



# CITRA

الهيئة العامة للاتصالات وتقنية المعلومات  
COMMUNICATION & INFORMATION TECHNOLOGY REGULATORY AUTHORITY

## **The Regulation for the Marine Radio Service**

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### **Appendix No. (2) Regulation for managing and regulating the Frequency Spectrum**

**Version 1.0**

## **Article (1)**

### **Definitions**

**The State:** It means the State of Kuwait.

**Authority:** It means Communication and Information Technology Regulatory Authority (CITRA) established under Law No. (37) of 2014.

**Law:** It means Law No. (37) of 2014 on establishing Communication and Information Technology Regulatory Authority (CITRA), as amended and the executive regulation thereof.

**Applicant:** It means any such person (government or private entity) applying for a permit in accordance with the regulations issued by the Authority.

**Application:** It means a request for a permit from the Authority on such form specified therefor, according to the procedures in force.

**Permit:** It means such radio service permit issued by the Authority, which allows the authorized person to use certain frequency bands and devices subject to the conditions stipulated in these regulations.

**Licensee:** It means such person (government or private entity) having a permit from the Authority.

**Base Line:** It means the "normal base line" as defined in the United Nations Convention on the Law of the Sea (1982 UNCLOS), including the marginal islands.

**Automatic Identification System (AIS):** It means such Automatic Tracking System based on recommendation M.1371 ITU-R, used on board the vessels and in vessel traffic services (VTS) to find out and determine the locations of vessels by means of electronic data interchange with other nearby vessels, AIS base stations, and satellites.

**Aids To Navigation (ATON):** It means such devices at coastal stations or mobile devices that provide navigational aids and determine the location.

**Base Station:** It means a fixed station in the land mobile service.

**Coastal Station:** It means a land station in the mobile marine service.

**Digital Selective Calling (DSC):** it is primarily used to identify ship-to-ship, ship-to-shore, and shore-to-ship radio phone calls and radio telex calls. DSC calls can also be made to individual stations, to groups of stations, or to "All Stations" accessible. A unique nine-digit marine service code is being assigned to each ship, shore station, and group equipped with DSC.

**Ground Station:** It means a station located either on the surface of the ground or in the main part of the atmosphere, and is intended to communicate with one or more space stations, or with one or more stations of the same type, by means of one or more reflecting satellites, or by other space objects.

**Beacon:** it is a fixed artificial navigation mark that is recognizable by its shape, color or illumination, and may carry several marine navigational aids.

**Emergency Position Indicating Radio Beacon (EPIRB):** It means such station within the mobile marine service from which the emissions contribute to the conduct of search and rescue operations.

**Global Maritime Distress and Safety System (GMDSS):** It means the Global Maritime Distress and Safety System.

**International Telecommunication Union (ITU):** It means the International Telecommunication Union; it is a specialized agency of the United Nations, which deals with communications and information technology matters.

**Long-Range Identification and Tracking (LRIT):** It means such system in accordance with Article V/19-1 of the International Convention for the Safety of Life at Sea (SOLAS Convention 1974).

**Marine Mobile Service:** It means a mobile radiocommunication service between coast stations and ship stations, or between ship stations, or between telecommunications stations associated on board. The stations of rescue vehicles and radio beacons stations for locating emergency locations may also participate in this service.

**Mobile Access and Retrieval System (MARS) database:** It means the database of the Mobile Access and Retrieval System managed by ITU.

**Mobile Maritime Service Identity (MMSI):** it is a nine-digit string that is transmitted over the radio path in order to identify ships.

**Maritime Identification Digits (MID):** it is used by manual communication facilities in order to determine the country of origin or the base area, through DSC messages, Automatic Transmitter Identification System (ATIS), and AIS, within the framework of MMSI.

**Narrowband Telegraphy with Direct Printing (NDPD):** It means the maritime telegraphy service as provided for in the recommendation No. ITU-R M.688.

**Personal Locator Beacons (PLBs):** It means distress signal radio beacons that track transmitters to help locate and identify boats, aircraft, and people in distress or danger.

**Port operations service:** It means a mobile marine service in a port or in the vicinity of a port, between coastal stations and ship stations, or between ship stations, with the aim of sending messages that deal exclusively with maneuvers, traffic, and safety of ships, as well as the safety of people in emergency situations.

**Radar:** It means radio detection and field determination.

**Radio Regulations (RR):** It means such regulations issued by the International Telecommunication Union (ITU) after each World Radiocommunication Conference, and which are ratified by the State of Kuwait.

