



Industry
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RIC-2
Issue 3
April 2000

Spectrum Management and Telecommunications Policy

Radiocommunication Information Circular

Standards for the Operation of Radio Stations in the Amateur Radio Service

Radiocommunication Information Circulars are issued for the guidance of those engaged in radiocommunications in Canada.

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1. Scope

This document sets out the standards for the operation of radio stations in the amateur radio service. Operators must comply with these provisions in accordance with sections 45, 52 and 53 of the *Radiocommunication Regulations*.

2. Definitions

For the purposes of this standard,

"amateur station" means a radio station operated in the amateur radio service;

"foreign amateur" means an individual who holds:

- (a) an amateur radio operator licence issued by the Government of the United States, where the holder is a citizen and resident of the United States; or
- (b) a ministerial authorization in accordance with the provisions of paragraph 9(2)(i) of the *Radiocommunication Regulations*;

"regulations" means the *Radiocommunication Regulations*.

3. Frequency Bands and Qualifications

An amateur station may operate within the frequency bands set out in Column I of an item in Schedules I, II and III for that operator's qualifications set out in Column IV.

3.1 Foreign Amateur Equivalencies

1. A foreign amateur who is not qualified to send and receive in Morse code may operate an amateur station in Canada in accordance with the provisions applicable to the holder of an Amateur Radio Operator Certificate with Basic and Advanced Qualifications.
2. A foreign amateur who is qualified to send and receive in Morse code at a speed of at least 5 w.p.m. may:
 - (a) operate an amateur station in Canada in accordance with the provisions applicable to the holder of an Amateur Radio Operator Certificate with Basic Qualification; and
 - (b) transmit radiotelegraphy signals using on-off keying in all frequency bands below 30 MHz set out in Schedule I.
3. A foreign amateur who is qualified to send and receive in Morse code at a speed of at least 12 w.p.m. may operate an amateur station in Canada in accordance with the provisions applicable to the holder of an Amateur Radio Operator Certificate with Basic, Morse Code (12 w.p.m.) and Advanced Qualifications.

4. Bandwidths

1. The bandwidth of a transmitted signal shall be no greater than the maximum bandwidth set out in Column II of an item of Schedule I for the frequency band set out in Column I of that item.
2. The bandwidth of a signal shall be determined by measuring the frequency band occupied by that signal at a level that is 26 dB below the maximum amplitude of that signal.

5. Frequencies for Radio Control of Models

The frequency for the radio control of a model is limited to any frequency within the frequency bands above 30 MHz set out in Schedule I.

6. Communications on behalf of Third Parties

1. The exchange of radio amateur communications on behalf of a third party is permitted only with amateur stations located in the following countries:

Antigua and Barbuda	Honduras
Australia	Israel
Bolivia	Jamaica
Chile	Mexico
Columbia	Nicaragua
Costa Rica	Paraguay
Dominica	Peru
Dominican Republic	St. Vincent and the Grenadines
El Salvador	Trinidad and Tobago
Grenada	United States of America
Guatemala	Uruguay
Guyana	Venezuela
Haiti	

2. For the purposes of this standard, messages originating from or destined to the following are not communications on behalf of a third party:
 - (a) a person authorized to operate in the amateur radio service by Canada or any other nation;
 - (b) the Canadian Forces Affiliated Radio Service (CFARS); and
 - (c) the United States Military Affiliated Radio System (MARS).

7. Operation Outside Canada

1. An amateur station that is operating on board a ship in international waters or on board an aircraft in international airspace may operate on any frequency within the frequency bands and corresponding bandwidths set out in Schedule I, II or III, as the case may be.
2. For the purposes of Schedules I, II and III, Regions 1, 2 and 3 are defined in Article 8 of the *Radio Regulations* of the International Telecommunication Union, as amended from time to time.

8. Interference

Transmissions from an amateur station shall not cause harmful interference to a station operating in another service nor be protected from interference caused by a station operating in another service in the same frequency band as set out in any item designated with the number 1 in Column III of Schedule I in accordance with the provisions of sections 52 and 53 of the regulations.

9. Station Identification

1. The operator of an amateur station in Canada shall identify the station by transmitting the call sign assigned to that station.
2. The operator of an amateur station licensed by the Government of the United States shall identify the station:
 - (a) by transmitting the call sign assigned to the licensee's station by the Federal Communications Commission;
 - (b) if transmitting:
 - (i) by radiotelephony, by adding the word "mobile" or "portable", or
 - (ii) by radiotelegraphy, by adding an oblique character ("/"); and
 - (c) by adding the Canadian amateur call sign prefix set out in Column I of an item of Schedule IV for the geographical location of the station set out in Column II of that item.
3. The operator of any amateur station shall transmit the applicable identification referred to in subsection (1) or (2) in English or in French, at the beginning and at the end of each period of exchange of communication or test transmission, and at intervals of not more than 30 minutes throughout the period of exchange of communication.

