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DISCUSSION PAPER ON THE
PROPOSALS BY CANADA
FOR THE
REGION 2 MF (AM) BROADCASTING CONFERENCE
NOVEMBER 1981 (RABC-81)

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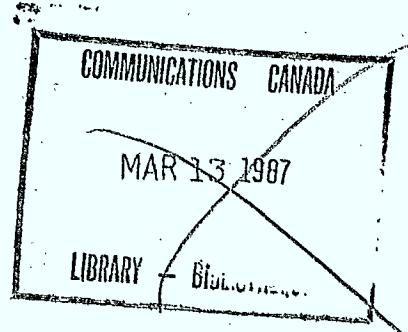
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1. INTRODUCTION

1.1 Purpose

The purpose of this discussion paper is to obtain the views of the Canadian public on a number of proposals for the RABC-81 and on the development of positions for the Canadian Delegation to the Conference. These proposals are based on three main sources:

- comments received in response to the background paper - June 1980 Towards the Development of Proposals by Canada for the Regional Administrative Medium Frequency (MF) Broadcasting Conference (Region 2) Second Session - November 1981;
- the Report to the Second Session of the Conference prepared by the First Session RABC-80;
- internal studies by the Interdepartmental Committee of various relevant issues.

Public comment on these proposals will be a basis for revisions when the Final Proposals are prepared and submitted to the International Telecommunication Union (ITU) in March 1981.

All comments on any matters raised in this paper should be sent by January 23, 1981 to:

Director, Broadcasting Regulation Branch
Telecommunication Regulatory Service
Dept. of Communications
300 Slater Street
Ottawa, Ontario K1A 0C8

1.2 Background

Canada has been preparing for this international conference on AM radio broadcasting in the Americas for the past two years. The First Session of this Conference (titled the Regional Administrative MF Broadcasting Conference Region 2, RABC-80) was convened by the International Telecommunication Union (ITU) in Buenos Aires, Argentina, March 10-28, 1980. The Second Session is scheduled for November 1981 in Rio de Janeiro, Brazil. It is expected that when the Agreement resulting from this Conference comes into force, the North American Regional Broadcasting Agreement (NARBA) which currently governs the international coordination of Canadian AM broadcasting stations will be abrogated.

The initiative for a new agreement governing the use of the MF broadcasting band for the Americas came from the countries of Latin America which requested that the ITU hold a regional conference as soon as possible. Canada decided to go along with this early timetable in spite of the fact that preoccupation last year with the crucial World Administrative Radio Conference (WARC 79) meant there would only be limited time to complete national studies and bilateral discussions related to our needs in the MF broadcasting band.

1.3 Report on the Background Paper - June 1980

In June 1980, the Department released a background paper inviting public comment on the following key issues that are related to the future of AM radio in Canada:

- channel separation;
- future use of Class I-A clear channels
- requirements for AM station growth in the period 1983-87;
- draft text of the proposed regional agreement;
- development and possible implementation of AM stereo.

Comments were received from a number of organizations. A list of these organizations and a summary of their comments are contained in Annex A. Copies of the comments are available for review by the public in the Department's library in Ottawa at 300 Slater Street or in any of the Regional Offices in Moncton, Montreal, Toronto, Winnipeg or Vancouver.

These comments have been reviewed during the course of the preparations of these proposals and, to the extent possible, the concerns raised have been accommodated.

1.4 Review of Inter-Sessional Activities

The First Session of the Conference which concluded in March 1980 in Buenos Aires, requested that the ITU's International Frequency Registration Board (IFRB) undertake a study on the two alternatives of 9 and 10 kHz for channel spacing and prepare a report for the Second Session. The Conference also decided to appoint a panel of technical experts (Argentina, Brazil, Canada, Cuba, Mexico, Peru, USA, and Uruguay) in order to assist the IFRB in analyzing the inventories of stations to identify and resolve incompatibilities and in carrying out the comparative channel spacing study. The first task of the panel is to adapt those computer programs currently used in the Region to the ITU computer system. These programs will be used during the Second Session to identify incompatibilities between broadcasting stations to be included in the regional plan. The panel of experts has met twice (June and September 1980) and will meet again in January and April 1981 to complete its work and issue its report on channel separation.

During the inter-sessional period, Canada has participated in the Working Group on Radiobroadcasting of the Permanent Technical Committee II of the Inter-American Telecommunications Conference (CITEL PTC-II WG). The PTC-II WG has undertaken to coordinate the technical preparations for the Second Session in the same effective manner that it used for the First Session. Canada participated in a meeting of PTC-II WG in September 1980 and will attend scheduled meetings of the WG to be held in 1981 prior to the RABC-81.

The following schedule of Canadian activities and consultations are anticipated prior to RABC-81.

- December 6, 1980 - release of the draft proposals
- January 1981 - third meeting of the IFRB panel of experts
- January 1981 - meeting of CITEL PTC-II Working Group
- January 23, 1981 - deadline for submission of comments on this discussion paper
- March 9, 1981 - submission to the ITU of the Final Canadian Proposals for the Second Session
- May 31, 1981 - submission to the ITU of future requirements for new stations for the 1983-87 period
- August 10, 1981 - technical report by the IFRB on the comparative study of channel spacing
- August, 1981 - meeting of CITEL PTC-II Working Group
- November 9, 1981 - convening of the Second Session of the Conference

1.5 Report of the Government/Industry Working Group

In order to have greater participation of the private sector in the early stages of the preparations, a Government/Industry Working Group has been formed and has held meetings in August, September and October, 1980. These meetings have afforded an excellent opportunity to exchange informal views between the government interdepartmental committee and the broadcasting experts in the private sector, prior to the formal issuing of this discussion paper.

The members of the Government/Industry Working Group are listed in Annex B. We are grateful to them for the time and effort expended in making their contribution to the Working Group. There is no doubt that this discussion paper has benefited from their work.

2. DISCUSSION OF PROPOSALS

2.1 Regional Agreement

In North America, the use of the MF broadcasting band has been governed by the North American Regional Broadcasting Agreement (NARBA). The Final Acts of the Regional Administrative MF Broadcasting Conference for Region 2 will constitute a new Regional Agreement. Ratification by Canada of this Regional Agreement will require the abrogation of NARBA and may also necessitate the conclusion of other sub-regional agreements.

It is expected that the Agreement to be negotiated in November 1981 will be developed along the lines of the text appearing in Section 3.1. The text is based on a comparable agreement in ITU Regions 1 and 3 but is adapted to the Region 2 broadcasting environment, particularly in view of the extensive use of directional antennas in North America.

Under NARBA, the notification of new or modified frequency assignments and the corresponding technical examination are performed bilaterally by the countries involved; for Canada this is almost entirely with the USA and Mexico. According to the International Radio Regulations, the IFRB is notified for registration purposes only. Under the proposed Regional Agreement, the formal notification and coordination functions would be performed by the IFRB in Geneva. Under the proposed Agreement, in addition to the notification to the IFRB, it is expected that Canada will carry out direct bilateral coordination with other countries in order to expedite the process.

An assignment Plan which will consist of a listing of the frequency and associated technical parameters of existing and proposed stations identified for each country will be annexed to the new Agreement. Article 4 of the proposed Regional Agreement provides for modifications to the Plan.

A proposed text of the Regional Agreement was included under Canada Gazette Notice # DGTR-011-80, June 1980. This text was revised by the PTC-II Working Group on Radiobroadcasting in Brazil in September 1980. The text given in Section 3.1 incorporates a number of further modifications introduced subsequent to the CITEL meeting.

The Department now invites comment from all interested parties on this latest text, particularly in respect to Article 4. Substantial changes from the text published in June 1980 are indicated by a vertical line in the margin. While comments on all aspects are welcome, comments on the following sections of the proposed Regional Agreement are specifically requested:

a) Article 4: Paragraph 3.1.4 a)

This paragraph provides a mechanism for dealing with incompatibilities between concurrent proposals for modifications to the Plan. The question of relative priorities for proposed modifications to the Plan is yet to be resolved. An example of where a simple date priority is inappropriate is when a proposal may adversely affect several assignments in the Plan, whereas a later proposal may affect none. In another case, a later proposal may be preempted by the publication of an earlier proposal. Comments on establishing a priority based on the date of notification are invited.

In assessing this issue, the following points should be noted:

- that only in cases where the technical criteria were not met would there need to be agreement with another administration;
- if the IFRB's study under 3.1.4 indicated that no administration was affected, and no administration raised a valid objection during the 90-day time-frame in 3.1.11, the proposed modification would be entered in the Plan;

- if an administration disagreed with a favourable finding by the IFRB, but could not substantiate its case, the IFRB would proceed in accordance with 3.1.14.

b) Article 4: Paragraph 3.1.18

In the event that no agreement can be reached with the affected administrations, this paragraph describes a means by which a proposed modification can be entered into the Master International Frequency Register subject to no harmful interference being caused. A consensus could not be reached at the last PTC-II Working Group meeting in September as to whether the words "objectionable" or "harmful" should be used to define the interference. As indicated by the proposed Agreement, it appears that the appropriate word to be used is "harmful".

It is noted that the term "objectionable interference", as defined in paragraph 3.1.7 of the Agreement and in the Report of the First Session is a calculated value. If there is no "objectionable interference", as determined by this calculation, then the other administration is not adversely affected and no agreement is needed. On the other hand, the term "harmful interference" is defined by 3142/93 of the Radio Regulations of the ITU as "seriously degrading or interrupting a radiocommunication service". It is the latter type of interference which this paragraph is intended to prevent.

The Department requests comments on the need for such a paragraph in the proposed Regional Agreement.

c) Possible Additional Clause under Article 4

In Chapter 7 of the Report of the First Session, it is stated that there should be a procedure to delete assignments which are not in use by the end of the period of the Plan. Possible options are:

- an automatic deletion procedure whereby any unused assignments would be deleted from the Plan by a specific date;
- a procedure where the IFRB would consult the administrations about the prospects for use of any unused assignment before deleting them with a period of grace of perhaps three years before deletion would occur.

Comments are requested on the need for such a clause and suggestions are invited for a suitable text.

2.2 Technical Criteria

The comments received from the public in response to the background paper of June 1980 generally supported the technical proposals adopted at the First Session of the Conference (Buenos Aires, March 1980). Concerning the controversial issue of channel spacing, which was not resolved at the First Session of the Conference, all submissions except one favour the retention of 10 kHz. In view of the importance of the issue, it is dealt with in detail in Annex C of these proposals.

Although a few respondents to the June background paper favoured a power increase to 100 kW daytime, Canada does not intend to reopen the subject of the daytime power limit for Class A stations at the Second Session. The Department intends to retain the 50 kW power limit domestically, unless neighbouring countries permit such an increase.

Some submissions in response to the background paper of June 1980 proposed modifications to receiver-related constraints, and consequently the Department proposes certain changes. These are described in Sections 2.2.1 and 2.2.2, and the proposed text is given in Section 3.2.

Taking all submissions into account, the Department proposes to support the retention of the technical criteria as given in the report to the Second Session of the Conference, with the exception of the proposed changes noted below.

- 2.2.1 It is proposed to delete the receiver oscillator radiation constraint noted in Section 8.2 of Annex A of the Report to the Second Session of the Conference.
- 2.2.2 Tests conducted in the U.S. on 8 receivers showed image rejection varying from 20 dB to more than 50 dB. The U.S. test report recommends that no consideration be given to an image constraint in frequency assignments.

The response from industry generally recommends further study be given to this concern. One submission stated that receiver constraints need not be changed for a 9 kHz plan. The Canadian Association of broadcasters (CAB) suggested that a protection ratio of -20 dB be used instead of the present 'no overlap' of the 0.5 mV/m contours.

It is proposed that the level of protection against this interference mechanism be the same as that given for the second adjacent channel rather than that for the first adjacent channel.

2.3 Currently Notified Canadian Stations

The list given in Annex D and referred to in Section 3.3 is the Canadian basic inventory of AM radio station requirements which was submitted to the IFRB pursuant to the decision of the First Session of the Regional Administrative MF Broadcasting Conference (Region 2), Buenos Aires, 1980. It consists of those AM stations notified up to May 31, 1980.

Almost all of the entries in this list refer to operating Canadian AM radio stations; a few, however, are planned to be authorized prior to December 31, 1982. The operational status of each entry is shown in column 7 by the following symbols:

O: station already in operation

P: station planned to be brought into operation

Readers are requested to verify that the parameters noted for each station entry are complete and correct in every respect. Questions or discrepancies should be forwarded to the attention of the Director, Broadcasting Regulation Branch.

2.4 Proposed Canadian Stations

Two lists of possible frequencies to meet Canadian requirements for MF (AM) broadcasting stations are given in Section 3.4. The first list is of stations which could be established on clear channels (Class I-A as defined in NARBA) under the assumption that 10 kHz channel spacing is retained. The second list is of stations which could be established in the event that 9 kHz channel spacing is adopted using the plan shown in Annex C Section 4.5. This latter list contains those stations which could be established on clear channels converted to the 9 kHz spacing as well as on the 12 new 9 kHz channels.

Some of these proposed stations are forecast to be authorized in centres prior to December 31, 1982 and would thus constitute a part of the basic inventory of Canadian AM stations. These immediate requirements are noted with an asterisk (*) in both lists. The remainder of these proposed stations would constitute a second phase of the basic inventory - those radio stations which are planned to be authorized in Canada in the period between January 1, 1983 and December 31, 1987. Other locations not noted in these lists would be added as requirements become better known.

These proposed stations would not satisfy all Canadian requirements due to the scarcity or absence of available channels in certain areas. As well, in view of the need to share the spectrum equitably with neighbouring countries, it may not be possible to obtain assignments for some of these proposed stations.

The studies to identify these planned station possibilities were limited to certain centres in Canada. Most of these centres are in close proximity to the U.S. border and are near other cities with high population densities. These requirements are by no means all-inclusive and comments on other requirements are therefore invited.

2.4.1 Proposed Stations to be Established on Class I-A Clear Channels(List 1, Section 3.4)

As the proposed regional agreement will not provide for the continued designation of channels and priorities to certain countries as per NARBA, the designation of clear channels with class I-A priority will have no meaning in the future. On this basis, Canadian and U.S. class I-A clear channels were reviewed to see if additional stations could operate on these channels.

Under NARBA, Canada was allotted 7 Class I-A clear channels, and 19 stations now operate on them. A policy of the Board of Broadcast Governors, re-affirmed by the CRTC, reserved the use of the clear channels in Canada for the national broadcasting service - the CBC. The CRTC has now called for applications on these channels by private broadcasters. Preliminary assessment by the Department of 19 Canadian centres indicates that 12 new broadcasting stations could be established using these channels.

Under NARBA, the USA was allotted 25 Class I-A clear channels. A preliminary assessment by the Department indicates that in major Canadian centres about 28 additional broadcasting stations could be established on these U.S. clear channels. It should be noted that a number of these stations would be incompatible with known U.S. proposals. This matter is currently under negotiation with the U.S. Administration.

2.4.2 Proposed Canadian Stations which could be Established on the 12 new 9 kHz Channels (if 9 kHz is adopted) (List 2, Section 3.4)

If 9 kHz channel spacing is adopted, Canada would propose the use of the frequency relocation plan in Annex C, Section 4.5 where two new 9 kHz channels are added every 180 kHz throughout the band. On this basis up to about 81 new stations could be established in the centres studied, 28 stations on the 9 kHz equivalent to the U.S. clear channels, 12 stations on the 9 kHz equivalent to the Canadian clear channels and 41 on the 12 new 9 kHz channels. The exact number of stations that could be established by Canada would depend on the result of negotiations with neighbouring countries. As the spectrum is a regional resource, it is recognized that the possible assignments on the 12 new 9 kHz channels would have to be shared equitably among the various administrations.

3. Text of Proposals

3.1 Regional Agreement

It is proposed to submit the following text of the Regional Agreement as Canada's Proposal to the Second Session of the Conference.

PREAMBLE

In order to facilitate relations, mutual understanding, and cooperation on broadcasting in the hectometric waveband;

In order to improve the utilization of the frequency band allocated to the medium frequency broadcasting service and achieve a satisfactory broadcasting service in all the countries;

Recognizing that all countries have equal rights, and that, in the application of this Agreement, the needs of each country shall be fulfilled as far as possible;

Recognizing that the protection of mutually accepted services is a major objective for all countries, attempting thereby to bring about better coordination and the use of more efficient facilities;

The delegates of the member states of the International Telecommunication Union listed below, meeting in Rio de Janeiro at a Regional Administrative Radio Conference convened under the provisions of the International Telecommunication Convention (Malaga-Torremolinos, 1973) adopt, subject to approval by the competent authorities of their respective countries, the following provisions relating to the broadcasting service in Region 2 for the hectometric waveband:

.....
.....
.....

ARTICLE 1

Definitions

For the purposes of this Agreement the following terms shall have the meanings defined below:

Union: The International Telecommunication Union;

Secretary-General: The Secretary-General of the Union;

IFRB: The International Frequency Registration Board;

CCIR: The International Radio Consultative Committee;

Convention: The International Telecommunication Convention (Malaga-Torremolinos, 1973);

Radio Regulations: The Radio Regulations annexed to the text of the Convention;

Region 2: The geographic area defined in number [3417/127] of the Radio Regulations, Geneva, (1979);

Master Register: The Master International Frequency Register;

Agreement: The whole of this Agreement including its Annexes;

Plan: The Plan and its appendices forming Annex 1 to this Agreement;

Contracting Member: Any Member of the Union which has approved or acceded to the Agreement;

Administration: Any governmental department or service responsible for discharging the obligations undertaken in the Convention and the Radio Regulations.

ARTICLE 2

Frequency Band

The provisions of this Agreement shall apply to the frequency band 535 to 1605 kHz allocated to the broadcasting service under Article [N 7/5] of the Radio Regulations.

ARTICLE 3

Execution of the Agreement

1. The Contracting Members shall apply for their broadcasting stations operating in Region 2 in the frequency band referred to in this Agreement, the provisions of the Agreement and the technical characteristics specified in the Plan.
2. The Contracting Members shall not bring assignments complying with the Plan into use, change the technical characteristics of stations specified in the Plan, or bring new stations into use, except under the conditions set out in Articles 4 and 5 of this Agreement.
3. The Contracting Members undertake to study and put into practice the measures necessary to avoid or to reduce any harmful or objectionable interference that might result from application of this Agreement.

ARTICLE 4

Procedure for Modifications to the Plan

1. In the present Article the expression "assignment in accordance with the Agreement" means any frequency assignment appearing in the Plan, or for which the procedure of this Article has been successfully applied.

2. When a Contracting Member proposes:

- to change the characteristics of a frequency assignment to a broadcasting station shown in the Plan, whether or not the station has been brought into use, or
- to bring into use an assignment to a broadcasting station not appearing in the Plan, or
- to change the characteristics of a frequency assignment to a broadcasting station for which the procedure in this Article has been successfully applied, whether or not the station has been brought into use, or
- to cancel a frequency assignment to a broadcasting station;

the following procedure shall be applied before any notification is made under the provisions of Article [N12/9] of the Radio Regulations (see Article 5 of this Agreement).

3. Proposed Changes in the Characteristics of an Assignment or the Bringing into Use of a New Assignment.

3.1 Any administration proposing to change the characteristics of an assignment, or bring a new assignment into use, shall seek the agreement of any administration that has an assignment in accordance with the Agreement in the same channel or in adjacent channels with separation up to [30] [27]¹ kHz and that is considered adversely affected in accordance with the provisions of 3.1.7.

3.1.1 An administration proposing to change the characteristics of an assignment, or bring a new assignment into use shall so inform the IFRB and furnish the characteristics of the modification or new assignment in the format specified in the Plan [and its Appendices].

3.1.2 If the modification proposed is within the limits defined in 3.1.10, the information sent to the IFRB shall contain a reference to that paragraph.

3.1.3 In cases not specified in 3.1.10, in order to seek the agreement contemplated in 3.1, the interested administration shall, at

1. 27 kHz if 9 kHz channel spacing is adopted.

the same time, inform the IFRB of the names of the administrations with which it considers an attempt must be made to reach an agreement, and the names of those whose agreement has already been obtained.

3.1.4 The IFRB shall determine those administrations whose assignments in accordance with the Agreement are considered adversely affected in accordance with the provisions of 3.1.7. The IFRB shall immediately forward the results of its calculations to the administration proposing the modification to the Plan. The IFRB shall add the names of these administrations to the information received, and shall publish all the information in a special section of its weekly circular.

3.1.4 a) The IFRB shall also determine the effect of the proposed modification on pending modifications which have been proposed earlier and which have not yet been included in the Plan. The IFRB shall forward the results of its calculations to the administrations whose proposed modifications would adversely affect, or would be adversely affected by, other pending modification proposals. If the incompatibilities between the proposals cannot be resolved, the IFRB shall proceed with the proposals originally received in accordance with 3.1.14, and shall review its findings on other affected proposals on the basis of such listing.

3.1.5 The IFRB shall send to the administrations listed in the special section of its weekly circular a telegram drawing their attention to the publication of this information and shall forward the result of its calculations to them.

3.1.6 An administration which considers itself entitled to appear on the list of administrations whose frequency assignments have been considered to be adversely affected may request the IFRB to include it on that list, within 60 days from the date of publication, indicating the reasons therefor. A copy of the request will be sent to the administration proposing the modification to the Plan.

3.1.7 Any assignment in accordance with the Agreement may be regarded as adversely affected when appropriate calculations determine that objectionable interference occurs as a result of a proposed modification to the Plan. The calculations determining the possibility of objectionable interference shall be based on Annex [] to this Agreement.

3.1.8 An administration may request from an administration proposing a modification to the Plan, the supplementary information identified in Annex []. Similarly the administration that proposes a modification to the Plan may ask any administration for such supplementary information as it may consider necessary to determine whether objectionable interference will be caused. The administration shall inform the IFRB of such request.

3.1.9 Comments from administrations on the information published in compliance with the provisions of 3.1.4 shall be sent either directly to the administration that is proposing the change or through the IFRB, but the IFRB must always be informed that comments have been made.

3.1.10 The agreement mentioned in 3.1 is not required if the proposed modification either:

- entails no increase in effective monopole radiated power in any direction or,
- relates to a change in the site of the station within the tolerances specified in [] Annex [] to the Agreement.

In either case, the administration intending to modify the Plan may put its project into effect, subject to the application of the relevant provisions of Article [N12/9] of the Radio Regulations.

3.1.11 It shall be considered that any administration that has not forwarded its comments to the administration that is proposing the modification or to the IFRB within a period of [90 days] following the date of the weekly circular referred to in 3.1.4, has agreed to the proposed change. However, an additional [60 days] may be extended to an administration that requests supplementary information in accordance with the provisions of 3.1.8, unless the information identified in Annex [] was already forwarded and the IFRB so informed.

3.1.12 If in seeking agreement an administration makes changes in its proposal, the provisions of 3.1.1 and the consequent procedure shall again be applied.

3.1.13 If no comments have been received on expiry of the periods specified in 3.1.11 or if an agreement has been reached with the administration that submitted comments, the administration proposing the modification may proceed with its project and shall inform the IFRB of such action indicating the final characteristics of the assignment and the names of the administrations with which agreement has been reached.

(2)

3.1.14 The IFRB shall publish the information received under 3.1.13 in a special section of its weekly circular and indicate the names of the administrations with which the provisions of this Article have been successfully applied. When agreement has been reached between Contracting Members involving modifications, the same legal status recognized for an assignment in accordance with the Agreement shall apply to the assignment in question.

3.1.15 Should the administrations involved fail to reach agreement, the IFRB shall conduct such studies as those administrations may request; the IFRB shall inform the administrations of the findings of

2) Paragraph 3.1.14 in the text published in June 1980 was subsequently deleted. As a result, the following paragraphs are renumbered accordingly.

its studies and shall submit appropriate recommendations for resolution of the problem.

3.1.16 Any administration may, during application of the procedure for modification of the Plan or before initiating such procedure, request assistance from the IFRB, especially in securing agreement of another administration.

3.1.17 If, after application of the procedure described in this Article, the administrations concerned are unable to reach an agreement, they may resort to the procedure established in Article 50 of the Convention. The administrations also may apply, by common agreement, the Optional Additional Protocol to the Convention.

3.1.18 In any case, the pertinent provisions of [Article N 12/9] of the Radio Regulations shall apply for notification of the assignment to and subsequent technical examination by the IFRB. Should no agreement be reached when the assignment has been notified in accordance with Article 5, the IFRB shall proceed to list it in the Master Register with a symbol to indicate that the assignment has been listed subject to the condition that it does not produce harmful interference to assignments in accordance with the Agreement.

3.1.19 The IFRB shall keep an up-to-date master copy of the Plan as modified by application of the procedure specified in this Article.

3.1.20 The IFRB shall inform the Secretary-General of any modifications to the Plan. The Secretary-General shall publish new editions of the Plan at appropriate intervals not to exceed [three years]. Modifications to the Plan shall be published by quarterly recapitulative supplements keeping the same format.

4. Cancellation of an assignment.

4.1 When an administration decides to cancel an assignment in accordance with the Agreement, the Administration shall immediately notify the IFRB. The latter shall publish a notice of this cancellation in a special section of its weekly circular. The notice shall include the following information:

- Frequency
- Call sign
- Location (city, state and geographical coordinates)
- Station power
- Hours of operation

An assignment shall be considered cancelled from the date the IFRB publishes this information.

4.2 Simultaneously with the notification of the cancellation of an assignment, an administration may notify an assignment for a new broadcasting station on the same frequency as the cancelled assignment, provided:

- it does not result in objectionable interference to assignments in accordance with the agreement, or
- such interference does not exceed that previously caused by the broadcasting station whose assignment is cancelled.

ARTICLE 5

Notification of Frequency Assignments

1. When an administration proposes to bring into use an assignment in accordance with the Agreement, it shall notify it to the IFRB in accordance with the provisions of Article [N12/9] of the Radio Regulations. Any such assignment recorded in the Master Register as a result of application of the provisions of Article [N12/9] of the Radio Regulations shall bear a special symbol under the Remarks column and a date under column 2.a or under column 2.b.
2. When relations between Contracting Members are involved, equal consideration shall be given to all frequency assignments brought into use in accordance with the Agreement and recorded in the Master Register, regardless of the date that appears in column 2.a or column 2.b.

ARTICLE 6

Special Agreements

To supplement the procedures provided for under Article 4 of the Agreement and to facilitate application of the procedures to improve utilization of the Plan, Contracting Members may conclude special agreements in accordance with the pertinent provisions of the Convention and the Radio Regulations.

ARTICLE 7

Scope of the Agreement

1. This Agreement is binding upon the Contracting Members in their mutual relations, but not in their relations with noncontracting administrations.

2. Should a Contracting Member make reservations on application of any provisions of the present Agreement, the other Contracting Members shall not be obligated to respect these provisions in their relations with the Member that has formulated the reservations.

ARTICLE 8

Notification of the Approval of the Agreement

Contracting Members shall notify as soon as possible the Secretary-General of their approval of this Agreement; the Secretary-General shall immediately inform the other Members of the Union.

ARTICLE 9

Accession to the Agreement

1. Any Member of the Union in Region 2 that has not signed this Agreement may do so at any time. Accession shall apply to the Plan as it stands at the time of accession, and no reservation may be formulated. The Secretary-General shall be notified of the accession and shall inform immediately the other Members of the Union.
2. Accession to the Agreement shall become effective [30 days] after the Secretary-General has received the notification of accession.

ARTICLE 10

Denunciation of the Agreement

1. Any Contracting Member may denounce the present Agreement at any time through a notification sent to the Secretary-General, who shall inform the other Members of the Union.
2. Denunciation shall become effective [one year] after the date on which the Secretary-General received notification of denunciation.

(3)

3) Article 11 appearing in the text published in June 1980 was subsequently deleted. As a result, the following articles are renumbered accordingly.

ARTICLE 11

Entry into Force of the Agreement

This Agreement shall enter into force on [.....]

ARTICLE 12

Duration of the Agreement

The Agreement shall remain in effect until it is revised by a competent Administrative Radio Conference of Region 2.

Symbols: [.....] refers to terms and paragraphs requiring further study.

3.2 Technical Proposals

The following is proposed to replace Sections 8 and 9 of Annex A of the Report to the Second Session of the Conference.

"8. Receiver image constraint

In the initial evaluation of the frequency most appropriate for use by a station, an additional ground-wave protection consideration, the receiver image constraint, should be applied, since it minimizes the possibility for interference created by the characteristics of receivers within the service contours of stations in the same area.

