

# Ship Radio Information



Ofcom booklet Of19a

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This entitles you to a free licence. Licensing amendments can also be notified via the Ofcom website, however, they are not charged for whether done via the website or by post.

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	Page
1. Introduction	2
2. Managing Maritime Radio Use	2
3. Ship Radio Licences and Ship Portable Radio Licences	3
4. Maritime Radio Operator’s Certificates	5
5. Equipment Requirements	6
6. EPIRBs/PLBs	7
7. International Maritime VHF Channels	8
Table 1: Use of International Maritime Mobile VHF Channels	11
8. Maritime Radio Accounting Authorities	14
9. Contacts for Further Information	16
406 MHz EPIRB, New or Change of Registration Form	18

# Ship Radio Information

## 1. Introduction

**Please note that licence applicants are encouraged to register, apply for and print their Ship Radio or Ship Portable Radio licences via the Ofcom website (see Section 9). This entitles you to a free licence. Licensing amendments can also be notified via the Ofcom website, however, they are not charged for whether done via the website or by post.**

If you have a Ship Radio licence or Ship Portable Radio licence, or you want to obtain one, this booklet will help you to use maritime radio safely and legally.

Further information is given in ‘Ship Radio Guidance Notes for Licensing (Of168a)’ and in Form Of347 for Application/Amendment/Validation/Surrender of a United Kingdom Ship Radio Licence or a United Kingdom Ship Portable Radio Licence (see Section 9 for Ofcom contact information).

This booklet begins by explaining how and why the international Radio Regulations govern the use of maritime radio equipment, and how the Office of Communications (Ofcom) implements the Regulations in the UK. Later Sections cover the need for radio equipment to be licensed and to comply with certain technical requirements, and for maritime radio operators to be properly qualified.

There is also information about Emergency Position Indicating Radio Beacons (EPIRBs) and Personal Locator Beacons (PLBs), international maritime VHF channels and maritime radio accounting authorities (MRAAs).

If you are interested in obtaining a Coastal Station Radio, Navigational Aids & Radar or Maritime Radio Suppliers licence, you can find more information about these in other Ofcom information leaflets. Details are available on the Ofcom website or from the Ofcom Licensing Centre – see Section 9.

## 2. Managing Maritime Radio Use

### 2.1 Why does radio use need to be managed?

Radio communications are used by millions of people worldwide, and radio signals do not stop at national frontiers. Without planning and management, radio

users and services would interfere with each other; above a certain level of interference, radio would become useless as a reliable means of communication. Maritime radio exists primarily for the safety of human life and vessels at sea, so it is essential that interference is avoided.

### 2.2 International Radio Regulations

The international Radio Regulations govern all use of the radio spectrum worldwide. They are set by the International Telecommunication Union (ITU), and are agreed at World Radiocommunication Conferences. Radio Regulations have international treaty status and are binding on ITU member states, including the UK. The ITU was founded in Paris in 1865 as the International Telegraph Union, and took its present name in 1934. In 1947 it became a specialised agency of the United Nations, based in Geneva. The ITU is an intergovernmental organisation, within which the public and private sectors co-operate to develop telecommunications worldwide.

### 2.3 Maritime radio and the Radio Regulations

Article 18 of the international Radio Regulations requires that: "No transmitting station may be established or operated by a private person or any enterprise without a licence issued in an appropriate form and in conformity with the provisions of these Regulations by or on behalf of the government of the country to which the station in question is subject." Article 47.2 of the Radio Regulations relevantly states that:

"The service of every ship radiotelephone station, ship earth station and ship station ..... shall be controlled by an operator holding a certificate issued or recognised by the government to which the station is subject. Provided the station is so controlled, other persons besides the holder of the certificate may use the equipment."

This means that maritime radio equipment for use on board a vessel registered in the UK or granted authorisation by the UK must be:

- covered by a valid Ship Radio licence or Ship Portable Radio licence issued in the UK by Ofcom (see Section 3);
- operated by or under the direct supervision of a holder of a valid maritime radio operator's certificate and Authority to Operate (see Section 4); and
- compliant with either the Marine Equipment Directive (MED) or the Radio and Telecommunications Terminal Equipment (R&TTE) Directive, or nationally type-approved (see Section 5).

## 2.4 Enforcing the Radio Regulations in the UK

The Wireless Telegraphy Act 2006 (WT Act) is the primary legislation enforcing the Radio Regulations and determining the rules for radio use in the UK. The WT Act makes it an offence to have radio transmission equipment available for use without a licence, unless the equipment has been specifically exempted from licensing.

*The installation and use of maritime radio transmission equipment, including hand portables, **must** be covered by a WT Act licence.*

Ofcom is responsible for managing use of the civil radio spectrum in the UK, and for implementing the Radio Regulations in the UK.

## 2.5 What does Ofcom do?

Through spectrum planning, interference control and enforcement, Ofcom plans and manages the spectrum to ensure that:

- the appropriate kind of spectrum is available to those who need it; and
- spectrum use is efficient and causes minimal interference.

### (a) Spectrum planning

Ofcom must co-ordinate use of the radio spectrum with neighbouring countries, so we take part in many international negotiations to protect and promote the UK's best interests. This includes working within the ITU to agree maritime frequency bands.