10. Restrictions on Capacity and Power Output

The transmitting power of an amplifier installed at an amateur station shall not be capable of exceeding by more than 3 dB the limits on transmitting power described in this section.

10.1 Amateur Radio Operator Certificate with Basic Qualification

The holder of an Amateur Radio Operator Certificate with Basic Qualification is limited to a maximum transmitting power of:

- (a) where expressed as direct-current input power, 250 W to the anode or collector circuit of the transmitter stage that supplies radio frequency energy to the antenna; or
- (b) where expressed as radio-frequency output power measured across an impedance-matched load,
 - (i) 560 W peak envelope power for transmitters that produce any type of single sideband emission, or
 - (ii) 190 W carrier power for transmitters that produce any other type of emission.

10.2 Amateur Radio Operator Certificate with Basic and Advanced Qualifications

The holder of an Amateur Radio Operator Certificate with Basic and Advanced Qualifications is limited to a maximum transmitting power of:

- (a) where expressed as direct-current input power, 1,000 W to the anode or collector circuit of the transmitter stage that supplies radio frequency energy to the antenna; or
- (b) where expressed as radio-frequency output power measured across an impedance-matched load,
 - (i) 2,250 W peak envelope power for transmitters that produce any type of single sideband emission, or
 - (ii) 750 W carrier power for transmitters that produce any other type of emission.

11. Unmodulated Carriers and Retransmission

1. An unmodulated carrier in a frequency band below 30 MHz may be transmitted for brief tests.
2. Radiotelephone signals in a frequency band below 29.50 MHz cannot be automatically retransmitted unless these signals are received from a station operated by a person qualified to transmit on frequencies below 29.50 MHz.

12. Amplitude Modulation and Frequency Stability

1. An amateur station transmitting amplitude modulation is limited to 100 per cent modulation.
2. The frequency stability of an amateur station in a frequency band below 148.000 MHz shall be equal to or greater than that which is obtainable using crystal control.

13. Measurements

An amateur station shall be equipped with a means of:

- (a) determining the transmit frequency to the same degree of accuracy as would a crystal calibrator; and
- (b) indicating or preventing overmodulation of the transmitter in the case of a radiotelephone transmitter.

14. Change of Address

The holder of an Amateur Radio Operator Certificate shall notify the Department within thirty (30) days with respect to a change of mailing address.

Schedule I

Frequency Bands and Bandwidths for Use by Amateur Stations Operating in Canada and in Region 2

Item	Column I		Column II	Column III	Column IV
	Frequency Band		Maximum Bandwidth	Operating Provisions	Operator Qualifications
1.	1.800 to	2.000 MHz	6 kHz		B and 5, or B and 12
2.	3.500 to	4.000 MHz	6 kHz		B and 5, or B and 12
3.	7.000 to	7.300 MHz	6 kHz		B and 12
4.	10.100 to	10.150 MHz	1 kHz		B and 12
5.	14.000 to	14.350 MHz	6 kHz		B and 12
6.	18.068 to	18.168 MHz	6 kHz		B and 12
7.	21.000 to	21.450 MHz	6 kHz		B and 12
8.	24.890 to	24.990 MHz	6 kHz		B and 12
9.	28.000 to	29.700 MHz	20 kHz		B and 5, or B and 12
10.	50.000 to	54.000 MHz	30 kHz		B
11.	144.000 to	148.000 MHz	30 kHz		B
12.	220.000 to	225.000 MHz	100 kHz		B
13.	430.000 to	450.000 MHz	12 MHz	1	B
14.	902.000 to	928.000 MHz	12 MHz	1	B
15.	1.240 to	1.300 GHz	Not specified	1	B
16.	2.300 to	2.450 GHz	Not specified	1	B
17.	3.300 to	3.500 GHz	Not specified	1	B
18.	5.650 to	5.925 GHz	Not specified	1	B
19.	10.000 to	10.500 GHz	Not specified	1	B
20.	24.000 to	24.050 GHz	Not specified		B
21.	24.050 to	24.250 GHz	Not specified	1	B
22.	47.000 to	47.200 GHz	Not specified		B
23.	75.500 to	76.000 GHz	Not specified		B
24.	76.000 to	81.000 GHz	Not specified	1	B
25.	142.000 to	144.000 GHz	Not specified		B
26.	144.000 to	149.000 GHz	Not specified	1	B
27.	241.000 to	248.000 GHz	Not specified	1	B
28.	248.000 to	250.000 GHz	Not specified		B

Note: In Column III, "1" means that transmissions may not cause interference nor be protected from interference from stations licensed in other services operating in that band; and
 In Column IV, "B" means an Amateur Radio Operator Certificate with Basic Qualification;
 "5" means an Amateur Radio Operator Certificate with Morse Code (5 w.p.m.) Qualification;
 and "12" means an Amateur Radio Operator Certificate with Morse Code (12 w.p.m.) Qualification.