**Radiocommunication service:** It means the transmission or reception of radio frequency, and may be used to transmit information, messages, sounds, or visual images, or to operate or control machinery and equipment.

**Search and Rescue (SAR):** It means such activities related to the search for people who are exposed to a disaster or imminent danger and providing them with aid and assistance.

**Network sharing systems:** It means land mobile radio systems with one or more cell/radio base stations, in which each cell provides one or several broadcast channels, which are assigned to users dynamically as soon as a connection is required.

**Vessel Traffic Service (VTS):** It means a safety service within the mobile maritime service, different from the port operations service, and it is between coastal stations and ship stations, or between ship stations, and aims to send messages that deal exclusively with vessel traffic.

**Vessel Traffic Service (VTS):** It means a service carried out by a competent authority, aiming to improve the safety and efficiency of vessel traffic and protect the environment. This service must have the ability to interact with and respond to ship traffic for traffic situations arising in the VTS area.

**Ship Station:** It means a mobile station in the mobile maritime service, which is on board a ship that is not permanently moored, and which is different from the station of a rescue vehicle.

**Ship Station Permit:** It means a permit issued by the Communication and Information Technology Regulatory Authority.

**SOLAS:** It means the International Convention for the Safety of Life at Sea of 1974 as amended.

**Gross Tonnage of the ship (GT):** It means the total size of the ship and includes all enclosed spaces as stipulated by the International Convention on Tonnage Measurement of Ships (1969), which was adopted by the International Maritime Organization (IMO).

**Net Tonnage of the ship (NT):** It means the size of all spaces used for goods, and the net tonnage may not be calculated as less than 30% of the gross tonnage as stipulated by the International Convention on Tonnage Measurement of Ships (1969), which was adopted by the International Maritime Organization (IMO).

**Station:** it means radiocommunication devices designated for transmission and reception, to provide radiocommunication service.

**VDES:** It means the VHF Data Exchange System in accordance with ITU-R M.2092.

**Wireless Equipment:** It means a class of communications equipment used in radio communications.

**WRC Conference:** It means the World Radiocommunication Conference of the International Telecommunication Union.

## **Article (2)**

### **Applications relative to Marine Radio Systems**

2.1 The Authority regulates the issuance of all such permits for marine radio service stations in the country.

2.2 The use of marine radiocommunication systems is permitted for the following:

- Shore-to-Ship/Ship-to-shore communication (port operations and coastal station public correspondence).
- Inter-ship Communications / Onboard Communications.
- Distress, safety and calling channels.
- Search and rescue.
- Automatic identification system (AIS).
- Buoys and Beacons.
- Marine radar.

2.3 Applying for a marine radio service permit for ships is as follows:

- **Fishing and Cruise Boats:** Those registered and holding a navigation license for a fishing boat from the Transportation Sector □ Maritime Transport Department □ the Ministry of Communications, with a length exceeds 35 feet, and with a total tonnage not exceeding GT300. As for the least tonnage, this is considered optional.
- **Ships:** Those registered and holding a navigation license for a ship from the Transportation Sector □ Maritime Transport Department □ the Ministry of Communications, which sails within the territorial waters of the State or in international waters, or with a total tonnage equal to or exceeding GT300.
- **Drilling ships and rigs** that need mobile maritime service identity (MMSI).

### Article (3)

#### Technical Conditions and Terms

3-1 The following table is a guideline regarding the permitted frequency bands for ships, their uses, and conditions of use:

Frequency Band	Uses	Terms of Use
415 – 526,5 KHZ	MF telegraphy (main use), Narrowband telegraphy with direct printing (NDPD), Digital Selective Calling (DSC)	The use must be in accordance with ITU Recommendation No.: GE85 – MM – R1
3800 – 1606,5 KHZ	MF Telephony (main use), Narrowband telegraphy with direct printing (NDPD),	Channel plan based on the Radio Regulations, Annex 17, and Annex 25
6, 1 – 30 MHZ	Medium frequency (MF) and high frequency (HF) radio	Channel plan based on the Radio Regulations, Annex 17, and Annex 25
123, 1 / 121,5 MHZ	Aviation search and rescue equipment	