### (b) Interference control and enforcement

Ofcom has a network of regional and National offices across the UK, where our staff offer advice on radio services and investigate complaints of interference.

Where necessary, we will not hesitate to take action under the WT Act to prevent interference or abuse caused by users who do not have licences or by users who contravene their licence terms and conditions. Our staff carry out routine spot checks to ensure that maritime radio users hold valid WT Act licences and maritime radio operators' certificates.

## 3. Ship Radio Licences and Ship Portable Radio Licences

### 3.1 Types of licences

The WT Act Ship Radio licence covers the use of all maritime transmission equipment, including EPIRBs/PLBs (see Section 6) and radar, that is installed on board UK-registered vessels. The Ship Portable Radio licence covers the use of portable transmission equipment – see Section 3.3 below. All use of maritime radio transmission equipment on board a vessel must be covered by one of these two licences.

### 3.2 Why do I need a Ship Radio licence?

As well as being a legal requirement for operating maritime radio equipment (including radar, EPIRBs and AIS)(see also Section 2), a Ship Radio licence entitles you to the following benefits:

#### (a) Call sign

When you receive a licence, we issue a call sign for your vessel. Different vessels may have the same name, but your call sign uniquely identifies your vessel. Your call sign is recognised worldwide because Ofcom registers it (and other information you provide in your licence application) with the ITU. If amended, your updated licence details will be notified to the ITU.

A properly registered call sign also lets you set up an account with a maritime radio accounting authority

to use international telecommunication services through foreign coast stations – see Section 8.

**(b) Maritime Mobile Service Identity (MMSI) number**

An MMSI number is the equivalent of an electronic call sign; you need one to operate Digital Selective Calling (DSC) radio or satellite communications equipment. You can request an MMSI number for your equipment when you first license your radio or at any time afterwards. Ofcom will also register your MMSI (and other details) with the ITU.

**(c) Entry on the Maritime Mobile Access and Retrieval System (MARS) database**

All administrations (ITU member states) can obtain access to the MARS database for co-ordinating search and rescue (SAR) operations. Article 20 of the Radio Regulations, in conjunction with Resolution 340 WRC-97 (at the 1997 World Radiocommunication Conference), places an obligation on Ofcom to collect this information so that SAR authorities can:

- provide the most effective assistance to a ship in distress; and
- assess the suitability of other vessels that may be in a position to assist. The ITU wants the MARS database to contain full particulars of ship radio stations where possible. This is why the Ship Radio licence application form (Of 347) asks for information such as ‘lifeboats available’ and ‘gross tonnage’.

In addition, there is a requirement for Ofcom to supply, wherever possible, 24-hour emergency contact details and alternative telephone numbers for all vessels. The information collected complements the information licensees may supply directly to the Coastguard on the Maritime and Coastguard Agency CG66 form, and acts as a ‘safety net’ for people who do not use the CG66 form.

**(d) HM Coastguard**

As well as supplying your details to the ITU MARS database, we also send relevant SAR information about you and your vessel directly to HM Coastguard, to help them provide assistance to you in an emergency. The Coastguard can obtain this information directly from our records.

**(e) Interference protection**

Part of Ofcom's role is to ensure that, whenever you need to use your radio (to communicate with another vessel, HM Coastguard, a coastal station, a marina or a port operator for any purpose), you can do so without suffering/ causing interference from/to other legitimate radio users. For us to be able to ensure this, your use of radio equipment must be licensed.

### 3.3 Ship Portable Radio licence

A Ship Portable Radio licence covers the use of a portable, hand-held maritime VHF and/or VHF/DSC radio (with an integral power supply and antenna) that is not covered by a Ship Radio licence. It can also cover a 406 MHz/121.5 MHz and/or a 121.5/243 MHz EPIRB or Personal Locator Beacon (PLB). This licence is intended for use in UK territorial waters.

The licence may additionally include one piece of aeronautical search and rescue equipment on frequencies 121.5 and 123.1 MHz. You should apply for this type of licence if you intend to use a hand-held radio on more than one vessel. The licence is issued with a ‘T’ (reference) number rather than a vessel call sign; therefore the vessel name is usually used as an identifier. The T (reference) number is not a call sign recognised internationally and licensing details are not sent to the ITU.

As with any maritime radio, you must either hold personally or be supervised by someone that holds the relevant maritime radio operator's certificate (see

Section 4). The licence and your operator's certificate must be kept with or near the radio at all times where practicable. Ofcom carries out random checks on vessels from time to time.

### 3.4 What are the charges for a licence, how long do they last for and how may I apply for it (see also Section 3.6)?

Licence charges are set by Parliament and reviewed generally each year.

Licence applicants are encouraged to apply via the Ofcom website – see Section 9. Licences applied for and granted via the Ofcom website will be free.

A fee of £20 will be charged for each Ship Radio licence and each Ship Portable Radio licence that is not applied for and downloaded from the Ofcom website.

A discount is no longer granted for charities as free licences are available via the Ofcom website.

Licences shall continue in force unless revoked by Ofcom or surrendered by the licensee.