Schedule II

Frequency Bands and Bandwidths for Use by Amateur Stations Operating in Region 1

Item	Column I		Column II	Column III
	Frequency Band		Maximum Bandwidth	Operator Qualifications
1.	1.810 to	1.850 MHz	6 kHz	B and 5, or B and 12
2.	3.500 to	3.800 MHz	6 kHz	B and 5, or B and 12
3.	7.000 to	7.100 MHz	6 kHz	B and 12
4.	10.100 to	10.150 MHz	1 kHz	B and 12
5.	14.000 to	14.350 MHz	6 kHz	B and 12
6.	18.068 to	18.168 MHz	6 kHz	B and 12
7.	21.000 to	21.450 MHz	6 kHz	B and 12
8.	24.890 to	24.990 MHz	6 kHz	B and 12
9.	28.000 to	29.700 MHz	20 kHz	B and 5, or B and 12
10.	144.000 to	146.000 MHz	30 kHz	B
11.	430.000 to	440.000 MHz	Not specified	B
12.	1.240 to	1.300 GHz	Not specified	B
13.	2.300 to	2.450 GHz	Not specified	B
14.	5.650 to	5.850 GHz	Not specified	B
15.	10.000 to	10.500 GHz	Not specified	B
16.	24.000 to	24.250 GHz	Not specified	B
17.	47.000 to	47.200 GHz	Not specified	B
18.	75.500 to	81.000 GHz	Not specified	B
19.	142.000 to	149.000 GHz	Not specified	B
20.	241.000 to	250.000 GHz	Not specified	B

Note: "B" means an Amateur Radio Operator Certificate with Basic Qualification;
 "5" means an Amateur Radio Operator Certificate with Morse Code (5 w.p.m.) Qualification;
 and "12" means an Amateur Radio Operator Certificate with Morse Code (12 w.p.m.)
 Qualification.

Schedule III

Frequency Bands and Bandwidths for Use by Amateur Stations Operating in Region 3

Item	Column I		Column II	Column III
	Frequency Band		Maximum Bandwidth	Operator Qualifications
1.	1.800 to	2.000 MHz	6 kHz	B and 5, or B and 12
2.	3.500 to	3.900 MHz	6 kHz	B and 5, or B and 12
3.	7.000 to	7.100 MHz	6 kHz	B and 12
4.	10.100 to	10.150 MHz	1 kHz	B and 12
5.	14.000 to	14.350 MHz	6 kHz	B and 12
6.	18.068 to	18.168 MHz	6 kHz	B and 12
7.	21.000 to	21.450 MHz	6 kHz	B and 12
8.	24.890 to	24.990 MHz	6 kHz	B and 12
9.	28.000 to	29.700 MHz	20 kHz	B and 5, or B and 12
10.	50.000 to	54.000 MHz	30 kHz	B
11.	144.000 to	148.000 MHz	30 kHz	B
12.	430.000 to	440.000 MHz	Not specified	B
13.	1.240 to	1.300 GHz	Not specified	B
14.	2.300 to	2.450 GHz	Not specified	B
15.	3.300 to	3.500 GHz	Not specified	B
16.	5.650 to	5.850 GHz	Not specified	B
17.	10.000 to	10.500 GHz	Not specified	B
18.	24.000 to	24.250 GHz	Not specified	B
19.	47.000 to	47.200 GHz	Not specified	B
20.	75.500 to	81.000 GHz	Not specified	B
21.	142.000 to	149.000 GHz	Not specified	B
22.	241.000 to	250.000 GHz	Not specified	B

Note: "B" means an Amateur Radio Operator Certificate with Basic Qualification;
 "5" means an Amateur Radio Operator Certificate with Morse Code (5 w.p.m.) Qualification;
 and "12" means an Amateur Radio Operator Certificate with Morse Code (12 w.p.m.)
 Qualification.

Schedule IV**Amateur Call Sign Prefixes**

Item	Column I Amateur Call Sign Prefix	Column II Geographical Location
1.	VE1-VA1	Nova Scotia
2.	VE2-VA2	Quebec
3.	VE3-VA3	Ontario
4.	VE4-VA4	Manitoba
5.	VE5-VA5	Saskatchewan
6.	VE6-VA6	Alberta
7.	VE7-VA7	British Columbia
8.	VE8	Northwest Territories
9.	VE9	New Brunswick
10.	VE0*	International Waters
11.	V01	Newfoundland
12.	V02	Labrador
13.	VY1	Yukon Territory
14.	VY2	Prince Edward Island
15.	VY0	Nunavut Territory

* VE0 call signs are only intended for use when the amateur radio station is operated from vessels that make international voyages.