However, in areas where usable channels are scarce administrations may wish to implement assignments despite this constraint.

The mechanism which causes this constraint is the lack of image frequency rejection in most common receivers. A receiver tuned to frequency f will also receive a signal at f plus twice the intermediate frequency.

Protection against this interference mechanism requires the same level of protection as for the second adjacent channel.

9. Summary of ground-wave protection requirements

TABLE V

	Protected contour ¹⁾ (Nominal usable field strength) (uV/m)	Protection ratio (dB)	Level of interfering signal (uV/m) ¹⁾
Co-channel Daytime Class A	100	26	5
Co-channel Daytime Class B and C	500	26	25
Daytime and night-time 10 kHz	500	0	500
First adjacent channel 9 kHz	500	5	280
Daytime and night-time Second adjacent channel Receiver image constraint ²⁾	500	-29.5	15,000
Daytime and night-time Third adjacent channel	25,000	0	25,000

1) These values are valid for noise zone 1 but can be altered to be appropriate for noise zones 2 and 3 using the table of nominal usable field strengths (see Chapter 4, section 4.4).

2) Frequency plus or minus 900 to 920 kHz."

3.3 List of Currently Notified Canadian Stations

Annex D contains a circular letter from the ITU and the corresponding list of Canadian MF (AM) radio broadcasting stations which are operating or are planned to be authorized by December 31, 1982 as printed by the IFRB. Canada notified these stations in the list to the IFRB prior to or on May 31, 1980.

3.4 Lists of Proposed Canadian Stations

This section contains two lists of frequency possibilities for proposed Canadian MF (AM) radio broadcasting stations which are in addition to the stations already notified to the IFRB shown in Annex D.

List 1 contains those stations on Class I-A clear channels which Canada proposes for inclusion in the Regional Plan assuming the retention of 10 kHz channel spacing.

List 2 contains those stations which Canada proposes for inclusion in the Regional Plan assuming the adoption of 9 kHz channel spacing. This list contains those stations which could be established on clear channels converted to 9 kHz spacing using the frequency relocation plan of Annex C Section 4.5 as well as on the 12 new 9 kHz channels. There is no assurance that the frequency relocation plan shown in Annex C Section 4.5 would be adopted at the Second Session. Other frequency relocation plans studied yielded fewer potential assignments.

Section 3.4

LIST 1

LIST OF FREQUENCY POSSIBILITIES TO MEET CANADIAN REQUIREMENTS
FOR STATIONS ON CLASS I-A CLEAR CHANNELS
ASSUMING RETENTION OF 10 kHz CHANNEL SPACING

CITY	FREQUENCY kHz		POWER kW
	Canadian Clear Channels	U.S.A. Clear Channels**	
Victoria	830*		1-10
Vancouver	540*		1-10
	650		10-50
	1030*		10-50
Kelowna	1580*		10
Calgary	660*		10-50
	700		10-50
Edmonton	880*		10-50
	1200*		10-50
	1580*		10-50
Saskatoon	650		10
	750		10
	1120		10
Winnipeg	770		10
	870*		10-50
	1100		10
	1580		10
Thunder Bay	1010*		10
	640		10
	1160		10
Sault Ste Marie	540*		2.5-15
London/Windsor	1200*		10-50

CITY	FREQUENCY kHz		POWER kW
	Canadian Clear Channels	U.S.A. Clear Channels**	
Toronto	640*	10	
	820*	10-50	
Ottawa/Hull	540*	50	
	750	2.5	
Montreal	650*	1-5	
	1040*	1-10	
	1200*	10-50	
Sherbrooke	990*	1-10	
	1120	1-10	
	1160	10	
Quebec	870*	10-50	
Moncton	990*	10	
Halifax	540	10	
	750	1-10	
	820*	10-50	
	1200	10-50	
St. John's	690*	10	
Gander	1010*	10	

* Stations to be authorized prior to December 31, 1982 forming a part of the Basic Inventory.

** It should be noted that the use of a number of these frequencies as shown may be incompatible with U.S. proposals, although alternative frequencies are available in some cases. The final resolution of the plan will depend upon negotiations with neighbouring countries.

Section 3.4

LIST 2

LIST OF FREQUENCY POSSIBILITIES TO MEET CANADIAN
REQUIREMENTS FOR STATIONS ASSUMING ADOPTION
OF 9 kHz CHANNEL SPACING AS PER SECTION 4.5, ANNEX C

<u>CITY</u>	<u>FREQUENCY - kHz</u> <u>9 kHz Spacing</u>	<u>POWER</u> <u>kW</u>
Victoria	819	50
	999	5-50
Vancouver	540 *	1-10
	1035 *	10-50
	639	50
	1179	50
	1521	50
Kelowna	1584	10
Calgary	666 *	10-50
	702	10-50
	1359	50
	1521	50
Edmonton	882 *	10-50
	1584 *	10-50
	990	50
	1179	50
	1350	50
	1530	50
Saskatoon	747	10
	1116	10
	639	50
	819	50
	999	50
	1170	50
Winnipeg	765	10
	873 *	10-50
	1098	10
	1584	10
	1179	50
	1350	50
	1017 *	10
Thunder Bay	648	10
	1152	10

CITY	FREQUENCY - kHz	POWER kW
	9 kHz Spacing	
Sault Ste Marie	540 *	2.5-15
London/Windsor	1206 *	10-50
	1359	10-50
	999	10-50
	1530	10-50
	1170	50
Toronto	648 * or 639	10
	828 * or 819	10-50
	1179	50
	1521	10-50
Hamilton/Niagara	990	1
	1350	1-5
Ottawa/Hull	540 *	50
	747	2.5
	999	50
	1359	50
	1521	10-50
	810	10
Cornwall	639	5
	1170	10
Montreal	657 *	1-5
	1044 *	1-10
	1206 *	10-50
	1530	50
Sorel	819	10
Trois Rivières	990	10
Sherbrooke	1116	1-10
	1152	10
Quebec	873 *	10-50
	639	5
	1179	50
	1521	10-50
Moncton	810	10
	990 *	10
	1350	1
	1530	10

CITY	FREQUENCY - kHz	POWER
	9 kHz Spacing	kW
Halifax	540	10
	747	1-10
	828 *	10-50
	1206	10-50
	639	50
	1170	50
	1359	50
Gander	1017 *	10
St. John's	693 *	10
	999	10
	1179	10
	1521	10

* Stations which would be authorized prior to December 31, 1982 as a part of the Basic Inventory.

Note: The use of a number of these frequencies as shown may be incompatible with U.S. proposals although alternative frequencies are available in some cases. The final resolution of the plan will depend upon negotiations with neighbouring countries.

List of Respondents and Summary of Comments to the Paper:

TOWARDS THE DEVELOPMENT OF PROPOSALS BY CANADA FOR THE
REGIONAL ADMINISTRATIVE MEDIUM FREQUENCY (MF) BROADCASTING
CONFERENCE (REGION 2)

SECOND SESSION NOVEMBER 1981

- | | | |
|----|--|--------------------|
| 1. | D.E.M. Allen & Associates Ltd.
Winnipeg, Manitoba | September 9, 1980 |
| 2. | Canadian Broadcasting Corporation
Ottawa, Ontario | September 23, 1980 |
| 3. | CFRB Limited
Toronto, Ontario | September 24, 1980 |
| 4. | Peter Cahn & Associates
Montreal, Québec | September 25, 1980 |
| 5. | The Canadian Association of Broadcasters
Ottawa, Ontario | September 26, 1980 |
| 6. | Ontario Ministry of Transportation
and Communications
Downsview, Ontario | September 29, 1980 |
| 7. | Golden West Broadcasting Limited
Altona, Manitoba | October 10, 1980 |
| 8. | George Mather & Associates
Mississauga, Ontario | October 28, 1980 |

TABULAR SUMMARY OF COMMENTS RECEIVED IN RESPONSE TO THE JUNE 1980 BACKGROUND PAPER

<u>QUESTION/ISSUE</u>	<u>RESPONDENTS</u>							
	<i>Doug Allen</i>	<i>C.B.C.</i>	<i>C.F.R.B.</i>	<i>Peter Cahn</i>	<i>C.A.B.</i>	<i>Ontario</i>	<i>Golden West</i>	<i>George Mather</i>
<u>Section 3.1.1</u>								
1. What maximum frequency shift would you consider practical for a 9 kHz Plan?	10 kHz	Such that no Canadian station would need new tower.	-	± 9 kHz	9 kHz	-	9 kHz	-
2. What are your views on Plan 1 vs Plan 3?	Plan 1	Plan 4, #1	-	Plan 4, #1	Plan 4, #1	Plan 4, #1	Plan 1	-
3. Could you suggest an alternate plan, stating its inherent characteristics such as frequency shift, cost, number of new assignments, receiver-related constraints, etc.?	No	#2	-		No, but options exist under Plan 4.	-	-	-
<u>Section 3.1.2</u>								
1. Do you have any comments on the costs of a frequency change for individual stations as estimated in the study specified above? (Imagineering study)	Estimated cost is low - should be doubled.	Estimated cost is low; should be increased.	-	Average technical costs among all AM licencees.	Technical \$11 to 13K Non-technical \$50 to 102K	Fed. Gov't and beneficiaries should bear costs	Estimates are unrealistically low.	-
2. Do you feel that the cost of a frequency change would constitute an unreasonable financial hardship to individual stations? Please specify.	Yes, particularly for smaller stations using directional arrays - unreasonable for some stations since no benefits.	#2	-	Not if costs averaged.	Yes. Cost lost revenue & quality	-	Yes	-
3. Do you feel that the cost of such a frequency change would constitute an unreasonable financial hardship to the Canadian Broadcasting System?	Depends on total cost.	Costs would cause delays in implementing services unless additional funds found.	-	-	Yes	-	Yes	-

<u>SUBJECT/ISSUE</u>	<i>Doug Allen</i>	<i>C.B.C.</i>	<i>C.F.R.B.</i>	<i>Peter Cahn</i>	<i>C.A.B.</i>	<i>Ontario</i>	<i>Golden West</i>	<i>George Mather</i>
<u>Section 3.1.3</u>								
With a 9 kHz separation:								
1. Would the reception of any station in which you are interested have any important coverage area affected?	Yes. A few cases.	Yes. 3 cases.	-	Yes.	50% no. 50% - some affect in rural areas.	-	Yes.	-
2. What adjacent channel protection ratio do you feel should be used by Canadian stations - domestically? - internationally?	5 dB	#2.	-	Agrees with Buenos Aires technical criteria.	0 dB for 10kHz 5 dB for 9kHz International- ly as per Buenos Aires.	-	1:1 domest. 2:1 int.	-
<u>Section 3.1.4</u>								
1. Should these receiver-related constraints be considered in a frequency assignment plan?	No	Image, second harmonic 910 kHz	Yes.	No.	Oscillator - no. Reduce image & second harmonic - Ignore constraints international- ly.	-	Image - Yes Oscillator-No	-
<u>Section 3.1.5</u>								
In view of the above discussion of inter-regional interference as it relates to channel separation, comments are requested on the following questions:								
1. Do you consider that inter-regional interference is, or may be in the future, a cause of difficulty to Canadian broadcasters, particularly if a 10 kHz channel separation is maintained in Region 2?	Need tests to determine effect.	#2	-	No.	No.	-	No.	-

<u>QUESTION/ISSUE</u>	Doug Allen	C.B.C.	C.F.R.B.	Peter Cahn	C.A.B.	Ontario	Golden West	George Mathe
<u>Section 3.1.5 (Cont'd)</u>								
2. Do you have any knowledge of interference from other Regions to Canadian or other Region 2 service areas?	No.	No.	-	Yes - CHVO Clarenville, Nfld.	One case - in Nfld.	-	No.	-
3. In your opinion, what is the curve or set of values of protection ratio versus frequency offset most appropriate to broadcasting conditions in Region 2? (see Figure 1 on page 6/5 of the Report of the First Session).	Curve B	#2.	-	Curve B	Curve B.	-	-	-
<u>Section 3.1.6</u>								
1. Do you foresee any other benefits or drawbacks not listed?	Insufficient number of broadcast engineers to accomplish change in 1 yr.	#2.	-	No.	No other benefits - #3.	-	Huge task - need lots of time.	-
2. Considering the overall benefits relative to the overall drawbacks, which channel separation, 9 or 10 kHz, should Canada support?	10 kHz at present.	10 kHz	10 kHz	10 kHz	97.8% of stations favour 10 kHz	9 kHz	10 kHz	-
3. If a new 9 kHz plan were adopted, should the new channels be assigned to one specific class of station predominantly?	Classes B & C	#2.	-	-	Classes B & C	-	No.	-
<u>Section 3.2</u>								
1. How can the present clear channels best be utilized in Canada?	Should be duplicated by existing stations.	Duplicate with B & C stations in areas where shortage of radio channels exists.	Use technical criteria adopted at Buenos Aires.	New Class B (& C) Stations.	Full use by Canadians.	-	Too late to ask this.	Under study

<u>SUBJECT/ISSUE</u>	Doug Allen	C.B.C.	C.F.R.B.	Peter Cahn	C.A.B.	Ontario	Golden West	George Mather
<u>Section 3.2 (Cont'd)</u>								
2. Should the secondary service areas of any Canadian Class A station be extended to take advantage of the note of Annex E quoted above?	No.	Not outside Canada	-	-	No.	-	Protect 0.5 mV/m	-
3. At the First Session of the Conference, Canada took the position that a power of 50 kW was adequate to provide satisfactory service and that an increase in the transmitter power beyond that, would merely inhibit future development of the broadcasting band without providing new services. The First Session adopted a maximum power for class A stations of 100 kW daytime and 50 kW night-time. Should Canada's position to retain a 50 kW maximum power limit be maintained domestically?	No. 100 kW day.	Yes	Treat increase to 100 kW on case by case basis.	-	Yes - 50 kW maximum.	-	Generally 50 kW Exceptionally - 100 kW	-
<u>Section 3.3</u>					(In confidential letter.)			
The Department now invites comment from all interested parties on the need for additional AM station assignments which would be established in various Canadian localities over the period 1 January 1983 to 31 December 1987.	Need for stations in areas with highest population growth and best economic climate.	Need for power increase/frequency change for several stations.	-	-			Will submit letters of intent.	

<u>SUBJECT/ISSUE</u>	<i>Doug Allen</i>	<i>C.B.C.</i>	<i>C.F.R.B.</i>	<i>Peter Cahn</i>	<i>C.A.B.</i>	<i>Ontario</i>	<i>Golden West</i>	<i>George Mather</i>
<u>Section 3.4</u>								
1. What comments do you have concerning the proposed text?	A specific number of days should be specified between date of receiving IFRB weekly circular and date of requesting supplementary information.	#2.	-	Foresees Coordination delays.	Comments to follow.	-	-	-
<u>Section 3.5</u>								
1. Is there a need for AM stereo in Canada?	Yes.	Not now.	-	Yes.	Yes.	-	Yes - only if USA goes stereo.	-
2. What technical and operational aspects should be taken into account in the adoption of AM stereo?	Same as USA.	#2.	Selectivity of receivers - Adjacent channel protection.	-	-	-	Same as USA.	-
3. Which system should be used in Canada if AM stereo is adopted?	Same as USA.	#2.	-	Same as USA.	Same as USA.	-	-	-
4. What might be the impact on the demand for AM station assignments with the introduction of AM stereo?	None.	None.	-	No impact.	Little impact. #4.	-	Probably none.	-

FOOTNOTES

- #1 These respondents considered and preferred Plan 4 - the plan described in Annex C, Section 2.5.
- #2 The C.B.C. is actively working within the Canadian Interdepartmental Committee to resolve such matters, and presents its viewpoint in that forum; for this reason, the C.B.C. limited its response on many of the issues raised in the public consultation paper.
- #3 The C.A.B. noted additional drawbacks to adoption of 9 kHz:
- cessation of operation by some Canadian stations
 - Substantial monetary drain
 - More difficult implementation of AM stereo
- #4 The C.A.B. gave the following outline of member stations' intentions concerning AM stereo plans:
- | | |
|------------------------------------|-----|
| - as soon as possible | 20% |
| - 1 to 2 years after authorization | 46% |
| - not for some time | 23% |
| - never | 0% |
| - qualified | 11% |

ADDITIONAL COMMENTS

- Doug Allen:
 - Class A classifications should be assigned to stations only after scrutiny by the CRTC
 - The IFRB weekly circulars should be mailed to Canadian consultants within 15 days of circular date
 - DOC should issue regulations governing the construction of AM stereo receivers.
- C.B.C. : If feasible, Canada should consider using US Class I-A clear channels for Class A, B, or C stations in cities where there is a shortage of available radio channels.

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15. Gilles Courtemanche
Chairman, Government Industry Working Group
Department of Communications
16. E.D. DuCharme
Chairman, Canadian Interdepartmental Committee
Department of Communications

SELECTION OF THE PREFERRED SPACING (10 kHz OR 9 kHz)

FOR
BROADCASTING CHANNELS
IN THE
MF (AM) BROADCASTING BAND IN REGION 2

1. Background
2. Provision for New Services and/or Improved Services
 - 2.1 Requirements for New and/or Improved Canadian Stations
 - 2.2 Comparison of Opportunities for New Canadian Stations
3. Economic Factors to Change Channel Spacing
 - 3.1 Technical Costs (1979 dollars)
 - 3.2 Non-Technical Costs (1980 dollars)
 - 3.3 Benefits of Changing to 9 kHz Channel Spacing
4. Technical and Operational Factors
 - 4.1 Receiver-Related Interference Problems
 - 4.2 Effect on Fringe Area Reception
 - 4.3 Inter-Regional Interference
 - 4.4 Implementation of a New Channel Spacing
 - 4.5 Relocation Plans

1. Background

ITU Regions 1 (Europe and Africa) and 3 (Asia and Australia) decided to adopt a 9 kHz channel spacing at a Regional MF Conference held in 1975. This decision came into force on November 23, 1978.

ITU Region 2 (the Americas) currently operate with a 10 kHz channel spacing. The United States, supported by some of the countries in the Region, proposed the adoption of a 9 kHz channel spacing for the Americas at the First Session of the Region 2 Conference held in March 1980. Canada along with most of the other countries proposed the retention of 10 kHz channel spacing. During the Conference, a consensus developed that the channel spacing issue required further study and, accordingly the decision was postponed until the Second Session of the Conference.

The First Session requested the IFRB, assisted by a Panel of Experts from eight countries including Canada, to undertake a comparative study on 9 and 10 kHz channel spacings for submission to the Second Session. This study will compare the relative ability of the two channel spacings to resolve existing incompatibilities and to accommodate new assignments. The report is scheduled to be distributed to administrations on August 10, 1981.

2.0 Provisions for New Services and/or Improved Services

2.1 Requirements for New and/or Improved Canadian Stations

Recent studies based on demographic models and extrapolative techniques have led to the conclusion that provision will have to be made for a significant number of new sound broadcasting services in the future. This growth in sound broadcasting service is seen as being substantial in virtually all areas of the country even if the future growth rate occurs at a significantly lower rate than the long term historical growth rate.

Extensive revisions have been recently made to the FM Allotment Plan for Canada in an effort to satisfy the forecasted demand for channels. It is evident that despite the best efforts of the allotment planners, the most densely populated areas of the country will run out of channels within the next few years. Tentatively, it may also be concluded that the areas which have only moderate population density will run out of channels at the end of the next decade. This latter conclusion can only be tentative because it is based on an assumption that actual demand will occur exactly in accordance with forecast demand. To meet the anticipated demand the planners had to "glove fit" the allotments in each area thereby reducing flexibility for re-arranging channels in the future. This low flexibility means that a re-arrangement of allotments to satisfy an unforecast demand would likely lead to a net loss of allotments, thus hastening the day when the allotment supply will be exhausted. Due to the increasing availability of FM receivers and the scarcity of AM channels, most of the recent growth in sound broadcasting has occurred in the FM band; however AM is still a popular medium and some prospective applicants would still prefer to use AM if given the choice. No doubt if AM stereo is introduced it would tend to bolster the popularity of AM.

It is also known that some existing AM broadcasters are far from satisfied with their existing coverage areas in the day and/or night. In some cases technical constraints have not allowed them to serve all of the areas they desire. It can be expected that some of these broadcasters would seek to improve their facilities if given the opportunity.

It is evident therefore that if the opportunity is presented there would probably be interest in establishing AM stations in places where frequencies are not now available. The magnitude of the demand would vary depending on the location, proximity with respect to other cities, number of unassigned FM channels, current number of stations, population count, expected population trends and general economic health, and linguistic and ethnic complexity. The relative magnitude of the demand for AM broadcasting services for various areas of the country has been estimated as follows:

Vancouver/Victoria, B.C.	High
Balance of B.C.	Low/Moderate
Calgary, Edmonton	Moderate/High
Regina, Winnipeg	Moderate
Balance of Prairies	Low/Moderate
Toronto, Oshawa, Burlington, Brampton Area	Very High
Hamilton, St. Catharines, Niagara Area	High
London, Kitchener, Guelph Area	High
Windsor, Chatham Area	High
Ottawa/Hull	High
Balance of Ontario	Low/Moderate
Montreal, including 90 km radius	Very High
Quebec, Trois-Rivieres, Sherbrooke Area	Moderate
Balance of Quebec province	Low/Moderate
Maritimes, Newfoundland/Labrador	Low/Moderate

Some of this demand could be satisfied through the use of clear channels and additional demand could be satisfied if the clear channels, were used in conjunction with the newly created 9 kHz channels if the narrower spacing were adopted.

2.2 Comparison of Opportunities for New Canadian Stations

Section 3.4 of the main report provides details on potential Canadian stations which could be established assuming 10 kHz spacing is retained or 9 kHz spacing is adopted.

Table 2.2 summarizes the results given in Section 3.4 and thus provides a ready comparison of the two channel spacing options. Care should be taken in interpreting the material presented in Table 2.2 because of the need for equitable sharing of this regional spectrum resource. Nevertheless, substantially more demand could potentially be satisfied under 9 kHz channel spacing than under 10 kHz. Assuming no change in technology, it should be understood, however, that even using 9 kHz channel spacing, the forecast demand at most locations in the High or Very High categories noted in Section 2.1 could not be satisfied in the future.

TABLE 2.2
COMPARISON OF NUMBER OF PROPOSED CANADIAN STATIONS

<u>CITY</u>	<u>ASSUMING RETENTION OF 10 kHz CHANNEL SPACING</u>	<u>ASSUMING ADOPTION OF 9 kHz CHANNEL SPACING AS PER SECTION 4.5</u>
Victoria	1	2
Vancouver	3	5
Kelowna	1	1
Calgary	2	4
Edmonton	3	6
Saskatoon	3	6
Winnipeg	4	6
Thunder Bay	3	3
Sault Ste Marie	1	1
London/Windsor	1	5
Toronto	2	4
Hamilton/Niagara	0	2
Ottawa/Hull	2	6
Cornwall	0	2
Montreal	3	4
Sherbrooke/Sorel/Trois Rivières	3	4
Quebec	1	4
Moncton	1	4
Halifax	4	7
St. John's	1	4
Gander	1	1
TOTALS	40	81

NOTE: As the spectrum is a regional resource, it is recognized that some of these proposed stations will be incompatible with proposed stations in neighbouring countries, necessitating equitable sharing.

3.0 Economic Factors to Change Channel Spacing

3.1 Technical Costs (1979 dollars)

A report prepared by Imagineering Ltd. concludes that technical costs for changing to 9 kHz channel spacing according to Plan 1 (see June 1980 background paper) is \$2.6 million excluding lost revenue, and including a 20% contingency cost. A similar study for the FCC in the U.S.A. arrived at a relatively lower figure. However, it is felt that the U.S. estimates are not directly applicable to the Canadian situation since the average Canadian station has a more complex array than the average U.S. station. If corrected for this factor, the U.S. estimates applied to Canada would be close to the \$2.6 million costs reported by Imagineering. By applying the same Imagineering formula to the 9 kHz plan shown in Section 4.5 (maximum 9 kHz shift) the total Canadian technical costs would be approximately \$3.0 million.

The technical cost for individual stations to change frequency in order to convert to the 9 kHz plan shown in Section 4.5 has been estimated to range from \$1,000 to \$53,000, using the Imagineering formula.

The above costs could be reduced by 20 to 25% if the Department eases its normal proof of performance requirement.

Some comments received to date are in general agreement with these estimates while others indicate that they should be 25% higher without specific explanations for the increase. Even allowing for this 25% increase the total technical cost to convert Canadian stations to the 9 kHz frequency relocation plan shown in Section 4.5 would be of the order of \$3.75 million.

3.2 Non technical Cost (1980 dollars)

In addition to the technical costs associated with changing frequencies there are other costs that radio stations will incur as a result of the change. The Department received a number of submissions dealing with these costs from various station operators and a submission from the CAB. The CAB submission was especially extensive and included the results of a survey of private Canadian AM stations conducted by Masscom Research Ltd. Since the submissions received from individual operators were generally consistent with the CAB submission, a review and comments on the CAB submission are given below.

The CAB identified three classes of non-technical costs, (the amount in brackets represents Masscom's estimate of these costs under the plan shown in Section 4.5) namely,

- direct costs - signs, stationery, painting of vehicles, etc. if they refer to the station frequency (\$2.8 million).
- advertising costs - to inform the public of the change, with major factors being the size of the change and the number of commercial stations in the market (\$11.1 million).
- marketing expenses - to inform advertisers of the impact of the change, audience levels, etc. (\$1.5 million).

A further type of cost is the lost, or more precisely foregone, revenue resulting from the frequency change, estimated by Masscom to be \$17.1 million.

Certain of the assumptions used in the Masscom study may have led to overestimation of these costs. In addition, there may be methods of introducing the change which will result in lower actual costs. Therefore, the Department invites comments both on the estimates shown in the Masscom study and any practices which may result in reducing the non-technical costs of introducing 9 kHz spacing. It should be recognized that it is very difficult to estimate costs of this nature in advance of the change. Nevertheless, there is no doubt that the AM radio industry would face substantial non-technical costs should 9 kHz spacing be adopted.

Respondents are asked to address the following questions when considering the non-technical cost estimates:

a) Direct Costs

- i) Can these be reduced with proper planning since lead time will be available?

b) Advertising Costs

- i) As advertising campaigns are revised, at least in part, each year, to what extent could proper planning and scheduling of advertising lower the incremental costs?
- ii) Since most AM stations would be affected to some extent, is there the opportunity to reduce estimated advertising expenditures by conducting joint advertising campaigns? For example, there are 7 Toronto AM radio stations, all of which would change frequencies.

iii) Under the plan shown in Section 4.5, over 50% of the stations would continue to be received at approximately the same dial setting, i.e., the change in frequency would not be large enough to necessitate retuning the radio, given the selectivity of most AM tuners. Even for those stations where the shift would be great enough to require a minor adjustment, the new frequency would always be the closest local signal to the old frequency. To what extent could these considerations help reduce the advertising costs?

c) Marketing Expenses

i) Could these costs also be minimized by using national and/or regional awareness campaigns?

d) Lost Revenue

i) In the Masscom study preamble the statement is made that "AM stations would likely experience some degradation in signal strength in the outer one-third of their coverage area". There is some question, however, as to the extent that such degradation in signal strength would, in practice, be noticeable (see Section 4.2). DOC research indicates that under a 9 kHz plan, approximately 8% of all Canadian stations could expect up to 5 dB degradation in portions of their fringe area coverage. Should the estimates of lost revenue be reduced?

ii) The preamble also makes the following statement: "During a transition period (this period would likely be of approximately one year's duration and for estimating purposes considered as "Year I") most radio stations would experience increased

interference since all frequency changes would not be made at the same time." This would depend on how the change is implemented (see Section 4.4); however, the implementation plans being considered would result in few, if any, radio stations experiencing increased interference for a full year. In most cases additional interference should occur for less than two or three months. Should the estimates of lost revenue be reduced?

- iii) The Masscom study states that some operators felt that the advertising program they would implement would offset the negative aspects of the change and prevent any drop in revenues. There could in fact be some increase in revenues. This would occur if there was increased awareness of AM radio as a result of the advertising campaigns and media coverage of the change and if other technical changes were carried out at the same time as the change to the new channel spacing. What effect could these factors have on the estimates of lost revenue?

