

► Behind the Acronyms of Maritime Safety



SOLAS <include pic# 12 of Titanic>

The ***International Convention for the Safety of Life at Sea*** (SOLAS) originated after the Titanic disaster of 1912 when more than 1,500 passengers and crew died. Since that time the convention has been an important part of commercial maritime safety operations and has been up-graded many times as technology and know-how concerning safety issues has improved. It applies by law to shipping of 300 Gross Registered Ton and above, which means that most recreational and coastal commercial vessels are not directly affected by the regulations except for certain safety equipment that must, or is recommended to meet, SOLAS standards. Any equipment that meets the criteria is generally acknowledged to satisfy the toughest demands.



AMSA

The **Australian Maritime Safety Authority** (AMSA) is charged with the responsibility for the regulation and safety oversight of Australia's shipping fleet and management of Australia's [international maritime obligations](#). Although overseen by the Australian Federal Government, AMSA is funded largely through levies on the [shipping industry](#).

Marine activities managed by AMSA include:

- The provision, operation and maintenance of marine aids to navigation, for example, [lighthouses](#).
- Ensuring the seaworthiness and safe operation of Australian and foreign vessels in Australian waters.
- Administering the certification of seafarers.
- The provision of a maritime distress and safety communications network.
- The operation of Australia's Rescue Coordination Centre and coordination of search and rescue operations for civilian aircraft and vessels in distress.
- The development of a maritime safety commercial vessel legislative framework and operating system.

AMSA aims to protect the marine environment by administering programs to prevent and respond to the threat of [ship-sourced marine pollution](#) and managing Australia's National Plan to combat [pollution of the sea by oil](#) and other noxious and hazardous substances.



NSCV <include pic # 13 - NMSC logo?>

The National Standard for Commercial Vessels (NSCV) is a series of documents published by the National Maritime Safety Committee, an Australian regulatory and advisory body now under the administrative umbrella of The Australian Maritime Safety Authority. The relevant section on sea safety specifies requirements for the design, manufacture, installation, stowage, marking and scale of safety equipment to be carried on board virtually all Australian commercially operated vessels that are not equipped to SOLAS standard. The NSCV is replacing the Australian Universal Shipping Law (USL) Code and is supported and implemented by all Australian State and Territory marine authorities.

GMDSS

The **Global Maritime Distress and Safety System** (GMDSS) is an internationally agreed system of safety procedures, which includes communications equipment, operator licensing and protocols so that rescue authorities ashore, as well as shipping in the immediate vicinity of a vessel or persons in distress, will be rapidly alerted to a distress incident so they can assist in a coordinated search and rescue operation with the minimum of delay. The GMDSS is intended to perform functions such as alerting (including position determination of the person(s) or vessel in distress), search and rescue coordination, locating (homing), maritime safety information broadcasts, general communications, and bridge-to-bridge communications. A key concept of GMDSS is that the radio communications equipment to be fitted to a GMDSS vessel is determined by the ship's area of operation, rather than by its size. GMDSS equipment

includes, Emergency Position Indicating Radio Beacon (EPIRB), Search and Rescue Radar Transponder (SART), Digital Selective Calling (DSC) distress alerting on MF and VHF equipped radios, HF Radio, NAVTEC and IMARSAT satellite communications. The oceans of the world have been divided into four operational Sea Areas, defined according to the radio facilities provided on shore for distress alerting. Vessels under 300 Gross tonnage (GT) are not subject to GMDSS requirements but offshore vessels under 300GT increasingly elect to equip themselves further. Recreational vessels do not need to comply with GMDSS requirements, but will increasingly be required to comply with some GMDSS initiatives, including Digital Selective Calling (DSC) equipped radios and Emergency beacons.

ISAF – AY – YNZ <include pic # 14 - ISAF logo>

The **International Sailing Federation** (ISAF) publishes a range of regulations to establish uniform minimum equipment and design standards for yachts racing offshore. These special regulations, adopted internationally, are strongly recommended by the Federation for use by all organisers of offshore races. As signatories to the Federation, Yachting Australia (YA) and Yachting New Zealand (YNZ) for the most part comply with this request with occasional regulation variations or additions to suit local race requirements.



COLREGS

The **International Regulations for Preventing Collisions at Sea 1972 (COLREGS)** are published by the [International Maritime Organization](#) (IMO) and overseen by the Australian Maritime Safety Authority, and set out the "rules of the road" or navigation rules to be followed by [ships](#) and other vessels at sea in order to prevent collisions between two or more vessels. The regulations are designed to cover every possible contingency for all vessels under-way and, by necessity, are lengthy and complex. In simplified form, the 'rules' cover three areas:

Maintain a Lookout

Every vessel must maintain a proper lookout by all possible means appropriate to the prevailing circumstances and conditions. This is the main collision avoidance rule.

