



Industry
Canada

Industrie
Canada

CPC-2-3-03

Issue 1

April 2008

Spectrum Management and Telecommunications

Client Procedures Circular

Frequency Bands in the Maritime Mobile Service and Maritime Radionavigation Service

Preface

Client Procedures Circulars describe the various procedures or processes to be followed by the public when dealing with Industry Canada. The information contained in these circulars is subject to change without notice. It is therefore suggested that interested persons consult the nearest district office of Industry Canada for additional details. While every reasonable effort has been made to ensure accuracy, no warranty is expressed or implied. As well, these circulars have no status in law.

Comments and suggestions may be directed to the following address:

Industry Canada
Radiocommunications and
Broadcasting Regulatory Branch
300 Slater Street
Ottawa, Ontario
K1A 0C8

Attention: DOS

E-mail: spectrum_pubs@ic.gc.ca

All Spectrum Management and Telecommunications publications are available on the following website: <http://ic.gc.ca/spectrum>.

Contents

1.	Principle	1
2.	Mandate	1
3.	Related Documents	1
4.	Policy	1
4.1	VLF, LF and MF	1
4.2	HF and VHF	5
4.3	UHF and SHF	9

1. Principle

The Minister of Industry, through the *Department of Industry Act*, the *Radiocommunication Act* and the *Radiocommunication Regulations*, with due regard to the objectives of the *Telecommunications Act*, is responsible for spectrum management in Canada. As such, the Minister oversees the development of national policies and goals for spectrum resource use and ensures effective management of the radio frequency spectrum.

As a participating member of the International Telecommunication Union (ITU), Canada, through Industry Canada, protects the right of access of Canadians to the radio frequency spectrum.

2. Mandate

Section 5 of the *Radiocommunication Act* authorizes the Minister to plan the allocation and use of the radio frequency spectrum.

3. Related Documents

Canadian Table of Frequency Allocations

International Telecommunication Union - *Radio Regulations*

- Article 5, Chapter VII (Articles 30 to 34) and Chapter IX (Articles 46 to 58); and
- Appendices 15, 17, 18, and 25.

4. Policy

As part of their ongoing spectrum allocation activities, the Department and the ITU have allocated the frequency bands indicated below for use by stations in the Maritime Mobile Service. These tables reflect the decisions of the ITU's World Radiocommunication Conference - 2003 and the *Canadian Table of Frequency Allocations*, 2005 Edition.

4.1 VLF, LF and MF

Abbreviations

BW	Bandwidth
DSC	Digital Selective Calling
HF	High-frequency (3-30 MHz)
LF	Low-frequency (30-300 kHz)
MF	Medium-frequency (300-3000 kHz)
MSI	Maritime Safety Information

NAVTEX	Navigational and Meteorological Warning Text Broadcasting System
NBDPWT	Narrowband Direct-Printing Wireless Telegraphy
R/T	Radio Telephony
SSB	Single Sideband
SHF	Super Ultra-high Frequency (3-30 GHz)
Tx	Transmission
UHF	Ultra-high Frequency (300-3000 MHz)
VHF	Very-high Frequency (30-300 MHz)
VLF	Very-low Frequency (3-30 kHz)
W/T	Wireless Telegraphy (Radio Telegraphy)

Frequency Band (kHz)	Allocation Status	Details
14 -19.95	MARITIME MOBILE co-primary with FIXED	W/T - A1A and F1B (Digital SSB (J2B or J7B) may be used provided the occupied BW does not exceed that of the permitted W/T signal.)
20.05-70	MARITIME MOBILE co-primary with FIXED	W/T - A1A and F1B (Digital SSB (J2B or J7B) may be used provided the occupied BW does not exceed that of the permitted W/T signal.)
70-90	MARITIME MOBILE co-primary with FIXED and MARITIME RADIONAVIGATION with Radiolocation secondary	W/T - A1A and F1B (Digital SSB (J2B or J7B) may be used provided the occupied BW does not exceed that of the permitted W/T signal.)
110-130	MARITIME MOBILE co-primary with FIXED and MARITIME RADIONAVIGATION with Radiolocation secondary	W/T - A1A and F1B Digital - A2C, F1C, J2B, J7B R/T - A3C and F3C
130-160	MARITIME MOBILE co-primary with FIXED	W/T - A1A and F1B Digital - A2C, F1C, J2B, J7B R/T - A3C and F3C

Frequency Band (kHz)	Allocation Status	Details
275-285	Maritime radionavigation (radiobeacons) and Aeronautical mobile secondary to AERONAUTICAL RADIONAVIGATION	W/T - A2A and A2H
285-315	MARITIME RADIONAVIGATION (radiobeacons) co-primary with AERONAUTICAL RADIONAVIGATION	W/T - A2A and A2H (Supplementary navigational information may be transmitted in the maritime radionavigation service using narrow-band techniques provided that no harmful interference is caused to radiobeacon stations in the radionavigation service.)
315-325	MARITIME RADIONAVIGATION (radiobeacons) with Aeronautical radionavigation secondary	W/T - A2A and A2H (Supplementary navigational information may be transmitted in the maritime radionavigation service using narrow-band techniques provided that no harmful interference is caused to radiobeacon stations in the radionavigation service.)
325-335	Maritime Radionavigation and Aeronautical mobile secondary to AERONAUTICAL RADIONAVIGATION	W/T - A2A and A2H