3.3 Benefits of Changing to 9 kHz Channel Spacing

The benefits of adopting 9 kHz channel spacing rest entirely with the creation of the new channels which would make possible the creation of new radio stations or the improvement of existing stations. There is no doubt that additional radio stations will be required, especially in the more heavily populated areas. The CRTC, in a 1978 report entitled: Sound Broadcasting Requirements for Canada -- A Long-Range Forecast, reached the following conclusion: "The demand for additional stations cannot now be met at several locations in Canada, and if the past trends continue for approximately 10 years, the total supply of channels in the corridor from Windsor to Quebec will be exhausted."

The Department is very interested in receiving comments on the economic and social benefits that would accrue to the country as a whole as a result of being able to increase the number of AM radio stations and/or improve the service of existing stations.

Section 2 identifies the locations where there currently is demand for additional stations and where additional stations may be available if Region 2 adopts 9 kHz spacing. It should be noted that the CRTC must license a station before it can operate, therefore, it cannot be assumed that a particular applicant would be authorized simply because a channel is available or technical improvement is possible at a given location.

The following questions are examples of items that should be considered when addressing this issue:

- (i) To what extent would the additional stations increase employment, generate additional advertising revenue, increase program production, etc.?

- (ii) Would the additional stations increase the vitality of the industry as a whole?
- (iii) What socio-economic benefits would accrue from the assignment of some of the new channels to improve the service of existing stations?
- (iv) What socio-economic benefits would accrue from the assignment of some of the new channels to new stations?

4.0 Technical and Operational Factors

4.1 Receiver-Related Interference Problems

The Department's background paper of June 1980 referred to two receiver-related interference problems which are generally ignored by other administrations, but are considered by the Department when making Canadian assignments. These constraints are:

- (i) Local oscillator radiation
- (ii) Image rejection

4.1.1 Local oscillator radiation

The results of a U.S. study on 7 receivers as reported in a paper (CITEL/GRUPO-RADIF/9-80) presented at Niteroi, Brazil, in September 1980 indicates that local oscillator radiation is less severe than television set interference and is insignificant when AM radio receivers are separated by 2 metres or more.

Other reports and comments support the Department's conclusion that the local oscillator radiation constraint is no longer a problem and is therefore not pertinent to the channel spacing issue.

4.1.2 Image Rejection

Recent U.S. studies reviewed and confirmed in Canada have shown that image rejection is independent of whether the channel spacing is 9 or 10 kHz. Therefore, image interference is a factor in the choice of channel spacing only if the frequency relationships between stations separated by 900 to 920 kHz is altered. It should be noted that the frequency relocation plan shown in Section 2.5 does not introduce any significant change to existing frequency relationships.

4.2 Effect on Fringe Area Reception

"Fringe area reception" defined as reception near, but within, the 0.5 mV/m contour, was raised in some of the submissions received recently by the Department.

There is a potential for increased adjacent channel interference if the channel spacing is decreased. A study has been undertaken to quantify the extent of such increased interference in Canada. The study has concentrated on the worst case, the first adjacent channel interference for the following reasons:

- a) the difference in susceptibility to interference of the average receiver is greater between 9 and 10 kHz than between 18 and 20 kHz
- b) the areas of second adjacent channel interference are very small due to the high protection ratio.

In the study, 28 pairs of Canadian, or Canadian/U.S., AM stations were examined with respect to fringe area reception. These pairs were considered to include all cases where present (or authorized) 0.5 mV/m contours overlap or were geographically close. The study results are summarized in Table 4.2.1 and detailed in Table 4.2.2. Only day-time interference was considered because sky-wave co-channel interference predominates at night except for some class A stations. The protection ratios of 0 dB for 10 kHz separation and -5 dB for 9 kHz separation, adopted in Buenos Aires and supported in comments to Gazette Notice DGTR-11-80, were used to quantify the degree of interference or increase in interference.

TABLE 4.2.1
Summary of Interference Study

	Degree of, or Increase in Interference			
	5 dB	Between 3 and 5 dB	Less than 3 dB	No Interference
Number of pairs of stations	15	3	1	9

Total number of Canadian stations affected = 32

Total number of Canadian stations (appr.) = 390

Percentage affected = 8.2

Therefore, the Department concludes that under a 9 kHz plan, approximately 8% of all Canadian stations could expect up to 5 dB degradation in portions of their fringe area coverage.

TABLE 4.2.2

<u>Stations</u>		<u>Frequencies</u>	<u>Comments*</u>
CBK	Watrous	540	0.5 mV/m contours overlap in Canada
KFYR	Bismarck	550	
CBEF	Windsor	540	0.5 mV/m contours overlap in Canada
WGR	Buffalo	550	
CFOS	Owen Sound	560	0.5 mV/m contours now overlap. Both applied for power increase.*
CHYM	Kitchener	570	
CHYM	Kitchener	570	0.5 mV/m measured contours close.
CKWW	Windsor	580	Overlap CHYM 0.25 and CKWW 0.5 small. Inverse overlap larger.
CFAR	Flin Flon	590	0.5 mV/m contours now overlap.
CFQC	Saskatoon	600	
VOCM	St. John's	590	Slight overlap 0.5 mV/m contours.
CBNA	St. Anthony		
CJCW	Sussex	590	0.5 mV/m contours now overlap. CJCW accepted interference in N.S.
CKCL	Truro	600	
CHFA	Edmonton	680	No overlap measured 0.25 and 0.5 mV/m contours.
CBKF-1	Gravelbourg	690	
CJOB	Winnipeg	680	No overlap 0.28 and 0.5 mV/m contours.
CBKF-1	Gravelbourg	690	
CFTR	Toronto	680	No overlap 0.28 mV/m contours.
CBF	Montreal	690	
CBNM	Marystow	740	0.5 mV/m contours overlap.
CBGY	Bonavista Bay	750	
CKRD	Red Deer	850	Measured 0.5 and 0.25 mV/m contours close, but not overlapping.
CBKF-2	Saskatoon	860	
CKBI	Prince Albert	900	No overlap 0.28 mV/m contours.
CJDV	Drumheller	910	
CHML	Hamilton	900	0.5 mV/m contours overlap.
CKLY	Lindsay	910	

<u>Stations</u>		<u>Frequencies</u>	<u>Comments*</u>
CKGY	Yorkton	940	Measured 0.5 and 0.25 mV/m contours close, but not overlapping.
CFAM	Altona	950	
CFAC	Calgary	960	Measured 0.5 and 0.25 mV/m contours close, but not overlapping.
CJYR	Edson	970	
CKCH	Hull	970	Measured 0.5 mV/m contours touching.
CKGM	Montreal	980	
CKRM	Regina	980	Slight overlap of 0.5 mV/m contours
CBW	Winnipeg	990	in S-F Saskatchewan
WWWE	Cleveland	1100	WWWE 0.5 mV/m contour encloses
CKJD	Sarnia	1110	Sarnia; i.e. considerable overlap in Canada and some in U.S.A.
CHSC	St. Catharines	1220	0.5 mV/m contours now overlap in
WNIA	Chektowaga	1230	Canada and U.S.A.
CJNS	Meadow Lake	1240	Slight overlap of CKOM 0.28 mV/m
CKOM	Saskatoon	1250	contour and CJNS 0.5. No inverse overlap.
CFRN	Edmonton	1260	Measured 0.5 and 0.25 mV/m contours
CHAT	Medicine Hat	1270	close but not overlapping.
CJJD	Hamilton	1280	Slight overlap measured 0.5 mV/m
CJBK	London	1290	contours
CJSL	Estevan	1280	Measured 0.25 mV/m contours do not
CFRW	Winnipeg	1290	overlap.
CKPC	Brantford	1380	0.5 mV/m contours almost touch.
CHO0	Ajax	1390	
CKPT	Peterborough	1420	0.5 mV/m measured contours close; 0.5
CKFH	Toronto	1430	and 0.25 mV/m contours overlap.
CJOY	Guelph	1460	0.5 mV/m contours overlap slightly.
CHOW	Welland	1470	
CHOW	Welland	1470	0.5 mV/m contours overlap.
CKAN	Newmarket	1480	

* The comments on contour overlaps are based on contours calculated using the 1980 Canadian Ground Conductivity Map except when the term "measured" is used, in which case final proof of performance contours were used. Calculated contours were used only when contours of one or both stations had not been established in a final proof of performance.

4.3 Inter-Regional Interference

Current experience and comments indicate that no significant cases of interference exist; however, a large number of stations are yet to go into operation in Regions 1 and 3.

Extensive computations have been carried out to predict possible cases of inter-regional interference. Twenty-seven inter-regional situations were found where interference was predicted 50% of the time assuming Canada retains 10 kHz channel spacing. In an additional 86 situations, interference was predicted 10% of the time. Some 6530 situations were analysed where no interference was predicted. Table 4.3.1 gives examples of potential inter-regional interference for 50% of the time. Although no significant cases of inter-regional interference have yet been reported by the public, large numbers of high power stations are expected to go into operation in Regions 1 and 3 in the future.

Therefore, while definitive conclusions cannot be drawn at this time, inter-regional interference may become a problem to certain stations in Atlantic Canada as new high power stations in Regions 1 and 3 become operational and if Region 2 retains 10 kHz channel spacing.

Table 4.3.1

INTER-REGIONAL INTERFERENCE 50% OF TIME ⁽¹⁾

From	In Operation	Freq kHz	Power kW	To	Dist km	(2) 50%RSS mV/m	(3) 20*Int mV/m	(4) Heterodyne Beats
OUJDA	MRC	x	594	600	VOCM 590 ST-JOHN'S NFLD	4412	1.04	2.7
MONTEMOR	POR		594	100	VOCM 590 ST-JOHN'S NFLD	3580	1.04	3.9
S CRUZ TENERIF	CNR		621	200	CKCM 620 GRAND FALLS NFLD	4037	3.2	5.7
LA CORUNA	E		639	200	CBN 640 ST-JOHN'S NFLD	3458	Class A	6.6
SLANE	IRL		639	100	CBN 640 ST-JOHN'S NFLD	3278	Class A	2.6
PRAIA	TCH	x	639	1500	CBN 640 ST-JOHN'S NFLD	4793	Class A	1.5
HOEHN	ISL		666	100	CHYQ 670 MUSGRAVETOWN NFLD	2869	Class A	.9
LISBOA	POR		666	135	CHYQ 670 MUSGRAVETOWN NFLD	3705	Class A	1.2
TARFAYA	MRC		711	600	CKVO 710 CLARENVILLE NFLD	4168	3.6	7.0
FLEVOLAND	HOL		747	500	CBGY 750 BONAVISTA BAY, NFLD	4088	Class A	1.14
ALHOCEIMA	MRC		801	400	VOWR 800 ST-JOHN'S NFLD	4221	2.2	4.7

NOTE (1):Calculated as per Section 3.2.2.13 and 6.5 of the Report to the Second Session

NOTE (2):This is the night-time limitation 50% of the time.

To obtain the interference expected for 10% of the time, multiply the values shown by 2.5. For Class A stations the protected contour is always .5 mV/m.

NOTE (3):This represents 20 times the calculated inter-regional interference.

Up to 10 dB of additional interference could be expected due to sea gain where the service area is close to the ocean.

NOTE (4):The x under the Heterodyne Beats column indicates that, under a 9 kHz plan, no objectionable interference would occur.

4.4 Implementation of a New Channel Spacing

4.4.1 Introduction

If 9 kHz channel spacing is adopted by the Second Session of the Conference, then a method to implement the frequency changeover would be necessary. Such a method and an implementation schedule should be specified in a resolution of the Second Session. The method chosen should permit an orderly, phased changeover which would minimize costs, administrative and technical complexities, and disruption to existing services. A number of implementation problems must be solved with regard to the coordination and the date for coming-into-force of the new regional agreement.

4.4.2 Station Problems to be Addressed

The types of station-related problems which would have to be dealt with if the decision is made to move to 9 kHz channel spacing relate primarily to equipment supply and to the availability of a trained work force when it is needed.

Such problems would include:

- design engineering to plan changeover
- equipment supply - crystals, vacuum capacitors, etc.
- field engineering and actual staff to carry out changeover

In addition, as a convenience, some stations may treat this changeover as an opportunity to modify certain existing station parameters. It is recognized, however, that this would add to the complexity of the work required.

4.4.3 System Problems to be Addressed

Methods to implement the changeover should allow for the change in frequency of all existing stations within a group of channels during the same 24-hour period. Thereafter, the more time-consuming and complex work of adjusting directional patterns may be carried out to return the station to its authorized parameters. Subsequently, stations in another group of channels would change to their new frequencies so that, in time, all existing stations would be operating on their new frequencies.

Such methods should permit a phased changeover. The change in frequency of all 8,000 to 9,000 stations in Region 2 in the same 24-hour period is not considered practical because:

- available manpower is limited
- a significant proportion of North American stations uses directional arrays which require a more time-consuming changeover
- difficulties experienced in Regions 1 and 3 in adherence to the conversion date indicate that a phased rather than an abrupt conversion to 9 kHz may facilitate the conversion
- no one date is optimal for all or even most administrations in Region 2 for conversion considering climatic and environmental factors
- some low power repeater broadcasting stations (Canada has almost 400), are unattended, many of which are in remote sites.

The changeover plan chosen should allow for a buffer between the stations operating on their new frequencies and the remaining stations still operating on their old frequencies in order to minimize heterodyne interference.

The method of changeover should allow speeding up or slowing down as necessary over the implementation period to take care of unforeseen problems. The time interval for changeover of stations in any of the frequency groups should be variable with the number of stations contained in the group and the complexity of their antenna systems.

Any changeover procedure could result in temporary interference problems in some cities due to antenna arrays which have not yet been correctly readjusted. While all implementation plans may suffer from these problems, it may be possible to find methods to minimize them over the transition period.

4.4.4 Organization & Management (International and Domestic) of the Changeover

From a review of the types of problems which have been identified, it appears that there is a need for a coordinating group within each administration to direct, monitor and report on the progress of the frequency changeover in each country of Region 2. Bilaterally, it is expected that Canada and the USA would carefully coordinate their national implementation programs so as to minimize any problems. Internationally, the IFRB would be the coordination group to monitor and direct the progress of the frequency changeover according to the plan and schedule specified in the implementation resolution. It would be necessary to adopt a detailed implementation procedure at the Second Session to direct the IFRB to carry out such a procedure.

4.4.5 Effective Date of the Regional Agreement

A Regional Agreement will be adopted by the Second Session of the Conference. If 10 kHz channel separation is retained there would be little apparent reason to have a lengthy period before the effective date of the Regional Agreement. Under this assumption, January 1, 1983 would appear reasonable.

If, however, 9 kHz channel separation is adopted, the length of the changeover period to move from 10 to 9 kHz would delay the effective date of the Regional Agreement by at least an additional year. In such a schedule, the transition to 9 kHz channel spacing could commence January 1, 1983 and end December 31, 1983 with the effective date of the Regional Agreement on January 1, 1984.

4.4.6 Request for Comments

Comments are requested on the following issues which would become relevant if the Conference decides to adopt 9 kHz channel spacing for Region 2.

- a) Assuming that a phased implementation procedure to change channel spacing is adopted, how long should the phased implementation period last?
- b) How much time would broadcasters require before the start of the conversion period to prepare?
- c) How many broadcasters would use the transition to 9 kHz as a time to carry out other major station changes? move to a new channel? change service area? introduce AM stereo? etc.

4.5 Relocation Plans

In the event of a change to 9 kHz channel spacing a majority of comments received are in support of the plan shown below (maximum frequency shift of 9 kHz), which is the choice for the 9 kHz channel spacing option in the Canadian proposals.

PREFERRED 9kHz FREQUENCY RELOCATION PLAN

CHANNEL NO.	PRESENT FREQ.	NEW FREQ.	DIFF	CHANNEL NO.	PRESENT FREQ.	NEW FREQ.	DIFF	CHANNEL NO.	PRESENT FREQ.	NEW FREQ.	DIFF
1	540	540	0	41	900	900	0	81	1260	1260	0
2	550	549	-1	42	910	909	-1	82	1270	1269	-1
3	560	558	-2	43	920	918	-2	83	1280	1278	-2
4	570	567	-3	44	930	927	-3	84	1290	1287	-3
5	580	576	-4	45	940	936	-4	85	1300	1296	-4
6	590	585	-5	46	950	945	-5	86	1310	1305	-5
7	600	594	-6	47	960	954	-6	87	1320	1314	-6
8	610	603	-7	48	970	963	-7	88	1330	1323	-7
9	620	612	-8	49	980	972	-8	89	1340	1332	-8
10	630	621	-9	50	990	981	-9	90	1350	1341	-9
11	NEW	630		51	NEW	990		91	NEW	1350	
12	NEW	639		52	NEW	999		92	NEW	1359	
13	640	648	8	53	1000	1008	8	93	1360	1368	8
14	650	657	7	54	1010	1017	7	94	1370	1377	7
15	660	666	6	55	1020	1026	6	95	1380	1386	6
16	670	675	5	56	1030	1035	5	96	1390	1395	5
17	680	684	4	57	1040	1044	4	97	1400	1404	4
18	690	693	3	58	1050	1053	3	98	1410	1413	3
19	700	702	2	59	1060	1062	2	99	1420	1422	2
20	710	711	1	60	1070	1071	1	100	1430	1431	1
21	720	720	0	61	1080	1080	0	101	1440	1440	0
22	730	729	-1	62	1090	1089	-1	102	1450	1449	-1
23	740	738	-2	63	1100	1098	-2	103	1460	1458	-2
24	750	747	-3	64	1110	1107	-3	104	1470	1467	-3
25	760	756	-4	65	1120	1116	-4	105	1480	1476	-4
26	770	765	-5	66	1130	1125	-5	106	1490	1485	-5
27	780	774	-6	67	1140	1134	-6	107	1500	1494	-6
28	790	783	-7	68	1150	1143	-7	108	1510	1503	-7
29	800	792	-8	69	1160	1152	-8	109	1520	1512	-8
30	810	801	-9	70	1170	1161	-9	110	NEW	1521	
31	NEW	810		71	NEW	1170		111	NEW	1530	
32	NEW	819		72	NEW	1179		112	1530	1539	9
33	820	828	8	73	1180	1188	8	113	1540	1548	8
34	830	837	7	74	1190	1197	7	114	1550	1557	7
35	840	846	6	75	1200	1206	6	115	1560	1566	6
36	850	855	5	76	1210	1215	5	116	1570	1575	5
37	860	864	4	77	1220	1224	4	117	1580	1584	4
38	870	873	3	78	1230	1233	3	118	1590	1593	3
39	880	882	2	79	1240	1242	2	119	1600	1602	2
40	890	891	1	80	1250	1251	1				



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I.F.R.B. Circular-letter No. 462

Subject: Basic inventory of requirements prepared by the I.F.R.B. pursuant to the decision of the First Session of the Regional Administrative MF Broadcasting Conference (Region 2), Buenos Aires, 1980

References: Report of the First Session of the Regional Administrative MF Broadcasting Conference (Region 2), Buenos Aires, 1980
I.F.R.B. Circular-letter No. 441 of 24 August 1979

To the Director-General

Dear Sir,

On behalf of the International Frequency Registration Board, I wish to inform you that the basic inventory from administrations of frequency requirements prepared in conformity with paragraphs 7.3 and 8.1 of the Report of the First Session of the Regional Administrative MF Broadcasting Conference (Region 2) is in the course of being despatched to you under separate cover by airmail. Two copies of the basic inventory are being included in the consignment so as to permit one of these to be passed urgently to the Organization or Service dealing, within your country, with the technical preparation for the Conference.

2. The basic inventory, which constitutes Appendix 1 to the present circular-letter, contains, in accordance with paragraph 7.3 of the Conference Report, the characteristics of the existing broadcasting stations in the band 535 - 1605 kHz and those authorized by the end of 1982 received by the I.F.R.B. up to 31 May 1980.

2.1 These characteristics are arranged by countries in alphabetical order of the symbol designating the country as they appear in Table No. 1 of the Preface to the International Frequency List.

2.2 There are two annexes to the basic inventory, namely:

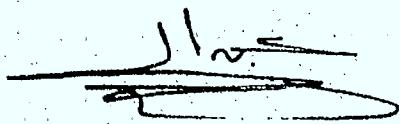
Annex 1 which contains information on the characteristics of transmitting antennae other than a simple vertical antenna;

Annex 2 (This material is not applicable to Canada and is not included)

- 66 -
ANNEX D: List of Currently Notified Canadian Stations and IFRB Circular Letter No. 462 Concerning the Basic Inventory of Requirements

W/31 - 30/81 To provide Administrations with a ready reference to the situation channel by channel, the I.F.R.B. has prepared an Index to the List of requirements arranged in ascending frequency order. The Index constitutes Appendix 2 to the present circular-letter.

Yours faithfully,


A. Berrada
Chairman

Appendices: 2 (airmailed under separate cover).

Appendix I to I.F.R.B. Circular-letter No. 462

Basic Inventory of Stations

1. General

1.1 The present Appendix has been prepared pursuant to 8.1 of the Report of the First Session of Regional Administrative MF Broadcasting Conference (Region 2), Buenos Aires, 1980. It contains the characteristics of the broadcasting stations constituting the basic inventory as defined in paragraph 7.3 of the Report of the First Session and received by the I.F.R.B. from Administrations as of 31 May 1980 as well as those obtained from Annex A to the Report for an Administration which did not provide the list of its stations for inclusion in the basic inventory.

1.2 The Appendix consists of the basic inventory of stations and two Annexes.

1.2.1 Annex 1 to the basic inventory contains the description of transmitting antennae, other than a simple vertical antenna.

1.2.2 Annex 2 to the basic inventory contains the explanation of Remark numbers appearing in the Remarks Column.

2. Explanatory notes concerning each column of the basic inventory

The title of each column is followed by the corresponding Box No. of the form for notifying the characteristics of the stations (Annex 2 to I.F.R.B. Circular-letter No. 441 of 24 August 1979).

Column 1: I.F.R.B. Serial Number

This number has been introduced by the I.F.R.B. essentially for sorting and for cross-reference purposes between the basic inventory and Annex 1. Where the serial number is followed by the letter "D" the information concerns daytime operation and "N" night-time operation.

Column 2: Assigned frequency (kHz) (box 02)

Where the symbol P appears in this column, the form did not contain the frequency to be assigned to the station, the operational status of which is designated by the symbol P in Column 7.

Column 3: Name of transmitting station (box 03)

Column 4: Call sign (box 04)

Column 5: Additional identification (box 05)

This information is provided by the Administration concerned, in addition to that in Columns 3 and 4, to complete the identification of the transmitting station.

- Class A station

A station intended to provide coverage over extensive primary and secondary service areas, and which is protected against interference accordingly.

- Class B station

A station intended to provide coverage over one or more population centres and the contiguous rural areas located in its primary service area, and which is protected against interference accordingly.

- Class C station

A station intended to provide coverage over a city or town and the contiguous areas located in its primary service area, and which are protected accordingly.

Column 7: Operational status (box 07)

O : Station already in operation

P : Station planned to be brought into operation.

Column 8: Geographical coordinates of the transmitting station (box 09)

Longitude and latitude of the transmitting antenna site in degrees, minutes and seconds. Where the value of seconds is not available, the corresponding part of the column has been left blank.

Column 9: Hours of operation (GMT) (box 42)

The daily hours of operation are shown to the nearest hour in GMT. Alternatively, symbols HJ and HN are also shown. Symbol HJ indicates operation during daytime and symbol HN operation during night-time.

Column 10: (D, N)

This column may contain a symbol "D" or "N". Symbol D indicates that the remaining columns on the same line contain characteristics for daytime operation.

Symbol N in this column indicates that the remaining columns on the same line contain characteristics for night-time operation.

Column 11: Station power (kW) (boxes 21, 31)

This indicates the carrier power supplied by the transmitter to the antenna transmission line.

The value of maximum radiation is given in dB relative to an equivalent monopole radiated power (e.m.r.p) of 1 kW. In the case of more than one maximum of radiation, values for additional maxima are shown on the following lines in the same column.

Column 13: Azimuth of maximum radiation (boxes 23, 33)

The azimuth of maximum radiation in the horizontal plane, in case of a directional antenna, is shown in degrees (clockwise) from True North. In the case of more than one maximum of radiation, additional directions are shown on the following lines, in the same column.

Column 14: Sector of limited radiation (boxes 24, 34)

The sector indicates the directions in which the radiation is significantly below the maximum radiation. In the case of more than one such sector, additional sectors are shown on the following lines in the same column.

Column 15: Maximum radiation in limited sector (dB) (boxes 25, 35)

The value of radiation is given in dB relative to an equivalent monopole radiated power (e.m.r.p) of 1 kW.

Column 16: Type of antenna (A or B) (boxes 26, 36)

Symbol A indicates a simple vertical antenna and Symbol B an antenna other than a simple vertical antenna. 1)

Column 17: Electrical height of the simple vertical antenna (degrees)
(boxes 27, 37)

Column 18: Remarks (box 44)

The symbols representing the remarks are composed of either the letter A or B followed by three figures.

A symbol from the series A001 - A999 indicates that in Annex 2 against the symbol may be found the reproduction of information communicated by the Administration either in the transmittal letter, on the form or the tape.

A symbol in the series B001 - B999 indicates that in Annex 2 information may be found which the I.F.R.B. considered useful to include.

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- 1) In certain cases the information received by the Board for this column was symbol B, however, the antenna characteristics were not supplied. Consequently there is no related entry in Annex 1 to the Basic Inventory. Each of these cases is being taken up with the notifying Administration concerned.