The licensee must notify Ofcom of all changes to their Licence details when such changes occur and must provide confirmation to Ofcom that all their Licence details are correct, at least once every ten (10) years.

Licensing amendments can also be notified via the Ofcom website and are not charged for whether done via the website or by post.

### 3.5 What if I don't get a radio licence?

The fines for unlicensed radio use are severe, reflecting the problems that illegal use can cause. If you use radio without a licence, or you contravene the terms of your licence, you can expect a fine of up to £5,000 or a custodial sentence of up to six months, as well as forfeiture of your radio equipment, through a

magistrate's court. If you request trial through the Crown Court, the fine is unlimited and the custodial sentence can be up to two years, again with forfeiture of the equipment involved.

### 3.6 What if my licence details change?

If you sell or transfer ownership of your vessel, change your radio equipment, your address, or your vessel's name, or any of the details on your licence need to be amended, you must inform Ofcom of the amendments via the Ofcom website or using Of347 for the Ship Radio licence and the Ship Portable Radio licence. In addition, in relation to ship radio licences, it is necessary for Ofcom to transfer the call sign and the MMSI to the new owner of the vessel.

In the case of a Ship radio licence, if you have sold your vessel or it is to be scrapped, or if you do not require your Ship Portable Radio licence any more, you must surrender your licence to Ofcom via the Ofcom website or using the form Of347. If you do not inform Ofcom of any of these changes, you will be in breach of the terms of your licence and are liable to a penalty. In addition, you will potentially put at risk any related search and rescue operation which may also involve others.

## 4. Maritime Radio Operator's Certificates

### 4.1 International legal requirement

Even if your radio is covered by a valid WT Act licence, you may not use it for general transmissions until:

- you have passed the relevant examination and possess a valid operator's certificate and authority to operate; or



- you are under the direct and personal supervision of someone who has done so. (This requirement applies to all ports and marinas, as well as vessels, that use radio equipment with access to international maritime frequencies.)

However, you can still monitor the radio for safety purposes or use it to summon assistance in a distress situation, without one.

#### 4.2 Why are operator's certificates necessary?

As maritime radio exists primarily for the safety of life and vessels at sea, it must be used effectively. Operator's qualifications have been agreed internationally to ensure that users:

- possess the necessary operational skills; and
- know the procedures for general calling, and especially the procedures used in distress or safety situations.

To obtain an operator's certificate, you must prove that you:

- understand and can use the correct procedures for radio use; and
- will not cause a nuisance to your fellow radio users (including other vessels and HM Coastguard).

You must also show that you are familiar with the procedures required if you have to use your radio in an emergency situation. If you need to send, respond to or relay a 'MAYDAY', you will be able to do so effectively – this could save someone's life.

#### 4.3 Types of certificate

Overall responsibility for maritime radio operator certification rests with the Maritime and Coastguard Agency. (see Section 9 for contact details.)

The most common operator's certificate is the Short Range Certificate (SRC), which covers routine, safety, urgency and distress communications using VHF/DSC equipment. You can obtain details of SRC courses and examinations from the Royal Yachting Association (RYA).

The Long Range Certificate (LRC) covers the use of MF, HF and VHF (including DSC operation) as well as satellite communications equipment. The LRC is administered by the Association of Marine Electronic and Radio Colleges (AMERC). Other certificates include the Restricted Operator's Certificate (ROC) and the General Operator's Certificate (GOC).

See Section 9 for relevant contact details. Certificates include an Authority to Operate from the Secretary of State.

## 5. Equipment Requirements

### 5.1 R&TTE Directive

All radio equipment (with certain exceptions – see Section 5.3 below) must meet certain essential criteria. This is a legal requirement under the Radio and Telecommunications Terminal Equipment (R&TTE) Regulations 2000, which implemented the R&TTE Directive (EU Directive 99/5/EC).

Under the Regulations, any person who places radio equipment on the market or takes it into service must ensure that:

- the R&TTE Directive's requirements are met;
- the equipment is marked with the 'CE' marking; and
- a written declaration of conformity has been drawn up for the equipment, together with information for the user on its intended use (e.g. maritime radio). The R&TTE Directive, which replaced the older type-approval regime, came into force on 8 April 2000. Until then, maritime radio equipment had been type-approved under section 84 of the Telecommunications Act 1984. No new type-approvals have been issued since 7 April 2000. All equipment now placed on the market (i.e. sold) must comply with the R&TTE Directive, although equipment already type-approved may still be taken into service. Moreover, any such equipment already taken into service does satisfy the licence terms.



## 5.2 UK Radio Interface Requirements

As a licensee, you are also responsible for ensuring that maritime radio equipment subject to the R&TTE Regulations covered by your licence, meets the relevant UK Radio Interface Requirement (IR). IRs provide a high level description of spectrum use, specifying the frequency range, channel spacing, output power, technology to be used (where appropriate), licensing regime etc. Details of the relevant IRs can be obtained from Ofcom's website (see Section 9).