121,5 MHZ	Emergency Position Indicating Radio Beacons (EPIRBs) and Personal Locator Beacons (PLBs)	Max Power: 200 Mega Watt
162,025 – 156,000 MHZ	Very high frequency radio (VHF)	Channel plan based on the Radio Regulations, Annex 18 Max Power: Mobile: 5 Watt Fixed: 25 Watt
406, 1 – 406 MHZ	Emergency Position Indicating Radio Beacons (EPIRBs) and Personal Locator Beacons (PLBs)	Max Powe: 5 Watt
2900 – 3100 MHZ	Radar	ITU-R M.1313 Max Power: 100 Watt
2930 – 2950 MHZ	Radar transmitter/receiver	ITU-R M.824 Max Power: 50 Watt
457, 5125 – 5875. 457 MHZ  467, 5125 – 5875, 467 MHZ	Ultra-high frequency (UHF) radio for communications on board	Restricted to ships within 3 nautical miles from the base line of the State of Kuwait. Radio regulations ITU-R M.1174 Max Power: 1 watt
5460 – 5650 MHZ	Radar	ITU-R M.1313 Max Power: 100 Watt
9200 – 9500 MHZ	Radar transmitter/receiver	ITU-R M.824 Max Power: 50 Watt
4, 13 – 14 GHZ	Radar	Only on a case-by-case evaluation

**3-2** The following VHF channel plan based on the Radio Regulations (RR), Annex 18 (Attachment – A) shall be used for channels allocation.

<b>Application</b>	<b>Channels</b>
Automatic identification and monitoring of ships	AIS – 1, AIS – 2
Coastal stations (public correspondence)	60 – 66, 20, 07, 1 – 5 21 □ 23, 80 □ 83 (to 1.1.2017) 28 (Data and Direct Telegraph) 24 □ 26, 84 – 86 (to 1.1.2019)
Distress, safety and call	16 (Emergency and distress calls only) 70 (DSC only)
Between ships	72 – 73, 69, 67, 13, 8 – 10, 6
Navigation-related communications	75, 76 (The radiated power is 1 Watt less)
In-port operations	11 □ 14 (simple operations) 5, 18 □ (dual operations) 87 □ 88, 1027, 1028 (simple operations after 1.1.2019)
Safety of sailing (between ships)	13
Search and rescue (air □ ships)	AIS 2, AIS 1, 16, 70, 6
Ships (on board)	17, 15 (Transmitting power does not exceed 1 Watt)
Ship traffic	11 □ 13, 68, 69, 71 (simple operations) 61, 62, 64, 65, 79 (dual operations) 80 (dual operations to 1.1.2019)
Coast to Ship (Shipping Agencies)	22
Communications on small boats	88, 63
Data exchange and E-mail (ITU-R M.1842)	21 – 23, 80 – 83 (after 1.1.2017)
VHF data exchange VDES / ITU-R M.2062)	24, 25, 84, 85 (after 1.1.2017)
	ASM – 2, ASM – 1, 86, 26 (after 1.1.2019)



### 3-3 Distress and safety communication frequencies:

- Such frequencies to be used in the Global Maritime Distress and Safety System (GMDSS) should be in accordance with Annex 15 of Radio Regulations.
- Such frequencies to be used in distress and safety communications not included in the Global Maritime Distress and Safety System (non-GMDSS) are 4125 KHZ and 6215 KHZ. Such details of the use of the same are stated in Annex 17 of Radio Regulations.

3-4 The Authority urges all ship stations to install the Global Maritime Distress and Safety System (GMDSS), while all such ship stations with gross tonnage equal to or exceeding GT 300 should carry ready-to-operate equipment of the Global Maritime Distress and Safety System (GMDSS) as stated in the International Convention for the Safety of Life at Sea (SOLAS) of 1974 as amended. The transportation requirements shall also include the Long-Range Identification and Tracking (LRIT) and an Emergency Position Indicating Radio Beacon (EPIRB).

3-5 The Authority urges all ship stations of all types to install the automatic identification system (AIS) for automatic tracking to know the locations of ships and identify them through electronic data exchange with other nearby ships, base stations for the automatic identification system, and satellites, for the sake of the safety and security of these ships.

## Article (4)

### Call Sign and Mobile Maritime Service Identity (MMSI)

The Authority shall specify such call sign of ship stations, the identification of such transmission issued by ship stations shall be made through the call sign. The series of call signs for the State of Kuwait shall begin with the symbol (9K) (assigned by the International Telecommunication Union (ITU)), while the Maritime Identification Digits (MID) for the State of Kuwait shall begin with 447.