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Canada

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
12001D	540 GRAND FALLS	CET	NF	A 0	55W3734	48N5703	HJ	D	10	9.7				A	60		
12001N	540 GRAND FALLS	CLT	NF	A 0	55W3734	48N5703	HN	N	10	9.7				A	60		
12004D	540 NEW CARLISLE	CBGA	1	QU	B 0	65W0800	47N4800	HJ	D	10				B			
12004N	540 NEW CARLISLE	CBGA	1	GU	B 0	65W0800	47N4800	HN	N	10				B			
12002D	540 OTTAWA		ON	B P	75W4646	45N1121	HJ	D	50					B			
12002N	540 OTTAWA		ON	B P	75W4646	45N1121	HN	N	10					B			
12435D	540 SAULT STE MAON	CKCY		B P	84W2700	46N3200	HJ	D	15								
12435N	540 SAULT STE MAON	CKCY		B P	84W2700	46N3200	HN	N	2.5								
12005D	540 WATROUS	CBK	SA	A 0	105W2649	51N4048	HJ	D	50	17.5				A	95.8		
12005N	540 WATROUS	CBK	SA	A 0	105W2649	51N4048	HN	N	50	17.5				A	95.8		
12003D	540 WINDSOR	CBEF	ON	B 0	83W0533	42N0850	HJ	D	2.5					B			
12003N	540 WINDSOR	CBEF	ON	B 0	83W0533	42N0850	HN	N	5					B			
12008D	550 FREDERICTON	CFNB	NB	B 0	66W5446	45N4808	HJ	D	50					B			
12008N	550 FREDERICTON	CFNB	NB	B 0	66W5446	45N4808	HN	N	50					B			
12006D	550 KAMLOOPS	CFJC	BC	B 0	120W2728	50N3834	HJ	D	25					B			
12006N	550 KAMLOOPS	CFJC	BC	B 0	120W2728	50N3834	HN	N	5					B			
12007D	550 PRINCE GEORGE	CKPG	BC	B 0	122W3615	53N5545	HJ	D	10	9.6				A	53		
12007N	550 PRINCE GEORGE	CKPG	BC	B 0	122W3615	53N5545	HN	N	10					B			
12009N	550 SUDBURY	CHNO	ON	B 0	80W5830	46N2610	HN	N	10					B			
12009D	550 SUDBURY	CHNO	ON	B 0	80W5800	46N2600	HJ	D	50					B			
12010D	550 TROIS RIVIERES	CHLN	QU	B 0	72W3526	46N1421	HJ	D	10					B			
12010N	550 TROIS RIVIERES	CHLN	QU	B 0	72W3526	46N1421	HN	N	5					B			
12011D	560 FORT ST JOHN	CKNL	BC	B 0	120W5332	56N1400	HJ	D	1	0.3				A	61.4		
12011N	560 FORT ST JOHN	CKNL	BC	B 0	120W5332	56N1400	HN	N	1					B			
12014D	560 KIRKLAND LAKE	CJKL	ON	B 0	80W0138	48N0418	HJ	D	5	7				A	60		
12014N	560 KIRKLAND LAKE	CJKL	ON	B 0	80W0138	48N0418	HN	N	5					B			
12013D	560 MARYSTOWN	CHCM	NF	B 0	55W1437	47N0933	HJ	D	10	9.7				A	60		
12013N	560 MARYSTOWN	CHCM	NF	B 0	55W1437	47N0933	HN	N	5					B			
12015D	560 OWEN SOUND	CFOS	ON	B 0	80W5408	44N3240	HJ	D	5					B			
12015N	560 OWEN SOUND	CFOS	ON	B 0	80W5408	44N3240	HN	N	1					B			
12012D	560 PRINCE RUPERT	CHTK	BC	C 0	130W2310	54N1755	HJ	D	1	0.6				A	59		
12012N	560 PRINCE RUPERT	CHTK	BC	C 0	130W2310	54N1755	HN	N	0.25	6.6				A	59		
12016D	560 SEPT-ILES	CKCN	QU	B 0	66W3404	50N1218	HJ	D	10					B			
12016N	560 SEPT-ILES	CKCN	QU	B 0	66W3404	50N1218	HN	N	5					B			
12020D	570 CORNER BROOK	CFCB	NF	B 0	57W5932	48N5613	HJ	D	1	0.6				A	60		
12020N	570 CORNER BROOK	CFCB	NF	B 0	57W5932	48N5613	HN	N	1	0.6				A	60		
12017D	570 CRANBROOK	CKEK	BC	B 0	115W4312	49N2813	HJ	D	10					B			
12017N	570 CRANBROOK	CKEK	BC	B 0	115W4312	49N2813	HN	N	1					B			
12019D	570 EDMUNDSTON	CJEM	NB	B 0	68W1721	47N2147	HJ	D	5	6.5				A	60		
12019N	570 EDMUNDSTON	CJEM	NB	B 0	68W1721	47N2147	HN	N	1					B			
12021D	570 KITCHENER	CHYM	ON	B 0	80W2110	43N1725	HJ	D	10					B			
12021N	570 KITCHENER	CHYM	ON	B 0	80W2110	43N1725	HN	N	10					B			
12022D	570 SWIFT CURRENT	CKSW	SA	B 0	107W4858	50N0909	HJ	D	10					B			
12022N	570 SWIFT CURRENT	CKSW	SA	B 0	107W4858	50N0909	HN	N	10					B			
12023D	570 WHITEHORSE	CFWH	YT	B 0	135W0643	60N4701	HJ	D	1	0.3				A	60		
12023N	570 WHITEHORSE	CFWH	YT	B 0	135W0643	60N4701	HN	N	1	0.3				A	60		

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(suite-continued-continua)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
12018D	570 WILLIAMS LAKE	CKWL	BC	B 0	122W1027	52N0529	HJ	D	1	0.1				A	62.3		
12018N	570 WILLIAMS LAKE	CKWL	BC	B 0	122W1027	52N0529	HN	N	1					B			
12027D	580 ANTIGONISH	CJFX	NS	A 0	62W0045	45N3637	HJ	D	10					B			
12027N	580 ANTIGONISH	CJFX	NS	A 0	62W0045	45N3637	HN	N	10					B			
12024D	580 EDMONTON	CKUA	AB	B 0	113W2727	53N2034	HJ	D	10					B			
12024N	580 EDMONTON AE	CKUA	AB	B 0	113W2700	53N2700	HN	N	10					B			
12032D	580 HAUTERIVE	CHLC	QU	B 0	68W1841	49N1034	HJ	D	5					B			
12032N	580 HAUTERIVE	CHLC	QU	B 0	68W1841	49N1034	HN	N	2.5					B			
12028D	580 KAPUSKASING	CKAP	ON	B 0	82W2352	49N2317	HJ	D	10	9.5				A	60.5		
12028N	580 KAPUSKASING	CKAP	ON	B 0	82W2352	49N2317	HN	N	1					B			
12029D	580 OTTAWA	CFRA	ON	B 0	75W4403	45N1224	HJ	D	50					B			
12029N	580 OTTAWA	CFRA	ON	B 0	75W4403	45N1224	HN	N	10					B			
12025D	580 SALMON ARM	CKXR	BC	B 0	119W2020	50N4305	HJ	D	10	9.7				A	60		
12025N	580 SALMON ARM	CKXR	BC	B 0	119W2020	50N4305	HN	N	1					B			
12030D	580 THUNDER BAY	CKPR	ON	B 0	89W1450	48N2431	HJ	D	5	6.6				A	64		
12030N	580 THUNDER BAY	CKPR	ON	B 0	89W1450	48N2431	HN	N	1	0.4				A	64		
12031D	580 WINDSOR	CKWW	ON	C 0	83W0253	42N1022	HJ	D	0.5					B			
12031N	580 WINDSOR	CKWW	ON	C 0	83W0253	42N1022	HN	N	0.5					B			
12026D	580 WINNIPEG	CKY	MB	B 0	97W0900	49N3609	HJ	D	50					B			
12026N	580 WINNIPEG	CKY	MB	B 0	97W0900	49N3609	HN	N	50					B			
12035D	590 FLIN FLON	CFAR	MB	B 0	101W5109	54N4804	HJ	D	10					B			
12035N	590 FLIN FLON	CFAR	NB	B 0	101W5109	54N4804	HN	N	1	0.3				A	60		
12033D	590 FORT NELSON	CFNL	BC	C 0	122W4232	58N4851	HJ	D	0.25	6.8				B	60		
12033N	590 FORT NELSON	CFNL	BC	C 0	122W4232	58N4851	HN	N	0.25	6.8				B	60		
12039D	590 JONQUIERE	CRS	QU	B 0	71W1020	48N2215	HJ	D	10					B			
12039N	590 JONQUIERE	CRS	QU	B 0	71W1020	48N2215	HN	N	5					B			
12037D	590 ST JOHN'S	VOCM	NF	B 0	52W4644	47N3238	HJ	D	10	9.9				A	60		
12037N	590 ST JOHN'S	VOCM	NF	B 0	52W4644	47N3238	HN	N	10					B			
12036D	590 SUSSEX	CJCH	NB	C 0	65W3129	45N4106	HJ	D	1					B			
12036N	590 SUSSEX	CJCH	NB	C 0	65W3129	45N4106	HN	N	0.25					B			
12034D	590 TERRACE	CFTK	BC	B 0	128W3050	54N3005	HJ	D	1					B			
12034N	590 TERRACE	CFTK	EC	B 0	128W3050	54N3005	HN	N	1					B			
12038D	590 TORONTO	CKEY	ON	B 0	79W2320	43N3633	HJ	D	10					B			
12038N	590 TORONTO	CKEY	ON	B 0	79W2320	43N3633	HN	N	10					B			
12045D	600 MONTREAL	CFCF	QU	B 0	73W4155	45N2334	HJ	D	5					B			
12045N	600 MONTREAL	CFCF	QU	B 0	73W4155	45N2334	HN	N	5					B			
12044D	600 NORTH BAY	CFCH	ON	B 0	79W2800	46N1045	HJ	D	10					B			
12044N	600 NORTH BAY	CFCH	ON	B 0	79W2800	46N1045	HN	N	5					B			
12046D	600 SASKATOON	CFQC	SA	B 0	106W4625	52N0643	HJ	D	10					B			
12046N	600 SASKATOON	CFQC	SA	B 0	106W4625	52N0643	HN	N	10					B			
12041D	600 ST ANTHONY	CUNA	NF	B 0	55W3700	51N0204	HJ	D	10					B			
12041N	600 ST ANTHONY	CUNA	NF	B 0	55W3700	51N0204	HN	N	10					B			
12042D	600 TRURO	CKCL	NS	B 0	63W2051	45N2228	HJ	D	10					B			
12042N	600 TRURO	CKCL	NS	B 0	63W2051	45N2228	HN	N	1					B			
12043D	600 TUKTOYAKTUK	CFCT	NT	B 0	133W0123	69N2644	HJ	D	1	0.3				A	60		
12043N	600 TUKTOYAKTUK	CFCT	NT	B 0	133W0123	69N2644	HN	N	1	0.3				A	60		
12040D	600 VANCOUVER	CJOF	BC	B 0	123W0054	49N1000	HJ	D	10					B			
12040N	600 VANCOUVER	CJOF	BC	B 0	123W0054	49N1000	HN	N	10					B			
12051D	610 GRAND BANK	CKYQ	NF	B 0	55W4700	47N0545	HJ	D	10					B			
12051N	610 GRAND BANK	CKYQ	NF	B 0	55W4700	47N0545	HN	N	10					B			

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
12048D	610 KAMLOOPS	CHNL	BC	B	0	120W1615	50N3850	HJ	D	25					B		
12048N	610 KAMLOOPS	CHNL	BC	B	0	120W1615	50N3850	HN	N	5					B		
12053D	610 MONT LAURIER	CKML	QU	B	0	75W2711	46N3241	HJ	D	1	0.2			A	69		
12053N	610 MONT LAURIER	CKML	QU	B	0	75W2711	46N3241	HN	N	1				B			
12054D	610 NEW CARLISLE	CHNC	QU	B	0	65W1452	48N0119	HJ	D	10				B			
12054N	610 NEW CARLISLE	CHNC	QU	B	0	65W1452	48N0119	HN	N	5				B			
12047D	610 PEACE RIVER	CKYL	AB	B	0	117W1056	56N1040	HJ	D	10	9.7			A	62.5		
12047N	610 PEACE RIVER	CKYL	AB	B	0	117W1056	56N1040	HN	N	10				B			
12052D	610 ST CATHARINES	CKTR	ON	B	0	79W1000	43N0212	HJ	D	10				B			
12052N	610 ST CATHARINES	CKTB	ON	B	0	79W1000	43N0212	HN	N	5				B			
12050D	610 THOMPSON	CHTM	MB	B	0	97W5311	55N4235	HJ	D	1	0.3			A	60		
12050N	610 THOMPSON	CHTM	MB	B	0	97W5311	55N4235	HN	N	1	0.3			A	63.6		
12049D	610 TRAIL	CJAT	BC	B	0	117W4419	49N0648	HJ	D	10				B			
12049N	610 TRAIL	CJAT	BC	B	0	117W4419	49N0648	HN	N	1	0.6			A	61.5		
12055D	610 WHITEHORSE	CKRW	YT	B	0	134W5809	60N4133	HJ	D	1	0.8			A	60		
12055N	610 WHITEHORSE	CKRW	YT	B	0	134W5809	60N4133	HN	N	1	0.8			A	60		
12060D	620 FORESTVILLE	CFRP	QU	B	0	69W0513	48N3823	HJ	D	1				B			
12060N	620 FORESTVILLE	CFRP	QU	B	0	69W0513	48N3823	HN	N	1				B			
12057D	620 GRAND FALLS	CKCM	NF	B	0	55W3835	48N5639	HJ	D	10				B			
12057N	620 GRAND FALLS	CKCM	NF	B	0	55W3835	48N5639	HN	N	10				B			
12056D	620 PRINCE GEORGE	CJCI	BC	B	0	122W4310	53N5103	HJ	D	10	9.7			A	61.3		
12056N	620 PRINCE GEORGE	CJCI	BC	B	0	122W4310	53N5103	HN	N	10				B			
12061D	620 REGINA	CKCK	SA	B	0	104W3713	50N1936	HJ	D	10				B			
12061N	620 REGINA	CKCK	SA	B	0	104W3713	50N1936	HN	N	10				B			
12058D	620 SUDBURY	ON	ON	B	P	81W0145	46N2615	HJ	D	10	9.5			B			
12058N	620 SUDBURY	ON	ON	B	P	81W0145	46N2615	HN	N	10				B			
12059D	620 TIMMINS	CFCL	ON	B	0	81W2308	48N2650	HJ	D	10				B			
12059N	620 TIMMINS	CFCL	ON	B	0	81W2308	48N2650	HN	N	5				B			
12069D	630 CHARLOTTETOWN	CFCY	PE	B	0	63W1140	46N1451	HJ	D	10				B			
12069N	630 CHARLOTTETOWN	CFCY	PE	B	0	63W1140	46N1451	HN	N	10				B			
12065D	630 CHATHAM	CFCO	ON	B	0	82W1653	42N2003	HJ	D	10				B			
12065N	630 CHATHAM	CFCO	ON	B	0	82W1653	42N2003	HN	N	1				B			
12062D	630 EDMONTON	CHED	AB	B	0	113W2346	53N2358	HJ	D	50				B			
12062N	630 EDMONTON	CHED	AB	B	0	113W2346	53N2358	HN	N	50				B			
12066D	630 HUNTSVILLE	CFRK	ON	B	0	79W1221	45N1738	HJ	D	1	0.2			A	64		
12066N	630 HUNTSVILLE	CFBK	ON	B	0	79W1221	45N1738	HN	N	1				B			
12063D	630 KELOWNA	CKOV	BC	B	0	119W2900	49N5051	HJ	D	5	6.7			A	44.8		
12063N	630 KELOWNA	CKOV	BC	B	0	119W2900	49N5051	HN	N	1	0.3			A	44.8		
12070D	630 LACHUTE	CJLA	QU	B	0	74W1900	45N3510	HJ	D	0.5				B			
12070N	630 LACHUTE	CJLA	QU	B	0	74W1900	45N3510	HN	N	1				B			
12071D	630 SHERBROOKE	CHLT	QU	B	0	71W5159	45N1816	HJ	D	10				B			
12071N	630 SHERBROOKE	CHLT	QU	B	0	71W5159	45N1816	HN	N	5				B			
12067D	630 SMITHS FALLS	CJET	ON	B	0	75W5844	44N5031	HJ	D	10				B			
12067N	630 SMITHS FALLS	CJET	ON	B	0	75W5844	44N5031	HN	N	10				B			
12068D	630 TIMMINS	ON	ON	B	P	81W2308	48N2650	HJ	D	10	9.5			B			
12068N	630 TIMMINS	ON	ON	B	P	81W2308	48N2650	HN	N	10				B			
12064D	630 WINNIPEG	CKNC	MH	B	0	97W0757	49N4551	HJ	D	10				B			
12064N	630 WINNIPEG	CKRC	MH	B	0	97W0757	49N4551	HN	N	10				B			
12072D	640 ST JOHN'S	CHN	NF	A	0	52W4807	47N3010	HJ	D	10	9.8			A	65.7		
12072N	640 ST JOHN'S	CHN	NF	A	0	52W4807	47N3010	HN	N	10	9.8			A	65.7		

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
12073D	670	MUSGRAVETOWN	CHYQ	NF	A	O	53W5500	48N2410	HJ	D	10				B		
12073N	670	MUSGRAVETOWN	CHYQ	NF	A	O	53W5500	48N2410	HN	N	10				B		
12077D	680	DARTMOUTH	CFDR	NS	B	O	63W4158	44N4208	HJ	D	50-				B		
12077N	680	DARTMOUTH	CFDR	NS	B	O	63W4158	44N4208	HN	N	10				B		
12074D	680	EDMONTON	CHFA	AB	B	O	113W3641	53N2423	HJ	D	10				B		
12074N	680	EDMONTON	CHFA	AB	B	O	113W3641	53N2423	HN	N	10				B		
12076D	680	GRAND FALLS	CIYG	NF	B	O	55W3531	48N5823	HJ	D	10				B		
12076N	680	GRAND FALLS	CIYQ	NF	B	O	55W3531	48N5823	HN	N	10				B		
12078D	680	TIMMINS	CKGB	ON	B	O	81W2624	48N2825	HJ	D	10				B		
12078N	680	TIMMINS	CKGB	ON	B	O	81W2624	48N2825	HN	N	10				B		
12079D	680	TORONTO	CFTR	ON	B	O	79W3620	43N1252	HJ	D	50				B		
12079N	680	TORONTO	CFTR	ON	B	O	79W3620	43N1252	HN	N	25				B		
12075D	680	WINNIPEG	CJOB	MB	B	O	97W1130	49N3914	HJ	D	50				B		
12075N	680	WINNIPEG	CJOB	MB	B	O	97W1130	49N3914	HN	N	50				B		
12082D	690	GFAVELBOURG	CBKF-1	SA	B	O	106W2819	49N5216	HJ	D	5	6.9			A	73.2	
12082N	690	GRAVELBOURG	CBKF-1	SA	B	O	106W2819	49N5216	HN	N	5				B		
12081D	690	MONTREAL	CEF	QU	A	O	73W2658	45N2542	HJ	D	50	18.7			B	206	
12081N	690	MONTREAL	CEF	QU	A	O	73W2658	45N2542	HN	N	50	19.7			B	206	
12080D	690	VANCOUVER	CBU	BC	B	O	123W1200	49N0815	HJ	D	50				B		
12080N	690	VANCOUVER	CEU	BC	B	O	123W1200	49N0815	HN	N	50				B		
12083D	710	CLARENVILLE	CKVO	NF	B	O	53W5744	48N0836	HJ	D	10				B		
12083N	710	CLARENVILLE	CKVO	NF	B	O	53W5744	48N0836	HN	N	10				B		
12084D	710	LEAMINGTON ON	CHYR	ON	B	O	82W3300	42N0000	HJ	D	25				B		
12085D	710	NIAGARA FALLS	CJRN	ON	B	O	78W5727	42N5352	HJ	D	5				B		
12085N	710	NIAGARA FALLS	CJRN	ON	B	O	78W5727	42N5352	HN	N	2.5				B		
12086D	710	PORT CARTIER	CIPC	QU	B	O	66W5659	49N5920	HJ	D	1				B		
12086N	710	PORT CARTIER	CIPC	QU	B	O	66W5659	49N5920	HN	N	1				B		
12087D	710	VILLE MARIE	CKVM	QU	B	O	79W2710	47N1823	HJ	D	10	9.7			A	60	
12087N	710	VILLE MARIE	CKVM	QU	B	O	79W2710	47N1823	HN	N	1				B		
12093D	730	BLIND RIVER	CJNR	ON	B	O	82W5903	46N1037	HJ	D	1	0.3			A	60	
12093N	730	BLIND RIVER	CJNR	ON	B	O	82W5903	46N1037	HN	N	1				B		
12090D	730	DAUPHIN	CKDM	MB	B	O	100W1346	51N0908	HJ	D	10	10			A	90	
12090N	730	DAUPHIN	CKDM	MB	B	O	100W1346	51N0908	HN	N	5				B		
12092D	730	GANDER	CKGA	NF	B	O	54W3941	48N5737	HJ	D	1				B		
12092N	730	GANDER	CKGA	NF	B	O	54W3941	48N5737	HN	N	1				B		
12091D	730	GRAND FALLS	NB	BP	67W4332	46N5836	HJ	D	10	10.2					A	90.	
12094N	730	LEAMINGTON ON	CHYR	7	ON	C	O	82W3300	42N0000	HN	N	1			B		
12097D	730	MONTREAL	CKAC	QU	A	O	73W5826	45N3050	HJ	D	50				B		
12097N	730	MONTREAL	CKAC	QU	A	O	73W5826	45N3050	HN	N	50				B		
12095D	730	NORTH BAY	ON	BP	79W2315	46N1516	HJ	D	10					B			
12095N	730	NORTH BAY	ON	BP	79W2315	46N1516	HN	N	10					B			
12096D	730	TIMMINIS	CKGB	ON	B	P	81W2007	48N2542	HJ	D	25				B		
12096N	730	TIMMINIS	CKGR	ON	B	P	81W2007	48N2542	HN	N	25				B		
12088D	730	VANCOUVER	CH-LG	HC	B	O	123W0018	49N0757	HJ	D	50				B		
12088N	730	VANCOUVER	CH-LG	HC	B	O	123W0018	49N0757	HN	N	50				B		
12089D	730	VERNON	BC	BP	119W1245	50N1250	HJ	D	10					R			
12089N	730	VERNON	BC	BP	119W1245	50N1250	HN	N	10					B			
12098D	740	EDMONTON	CLX	AB	B	O	113W2643	53N1910	HJ	D	50				B		
12098N	740	EDMONTON	CL-X	AB	B	O	113W2643	53N1910	HN	N	50				B		
12099D	740	MARYSTOWN	CL-N1	NF	B	O	55W1622	47N0841	HJ	D	10	10.4			A	90	

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
12099N	740 MARYSTOWN	CLNM	NF	B 0	55W1622	47N0841	HN	N	10						B		
12100D	740 TORONTO	CHL	ON	A 0	79W4903	43N3430	HJ	D	50	18.9					A	183.6	
12100N	740 TORONTO	CHL	ON	A 0	79W4903	43N3430	HN	N	50	18.8					A	174.6	
12101D	750 BONAVISTA BAY	CLGY	NF	A 0	53W4623	48N4027	HJ	D	10						B		
12101N	750 BONAVISTA BAY	CLGY	NF	A 0	53W4623	48N4027	HN	N	10						B		
12108D	790 BAIE COMEAU	CFDH	QU	C 0	68W1123	49N1200	HJ	D	1						B		
12108N	790 BAIE COMEAU	CFDH	QU	C 0	68W1123	49N1200	HN	N	0.25						B		
12105D	790 BEDFORD-SACK.		NS	B P	63W4440	44N4715	HJ	D	10						B		
12105N	790 BEDFORD-SACK.		NS	B P	63W4440	44N4715	HN	N	10						B		
12106D	790 BRAMPTON	CHIC	ON	B 0	79W5254	43N3520	HJ	D	5						B		
12106N	790 BRAMPTON	CHIC	ON	B 0	79W5254	43N3520	HN	N	5						B		
12102D	790 CAMROSE	CFCW	AB	B 0	112W5729	52N5737	HJ	D	50						B		
12102N	790 CAMROSE	CFCW	AB	B 0	112W5729	52N5737	HN	N	50						B		
12103D	790 NEWCASTLE	CFAN	NB	B 0	65W3310	47N0021	HJ	D	5						B		
12103N	790 NEWCASTLE	CFAN	NB	B 0	65W3310	47N0021	HN	N	1						B		
12104D	790 PORT AUX CHOIX	CFNW	NF	B 0	57W2400	50N4200	HJ	D	1						B		
12104N	790 PORT AUX CHOIX	CFNW	NF	B 0	57W2400	50N4200	HN	N	1						B		
12107D	790 SUDURY	CKSO	ON	A 0	80W5613	46N2524	HJ	D	50						B		
12107N	790 SUDURY	CKSO	ON	A 0	80W5613	46N2524	HN	N	50						B		
12112D	800 BELLEVILLE	CJBG	ON	B 0	77W2510	43N5808	HJ	D	10						B		
12112N	800 BELLEVILLE	CJBG	ON	B 0	77W2510	43N5808	HN	N	10						B		
12113D	800 FORT FRANCES	CFOB	ON	C 0	93W2652	48N3610	HJ	D	1	0.6					A	56	
12113N	800 FORT FRANCES	CFOB	ON	C 0	93W2652	48N3610	HN	N	0.5	3.5					A	56	
12109D	800 LANGLEY	CJJC	BC	B 0	122W3238	49N0656	HJ	D	10						B		
12109N	800 LANGLEY	CJJC	BC	B 0	122W3238	49N0656	HN	N	10						B		
12116D	800 MONTREAL	CJAD	QU	B 0	73W3125	45N1450	HJ	D	50						B		
12116N	800 MONTREAL	CJAD	QU	B 0	73W3125	45N1450	HN	N	10						B		
12118D	800 MOOSE JAW	CHAB	SA	B 0	105W4210	50N2355	HJ	D	10	9.7					A	60	
12118N	800 MOOSE JAW	CHAB	SA	B 0	105W4210	50N2355	HN	N	10						B		
12110D	800 PENTICTON	CKOK	BC	B 0	119W3433	49N2745	HJ	D	10	9.7					A	65	
12110N	800 PENTICTON	CKOK	BC	B 0	119W3433	49N2745	HN	N	0.5	3.3					A	65	
12117D	800 QUEBEC	CHR'C	QU	B 0	71W1445	46N3834	HJ	D	50						B		
12117N	800 QUEBEC	CHR'C	QU	B 0	71W1445	46N3834	HN	N	50						B		
12111D	800 ST JOHN'S	VOWR	NF	B 0	52W4514	47N3419	HJ	D	5	6.7					A	60	
12111N	800 ST JOHN'S	VOWR	NF	B 0	52W4514	47N3419	HN	N	2.5	3.7					A	60	
12114D	800 THUNDER BAY	CHQ	ON	B 0	89W2130	48N1838	HJ	D	10						B		
12114N	800 THUNOER BAY	CEQ	ON	B 0	89W2130	48N1838	HN	N	5						B		
12115D	800 WINDSOR	CKLW	ON	B 0	83W0010	42N0325	HJ	D	50						B		
12115N	800 WINDSOR	CKLW	ON	B 0	83W0010	42N0325	HN	N	50						B		
12119D	810 CALGARY	CHQR	AB	B 0	114W0538	50N5350	HJ	D	50						B		
12119N	810 CALGARY	CHQR	AB	B 0	114W0538	50N5350	HN	N	50						B		
12121D	810 CARAQET	CJVA	NB	B 0	65W0313	47N4605	HJ	D	10	10.2					A	86	
12121N	810 CARAQET	CJVA	NB	B 0	65W0313	47N4605	HN	N	10						B		
12120D	810 WINNIPEG	CJJS	MB	B 0	97W1136	49N4407	HJ	D	10						B		
12120N	810 WINNIPEG	CJJS	MB	B 0	97W1136	49N4407	HN	N	10						B		
12123D	850 ABBOTSFORD	CFVR	BC	B 0	122W1346	49N0108	HJ	D	10						B		
12123N	850 ABBOTSFORD	CFVR	BC	B 0	122W1346	49N0108	HN	N	10						B		
12122D	850 RED DEER	CKRD	AB	B 0	113W4740	52N0834	HJ	D	10	10					A	62	
12122N	850 RED DEER	CKRD	AB	B 0	113W4740	52N0834	HN	N	1						B		
12124D	850 SPANIARDS BAY		NF	B P	53W1530	47N3921	HJ	D	5						B		

