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Spectrum Management and Telecommunications Policy

Legislative and Regulatory Circular

Radiocommunication Regulations



Amended by: SOR/97-266

SOR/98-189 SOR/98-437 SOR/99-107 SOR/99-108 SOR/00-78 SOR/01-533

All persons making use of this consolidation are reminded that it has no Parliamentary sanction, that the amendments have been embodied only for convenience of reference, and that the original act and amendments thereto should be consulted for all purposes of interpreting and applying the law.

Comments and suggestions may be directed to the following address:

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HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL, on the recommendation of the Minister of Industry and of the Treasury Board, pursuant to section 6* of the *Radiocommunication Act*** and section 19.1*** of the *Financial Administration Act*, is pleased hereby to repeal the *General Radio Regulations, Part I*, C.R.C., c. 1371, the *General Radio Regulations, Part II*, C.R.C., c. 1372, the *Interference-causing Equipment Regulations*, made by Order in Council P.C. 1993-408 of March 9, 1993****, and the *Radio Operators' Certificate Regulations*, made on March 9, 1978****, and to make the annexed Regulations respecting radiocommunication, radio authorizations, exemptions from authorizations and the operation of radio apparatus, radio-sensitive equipment and interference-causing equipment in substitution therefor, effective on the date of publication in the *Canada Gazette* Part II (November 27, 1996).

^{*} S.C. 1989, c. 17, s. 4

^{**} S.C. 1989, c. 17, s. 2

^{***} S.C. 1991, c. 24, s. 6

^{***} SOR/93-113, 1993 Canada Gazette, Part II, p. 1162

^{****} SOR/78-244, 1978 Canada Gazette, Part II, p. 1049

RADIOCOMMUNICATION ACT

Radiocommunication Regulations

REGULATIONS RESPECTING RADIOCOMMUNICATION, RADIO AUTHORIZATIONS, EXEMPTIONS FROM AUTHORIZATIONS AND THE OPERATION OF RADIO APPARATUS, RADIO-SENSITIVE EQUIPMENT AND INTERFERENCE-CAUSING EQUIPMENT (SOR/96-484)

Short Title

1. These Regulations may be cited as the *Radiocommunication Regulations*.

Interpretation

2. In these Regulations,

"Act" means the *Radiocommunication Act*; (loi)

- "aeronautical service" means a radiocommunication service that provides for the safety and navigation and other operations of aircraft, and that may also include the exchange of air-to-ground messages on behalf of the public; (service aéronautique)
- "amateur radio service" means a radiocommunication service in which radio apparatus are used for the purpose of self-training, intercommunication or technical investigation by individuals who are interested in radio technique solely with a personal aim and without pecuniary interest; (*service de radioamateur*)
- "applicable standard" "Repealed" SOR/01-533
- "developmental service" means a radiocommunication service that provides for research and development, experimentation or demonstration of radio apparatus, or the assessment of the marketability of radio apparatus, new technology or telecommunication services; (*service de dévelopment*)
- "equipment" means radio apparatus, interference-causing equipment and radio-sensitive equipment; (*matériel*)
- "fixed service" means a radiocommunication service that provides for communications between fixed stations or between fixed stations and space stations; (*service fixe*)
- "fixed station" means a radio station authorized to operate at a fixed point; (station fixe)

- "interconnected radio-based transmission facility" means any radio apparatus that is used for the transmission or reception of intelligence to or from anywhere on a public switched network; (installation de transmission radio d'interconnexion)
- "intersatellite service" means a radiocommunication service that provides for communications between space stations; (service intersatellite)
- "land mobile service" means a radiocommunication service that provides for communications between mobile stations and
 - (a) fixed stations,
 - (b) space stations, or
 - (c) other mobile stations; (service mobile terrestre)

"manufacturer" means

- (a) the person specified as the manufacturer in the applicable standard, or
- (b) where no applicable standard exists or where the manufacturer is not specified in any applicable standard, the person, other than a person whose function is solely to install equipment, who
 - (i) with respect to radio apparatus and interference-causing equipment, carries out the last assembly of or last modification to the model of equipment which could affect its capacity to cause interference to radiocommunication, or
 - (ii) with respect to radio-sensitive equipment, carries out the last assembly of or last modification to the model of equipment which could affect its sensitivity to electromagnetic energy; (fabricant)
- "maritime service" means a radiocommunication service that provides for the safety and navigation and other operations of ships or vessels, and that may also include the exchange of ship-to-shore messages on behalf of the public; (*service maritime*)
- "Minister" means the Minister of Industry; (ministre)
- "mobile station" means a radio station intended to be used while in motion and during stops; (station mobile)
- "model" means equipment identified by, and permanently marked with, a unique brand, trade name, symbol or logo and an identification code, comprised of letters, numbers or a combination thereof; (modèle)
- "person" includes a corporation, partnership and joint venture; (personne)
- "public information service" means a radiocommunication service that provides for communications in which the transmissions are intended for the public, but does not include transmissions by a broadcasting undertaking; (service d'information publique)

- "radiocommunication carrier" means a person who operates interconnected radio-based transmission facility used by that person or another person to provide radiocommunication services for compensation; (transporteur de radiocommunications)
- "radiocommunication service provider" means a person, including a radiocommunication carrier, who operates radio apparatus used by that person or another person to provide radiocommunication services for compensation; (fournisseur de services radio)
- "radiocommunication user" means a person who operates radio apparatus for personal or government use or for a business other than the business of a radiocommunication service provider; (*usager radio*)
- "radiodetermination service" means a radiocommunication service that provides for the determination of the position, velocity or other characteristics of an object or physical phenomenon, or for the obtaining of information relating to these parameters, by means of the propagation properties of radio waves; (*service de radiorepérage*)
- "space station" means a radio station where radio apparatus that is used for any radiocommunication service is installed in a place located outside the major portion of the earth's atmosphere or is intended to travel beyond the major portion of the earth's atmosphere; (station spatiale)

"TAC" means a technical acceptance certificate. (CAT)

"Applicable Standards

2.1 The applicable standards for equipment or any class of equipment are those established by the Minister pursuant to paragraph 5 (1) (*d*) of the Act and that are set out in the *Category I Equipment Standards List*, as amended from time to time, and the *Category II Equipment Standards List*, as amended from time to time, both published by the Department of Industry." SOR/01-533

PART I

RADIO LICENCES

Radiocommunication Services and Stations

- **3.** It is a term of a radio licence that the holder of the licence may
- (a) install, operate or possess radio apparatus to perform any of the following services, as authorized by the radio licence, namely,
 - (i) aeronautical service,
 - (ii) amateur radio service,

- (iii) public information service,
- (iv) developmental service,
- (v) fixed service,
- (vi) intersatellite service,
- (vii) land mobile service,
- (viii) maritime service, and
- (ix) radiodetermination service; and
- (b) install, operate or possess radio apparatus at a fixed station, mobile station or space station as authorized by the radio licence.

Restriction Relating to Holders of Radio Licences

- **4.** It is a term of a radio licence that the holder of the radio licence shall restrict the activities of the station to those radiocommunication services referred to in paragraph 3(a) that are specified in the licence.
- **5.** It is a term of a radio licence that the holder of the radio licence who is a radiocommunication service provider shall provide its radiocommunication services without unjust discrimination.

Restrictions Relating to the Aeronautical Service

- **6.** Use of radio apparatus licensed in the aeronautical service is restricted to communications relating to
 - (a) the safety and navigation of aircraft;
 - (b) the general operation of aircraft; and
 - (c) the exchange of messages on behalf of the public.

Restrictions Relating to the Developmental Service

7. Use of radio apparatus licensed in the developmental service is restricted to experiments, tests, research or demonstrations being carried out in relation to that service.

Restrictions Relating to the Maritime Service

- **8.** Use of radio apparatus licensed in the maritime service is restricted to communications relating to
 - (a) the safety and navigation of ships or vessels;
 - (b) the general operation of ships or vessels; and

(c) the exchange of messages on behalf of the public.

Eligibility

- **9.** (1) The following persons are eligible to be issued radio licences as radiocommunication users or radiocommunication service providers other than radiocommunication carriers in all services except the amateur radio service:
 - (a) an individual who is
 - (i) a citizen within the meaning of subsection 2(1) of the Citizenship Act,
 - (ii) a permanent resident within the meaning of subsection 2(1) of the *Immigration Act*, or
 - (iii) a non-resident who has been issued an employment authorization under the *Immigration Act*;
 - (b) a corporation that is incorporated or continued under the laws of Canada or a province;
 - (c) a partnership or joint venture where each partner or co-venturer is eligible to be issued a radio licence under this subsection:
 - (d) a Canadian government, whether federal, provincial or local, or an agency thereof;
 - (e) the Government of a country other than Canada, which is a signatory to the *Vienna Convention on Diplomatic Relations*, done at Vienna, April 18, 1961;
 - (f) any person who is the registered owner of an aircraft that is registered in Canada, for the establishment and operation of a station on board the aircraft;
 - (g) any person who is the registered or licensed owner of a ship or vessel that is registered under the *Canada Shipping Act* or licensed under the *Canada Trade Act*, for the establishment and operation of a station on board the ship or vessel; and
 - (h) any person who is a resident of a country other than Canada, who
 - (i) seeks to establish and operate a radio station designed for interconnection with a public switched network, or
 - (ii) requires a radio licence for radio apparatus used for a special event of a limited duration.
 - (2) "Subsection repealed." SOR/2000-78
 - **10.** (1) For purposes of this section,

"Canadian" has the same meaning as in the Canadian Telecommunications Common Carrier Ownership and Control Regulations; (Canadien)

"Canadian-owned and controlled" means, in respect of a corporation, that

(a) not less than 80 per cent of the members of the board of directors of the corporation are individual Canadians.

