

IMO Mandate and Overview in relation to VTS



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IMO

- UN Specialized agency
- IMO Convention: adopted in 1948, entered into force in 1958, formally known as Inter-Governmental Maritime Consultative Organization - IMCO
- 174 Member States, three associate members
- Headquarters in London since 1958
- IGOs and NGOs participate as observers
- Annual budget £30+ million
- Secretariat – 280 staff,
more than 50 nationalities



- Primarily a technical organization,
concerning maritime safety and security; pollution prevention;
and facilitation of maritime traffic
 - About 50 mandatory instruments
- Mission statement:
“Safe, Secure and Efficient Shipping on Cleaner Oceans”



IMO at work - Structure

- Assembly
- Council – 40 Members
- Committees:
 - **Maritime Safety Committee (MSC)**
 - Marine Environment Protection Committee (MEPC)
 - Legal Committee (LEG)
 - Facilitation Committee (FAL)
 - Technical Cooperation Committee (TCC)



Sub-Committees – New Sub-Committee structure reporting to MSC & MEPC

- **Sub-Committee on Ship Design and Construction (SDC)**
- **Sub-Committee on Pollution Prevention and Response (PPR)**
- **Sub-Committee on Human Element, Training and Watchkeeping (HTW)**
- **Sub-Committee on Ship Systems and Equipment (SSE)**
- **Sub-Committee on Navigation, Communications and Search and Rescue (NCSR)**
- **Sub-Committee on Carriage of Cargoes and Containers (CCC)**
- **Sub-Committee on Implementation of IMO Instruments (III)**



- International regulatory body for VTS, through SOLAS provisions and related guidelines
- Regulating the planning, implementation and operation of VTS, responsible for providing guidance on its establishment, operation, qualification and training for its personnel.



Surviving disaster – The Titanic and SOLAS

In 1914, two years after the Titanic disaster of 1912, in which 1,503 people lost their lives, maritime nations gathered in London adopted the International Convention for the Safety of Life at Sea (SOLAS Convention), taking into account lessons learned from the Titanic. The 1914 version was superseded by SOLAS 1929, SOLAS 1948, SOLAS 1960 (the first adopted under the auspices of the International Maritime Organization) and SOLAS 1974. SOLAS 1974 is still in force today, but it has been amended and updated many times. The regulations relating to life saving appliances and arrangements, contained in chapter III of SOLAS, a new version of which entered into force on 1 July 1998, are intended to ensure that in the event of a catastrophe at sea, passengers and crew have the greatest chances of survival. Improved design and equipment, better fire protection, satellite communications, rescue planes and helicopters and trained personnel also contribute to improved safety at sea.



Distress alert

The Titanic used radio which had a limited range of 200 nautical miles. Ships can now communicate globally via satellites.



Helicopters and rescue planes

Unavailable in 1912, helicopters and rescue planes are now used to locate, search for and rescue survivors.



Speed of navigation around ice

The Commission into the Titanic ruled the loss was due to collision with an iceberg brought about by excessive speed at which she was being navigated. Under SOLAS, when ice is reported on or near his course the master of every ship at night is bound to proceed at a moderate speed or alter course.

Ice patrol

In the first SOLAS 1914, after the Titanic disaster, ice patrols in the north Atlantic were set up and continue to be a SOLAS requirement.



Public address system

There was no public address system on the Titanic and news filtered to the passengers slowly, adding to the disorder and confusion. Under SOLAS, all passenger ships must be fitted with a public address system.



Lifeboat design

Some people died from hypothermia in the Titanic lifeboats because they were open and gave no protection against the cold. Under SOLAS, lifeboats must be fully or partially enclosed. On passenger ships, partially enclosed lifeboats can be used as they are easier to get into, but they must have a collapsible roof to fold across.



Crew in lifeboat drill

The Titanic lacked in preparing the lifeboats that they were and were not fitted to carry the full complement of crew. Under SOLAS, every crew member must be trained in the use of lifeboats and must be able to board them in the event of an emergency.

Number of lifeboats

The Titanic did not have enough lifeboats for all passengers. Under SOLAS, passenger ships must carry enough lifeboats (some of which can be substituted by liferafts) for all passengers, plus liferafts for 25%.

Evacuation chutes

Passengers on the Titanic jumped from windows and doorways into the lifeboats as they were lowered, often injuring themselves or other passengers. New emergency evacuation chutes are both safer and quicker.



The station at Cape Race, Newfoundland and Labrador received the Titanic distress call but the airwaves were busy and the Titanic's position was misinterpreted. Under SOLAS, EPRBs and global positioning systems, the position of a ship in distress can be automatically sent.

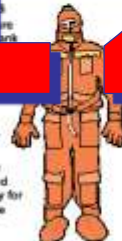


The Carpathia
Received distress call at 12:35am. Travelled 58 miles and picked up first lifeboat at 1:00am.

The Californian
Dropped because of the ice less than 20 miles from the Titanic. Did not approach until after 0:00am when the Carpathia was spotted. Arrived at 7:30am - too late to rescue any survivors.