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
12124N	850	SPANIARDS DAY	NF	B P	53W1530	47N3921	HN	N	5					B			
12125D	850	TINMINES	CFCL	ON	B 0	81W2308	48N2650	HJ	D	10				B			
12125N	850	TINMINES	CFCL	ON	B 0	81W2308	48N2650	HN	N	10				B			
12126D	850	VERDUN	CKVL	QU	B 0	73W3516	45N2332	HJ	D	50				B			
12126N	850	VERDUN	CKVL	QU	B 0	73W3516	45N2332	HN	N	10				B			
12128D	860	HALIFAX	CBH	NS	B 0	63W4146	44N3809	HJ	D	10	9.9			A	90		
12128N	860	HALIFAX	CBH	NS	B 0	63W4146	44N3809	HN	N	10				B			
12129D	860	INUVIK	CHAK	NT	B 0	133W4059	68N2041	HJ	D	1	0.1			A	60		
12129N	860	INUVIK	CHAK	NT	B 0	133W4059	68N2041	HN	N	1	0.1			A	60		
12127D	860	PRINCE RUPERT	CFPR	BC	A 0	130W2228	54N1708	HJ	D	10				B			
12127N	860	PRINCE RUPERT	CFPR	BC	A 0	130W2228	54N1708	HN	N	10				B			
12131D	860	SASKATOON	CEKF-2	SA	B 0	106W3933	52N1500	HJ	D	10				B			
12131N	860	SASKATOON	CBKF-2	SA	B 0	106W3933	52N1500	HN	N	10				B			
12130D	860	TORONTO	CJBC	ON	A 0	79W4903	43N3430	HJ	D	50	19.9			A	202.9		
12130N	860	TORONTO	CJBC	ON	A 0	79W4903	43N3430	HN	N	50	19.9			A	202.9		
12134D	900	AMHERST	CKDH	NS	B 0	64W1241	45N5042	HJ	D	1				B			
12134N	900	AMHERST	CKDH	NS	B 0	64W1241	45N5042	HN	N	1				B			
12135D	900	DRYDEN	CKDR	ON	C 0	92W4945	49N4847	HJ	D	1	0.2			A	90		
12135N	900	DRYDEN	CKDR	ON	C 0	92W4945	49N4847	HN	N	0.25	5.9			A	90		
12136D	900	HAMILTON	CHML	ON	B 0	80W0715	43N2000	HJ	D	50				B			
12136N	900	HAMILTON	CHML	ON	B 0	80W0715	43N2000	HN	N	50				B			
12132D	900	PENTICTON		BC	B P	119W3741	49N2857	HJ	D	1				B			
12132N	900	PENTICTON		BC	B P	119W3741	49N2857	HN	N	1				B			
12142D	900	PRINCE ALBERT	CKBI	SA	A 0	105W4530	53N0613	HJ	D	10	10.3			A	99		
12142N	900	PRINCE ALBERT	CKBI	SA	A 0	105W4530	53N0613	HN	N	10				B			
12138D	900	RIMOUSKI	CJER	QU	B 0	68W3437	48N2637	HJ	D	10	9.5			A	163		
12138N	900	RIMOUSKI	CJER	QU	B 0	68W3437	48N2637	HN	N	10				B			
12139D	900	SHERBROOKE	CKTS	QU	B 0	72W0035	45N2628	HJ	D	10				B			
12139N	900	SHERBROOKE	CKTS	QU	B 0	72W0035	45N2628	HN	N	10				B			
12140D	900	ST JEROME	CJEN	GU	B 0	74W0210	45N4901	HJ	D	1				B			
12140N	900	ST JEROME	CJEN	QU	B 0	74W0210	45N4901	HN	N	1				B			
12137D	900	SUDEURY	CFBR	ON	B 0	80W5830	46N2610	HJ	D	10				B			
12137N	900	SUDEURY	CFBR	ON	B 0	80W5830	46N2610	HN	N	1				B			
12141D	900	VAL D'OR	CKVD	QU	B 0	77W4225	48N0453	HJ	D	10				B			
12141N	900	VAL D'OR	CKVD	QU	B 0	77W4225	48N0453	HN	N	2.5				B			
12133D	900	VICTORIA	CJVI	BC	B 0	123W1513	48N2628	HJ	D	10				B			
12133N	900	VICTORIA	CJVI	BC	B 0	123W1513	48N2628	HN	N	10				B			
12143D	910	DRUMHELLER	CJDV	AB	B 0	112W4410	51N2450	HJ	D	10				B			
12143N	910	DRUMHELLER	CJDV	AB	B 0	112W4410	51N2450	HN	N	10				B			
12145D	910	LINDSAY	CKLY	ON	B 0	78W4157	44N1641	HJ	D	10				B			
12145N	910	LINDSAY	CKLY	ON	B 0	78W4157	44N1641	HN	N	5				B			
12146D	910	ROBERVAL	CHRL	QU	B 0	72W0647	48N2625	HJ	D	10	9.8			A	66.7		
12146N	910	ROBERVAL	CHRL	QU	B 0	72W0c47	48N2625	HN	N	10				B			
12144D	910	STEPHENVILLE	CFSX	NF	C 0	58W2928	48N3134	HJ	D	U.5	6.3			A	60		
12144N	910	STEPHENVILLE	CFSX	NF	C 0	58W2928	48N3134	HN	N	0.5	3.3			A	60		
12150D	920	HALIFAX	CJCH	NS	B 0	63W4022	44N3810	HJ	D	25	13.9			A	84		
12150N	920	HALIFAX	CJCH	NS	B 0	63W4022	44N3810	HN	N	25				B			
12154D	920	LEVIS	CFLS	GU	B 0	71W0837	46N4826	HJ	D	1	0.1			A	80.8		
12154N	920	LEVIS	CFLS	QU	B 0	71W0837	46N4826	HN	N	1				B			
12151D	920	OTTAWA	CRD	ON	B 0	75W4453	45N1109	HJ	D	50				B			

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
12151N	920 OTTAWA	CBO	ON	B 0	75W4453	45N1109	HN	N	50						B		
12148D	920 PORTAGE LA PRA	CFRY	MB	B 0	98W2230	49N5810	HJ	D	10						B		
12148N	920 PORTAGE LA PRA	CFRY	MB	B 0	98W2230	49N5810	HN	N	10						B		
12147D	920 QUESNEL	CKCQ	BC	B 0	122W3000	52N5640	HJ	D	10	9.8					A	67.3	
12147N	920 QUESNEL	CKCQ	BC	B 0	122W3000	52N5640	HN	N	1						B		
12152D	920 SAULT STE MARI	CKCY	ON	B 0	84W1934	46N3241	HJ	D	10						B		
12152N	920 SAULT STF MARI	CKCY	ON	B 0	84W1934	46N3241	HN	N	5						B		
12153D	920 WINGHAM	CKNX	ON	B 0	81W2053	43N5035	HJ	D	10						B		
12153N	920 WINGHAM	CKNX	ON	B 0	81W2053	43N5035	HN	N	1						B		
12149D	920 WOODSTOCK	CJCJ	NB	B 0	67W3510	46N0730	HJ	D	10						B		
12149N	920 WOODSTOCK	CJCJ	NL	B 0	67W3510	46N0730	HN	N	1						B		
12155D	930 EDMONTON	CJCA	AB	B 0	113W2832	53N2300	HJ	D	50						B		
12155N	930 EDMONTON	CJCA	AB	B 0	113W2832	53N2300	HN	N	50						B		
12158D	930 ESPANOLA	CKNS	ON	B 0	81W4636	46N1429	HJ	D	10	10				A	85		
12158N	930 ESPANOLA	CKNS	ON	B 0	81W4636	46N1429	HN	N	10						B		
12156D	930 SAINT JOHN	CFBC	NB	B 0	66W0615	45N1355	HJ	D	50						B		
12156N	930 SAINT JOHN	CFBC	NB	B 0	66W0615	45N1355	HN	N	50						B		
12157D	930 ST JOHN'S	CJYQ	NF	B 0	52W4715	47N3445	HJ	D	25						B		
12157N	930 ST JOHN'S	CJYQ	NF	B 0	52W4715	47N3445	HN	N	25						B		
12161D	940 MONTREAL	CBM	QU	A 0	73W2658	45N2542	HJ	D	50						B		
12161N	940 MONTREAL	CBM	QU	A 0	73W2658	45N2542	HN	N	50						B		
12159D	940 RICHMOND	CISL	BC	B 0	123W0309	49N0842	HJ	D	2.5						B		77
12159N	940 RICHMOND	CISL	BC	B 0	123W0309	49N0842	HN	N	2.5						B		
12160D	940 VERNON	CJIB	BC	B 0	119W1442	50N1926	HJ	D	10	10.8				A	90		
12160N	940 VERNON	CJIB	BC	B 0	119W1442	50N1926	HN	N	10						B		
12162D	940 YORKTON	CJGX	SA	B 0	102W2008	51N1223	HJ	D	10	10.2				A	90		
12162N	940 YORKTON	CJGX	SA	B 0	102W2008	51N1223	HN	N	10						B		
12163D	950 ALTONA	CFAM	MB	B 0	97W5657	49N0157	HJ	D	10						B		
12163N	950 ALTONA	CFAM	MB	B 0	97W5657	49N0157	HN	N	10						B		
12166D	950 BARRIE	CKEB	ON	B 0	79W4056	44N1806	HJ	D	10						B		
12166N	950 BARRIE	CKEB	ON	B 0	79W4056	44N1806	HN	N	2.5						B		
12164D	950 CAMPBELLTON	CKNB	NB	B 0	66W3509	48N0054	HJ	D	10						B		
12164N	950 CAMPBELLTON	CKNB	NB	B 0	66W3509	48N0054	HN	N	1						B		
12165D	950 SYDNEY	CHER	NS	B 0	60W1200	46N0444	HJ	D	10						B		
12165N	950 SYDNEY	CHER	NS	B 0	60W1200	46N0444	HN	N	10						B		
12167D	960 CALGARY	CFAC	AB	B 0	113W5020	50N5921	HJ	D	50	18.6				A	153.		
12167N	960 CALGARY	CFAC	AB	B 0	113W5020	50N5921	HN	N	50						B		
12169D	960 CAMBRIDGE	CFTJ	ON	B 0	80W1445	43N2055	HJ	D	1						B		
12169N	960 CAMBRIDGE	CFTJ	ON	B 0	80W1445	43N2055	HN	N	1						B		
12168D	960 HALIFAX	CHNS	NS	B 0	63W3935	44N4049	HJ	D	10	9.9				A	78		
12168N	960 HALIFAX	CHNS	NS	B 0	63W3935	44N4049	HN	N	10						B		
12170D	960 KINGSTON	CKWS	ON	B 0	76W2749	44N1051	HJ	D	10						B		
12170N	960 KINGSTON	CKWS	ON	B 0	76W2749	44N1051	HN	N	5						B		
12171D	960 MONT-JOLI	QU	P	B P	68W0820	48N3524	HJ	D	1	0.1				A	70		
12171N	960 MONT-JOLI	QU	P	B P	68W0820	48N3524	HN	N	1						B		
12172D	970 EDSON	CJYR	AB	B 0	116W3606	53N3209	HJ	D	10						B		
12172N	970 EDSON	CJYR	AB	B 0	116W3606	53N3209	HN	N	10						B		
12173D	970 FREDERICTON	CFZ	NF	B 0	66W3812	45N5534	HJ	D	10	9.7				A	56.7		
12173N	970 FREDERICTON	CFZ	NB	B 0	66W3812	45N5534	HN	N	10						B		
12174D	970 HARBOUR GRACE	NF	P	C P	53W1213	47N4043	HJ	D	1	0.3							

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12174N	970 HARBOUR GFACE		NF	C P	53W1213	47N4043	HN	N	0.5	3.3						56.7	
12175D	970 HULL	CKCH	QU	B O	75W3757	45N1412	HJ	D	10						B		
12175N	970 HULL	CKCH	QU	B O	75W3757	45N1412	HN	N	5						B		
12177D	980 LONDON	CFPL	ON	B O	81W1202	42N5329	HJ	D	10						B		
12177N	980 LONDON	CFPL	ON	B O	81W1202	42N5329	HN	N	5						B		
12179D	980 MONTREAL	CKGM	QU	B O	73W3723	45N2205	HJ	D	10						B		
12179N	980 MONTREAL	CKGM	QU	B O	73W3723	45N2205	HN	N	10						B		
12176D	980 NEW WESTMINSTE	CRNW	EC	A O	122W4350	49N0940	HJ	D	50						B		
12176N	980 NEW WESTMINSTE	CRNW	RC	A O	122W4350	49N0940	HN	N	50						B		
12178D	980 PETERBOROUGH	CHEX	ON	B O	78W1630	44N1712	HJ	D	10						B		
12178N	980 PETERBOROUGH	CHEX	ON	B O	78W1630	44N1712	HN	N	5						B		
12180D	980 QUEBEC	CPV	QU	B O	71W2355	46N4106	HJ	D	50						B		
12180N	980 QUEE EEC	CEV	QU	B O	71W2355	46N4106	HN	N	50						B		
12181D	980 REGINA	CKRM	SA	B O	104W3718	50N2113	HJ	D	10						B		
12181N	980 REGINA	CKRM	SA	B O	104W3718	50N2113	HN	N	5						B		
12183D	990 CORNER BROOK	CBY	NF	A O	57W5426	48N5558	HJ	D	10	9.9					A	85.6	
12183N	990 CORNER BROOK	CBY	NF	A O	57W5426	48N5558	HN	N	10	9.8					A	81.5	
12182D	990 WINNIPEG	CBW	MB	A O	97W5830	49N3114	HJ	D	50	20.1					A	216	
12182N	990 WINNIPEG	CBW	MB	A O	97W5830	49N3114	HN	N	50	20.1					A	206.4	
12184D	1000 BRIDGEWATER	CKBW	NS	B O	64W3214	44N2141	HJ	D	10	9.7					A	60	
12184N	1000 BRIDGEWATER	CKBW	NS	B O	64W3214	44N2141	HN	N	10						B		
12185D	1000 RIMOUSKI	CFLP	QU	B O	68W4112	48N2307	HN	N	10						B		
12186D	1010 CALGARY	CBR	AB	A O	113W5738	50N5617	HJ	D	50						B		
12186N	1010 CALGARY	CBR	AB	A O	113W5738	50N5617	HN	N	50						B		
12187D	1010 TORONTO	CFRB	ON	A O	79W3750	43N3022	HJ	D	50						B		
12187N	1010 TORONTO	CFRB	ON	A O	79W3750	43N3022	HN	N	50						B		
12188D	1050 GRANDE PRAIRIE	CFGP	AB	A O	118W5645	55N0710	HJ	D	10						B		
12188N	1050 GRANDE PRAIRIE	CFGP	AB	A O	118W5645	55N0710	HN	N	10						B		
12193D	1050 NORTH BATTLEFO	CJNB	SA	B O	108W1820	52N5030	HJ	D	10	9.7					A	77	
12193N	1050 NORTH BATTLEFO	CJNB	SA	B O	108W1820	52N5030	HN	N	10						B		
12191D	1050 SAULT STE MARI	CFYN	ON	B O	84W1728	46N3253	HJ	D	10	10.1					A	87	
12191N	1050 SAULT STE MARI	CFYN	ON	B O	84W1728	46N3253	HN	N	2.5						B		
12190D	1050 ST BONIFACE	CKSB	MB	B O	97W1054	49N4506	HJ	D	10	10.2					A	90	
12190N	1050 ST BONIFACE	CKSB	MB	B O	97W1054	49N4506	HN	N	10						B		
12192D	1050 TORONTO	CHUM	ON	B O	79W3715	43N2914	HJ	D	50						B		
12192N	1050 TORONTO	CHUM	ON	B O	79W3715	43N2914	HN	N	50						B		
12189D	1050 VERNON	CKAL	BC	B O	119W1626	50N1720	HJ	D	10	10.2					A	90	
12189N	1050 VERNON	CKAL	BC	B O	119W1626	50N1720	HN	N	1						B		
12194D	1060 CALGARY	CFCN	AB	B O	114W0330	50N5412	HJ	D	50	19					A	174	
12194N	1060 CALGARY	CFCN	AB	B O	114W0330	50N5412	HN	N	50						B		
12195D	1060 QUEREC	CJRP	QU	B O	71W1954	46N4108	HJ	D	50						B		
12195N	1060 QUEREC	CJRP	QU	B O	71W1954	46N4108	HN	N	10						B		
12198D	1070 MONCTON	CI-A	NB	A O	64W4110	46N0202	HJ	D	50	19					A	180	
12198N	1070 MONCTON	CI-A	NB	A O	64W4110	46N0202	HN	N	50	19					A	180	
12199D	1070 SARNIA	CHOK	ON	B O	82W1920	42N5330	HJ	D	10						B		
12199N	1070 SARNIA	CHOK	ON	B O	82W1920	42N5330	HN	N	10						B		
12196D	1070 ST ALBERT	CKST	AB	B O	113W3700	53N2600	HJ	D	10						B		
12196N	1070 ST ALBERT	CKST	AE	B O	113W3700	53N2600	HN	N	10						B		
12197L	1070 VICTORIA	CFAX	BC	B O	123W1820	48N2350	HJ	D	10						B		

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
12197N	1070	VICTORIA	CFAX	EC	B	0	123W1820	48N2350	HN	N	10						
12200D	1030	LLOYDMINSTER	CKSA	AE	B	0	110W0023	53N1317	HJ	D	10	9.9			A	75	
12200N	1030	LLOYDMINSTER	CKSA	AB	B	0	110W0023	53N1317	HN	N	10				B		
12202D	1090	KITCHENER	CKKW	ON	B	0	80W2416	43N1720	HJ	D	10				B		
12202N	1090	KITCHENER	CKKW	ON	B	0	80W2416	43N1720	HN	N	10				B		
12201D	1090	LETHBRIDGE	CHEC	AH	B	0	112W4556	49N3133	HJ	D	5				B		
12201N	1090	LETHBRIDGE	CHEC	AH	B	0	112W4556	49N3133	HN	N	5				B		
12203D	1090	ST JEAN	CHRS	QU	B	0	73W1836	45N1917	HJ	D	10	9.7			A	60	
12204D	1110	EDMONTON	CHQT	AB	B	0	113W1950	53N2755	HJ	D	50	17.2			A	90	
12204N	1110	EDMONTON	CHQT	AP	B	0	113W1950	53N2755	HN	N	50				B		
12206D	1110	HAWKESBURY	CHPR	ON	C	0	74W3809	45N3439	HJ	D	0.25	6.6			A	61	
12208D	1110	RIMOUSKI	CBSL	GU	B	0	68W3750	48N2343	HJ	D	10				B		
12208N	1110	RIMOUSKI	CBSL	GU	B	0	68W3750	48N2343	HN	N	10				B		
12205D	1110	SAINT JOHN	CBD	NB	B	0	66W0847	45N1555	HJ	D	10				B		
12205N	1110	SAINT JOHN	CBD	NB	B	0	66W0847	45N1555	HN	N	10				B		
12207D	1110	SARNIA	CKJD	ON	B	0	82W2330	42N4949	HJ	D	10				B		
12207N	1110	SARNIA	CKJD	ON	B	0	82W2330	42N4949	HN	N	1				B		
12209D	1130	VANCOUVER	CKWX	BC	A	0	123W0400	49N0922	HJ	D	50				B		
12209N	1130	VANCOUVER	CKWX	BC	A	0	123W0400	49N0922	HN	N	50				B		
12210D	1140	CALGARY	CKXL	AB	B	0	113W4958	50N5525	HJ	D	50				B		
12210N	1140	CALGARY	CKXL	AB	B	0	113W4958	50N5525	HN	N	50				B		
12211D	1140	SYDNEY	CBI	NS	B	0	60W1615	46N0812	HJ	D	10	9.9			A	87.5	
12211N	1140	SYDNEY	CBI	NS	B	0	60W1615	46N0812	HN	N	10				B		
12212D	1140	TROIS RIVIERES	CJTR	QU	B	0	72W3323	46N1409	HJ	D	10				B		
12212N	1140	TROIS RIVIERES	CJTR	GU	B	0	72W3323	46N1409	HN	N	10				B		
12214D	1150	BRANDON	CKX	MB	A	0	100W0319	49N5028	HJ	D	50				B		
12214N	1150	BRANDON	CKX	MB	A	0	100W0319	49N5028	HN	N	10				B		
12218D	1150	GASPE	CHVG	QU	B	0	64W2412	48N4900	HJ	D	5				B		
12218N	1150	GASPE	CHVG	GU	B	0	64W2412	48N4900	HN	N	5				B		
12216D	1150	HAMILTON	CKOC	ON	B	0	79W4842	43N0304	HJ	D	50				B		
12216N	1150	HAMILTON	CKOC	ON	B	0	79W4842	43N0304	HN	N	50				B		
12213D	1150	KELOWNA	CKIQ	BC	B	0	119W2754	49N5052	HJ	D	10	10.2			A	90.4	
12213N	1150	KELOWNA	CKIQ	BC	B	0	119W2754	49N5052	HN	N	10				B		
12217D	1150	OTTAWA	CJRC	ON	B	0	75W4039	45N1614	HJ	D	50				B		
12217N	1150	OTTAWA	CJRC	ON	B	0	75W4039	45N1614	HN	N	5				B		
12215D	1150	SAINT JOHN	CHSJ	NB	B	0	66W0140	45N1840	HJ	D	10				B		
12215N	1150	SAINT JOHN	CHSJ	NB	B	0	66W0140	45N1840	HN	N	5				B		
12220D	1170	CORNWALL	CFIX	ON	B	0	74W3705	45N0027	HJ	D	10				B		
12219D	1170	RED DEER	CKGY	AB	B	0	113W5130	52N0856	HJ	D	10				B		
12219N	1170	RED DEER	CKGY	AB	B	0	113W5130	52N0856	HN	N	5				B		
12221D	1190	CHARLOTTETOWN	CHTN	PE	B	0	63W0954	46N1122	HJ	D	10	9.7			A	60	
12221N	1190	CHARLOTTETOWN	CHTN	PE	B	0	63W0954	46N1122	HN	N	10				B		
12222D	1190	WEYBURN	CFSL	SA	B	0	103W5033	49N2757	HJ	D	10	10			A	87	
12222N	1190	WEYBURN	CFSL	SA	B	0	103W5033	49N2757	HN	N	5				B		
12223D	1210	FROBISHER BAY	CFFB	NT	B	0	68W3234	63N4347	HJ	D	0.25	6.3			A	96	
12223N	1210	FROBISHER BAY	CFFB	NT	B	0	68W3234	63N4347	HN	N	0.25	6.3			A	96	
12231D	1220	AI QUI	QU	BP	B	0	67W2843	48N2633	HJ	D	5	7.1			A	84.8	
12231N	1220	AI QUI	QU	BP	B	0	67W2843	48N2633	HN	N	5				B		
12226D	1220	LOISSEVAIN	CJRB	MB	B	0	100W0324	49N1526	HJ	D	10				B		
12226N	1220	HOISSEVAIN	CJRB	MB	B	0	100W0324	49N1526	HN	N	10				B		

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
12228D	1220 CORNWALL	CJSS	ON	B 0	74W4608	45N0447	HJ	D	1							B	
12228N	1220 CORNWALL	CJSS	ON	B 0	74W4608	45N0447	HN	N	1							B	
12229D	1220 KENORA	CJRL	ON	B 0	94W2640	49N4553	HJ	D	1	0.2					A	90	
12229N	1220 KENORA	CJRL	ON	B 0	94W2640	49N4553	HN	N	1	0.2					A	90	
12224D	1220 LETHBRIDGE	CJOC	AB	B 0	112W4320	49N4240	HJ	D	10	12.1					A	179	
12224N	1220 LETHBRIDGE	CJOC	AB	B 0	112W4320	49N4240	HN	N	5						B		
12227D	1220 MONCTON	CKCW	NB	B 0	64W4802	46N0847	HJ	D	10	9					A	60	
12227N	1220 MONCTON	CKCW	NB	B 0	64W4802	46N0847	HN	N	10						B		
12232D	1220 SHAWINIGAN	CKSM	QU	B 0	72W4547	46N3527	HJ	D	10						B		
12232N	1220 SHAWINIGAN	CKSM	QU	B 0	72W4547	46N3527	HN	N	2.5						B		
12230D	1220 ST CATHARINES	CHSC	ON	B 0	79W1322	43N0323	HJ	D	10						B		
12230N	1220 ST CATHARINES	CHSC	ON	B 0	79W1322	43N0323	HN	N	10						B		
12225D	1220 VICTORIA	CKDA	BC	B 0	123W1455	48N2600	HJ	D	50						B		
12225N	1220 VICTORIA	CKDA	BC	B 0	123W1455	48N2600	HN	N	50						B		
12234D	1230 CASTLEGAR	CKQR	BC	C 0	117W3650	49N1805	HJ	D	1						B		
12234N	1230 CASTLEGAR	CKQR	BC	C 0	117W3650	49N1805	HN	N	0.25	3.8					A	186	
12238D	1230 CHURCHILL	CHFC	MB	B 0	94W0539	58N4517	HJ	D	0.25	6.3					A	60.3	
12238N	1230 CHURCHILL	CHFC	MB	B 0	94W0539	58N4517	HN	N	0.25	6.3					A	60.3	
12246D	1230 DISRAELI	CJLP	QU	C 0	71W2033	45N5428	HJ	D	1	0					A	90	
12246N	1230 DISRAELI	CJLP	QU	C 0	71W2033	45N5428	HN	N	0.25	6					A	90	
12247D	1230 DOLBEAU	CHVD	QU	B 0	72W1506	48N5148	HJ	D	10	0					A	85.5	
12247N	1230 DOLBEAU	CHVD	QU	B 0	72W1506	48N5148	HN	N	0.25	5.9					A	85.5	
12233D	1230 FORT MCMURRAY	CJOK	AB	B 0	111W1955	56N4116	HJ	D	1	0.2					A	90	
12233N	1230 FORT MCMURRAY	CJOK	AB	B 0	111W1955	56N4116	HN	N	0.5	2.9					A	90	
12239D	1230 GOOSE BAY	CFLN	NF	C 0	60W1738	53N1837	HJ	D	1	0.2					A	63.9	
12239N	1230 GOOSE BAY	CFLN	NF	C 0	60W1738	53N1837	HN	N	0.25	6.2					A	63.9	
12242D	1230 KAPUSKASING	CFLK	ON	C 0	82W2449	49N2417	HJ	D	0.1	-10.3					A	60.7	
12242N	1230 KAPUSKASING	CFLK	ON	C 0	82W2449	49N2417	HN	N	0.1	-10.3					A	60.7	
12235D	1230 KITIMAT	CKTK	BC	B 0	128W4050	54N0305	HJ	D	1	0.2					A	67.5	
12235N	1230 KITIMAT	CKTK	BC	B 0	128W4050	54N0305	HN	N	0.25	6.3					A	67.5	
12236D	1230 MERRITT	CJNL	BC	C 0	120W4606	50N0629	HJ	D	1	0.2					A	90	
12236N	1230 MERRITT	CJNL	BC	C 0	120W4606	50N0629	HN	N	0.25	5.9					A	90	
12243D	1230 MIDLAND	CKMP	ON	C 0	79W5338	44N4335	HJ	D	1	0.2					A	67.5	
12243N	1230 MIDLAND	CKMP	ON	C 0	79W5338	44N4335	HN	N	0.25	6.2					A	67.5	
12244D	1230 NEW LISKEARD	CJTT	ON	C 0	79W3644	47N2936	HJ	D	1	0.3					A	59.8	
12244N	1230 NEW LISKEARD	CJTT	ON	C 0	79W3644	47N2936	HN	N	0.25	6.3					A	59.8	
12240D	1230 PORT AUX BASQU	CFGN	NF	C 0	59W0722	47N3508	HJ	D	0.25	6.2					A	65.9	
12240N	1230 PORT AUX BASQU	CFGN	NF	C 0	59W0722	47N3508	HN	N	0.25	6.2					A	65.9	
12237D	1230 SMITHERS	CFEV	BC	C 0	127W1130	54N4730	HJ	D	1	0.3					A	60	
12237N	1230 SMITHERS	CFEV	BC	C 0	127W1130	54N4730	HN	N	0.25	6.3					A	60	
12241D	1230 ST JOHN'S	VOAR	NF	C 0	52W4326	47N3352	HJ	D	0.1	-13.1					A	45	
12241N	1230 ST JOHN'S	VOAR	NF	C 0	52W4326	47N3352	HN	N	0.1	-13.1					A	45	
12248D	1230 STE AGATHE MON	CJSA	QU	C 0	74W1920	46N0434	HJ	D	1	0.1					A	72	
12248N	1230 STE AGATHE MON	CJSA	QU	C 0	74W1920	46N0434	HN	N	0.25	6.1					A	72	
12245D	1230 THUNDER BAY	CFPA	ON	C 0	89W1450	48N2431	HJ	D	1	1					A	137.7	
12245N	1230 THUNDER BAY	CFPA	ON	C 0	89W1450	48N2431	HN	N	0.25	5					A	137.7	
12257D	1240 LAIE VERTE	CKIM	NF	B 0	56W1045	49N5725	HJ	D	1	0.3					A	60	
12257N	1240 LAIE VERTE	CKIM	NF	B 0	56W1045	49N5725	HN	N	0.5	3.3					A	60	
12260D	1240 LANCROFT	CJNH	ON	C 0	77W5020	45N0337	HJ	D	1	0.6					B	75	
12260N	1240 LANCROFT	CJNH	ON	C 0	77W5020	45N0337	HN	N	0.25	6.6					B	75	