- (b) Canadians beneficially own, directly or indirectly, in the aggregate and otherwise than by way of security only, not less than 80 per cent of the corporation's voting shares issued and outstanding, and
- (c) the corporation is not otherwise controlled by persons who are not Canadians; (est la propriété de Canadiens et sous contrôle canadien)
- "control" means control in any manner that results in control in fact, whether directly through the ownership of securities or indirectly through a trust, agreement or arrangement, the ownership of any body corporate or otherwise; (contrôle)
- "voting share" has the same meaning as in the Canadian Telecommunications Common Carrier Ownership and Control Regulations. (action avec droit de vote)
- (2) The following persons or entities are eligible to be issued radio licences as radiocommunication carriers:
 - (a) an individual who is
 - (i) a citizen within the meaning of subsection 2(1) of the *Citizenship Act* who is ordinarily resident in Canada, or
 - (ii) a permanent resident within the meaning of subsection 2(1) of the *Immigration Act* who is ordinarily resident in Canada, and who has been ordinarily resident in Canada for not more than one year after the date on which that person first became eligible to apply for Canadian citizenship;
 - (b) a partnership or joint venture where each partner or co-venturer is eligible to be issued a radio licence under this subsection;
 - $\left(c\right)$ a Canadian government, whether federal, provincial or local, or an agency thereof; and
 - (d) a corporation that is
 - (i) Canadian-owned and controlled and is incorporated or continued under the laws of Canada or a province, or
 - (ii) a Canadian carrier that meets the eligibility criteria set out in subsection 16(1) or (2) of the *Telecommunications Act*, whether or not the carrier is exempt from the application of that Act or that Act does not otherwise apply to the corporation.
 - "**10.1** (1) The definitions in this subsection apply in this section.
- "earth station" means a fixed or mobile station that operates either in the fixed satellite service or in the mobile satellite service. (*station terrienne*)
- "fixed satellite service" means a radiocommunication service that provides for communications between fixed stations and space stations. (*service fixe par satellite*)
- "mobile satellite service" means a radiocommunication service that provides for communications between mobile stations and space stations. (*service mobile par satellite*)

"radiocommunication service" means a service provided by means of radiocommunication but excludes telecommunications services supplied for the transmission of services regulated under the *Broadcasting Act* where such services are intended for direct reception by the public. (*service de radiocommunication*)

- (2) Notwithstanding sections 9 and 10, the following persons, who operate an earth station in a fixed satellite service, are eligible to be issued, in respect of that earth station, a radio licence as a radiocommunication user, a radiocommunication service provider other than a radiocommunication carrier, or a radiocommunication carrier:
 - (a) an individual who is
 - (i) a citizen within the meaning of subsection 2(1) of the Citizenship Act,
 - (ii) a permanent resident within the meaning of subsection 2(1) of the *Immigration Act*, or
 - (iii) a non-resident who has been issued an employment authorization under the *Immigration Act*;
 - (b) a corporation that is incorporated or continued under the laws of Canada or a province;
 - (c) a partnership or joint venture where each partner or co-venturer is eligible to be issued a radio licence under this subsection; and
 - (d) a Canadian government, whether federal, provincial or local, or an agency thereof.
- (3) Notwithstanding sections 9 and 10, the following persons, who operate an earth station in a mobile satellite service, are eligible to be issued, in respect of that earth station, a radio licence as a radiocommunication user, as a radiocommunication service provider other than a radiocommunication carrier, or a radiocommunication carrier:
 - (a) an individual who is
 - (i) a citizen within the meaning of subsection 2(1) of the Citizenship Act,
 - (ii) a permanent resident within the meaning of subsection 2(1) of the *Immigration Act*, or
 - (iii) a non-resident who has been issued an employment authorization under the *Immigration Act*;
 - (b) a corporation that is incorporated or continued under the laws of Canada or a province;
 - (c) a partnership or joint venture where each partner or co-venturer is eligible to be issued a radio licence under this subsection; and
 - (d) a Canadian government, whether federal, provincial or local, or an agency thereof.

(4) This section applies beginning on March 1, 2000 in respect of earth stations that are fixed stations in the fixed satellite service and that provide telecommunication services between points in Canada and between points in Canada and the United States." SOR/99-108

Non-Assignability of Radio Licences

11. It is a term of a radio licence that the licence not be transferred or assigned without the authorization of the Minister.

Stations Licensed or Exempted in Another Country

- 12. Radio apparatus used in a mobile station that is licensed or exempted by the responsible administration of another country is exempt from the application of subsection 4(1) of the Act if the mobile station is used for communications with stations licensed or exempted in Canada or that other country and if
 - (a) the operator is a citizen of that other country; and
- (b) a reciprocal agreement that allows similar privileges to Canadians exists between that other country and Canada.

Radio Licences of Radiocommunication Service Providers

- **13.** (1) It is a term of a radio licence of a radiocommunication service provider that a subscriber to the services or a lessee of radio apparatus of the radiocommunication service provider may install, operate or possess radio apparatus to communicate with other radio apparatus to which that licence applies.
- (2) Use of the services or radio apparatus of a radiocommunication service provider is restricted to communications with radio apparatus to which the radio licence referred to in subsection (1) applies.
- **14.** (1) Every radiocommunication service provider shall provide to each of its subscribers and lessees of its radio apparatus a copy of the terms and conditions of its radio licence that are applicable to those subscribers or lessees, as the case may be.
- (2) Every subscriber to the services and lessee of radio apparatus of a radiocommunication service provider shall comply with the terms and conditions referred to in subsection (1).

Exemption

15. "Radio apparatus that is set out in and meets a standard set out in the *Licence Exempt Radio Apparatus Standards List*, as amended from time to time, published by the Department of Industry is exempt from the application of subsection 4 (1) of the Act in respect of a radio licence." SOR/01-533

Exemption of Radio Apparatus on Board an Aircraft

- "15.1 (1) This section applies in respect of an aircraft that is
 - (a) registered or licensed under an Act of Parliament; or
 - (b) owned by, or under the direction or control of, Her Majesty in right of Canada or a province.
- (2) A radio apparatus that is operated on board an aircraft in the performance of the aeronautical service or the radiodetermination service is exempt from subsection 4(1) of the Act, in respect of a radio licence, if
 - (a) the operation of the radio apparatus occurs when
 - (i) the aircraft is within Canada,
 - (ii) the aircraft is outside Canada and the territory of another country, or
 - (iii) the aircraft is in the territory of another country with which Canada has entered into a reciprocal agreement that confers similar privileges on Canadians;
 - (b) the operation of the radio apparatus is in accordance with the technical requirements for mobile stations operating in the aeronautical service that are specified in section 34.1; and
 - (c) the radio apparatus meets the applicable standards.

Exemption of Radio Apparatus on Board a Ship or Vessel

- **15.2** (1) This section applies in respect of a ship or vessel that is
- (a) registered or licensed under an Act of Parliament; or
- (b) owned by, or under the direction or control of, Her Majesty in right of Canada or a province.
- (2) A radio apparatus that is operated on board a ship or vessel in the performance of the maritime service or the radiodetermination service is exempt from subsection 4(1) of the Act, in respect of a radio licence, if
 - (a) the operation of the radio apparatus occurs when
 - (i) the ship or vessel is within Canada,
 - (ii) the ship or vessel is outside Canada and the territory of another country, or

- (iii) the ship or vessel is in the territory of another country with which Canada has entered into a reciprocal agreement that confers similar privileges on Canadians;
- (b) the operation of the radio apparatus is in accordance with the technical requirements for mobile stations operating in the maritime service specified in section 34.2; and
- (c) the radio apparatus meets the applicable standards." SOR/99-107

"Exemption of Radio Apparatus Operated in the Amateur Radio Service

- **15.3** A radio apparatus that is operated in the amateur radio service at a mobile or fixed station is exempt from subsection 4(1) of the Act, in respect of a radio licence, if
 - (a) a person who operates the radio apparatus is an individual who is the holder of one or more of the certificates or licences referred to in section 42; and
 - (b) the operation of the radio apparatus in the amateur radio service is in accordance with the technical requirements referred to in section 45." SOR/2000-78

PART II

BROADCASTING UNDERTAKINGS

Certificate Exemption

16. "Radio apparatus that is set out in and meets a standard set out in the *Broadcasting Certificate Exempt Radio Apparatus Standards List*, as amended from time to time, published by the Department of Industry is exempt from the application of subsection 4 (1) of the Act in respect of a broadcasting certificate." SOR/01-533

Operation

17. No person shall operate radio apparatus that forms part of a broadcasting undertaking on frequencies within the frequency range from 108 MHz to 137 MHz or the frequency range from 328.6 MHz to 335.4 MHz, unless the frequencies within those limits are authorized and are used in accordance with the conditions specified in the broadcasting certificate.

Identification

18. The holder of a broadcasting certificate shall identify the broadcasting station in accordance with the *Technical Requirements Respecting Identification of Broadcasting Stations*, issued by the Minister, as amended from time to time.