Distress watch
The Californian was less than 20 miles away but the radio officer had gone off duty when the distress messages were sent. Under SOLAS, every ship while at sea must maintain a continuous watch on the distress and safety frequencies.

Hypothermia
Under SOLAS, a specific number of immersion suits must be carried on both passenger and cargo ships, mainly for the crews of rescue boats.



SOLAS 1974



SOLAS consists of 14 chapters

Current one

- 1** Chapter I: General provisions
- 2** Chapter II-1: Construction – Structure, subdivision and stability, machinery and electrical installations
- 3** Chapter II-2: Construction – Fire protection, fire detection and fire extinction
- 4** Chapter III: Life-saving appliances and arrangements
- 5** Chapter IV: Radiocommunications
- 6** Chapter V: Safety of navigation
- 7** Chapter VI: Carriage of cargoes



8 Chapter VII: Carriage of dangerous goods

9 Chapter VIII: Nuclear ships

10 Chapter IX: Management for the safe operation of ships

11 Chapter X: Safety measures for high-speed craft

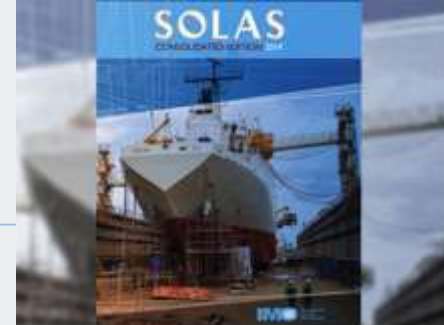
12 Chapter XI-1: Special measures to enhance maritime safety

13 Chapter XI-2: Special measures to enhance maritime security

14 Chapter XII: Additional safety measures for bulk carriers

And some more chapters being added...

15 Appendix: Certificates



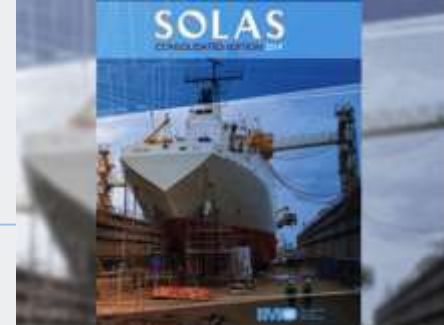
INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA (SOLAS), 1974

165 Contracting Governments

as of 27 June 2019

Total Tonnage:
1,297,450,284

97.21 % World Tonnage:



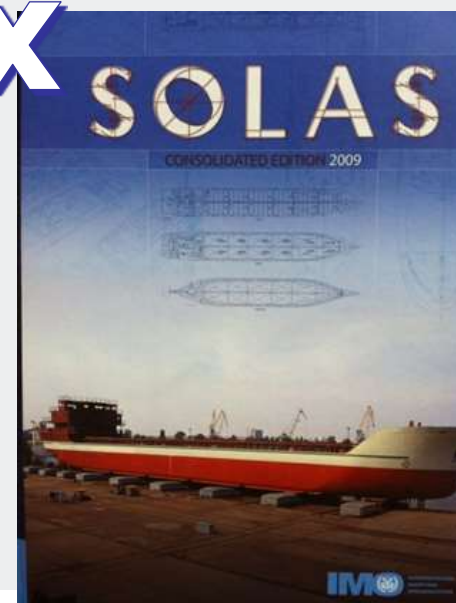
INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA (SOLAS), 1974

Chapter V – Safety of Navigation

• SOLAS Chapter V – Safety of Navigation

- 1 Application
- 2 Definitions
- 3 Exemptions and equivalents
- 4 Navigational warnings
- 5 Meteorological services and warnings
- 6 Ice Patrol Service
- 7 Search and rescue services
- 8 Life-saving signals
- 9 Hydrographic services
- 10 Ships' routing
- 11 Reporting systems
- 12 Vessel traffic services
- 13 Establishment and operation of navigational systems
- 14 Ship manning
- 15 Principles relating to bridge design and operation of navigational systems and equipment and bridge procedures
- 16 Maintenance of equipment
- 17 Electromagnetic compatibility
- 18 Approval, surveys and performance standards of navigational systems and equipment and voyage data recorder
- 19 Carriage requirements for shipborne navigational systems and equipment
- 19-1 Long-range identification and tracking of ships
- 20 Voyage data recorders
- 21 International Code of Signals and ICHSAR Manual
- 22 Navigation bridge visibility
- 23 Pilot transfer arrangement
- 24 Use of heading and/or track control systems
- 25 Operation of steering gear
- 26 Steering gear: testing and drills
- 27 Nautical charts and nautical publications
- 28 Records of navigational activities and daily reporting
- 29 Life-saving signals to be used by ships, aircraft or persons in distress
- 30 Operational limitations
- 31 Danger messages
- 32 Information required in danger messages
- 33 Distress situations: obligations and procedures
- 34 Safe navigation and avoidance of dangerous situations
- 34-1 Master's discretion
- 35 Misuse of distress signals
- Appendix: Rules for the management, operation and financing of the North Atlantic Ice Patrol