Ship/Application	Mobile Maritime Service Identity (MMSI) No.
Registered Kuwaiti ships	447XXXXXX
Registered Kuwaiti ships, with satellite service	447XXX00
Small vessels	4471XXXX0

Port radio stations	994472XXX (available range is 994472000 – 994472999)
Navigation aids (physical automatic identification system)	994471XXX (available range is 994471000 – 994471999)
Navigational aids (virtual automatic identification system)	994476XXX (available range is 994476000 – 994476999)
Automatic identification system, transmitters participating in marine search and rescue systems	970XXYYYY
Small boats accompanying the mother ship	98447XXXX
Digital selective calling and mobile global navigation satellite system	8447XXXXX
Fixed-wing aircraft, participating in marine search and rescue systems	1114471XX (available range is 111447100 – 111447199)
Helicopters participating in marine search and rescue systems	1114475XX (available range is 111447500 – 111447599)
Coastal stations	004471XXX (available range is 004471000 – 004471999)

## **Article (6)**

### **Documents to be carried**

6-1 All licensed ships are required to carry the permit issued by the Authority.

6-2 All ship stations are required to carry equipment operators' certificates, with a record containing a summary of safety and distress communications made in addition to a list of marine ship stations and the identity of the marine mobile service for each (printed or in electronic form) and a list of coastal stations and special service stations (printed or in electronic form). As well as a manual for use by maritime mobile and maritime mobile-satellite services (printed or in electronic form).

## **Article (7)**

### **Permit Validity**

**7-1** The validity of the marine radio service permit shall be for a period of 5 years.

**7-2** Permits that have not been renewed for a period of one year from the date of their expiry shall be cancelled, while the permit holder should submit a new application to the Authority, and he shall be subject to the same procedures as a new applicant.

## **Article (8)**

### **Requirements for the Service Request**

The license applicant shall submit an official letter to the Authority, accompanied by such documents shown in Appendix No. (2).

## **Article (9)**

### **Licensee Obligations**

**9-1** The licensee shall be responsible for ensuring the use of marine radio service devices and equipment in accordance with the requirements, terms, conditions, and restrictions contained in this regulation.

**9-2** The use of any radio station on board ships is not permitted according to the Radio Regulations (RR.51.5A).

**9-3** The licensee shall adhere to the terms and conditions of this regulation, along with any such instructions issued by the Authority in the future.

## **Article (10)**

### **Penalties and Fines**

The sanctions and penalties stated in this law and in the applicable laws shall apply to whoever violates to the terms of this regulation and the Law No. (37) of 2014.

## **Article (11)**

### **The Data Base of the International Telecommunication Union**

The data base of the International Telecommunication Union currently includes information for the Maritime Radio Service related to the following:

- Ship stations (including such ships participating in the Global Maritime Distress and Safety System (GMDSS).
- Coastal stations.
- Addresses of the accounting authorities (Ministry of State for Services Affairs, Ministry of Communications).
- Addresses of the departments that are responsible for sending informative notifications.
- The Mobile Maritime Service Identity (MMSI) of search and rescue aircrafts.
- The Mobile Maritime Service Identity (MMSI) of the navigation automatic identification system (AIS) aids for Maritime Navigation (A to N).

## **Article (12)**

### **Coordination of Maritime Radio Service Frequencies and Data**

12-1 The Authority shall send the electronic notification of all data of the ship stations and the data of the coastal station to the International Telecommunication Union with the purpose of keeping all contents of MARS data base and the list of the coastal stations (IV list) and the list of ship stations (V list) updated.

12-2 The Authority shall send the electronic notification of all Mobile Maritime Service Identity (MMSI) of search and rescue aircraft, together with Visual Navigation Data (AIS) to the International Telecommunication Union.

12-3 The coordination of frequencies for marine radio stations is carried out through the Authority, as it is the only entity that is responsible for coordinating, allocating and registering frequencies internationally and regionally.

## Annex 1

### **According to the Radio Regulations issued by the International Telecommunication Union after WRC Conference – 2015**

Appendix (Rev. WRC-15) 18

**Table of transmission frequencies in the VHF band allocated to the maritime mobile service**  
(See Article 52).

Note A: See notes from (A to O) below for easier understanding of the table (WRC-15).

Note B: The table below identifies the channel numbers allocated to the maritime service in the VHF band that are based on a 25 kHz channel spacing, and on the use of multiple duplex channels. Channels are numbered and two-frequency channels are converted into single-frequency channels according to Tables 1 and 3 of Annex 4 of the Recommendation ITU-R M.1054 – 5. The table below also indicates the coordinated channels in which the digital technology identified in the most recent version of the Recommendation (WRC – 15) may be deployed.