PART III

TECHNICAL ACCEPTANCE CERTIFICATION AND COMPLIANCE WITH APPLICABLE STANDARDS

Interpretation

- **19.** "The following definitions apply in this Part.
- "Category I equipment" means equipment that is described in subsection 21(1). (*matériel de catégorie I*)
- "Category II equipment" means equipment that is described in subsection 21 (5). (*matériel de catégorie II*)" SOR/01-533
 - **20.** "Repealed" SOR/01-533

"Requirements for Certification

- **21.** (1) All equipment that is listed and classified as Category I equipment in the *Category I Equipment Standards List*, as amended from time to time, published by the Department of Industry, and that is classified as Category I equipment in the applicable standard, requires a TAC unless it is
 - (a) the subject of a certificate issued by the Minister before the coming into force of these Regulations;
 - (b) the subject of a certificate issued by a foreign certification body that is designated under an international agreement, convention or treaty to which Canada is a party and that is recognized by Canada under that agreement, convention or treaty as competent to certify equipment, to the effect that the equipment complies with the applicable standards; or
 - (c) the subject of a certificate issued by a Canadian certification body that meets the requirements set out in the *Requirements for Certification Bodies*, as amended from time to time, published by the Department of Industry, to the effect that the equipment complies with the applicable standards." SOR/01-533
- (2) The Minister may issue a TAC for a specific model of Category I equipment or for several models of Category I equipment that possess similar technical characteristics.
- (3) An applicant for a TAC shall demonstrate to the Minister that the model or models of Category I equipment comply with all applicable standards.
- (4) A TAC may only be issued where the Minister determines that the model or models of Category I equipment comply with all applicable standards.

"(5) Equipment that is listed and classified as Category II equipment in the *Category II Equipment Standards List*, as amended from time to time, published by the Department of Industry, and that is classified as Category II equipment in the applicable standard does not require a TAC." SOR/01-533

"Compliance with Standards

- **22.** (1) No person shall use the authority of a TAC or a certificate referred to in paragraphs 21 (1) (a) to (c) to manufacture, import, distribute, lease, offer for sale or sell any Category I equipment, other than the specific model or models for which the TAC or certificate referred to in paragraphs 21 (1) (a) to (c) was issued.
- (2) If Category I equipment is modified in such a way as to affect any parameter specified in the applicable standard under which the TAC or a certificate referred to in any of paragraphs 21 (1) (a) to (c) was issued, the modified equipment is no longer considered to be certified and requires testing in accordance with section 24." SOR/01-533
 - 23. "Repealed" SOR/01-533

Testing

- **24.** (1) For the purposes of testing a model of Category I or Category II equipment to obtain certification or to ensure compliance with the applicable standards,
 - (a) the number of units of equipment required to satisfy the testing requirements of the applicable standards is one or, where the number is specified in the applicable standards, that number; and
 - (b) "the maximum number of units of equipment that may be manufactured or imported without a TAC, without a certificate referred to in any of paragraphs 21(a) to (c) or not in compliance with the applicable standards shall be one more than the applicable number of units referred to in paragraph (a)." SOR/01-533
- (2) At any time during the life cycle of Category I or Category II equipment, the Minister may test or, with the agreement of the manufacturer or importer, have the manufacturer or importer test the Category I or Category II equipment in order to ensure compliance with applicable standards.
- (3) Any person whose Category I or Category II equipment is subject to testing pursuant to subsection (2), shall test the equipment in accordance with the Minister's instructions or, at the Minister's request, make the equipment available for testing by the Minister at a place and time designated by the Minister.
- (4) Where the testing done pursuant to subsection (3) shows that the Category I or Category II equipment tested does not comply with the applicable standard, the Minister shall
 - (a) give notice of the test results to those persons who are likely to be affected thereby; and

- (b) where the equipment tested is Category I equipment, revoke the TAC.
- "(5) Where a manufacturer or importer fails, after being requested to do so by the Minister, to test Category I equipment or to make the equipment available for testing, the Minister shall suspend the TAC in respect of that equipment." SOR/98-437

Labelling

- **25.** (1) "Subject to subsections (2) and (7), no person shall mark or label Category I or Category II equipment contrary to the requirements set out in the applicable standards." SOR/01-533
- (2) Subsection (1) does not preclude labelling for purposes unrelated to this Part or pursuant to other legislation.
- (3) No person shall remove, replace or alter a label that has been affixed in accordance with applicable standards.
- (4) No person shall mark, label or otherwise indicate that Category I or Category II equipment complies with applicable standards, unless that equipment complies with those standards.
- (5) "No person shall mark, label or otherwise indicate that Category I or Category II equipment has been certified as complying with applicable standards unless a TAC or a certificate referred to in any of paragraphs 21(1) (a) to (c) has been issued in respect of the equipment and the equipment complies with the standards under which the TAC or certificate was issued." SOR/01-533
- (6) No person shall mark, label or otherwise indicate how to modify Category I or Category II equipment so that it will not comply with applicable standards.
- "(7) Subsections (1) to (6) do not apply to equipment that was labelled before the coming into force of these Regulations." SOR/01-533

PART IV

RADIO OPERATOR CERTIFICATES

Application

- **26.** (1) This Part applies in respect of radio operator certificates set out in this subsection and in Schedule I:
 - (a) Restricted Operator Certificate with one or more of the following qualifications:
 - (i) Aeronautical Qualification,

- (ii) Land Qualification, and
- (iii) Maritime Qualification;
- (b) General Operator Certificate;
- (c) Radiocommunication Operator General Certificate (Maritime);
- (d) First-Class Radioelectronic Certificate; and
- (e) Amateur Radio Operator Certificate with one or more of the following qualifications:
 - (i) Basic Qualification,
 - (ii) Morse Code (5 w.p.m.) Qualification,
 - (iii) Morse Code (12 w.p.m.) Qualification, and
 - (iv) Advanced Qualification.
- (2) A radio operator certificate set out in column I of an item of Schedule I is equivalent to the radio operator certificate set out in column II of that item.

Eligibility for Radio Operator Certificates

- **27.** The following persons are eligible to be issued a radio operator certificate set out in subsection 26(1):
 - (a) an individual who has passed the examinations set by the Minister in respect of the radio operator certificate being applied for;
 - (b) an individual who has met reissuance requirements or the requirements for the issuance of an equivalent certificate, set out in section 28; or
 - (c) an individual who is a citizen of a country other than Canada if
 - (i) the individual is the holder of an authorization that is issued by the responsible administration of that country and that corresponds with the applicable radio operator certificate set out in subsection 26(1), and
 - (ii) a reciprocal arrangement that establishes correspondence between radio operator certificates is in effect between the responsible administrations of Canada and that country.

Requirements for Reissuance of Certificates and Issuance of Equivalent Certificates

- **28.** Where a radio operator certificate set out in any of paragraphs 26(1)(b) to (d) or in column I of any of items 1 to 6 of Schedule I has expired or is about to expire, the holder may apply to the Minister for the reissuance of the radio operator certificate or the issuance of an equivalent certificate, and the Minister shall so reissue or issue if the holder
 - (a) has accumulated, during the preceding five years, at least one year of service as
 - (i) a radio operator holding a radio operator certificate, and is engaged in radiocommunications at the level commensurate with that certificate, or

- (ii) a radio technician engaged in the maintenance of modern radio apparatus; or
- (b) has passed the examinations set by the Minister in respect of the certificate being applied for.

Suspension of Radio Operator Certificates

- **29.** (1) Where there are reasonable grounds to believe that a radio operator who holds a radio operator certificate set out in any of paragraphs 26(1)(a) to (d) or in column I of item 2 or 3 of Schedule I has become unfit to perform the radio operator's duties, the Minister shall require the radio operator to undergo an examination by a licensed medical practitioner.
- (2) Where a licensed medical practitioner reports to the Minister that the radio operator referred to in subsection (1) is unfit to perform the radio operator's duties by reason of any physical or mental disability, the Minister shall suspend the radio operator certificate of the radio operator until such time as the radio operator provides medical evidence to the Minister that demonstrates that the radio operator is physically and mentally fit to perform the radio operator's duties.

PART V

REQUIREMENTS FOR THE OPERATION OF RADIO APPARATUS

Operation of Radio Apparatus

- **30.** A person may operate radio apparatus in respect of which a radio authorization has been issued only where the person complies with the terms and conditions of the authorization.
- **31.** A person may operate or permit the operation of radio apparatus only where the apparatus is maintained within the tolerances set out in the applicable standards.
- **32.** (1) A person may operate radio apparatus only to transmit a non-superfluous signal or a signal containing non-profane or non-obscene radiocommunications.
- (2) Subsection (1) does not apply to a person operating radio apparatus that forms part of a broadcasting undertaking.
- **33.** A person may operate radio apparatus in the aeronautical service, maritime service or amateur radio service only where the person holds an appropriate radio operator certificate as set out in column I of any of items 1 and 3 to 15 of Schedule II.
- "34. (1) A person who holds a radio licence authorizing the operation of any radio apparatus in the aeronautical service or maritime service may permit another person to operate the radio apparatus only if the other person holds the appropriate radio operator certificate set out in column I of any of items 1 and 3 to 14 of Schedule II.

(2) A person who operates any radio apparatus that is exempt from licensing in accordance with section 15.1 in the case of the aeronautical service, or section 15.2 in the case of the maritime service, may permit another person to operate the radio apparatus only if the other person holds the appropriate radio operator certificate set out in column I of any of items 1 and 3 to 14 of Schedule II.

Operation in the Aeronautical Service

34.1 A person shall operate any radio apparatus on board an aircraft in the aeronautical service in accordance with the *Technical Requirements for the Operation of Mobile Stations in the Aeronautical Service*, issued by the Minister, as amended from time to time.

Operation in the Maritime Service

- **34.2** A person shall operate any radio apparatus on board a ship or vessel in the maritime service in accordance with the *Technical Requirements for the Operation of Mobile Stations in the Maritime Service*, issued by the Minister, as amended from time to time." SOR/99-107
- **35.** The holder of a radio operator certificate set out in column I of an item of Schedule I has the same operating privileges as the holder of a radio operator certificate set out in column II of that item.
- **36.** The holder of a radio operator certificate set out in column I of an item of Schedule II may operate radio apparatus that forms part of a radio station set out in column II of that item.