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
12265D	1240 CALANO QU	CJAF	QU	C 0	68W5100	47N4000	HJ	D	1	0.3				A	56.7		
12265N	1240 CALANO QU	CJAF	QU	C 0	68W5100	47N4000	HN	N	0.25	6.3				A	56.7		
12266D	1240 CHILOUGAMAU	CJFD	QU	C 0	74W2208	49N5435	HJ	D	1	0.3				A	63.5		
12266N	1240 CHILOUGAMAU	CJFD	QU	C 0	74W2208	49N5435	HN	N	0.25	6.3				A	63.5		
12261D	1240 ESPANOLA	ON	C P	81W4624	46N1433	HJ	D	1	1.2					A	60		
12261N	1240 ESPANOLA	ON	C P	81W4624	46N1433	HN	N	0.25	7.2					A	60		
12249D	1240 FERNIE	CFEK	BC	C 0	115W0240	49N3136	HJ	D	1					B			
12249N	1240 FERNIE	CFEK	BC	C 0	115W0240	49N3136	HN	N	0.5					B			
12250D	1240 HOPE	CKGO	BC	C 0	121W2542	49N2315	HJ	D	1	0.2				A	68		
12250N	1240 HOPE	CKGO	BC	C 0	121W2542	49N2315	HN	N	0.25	6.2				A	68		
12267D	1240 LA SARRE	CKLS	QU	C 0	79W1209	48N4946	HJ	D	1	0.3				A	60.3		
12267N	1240 LA SARRE	CKLS	QU	C 0	79W1209	48N4946	HN	N	0.25	6.3				A	60.3		
12268D	1240 LA TUQUE	CFLM	QU	C 0	72W4632	47N2742	HJ	D	1	0.2				A	90		
12268N	1240 LA TUQUE	CFLM	QU	C 0	72W4632	47N2742	HN	N	0.25	5.9				A	90		
12258D	1240 LABRADOR CITY	CESI-4	NF	C 0	66W5324	52N5550	HJ	D	1	0.2				A	89.8		
12258N	1240 LABRADOR CITY	CESI-4	NF	C 0	66W5324	52N5550	HN	N	0.25	5.9				A	89.8		
12269D	1240 LAC ETCHEMIN	CIRB	QU	C 0	70W2707	46N2304	HJ	D	1	0.1				A	72.6		
12269N	1240 LAC ETCHEMIN	CIRB	QU	C 0	70W2707	46N2304	HN	N	0.25	6.1				A	72.6		
12251D	1240 MACKENZIE	CKMK	BC	C 0	123W0854	55N2048	HJ	D	1	0.2				A	68		
12251N	1240 MACKENZIE	CKMK	BC	C 0	123W0854	55N2048	HN	N	0.25	6.2				A	68		
12271D	1240 MEADOW LAKE	CJNS	SA	C 0	108W2708	54N0530	HJ	D	1	0.2				A	68	81	
12271N	1240 MEADOW LAKE	CJNS	SA	C 0	108W2708	54N0530	HN	N	0.25	6.2				A	68		
12252D	1240 OSOYOOS	CKOO	BC	C 0	119W3121	49N0457	HJ	D	1	0.2				A	90.7		
12252N	1240 OSOYOOS	CKOO	BC	C 0	119W3121	49N0457	HN	N	0.25	5.9				A	90.7		
12253D	1240 PORT ALBERNI	CJAV	BC	C 0	124W4651	49N1641	HJ	D	1	0.3				A	61.2		
12253N	1240 PORT ALBERNI	CJAV	BC	C 0	124W4651	49N1641	HN	N	0.25	6.3				A	61.2		
12254D	1240 PORT HARDY	CFNI	BC	C 0	127W2610	50N4235	HJ	D	1	0.2				A	61.2		
12254N	1240 PORT HARDY	CFNI	BC	C 0	127W2610	50N4235	HN	N	0.25	6.2				A	61.2		
12270D	1240 ST HYACINTHE	CKBS	GU	C 0	72W5518	45N3756	HJ	D	0.25	6.3				A	63.5		
12270N	1240 ST HYACINTHE	CKBS	GU	C 0	72W5518	45N3756	HN	N	0.25	6.3				A	63.5		
12262D	1240 STRATFORD	CJCS	ON	C 0	81W0040	43N2035	HJ	D	0.5	3.6				A	59.9		
12262N	1240 STRATFORD	CJCS	ON	C 0	81W0040	43N2035	HN	N	0.25	6.6				A	59.9		
12264D	1240 SUMMERSIDE	CJRW	PE	C 0	63W4503	46N2410	HJ	D	0.25	5.9				A	90.7		
12264N	1240 SUMMERSIDE	CJRW	PE	C 0	63W4503	46N2410	HN	N	0.25	5.9				A	90.7		
12256D	1240 THE PAS	CJAR	MB	C 0	101W1633	53N4846	HJ	D	1	0.6				A	61.2		
12256N	1240 THE PAS	CJAR	MB	C 0	101W1633	53N4846	HN	N	0.5	3.6				A	61.2		
12263D	1240 WAWA	CJWA	ON	C 0	84W4825	47N5843	HJ	D	1	0.2				A	63.5		
12263N	1240 WAWA	CJWA	ON	C 0	84W4825	47N5843	HN	N	0.25	6.2				A	63.5		
12259D	1240 YELLOWKNIFE	CJCD	NT	C 0	114W1810	62N2800	HJ	D	1	0.2				A	68		
12259N	1240 YELLOWKNIFE	CJCD	NT	C 0	114W1810	62N2800	HN	N	1	0.2				A	68		
12255D	1240 100 MILE HOUSE	CKBX	BC	C 0	121W1722	51N4011	HJ	D	1	0.3				A	68		
12255N	1240 100 MILE HOUSE	CKBX	BC	C 0	121W1722	51N4011	HN	N	0.25	6.3				A	68		
12275D	1250 MATANE	CHGA	QU	B 0	67W3001	48N5103	HJ	D	10	10.2				A	90.6		
12275N	1250 MATANE	CHGA	QU	B 0	67W3001	48N5103	HN	N	5					B			
12273D	1250 OAKVILLE ON	CHWO	ON	B 0	79W4500	43N2700	HJ	D	10					B			
12273N	1250 OAKVILLE ON	CHWO	ON	B 0	79W4500	43N2700	HN	N	5					B			
12274D	1250 OTTAWA	CLOF	ON	B 0	75W4453	45N1109	HJ	D	50					B			
12274N	1250 OTTAWA	CLOF	ON	B 0	75W4453	45N1109	HN	N	50					B			
12276D	1250 SASKATOON	CKOM	SA	B 0	106W3038	52N0445	HJ	D	10	11.4				A	158		
12276N	1250 SASKATOON	CKOH	SA	B 0	106W3038	52N0445	HN	N	10					B			

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
12272D	1250 STEINBACH	CHSM	MB	B	0	96W5854	49N3015	HJ	D	10					B		
12272N	1250 STEINBACH	CHSM	MB	B	0	96W5854	49N3015	HN	N	10					B		
12277D	1260 EDMONTON	CFRN	AB	A	0	113W4052	53N2707	HJ	D	50	19.9				A	217	
12277N	1260 EDMONTON	CFRN	AB	A	0	113W4052	53N2707	HN	N	50					B		
12280D	1260 FREDERICTON	CIHI	NB	B	0	66W4139	45N5952	HJ	D	10	10.2				A	90	
12280N	1260 FREDERICTON	CIHI	NB	B	0	66W4139	45N5952	HN	N	10					B		
12278D	1260 NANAIMO BC	CKGS	BC	B	P	123W4800	49N0900	HJ	D	10	-99				B		
12278N	1260 NANAIMO BC	CKGS	BC	B	P	123W4800	49N0900	HN	N	10	-99				B	90	
12279D	1260 RICHMOND		BC	B	P	122W5555	49N0730	HJ	D	10					B		
12279N	1260 RICHMOND		BC	B	P	122W5555	49N0730	HN	N	10					B		
12286D	1270 ALMA	CFGT	QU	B	0	71W3631	48N3146	HJ	D	10	10.3				A	116	
12286N	1270 ALMA	CFGT	QU	B	0	71W3631	48N3146	HN	N	5					B		
12282D	1270 CHILLIWACK	CHWK	BC	B	0	121W5108	49N0854	HJ	D	10	10.2				A	90	
12282N	1270 CHILLIWACK	CHWK	BC	B	0	121W5108	49N0854	HN	N	10					B		
12283D	1270 CHILLIWACK	CHWK	BC	B	P	121W5108	49N0854	HJ	D	10					B		
12283N	1270 CHILLIWACK	CHWK	BC	B	P	121W5108	49N0854	HN	N	10					B		
12281D	1270 MEDICINE HAT	CHAT	AB	B	0	110W3645	49N5835	HJ	D	10	10				A	90	
12281N	1270 MEDICINE HAT	CHAT	AB	B	0	110W3645	49N5835	HN	N	10					B		
12284D	1270 SYDNEY	CJCB	NS	B	0	60W1130	46N1050	HJ	D	10	10.3				A	93	
12284N	1270 SYDNEY	CJCB	NS	B	0	60W1130	46N1050	HN	N	10					B		
12285D	1270 TRENTON	CJTN	ON	B	0	77W3447	44N0241	HJ	D	1					B		
12285N	1270 TRENTON	CJTN	ON	B	0	77W3447	44N0241	HN	N	1					B		
12292D	1280 ESTEVAN	CJSL	SA	B	0	102W5520	49N0326	HJ	D	10					B		
12292N	1280 ESTEVAN	CJSL	SA	B	0	102W5520	49N0326	HN	N	10					B		
12289D	1280 HAMILTON	CJJD	ON	B	0	79W5119	43N1059	HJ	D	10					B		
12289N	1280 HAMILTON	CJJD	ON	B	0	79W5119	43N1059	HN	N	10					B		
12287D	1280 HIGH RIVER	CHRB	AB	B	0	113W5104	50N2912	HJ	D	10					B		
12287N	1280 HIGH RIVER	CHRB	AB	B	0	113W5104	50N2912	HN	N	10					B		
12290D	1280 MONTREAL	CJMS	QU	B	0	73W3255	45N1931	HJ	D	50					B		
12290N	1280 MONTREAL	CJMS	QU	B	0	73W3255	45N1931	HN	N	50					B		
12288D	1280 POWELL RIVER	CHQB	PC	B	0	124W3610	49N4810	HJ	D	1					B		
12288N	1280 POWELL RIVER	CHQB	BC	B	0	124W3610	49N4810	HN	N	1					B		
12291D	1280 QUEBEC	CKCV	QU	B	P	71W2214	46N4515	HJ	D	50					B		
12291N	1280 QUEBEC	CKCV	QU	B	P	71W2214	46N4515	HN	N	50					B		
12294D	1290 LONDON	CJBK	ON	B	0	81W1358	42N5208	HJ	D	10					B		
12294N	1290 LONDON	CJBK	ON	B	0	81W1358	42N5208	HN	N	10					B		
12295D	1290 MATANE	CHRМ	QU	B	0	67W3428	48N4927	HJ	D	10					B		
12295N	1290 MATANE	CHRМ	QU	B	0	67W3428	48N4927	HN	N	10					B		
12293D	1290 WINNIPEG	CFRW	MF	B	0	97W1629	49N4758	HJ	D	10					B		
12293N	1290 WINNIPEG	CFRW	MB	B	0	97W1629	49N4758	HN	N	10					B		
12296D	1300 MONCTON	CEAF	NB	B	0	64W4254	46N0357	HJ	D	5					B		
12296N	1300 MONCTON	CEAF	NB	B	0	64W4254	46N0357	HN	N	5					B		
12297D	1300 REGINA	CJME	SA	B	0	104W3244	50N2354	HJ	D	10					B		
12297N	1300 REGINA	CJME	SA	B	0	104W3244	50N2354	HN	N	10					B		
12300D	1310 LA POCATIERE	CHG&	QU	B	0	70W0504	47N2045	HJ	D	10	10.2				A	96	
12300N	1310 LA POCATIERE	CHG&	QU	B	0	70W0504	47N2045	HN	N	10					B		
12299D	1310 OTTAWA	CKOY	ON	E	0	75W4703	45N1536	HJ	D	50					B		
12299N	1310 OTTAWA	CKOY	ON	B	0	75W4703	45N1536	HN	N	50					B		
12298D	1310 ST PAUL	CIOK	AH	B	0	111W1340	53N5938	HJ	D	10	10.2				A	91	
12298N	1310 ST PAUL	CIOK	AH	B	0	111W1340	53N5938	HN	N	10					B		

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
12302D	1320	NEW GLASGOW	CKEC	NS	B	0	62W3638	45N3603	HJ	D	5	7		A	74		
12302N	1320	NEW GLASGOW	CKEC	NS	B	0	62W3638	45N3603	HN	N	5			B			
12303D	1320	RICHMOND HILL	CFGM	ON	B	0	79W4105	43N3430	HJ	D	50			B			
12303N	1320	RICHMOND HILL	CFGM	ON	B	0	79W4105	43N3430	HN	N	50			B			
12304D	1320	SOREL	CJSO	QU	B	0	73W1009	45N5955	HJ	D	10			B			
12304N	1320	SOREL	CJSO	GU	B	0	73W1009	45N5955	HN	N	5			B			
12301D	1320	VANCOUVER	CHGM	BC	B	0	123W0228	49N0955	HJ	D	50			B			
12301N	1320	VANCOUVER	CHGM	BC	B	0	123W0228	49N0955	HN	N	50			B			
12306D	1330	POSETOWN	CKKR	SA	B	0	107W5937	51N2731	HJ	D	10			B			
12306N	1330	ROSETOWN	CKKR	SA	B	0	107W5937	51N2731	HN	N	10			B			
12305D	1330	THETFORD MINES	CKLD	QU	B	0	71W2316	46N0355	HJ	D	10			B			
12305N	1330	THETFORD MINES	CKLD	QU	B	0	71W2316	46N0355	HN	N	10			B			
12322D	1340	AMOS	CHAD	QU	C	0	78W0512	48N3342	HJ	D	1	0.1		A	73.5		
12322N	1340	AMOS	CHAD	QU	C	0	78W0512	48N3342	HN	N	0.25	6.1		A	73.5		
12323D	1340	ASBESTOS	CJAN	QU	C	0	71W5639	45N4505	HJ	D	1			B			
12323N	1340	ASBESTOS	CJAN	QU	C	0	71W5639	45N4505	HN	N	0.25	5.9		A	90		
12309D	1340	ASHCROFT		BC	C	P	121W1747	50N4530	HJ	D	1	-99					
12309N	1340	ASHCROFT		BC	C	P	121W1747	50N4530	HN	N	0.25	-99			73.5		
12307D	1340	BROOKS	CKBR	AB	C	0	111W5305	50N2935	HJ	D	1	0.2		A	90.7		
12307N	1340	BROOKS	CKBR	AB	C	0	111W5305	50N2935	HN	N	0.25	5.9		A	90.7		
12324D	1340	CHAPAIIS	CFED	GU	C	0	74W5012	49N4640	HJ	D	0.25	6.6		A	68.6	1	
12324N	1340	CHAPAIIS	CFED	QU	C	0	74W5012	49N4640	HN	N	0.25	6.6		A	68.6	83	
12310D	1340	CRESTON	CFKC	BC	C	0	116W3150	49N0535	HJ	D	0.25	6.4		A	66.2		
12310N	1340	CRESTON	CFKC	BC	C	0	116W3150	49N0535	HN	N	0.25	6.4		A	66.2		
12318D	1340	ELLIOT LAKE	CKNR	ON	C	0	82W3758	46N2240	HJ	D	1	0.4		A	97.5		
12318N	1340	ELLIOT LAKE	CKNR	ON	C	0	82W3758	46N2240	HN	N	0.25	5.6		A	97.5		
12314D	1340	GOOSE BAY	CFGF	NF	B	0	60W1717	53N1859	HJ	D	1	1.9		A	49		
12314N	1340	GOOSE BAY	CFGF	NF	B	0	60W1717	53N1859	HN	N	1	1.9		A	49		
12308D	1340	GRAND CENTRE	CIOK-1	AB	C	0	110W0740	54N2445	HJ	D	0.25	6.1		A	73.5		
12308N	1340	GRAND CENTRE	CIOK-1	AB	C	0	110W0740	54N2445	HN	N	0.25	6.1		A	73.5		
12311D	1340	GRAND FORKS	CKGF	BC	C	0	118W2739	49N0117	HJ	D	1	0.2		A	68.6		
12311N	1340	GRAND FORKS	CKGF	BC	C	0	118W2739	49N0117	HN	N	0.25	6.2		A	68.6		
12319D	1340	HEARST	CFLH	ON	C	0	83W3848	49N4158	HJ	D	1	0.3		A	61.3		
12319N	1340	HEARST	CFLH	ON	C	0	83W3848	49N4158	HN	N	0.25	6.3		A	61.3		
12325D	1340	JONQUIERE		QU	C	P	71W1428	48N2311	HJ	D	1	0.2		A	90		
12325N	1340	JONQUIERE		QU	C	P	71W1428	48N2311	HN	N	0.25	5.9		A	90		
12326D	1340	MANIWAKI	CKMG	QU	C	0	75W5655	46N2240	HJ	D	1	0.1		A	88.2		
12326N	1340	MANIWAKI	CKMG	QU	C	0	75W5655	46N2240	HN	N	0.25	6		A	88.2		
12320D	1340	PARRY SOUND	CFHQ	ON	C	0	80W0123	45N2042	HJ	D	0.25	6.2		A	60		
12320N	1340	PARRY SOUND	CFHQ	ON	C	0	80W0123	45N2042	HN	N	0.25	6.2		A	60		
12436	1340	RED LAKE ON	CKRE		C	P	93W4900	51N0000		D	0.25				60		
										N	0.25				60		
12312D	1340	REVELSTOKE	CKCR	BC	C	0	118W1000	50N5830	HJ	D	1	0.5		A	59.8		
12312N	1340	REVELSTOKE	CKCR	BC	C	0	118W1000	50N5830	HN	N	0.25	6.5		A	59.8		
12327D	1340	STE ANNE FONTS	CPGA-7	QU	C	0	66W2746	49N0748	HJ	D	1	0.1		A	73.5		
12327N	1340	STE ANNE FONTS	CPGA-7	QU	C	0	66W2746	49N0748	HN	N	0.25	6.1		A	73.5		
12328D	1340	TEMISCAMINGUE	CKVT	QU	C	0	79W0330	46N4406	HJ	D	1	0.1		A	83.3		
12328N	1340	TEMISCAMINGUE	CKVT	QU	C	0	79W0330	46N4406	HN	N	0.25	6.1		A	83.3		
12313D	1340	VANDERHOOF	CIVH	BC	C	0	123W5924	54N0059	HJ	D	1	0.3		A	98		
12313N	1340	VANDERHOOF	CIVH	BC	C	0	123W5924	54N0059	HN	N	0.25	6.1		A	98		

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
12315D	1340 WABUSH	CFLW	NF	C O	66W5244	52N5419	HJ	D	0.25	6.3				A	60		
12315N	1340 WABUSH	CFLW	NF	C O	66W5244	52N5419	HN	N	0.25	6.3				A	60		
12321D	1340 WOODSTOCK	CKDK	ON	C O	80W4550	43N0618	HJ	D	1					B			
12321N	1340 WOODSTOCK	CKDK	ON	C O	80W4550	43N0618	HN	N	0.25	6.1				A	60		
12316D	1340 YARMOUTH	CJLS	NS	B O	66W0850	43N5025	HJ	D	5					B			
12316N	1340 YARMOUTH	CJLS	NS	B O	66W0850	43N5025	HN	N	1					B			
12317D	1340 YELLOWKNIFE	CFYK	NT	B O	114W2505	62N2555	HJ	D	1	0.6				A	68.6		
12317N	1340 YELLOWKNIFE	CFYK	NT	B O	114W2505	62N2555	HN	N	1	0.6				A	68.6		
12329D	1350 DAWSON CREEK	CJDC	BC	B O	120W1245	55N4630	HJ	D	1	0.6				A	60		
12329N	1350 DAWSON CREEK	CJDC	BC	B O	120W1245	55N4630	HN	N	1	0.6				A	60		
12331D	1350 GANDER	CFYQ	NF	B O	54W3647	48N5830	HJ	D	1	0.1				A	66.7		
12331N	1350 GANDER	CFYQ	NF	B O	54W3647	48N5830	HN	N	1	0.1				A	66.7		
12335D	1350 JOLIETTE	CJLM	QU	B O	73W2552	45N5910	HJ	D	10					B			
12335N	1350 JOLIETTE	CJLM	QU	B O	73W2552	45N5910	HN	N	1					B			
12332D	1350 MIDDLETON	CKAD	NS	B O	65W0115	44N5915	HJ	D	1					B			
12332N	1350 MIDDLETON	CKAD	NS	B O	65W0115	44N5915	HN	N	1					B			
12330D	1350 NANAIMO		BC	B P	123W4836	49N0914	HJ	D	5					B			
12330N	1350 NANAIMO		BC	B P	123W4836	49N0914	HN	N	5					B			
12333D	1350 OSHAWA	CKAR	ON	B O	78W4554	43N5219	HJ	D	10					B			
12333N	1350 OSHAWA	CKAR	ON	B O	78W4554	43N5219	HN	N	5					B			
12334D	1350 PEMBROKE	CHOV	CN	B O	77W0440	45N4852	HJ	D	1					B			
12334N	1350 PEMBROKE	CHOV	ON	B O	77W0440	45N4852	HN	N	1					B			
12336D	1350 ST PAMPHILE	CHAL	GU	B O	69W4838	46N5858	HJ	D	1					B			
12336N	1350 ST PAMPHILE	CHAL	GU	B O	69W4838	46N5858	HN	N	1					B			
12337D	1360 BATHURST	CKBC	NB	B O	65W3726	47N3725	HJ	D	10	9.6				A	90	I	
12337N	1360 BATHURST	CKBC	NE	B O	65W3726	47N3725	HN	N	10					B		8	
12338D	1360 HANOVER		ON	B P	81W0654	44N0350	HJ	D	10					B		74	
12338N	1360 HANOVER		ON	B P	81W0654	44N0350	HN	N	10					B		I	
12339D	1360 STE MARIE BEAU	CJVL	QU	B O	70W5812	46N2400	HJ	D	10					B			
12339N	1360 STE MARIE PEAU	CJVL	QU	B O	70W5812	46N2400	HN	N	5					B			
12341D	1370 PARKSVILLE	CHPQ	BC	B O	124W1737	49N1745	HJ	D	1					B			
12341N	1370 PARKSVILLE	CHPQ	BC	B O	124W1737	49N1745	HN	N	1					B			
12344D	1370 SASKATOON	CJWW	SA	B O	106W4836	52N0425	HJ	D	10					B			
12344N	1370 SASKATOON	CJWW	SA	B O	106W4836	52N0425	HN	N	10					B			
12342D	1370 VALLEYFIELD	CFLV	QU	B O	74W0920	45N1250	HJ	D	10					B			
12342N	1370 VALLEYFIELD	CFLV	QU	B O	74W0920	45N1250	HN	N	5					B			
12343D	1370 VILLE DEGELIS	CFVD	QU	B O	68W3630	47N3151	HJ	D	1					B			
12343N	1370 VILLE DEGELIS	CFVD	QU	B O	68W3630	47N3151	HN	N	1					B			
12340D	1370 WESTLOCK	CFOK	AB	B O	113W5239	54N0516	HJ	D	10	10.2				A	90		
12340N	1370 WESTLOCK	CFOK	AB	B O	113W5239	54N0516	HN	N	10					B			
12349D	1380 AIQUI		GU	B P	67W2840	48N2725	HN	N	1					B			
12349N	1380 AMQUI		GU	B P	67W2840	48N2725	HN	N	1					B			
12347D	1380 BRANTFORD	CKPC	ON	B O	80W1850	43N0305	HJ	D	10					B			
12347N	1380 BRANTFORD	CKPC	ON	B O	80W1850	43N0305	HN	N	10					B			
12437D	1380 CALGARY AB			B P	113W5000	50N5400	HJ	D	50								
12437N	1380 CALGARY AB			B P	113W5000	50N5400	HN	N	25								
12348D	1380 KINGSTON	CKLC	ON	B O	76W2505	44N1236	HJ	D	10					B			
12348N	1380 KINGSTON	CKLC	ON	B O	76W2505	44N1236	HN	N	10					B			
12345D	1380 MEDICINE HAT		AB	B P	110W4125	49N5602	HJ	D	10					B			
12345N	1380 MEDICINE HAT		AB	B P	110W4125	49N5602	HN	N	10					B			

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
12346D	1380	MONCTON		NB	B	P	64W5146	46N0357	HJ	D	10						
12346N	1380	MONCTON		NB	B	P	64W5146	46N0357	HN	N	10						
12350D	1380	VICTRIAVILLE	CFDA	QU	B	O	72W0100	46N0000	HJ	D	10						
12350N	1380	VICTRIAVILLE	CFDA	QU	B	O	72W0100	46N0000	HN	N	10						
12352N	1390	AJAX	CHOO	ON	B	O	78W5830	43N5009	HN	N	10						
12352D	1390	AJAX ON	CHOO	ON	B	O	78W5800	43N5000	HJ	D	10						
12351N	1390	NELSON	CKKC	BC	B	O	117W1749	49N2835	HJ	D	1						
12351N	1390	NELSON	CKKC	BC	B	O	117W1749	49N2835	HN	N	1						
12354D	1400	BURNS LAKE	CFLD	BC	C	O	125W4524	54N1520	HJ	D	1	0.3				A 61.5	
12354N	1400	BURNS LAKE	CFLD	BC	C	O	125W4524	54N1520	HN	N	0.25	6.2				A 61.5	
12355D	1400	CLEARWATER	CHNL-1	BC	C	O	120W0454	51N3926	HJ	D	1	0.2				A 92.2	
12355N	1400	CLEARWATER	CHNL-1	BC	C	O	120W0454	51N3926	HN	N	0.25	5.8				A 92.2	
12359D	1400	COLLINGWOOD	CKCB	ON	C	O	80W1445	44N2854	HJ	D	1	0.3				A 61.5	
12359N	1400	COLLINGWOOD	CKCB	ON	C	O	80W1445	44N2854	HN	N	0.25	6.3				A 61.5	
12362D	1400	DRUMMONDVILLE	CKPV	GU	C	O	72W3048	45N5212	HJ	D	0.25						
12362N	1400	DRUMMONDVILLE	CKPV	GU	C	O	72W3048	45N5212	HN	N	0.1						
12360D	1400	ESPAÑOLA		ON	C	P	81W4624	46N1433	HJ	D	1	0.2				A 67.8	
12360N	1400	ESPAÑOLA		ON	C	P	81W4624	46N1433	HN	N	0.25	6.2				A 67.8	
12356D	1400	GOLDEN	CKGR	BC	C	O	116W5826	51N1813	HJ	D	1	0.1				A 76.8	
12356N	1400	GOLDEN	CKGR	BC	C	O	116W5826	51N1813	HN	N	0.25	6.1				A 76.8	
12363D	1400	LAC MEGANTIC	CKFL	QU	C	O	70W5330	45N3338	HJ	D	1	0.2				A 93.7	
12363N	1400	LAC MEGANTIC	CKFL	QU	C	O	70W5330	45N3338	HN	N	0.25	6.8				A 93.7	
12358D	1400	MONCTON		NE	B	P	64W5302	46N0305	HJ	D	10						
12358N	1400	MONCTON		NB	B	P	64W5302	46N0305	HN	N	10						
12357D	1400	PRINCETON	CINL	BC	C	O	120W3042	49N2650	HJ	D	1	0.1				A 76.8	
12357N	1400	PRINCETON	CINL	BC	C	O	120W3042	49N2650	HN	N	0.25	5.9				A 76.8	85
12361D	1400	RENFREW	CKOB	ON	C	O	76W4045	45N2655	HJ	D	1	0.3				A 69.1	
12361N	1400	RENFREW	CKOB	ON	C	O	76W4045	45N2655	HN	N	0.25	6.3				A 69.1	
12364D	1400	RIVIERE-DU-LOU	CJFP	QU	B	O	69W3527	47N4743	HJ	D	10	10.3				A 70	
12364N	1400	RIVIERE-DU-LOU	CJFP	QU	B	O	69W3527	47N4743	HN	N	5	6.7				A 70	
12365D	1400	ROUYN	CKRN	QU	C	O	79W0330	48N1315	HJ	D	1	0.1				A 76.8	
12365N	1400	ROUYN	CKRN	QU	C	O	79W0330	48N1315	HN	N	0.25	6.1				A 76.8	
12366D	1400	ST-JOVITE	CKSJ	QU	C	O	74W3335	46N0748	HJ	D	1	0.3				A 92.2	
12366N	1400	ST-JOVITE	CKSJ	QU	C	O	74W3335	46N0748	HN	N	0.25	6.7				A 92.2	
12353D	1400	STETTLER	CHOA	AB	C	O	112W3719	52N1848	HJ	D	1	0.2				A 92.2	
12353N	1400	STETTLER	CHOA	AB	C	O	112W3719	52N1848	HN	N	0.25	5.8				A 92.2	
12369D	1410	LONDON	CKSL	ON	B	O	81W1325	42N5259	HJ	D	10						
12369N	1410	LONDON	CKSL	ON	B	O	81W1325	42N5259	HN	N	10						
12370D	1410	MONTREAL	CFMB	GU	B	O	73W2452	45N2410	HJ	D	10						
12370N	1410	MONTREAL	CFMB	GU	B	O	73W2452	45N2410	HN	N	10						
12371D	1410	MOOSE JAW		SA	B	P	105W3737	50N1939	HJ	D	10	10.4				A 90	
12371N	1410	MOOSE JAW		SA	B	P	105W3737	50N1939	HN	N	10						
12368D	1410	PORT HAWKESBURG	CIGO	NS	B	O	61W2609	45N4102	HJ	D	10						
12368N	1410	PORT HAWKESBURG	CIGO	NS	B	O	61W2609	45N4102	HN	N	10						
12367D	1410	VANCOUVER	CFUN	BC	A	O	123W0141	49N0741	HJ	D	50						
12367N	1410	VANCOUVER	CFUN	BC	A	O	123W0141	49N0741	HN	N	50						
12374D	1420	CHICOUTIMI	CJNT	GU	B	O	71W0555	48N2417	HJ	D	10	10.2				A 88.3	
12374N	1420	CHICOUTIMI	CJNT	GU	B	O	71W0555	48N2417	HN	N	2.5						
12372D	1420	DIGBY	CKDY	NS	L	O	65W4643	44N3803	HJ	D	1						
12372N	1420	DIGBY	CKDY	NS	B	O	65W4643	44N3803	HN	N	1						