Channel No.	Notes	Transmission Frequencies (MHZ)		Between Ships	Port Operations and Ship Traffic		Public Correspondence
		From ship stations	From coastal stations		Single Frequency	Two Frequencies	
60	M)	156,025	160,625		X	X	X
01	M)	156,050	160,650		X	X	X
61	M)	156,075	160,675		X	X	X
02	M)	156,100	160,700		X	X	X
62	M)	156,125	160,700		X	X	X
03	M)	156,150	160,750		X	X	X
63	M)	156,175	160,775		X	X	X
04	M)	156,200	160,800		X	X	X
64	M)	156,225	160,825		X	X	X
05	M)	156,250	160,850		X	X	X
65	M)	156,275	160,875		X	X	X
06	W)	156,300			X		
2006	S)	160,900	160,900				
66	M)	156,325	160,925		X	X	X

07	M)	156,350	160,950		X	X	X
67	H)	156,375	156,375	X	X		
08		156,400		X			
68		156,425	156,425		X		
09	T)	156,450	156,450	X	X		
69		156,475	156,475	X	X		
10	H), F)	156,500	156,500	X	X		
70	W), Y)	156,525	156,525	<b>Digital Selective Calling (DSC) for Distress, safety, and call</b>			
11	F)	156,550	156,550		X		
71		156,575	156,575		X		
12		156,600	156,600		X		
72	T)	156,625		X			
13	K)	156,650	156,650	X	X		
73	H), T)	156,675	156,675	X	X		
14		156,700	156,700		X		
74		156,725	156,725		X		
15	Z)	156,750	156,750	X	X		
75	N), Q)	156,775	156,775		X		
16	W)	156,800	156,800	<b>Distress, safety, and call</b>			
76	N), Q)	156,825	156,825		X		
17	Z)	156,850	156,850	X	X		
77		156,875		X			
18	M)	156,900	161,500		X	X	X
78	M)	156,925	161,525		X	X	X
1078		156,925	156,925		X		
2078	MM)		161,525		X		
19	M)	156,950	161,550		X	X	X
1019		156,950	156,950		X		
2019	MM)		161,550		X		
79	M)	156,975	161,575		X	X	X

1079		156,975	156,975		X		
2079	MM)		161,575		X		
20	M)	157,000	161,600		X	X	X
1020		157,000	157,000		X		
200	MM)		161,600		X		
80	TH), TH1)	157,025	161,625		X	X	X
21	TH), TH1)	157,050	161,650		X	X	X
81	TH), TH1)	157,057	161,675		X	X	X
22	TH), TH1)	157,100	161,700		X	X	X
82	KH), TH), TH1)	157,125	161,725		X	X	X
23	KH), TH), TH1	157,150	161,750		X	X	X
83	KH), TH), TH1	157,175	161,775		X	X	X
24	TH), TH TH), KH), AAA)	157,200	161,800		X	X	X
1024	TH), TH TH), KH), AAA)	157,200					
2024	TH), TH TH), KH), AAA)	161,800	161,800	X (digital only)			
84	TH), TH TH), KH), AAA)	157,225	161,825		X	X	X
1084	TH), TH TH), KH), AAA)	157,225					

2084	TH), TH TH), KH), AAA)	161,825	161,825	X (digital only)			
25	TH), TH TH), KH), AAA)	157,250	161,850		X	X	X
1025	TH), TH TH), KH), AAA)	157,250					
2025	TH), TH TH), KH), AAA)	161,850	161,850	X (digital only)			
85	TH), TH TH), KH), AAA)	157,275	161,875		X	X	X
1085	TH), TH TH), KH), AAA)	157,275					
2085	TH), TH TH), KH), AAA)	161,875	161,875	X (digital only)			
26	TH), TH TH), KH)	157,300	161,900		X	X	X
1026	TH), TH TH), KH)	157,300					
2026	TH), TH TH), KH)		161,900				
86	TH), TH TH), KH)	157,325	161,925		X	X	X
1086	TH), TH TH), KH)	157,325					



2086	TH), TH TH), KH)		161,925				
27	O), O O)	157,350	161,950			X	X
1027	O), O O)	157,350	157,350		X		
2027 *	O)	161,950	161,950				
87	O), O O)	157,375	157,375		X		
28		157,400	162,000			X	X
1028	O), O O)	157,400	157,400		X		
2028 *	O)	162,000	162,000				
88	O), O O)	157,425	157,425		X		
AIS 1	W), L), A)	161,975	161,975				
AIS 2	W), L), A)	162,025	162,025				

\* As of January 1<sup>st</sup>, the channel 2027 SATAN shall be called ASM 1 and the channel 2028 shall be called ASM 2.

