhance Maritime Safety: The Chapter clarifies requirements relating to authorization of recognized organizations (responsible for carrying out surveys and inspections on Administrations' behalves); enhanced surveys; ship identification number scheme; and port State control (**PSC**) on operational requirements.

Chapter XI-2 – Special Measures to enhance Maritime Security: The Chapter was adopted in December 2002 and entered into force on 1 July 2004 for enhancing security of both ships in service of international trade and port facilities in the world.

-Regulation XI-2/3 of the new chapter contains the International Ship and Port Facilities Security Code (**ISPS Code**). Part A of the Code is mandatory and part B contains guidelines for the implementation of the mandatory requirements. The regulation requires States to set security levels and ensure the provision of security level information to ships entitled to fly their flags. Prior to entering a port, or whilst in a port, within the territory of a Contracting Government,

a ship shall comply with the requirements for the security level set by that Contracting State, if that security level is higher than the security level set by the Administration for that ship.

The regulation stipulates that the Chapter applies to ships engaged in international voyages (passenger ship, cargo ships of 500 grt and upwards and mobile offshore drilling units) and port facilities serving such ships.

-Regulation XI-2/5 requires all ships to be provided with a ship security alert system.

-Regulation XI-2/6 covers requirements for port facilities, providing for Contracting Governments to ensure that port facility security assessments are carried out and that port facility security plans are developed, implemented and reviewed in accordance with the ISPS Code.

Chapter XII - Additional Safety Measures for Bulk Carriers: The Chapter includes structural requirements for new bulk carriers over 150 metres in length.

Date of signature: 1 November 1974

Date of entry into force: 25 May 1980 (SOLAS 1974)

Major revisions or Amendments in recent years:

2002 (December) amendments: (Entry into force 1 July 2004)

The amendments contain the mandatory requirement for ships to comply with the new International Ship and Port Facility Security Code (**ISPS Code**).

A brand-new Chapter XI-2 (Special measures to enhance maritime security) is added after the renumbered Chapter XI-1 as explained in above summary description.

2006 (May) amendments: (Entry into force 1 January 2008)

The new regulation on Long Range Identification and Tracking (LRIT) in Chapter V (Safety of Navigation); The new regulation on **LRIT** was introduced as a mandatory requirement for passenger ships and cargo ships of 300 grt and upwards engaged in international trade and mobile offshore drilling units.

The 2006 (May) amendments : (Entry into force 1 July 2010)

Various Amendments were made for enhancing maritime safety on Chapter II-2 (Fire protection), Chapter III (Life-saving appliances and arrangements), Chapter IV-(Radio Communications), Chapter V-(Safety of Navigation) etc.

2006 (December) amendments : (Entry into force 1 July 2008/2010)

Amendments to Revised passenger ship safety standards; Fire regulations on balconies; Prevention of accidents involving lifeboats; Protective coatings;

2007 (October) amendments : (Entry into force 1 July 2009)

Amendments to Chapter IV (Radio communications); **SOLAS Chapter VI** (Carriage of cargoes); the International Code for the Safe Carriage of Packaged Irradiated Nuclear Fuel, Plutonium and High-Level Radioactive Wastes on Board Ships (**INF Code**);

2008(May) amendments; (Entry into force on 1 Jan.,2010)

Amendments to SOLAS Chapter II-2 (regarding drainage to prevent accumulation of water in ro-ro ships); **SOLAS Chapter XI 1** (additional requirements for marine casualties investigation); A new **SOLAS regulation II-1/3-9** (means of embarkation on and disembarkation from ships); **SOLAS regulation II-1/3-4**(emergency towing arrangements on tankers);

2008(Dec) amendments; (Entry into force on 1 Jul.,2010)

Amendments to the 1988 Load Lines Protocol; The International Code on Intact Stability, 2008(**2008 IS Code**)

2008(Dec) amendments; (Entry into force on 1 Jan.,2011)

Amendments to SOLAS Chapter VI (Carriage of cargoes); To make mandatory the International Maritime Solid Bulk Cargoes Code (**ISMBC Code**) which replaces the Code of safe Practices for Solid Bulk Cargoes (**BC Code**).

2009(Jun) amendments; (Entry into force on 1 Jan.,2011)

Amendments to SOLAS regulation V/19; To make mandatory the carriage of Electronic Chart Display and Information System (**ECDIS**) and Bridge Navigational watch Alarm Systems (**BNWAS**).

Amendments to SOLAS Chapter VI (Carriage of cargoes) and to regulation VI/5-1; To require Material Safety Data Sheet (**MSDS**) to be provided for ships carrying oil or oil fuel.