Frequency Band (kHz)	Allocation Status	Details	Usage
415-495	MARITIME MOBILE with Aeronautical radionavigation secondary	W/T - A1A and F1B 490 kHz	- NAVTEX - Coast Station Tx only - Weather - Navigation - NBDP W/T
495-505	MOBILE (distress and calling)	W/T - A1A and F1B Distress/Safety	
505-510	MARITIME MOBILE	W/T - A1A and F1B	
510-525	MOBILE co-primary with AERONAUTICAL RADIONAVIGATION	W/T - A1A and F1B 518 kHz	- NAVTEX - Coast Station Tx only - Weather - Navigation - NBDB W/T
2065-2107	MARITIME MOBILE	R/T - R3E and J3E 1 kW maximum output power	
2170-2173.5	MARITIME MOBILE	R/T - R3E and J3E 400 W maximum output power	
2173.5-2190.5	MOBILE (distress and calling) only	R/T - R3E and J3E 2 174.5 kHz 2 182 kHz 2 187.5 kHz	- Distress - Safety - NBDP W/T - Distress - Safety - R/T - Distress - Safety - DSC
2190.5-2194	MARITIME MOBILE	R/T - R3E and J3E 400 W maximum output power	

4.2 HF and VHF

Frequency Band (MHz)	Allocation Status	Details	Usage
4.000-4.063	MARITIME MOBILE co-primary with FIXED	R/T - R3E and J3E	- Ship Station
4.063-4.438	MARITIME MOBILE	R/T - R3E and J3E	
		4.125 MHz	- Distress - Safety - R/T
		4.1775 MHz	- Distress - Safety - NBDP W/T
		4.2075 MHz	- Distress - Safety - DSC
		4.2095 MHz	- NAVTEX - Coast Station Tx only - Navigation - Weather
6.2-6.525	MARITIME MOBILE	R/T - R3E and J3E	
		6.215 MHz	- Distress - Safety - R/T
		6.268 MHz	- Distress - Safety - NBDP W/T
		6.312 MHz	- Distress - Safety - DSC
		6.314 MHz	- Safety - NBDP W/T
8.1-8.195	MARITIME MOBILE co-primary with FIXED	R/T - R3E and J3E	

Frequency Band (MHz)	Allocation Status	Details	Usage
8.195-8.815	MARITIME MOBILE	R/T - R3E and J3E	
		8.291 MHz	- Distress - Safety - R/T
		8.364 MHz	- Search/Rescue - R/T
		8.375 MHz	- Distress - Safety - DSC
		8.3765 MHz	- Distress - Safety - NBDP W/T
		8.4145 MHz	- Distress - Safety - DSC
8.195-8.815	MARITIME MOBILE	8.4165 MHz	- MSI - Coast Station Tx only - Safety - NBDP W/T
		12.23-13.2	
		MARITIME MOBILE	
		R/T - R3E and J3E	
		12.29 MHz	- Distress - Safety - R/T
		12.52 MHz	- Distress - Safety - NBDP W/T
12.577 MHz	- Distress - Safety - DSC		
12.579 MHz	- MSI - Coast Station Tx only - Safety - NBDP W/T		

Frequency Band (MHz)	Allocation Status	Details	Usage
16.36-17.41	MARITIME MOBILE	R/T - R3E and J3E 16.42 MHz	- Distress - Safety - R/T
		16.695 MHz	- Distress - Safety - NBDPWT
		16.8045 MHz	- Distress - Safety - DSC
		16.8065 MHz	- MSI - Coast Station Tx only - Safety - NBDPWT
18.78-18.9	MARITIME MOBILE	R/T - R3E and J3E	
19.68-19.8	MARITIME MOBILE	R/T - R3E and J3E 19.6805 MHz	- MSI - Coast Station Tx only - Safety - NBDPWT
22-22.855	MARITIME MOBILE	R/T - R3E and J3E 22.376 MHz	- MSI - Coast Station Tx only - Safety - NBDPWT
25.07-25.21	MARITIME MOBILE	R/T - R3E and J3E	
26.1-26.175	MARITIME MOBILE	R/T - R3E and J3E 26.1005 MHz	- MSI - Coast Station Tx only - Safety - NBDPWT

Frequency Band (MHz)	Allocation Status	Details	Usage
156.050-156.7625	MOBILE co-primary with FIXED with priority given to the maritime mobile service in relevant bands and areas	R/T - F3E/G3E 156.3 MHz 156.525 MHz 156.65 MHz	- Search/Rescue - Intership - Ships/Aircraft - R/T - Distress - Safety - DSC - Safety - Intership - R/T
156.7625-156.8375	MARITIME MOBILE (distress and calling) only	R/T - F3E/G3E 156.8 MHz	- Distress - Safety - R/T
156.8375-174	MOBILE co-primary with FIXED with priority given to the maritime mobile service in relevant bands and areas	R/T - F3E/G3E 161.975/161.980 MHz GMSK/FM F1D/G1D, F2D/G2B 162.025/162.030 MHz GMSK/FM F1D/G1D, F2D/G2B	- AIS - AIS
216-220	MARITIME MOBILE co-primary with FIXED with Radiolocation secondary	R/T - F3E	

4.3 UHF and SHF

Frequency Band (GHz)	Allocation Status	Details
0.456-.459	MARITIME MOBILE Fixed	On-board communication Reference ITU-R RR Nos. 5.287 and 5.288
2.85-2.90	AERONAUTICAL RADIONAVIGATION and MARITIME RADIONAVIGATION Radiolocation	Ground-based Radar - P0N
5.47-5.57	MARITIME MOBILE RADIONAVIGATION with Radiolocation secondary	Radar - P0N
5.57-5.650		
8.85-9.00	MARITIME MOBILE RADIONAVIGATION co-primary with RADIOLOCATION	Radar - P0N
9.20-9.93	MARITIME MOBILE RADIONAVIGATION co-primary with RADIOLOCATION	Radar - P0N