## 5.3 Merchant Shipping (Marine Equipment) Regulations 1999

Maritime radio equipment within the scope of the Marine Equipment Directive (MED) (Directive 96/98/EC as amended) does not need to comply with the R&TTE Directive. Such equipment must be marked with the 'ship's wheel' marking rather than the CE mark. The MED is implemented by the Merchant Shipping (Marine Equipment) Regulations 1999. Further information may be obtained from the Maritime and Coastguard Agency (see Section 9).

## 5.4 Channels not covered by your licence

To comply with the terms of your licence, you must ensure that your equipment is rendered incapable of transmitting on any channel(s) not covered by the licence.

# 6. EPIRBs/PLBs

## 6.1 What is an EPIRB/PLB?

An Emergency Position Indicating Radio Beacon (EPIRB)/Personal Locator Beacon (PLB) is a small, self-contained, battery-operated radio transmitter. Its essential purpose is to help determine the position of survivors in search-and-rescue (SAR) operations. PLBs are normally body-worn.

Even if you carry an EPIRB/PLB, you should also carry an approved maritime radio transceiver – think of the EPIRB/PLB as a **supplement** rather than a replacement for the transceiver. It is recommended that you carry a suitable EPIRB and/or PLB aboard every

vessel that is going more than a few miles offshore, or is making a coastal or overseas voyage. Certain classes of vessel **must** carry EPIRBs that operate on a frequency in the 406 MHz band. Once you have activated an EPIRB/PLB, do **not switch it off** until the rescue is completed and/or advised by the SAR authority.

## 6.2 Types of EPIRB

Two types of EPIRBs/PLBs are available in the UK and used on small vessels:

- a small, simple type operating on the aeronautical frequencies of 121.5 and/or 243 MHz (but please note that satellite processing of these beacons will cease from 1 Feb 2009)
- a more sophisticated model operating in the 406 MHz band, with the addition of 121.5 MHz for homing purposes.

A 406 MHz EPIRB/PLB has a unique identification code, known as a HEX ID, which is programmed during manufacture. If the EPIRB/PLB is activated and the owner or operator has registered it with HM Coastguard EPIRB Registry, it could assist the Rescue Co-ordination Centre in determining the name, size and type of the craft in distress. For this reason, you are required to register 406 MHz EPIRBs/PLBs with HM Coastguard; a registration form is included at the end of this booklet. If you do not register this type of EPIRB/PLB, its usefulness to the SAR services in an emergency will be seriously degraded, and lives may be put at risk.

## 6.3 Custody and control

Stow your EPIRB safely on the parent vessel, where it can be readily seen and kept available for use. Do not let it move about freely with the vessel's motion, and keep it away from other pieces of gear or equipment that could cause it to self-activate. This includes devices that have magnetic properties, such as loudspeaker magnets.

## 6.4 Removal for safe keeping or servicing

If you take an EPIRB off a vessel for safe keeping or repair/servicing, please handle it carefully. 406 MHz EPIRBs and PLBs should be deactivated following the

manufacturer's instructions and procedures; EPIRB/PLB devices should be **completely wrapped** in two layers of aluminium foil to provide suitable radio frequency screening. The foil could assist in attenuating the radio signal from the beacon, to a level well below the Cospas- Sarsat receiver threshold.

The relevant authorities spend a great deal of time and money tracing and deactivating 121.5, 243 and 406 MHz EPIRBs/PLBs that have self-activated after being poorly stowed or packaged for transit. The search will often be conducted by a rescue helicopter, which must leave its designated area to trace a beacon transmitting a false alarm. (Please note that 1.6 GHz EPIRBs are becoming obsolete.)

## 6.5 Activated devices

Triggering an EPIRB/PLB from a shore location or a vessel that is not in distress causes a hazard to safety-of-life services, by masking any genuine distress that may occur in the surrounding area. If you accidentally activate an EPIRB/PLB, please contact the Coastguard immediately, either by telephone (+44 (0) 1326 317575) or any UK Coastguard station (or if not successful, any other Coast station) by radio, to cancel the alert.

## 7. International Maritime VHF Channels

### 7.1 Channel 16 (156.800 MHz)

Channel 16 is the international maritime radio channel used for distress, safety and voice calling.

#### (a) Listening watch

Ships fitted with VHF equipment should, where practicable, maintain a listening watch on channel 16 and channel 13 when at sea.

#### (b) Using Channel 16 in a non-distress situation

If you do not have DSC (Digital Selective Calling) radio and you need to call a station on Channel 16 other than in cases of distress, urgency or safety, you and the receiving station should both switch to another channel as soon as possible after initial

contact. All calls on Channel 16 should be brief; when not concerning distress, urgency or safety, they should not exceed one minute. For communications between ship stations, you should use an inter-ship channel (e.g. Channel 06, 08, 72 or 77) instead. For a call to a coast station, you should use the station's assigned channel.

#### (c) Using Channel 16 in a distress situation

If you are in a distress situation and do not carry DSC radio, you should make your initial distress call on Channel 16. If you do not receive a response, use Channel 13 or the primary inter-ship channels (Channels 06, 08, 72 and 77); these are likely to be the next most used channels and someone should acknowledge your call. At present, the UK Coastguard and all seagoing vessels maintain a watch on Channel 16.