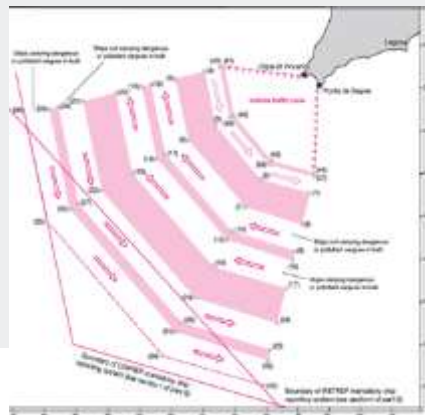
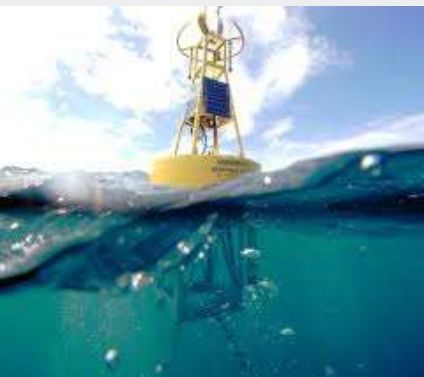
37 regulations & an appendix



SOLAS Chapter V – Safety of Navigation

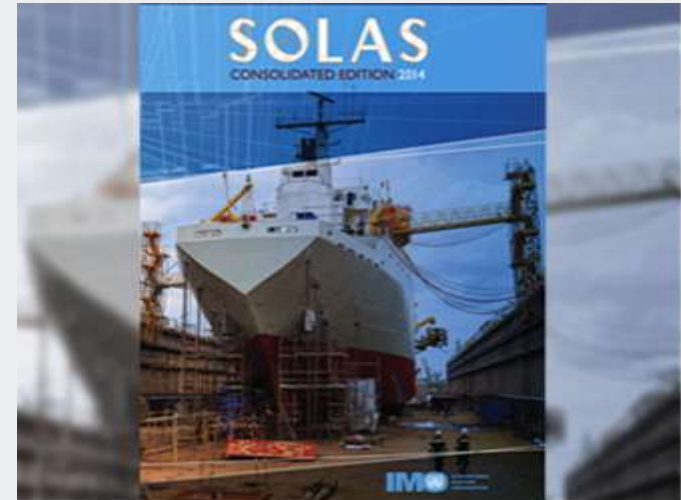
In principle, addressing:

- .1 obligations as coastal States, as well as masters of ships; and
- .2 technical specifications of navigational equipment, often complemented by resolutions and circulars.



SOLAS Chapter V – coastal State's obligations

- 4 Navigational warnings
- 5 Meteorological services and warnings
- 6 Ice Patrol Service
- 7 Search and rescue services
- 8 Life-saving signals
- 9 Hydrographic services
- 10 Ships' routing
- 11 Ship reporting systems
- 12 Vessel traffic services**
- 13 Establishment and operation of aids to navigation
- 27 Nautical charts and nautical publications
- 31 Danger messages
- 32 Information required in danger messages
- 33 Distress situations: obligations and procedures



SOLAS Chapter V – coastal State's obligations

Regulation 12 Vessel traffic services



Vessel traffic services (VTS) contribute to safety of life at sea, safety and efficiency of navigation and protection of the marine environment, adjacent shore areas, work sites and offshore installations from possible adverse effects of maritime traffic.

... undertake to arrange for the establishment of VTS where the volume of traffic or the degree of risk justifies such services.

... Governments planning and implementing VTS shall, wherever possible, follow the **guidelines developed by IMO***

(footnote) to be updated by the Secretariat, once new resolution is adopted ■

IMO documentation hierarchy (on VTS)

- **International treaty instruments** (IMO mandatory instruments)
SOLAS regulation V/12 (Vessel traffic services)
- **Assembly/MSC resolutions**
Resolution A.857(20) (Guidelines on VTS)
- **MSC/SN circulars**
Could be used to supplement details of resolution or refer documents developed by other organizations
e.g. MSC.1/Circ.1065/Rev.1 (IALA standards for training and certification of VTS personnel)

IMO documentation suggested reading

- **MSC-MEPC.1/Circ.5/Rev.1** *Organization and method of work of MSC and MEPC and their subsidiary bodies* – Procedural guidance
- **MSC.1/Circ.1500/Rev.1** with **Corr.1** *Guidance on drafting of amendments to the 1974 SOLAS Convention and related mandatory instruments*
 - 3.2.3.4 Tracked changes using "~~strikeout~~" for deleted text and "grey shading" to highlight all modifications and new insertions, including deleted text.
- **IMO style guide** (currently Third edition, March 2018)
 - Guiding principle for spelling and formatting of IMO documents

All downloadable from IMODOCS: <https://docs.imo.org>

Future – if everything goes well.....

- **NCSR 7 (possibly) approve the transmission to MSC (January 2020)**
- **MSC 102 (possibly) approve the draft revised A. resolution (May 2020)**
- **Assembly 32 (possibly) adopt the draft revised A. resolution (November 2021?)**
- **Implementation by Contracting Governments starts from when? (date may need to be decided, if required)**



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