Applicability of International Regulations

37. In addition to these Regulations, every person who operates radio apparatus shall do so in accordance with the *Radio Regulations* of the International Telecommunication Union.

Proof of Radio Authorization

38. The holder of a radio authorization shall, at the request of an inspector appointed pursuant to the Act, show the radio authorization or a copy thereof to the inspector within 48 hours after the request.

Operation, Repair and Maintenance of Radio Apparatus on behalf of Another Person

- **39.** A person may install, place in operation, modify, repair, maintain or permit the operation of radio apparatus on behalf of another person only where, if a radio licence is required,
 - (a) that other person has obtained a radio licence; and
 - (b) the person does so in accordance with the terms of the radio licence.

Assignment of Frequencies

40. The assignment of a frequency or frequencies to a holder of a radio authorization does not confer a monopoly on the use of the frequency or frequencies, nor shall a radio authorization be construed as conferring any right of continuing tenure in respect of the frequency or frequencies.

Identification

41. The holder of a radio licence shall identify the radio station in respect of which the licence was issued in accordance with the *Technical Requirements Respecting Identification of Radio Stations*, issued by the Minister, as amended from time to time.

Operation in the Amateur Radio Service

Operating Qualifications

- "42. An individual may operate radio apparatus in the amateur radio service if the individual is the holder of one or more of the following certificates or licences:" SOR/2000-78
 - (a) an Amateur Radio Operator Certificate with Basic Qualification;
 - (b) a Radiocommunication Operator General Certificate (Maritime);
 - (c) a Radio Operator's First Class Certificate;
 - (d) a Radio Operator's Second Class Certificate;
 - (e) a Radiotelephone Operator's General Certificate (Aeronautical);
 - (f) a Radiotelephone Operator's General Certificate (Maritime);
 - (g) a Radiotelephone Operator's General Certificate (Land);
 - (h) a First-Class Radioelectronic Certificate;
 - "(*i*) a radio licence in the amateur radio service and an amateur radio operator authorization, issued by the responsible administration of a country other than Canada, if
 - (i) the individual is a citizen of that country, and
 - (ii) a reciprocal arrangement that allows similar privileges to Canadians exists between that other country and Canada; and" SOR/2000-78
 - (*j*) a radio licence for a radio station in the amateur radio service issued to a citizen of the United States by the Government of the United States.

Installation and Operating Restrictions

43. "Section repealed." SOR/2000-78

- "44. A person who operates radio apparatus in the amateur radio service must hold an Amateur Radio Operator Certificate with Advanced Qualification in order to" SOR/2000-78
 - (a) install or operate a transmitter or a radio frequency amplifier that is not commercially manufactured, for use in the amateur radio service; or
 - (b) install any radio apparatus to be used specifically
 - (i) for receiving and automatically retransmitting radiotelephone communications within the same frequency band, or
 - (ii) for an amateur radio club station.

Technical Requirements

"45. A person shall operate radio apparatus in the amateur radio service in accordance with the technical requirements set out in the *Standards for the Operation of Radio Stations in the Amateur Radio Service*, issued by the Minister, as amended from time to time." SOR/2000-78

Participation in Communications

- "46. (1) Any person may participate in the operation of radio apparatus in the amateur radio service under the supervision and in the presence of an individual referred to in section 42.
 - (2) A holder of a certificate or licence referred to in section 42 may
 - (a) permit any person who does not hold such a certificate or licence to operate radio apparatus, subject to compliance with the terms and conditions of that holder's certificate or licence; and SOR/2000-78
 - (b) permit the participation in the operation referred to in paragraph (a) by any person only in accordance with subsection (1).

"Communications with Radio Apparatus in the Amateur Radio Service

- **47.** A person who operates radio apparatus in the amateur radio service may only
- (a) communicate with a radio station that operates in the amateur radio service;" SOR/2000-78
- (b) use a code or cipher that is not secret; and
- (c) be engaged in communication that does not include the transmission of
 - (i) music,
 - (ii) commercially recorded material,
 - (iii) programming that originates from a broadcasting undertaking, or
 - (iv) radiocommunications in support of industrial, business or professional activities.

Emergency Communications

"48. In a real or simulated emergency, a person operating radio apparatus in the amateur radio service may only communicate with a radio station that is in the amateur radio service in order to transmit a message that relates to the real or simulated emergency on behalf of a person, government or relief organization." SOR/2000-78

Remuneration

"49. A person who operates radio apparatus in the amateur radio service shall do so without demanding or accepting remuneration in any form in respect of a radiocommunication that the person transmits or receives." SOR/2000-78

PART VI

INTERFERENCE

Determination of Interference for a Model of Equipment

- **50.** (1) This section applies to
 - (a) equipment whether or not it complies with applicable standards; and
 - (b) equipment for which no applicable standard exists.
- (2) Where the Minister, taking into account the factors mentioned in subsection (5), determines that a model or several models of equipment cause or are likely to cause interference to radiocommunication or suffer from or are likely to suffer from adverse effects of electromagnetic energy, the Minister shall give notice of the determination to persons who are likely to be affected thereby.
- (3) No person shall manufacture, import, distribute, lease, offer for sale, sell, install or use equipment in respect of which a notice referred to in subsection (2) has been given.
- (4) Subsection (3) does not apply in respect of equipment that is manufactured or imported solely for export purposes.
- (5) A determination pursuant to subsection (2) shall include the consideration of the following factors:
 - (a) the electromagnetic environment in which the equipment is being used;
 - (b) the circumstances under which it is being used;
 - (c) the technical characteristics of the devices being interfered with or being adversely affected by electromagnetic energy; and

- (d) the technical characteristics of the devices causing interference or the adverse effects of electromagnetic energy.
- **51.** A determination under section 50 does not apply to a determination under paragraph 5(1)(l) of the Act.

Determination of Interference other than Harmful Interference

- **52.** (1) Where the Minister, taking into account the factors referred to in subsection (2), determines that a unit of equipment causes or suffers from interference other than harmful interference or adverse effects of electromagnetic energy, the Minister shall order the persons in possession or control of the equipment to cease or modify operation of the equipment until such time as it can be operated without causing or being affected by such interference or such adverse effects.
 - (2) A determination pursuant to subsection (1) shall consider the following factors:
 - (a) the electromagnetic environment in which the equipment is being used;
 - (b) the circumstances under which it is being used;
 - (c) the technical characteristics of the devices being interfered with or being adversely affected by electromagnetic energy; and
 - (d) the technical characteristics of the devices causing interference or the adverse effects of electromagnetic energy.
- **53.** (1) A determination under section 52 does not apply to a determination under paragraph 5(1)(l) of the Act.
 - (2) No person shall operate radio apparatus contrary to an order made under subsection 52(1).

PART VII

PRIVACY OF COMMUNICATIONS

Prescribed Exceptions

- **54.** (1) The exceptions set out in subsection (2) apply to
- (a) a person who makes use of or divulges a radio-based telephone communication; and
- (b) a person who intercepts and makes use of or intercepts and divulges any radiocommunication.
- (2) The persons referred to in subsection (1) are excepted from the prohibitions set out in subsections 9(1.1) and (2) of the Act where the use or divulgation, or interception and use or interception and divulgation, as the case may be, is made

- (a) for the purpose of preserving or protecting any property, or the prevention of serious harm to any person, including the bringing of emergency assistance to any person;
- (b) in the course of or for the purposes of giving evidence in any criminal or civil proceeding or in any other proceeding in which the persons may be required to give evidence on oath;
- (c) by a peace officer, prosecutor, officer of the court or other public official, or by a person who discloses the communication to such an official, for the purpose of the investigation or prosecution of an alleged contravention of any law of Canada or a province or in the interests of the administration of justice; or
- (d) on behalf of Her Majesty in right of Canada for the purposes of international affairs or national defence or security.
- (3) In addition to being excepted where appropriate under the circumstances referred to in subsection (2), the following persons are also excepted from the prohibitions referred to in that subsection in the following circumstances:
 - (a) an officer or servant of Her Majesty in right of Canada, where the officer or servant makes use of or divulges a radio-based telephone communication, or intercepts and makes use of, or intercepts and divulges, a radiocommunication, as the case may be, in the course of radio frequency spectrum management for the purpose of identifying, isolating or preventing an unauthorized or interfering use of a frequency or of a transmission; or
 - (b) an officer or servant of Her Majesty in right of Canada or a person providing a communication service, where the officer, servant or person makes use of or divulges a radio-based telephone communication, intercepts and makes use of, or intercepts and divulges, a radiocommunication, as the case may be, in the course of monitoring radiocommunications for the purpose of ensuring the security and integrity of communications and communication systems.