#### (d) Why is it important to follow the rules?

The rules for the use of Channel 16 are agreed internationally and **must** be followed – your fellow boat users' lives may depend on being heard on this channel. The rules are designed to provide order and discipline of use on this important maritime frequency.

#### (e) Summary of the rules

**You and anyone likely to use your radio must be familiar with these rules.**

#### General calls

- Monitor Channel 16 where practicable.
- Use the correct maritime radio telephone operating procedure for establishing contact.
- Use your vessel call sign, vessel name, MMSI or other appropriate identification (e.g. T (reference) number in the case of the Ship Portable Radio licence) for identification purposes.
- Use phonetics to spell out difficult words or abbreviations.
- Do not interrupt or interfere with transmissions already in progress – wait for an appropriate break before starting your call.
- Give way to communications already in progress, or if asked to do so by a coast station.

- Stop calling if a station does not reply to a call sent three times at intervals of two minutes. Resume calling thereafter at three-minute intervals at the earliest, having first ascertained that the station is not communicating with a third station elsewhere. (This does not apply to distress, urgency or safety calls.)
- Minimise the amount of time spent establishing contact on Channel 16 (one minute maximum) and then immediately switch to another inter-ship channel – and keep discussions on these other channels to the business of the vessels concerned.

#### Emergency calls

- Following the appropriate rules, answer any distress call made on Channel 16 (in the event that a Coast station has not responded) and give it priority and take steps to acknowledge the call and render assistance or seek help as appropriate.
- Do not communicate with the vessel making the distress call for a short interval in situations where reliable communications with a coast station are practicable.
- Stop all transmissions when you hear a distress call being made from another vessel, to avoid interference to that distress call.
- Know the correct procedures for making and dealing with distress messages, distress relays and traffic – and train others on board to receive and make calls.
- Avoid making distress calls unless the master of the vessel orders it or where appropriate:
  - you are in grave or imminent danger;
  - another ship or an aircraft is in grave or imminent danger and cannot itself send a signal; or
  - the ship or aircraft concerned requires immediate assistance or additional help to that immediately available.
- Be ready to repeat your distress message on any frequency if you receive no answer on the distress frequency.
- Know your vessel call sign or other identity so that you can uniquely identify your vessel in distress.

#### General rules – DO NOT:

- transmit without the authority of the master or other person in charge of the vessel, unless in an emergency situation;
- operate the radio telephone unless you are qualified or under the supervision of an appropriately qualified person;
- transmit or circulate false or deceptive safety or identification signals;
- transmit without identification ( i.e. your call sign or vessel name etc);
- close down a radio telephone until you have finished all operations resulting from a distress call, urgency or safety signal;
- broadcast (i.e. transmit without a reply being expected) messages or programmes of music except for safety messages;
- make unnecessary transmissions;
- transmit profane, indecent or obscene language;
- use frequencies or channels other than those stipulated in the Ship Radio licence; or
- broadcast messages intended for reception onshore (except through a Coastal Radio Station), other than as stipulated in the Ship Radio licence

#### 7.2 Channel 70 (156.525 MHz) – Digital Selective Calling

The Global Maritime Distress and Safety System (GMDSS) became fully operational on 1 February 1999. Channel 70 is now the primary channel for distress, urgency and safety alerting using DSC. It may also be used to initiate routine calls using DSC. It must not be used for voice communications. We strongly recommend that you fit equipment capable of DSC, and that you replace your fitted non-DSC radios with DSC capability.

Further information about the GMDSS is available from the Maritime and Coastguard Agency – see Section 9.

### 7.3 Channel 13 (156.650 MHz)

This channel is used for bridge-to-bridge voice communications under the GMDSS. It is normally monitored by commercial vessels if there is a danger of collision.

### 7.4 Channel 10 (156.500 MHz), Channel 67 (156.375 MHz), Channel 73 (156.675 MHz) and Channel 06 (156.300 MHz)

These channels have been set aside internationally for use in co-ordinated search-and-rescue (SAR) operations. In the UK, their use is co-ordinated with HM Coastguard as follows.

#### (a) Channel 10

In addition to its use in SAR operations, this channel is used during oil spills and other pollution incidents, and (in the UK only) may be used to broadcast Maritime Safety Information (MSI).

#### (b) Channel 67

This channel is used primarily for SAR operations and for safety communications with HM Coastguard

#### (c) Channel 73

This channel is used primarily for SAR operations and (in the UK only) may be used to broadcast Maritime Safety Information (MSI).

#### (d) Channel 06

Under the GMDSS, this channel is used for communications between ships and aircraft to co-ordinate SAR operations.

### 7.5 Other designated channel usage

#### (a) Inter-ship

Inter-ship channels are for communications between ship stations. Ideally, inter-ship communications should be restricted to Channels 06, 08, 72 and 77. However, if these are not available, certain other channels (marked in Table 1) may be used. Unless essential, please avoid using Channels 10, 67 and 73 within VHF range of coastal areas in Europe and Canada.

#### (b) Port Operations and Ship Movement

Certain channels have been set aside, by international agreement, for use in the Port Operations and Ship Movement services. These are assigned to users such as ports and oil terminals, where the safe movement of ships is important. The channels assigned to particular users are published in the Admiralty List of Radio Signals. It is important not to use these channels for other purposes if they have been assigned locally.