Safe Speed

Every vessel at all times must proceed at a safe speed appropriate to the prevailing circumstances and conditions.

Risk of Collision

Every vessel must use all available means to determine if a risk of collision exists. If such a risk exists, vessels close to each other should understand what the other is doing. Any alteration of course to avoid collision must be significant, so that it is clear that the course has been changed.

ISO <include pic # 15 - ISO logo>



The **International Organisation for Standardisation**, widely known as ISO is an international standard-setting body composed of representatives from various national standard organisations. The body promulgates a large range of reports that spell out in great detail world-wide industrial and commercial design and manufacturing standards. While the ISO defines itself as a non-governmental organisation, in practice, its ability to set international benchmarks sees it having strong links to governments, with many of its recommendations becoming law.

In the context of life raft design and manufacture, ISO has many criteria covering all types of shipping, both commercial and leisure craft. ISO 9650 for instance, is a new, comprehensive, technical specification detailing all the materials used in the construction of life rafts for smaller commercial and recreational vessels. Performance requirements covering inflation, launching, material resistance, buoyancy and interior space are also spelled out.

DSC

Digital selective calling is a standard for sending pre-defined digital messages via medium-frequency (MF), high-frequency (HF) and very-high-frequency (VHF) maritime radio systems. DSC compliant radios

are easily recognizable by a distinctive red button marked "Distress". When this button is pressed, the set will automatically switch to Channel 70 (VHF) or 2187.5 kHz (MF/HF).

The DSC technology was first introduced on large ships as part of the Global Marine Distress Safety System (GMDSS). It provides vessel identification and facilitates direct vessel to vessel communication. When equipped with GPS, the DSC signal will also contain the location of the vessel.

Recognizing the advantages to the recreational market and with the advancement of DSC, the system was soon made available to all vessels. A DSC message is a succinct purposeful message intended to initiate a response. Once contact has been made, communications on a nominated VHF channel or MF/HF frequency should be used for ongoing messages. To participate in the digital messaging, your radio must be registered to receive a 9-digit identity called a Maritime Mobile Service Identity (MMSI). This becomes your boat's unique phone number. Because VHF DSC for small craft is primarily set aside for distress, urgency and safety purposes, an important benefit of DSC is that it keeps VHF channel 16 open.