PART VIII

FEES

Interpretation

55. For the purposes of this Part,

"broadband personal communications services radio frequencies" means the transmit and receive frequencies in the radio frequency band 1850 MHz to 1990 MHz; (radiofréquences des services de communications personnelles à large bande)

"cellular mobile radio frequencies" means the transmit and receive frequencies in the radio frequency band 869.040 MHz to 893.970 MHz and the transmit and receive frequencies in the radio frequency band 824.040 MHz to 848.970 MHz; (*radiofréquences du service mobile cellulaire*)

- "congestion zone" means the geographical area where a station is located and is described as a low congestion zone, a medium congestion zone or a high congestion zone; (*zone d'encombrement*)
- "coverage area" means the geographic area over which a radio signal is propagated as is determined by the terrain, antenna height, effective radiated power, frequency, or other technical characteristics that may affect the path or field strength level of the signal; (*zone de couverture*)
- "high congestion zone" means, in respect of a regional area set out in column I of an item of Schedule V, the area bounded by the geographical coordinates set out in columns II to X of that item; (*zone d'encombrement intense*)
- "low congestion zone" means any area that is not a medium congestion zone or a high congestion zone; (*zone d'encombrement faible*)
- "medium congestion zone" means, in respect of a regional area set out in column I of an item of Schedule VI, the area bounded by the geographical coordinates set out in columns II to XI of that item, but does not include any area that is included in a high congestion zone; (*zone d'encombrement moyen*)
- "metropolitan area" means, in respect of a metropolitan area set out in column I of an item of Schedule IV, the geographical area bounded by the north latitude in the range between the limits set out in columns II and III of that item and the west longitude in the range between the limits set out in columns IV and V of that item; (région métropolitaine)
- "narrowband personal communications services radio frequencies" means the transmit and receive frequencies in the radio frequency bands 901 MHz to 902 MHz, 930 MHz to 931 MHz and 940 MHz to 941 MHz; (radiofréquences des services de communications personnelles à bande étroite)
- "necessary bandwidth" means the width of a radio frequency band required to ensure accurate and optimum transmission of information; (*largeur de bande nécessaire*)
- "other area" means a geographical area in Canada other than a metropolitan area; (*autre région*)
- "public cordless telephone radio frequencies" means the transmit and receive frequencies in the radio frequency band 944 MHz to 948.5 MHz; (*radiofréquences du service téléphonique public sans cordon*)
- "radio licence fee" means the fee payable for the issuance, continuance in force, renewal or reinstatement of a radio licence and is composed of the following fees, as applicable:
 - (a) the issuance fee, being the fee payable for the initial issuance of a radio licence and being the fee set out in column II of the applicable item of Parts I to VII of Schedule III,

- (b) the monthly fee, being the monthly fee payable for the continuance in force of a radio licence until the radio licence has expired and being the fee set out in column III of the applicable item of Parts I to VII of Schedule III,
- (c) the reinstatement fee, being the fee payable for the reinstatement of a radio licence after the licence has expired on March 31 of any year and being the fee set out in
 - (i) column V of the applicable item of Parts I to VII of Schedule III, where the fee is paid during the period beginning on April 1 and ending on April 30 of the following year, and
 - (ii) column VI of the applicable item of Parts I to VII of Schedule III, where the fee is paid during the period beginning on May 1 and ending on March 31 of the following year,
- (d) the renewal fee, being the annual fee payable for the renewal of a radio licence before the licence expires on March 31 of each year and being the fee set out in column IV of the applicable item of Parts I to VII of Schedule III; and
- (e) the short-term fee, being the fee payable for the issuance and continuance in force of a radio licence for a term of not more than 30 days and being the sum of the issuance fee set out in column II and the monthly fee set out in column III of the applicable item of Parts I to VII of Schedule III. (droit de licence radio)

General

- **56.** (1) The radio licence fee payable in respect of a radio licence that is issued in respect of radio apparatus installed in a station and that authorizes the use of certain frequencies is, for each of the applicable items of Parts I to VII of Schedule III
 - (a) the sum of the issuance fee and the monthly fee for each month until the licence has expired;
 - (b) the renewal fee; or
 - (c) the reinstatement fee.
- (2) Subject to subsection (3), radio licences expire on March 31 of each year and are renewable for a period of 12 months.
- (3) Radio licences issued for less than 30 days expire on the day indicated on the licence and are not renewable.
- (4) The radio licence fee payable for the issuance or renewal of a radio licence in respect of radio apparatus installed in a fixed or mobile station that is operated by a radiocommunication service provider authorized to provide a public cordless telephone service on public cordless telephone frequencies is \$10.00 for each period of 12 months or less.

Radio Licence Fee Exemption for Foreign Governments

57. The radio licence fees do not apply in respect of a radio licence issued to a foreign government that grants a reciprocal radio licence fee exemption to Her Majesty in right of Canada.

Telephone Channel Equivalencies

- **58.** For the purpose of calculating the radio licence fees payable for a radio licence authorizing operation on certain frequencies for radio apparatus installed in a fixed station or space station referred to in section 61 or 65 or 73,
 - (a) one television channel, including the associated sound channels,
 - (i) where the necessary bandwidth is 6 MHz or less, is equivalent to 300 telephone channels.
 - (ii) where the necessary bandwidth is greater than 6 MHz and less than or equal to 12.7 MHz, is equivalent to 600 telephone channels, and
 - (iii) where the necessary bandwidth is greater than 12.7 MHz, is equivalent to 960 telephone channels;
 - (b) one sound channel is equivalent to three telephone channels; and
 - (c) one digitally modulated channel is equivalent to the number of telephone channels calculated by dividing the modulation bit rate by 64 kilobits per second.
 - **59.** "Heading and section repealed." SOR/2000-78

Mobile Stations

- **60.** (1) The radio licence fee payable in respect of radio apparatus installed in a mobile station that operates in the aeronautical service or maritime service is the applicable fee set out in item 2 of Part I of Schedule III for all authorized transmit and receive frequencies.
- (2) The radio licence fee payable in respect of radio apparatus installed in a mobile station that operates in the public information service is the applicable fee set out in item 3 of Part I of Schedule III for all authorized transmit and receive frequencies.
- (3) The radio licence fee payable in respect of radio apparatus installed in a mobile station that operates in the developmental service or radiodetermination service is the applicable fee set out in item 4 of Part I of Schedule III for all authorized transmit and receive frequencies.
- (4) The radio licence fee payable in respect of radio apparatus installed in a mobile station that operates in the land mobile service is the applicable fee set out in item 5 of Part I of Schedule III for all authorized transmit and receive frequencies.

- (5) In addition to any applicable fee prescribed pursuant to subsection (1), (2), (3) or (4), the radio licence fee payable in respect of radio apparatus installed in a mobile station that communicates with a space station is the applicable fee set out in item 6 of Part I of Schedule III for all authorized transmit and receive frequencies.
- (6) The radio licence fee payable in respect of radio apparatus installed in a mobile station, other than a mobile station referred to in subsections (1) to (5), is the applicable fee set out in item 7 of Part I of Schedule III for all authorized transmit and receive frequencies.

Fixed Stations -- Radiocommunication Users

Fixed Stations Communicating with other Fixed Stations or Space Stations

- **61.** (1) Subject to subsection (2), the radio licence fee payable by a radiocommunication user in respect of radio apparatus installed in a fixed station, other than a fixed station that operates in the land mobile service or a fixed station described in section 62, is for each transmitter and each receiver installed at the station the sum of the applicable fees set out in Part II of Schedule III that corresponds to the number of telephone channels per radio frequency assigned to that transmitter or receiver.
- (2) Where a fixed station, other than a fixed station described in section 62 or 63, communicates solely on one transmit radio frequency and one receive radio frequency that are not manually selected with another fixed station, other than a fixed station in the land mobile service, operated for the automatic reception and retransmission of radiocommunications within a communication system that does not accept traffic from or deliver traffic to external points by means other than radio, the radio licence fee payable is the sum of
 - (a) in respect of all assigned transmit radio frequencies, the applicable radio licence fee for the assigned transmit radio frequency with the greatest number of telephone channels set out in Part II of Schedule III, and
 - (b) in respect of all assigned receive radio frequencies, the applicable radio licence fee for the assigned receive radio frequency with the greatest number of telephone channels set out in Part II of Schedule III.

Fixed Stations Operated in Certain Services

- **62.** (1) The applicable radio licence fee set out in item 1 of Part III of Schedule III for all authorized transmit and receive frequencies is payable by a radiocommunication user in respect of radio apparatus installed in a fixed station to
 - (a) operate in any of the following services
 - (i) aeronautical service.
 - (ii) developmental service,
 - (iii) maritime service, and

- (iv) radiodetermination service;
- (b) communicate on radio frequencies below 30 MHz; or
- (c) communicate on cellular mobile radio frequencies or on other frequencies assigned to a radiocommunication service provider and for which the radiocommunication user does not come under the authority of the radiocommunication service provider's licence as a subscriber.
- (2) The applicable radio licence fee set out in item 2 of Part III of Schedule III for all authorized transmit and receive frequencies is payable by a radiocommunication user in respect of radio apparatus installed in a fixed station to operate in the public information service.

Land Mobile Service

63. Subject to section 64, the radio licence fee payable by a radiocommunication user in respect of radio apparatus installed in a fixed station to operate in the land mobile service is the fee, for the applicable metropolitan or other area, set out in Part IV of Schedule III for each assigned transmit or receive frequency.

Electronic News Gathering

- **64.** The radio licence fee payable by a radiocommunication user in respect of radio apparatus installed in a fixed station to operate in the land mobile service and to communicate with a mobile station for the purpose of electronic news gathering is the sum of
 - (a) in respect of all assigned transmit radio frequencies, the fee, for the applicable metropolitan or other area, set out in item 1 of Part IV of Schedule III for one assigned transmit radio frequency, and
 - (b) in respect of all assigned receive radio frequencies, the fee, for the applicable metropolitan or other area, set out in item 1 of Part IV of Schedule III for one assigned receive radio frequency.

Fixed Stations--Radiocommunication Service Providers

Fixed Stations Communicating with other Fixed Stations or Space Stations

65. The radio licence fee payable by a radiocommunication service provider in respect of radio apparatus installed in a fixed station, other than a fixed station referred to in sections 66 to 71, is for each transmitter and each receiver installed at the station the sum of the applicable fees set out in Part II of Schedule III that corresponds to the number of telephone channels per radio frequency assigned to that transmitter or receiver.

Land Mobile Service

66. Subject to sections 67 to 71, the radio licence fee payable by a radiocommunication service provider in respect of radio apparatus installed in a fixed station to operate in the land mobile service is the fee, for the applicable metropolitan or other area, set out in item 1 of Part V of Schedule III for each assigned transmit or receive frequency.