#### (c) Public correspondence

These channels have been set aside, by international agreement, for making calls to the public telephone network. Calls made on these channels are often referred to as 'link calls'.

#### (d) Marina channels

In the UK, these channels have been set aside for matters relating to mooring, berthing and race control. There are three marina channels:

#### Channels M (157.850MHz) and M2 (161.425MHz)

These are UK channels and should be used only in UK territorial waters. Their onboard use is covered by a Ship Radio licence; however, equipment that can operate solely on these frequencies is usually licensed under a Coastal Station Radio licence, and the operator does not need to hold an operator's certificate.

#### VHF Channel 80:

This is an international maritime channel. Its use must be under and in accordance with the terms of a valid Ship Radio licence or Ship Portable Radio licence – it is necessary to hold a Maritime Radio Operator's certificate.

### 7.6 Further information

Further information can be found in the *Manual for Use by the Maritime Mobile and Maritime Mobile-Satellite Services*, available from the ITU – see Section 9. See also Marine Guidance Notice MGN 22 (M+F) and Maritime Safety Information leaflet relating to use in UK waters, available from the Maritime and Coastguard Agency (MCA) – see Section 9.

Table 1

## Use of International Maritime Mobile VHF Channels

Channel designators	Notes	Transmitting frequencies (MHz)		Intership	Port operation and ship movement		Public correspondence
		Ship stations	Coast stations		Single frequency	Two frequency	
60		156.025	160.625			✓	✓
01		156.050	160.650			✓	✓
61		156.075	160.675			✓	✓
02		156.100	160.700			✓	✓
62		156.125	160.725			✓	✓
03		156.150	160.750			✓	✓
63		156.175	160.775			✓	✓
04		156.200	160.800			✓	✓
64		156.225	160.825			✓	✓
05		156.250	160.850			✓	✓
65		156.275	160.875			✓	✓
06	1	156.300		✓			
66		156.325	160.925			✓	✓
07		156.350	160.950			✓	✓
67		156.375	156.375	✓	✓	HMCG SAR	
08		156.400		✓			
68		156.425	156.425		✓		
09		156.450	156.450	✓	✓		
69		156.475	156.475	✓	✓		
10	5	156.500	156.500	✓	✓	Oil pollution	
70	6	156.525	156.525	Digital selective calling for distress, safety and calling only			
11		156.550	156.550		✓		
71		156.575	156.575		✓		
12		156.600	156.600		✓		
72		156.625		✓			
13	7	156.650	156.650	✓	✓		
73	5	156.675	156.675	✓	✓	HMCG SAR	
14		156.700	156.700		✓		

Channel designators	Notes	Transmitting frequencies (MHz)		Intership	Port operation and ship movement		Public correspondence
		Ship stations	Coast stations		Single frequency	Two frequency	
74		156.725	156.725		✓		
15	2	156.750	156.750	✓	✓	Also on-board comms	
75	4	156.775					
16		156.800	156.800	Distress, safety and calling			
76	4	156.825			✓		
17	2	156.850	160.850	✓	✓	Also on-board comms	
77		156.875		✓			
18		156.900	161.500		✓	✓	✓
78		156.925	161.525			✓	✓
19		156.950	161.550			✓	✓
79		156.975	161.575			✓	✓
20		157.000	161.600			✓	✓
80		157.025	161.625	Also Marinas etc UK only		✓	✓
21		157.050	161.650			✓	✓
81		157.075	161.675			✓	✓
22		157.100	161.700			✓	✓
82		157.125	161.725		✓	✓	✓
23		157.150	161.750			HMCG SAR/MSI	
83		157.175	161.775		✓	✓	✓
24		157.200	161.800			✓	✓
84		157.225	161.825		✓	HMCG SAR/MSI	
25		157.250	161.850			✓	✓
85		157.275	161.875		✓	✓	✓
26		157.300	161.900			✓	✓
86		157.325	161.925		✓	HMCG SAR/MSI	
27		157.350	161.950			✓	✓
87		157.375			✓		
28		157.400	162.000			✓	✓
88		157.425			✓		
AIS 1	3	161.975	161.975				
AIS 2	3	162.025	162.025				

## Notes to table

1. Channel 06 may also be used for communications between ship stations and aircraft engaged in co-ordinated search and rescue operations. Ship stations must avoid harmful interference to such communications on Channel 06, as well as to communications between aircraft stations, ice breakers and assisted ships during ice seasons.
2. Channels 15 and 17 may also be used for onboard communications, provided that the effective radiated power does not exceed 1 watt.
3. Channels AIS 1 and AIS 2 are used for an automatic ship identification / surveillance system, capable of operating worldwide on the high seas, unless other frequencies are designated on a regional basis for this purpose.
4. Channels 75 and 76 should be used for navigation-related communication only. All precautions should be taken to avoid harmful interference to Channel 16, e.g. by limiting power to 1 watt or by means of geographical location.
5. These channels (10 or 73 depending on location) are also used by the Maritime and Coastguard Agency to broadcast Marine Safety Information in the UK only.
6. Channel 70 must be used exclusively for Digital Selective Calling for distress, safety and calling.
7. Channel 13 is designated for use on a worldwide basis as a navigation safety communication channel, primarily for inter-ship navigation safety communications.