Formatting Note: The numbering of the Notes below is provisional and will be adapted during the final preparation of the new edition of the Radio Regulations.

#### **Table Notes**

#### **General Notes**

A) Agencies may name some frequencies of service between ships or of port operations or of the service of ship traffic for light aircraft or helicopters (hovercraft) to use in communicating with ships or coastal stations participating in support operations, especially naval ones in such conditions indicated by nos. 51.69, 51.73, 51.74, 51.75, 51.76, 51.77 and 51.78. However, the use of such channels shared with the service of public correspondence shall depend on a prior agreement between beneficiary agencies and affected agencies.

B) The channels of the current appendix, except for channels 06, 13, 15, 16, 17, 70, 75 and 76, may be used for the transmission of high-speed data, provided that special arrangements are made between the beneficiary agencies and affected agencies.

C) The channels of the current appendix, except for channels 06, 13, 15, 16, 17, 70, 75 and 76, may be used for telegraphy with direct printing and data transmission systems, provided that special arrangements are made between the beneficiary agencies and affected agencies. (WRC-12)

D) The frequencies stated in this table may also be used for radio communications on internal water lines within such conditions stated in No. 226.5.

E) The agencies may interleave channels for spacing of 12.5 KHZ on the basis of not causing interference for the channels of 25 KHZ according to the most recent version of the recommendation ITU-R M.1084, provided that:

- This does not affect the 25 kHz channels related to the frequencies stipulated in this appendix, which are reserved for distress and safety communications and AIS and data exchange system in the maritime mobile service, especially channels nos. 06, 13, 15, 16, 17, 70, AIS 1 and AIS 2, nor shall it affect such technical characteristics provided for in the Recommendation ITU-R M.489 – 2 related to these channels.

- The implementation of the 5.12 kHz channel interleaving process, and the consequent national claims, be subject to coordination with the affected departments.

#### **Specific Notes**

F) The frequencies 156,300 MHZ (channel 06), 156,525 MHZ (channel 70), 156,800 MHZ (channel 16), 161,975 MHZ (channel AIS 1) and 162,025 (channel AIS 2) may also be used by aircraft stations for the purposes of search and rescue and for such other communications related to safety. (WRC-07)

G) Channels 15 and 17 may also be used for local communications on board, provided that the effective radiated power shall not exceed W1 and within the limits of the national regulating rules of the concerned department in whose territorial waters these canals operate.

H) The concerned agencies may use these frequencies (channels 10, 67 and 73) in the European Maritime Zone and in Canada, as needed, for communications between ship stations, aircraft stations and land stations participating in such coordinated search and rescue operations and in pollution control operations in local areas and within such conditions specified in nos. 51.69, 51.73, 51.74, 51.75, 51.76, 51.77 and 51.78.

I) The first three frequencies are preferred to be used as per Note A) are 156,450 MHZ (channel 09), 156,625 MHZ (channel 72) and 156,675 MHZ (channel 73).

J) The channel 70 should be used exclusively for the communications of distress, safety and call in the framework of digital selective calling (DSC).

K) Channel 13 is reserved worldwide for navigational communications between ships, and in particular for safety of navigation communications between ships. It may also be used in ship traffic and port operations services, provided that the national regulations of the concerned departments are adhered to.

L) Channels (AIS 1 and AIS 2) are used in an automatic identification system that can provide the operation on global basis, unless other frequencies specified on a regional basis are assigned for this purpose. Such use should be in accordance with the most recent version of the recommendation ITU-R M.1371. (WRC-07)

M) These channels may be operated as single-frequency channels, subject to the coordination with the affected departments. The following conditions shall apply to the use in single frequency:

- The ship stations and the coastal stations may operate the lower frequency segment of these channels as single-frequency channels.
- The transmission using higher frequency segment of these channels shall be limited to the coastal stations.
- The ship stations may use the higher frequency segment of these channels for transmission if it is allowed by the departments and specified in the local regulations. All precautions should be taken to avoid harmful interference on channels AIS 1, AIS 2 and 2027 سلطان (WRC-\*202815).

N) As of January 1<sup>st</sup>, 2019, the channel 2027 SATAN shall be called ASM 1 and the channel 2028 shall be called ASM 2.