2010(May) amendments; (Entry into force on 1 Jan.,2012)

Amendments to SOLAS Chapter II-1(Construction - Subdivision and stability, machinery and electrical installations); International Goal-Based Ship Construction Standards(**GBS**) for Bulk carriers and Oil Tankers.

2010(Dec) amendments; (Entry into force on 1 Jul.,2012)

Amendments to SOLAS Chapter II-2(Fire protection, fire detection and fire extinction); To make mandatory the International Code for the Application of Fire Test Procedures (**2010 FTP Code**)

2011(May) amendments; (Entry into force on 1 Jan.,2013)

Amendments to SOLAS regulation III/1; new paragraph 5 is added regarding requirement of lifeboat on-load release mechanisms.

2012(May) amendments; (Entry into force on 1 Jan. 2014)

-Regulation II-1/8-1; Mandatory requirement for new passenger ships to equip with systems for keeping operational information to be provided to captain when a flooding casualty.

-Regulation III/20; On testing of free fall lifeboats.

-Regulation V/14; On ships manning, to require Administrations to establish minimum safe manning levels.

-New Regulation VI/5-2; To prohibit blending of bulk liquid cargoes during navigation.

-Regulation VII; To replace regulation 4 on documents regarding transport information on carriage of dangerous goods in packaged form.

2012(November) amendments; (Entry into force on 1 July 2014)

-Regulation III/17-1; To require ships to have plans to recover persons from the water.

-Regulation II-2/10; On fire fighting, to require a minimum of duplicate two-way portable radio-telephone apparatus for each fire party.

-Amendments to the appendix to the annex to the SOLAS Convention; To replace all forms of certificates and records of equipment.

2013 (May) amendments;(Entry into force on 1 January 2015)

-Regulation III/19; To require musters of newly embarked passengers prior to or immediately upon departure. Also on emergency training and drills for crew members, to mandate enclosed-space entry and rescue drills.

Applicability (situation of ratification): The Convention entered into force on May 25, 1980 with fulfilling the condition of ratification for taking effect by getting no less than 25 States whose combined merchant fleets compose no less than 50% of world's commercial gross tonnage.

Status of Conventions: (as at 2 December 2013)

SOLAS 1974	;	162 States,	98.77% of world tonnage
SOLAS Protocol 1978;		118 States,	97.10% of world tonnage
SOLAS Protocol 1988;		104 States,	95.70% of world tonnage

Amendments Procedure:

Article VIII of the SOLAS 1974 states that amendments can be made either:

1) Through consideration within IMO; Proposed amendments are circulated at least 6 months before MSC consideration. Amendments are adopted by a two-thirds majority of Contracting Governments present and voting in the MSC.

2) Amendments by a Conference; By requests of a Contracting government, a Conference of Contracting Governments will be held with at least one-third of Contracting Governments agreement. Amendments are adopted by a two-thirds majority of Contracting Governments present and voting.

Stakes for ports: The SOLAS Convention includes a **Port State Control (PSC)** procedure. Control provisions (Annex, Chapter I, Part B- regulation 19) allow Port State Authorities to inspect ships flagging other Contracting Parties if there are clear grounds for believing that the ship and its requirement do not substantially comply with the requirements of the Convention. Port State Control Officers may entrust the inspection and survey of ships (Annex, Chapter I, Part B- regulation 6 and 7).

According to regulation 4 of chapter XI, Port State Control Officers can also inspect ships when the ships call at ports in their territory “when there are clear grounds for believing that the master or crew are not familiar with essential shipboard procedures relating to the safety of ships”. Port State Control inspections are normally limited to checking certificates and documents. But if certificates are not valid or if there are clear grounds for believing that the condition of the ship or of its equipment, or its crew, does not substantially meet the requirements of a relevant instrument, a more detailed inspection may be carried out.

The Convention has much contributed for enhancing security of ports in the world by newly adopting its Articles Chapter XI-2 and **ISPS Code** in December 2002.

Links with other conventions: [MARPOL 73/78](#), [ISPS Code](#), [ISM Code](#), [LL](#), [HSSC](#)

Key-words: safety, force majeure, international voyage, survey and certificate, cargo ship, passenger ship

Internet hyperlink with other website: <http://www.imo.org/> ; <http://www.comitemaritime.org/>

(full text of the convention) <http://www.austlii.edu.au/au/other/dfat/treaties/1983/22.html>

(full text of 1978 Protocol) <http://www.admiraltylawguide.com/conven/protosolas1978.html>

(full text of 1988 Protocol)

<http://www.austlii.edu.au/cgi-bin/disp.pl/au/other/dfat/seldoc/1988/3611.html?query=collision>

(full text of 1995 Amendments)

<http://www.admiraltylawguide.com/conven/amendsolasannex1995.html>