Dispatch

67. The radio licence fee payable by a radiocommunication service provider in respect of radio apparatus installed in a fixed station for the purpose of dispatch and to communicate with a mobile station in the land mobile service is the applicable congestion zone fee set out in item 2 of Part V of Schedule III for each assigned transmit or receive frequency.

Paging

68. The radio licence fee payable by a radiocommunication service provider in respect of radio apparatus installed in a fixed station in the land mobile service for the purpose of paging is the applicable congestion zone fee set out in item 3 of Part V of Schedule III for each assigned transmit or receive frequency.

Cellular Mobile Radio Frequencies

69. The radio licence fee payable by a radiocommunication service provider in respect of radio apparatus installed in a fixed station that communicates on cellular mobile radio frequencies is the applicable fee set out in item 4 of Part V of Schedule III for each assigned transmit or receive frequency.

Broadband Personal Communications Services Radio Frequencies

- **70.** The radio licence fee payable by a radiocommunication service provider in respect of radio apparatus installed in a fixed station that communicates on broadband personal communications services radio frequencies is the applicable fee set out in
 - (a) paragraph 5(a) of Part V of Schedule III for each 10 MHz assigned block of transmit or receive frequencies where the radius of the coverage area of the station is greater than or equal to one kilometre; or
 - (b) paragraph 5(b) of Part V of Schedule III for each 10 MHz assigned block of transmit or receive frequencies where the radius of the coverage area of the station is less than one kilometre.

Narrowband Personal Communications Services Radio Frequencies

71. The radio licence fee payable by a radiocommunication service provider in respect of radio apparatus installed in a fixed station that communicates on narrowband personal communications services radio frequencies is the applicable fee set out in item 6 of Part V of Schedule III for each 12.5 kHz assigned block of transmit or receive frequencies.

"Fixed Station Communicating with a Station not Otherwise Described" (SOR/97-266)

72. The radio licence fee payable in respect of radio apparatus installed in a fixed station other than a fixed station referred to in sections 61 to 71 is the applicable fee set out in item 1 of Part III of Schedule III for all authorized transmit and receive frequencies.

Space Station

- **73.** The radio licence fee payable in respect of radio apparatus installed in a space station that communicates with a fixed station or space station is, for each transmitter and each receiver installed at the station, the sum of the applicable fees set out in Part VI of Schedule III that corresponds to the number of telephone channels per radio frequency assigned to that transmitter or receiver.
- **74.** The radio licence fee payable in respect of radio apparatus installed in a space station that communicates with a mobile station is the applicable fee set out in item 1 of Part VII of Schedule III for each assigned transmit or receive frequency.

Radio Licence Amendments

75. Where a licensee requests an amendment to a radio licence that results in a higher fee, the radio licence fee payable is the difference between the existing fee and the new fee.

Additional Radio Frequency

76. Where a licensee operates on an additional radio frequency for which a fee is prescribed, the radio licence fee payable is the difference between the existing fee and the new fee.

Increase in the Number of Telephone Channels per Radio Frequency

- **77.** Where a licensee increases the number of telephone channels of a radio frequency assigned to a transmitter or receiver installed at a fixed station or space station described in section 61, 65 or 73, the radio licence fee payable in respect of that amendment is the difference between
 - (a) the new fee for the amended total number of telephone channels per radio frequency assigned to that transmitter or receiver, and
 - (b) the existing fee for the total number of telephone channels per radio frequency assigned to that transmitter or receiver.

Relocation of a Station

- **78.** Where a fixed station referred to in section 67 or 68 is relocated into a congestion zone where the radio licence fee is higher, the radio licence fee payable is, for each assigned transmit or receive radio frequency, the difference between the new fee in the congestion zone to which the station is relocated and the corresponding existing fee applicable in the congestion zone in which the station was previously located.
- **79.** Where a fixed station referred to in section 63 or 66 is relocated from an area into a metropolitan area, the radio licence fee payable is, for each assigned transmit or receive radio frequency, the difference between the new fee in the metropolitan area to which the station is relocated and the corresponding existing fee applicable in the area in which the station was previously located.

Fees for Taking Examinations for Radio Operator Certificates

80. The fee payable for taking the examination for a certificate set out in paragraph 26(1)(c) or (d) is \$80.00.

Fees for Taking Examinations for Amateur Radio Operator Certificates

81. The fee payable for taking the examination for an amateur radio operator certificate with a qualification set out in any of subparagraphs 26(1)(e)(i) to (iv) is \$20.00 per qualification.

SCHEDULE I

(Sections 26 and 28 and subsections 29(1) and 35(1))

CERTIFICATE EQUIVALENCIES

	Column I	Column II
Item	Certificates Issued Under the Repealed Radio Operator's Certificate Regulations	Certificates Issued Under the Radiocommunication Regulations
1	Radiocommunication Operator's General Certificate (Maritime)	Radiocommunication Operator General Certificate (Maritime)
2	Radio Operator's First Class Certificate	Radiocommunication Operator General Certificate (Maritime)
3	Radio Operator's Second Class Certificate	Radiocommunication Operator General Certificate (Maritime)
4	General Operator's Certificate (issued after January 4, 1995)	General Operator Certificate
5	Radiotelephone Operator's General Certificate (Aeronautical)	"Restricted Operator Certificate with Aeronautical Qualification
6	Radiotelephone Operator's General Certificate (Land)	Restricted Operator Certificate with Land Qualification
7	Radiotelephone Operator's Restricted Certificate (Aeronautical)	Restricted Operator Certificate with Aeronautical Qualification
8	Radiotelephone Operator's Restricted Certificate (Land)	Restricted Operator Certificate with Land Qualification" (SOR/98-189)
9	"Amateur Radio Operator's Advanced Certificate" (SOR/98-189)	Amateur Radio Operator Certificate with (a) Basic Qualification; (b) Morse Code (12 w.p.m.) Qualification; and (c) Advanced Qualification
10	"Amateur Radio Operator's Certificate	Amateur Radio Operator Certificate with (a) Basic Qualification; (b) Morse Code (12 w.p.m.) Qualification; and (c) Advanced Qualification
11	Amateur Digital Radio Operator's Certificate" (SOR/98-189)	Amateur Radio Operator Certificate with (a) Basic Qualification; and (b) Advanced Qualification
12	Amateur Operator's Certificate with (a) Basic Qualification; (b) Morse Code (5 w.p.m.) Qualification; (c) Morse Code (12 w.p.m.) Qualification; and (d) Advanced Qualification	Amateur Radio Operator Certificate with (a) Basic Qualification; (b) Morse Code (5 w.p.m.) Qualification; (c) Morse Code (12 w.p.m.) Qualification; and (d) Advanced Qualification

SCHEDULE II

(Sections 33, 34 and 36)

OPERATION OF RADIO STATIONS

	Column I	Column II
Item	Radio Operator Certificates	Radio Stations
1	Restricted Operator Certificate with Aeronautical Qualification	"Radio installations that form part of any station authorized in the aeronautical service
2	Restricted Operator Certificate with Land Qualification	Radio installations that form part of any authorized station except stations authorized in the aeronautical service, maritime service or amateur radio service
3	Restricted Operator Certificate with Maritime Qualification	Radio installations that form part of any authorized station on board a ship that is voluntarily fitted with those installations, or radiotelephone installations that form part of any authorized station on board a ship that is compulsorily fitted with those installations in accordance with the <i>Ship Station Radio Regulations</i> and is not capable of digital selective calling or is a ship earth station
4	"General Operator Certificate" (SOR/98-189)	Radio installations that form part of any authorized station on board a ship that is voluntarily fitted with those installations or compulsorily fitted with those installations in accordance with the <i>Ship Station Radio Regulations</i>
5	First-Class Radioelectronic Certificate	Radio installations that form part of any authorized station on board a ship that is voluntarily fitted with those installations or compulsorily fitted with those installations in accordance with the <i>Ship Station Radio Regulations</i>
6	Radiocommunication Operator General Certificate (Maritime)	Radio installations that form part of any authorized station on board a ship that is voluntarily fitted with those installations or radiotelegraph and radiotelephone installations that form part of any authorized station on board a ship that is compulsorily fitted with those installations in accordance with the <i>Ship Station Radio Regulations</i> and is not capable of digital selective calling or is a ship earth station." SOR/01-533

SCHEDULE II (concluded)

	Column I	Column II
Item	Radio Operator Certificates	Radio Stations
7	"Repealed" (SOR/97-266)	
8	"Repealed" (SOR/97-266)	
9	General Operator's Certificate (issued prior or on January 4, 1995)	"Radio installations that form part of any authorized station on board a ship that is voluntarily fitted with those installations or radiotelephone installations that form part of any authorized station on board a ship that is compulsorily fitted with those installations in accordance with the <i>Ship Station Radio Regulations</i> and is not capable of digital selective calling or is a ship earth station
10	Coast Guard Radiotelegraph Operator's Certificate	Radio installations that form part of any authorized station on board a ship that is voluntarily fitted with those installations or radiotelephone installations that form part of any authorized station on board a ship that is compulsorily fitted with those installations in accordance with the <i>Ship Station Radio Regulations</i> and is not capable of digital selective calling or is a ship earth station
11	Coast Guard Radiotelephone Operator's Certificate	Radio installations that form part of any authorized station on board a ship that is voluntarily fitted with those installations or radiotelephone installations that form part of any authorized station on board a ship that is compulsorily fitted with those installations in accordance with the <i>Ship Station Radio Regulations</i> and is not capable of digital selective calling or is a ship earth station
12	Restricted Operator's Certificate	Radio installations that form part of any authorized station on board a ship that is voluntarily fitted with those installations or radio installations that form part of any authorized station on board a small fishing vessel that is compulsorily fitted with those installations in accordance with the <i>Ship Station Radio Regulations</i> or radiotelephone installations and VHF digital selective calling equipment that form part of any authorized station on board a ship, other than a small fishing vessel, that is compulsorily fitted with those installations in accordance with those Regulations