O) The use of channels (75 and 76) should be limited only to such communications related to navigation, except for AIS, while precautions should be taken to avoid harmful interference on channel 16 through limiting the out power to 1W (WRC-12). (SUP -WRC-21)

P) In addition, the channels AIS 1 and AIS 2 may be used for mobile satellite service (from land to space) for receiving of transmissions of AIS from ships. (WRC-07)

Q) When using channels (10 and 11), precautions should be taken to avoid harmful interference on channel 70. (WRC-07)

R) This frequency is reserved in the maritime mobile service for trial use for future applications or systems (such as the new applications of AIS, systems of a person fallen from a boat, and etc.). This process, if allowed by the departments for trial use, shall not cause any such harmful

interference for such stations operating in fixed and mobile services or in claiming the protection from the same. (WRC-21)

S) Channels 75 and 76 are allocated also for mobile satellite service (from land to space) for the receiving of long-range radio messages of AIS from the ships (message 27, see the most recent version of recommendation ITU-R M.1371. (WRC-21)

T) In zones 1 and 3:

The frequency bands of 157,200 – 157,325 MHz and 161,800 – 161,925 MHz (corresponding to channels: 24, 84, 25, 85, 26 and 86) may be used until January 1<sup>st</sup>, 2017, for digitally regulated emissions, subject to coordination with the affected agencies. Such stations using these channels or the frequency bands for digitally regulated emissions shall not cause any such harmful interference for such other stations operating in accordance with Article 5 or in claiming the protection from the same.

The frequency bands of 157,200 – 157,325 MHz and 161,800 – 161,925 MHz (corresponding to channels: 24, 84, 25, 85, 26 and 86) shall be allocated until January 1<sup>st</sup>, 2017, for the use of the VHF Data Exchange System (VDES) stated in detail in the most recent version of recommendation ITU-R M.2069. These frequency bands may also be used for analogue modulation stated in detail in the most recent version of recommendation ITU-R M.1084 by such department desires to do so, taking into account not to cause harmful interference or to claim protection from other stations in the maritime mobile service that use digitally modified emissions, provided that coordination with the affected departments is concerned. (WRC-15)

T T) In zone 2, the frequency bands of 157,200 – 157,325 MHz and 161,800 – 161,925 MHz (corresponding to channels: 24, 84, 25, 85, 26 and 86) shall be allocated for digitally regulated emissions in accordance with the most recent version of recommendation ITU-R M.1842.

In Canada and Barbados, it is possible to use the frequency range 157,200 – 157,325 MHz and 161,800 – 161,578 MHz (that correspond to the channels 24,84,25, 85) starting from 1 January 2019, to the digitally regulated emissions, like these stated in details, in the latest version of the recommendation ITU-R M. 2092, provided coordinating with the affected departments (WRC-15)

V) The frequency range 157,125 – 157,325 MHz and 161,727- 161,925 (that correspondence to the channels (86, 26, 85,25, 84, 24, 83, 23, 82) will be allocated to the digitally regulated emissions, starting from 1 January 2017, in Angola, Botswana, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Democratic Republic of the Congo, Seychelles, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe and in China the frequency range 157,150 – 157,325 MHz, and 161,750 – 161,925 MHz (that correspondence to the channels (86,26,85,25,84,24,83,23) will be allocated to the digitally regulated emissions, starting from 1 January 2017 (WRC-12)

W) It is possible to operate these channels either as single or dual frequency channels, provided coordinating with the affected departments (WRC-12)

X) It is possible to use these channels until 1 January 2019, with the purpose of the possible testing automatic identification system applications AIS in the future without causing harmful interference to the existing applications and the stations operating in the fixed and mobile service or claiming protection from them.

Starting from 1 January 2019, each of these channels will be divided into two simple channels.

The channels 2027, 2028 called ASM 1, ASM 2, respectively for private messages for specific (ASM) as is indicated in the latest version of the recommendation ITU-R-2092. (WRC-15)

AAA) It is possible starting from 1 January 2019 to merge the channels 85, 25, 84, 24 to form A dual private channel with a special bandwidth 100 KHz in order to operate the earth component indicated in the latest version of the recommendation ITU-R-2092. (WRC-15)

MM) Transmission on these channels is restricted to the coastal stations and it is possible to use these channels by the ship stations provided that the departments allow this and to be determined by the national regulations and to take all the precautions to avoid any

harmful interference on the channels AIS 1, AIS 2, 2027 Sultan, 2028 Sultan (WRC-15) Sultan, starting from 1 January 2019, the channel 2027 will be called ASM 1, and the channel 2028 will be called ASM 2.