CAN

(suite-continued-continua)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
12376D	1420 MELFORT	CJVR	SA	B	O	104W3525	52N4757	HJ	D	10	12			A	180		
12376N	1420 MELFORT	CJVR	SA	B	O	104W3525	52N4757	HN	N	10				B			
12373D	1420 PETERBOROUGH	CKPT	ON	B	O	78W1723	44N1613	HJ	D	10				B			
12373N	1420 PETERBOROUGH	CKPT	ON	B	O	78W1723	44N1613	HN	N	5				B			
12375D	1420 PLESSISVILLE	CKTL	GU	C	O	71W4428	46N1247	HJ	D	1	0.1			A	93.7		
12375N	1420 PLESSISVILLE	CKTL	QU	C	O	71W4428	46N1247	HN	N	0.5				B			
12378D	1430 BATHURST		NB	B	P	65W4025	47N3920	HJ	D	10				B			
12378N	1430 BATHURST		NH	B	P	65W4025	47N3920	HN	N	10				B			
12377D	1430 GRANDE PRAIRIE	CJXX	AB	B	O	118W4513	55N0811	HJ	D	10				B			
12377N	1430 GRANDE PRAIRIE	CJXX	AB	B	O	118W4513	55N0811	HN	N	10				B			
12379D	1430 TORONTO	CKFH	ON	B	O	79W2247	43N3703	HJ	D	50				B			
12379N	1430 TORONTO	CKFH	ON	B	O	79W2247	43N3703	HN	N	50				B			
12381D	1440 COURtenay	CFCP	BC	B	O	124W5830	49N4103	HJ	D	1	0			A	90		
12381N	1440 COURtenay	CFCP	BC	B	O	124W5830	49N4103	HN	N	1				B			
12382D	1440 OTTAWA	CFG0	ON	B	O	75W4431	45N1659	HJ	D	50				B			
12382N	1440 OTTAWA	CFG0	ON	B	O	75W4431	45N1659	HN	N	50				B			
12380D	1440 WETASKIWIN	CJOI	AB	B	O	113W2700	52N5730	HJ	D	10	10.2			A	90		
12380N	1440 WETASKIWIN	CJOI	AB	B	O	113W2700	52N5730	HN	N	10				B			
12388D	1450 BROCKVILLE	CFJR	ON	C	O	75W4309	44N3622	HJ	D	1				B			
12388N	1450 BROCKVILLE	CFJR	ON	C	O	75W4309	44N3622	HN	N	0.25	5.9			A	90.1		
12391D	1450 CAUSAPSCAL	CEGA-4	QU	C	O	67W1417	48N2153	HJ	D	1	0.2			A	90.1		
12391N	1450 CAUSAPSCAL	CEGA-4	QU	C	O	67W1417	48N2153	HN	N	0.25	5.9			A	90.1		
12384D	1450 CHETWYND	BC	CP	121W3454	55N4006	HJ	D	1		0.3				A	61		
12384N	1450 CHETWYND	BC	CP	121W3454	55N4006	HN	N	0.25		6.3				A	61		
12389D	1450 COBOURG	CHUC	ON	B	P	78W1309	43N5720	HJ	D	10				B			
12389N	1450 COBOURG	CHUC	ON	B	P	78W1309	43N5720	HN	N	5				B			
12386D	1450 GANDER	CLG	NF	B	O	54W3922	48N5757	HJ	D	1	0.2			A	90.2	I	
12386N	1450 GANDER	CLG	NF	B	O	54W3922	48N5757	HN	N	0.5	2.8			A	90.2	86	
12392D	1450 GASPE		QU	C	P	64W2945	48N5045	HJ	D	1	0.2			A	90.1		
12392N	1450 GASPE		QU	C	P	64W2945	48N5045	HN	N	0.25	5.9			A	90.1		
12393D	1450 GRANBY	CHEF	QU	B	O	72W4143	45N1903	HJ	D	10				B			
12393N	1450 GRANBY	CHEF	QU	B	O	72W4143	45N1903	HN	N	5				B			
12383D	1450 JASPER	CKYR	AB	C	O	118W0426	52N5251	HJ	D	0.1	-11.9			A	42.4		
12383N	1450 JASPER	CKYR	AB	C	O	118W0426	52N5251	HN	N	0.1	-11.9			A	42.4		
12394D	1450 POHENEGAMOOK	CHRT	QU	C	O	69W1614	47N2836	HJ	D	1	0.1			A	74.2		
12394N	1450 POHENEGAMOOK	CHRT	QU	C	O	69W1614	47N2836	HN	N	0.25	6.1			A	74.2		
12385D	1450 SUMMERLAND	CKSP	BC	B	O	119W4106	49N3733	HJ	D	1	0			A	79.6		
12385N	1450 SUMMERLAND	CKSP	BC	B	O	119W4106	49N3733	HN	N	0.25	6			A	79.6		
12390D	1450 TIMMINS		ON	C	P	81W2014	46N2611	HJ	D	1	0.1			A	86.4		
12390N	1450 TIMMINS		ON	C	P	81W2014	46N2611	HN	N	0.25	6			A	86.4		
12387D	1450 WINDSOR	CFAH	NS	C	O	64W0915	44N5954	HJ	D	0.25	6.3			A	47.7		
12387N	1450 WINDSOR	CFAB	NS	C	O	64W0915	44N5954	HN	N	0.25	6.3			A	47.7		
12396D	1460 GUELPH	CJOY	ON	L	O	80W1443	43N2909	HJ	E	10				B			
12396N	1460 GUELPH	CJOY	ON	B	O	80W1443	43N2909	HN	N	10				B			
12395D	1460 MEDICINE HAT	CJH	AB	B	O	110W3645	49N5835	HJ	D	10	10.4			A	103.6		
12395N	1460 MEDICINE HAT	CJMH	AB	B	O	110W3645	49N5835	HN	N	10				B			
12397D	1460 ST GEORGE REAU	CKRH	QU	B	O	70W4236	46N0903	HJ	D	10	10.4			A	107		
12397N	1460 ST GEORGE REAU	CKRB	GU	B	O	70W4236	46N0903	HN	N	5				B			
12400D	1470 POINTE CLAIRE	CKO	GU	B	O	73W3535	45N2003	HJ	D	50				B			
12400N	1470 POINTE CLAIRE	CKO	GU	B	O	73W3535	45N2003	HN	N	50				B			

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(suite-continued-continua)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
12398D	1470	VANCOUVER	CJVF	BC	B	0	123W0117	49N1136	HJ	D	50				B		
12398N	1470	VANCOUVER	CJVB	BC	B	0	123W0117	49N1136	HN	N	50				B		
12401D	1470	VILLE DE LA BA	CKPP	QU	B	0	70W5549	48N2144	HJ	D	1				B		
12401N	1470	VILLE DE LA BA	CKPD	QU	B	0	70W5549	48N2144	HN	N	1				B		
12399D	1470	WELLAND	CHOW	ON	B	0	79W1619	42N5652	HJ	D	10				B		
12399N	1470	WELLAND	CHOW	ON	B	0	79W1619	42N5652	HN	N	10				B		
12404D	1480	DRUMMONDVILLE	CHRD	QU	B	0	72W2904	45N4747	HJ	D	50				B		
12404N	1480	DRUMMONDVILLE	CHRD	QU	B	0	72W2904	45N4747	HN	N	35				B		
12402D	1480	EDMONTON		AB	B	P	113W2608	53N2340	HJ	D	10				B		
12402N	1480	EDMONTON		AB	B	P	113W2608	53N2340	HN	N	10				B		
12403D	1480	NEWMARKET	CKAN	ON	B	0	79W2653	43N5728	HJ	D	10				B		
12403N	1480	NEWMARKET	CKAN	ON	B	0	79W2653	43N5728	HN	N	10				B		
12406D	1490	CAMPBELL RIVER	CFWB	BC	C	0	125W1542	50N0101	HJ	D	1	0.3		A	60		
12406N	1490	CAMPBELL RIVER	CFWB	BC	C	0	125W1542	50N0101	HN	N	0.25	6.3		A	60		
12405D	1490	COLEMAN	CJPR	AB	C	0	114W2759	49N3739	HJ	D	1	2.1		A	180		
12405N	1490	COLEMAN	CJPR	AB	C	0	114W2759	49N3739	HN	N	0.25	4		A	180		
12411D	1490	GRAND SAULT	CKMV	NB	C	0	67W4230	47N0224	HJ	D	1	0.2		A	71.5		
12411N	1490	GRAND SAULT	CKMV	NB	C	0	67W4230	47N0224	HN	N	0.25	6.3		A	71.5		
12413D	1490	KENTVILLE	CKEN	NS	C	0	64W2935	45N0640	HJ	D	1			B			
12413N	1490	KENTVILLE	CKEN	NS	C	0	64W2935	45N0640	HN	N	0.5			B			
12414D	1490	KINGSTON	CFRC	ON	C	0	76W2943	44N1337	HJ	D	0.1	-10.5		A	60		
12414N	1490	KINGSTON	CFRC	ON	C	0	76W2943	44N1337	HN	N	0.1	-10.5		A	60		
12416D	1490	L'ANNONCIATION	CLLR	QU	C	0	74W5240	46N2535	HJ	D	1	0.4		A	98		
12416N	1490	L'ANNONCIATION	CLLR	QU	C	0	74W5240	46N2535	HN	N	0.25	6.1		A	98		
12417D	1490	MONTMAGNY	CKBM	QU	C	0	70W3101	46N5955	HJ	D	1	1.6		A	125.4		
12417N	1490	MONTMAGNY	CKBM	QU	C	0	70W3101	46N5955	HN	N	0.25	4.4		A	125.4		
12407D	1490	OLIVER	CK00-1	BC	C	0	119W3221	49N1316	HJ	D	1	0		A	81.7		
12407N	1490	OLIVER	CK00-1	BC	C	0	119W3221	49N1316	HN	N	0.25	6		A	81.7		
12415D	1490	PORT ELGIN	CFPS	ON	C	0	81W2331	44N2458	HJ	D	1	0.8		B	60		
12415N	1490	PORT ELGIN	CFPS	ON	C	0	81W2331	44N2458	HN	N	0.25	6.8		B	60		
12408D	1490	PRINCE GEORGE	CHPG	BC	C	0	122W4430	53N5410	HJ	D	0.25	4.4		A	162.4		
12408N	1490	PRINCE GEORGE	CHPG	BC	C	0	122W4430	53N5410	HN	N	0.25	4.4		A	162.4		
12419D	1490	SHAUNAVON	CJSN	SA	C	0	108W2921	49N3829	HJ	D	1	0.2		A	90		
12419N	1490	SHAUNAVON	CJSN	SA	C	0	108W2921	49N3829	HN	N	0.25	5.9		A	90		
12409D	1490	SQUAMISH		BC	C	P	123W0855	49N4256	HJ	D	1	2.1			162.4		
12409N	1490	SQUAMISH		BC	C	P	123W0855	49N4256	HN	N	0.25	4					
12418D	1490	STE ANNE MANTS	CJMC	QU	C	0	66W2603	49N0908	HJ	D	1	0.2		A	90		
12418N	1490	STE ANNE MANTS	CJMC	QU	C	0	66W2603	49N0908	HN	N	0.25	5.9		A	90		
12410D	1490	VIRDEN		MB	C	P	100W5338	49N4953	HJ	D	0.25	6.3		A	60		
12410N	1490	VIRDEN		MB	C	P	100W5338	49N4953	HN	N	0.25	6.3		A	60		
12412D	1490	WABUSH	CBDQ	NF	C	0	66W5324	52N5550	HJ	D	1	0.4		A	108		
12412N	1490	WABUSH	CBDQ	NF	C	0	66W5324	52N5550	HN	N	0.25	5.6		A	108		
12420D	1500	DUNCAN	CKAY	EC	B	0	123W4158	48N4421	HJ	D	10			B			
12420N	1500	DUNCAN	CKAY	BC	B	0	123W4158	48N4421	HN	N	1			B			
12422D	1510	SHERBROOKE	CJRS	QU	B	0	71W5730	45N2105	HJ	D	50			B			
12422N	1510	SHERBROOKE	CJRS	QU	B	0	71W5730	45N2105	HN	N	10			B			
12421D	1510	TILLSONBURG	CKOT	ON	B	0	80W3919	42N4408	HJ	D	10			B			
12423D	1530	MORDEN		MB	R	P	98W0401	49N0716	HJ	D	10			B			
12423N	1530	MORDEN		MB	R	P	98W0401	49N0716	HN	N	1			B			
12424D	1540	TORONTO	CHIN	ON	B	P	79W2320	43N3633	HJ	D	50			B			

CAN

(suite-continued-continua)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
12424N	1540	TORONTO	CHIN	ON	B	P	79W2320	43N3633	HN	N	10			B			
12425D	1550	WINDSOR	CDE	ON	A	0	82W5515	42N1256	HJ	D	10			B			
12425N	1550	WINDSOR	C-E	ON	A	0	82W5515	42N1256	HN	N	10			B			
12428D	1570	BRANDON	CKLQ	NB	B	0	99W5755	49N4525	HJ	D	10	10.1		A	86.1		
12428N	1570	BRANDON	CKLQ	ME	B	0	99W5755	49N4525	HN	N	10			B			
12431D	1570	MONTREAL	CKLM	QU	B	0	73W4539	45N3549	HJ	D	50			B			
12431N	1570	MONTREAL	CKLM	QU	B	0	73W4539	45N3549	HN	N	50			B			
12427D	1570	NANAIMO	CHUB	BC	B	0	123W5030	49N0700	HJ	D	10			B			
12427N	1570	NANAIMO	CHUB	BC	B	0	123W5030	49N0700	HN	N	10			B			
12429D	1570	ORILLIA	CFOR	ON	B	0	79W2022	44N3553	HJ	D	10	10.6		A	115		
12429N	1570	ORILLIA	CFOR	ON	B	0	79W2022	44N3553	HN	N	5			B			
12430D	1570	ST THOMAS	CHLO	ON	B	0	81W0620	42N4222	HJ	D	10			B			
12430N	1570	ST THOMAS	CHLO	ON	B	0	81W0620	42N4222	HN	N	10			B			
12426D	1570	TABER	CKTA	AB	B	0	112W1617	49N4538	HJ	D	5	7.2		A	91.9		
12426N	1570	TABER	CKTA	AB	B	0	112W1617	49N4538	HN	N	5			B			
12432D	1580	CHICOUTIMI	CBJ	QU	B	0	71W0933	48N2856	HJ	D	50			B			
12432N	1580	CHICOUTIMI	CEJ	QU	B	0	71W0933	48N2856	HN	N	50			B			
12438D	1590	CORNWALL ON			B	P	74W3700	45N0200	HJ	D	10						
12438N	1590	CORNWALL ON			B	P	74W3700	45N0200	HN	N	2.5						
12433D	1600	CORNWALL		ON	B	P	74W4500	45N0016	HJ	D	2.5			B			
12433N	1600	CORNWALL		ON	B	P	74W4500	45N0016	HN	N	2.5			B			
12434D	1600	SIMCOE	CHNR	ON	B	0	80W1603	42N4506	HJ	D	10			B			
12434N	1600	SIMCOE	CHNR	ON	B	0	80W1603	42N4506	HN	N	10			B			

Annex I to the Basic Inventory

Description of Directional Antennae consisting of vertical radiators

1. The present Annex to the Basic Inventory contains the description of antennae, other than the simple vertical antennae, supplied by the Administrations in Part II of the form specified in Annex D to the Report of the First Session of the Conference.

2. The information is arranged in alphabetical order of the symbol designating the country and the cross-reference to the information in the Basic Inventory is provided by the I.F.R.B. Serial No. and the transmitting station name.

3. Explanation of the Columns:

Column 1: I.F.R.B. Serial No.

Column 2: Name of transmitting station (box 1) (preceded by the frequency in kHz)

Column 3: Hours of operation (box 3)

Column 4: Total number of towers (box 4)

Column 5: Tower number (box 5)

This column shows the serial number of towers, as they will be described in Columns 6 to 12.

Column 6: Tower current ratio (box 6)

This column indicates the ratio of tower current to the current in the reference tower.

Column 7: Current phase difference (\pm degrees) (box 7)

This column indicates, in degrees, the positive or negative difference in the phase angle of the current in the tower with respect to the current in the reference tower, (a minus sign means negative, absence of a sign means positive).

Column 8: Electrical tower spacing (degrees) (box 8)

This column indicates, in degrees, the electrical spacing of the tower from the tower shown in Column 10.

Column 9: Angular tower orientation (degrees) (box 9)

This column indicates, in degrees referred to True North, the angular orientation of the tower from the tower indicated in Column 10.

Column 10: Reference tower indicator (box 10)

This column may contain 0 or 1, with the following significance:

0 = spacing and orientation have been shown with reference to tower No. 01.

1 = spacing and orientation have been shown with respect to the previous tower.

Column 11: Electrical height of tower (degrees) (box 11)

Column 12: Tower structure (box 12)

This column may contain 0, 1 or 2 with the following significance:

0 = simple vertical monopole

1 = top loaded

2 = sectionalized.

Column 13: Theoretical r.m.s. value (mV/m)

Column 14: Supplementary information (box 13)

CAN

Canada¹⁾Canada¹⁾Canadá¹⁾

Note: Pour le Canada, les renseignements prévus dans la colonne 13 figurent, dans la plupart des cas, dans la colonne Renseignements supplémentaires.

Note: For Canada, the information for Column 13 appears, in most cases, in the Supplementary Information Column.

Nota: Para el Canadá, la información prevista en la columna 13 aparece, en la mayoría de los casos, en la columna Información suplementaria.

1	2	3	4	5	6	7	8	9	10	11	12	13	14
12004N	540 NEW CARLISLE QU HN	3	1	1.2729	148.5	90	162	0	80			RMS= 10.15 E. RMS=-99.9 Q=-99.9	
		2	0.7834	-68		180	171.7	0	80				
		3	1	0		0	0	0	0	80			
12004D	540 NEW CARLISLE QU HJ	3	1	1	138	90	169	0	80			RMS= 10.15 E. RMS=-99.9 Q=-99.9	
		2	0.5	-80		180	171.7	0	80				
		3	1	0		0	0	0	0	80			
12002N	540 OTTAWA HN	3	1	-16.3	195.3	97.4	0	70				RMS= 9.86 E. RMS=-99.9 Q=-99.9	
		2	1.8896	0		0	0	0	70				
		3	1	23.7	188.7	276.6	0	70					
12002D	540 OTTAWA HJ	4	1	0.98	0.4	90	217	0	70			RMS= 16.87 E. RMS=-99.9 Q=-99.9	
		2	1	-168.5	77.49	152.5	0	70					
		3	0.94	93	90	88	0	70					
		4	0.92	0	0	0	0	0	70				
12435D	540 SAULT ST L'ON HJ	3	1	1	0	0	0	0	60	0	1090.6		
		2	1	-75	140	35.7	0	60	0	0			
		3	0	75	140	180	0	60	0	0			
12435N	540 SAULT STE L'ON HN	3	1	1	111	0	0	0	60	0	445.7		
		2	1	-151	90	277	0	60	0	0			
		3	1	-97	210	247	0	60	0	0			
		4	1	0	293	255	0	60	0	0			
		5	1	53	424	247	0	60	0	0			
		6	1	151	502	252	0	60	0	0			
12003N	540 WINDSOR HN	4	1	1	0	0	0	0	88.9			RMS= 6.74 E. RMS=-99.9 Q=-99.9	
		2	0.9099	240	63	36	0	69.1					
		3	0.9099	0	189	126	0	88.9					
12003D	540 WINDSOR HJ	4	1	0.8281	240	199.22	107.57	0	69.1			RMS= 3.72 E. RMS=-99.9 Q=-99.9	
		2	0.91	0	189	126	0	88.9					
		3	0.91	240	63	36	0	69.1					
		4	1	0	0	0	0	0	88.9				
12008D	550 FREDERICTON HJ	2	1	0.67	248.2	100	86.5	0	60			RMS= 16.53 E. RMS=-99.9 Q=-99.9	
		2	1	0	0	0	0	0	60				
12008N	550 FREDERICTON HN	2	1	1	0	0	0	0	60			RMS= 16.53 E. RMS=-99.9 Q=-99.9	
		2	1	269.5	100	86.5	0	60					
12006N	550 KAMLOOPS HN	4	1	1	137	120	271	0	70	1		RMS= 6.41 E. RMS=-99.9 Q=-99.9	
		2	1	246	92.82	223.03	0	70	1				
		3	1	109	90	141	0	70	1				
		4	1	0	0	0	0	0	70	1			
12006D	550 KAMLOOPS HJ	4	1	1.5	133	120	271	0	70	1		RMS= 13.37 E. RMS=-99.9 Q=-99.9	
		2	2.48	234	92.82	223.03	0	70	1				
		3	1.5	101	90	141	0	70	1				
		4	1.14	0	0	0	0	0	70	1			
12007N	550 PRINCE GEORG HN	2	1	1	0	0	0	0	53			RMS= 9.45 E. RMS=-99.9 Q=-99.9	
		2	0.201	316	170	326	0	53					
12009D	550 SUDURY ON												

Voir CORRIGENDUM à la fin de la liste - See CORRIGENDUM at end of List - Véase CORRIGENDUM al final de la lista

1) Des corrections aux caractéristiques d'antenne reçues antérieurement concernant certaines stations ont été reproduites sur une page séparée intitulée «CORRIGENDUM» et figurant à la fin de la présente liste.

1) Corrections in the antenna characteristics initially received for certain stations are reproduced on a separate page entitled "CORRIGENDUM" appearing at the end of the present List.

1) Correcciones a las características de antenas recibidas anteriormente para ciertas estaciones se reproducen en una página separada titulada «CORRIGENDUM» y que aparece al final de la presente lista.

CAN

(suite-continued-continua)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
12009N	550 SUDBURY	HN	6	1	1	-45.74	277.27	345.82	0	65.4		RMS=	9.78 E.RMS=-99.9 Q=-99.9
				2	1.4998	115.11	205.63	342.02	0	65.4			
				3	1	51.4	160.1	0	0	65.4			
				4	1	-97.14	128.2	328	0	65.4			
				5	1.4998	-149.36	85.5	0	0	65.4			
				6	1	0	0	0	0	65.4			
12010D	550 TROIS RIVIERES HJ	3	1	1	170	200	166	0	60			RMS=	9.78 E.RMS=-99.9 Q=-99.9
				2	2	85	100	166	0	60			
				3	1	0	0	0	0	60			
12010N	550 TROIS RIVIERES HN	3	1	1	0	0	0	0	0	60		RMS=	6.99 E.RMS=-99.9 Q=-99.9
				2	1.5701	110	100	166	0	60			
				3	1	220	200	166	0	60			
12011N	560 FORT ST JOHN HN	2	1	0.55	280	90	0	0	61.4			RMS=	-.45 E.RMS=-99.9 Q=-99.9
				2	1	0	0	0	0	61.4			
12014N	560 KIRKLAND LAKE HN	2	1	1	0	0	0	0	0	60		RMS=	6.95 E.RMS=-99.9 Q=-99.9
				2	1	290	150	354.5	0	60			
12013N	560 MARYSTOWN HN	2	1	0.73	233	80	25.57	0	60			RMS=	6.55 E.RMS=-99.9 Q=-99.9
				2	1	0	0	0	0	60			
12015N	560 OWEN SOUND HN	3	1	1.3899	0	0	0	0	74.5	1		RMS=	-.45 E.RMS=-99.9 Q=-99.9
				2	1	160	80	304	0	74.5	1		
				3	1	200	80	124	0	74.5	1		
12015D	560 OWEN SOUND HJ	2	1	1	33.3	150	226.5	0	74.5	1		RMS=	6.44 E.RMS=-99.9 Q=-99.9
				2	1	0	0	0	0	74.5	1		
12016N	560 SEPT-ILES HN	3	1	1	0	0	0	0	60			RMS=	6.74 E.RMS=-99.9 Q=-99.9
				2	0.6899	113	100	195	0	60			
				3	0.51	247	100	15	0	60			
2016D	560 SEPT-ILES HJ	2	1	1.8	180	100	15	0	60			RMS=	9.75 E.RMS=-99.9 Q=-99.9
				2	1	0	0	0	0	60			
2017N	570 CRANBROOK HN	2	1	1	0	0	0	0	62.6			RMS=	-.16 E.RMS=-99.9 Q=-99.9
				2	0.875	250	90	30	0	62.6			
2017D	570 CRANBROOK HJ	2	1	0.875	250	90	30	0	62.6			RMS=	9.84 E.RMS=-99.9 Q=-99.9
				2	1	0	0	0	0	62.6			
2019N	570 EDMUNDSTON HN	2	1	1	0	0	0	0	60			RMS=	-.55 E.RMS=-99.9 Q=-99.9
				2	1	295	90	35	0	60			
2021N	570 KITCHENER HN	5	1	1	193	380	176	0	87.6			RMS=	10.83 E.RMS=-99.9 Q=-99.9
				2	3	54.94	285	176	0	87.6			
				3	4.2	276.5	190	176	0	89.7			
				4	3	138.06	.95	176	0	87.6			
				5	1	0	0	0	0	87.6			
2021D	570 KITCHENER HJ	5	1	1	0	0	0	0	87.6			RMS=	10.83 E.RMS=-99.9 Q=-99.9
				2	3	138.06	.95	176	0	87.6			
				3	4.2	276.5	190	176	0	87.6			
				4	3	54.94	285	176	0	87.6			
				5	1	193	380	176	0	87.6			
2022N	570 SWIFT CURRENT HN	8	1	0.96	268.5	90	20	0	75			RMS=	9.69 E.RMS=-99.9 Q=-99.9
				2	2.8799	254.5	240.2	83.08	0	75			
				3	2.832	238.5	425.4	92.83	0	75			
				4	0.96	220.5	626.29	96.77	0	75			
				5	1	312	612	105	0	75			
				6	2.95	330	408	105	0	75			
				7	3	346	215	105	0	75			
				8	1	0	0	0	0	75			