13	Radiotelephone Operator's General Certificate (Maritime)	Radio installations that form part of any authorized station on board a ship that is voluntarily fitted with those installations or radiotelephone installations that form part of any authorized station on board a ship that is compulsorily fitted with those installations in accordance with the <i>Ship Station Radio Regulations</i> and is not capable of digital selective calling or is a ship earth station
14	Radiotelephone Operator's Restricted Certificate (Maritime)	Radio installations that form part of any authorized station on board a ship that is voluntarily fitted with those installations or radiotelephone installations that form part of any authorized station on board a ship that is compulsorily fitted with those installations in accordance with the <i>Ship Station Radio Regulations</i> and is not capable of digital selective calling or is a ship earth station
15	Amateur Radio Operator Certificate with Basic Qualification	Radio installations that form part of any station authorized in the amateur radio service" SOR/01-533

SCHEDULE III

PART I "(Sections 55, 56 and 60)

FEE SCHEDULE APPLICABLE FOR A MOBILE STATION IN ANY SERVICE OTHER THAN THE AMATEUR RADIO SERVICE" SOR/2000-78

	Column I	Column II	Column III	Column IV	Column V	Column VI
Item	Type of Station, for all Authorized Transmit and Receive Frequencies	Issuance Fee	Monthly Fee	Renewal Fee	Reinstatement Fee (April)	Reinstatement Fee (May)
1.	"Item repealed." SOR/2000-78					
2.	Mobile station in the aeronautical or maritime services	\$11.00	\$3.00	\$36.00	\$38.00	\$41.00
3.	Mobile station in the public information service	11	3	36	38	41
4.	Mobile station in the developmental or radiodetermination service	12	3.4	41	43	46
5.	Mobile station in the land mobile service	12	3.4	41	43	46
6.	Mobile station communicating with a space station	12	3.4	41	43	46
7.	Other mobile station	12	3.4	41	43	46

PART II (Sections 55, 56, 58, 61 and 65)

FEE SCHEDULE APPLICABLE TO RADIOCOMMUNICATION USERS FOR FIXED STATIONS THAT COMMUNICATE WITH OTHER FIXED STATIONS OR SPACE STATIONS

	Column I	Column II	Column III	Column IV	Column V	Column VI
Item	Number of Telephone Channels per Radio Frequency Assigned to each Transmitter or Receiver	Issuance Fee	Monthly Fee	Renewal Fee	Reinstatement Fee (April)	Reinstatement Fee (May)
Item	Receiver	issuance rec	Wildling Tee	Renewarree	(April)	(May)
1.	From 1 to 24	\$10.00	\$ 2.80	\$ 34.00	\$ 36.00	\$ 39.00
2.	From 25 to 60	13	3.5	42	44	48
3.	From 61 to 120	15	4.2	50	53	57
4.	From 121 to 300	27	7.6	91	96	103
5.	From 301 to 600	45	12.6	151	159	171
6.	From 601 to 960	64	17.8	213	224	241
7.	From 961 to 1,200	83	23.1	277	291	314
8.	1,201 or more	\$83.00, plus \$19.00 per 300 telephone channels or portion thereof in excess of 1,200	\$23.10, plus \$5.30 per 300 telephone channels or portion thereof in excess of 1,200	\$277.00, plus \$63.00 per 300 telephone channels or portion thereof in excess of 1,200	\$291.00, plus \$66.00 per 300 telephone channels or portion thereof in excess of 1,200	\$314.00, plus \$71.00 per 300 telephone channels or portion thereof in excess of 1,200

PART III (Sections 55, 56, 62 and 72)

FEE SCHEDULE APPLICABLE TO RADIOCOMMUNICATION USERS FOR FIXED STATIONS OPERATING IN CERTAIN SERVICES

	Column I	Column II	Column III	Column IV	Column V	Column VI
Item	Type of Station, for all Authorized Transmit and Receive Frequencies	Issuance Fee	Monthly Fee	Renewal Fee	Reinstatement Fee (April)	Reinstatement Fee (May)
1.	Fixed station referred to in subsection 62(1) or section 72 of these Regulations	\$12.00	\$3.40	\$41.00	\$43.00	\$46.00
2.	Fixed station in the public information service	11	3	36	38	41

PART IV (Sections 55, 56, 63 and 64)

FEE SCHEDULE APPLICABLE TO RADIOCOMMUNICATION USERS FOR FIXED STATIONS IN THE LAND MOBILE SERVICE

	Column I	Column II	Column III	Column IV	Column V	Column VI
Item	For each Assigned Transmit or Receive Frequency	Issuance Fee	Monthly Fee	Renewal Fee	Reinstatement Fee (April)	Reinstatement Fee (May)
	()M. P.	#25.00	#0.70	#116.00	#122.00	\$121.00
1.	(a) Metropolitan Area	\$35.00	\$9.70	\$116.00	\$122.00	\$131.00
	(b) Other Area	16.00	4.40	53.00	56.00	60.00

PART V (Sections 55, 56 and 66 to 71)

FEE SCHEDULE APPLICABLE TO RADIOCOMMUNICATION SERVICE PROVIDERS FOR FIXED STATIONS IN THE LAND MOBILE SERVICE

	Column I	Column II	Column III	Column IV	Column V	Column VI
Item	Type of Operation, and Area, Congestion Zone or Coverage Area	Issuance Fee	Monthly Fee	Renewal Fee	Reinstatement Fee (April)	Reinstatement Fee (May)
1.	For each assigned transmit or receive frequency					
	(a) Metropolitan Area	\$ 35.00	\$ 9.70	\$ 116.00	\$ 122.00	\$ 131.00
	(b) Other Area	16.00	4.40	53.00	56.00	60.00
2.	Dispatch					
	For each assigned transmit or receive frequency					
	(a) High Congestion Zone(b) Medium Congestion	315.00	87.60	1,051.00	1,104.00	1,191.00
	Zone (c) Low Congestion	158.00	43.80	526.00	552.00	596.00
	Zone	79.00	21.80	262.00	275.00	297.00
3.	Paging					
	For each assigned transmit or receive frequency					
	(a) High Congestion Zone	110.00	30.70	368.00	386.00	417.00
	(b) Medium Congestion Zone	95.00	26.30	316.00	332.00	358.00
	(c) Low Congestion Zone	79.00	21.80	262.00	275.00	297.00
4.	Cellular Mobile Radio Frequencies					
	For each assigned transmit or receive frequency	142	39.4	473	497	536

	Column I	Column II	Column III	Column IV	Column V	Column VI
Item	Type of Operation, and Area, Congestion Zone or Coverage Area	Issuance Fee	Monthly Fee	Renewal Fee	Reinstatement Fee (April)	Reinstatement Fee (May)
					, ,	
5.	Broadband Personal Communications Services Radio Frequencies					
	For each 10 MHz assigned block of transmit or receive frequencies					
	(a) Coverage Area radius is $\geq 1 \text{ km}$	2700	750	9000	9450	10200
	(b) Coverage Area radius is < 1 km	27	7.5	90	95	102
6.	Narrowband Personal Communications Services Radio Frequencies					
	For each 12.5 kHz assigned block of transmit or receive frequencies	158	43.8	525	551	595

PART VI (Sections 55, 56, 58 and 73)

FEE SCHEDULE APPLICABLE FOR SPACE STATIONS THAT COMMUNICATE WITH FIXED STATIONS OR SPACE STATIONS

	Column I	Column II	Column III	Column IV	Column V	Column VI
Item	Number of Telephone Channels per Radio Frequency Assigned to each Transmitter or Receiver	Issuance Fee	Monthly Fee	Renewal Fee	Reinstatement Fee (April)	Reinstatement Fee (May)
1.	From 1 to 24	\$ 353.00	\$ 98.10	\$1,177.00	\$ 1,236.00	\$ 1,334.00
2.	From 25 to 60	441.00	122.60	1,471.00	1,545.00	1,667.00
3.	From 61 to 120	530.00	147.10	1,765.00	1,853.00	2,000.00
4.	From 121 to 300	946.00	262.70	3,152.00	3,310.00	3,572.00
5.	From 301 to 600	1,608.00	446.60	5,359.00	5,627.00	6,074.00
6.	From 601 to 960	2,269.00	630.30	7,564.00	7,942.00	8,573.00
7.	From 961 to 1200	2,931.00	814.30	9,771.00	10,260.00	11,074.00
8.	1201 or more	\$2,931.00, plus \$662.00 per 300 telephone channels or portion thereof in excess of 1,200	\$814.30, plus \$183.90 per 300 telephone channels or portion thereof in excess of 1,200	\$9,771.00, plus \$2,207.00 per 300 telephone channels or portion thereof in excess of 1,200	\$10,260.00, plus \$2,317.00 per 300 telephone channels or portion thereof in excess of 1,200	\$11,074.00, plus \$2,501.00 per 300 telephone channels or portion thereof in excess of 1,200

SCHEDULE III -- (Concluded)

PART VII

(Sections 55, 56 and 74)

FEE SCHEDULE APPLICABLE TO RADIOCOMMUNICATION SERVICE PROVIDERS FOR SPACE STATIONS THAT COMMUNICATE WITH MOBILE STATIONS

	Column I	Column II	Column III	Column IV	Column V	Column VI
Item	For Each Assigned Transmit or Receive Frequency	Issuance Fee	Monthly Fee	Renewal Fee	Reinstatement Fee (April)	Reinstatement Fee (May)
1.	Space Station	\$142.00	\$39.40	\$473.00	\$497.00	\$536.00