## 8. Maritime Radio Accounting Authorities

### 8.1 What are MRAAs?

Maritime radio accounting authorities (MRAAs) collect and distribute telecommunications charges for non-emergency radio telephone and telex calls from ships into the international subscriber networks. An MRAA effectively acts as an intermediary between mobile subscribers and service providers/network operators.

Ofcom is responsible for appointing and monitoring MRAAs that are based in the UK or are authorised to account for UK registered ships. An MRAA's basic role, responsibilities and duties are set down in Article 58 of the ITU Radio Regulations and Appendix 2 of the International Telecommunication Regulations. Recommendation D90 of the ITU Telecommunication Standardization Sector gives directions on charging, accounting and refunds in the Maritime Mobile and Maritime Mobile- Satellite Services.

The above outlines an MRAA's purpose and function, and provides guidance on the role of both MRAAs and national administrations in promoting high standards of business efficiency and competitiveness within an effective regulatory framework.

### 8.2 Why are MRAAs needed?

Maritime Radio Traffic Accounting (MRTA) was set up to reduce the number and variety of bills and settlements passing between telecommunications network operators and ship-owners. Processing these bills and settlements (identifying calls, converting call charges to different currencies, reconciling these charges etc) required extensive administrative effort.

Historically, each MRAA was associated with a maritime radio equipment supplier. MRTA thus became an integral part of the supplier's normal business, which also included the supply of radio officers to vessels.

The market for mobile communications is changing rapidly, with the advent of satellite systems, hence terrestrial systems are no longer the sole means of

radio communications. For maritime mobile communications in particular, recent developments have brought far reaching changes in systems, equipment and procedures – for example:

- the introduction of the GMDSS (see Section 7);
- easier, more reliable access to international telephone and data networks; and
- the use of advanced billing systems such as credit/charge cards.

### 8.3 Financial responsibility

In the modern environment, an MRAA must be a business entity willing and able to provide a continuous worldwide service to its maritime subscribers (Ship Radio licensees and ship-owners). It must also have the resources and expertise necessary to handle the complexities of billing international mobile traffic.

An MRAA is responsible for:

- collecting charges from its subscribers for maritime terrestrial and satellite telecommunications services, on the basis of accounts received from service providers and network operators; and
- paying service providers and network operators for the telecommunication services used by those subscribers, and ensuring that these payments are made in accordance with the applicable ITU Regulations and Recommendations.

### 8.4 Information exchange

For the international maritime radio billing system to function properly, and to maintain effective quality control, information must be exchanged and disseminated promptly and accurately. MRAAs are therefore expected to:

- notify the appropriate service providers of new subscribers and of any change in existing subscribers' status (e.g. a change in ownership or flag, the cessation of contract or the deletion of a subscriber) – this notification should, as far as is practical, be immediate; and
- issue updated mobile subscriber lists to service providers regularly (at least every 90 days), with all changes clearly identified.

## 8.5 The role of national administrations

Ofcom is the UK administration responsible for MRAAs. Each national administration has two key roles:

### (a) Registration

Each national administration is responsible for:

- registering MRAAs based within its territory with the ITU; and
- allocating a unique Accounting Authority Identification Code (AAIC) to each MRAA – this consists of a two-letter country code followed by a two-digit numeric code denoting the particular MRAA. The AAIC is allocated by the administration where the MRAA is based, whether or not the MRAA is responsible for ships licensed by that administration.

A national administration may also designate MRAAs registered by other administrations to account for its own licensed ships. All such designations are notified to the ITU, but the AAIC's current status should first be confirmed with the administration of the country where the MRAA is based. Each administration therefore maintains, and sends to the ITU, two lists of recognised MRAAs:

- List A details those MRAAs that are authorised to account for ships licensed by the administration, whether or not they are based in its territory; and
- List B details all the MRAAs based within the administration's territory, whether or not they are authorised to account for ships licensed by the administration.

An MRAA will always appear on List B of its 'home' administration, but it does not have to be on that administration's List A for it to be accepted onto another administration's List A.

A combined alphabetical list of all recognised MRAAs, with their AAIC numbers, is also supplied to the ITU. Administrations must rapidly notify the ITU of any additions, amendments or deletions to their MRAA listings.

### (b) Regulatory

MRAAs' activities must be regulated, to maintain a competitive business environment and to ensure

that they operate on a sound financial and managerial basis. National administrations should therefore review the financial position and effectiveness of each MRAA annually.

Recommendation D90 urges every administration to ensure that there are no more than 25 MRAAs on its List A.

A review of Recommendation D90 would address the issue of monitoring performance and quality; this should help to foster a competitive environment by encouraging administrations to remove non-performing or dormant MRAAs from their listings.

## 8.6 MRAAs in the UK

Ofcom's regulatory policy aims to maintain a competitive business environment for UK-based MRAAs and those responsible for UK vessels. We have therefore instituted our own review procedure, and we will apply the Recommendation D90 limit of 25 List A MRAAs. Non-functional MRAAs are removed from the UK listings, and individual businesses are not permitted to operate with multiple AAIC numbers. We may invite new applications to be UK MRAAs if this is necessary to maintain effective competition or to provide for distinct market sectors in the field of maritime communications. Evidence of appropriate management expertise and financial standing, and a comprehensive business plan will normally be required.