U1) In the zones 1, 3

It is possible to use the frequency range 157,025 – 157,175 MHz and 161,625 – 161,775 MHz (that correspondence to the channels (83, 23, 82, 22, 81, 80) till 1 January 2017, for the digitally regulated emissions, provided coordinating with the affected departments.

The stations that will use these channels or frequency range for the digitally regulated emissions will not cause any harmful interference with the other stations operating according to article 5 or in claiming protection from them.

The frequency range 157,025 – 157,100 MHz and 161,625 – 161,700 MHz (that correspond to the channels (22,81,21,80) starting from 1 January 2017, to be used for the digital systems stated in details in the latest version of the recommendation ITU-R M.1842, by using multiple adjacent channels with frequency 25 KHz.

It is possible to use the frequency range 157,150 – 175,157 MHz, and 161,750- 161,775 MHz (that correspond to the channels (83,23) starting from 1 January 2017 for the use of the digital systems stated in details in the latest version of the recommendation ITU-R M.1842, by using multiple adjacent channels with frequency 25 KHz.

The frequencies 157,125 MHz, 161,725 MHz (that correspond to the channels 82) starting from 1 January 2017, to use the digital systems stated in details in the latest version of the recommendation ITU-R M.1842

It is possible also to use the frequencies 157,025 – 157,175 MHz, and 161,625- 161,775 MHz (that correspond to the channels (83, 23, 82, 22, 81, 21, 80) for the symmetric modulation stated in details in the latest version of the recommendation ITU-R M.1084 by the department that wishes to do so provided not claiming for protection from other stations in the marine mobile service using the digitally modified emissions and also provided the affected departments (WRC-15).

XV) These channels in the United States are used in communication between ship stations and the coastal stations for purposes of general correspondence (WRC-15)

XX) The channels 1027, 1028, 87, 88 are used starting from 1 January 2019, as analog Single Frequency Channels for the port operations and ships movement (WRC-15)

**Appendix (2)**  
**Requirements of Marine Radio Service**

	<b>New</b>	<b>Renewal</b>	<b>Amendment</b>	<b>Cancellation</b>
<b>Service Description</b>	It is the service through which a permit is granted to use the wireless devices on board of international, coastal ships, fishing and excursion boats, and also granting permits to use the wireless devices and coastal stations for purposes of navigation and marine safety	It is the service through which a permit is renewed to use the wireless devices on board of international, coastal ships, fishing and excursion boats, and also granting permits to use the wireless devices and coastal stations for purposes of navigation and marine safety	It is the service through which a permit is amended to use the wireless devices on board of international, coastal ships, fishing and excursion boats, and also granting permits to use the wireless devices and coastal stations for purposes of navigation and marine safety	It is the service through which a permit is cancelled to use the wireless devices on board of international, coastal ships, fishing and excursion boats, and also granting permits to use the wireless devices and coastal stations for purposes of navigation and marine safety
<b>Service Validity</b>	Five years from the date of payment of the fees of the radio permit on board of international, coastal ships, fishing and cruise boats	Five years from the date of payment of the fees of the radio permit on board of international, coastal ships, fishing and cruise boats.	The period of the permit validity is not changed	Not valid

		One year from the date of payment of the radio permit for the coastal stations.		
Expected Time	5 working days	5 working days	5 working days	5 working days
Required Documents	<ul style="list-style-type: none"> <li>- A list including all wireless devices on the boat, ship or steamer in details (trade mark of the device/ device model/device transmission power/number of devices for each model</li> <li>- Attaching the technical specifications of the devices (Attaching all the technical catalogues for the devices or antennas used in the permit)</li> <li>- Registration certificate of the boat/ ship/steamer by</li> </ul>	<ul style="list-style-type: none"> <li>- A copy of the registration record of the ship/ boat.</li> <li>- An official letter of renewing the permit addressed to the Authority.</li> <li>- Devices register form for the ship</li> </ul>	<ul style="list-style-type: none"> <li>- Attaching a loss report from the Ministry of Interior in the event of the loss of devices.</li> <li>- An official letter addressed to the Authority of amending the permit.</li> <li>- Devices register form for the ship</li> </ul>	<ul style="list-style-type: none"> <li>- An official letter requesting the cancellation of the permit addressed to the Authority.</li> </ul>



	<p><b>Maritime Transport Administration.</b></p> <ul style="list-style-type: none"> <li>- Filling and attaching the application form allocated for the service</li> <li>- An official letter requesting the permit, addressed to the Authority.</li> </ul>			
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