SCHEDULE IV

(Sections 55, 63, 66 and 79)

METROPOLITAN AREAS

	Column I	umn I Column III Column III						
Item	Metropolitan Area	Nort	h Latitude	West Longitude				
1.	Calgary, Alta.	50E 51'	51E 13'	113E 50'	114E 18'			
2.	Chicoutimi-Jonquière, Que.	48E 22'	48E 27'	70E 55'	71E 13'			
3.	Edmonton, Alta.	53E 19'	53E 45'	113E 10'	113E 45'			
4.	Halifax, N.S.	44E 35'	44E 43'	63E 29'	63E 40'			
5.	Hamilton, Ont.	43E 09'	43E 24'	79E 43'	80E 00'			
6.	Kitchener, Ont.	43E 20'	43E 32'	80E 16'	80E 36'			
7.	London, Ont.	42E 54'	43E 03'	81E 08'	81E 21'			
8.	Montréal, Que.	45E 21'	45E 45'	73E 18'	74E 00'			
9.	Oshawa, Ont.	43E 50'	43E 57'	78E 45'	78E 55'			
10.	Ottawa-Hull, Ont., Que.	45E 17'	45E 30'	75E 30'	75E 55'			
11.	Québec, Que.	46E 41'	46E 52'	71E 06'	71E 25'			
12.	Regina, Sask.	50E 22'	50E 33'	104E 29'	104E 43'			
13.	Saint John, N.B.	45E 13'	45E 18'	66E 00'	66E 10'			
14.	Saskatoon, Sask.	52E 04'	52E 15'	106E 23'	106E 47'			
15.	St. Catharines-Niagara, Ont.	43E 03'	43E 17'	79E 02'	79E 20'			
16.	St. John's, Nfld.	47E 30'	47E 38'	52E 32'	52E 48'			
17.	Sudbury, Ont.	46E 25'	46E 34'	80E 46'	81E 02'			
18.	Thunder Bay, Ont.	48E 18'	48E 29'	89E 09'	89E 20'			
19.	Toronto, Ont.	43E 24'	43E 55'	78E 55'	79E 43'			
20.	Vancouver, B.C.	49E 00'	49E 23'	122E 31'	123E 17'			
21.	Victoria, B.C.	48E 24'	48E 45'	123E 15'	123E 32'			
22.	Windsor, Ont.	42E 13'	42E 21'	82E 50'	83E 07'			
23	Winnipeg, Man.	49E 42'	50E 00'	96E 57'	97E 30'			

SCHEDULE V

(Sections 55, 67, 68 and 78)

HIGH CONGESTION ZONES

	Column I	Column II		Column III		Column IV		Column V		Column VI		Column VII		Column VIII		Column IX		Column 2	Column X	
		Geographical Coordinates		Geographical Coordinates		Geographical Coordinates		Geographical Coordinates		Geographical Coordinates		Geographical Coordinates		Geographical Coordinates		Geographical Coordinates		Geographical Coordinates		
Item	Regional Area	North Lat.	West Long.																	
1.	Calgary, Alta.	51E 06'	114E 13'	51E 06'	113E 58'	50E 57'	113E 58'	50E 57'	114E 13'	-	-	-	-	-	-	-	=	-	-	
2.	Edmonton, Alta.	53E 36'	113E 37'	53E 36'	113E 23'	53E 28'	113E 23'	53E 28'	113E 37'	-	-	-	-	-	-	-	-	-	-	
3.	Montréal, Que.	45E 24'	74E 00'	45E 41'	73E 44'	45E 42'	73E 27'	45E 31'	73E 24'	45E 24'	73E 27'	-	-	-	-	-	-	-	-	
4.	Toronto, Ont.	44E 08'	79E 40'	44E 00'	78E 45'	43E 02'	78E 45'	43E 02'	79E 30'	43E 10'	80E 00'	43E 40'	80E 00'	-	-	-	-	-	-	
5.	Vancouver, B.C.	49E 23'	123E 25'	49E 23'	122E 08'	49E 00'	122E 08'	49E 00'	123E 20'	49E 19'	123E 25'	-	-	-	-	-	-	-	-	
6.	Victoria, B.C.	49E 20'	124E 30'	49E 20'	124E 00'	48E 50'	123E 00'	48E 18'	123E 15'	48E 18'	123E 45'	48E 35'	123E 45'	-	-	-	-	-	-	

SCHEDULE VI

(Sections 55, 67, 68 and 78)

MEDIUM CONGESTION ZONE

	Column I	Column II		Column	Column III		Column IV		Column V		Column VI		Column VII		Column VIII		Column IX		X	Column XI	
		Geograp Coordina		Geograp Coordin		Geograp Coordina		Geographical Coordinates													
Item	Regional Area	North Lat.	West Long.	North Lat.	West Long.	North Lat.	West Long.	North Lat.	West Long.	North Lat.	West Long.	North Lat.	West Long.	North Lat.	West Long.	North Lat.	West Long.	North Lat.	West Long.	North Lat.	West Long.
1	Calgary, Alta.	51E 13'	114E 18'	51E 13'	113E 50'	50E 51'	113E 50'	50E 51'	114E 18'	-	-	-	-	-	-	-	-	-	-	-	=
2	Chicoutimi, Que.	48E 23'	71E 18'	48E 28'	71E 18'	48E 38'	70E 48'	48E 33'	70E 48'	48E 23'	71E 00'	-	-	-	-	-	-	-	-	-	-
3	Chilliwack, B.C.	49E 23'	122E 08'	49E 23'	121E 30'	49E 00'	121E 30'	49E 00'	122E 08'	-	-	-	-	-	=	-	-	-	-	-	-
4	Edmonton, Alta.	53E 45'	113E 45'	53E 45'	113E 10'	53E 19'	113E 10'	53E 19'	113E 45'	-	-	-	-	-	-	-	-	-	-	-	-
5	Halifax, N.S.	44E 48'	63E 46'	44E 48'	63E 25'	44E 33'	63E 25'	44E 33'	63E 46'	-	-	-	-	-	-	-	-	-	-	-	-
6	London, Ont.	43E 08'	81E 26'	43E 08'	81E 03'	42E 54'	81E 03'	42E 54'	81E 26'	-	-	-	-	-	-	-	-	-	-	-	-
7	Montréal, Que	45E 36'	74E 31'	46E 03'	73E 28'	46E 03'	73E 04'	45E 32'	72E 52'	45E 21'	72E 10'	45E 30'	71E 45'	45E 20'	71E 45'	45E 12'	72E 10'	45E 12'	74E 07'	-	-
8	Ottawa, Ont.	45E 35'	76E 00'	45E 35'	75E 25'	45E 12'	75E 25'	45E 12'	76E 00'	-	-	-	-	-	-	-	-	-	-	-	-
9	Québec, Que	46E 49'	71E 32'	46E 40'	71E 22'	46E 40'	71E 13'	46E 49'	71E 06'	46E 55'	71E 10'	46E 55'	71E 20'	-	-	-	-	-	-	-	-
10	Regina, Sask.	50E 33'	104E 43'	50E 33'	104E 29'	50E 22'	104E 29'	50E 22'	104E 43'	-	-	-	-	-	-	-	-	-	-	-	-
11	Saint John, N.B.	45E 18'	66E 12'	45E 24'	66E 00'	45E 10'	66E 00'	45E 10'	66E 12'	-	-	-	-	-	=	-	-	-	-	-	-
12	Saskatoon, Sask.	52E 12'	106E 45'	52E 12'	106E 23'	52E 05'	106E 23'	52E 05'	106E 45'	-	-	-	-	-	-	-	-	-	-	-	-
13	St. John's, Nfld.	47E 38'	52E 50'	47E 38'	52E 36'	47E 29'	52E 36'	47E 29'	52E 50'	-	-	-	-	-	-	-	-	-	-	-	-
14	Sudbury, Ont.	46E 36'	81E 07'	46E 36'	80E 46'	46E 25'	80E 46'	46E 25'	81E 07'	-	-	-	-	-	-	-	-	-	-	-	-
15	Thunder Bay, Ont.	48E 29'	89E 20'	48E 29'	89E 09'	48E 18'	89E 09'	48E 18'	89E 20'	-	-	-	-	-	-	-	-	-	-	-	-
16	Toronto, Ont.	44E 16'	79E 20'	44E 07'	78E 30'	42E 53'	78E 30'	42E 53'	80E 00'	43E 20'	80E 45'	43E 40'	80E 45'	43E 40'	80E 22'	44E 02'	80E 00'	44E 40'	80E 00'	44E 40'	79E 20'
17	Trois-Rivières, Que.	46E 32'	72E 42'	46E 32'	72E 35'	46E 23'	72E 27'	46E 18'	72E 35'	-	-	-	-	-	-	-	-	-	-	-	-
18	Vancouver, B.C.	49E 50'	124E 50'	50E 00'	124E 30'	49E 23'	123E 10'	49E 23'	123E 25'	49E 19'	123E 25'	49E 00'	123E 20'	49E 20'	124E 00'	-	-	-	-	-	-
19	Victoria, B.C.	49E 50'	125E 20'	49E 50'	124E 50'	49E 20'	124E 00'	49E 20'	124E 30'	48E 35'	123E 45'	48E 18'	123E 45'	49E 20'	125E 20'	-	-	-	-	-	-
20	Windsor, Ont.	42E 21'	83E 07'	42E 21'	82E 45'	42E 05'	82E 45'	42E 05'	83E 07'	-	-	-	-	-	-	-	-	-	-	-	-
21	Winnipeg, Man.	50E 02'	97E 22'	50E 02'	96E 51'	49E 44'	96E 51'	49E 44'	97E 22'	-	-	-	-	-	-	-	-	-	-	-	-