The current UK listings of MRAAs are available from the Ofcom Licensing Centre – see Section 9.

## 8.7 Engaging the services of an MRAA.

It is your (the licensee's) responsibility to set up an account with the relevant Maritime Radio Accounting Authority if you intend using radio equipment for public telecommunication calls through Coast or Coast earth stations. You also need to ensure that the Maritime Radio Accounting Authority is entitled to act on behalf of UK licensed vessels. Contact details of MRAAs are given in "Ship Radio Guidance Notes for Licensing (Of 168a)", but please note that the list is being continually updated and the details should be checked with the relevant MRAA.

## 9. Contacts for Further Information

### 9.1 Ofcom Contacts

To obtain guidance on on-line/web related applications for Ship Radio and Ship Portable Radio licences, contact:

**Ofcom Licensing Centre**

PO Box 56373

London

SE1 9SZ

Tel: 020 7981 3131

Fax: 020 7981 3333

Email: [licensingcentre@ofcom.org.uk](mailto:licensingcentre@ofcom.org.uk)

Textphone: 020 7981 3043 – Please note that this number only works with special equipment used by people who are deaf or hard of hearing.

Website: [www.ofcom.org.uk](http://www.ofcom.org.uk)

For information and advice on a range of topics related to maritime radio, including EPIRBs, MRAAs (including the current UK lists of MRAAs) the use of maritime radio equipment (including the relevant UK Radio Interface Requirements), Coastal station radio and navigational aids licences, and amateur radio licence terms, please contact:

**Ofcom Licensing Centre**

PO Box 56373

London

SE1 9SZ

Tel: 020 7981 3131

Fax: 020 7981 3333

Textphone: 020 7981 3043 – Please note that this number only works with special equipment used by people who are deaf or hard of hearing.

Email: [licensingcentre@ofcom.org.uk](mailto:licensingcentre@ofcom.org.uk)

The Ofcom Licensing Centre can also assist with general enquiries about radio use. Information leaflets and other Ofcom publications are available free of charge on our website ([www.ofcom.org.uk](http://www.ofcom.org.uk)). Printouts can also be ordered from the Ofcom Licensing Centre.

### 9.2 Other contacts

For information about the international Radio Regulations, contact:

**International Telecommunication Union**

Place des Nations

CH 1211

Geneva 20

Switzerland

Website: [www.itu.int](http://www.itu.int)

For information on the Short Range Certificate for maritime radio operators, contact:

**Royal Yachting Association**

RYA House

Romsey Road

Eastleigh

Hampshire SO50 9YA

Tel: 02380 627400

Fax: 02380 627143

Website: [www.rya.org.uk](http://www.rya.org.uk)

For information on other maritime radio operator's certificates, contact:

**Association of Marine Electronic and Radio Colleges (AMERC)**

**Postal address for courier deliveries only**

AMERC NAC

c/o Wray Castele Ltd

Bridge Mills

Stramongate

Kendal

LA9 4UB

United Kingdom

Tel: +44 (0) 1539 742742

Fax: +44 (0) 1539 742743

Website: [www.amerc.ac.uk/maritime.html](http://www.amerc.ac.uk/maritime.html)

For information about the GMDSS, or if you are uncertain about the approval of maritime radio equipment, contact:

**Maritime and Coastguard Agency**

Spring Place  
105 Commercial Road  
Southampton  
SO15 1EG  
Tel: 02380 329100  
Tel: 0870 6006505  
Fax: 02380 329252  
Website: [www.mcga.gov.uk](http://www.mcga.gov.uk)

To find out about the EPIRB Registry or to report an accidentally activated EPIRB, contact:

**The EPIRB Registry**

Falmouth MRCC  
Pendennis Point  
Castle Drive  
Falmouth  
Cornwall TR11 4WZ  
Tel: + 44 (0)1326 211569  
Fax: + 44 (0)1326 319264  
E-mail: [epirb@mcga.gov.uk](mailto:epirb@mcga.gov.uk)

Contact details for maritime satellite systems For information on Inmarsat systems you can contact:

Inmarsat Customer Services Centre on:  
Tel: +44 (0)20 7728 1777  
Fax: +44 (0)20 7728 1142  
E-mail: [customer\\_care@inmarsat.com](mailto:customer_care@inmarsat.com)  
Mail: 99 City Road, London, EC1Y 1AX.  
Website: [www.inmarsat.com](http://www.inmarsat.com)

For information on Cospas-Sarsat systems you can contact:

**Cospas-Sarsat**

700 de la Gauchetiäre West  
Suite 2450, Montreal (Quebec) H3B 5M2  
Canada  
Email: [mail@cospas-sarsat.int](mailto:mail@cospas-sarsat.int)  
Tel: +1 514 954 6761  
Website:  
[www.cospas-sarsat.org/MainPages/indexEnglish.htm](http://www.cospas-sarsat.org/MainPages/indexEnglish.htm)