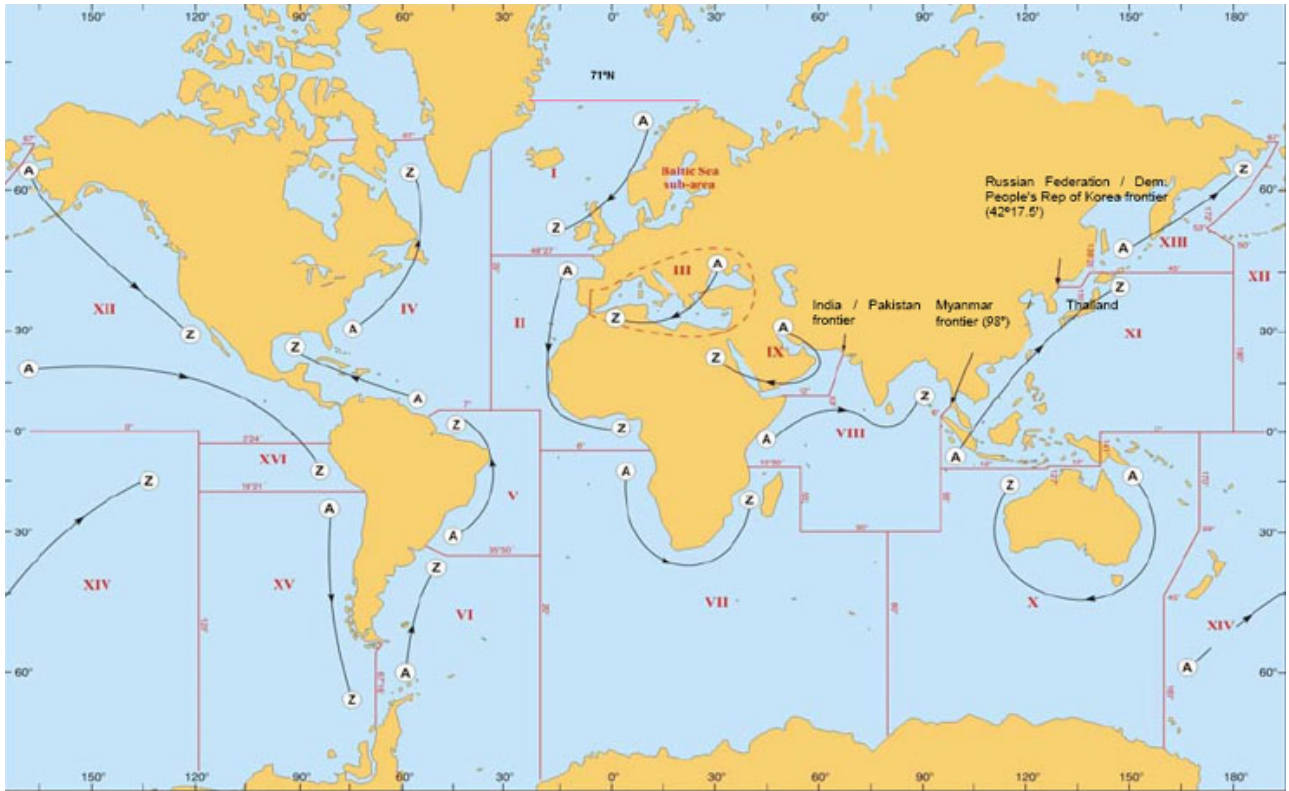
MMSI

A **Maritime Mobile Service Identity (MMSI)** is a series of nine digits which are sent in digital form over a radio frequency channel in order to uniquely identify ship stations, ship [earth stations](#), coast stations, coast earth stations, and group calls. When using MMSI enabled radio transceivers to send a distress alert, or to indicate some other emergency, the number assists emergency services to identify you and your vessel. A Maritime Mobile Service Identity number is required when a vessel or unit has either: Digital Selective Calling (DSC) capable equipment or Automatic Identification System (AIS) units. It is important to recognize that the MMSI identifies the vessel or coast station, and if more than one fixed transceiver and/or AIS transceiver is carried they are all to be programmed with the same MMSI. A vessel's 406 MHz emergency position indicating radio beacon (EPIRB) may also be programmed with the same MMSI. The selling agent can program the MMSI into the transceiver and AIS equipment. The MMSI is automatically included in all DSC and AIS transmissions from a station and electronically identifies that station to the receiving station(s).

WWNWS and NAVAREAs

World Wide Navigation Warning Service - It is a co-ordinated global service for the promulgation of navigational warnings. In GMDSS Sea Area A1 and A2 they are broadcast via the NAVTEX system and outside given areas, via the SafetyNET system.

Under the [WWNWS](#) the world's oceans are divided into 21 geographical sea areas, called [NAVAREAs](#) (NAVigational AREAs) which are identified by Roman numerals and comprises [NAVTEX CRS](#) identified by a single letter of the alphabet from A to Z.



[NAVAREA](#) limits of the [WWNWS](#)

The administration tasked with collating and distributing [MSI](#) to cover the whole of a [NAVAREA](#) is known as the [NAVAREA](#) coordinator.

NAVAREA	NAVAREA Coordinator
I	United Kingdom
II	France
III	Spain
IV	United States of America (East)
V	Brazil
VI	Argentina
VII	South Africa
VIII	India
IX	Pakistan
X	Australia
XI	Japan
XII	United States of America (West)
XIII	Russia
XIV	New Zealand

XV	Chile
XVI	Peru
XVII	Canada
XVIII	Canada
XIX	Norway
XX	Russian Federation
XXI	Russian Federation

NAVAREA Coordinators

Details of NAVTEX CRS may be found in ALRS Volume 5 and ITU List of Coast Stations and Special Service Stations (List-IV)



NAVAREA coverage world map

WWNWS comprises 3 levels of warning:

- NAVAREA warnings: are issued by a NAVAREA coordinator and include information required by ocean-going mariners for safe navigation. They are principally affecting main shipping routes and offshore areas within GMDSS Sea Area A3, so they are not broadcast via

the [NAVTEX](#) system but via satellite and/or [HF NBDP](#). Within [GMDSS](#) Sea Areas A4, these are not broadcast via [NAVTEX](#) system but only via [HF NBDP](#).

- COASTAL warnings: are also issued by a national coordinator and include information required by all vessels for safe navigation within the given area. They are affecting areas up to 400 [NM](#) from a [NAVTEX CRS](#) but within the boundary agreed with adjacent national coordinator.
- LOCAL warnings: are issued by a local coordinator; for example a port or harbour authority. They include information required for safe navigation within port or inshore waters that passing ocean-going vessels do not require.

For meteorological warnings each [NAVAREA](#) is sub-divided into [METAREAs](#)' [METAREAs](#) are usually divided into sea areas for weather forecast broadcast using [INMARSAT-C \(EGC\)](#), [NAVTEX](#), [VHF](#), [MF/SSB](#) and [HF/SSB](#) radio. In principle a sea area should not straddle two or more [METAREAs](#) and those names of sea areas should, as far as possible relate to well known geographical locations or areas. Some countries (e.g. Italy) still use their own names for their sea area when using local [NAVTEX](#), [VHF](#) or [MF](#).