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(suite-continued-continua)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
12022D	570 SWIFT CURRENT	HJ	8	1	0.9	208	90	20	0	75		RMS=	9.69 E.RMS=-99.9 Q=-99.9
			2	2.115	273		240.2	83.06	0	75			
			3	1.98	256		425.4	92.83	0	75			
			4	0.9	250		626.29	96.77	0	75			
			5	1	342		612	105	0	75			
			6	2.2	348		408	105	0	75			
			7	2.35	5		215	105	0	75			
			8	1	0		0	0	0	75			
12018N	570 WILLIAMS LAKE	NN	2	1	0.8999	-90	90	2.1	0	62.3		RMS=	-.07 E.RMS=-99.9 Q=-99.9
			2	1	0		0	0	0	62.3			
12027D	580 ANTIGONISH	HJ	2	1	0.879	238	120	128	0	60		RMS=	10.15 E.RMS=-99.9 Q=-99.9
12027N	580 ANTIGONISH	NN	2	1	1	0	0	0	0	60		RMS=	10.15 E.RMS=-99.9 Q=-99.9
12024N	580 EDMONTON AE												Voir CORRIGENDUM à la fin de la liste - See CORRIGENDUM at end of List - Véase CORRIGENDUM al final de la lista
12024D	580 EDMONTON	HJ	2	1	0.29	332	162	262	0	60		RMS=	9.49 E.RMS=-99.9 Q=-99.9
			2	1	0		0	0	0	60			
12032N	580 HAUTERIVE	NN	3	1	1	0	0	0	0	63.5		RMS=	3.66 E.RMS=-99.9 Q=-99.9
			2	0.5649	45		180	140	0	63.5			
			3	0.74	90		135	188	0	63.5			
12032D	580 HAUTERIVE	HJ	2	1	0.75	-35	180	320	0	63.5		RMS=	6.68 E.RMS=-99.9 Q=-99.9
			2	1	0		0	0	0	63.5			
12028N	580 KAPUSKASING	NN	2	1	1	0	0	0	0	60.5		RMS=	-.55 E.RMS=-99.9 Q=-99.9
			2	1	218		90	14	0	60.5			
12029N	580 OTTAWA	NN	4	1	1	0	0	0	0	70	1	RMS=	9.72 E.RMS=-99.9 Q=-99.9
			2	1.917	218.6		90	9	0	70	1		
			3	1.675	70.15		180	9	0	70	1		
			4	0.719	288		270	9	0	70	1		
12029D	580 OTTAWA	HJ	4	1	0.495	125	270	9	0	70	1	RMS=	16.70 E.RMS=-99.9 Q=-99.9
			2	1.118	227.6		180	9	0	70	1		
			3	1.34	293.3		90	9	0	70	1		
			4	1	0		0	0	0	70	1		
12025N	580 SALMON ARM	NN	2	1	1	0	0	0	0	60		RMS=	-.45 E.RMS=-99.9 Q=-99.9
			2	1	302		183	182	0	60			
12031N	580 WINDSOR	NN	4	1	1	0	0	0	0	72	1	RMS=	-3.40 E.RMS=-99.9 Q=-99.9
			2	1.7671	203.6		90	26.5	0	72	1		
			3	1.583	46.2		180	26.5	0	72	1		
			4	0.6479	250		270	26.5	0	72	1		
12031D	580 WINDSOR	HJ	4	1	0.6479	250	270	26.5	0	72	1	RMS=	-3.40 E.RMS=-99.9 Q=-99.9
			2	1.583	46.2		180	26.5	0	72	1		
			3	1.767	203.6		90	26.5	0	72	1		
			4	1	0		0	0	0	72	1		
12026D	580 WINNIPEG	HJ	3	1	2.42	90.1	180	13.5	0	84.9		RMS=	16.95 E.RMS=-99.9 Q=-99.9
			2	0.85	-99		95	7	0	84.9			
			3	1	0		0	0	0	84.9			
12026N	580 WINNIPEG	NN	3	1	1.05	-46.5	270	13.5	0	68		RMS=	18.07 E.RMS=-99.9 Q=-99.9
			2	2.5601	-124.4		95	7	0	84.9			
			3	1	0		0	0	0	84.9			

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(suite-continued-continua)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
12035D	590 FLIN FLON	HJ	2	1	0.6	45	150	223	0	60		RMS=	9.48 E.RMS=-99.9 Q=-99.9
12039N	590 JONQUIERE	HN	4	1	1	0	0	0	0	60		RMS=	6.63 E.RMS=-99.9 Q=-99.9
			2	0.781	110		89.77	118	0	58			
			3	1	270		125.19	132.95	0	58			
			4	1.4090	149.5		44.89	164	0	65			
12039D	590 JONQUIERE	HJ	2	1	1	0	0	0	0	58		RMS=	10.23 E.RMS=-99.9 Q=-99.9
12037N	590 ST JOHN'S	HN	2	1	1	0	0	0	0	60		RMS=	9.35 E.RMS=-99.9 Q=-99.9
12036D	590 SUSSEX	HJ	2	1	0.64	232	60	345	0	60		RMS=	-0.07 E.RMS=-99.9 Q=-99.9
12036N	590 SUSSEX	HN	2	1	0.8999	209	60	345	0	60		RMS=	-6.09 E.RMS=-99.9 Q=-99.9
12034N	590 TERRACE	HN	2	1	1	0	0	0	0	60		RMS=	-0.35 E.RMS=-99.9 Q=-99.9
12034D	590 TERRACE	HJ	2	1	1	0	0	0	0	60		RMS=	-0.35 E.RMS=-99.9 Q=-99.9
12038N	590 TORONTO	HN	5	1	1	0	0	0	0	45	1	RMS=	8.94 E.RMS=-99.9 Q=-99.9
			2	0.25	207		90	346	0	45	1		
			3	1.5	142.5		90.2	163.5	0	45	1		
			4	1	286		179.9	167.2	0	45	1		
			5	0.25	54		270	166	0	45	1		
12038D	590 TORONTO	HJ	5	1	1.02	210	270	166	0	32.4	1	RMS=	8.94 E.RMS=-99.9 Q=-99.9
			2	2.64	70		179.9	167.2	0	32.4	1		
			3	2.9	290		90.2	163.5	0	32.4	1		
			4	1	175		0	0	0	32.4	1		
			5	0.17	150		90	346	0	32.4	1		
12045N	600 MONTREAL	HN	4	1	2.6599	54	270	190	0	62		RMS=	7.69 E.RMS=-99.9 Q=-99.9
			2	4.8201	277.5		180	190	0	62			
			3	3.54	138.8		90	190	0	62			
			4	1	0		0	0	0	62			
12045D	600 MONTREAL	HJ	4	1	2.66	54	270	190	0	62		RMS=	7.69 E.RMS=-99.9 Q=-99.9
			2	4.82	277.5		180	190	0	62			
			3	3.54	138.8		90	190	0	62			
			4	1	0		0	0	0	62			
12044N	600 NORTH BAY	HN	3	1	1	0	0	0	0	66		RMS=	7.34 E.RMS=-99.9 Q=-99.9
			2	0.51	229		97	360	0	66			
			3	0.6899	131		97	180	0	66			
12044D	600 NORTH BAY	HJ	2	1	0.55	230	97	0	0	66		RMS=	9.78 E.RMS=-99.9 Q=-99.9
			2	1	0		0	0	0	66			
12046N	600 SASKATOON	HN	2	1	0.78	220.5	90	16	0	66		RMS=	9.40 E.RMS=-99.9 Q=-99.9
12046D	600 SASKATOON	HJ	3	1	0.3	149	104.53	70.5	0	66		RMS=	9.40 E.RMS=-99.9 Q=-99.9
			2	1	0		90	16	0	66			
			3	0.32	138		0	0	0	66			
12041N	600 ST ANTHONY	PN	2	1	1	0	0	0	0	65.8		RMS=	10.01 E.RMS=-99.9 Q=-99.9
12041D	600 ST ANTHONY	HJ	2	1	0.49	202	90	43.5	0	65.8		RMS=	9.32 E.RMS=-99.9 Q=-99.9
			2	1	0		0	0	0	65.8			

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(suite-continued-continua)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
12042N	600 TPURO	HN	2	1	0.8701	157.5	0	0	0	60	1	RMS=	-.80 E.RMS=-99.9 Q=-99.9
12042D	600 TPURO	HJ	2	1	0.87	157.5	0	0	0	75	1	RMS=	9.20 E.RMS=-99.9 Q=-99.9
12040N	600 VANCOUVER	HN	3	1	1	0	45	124	0	60	1	RMS=	9.60 E.RMS=-99.9 Q=-99.9
			2	0.51	136	90	0	0	0	60			
			3	1	214.5	257.5	159	0	0	60			
12040D	600 VANCOUVER	HJ	3	1	1	214.5	257.5	159	0	60		RMS=	9.60 E.RMS=-99.9 Q=-99.9
			2	0.51	136	90	159	0	0	60			
			3	1	0	0	0	0	0	60			
12051N	610 GRAND BANK	HN	2	1	1	0	0	0	0	61.5		RMS=	9.45 E.RMS=-99.9 Q=-99.9
12051D	610 GRAND BANK	HJ	2	1	0.98	252.5	77.2	85	0	61.5		RMS=	9.45 E.RMS=-99.9 Q=-99.9
12048D	610 KAMLOOPS	HJ	2	1	0.6	303	123	6	0	61.5		RMS=	13.68 E.RMS=-99.9 Q=-99.9
12048N	610 KAMLOOPS	HN	4	1	0.8	255	90	333	0	62.5		RMS=	7.18 E.RMS=-99.9 Q=-99.9
			2	0.8501	22.5	123	27	0	0	62.5			
			3	1.1001	130	110	73	0	0	62.5			
			4	1	0	0	0	0	0	62.5			
12053N	610 MONT LAURIER	HN	2	1	1	0	0	0	0	69		RMS=	-.26 E.RMS=-99.9 Q=-99.9
12054D	610 NEW CARLISLE	HJ	2	1	0.66	90	270	293	0	90		RMS=	10.62 E.RMS=-99.9 Q=-99.9
12054N	610 NEW CARLISLE	HN	2	1	1	0	0	0	0	90		RMS=	7.62 E.RMS=-99.9 Q=-99.9
12047N	610 PEACE RIVER	HN	3	1	1	0	0	0	0	60		RMS=	9.62 E.RMS=-99.9 Q=-99.9
			2	0.25	226	247.7	342	0	0	60			
			3	1.45	277	125	325	0	0	62.5			
12052N	610 ST CATHARINES	HN	5	1	1	0	0	0	0	60.4		RMS=	6.46 E.RMS=-99.9 Q=-99.9
			2	2.825	143.5	100	170	0	0	60.4			
			3	3.8601	284	200	170	0	0	60.4			
			4	2.825	71.5	300	170	0	0	60.4			
			5	1	215	400	170	0	0	60.4			
12052D	610 ST CATHARINES	HJ	5	1	1	215	400	170	0	60.4		RMS=	9.45 E.RMS=-99.9 Q=-99.9
			2	2.825	71.5	300	170	0	0	60.4			
			3	3.86	284	200	170	0	0	60.4			
			4	2.825	143.5	100	170	0	0	60.4			
			5	1	0	0	0	0	0	60.4			
12049D	610 TRAIL	HJ	2	1	0.73	259.5	75	10	0	61.5		RMS=	9.75 E.RMS=-99.9 Q=-99.9
12060D	620 FORESTVILLE	HJ	2	1	1	0	0	0	0	61.5		RMS=	-.13 E.RMS=-99.9 Q=-99.9
12060N	620 FORESTVILLE	HN	2	1	0.9	232	60	360	0	61.2		RMS=	-.13 E.RMS=-99.9 Q=-99.9
12057N	620 GRAND FALLS	HN	2	1	1	0	0	0	0	61.2		RMS=	9.69 E.RMS=-99.9 Q=-99.9
12057D	620 GRAND FALLS	HJ	2	1	0.87	292	120	70.5	0	70		RMS=	9.69 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	70			

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(suite-continued-continua)

1	2	3	4	5	6	7	8	9	10	-11	12	13	14
12056N	620 PRINCE GEORGE	HN	2	1	1	0	0	0	0	61.3		RMS=	9.69 E.RMS=-99.9 Q=-99.9
			2	0.9199	245	80	325	0	0	61.3			
12061D	620 REGINA	HJ	3	1	0.35	33	150	5	0	90.7		RMS=	10.70 E.RMS=-99.9 Q=-99.9
			2	0.88	198	75	5	0	0	90.7			
			3	1	0	0	0	0	0	90.7			
12061N	620 REGINA	HN	3	1	0.1399	98	150	5	0	90.7		RMS=	10.52 E.RMS=-99.9 Q=-99.9
			2	0.8701	215.5	75	5	0	0	90.7			
			3	1	0	0	0	0	0	90.7			
12058N	620 SUDBURY	HN	4	1	0.52	314.1	300	8	0	75		RMS=	10.44 E.RMS=-99.9 Q=-99.9
			2	1.5701	80.35	200	8	0	0	75			
			3	1.95	219.2	100	8	0	0	75			
			4	1	0	0	0	0	0	75			
12059D	620 TIMMINS	HJ	3	1	1	120	320.7	193	0	68		RMS=	9.45 E.RMS=-99.9 Q=-99.9
			2	2	72	160.35	193	0	0	68			
			3	1	0	0	0	0	0	68			
12059N	620 TIMMINS	HN	4	1	1	286	481.04	193	0	68		RMS=	6.46 E.RMS=-99.9 Q=-99.9
			2	1.9099	195.1	320.7	193	0	0	68			
			3	1.9099	90.9	160.35	193	0	0	68			
			4	1	0	0	0	0	0	68			
12069D	630 CHARLOTTETOWN	HJ	3	1	1.111	195	135	215.6	0	60		RMS=	10.56 E.RMS=-99.9 Q=-99.9
			2	1.111	45	225	170.6	0	0	60			
			3	1	0	0	0	0	0	60			
12069N	630 CHARLOTTETOWN	HN	3	1	0.4385	25	135	215.6	0	60		RMS=	9.46 E.RMS=-99.9 Q=-99.9
			2	0.4385	115	225	170.6	0	0	60			
			3	1	0	0	0	0	0	60			
12065D	630 CHATHAM	HJ	6	1	0.5	234.75	60	330.5	0	68		RMS=	9.45 E.RMS=-99.9 Q=-99.9
			2	0.28	239.75	212.97	170.95	0	0	68			
			3	0.56	5	270	166.5	0	0	68			
			4	0.28	130.25	328.09	163.61	0	0	68			
			5	0.5	125.25	60	150.5	0	0	68			
			6	1	0	0	0	0	0	68			
12065N	630 CHATHAM	HN	3	1	1.04	265	135	195	0	68		RMS=	-0.30 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	68			
			3	1.8301	138	67.5	200	0	0	68			
12062D	630 EDMONTON	HJ	3	1	0.9	307	120	345	0	80.6		RMS=	16.49 E.RMS=-99.9 Q=-99.9
			2	0.45	310	250.9	274.6	0	0	80.6			
			3	1	0	0	0	0	0	80.6			
12062N	630 EDMONTON	HN	6	1	1	0	0	0	0	80.6		RMS=	16.94 E.RMS=-99.9 Q=-99.9
			2	1.8999	244	120	345	0	0	80.6			
			3	1	125.5	240	345	0	0	80.6			
			4	1	251.6	180	53	0	0	80.6			
			5	1.8999	131.6	252	27	0	0	80.6			
			6	1	14.6	350	13.7	0	0	80.6			
12066N	630 HUNTSVILLE	HN	3	1	1.2161	262.5	155.4	30.2	0	64		RMS=	-0.04 E.RMS=-99.9 Q=-99.9
			2	1	165	280	20	0	0	64			
			3	1	0	0	0	0	0	64			

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
12070D	630 LACHUTE	HJ	6	1	1.983	343.87	174	78	0	70		RMS= -3.68 E.RMS=-99.9 Q=-99.9	
			2	1		327.75	348	78	0	70			
			3	0.77	234.74	362.48		63.63	0	70			
			4	1.525	250.87	198.67		51.08	0	70			
			5	0.77	267	90	350		0	70			
			6	1	0	0	0	0	0	70			
12070N	630 LACHUTE	HN	4	1	1	0	0	0	0	70		RMS= -.60 E.RMS=-99.9 Q=-99.9	
			2	0.9099	260	90	350	0	0	70			
			3	0.636	260	198.67		51.08	0	70			
			4	0.7	0	174		78	0	70			
12071D	630 SHERBROOKE	HJ	4	1	1	0	0	0	0	74		RMS= 9.09 E.RMS=-99.9 Q=-99.9	
			2	1.094	4	174.65		89.53	0	74			
			3	1.144	98	184		121	0	74			
			4	0.989	100	97.66		189.98	0	74			
12071N	630 SHERBROOKE	HN	4	1	1	0	0	0	0	74		RMS= 6.21 E.RMS=-99.9 Q=-99.9	
			2	0.865	4	174.65		89.53	0	74			
			3	1	98	184		121	0	74			
			4	0.865	94	97.66		189.98	0	74			
12067N	630 SMITHS FALLS	HN	6	1	1	0	0	0	0	100	1	RMS= 9.71 E.RMS=-99.9 Q=-99.9	
			2	1	355	195	262		0	100	1		
			3	1.741	124.5	208.99	236.56		0	100	1		
			4	1	254	255.99	217.46		0	100	1		
			5	1	259	180	168		0	100	1		
			6	1.741	129.5	90	168		0	100	1		
12067D	630 SMITHS FALLS	HJ	6	1	2.052	147.5	90	168	0	100	1	RMS= 9.71 E.RMS=-99.9 Q=-99.9	
			2	1.974	270.3	180	168		0	100	1		
			3	2.398	275.6	255.99	217.46		0	100	1		
			4	2.457	152.6	208.99	236.56		0	100	1		
			5	1.231	5.1	195	262		0	100	1		
			6	1	0	0	0		0	100	1		
12068N	630 TIMMINS	HN	4	1	0.4399	283.3	244.34	13	0	69.1		RMS= 9.48 E.RMS=-99.9 Q=-99.9	
			2	1.47	66.8	162.89	13	0	69.1				
			3	1.8601	213.5	81.45	13	0	69.1				
			4	1	0	0	0	0	0	69.1			
12064D	630 WINNIPEG	HJ	3	1	0.968	140	180	202	0	92		RMS= 10.49 E.RMS=-99.9 Q=-99.9	
			2	1	0	90	202		0	92			
			3	0.895	270	0	0	0	0	92			
12064N	630 WINNIPEG	HN	3	1	1	0	0	0	0	92		RMS= 10.47 E.RMS=-99.9 Q=-99.9	
			2	0.5791	123.5	90	202		0	92			
			3	0.5259	247.5	90	22	0	0	92			
12073D	670 MUSGRAVETOWN	HJ	2	1	0.3	-47	135	80	0	65		RMS= 9.78 E.RMS=-99.9 Q=-99.9	
			2	1	0	0	0	0	0	65			
12073N	670 MUSGRAVETOWN	HN	2	1	0.9392	-47	135	80	0	65		RMS= 9.78 E.RMS=-99.9 Q=-99.9	
			2	1	0	0	0	0	0	65			
12077D	680 DARTMOUTH	HJ	2	1	1	51	120	275	0	87.1		RMS= 16.92 E.RMS=-99.9 Q=-99.9	
			2	1	0	0	0	0	0	87.1			
12077N	680 DARTMOUTH	HN	3	1	1	306	160	315	0	79.6		RMS= 9.70 E.RMS=-99.9 Q=-99.9	
			2	1.95	153	80	315	0	0	87.1			
			3	1	0	0	0	0	0	87.1			

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
12074D	680 EDMONTON	HJ	3	1	0.5381	97.5	90	190.5	0	70.9		RMS=	10.05 E.RMS=-99.9 Q=-99.9
			3	2	0.4839	262.5	90	10.5	0	70.9			
			3	1	0	0	0	0	0	70.9			
12074N	680 EDMONTON	HN	3	1	1	0	0	0	0	70.9		RMS=	10.05 E.RMS=-99.9 Q=-99.9
			2	2	0.4839	262.5	90	10.5	0	70.9			
			3	0.5381	97.5	90	190.5	0	70.9				
12076D	680 GRAND FALLS	HJ	2	1	0.76	300	120	350	0	62		RMS=	9.48 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	62			
12076N	680 GRAND FALLS	HN	2	1	1	0	0	0	0	62		RMS=	9.48 E.RMS=-99.9 Q=-99.9
			2	0.76	300	120	65	0	62				
12078D	680 TIMMINS	HJ	2	1	0.19	285	151	15	0	50		RMS=	9.72 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	50			
12078N	680 TIMMINS	HN	3	1	1	0	0	0	0	50		RMS=	9.63 E.RMS=-99.9 Q=-99.9
			2	1.625	96.5	151	195.47	0	50				
			3	0.95	187	302	195.47	0	50				
12079D	680 TORONTO	HJ	8	1	0.342	-90	90	20	0	99.5		RMS=	16.63 E.RMS=-99.9 Q=-33.8
			2	1	-136	192.28	327.45	0	99.5				
			3	1	-182	337.48	315.23	0	99.5				
			4	0.342	-228	488.73	310.45	0	99.5				
			5	0.342	-138	465	300	0	99.5				
			6	1	-92	310	300	0	99.5				
			7	1	-46	155	300	0	99.5				
			8	0.342	0	0	0	0	99.5				
12079N	680 TORONTO	HN	8	1	1	94.6	310	290	0	99.5		RMS=	-99.00 E.RMS=-99.9 Q=-99.9
			2	0.917	104.1	155	290	0	99.5				
			3	0.3501	20	90	12.5	0	99.5				
			4	0.917	9.5	189.12	318.15	0	99.5				
			5	1	0	333.89	305.5	0	99.5				
			6	0.4199	-16.9	485.02	300.6	0	99.5				
			7	0.4199	77.7	465	290	0	99.5				
			8	0.3501	114.6	0	0	0	99.5				
12075D	680 WINNIPEG	HJ	3	1	3.4483	104	180	20	0	80		RMS=	17.26 E.RMS=-99.9 Q=-99.9
			2	2.3448	222.5	90	20	0	92				
			3	1	0	0	0	0	92				
12075N	683 WINNIPEG	HN	6	1	0.4951	0	0	0	0	92		RMS=	16.88 E.RMS=-99.9 Q=-17.5
			2	0.52	-214.8	180	20	0	80				
			3	0.5061	-218	240	333.5	0	80				
			4	1	-106.7	190	313.3	0	92				
			5	0.95	-108	90	20	0	92				
			6	0.5061	7.7	175	285	0	92				
12082N	690 GRÄVELLOURG	HN	4	1	1	0	0	0	0	73.2		RMS=	6.63 E.RMS=-99.9 Q=-99.9
			2	0.8948	93	90	80.5	0	73.2				
			3	1.0527	116	90	230	0	73.2				
			4	1.0527	206	47	155.5	0	73.2				
12080D	690 VANCOUVER	HJ	4	1	0.25	185	445.24	271.33	0	60		RMS=	16.67 E.RMS=-99.9 Q=-99.9
			2	0.4519	218.8	285	260	0	60				
			3	0.5569	325.6	175	290	0	60				
			4	1	0	0	0	0	60				

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(suite-continued-continua)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
12080N	690 VANCOUVER	HN	4	1	0.25	185	445.24	271.33	0	60			RMS= 16.67 E.RMS=-99.9 Q=-99.9
			2	0.4519	218.8	285	260	0	60				
			3	0.5569	325.6	175	290	0	60				
			4	1	0	0	0	0	0	60			
12083N	710 CLARENVILLE	HN	2	1	1	0	0	0	0	68			RMS= 9.65 E.RMS=-99.9 Q=-99.9
			2	0.9399	298	120	80	0	68				
12083D	710 CLARENVILLE	HJ	2	1	0.9399	298	120	80	0	68			RMS= 9.65 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	68			
12084D	710 LEAMINGTON ON	Voir CORRIGENDUM à la fin de la liste - See CORRIGENDUM at end of List - Véase CORRIGENDUM al final de la lista											
12085D	710 NIAGARA FALLS	HJ	6	1	1	265.7	416.81	258.64	0	70			RMS= 6.28 E.RMS=-99.9 Q=-99.9
			2	1	19.7	400.94	249.07	0	70				
			3	1.97	14.8	200.47	249.07	0	70				
			4	1.97	260.8	221.7	267.3	0	70				
			5	1	246	70	330.8	0	70				
			6	1	0	0	0	0	0	70			
12085N	710 NIAGARA FALLS	HN	10	1	1	0	0	0	0	70			RMS= 3.56 E.RMS=-99.9 Q=-99.9
			2	3.5981	209.07	70	330.8	0	70				
			3	5.2126	57.85	140	330.8	0	70				
			4	3.5981	266.64	210	330.8	0	70				
			5	1	115.7	280	330.8	0	70				
			6	0.8501	221.7	416.81	258.64	0	70				
			7	3.0586	12.64	400.94	249.07	0	70				
			8	4.4309	163.85	396.96	239.02	0	70				
			9	3.0586	315.07	405.22	229.08	0	70				
			10	0.8501	106	425	219.8	0	70				
12086D	710 PORT CARTIER	HJ	3	1	1	260	140	210	0	75.3			RMS= -.40 E.RMS=-99.9 Q=-99.9
			2	2	130	70	210	0	75.3				
			3	1	0	0	0	0	0	75.3			
12086N	710 PORT CARTIER	HN	3	1	1	0	0	0	0	75.3			RMS= -.40 E.RMS=-99.9 Q=-99.9
			2	2	130	70	210	0	75.3				
			3	1	260	140	210	0	75.3				
12087N	710 VILLE MARIE	HN	3	1	1	0	0	0	0	60			RMS= -.55 E.RMS=-99.9 Q=-99.9
			2	1.8501	235	90	336	0	60				
			3	1	110	180	336	0	60				
12093N	730 BLIND RIVER	HN	2	1	1	0	0	0	0	60			RMS= -.30 E.RMS=-99.9 Q=-99.9
			2	0.7	210	90	345	0	60				
12090N	730 DAUPHIN	HN	2	1	1	0	0	0	0	90			RMS= 6.99 E.RMS=-99.9 Q=-99.9
			2	0.77	255	75	5	0	90				
12092D	730 GANDER	HJ	2	1	1	0	0	0	0	62.8			RMS= -.07 E.RMS=-99.9 Q=-99.9
			2	0.6999	224	90	105	0	62.8				
12092N	730 GANDER	HN	2	1	1	0	0	0	0	62.8			RMS= -.07 E.RMS=-99.9 Q=-99.9
			2	0.7	224	90	105	0	62.8				
12094N	730 LEAMINGTON ON	Voir CORRIGENDUM à la fin de la liste - See CORRIGENDUM at end of List - Véase CORRIGENDUM al final de la lista											
12097D	730 MONTREAL	HJ	2	1	0.8001	110	90	220	0	90			RMS= 17.13 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	90			

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(suite-continued-continua)

			1	2	3	4	5	6	7	8	9	10.	11	12	13	14
12097N	730 MONTREAL	HN	2	1	1	0	0	0	0	0	0	90			RMS= 17.13 E.RMS=-99.9 Q=-99.9	
12095D	730 NORTH BAY	HJ	4	1	1	250.5	270	270	270	220	2.5	0	90		RMS= 10.78 E.RMS=-99.9 Q=-99.9	
				2	2.57	47	180	180	180	2.5	2.5	0	90			
				3	2.57	202.5	90	90	90	2.5	2.5	0	90			
				4	1	0	0	0	0	0	0	0	90		RMS= 10.78 E.RMS=-99.9 Q=-99.9	
				2	2.5701	202.5	90	90	90	2.5	2.5	0	90			
				3	2.5701	47	180	180	180	2.5	2.5	0	90			
12095N	730 NORTH BAY	HN	4	1	1	0	0	0	0	0	0	0	90		RMS= 10.78 E.RMS=-99.9 Q=-99.9	
12096D	730 TIMMINS	HJ	2	1	1	295	90	90	90	18.5	0	90			RMS= 13.79 E.RMS=-99.9 Q=-99.9	
12096N	730 TIMMINS	HN	6	1	1.4707	119.91	148.79	148.79	344.25	0	90				RMS= 14.76 E.RMS=-99.9 Q=-99.9	
				2	1	265.61	90	90	310	0	90					
				3	0.9497	336.76	228.85	228.85	357.04	0	90					
				4	0.9497	71.15	180	180	18.5	0	90					
				5	1.4707	214.3	90	90	18.5	0	90					
				6	1	0	0	0	0	0	0	90				
12088N	730 VANCOUVER	HN	4	1	1.1489	209	210	210	319	0	80				RMS= 16.69 E.RMS=-99.9 Q=-99.9	
				2	1.2981	288	140	140	300	0	80					
				3	0.7009	269	80	80	345	0	80					
				4	1	0	0	0	0	0	0	80				
12088D	730 VANCOUVER	HJ	3	1	0.32	239	140	140	300	0	80				RMS= 16.87 E.RMS=-99.9 Q=-99.9	
				2	0.9	261	80	80	345	0	80					
				3	1	0	0	0	0	0	0	80				
12089N	730 VERNON	HN	2	1	0.98	341.7	185	185	75.3	0	76	1			RMS= 9.55 E.RMS=-99.9 Q=-99.9	
				2	1	0	0	0	0	0	80	1				
12089D	730 VERNON	HJ	2	1	0.65	101	140.6	140.6	102.6	0	77.4	1			RMS= 10.15 E.RMS=-99.9 Q=-99.9	
				2	1	0	0	0	75.3	0	66.8	1				
12098D	740 EDMONTON	HJ	2	1	2	240	90.4	90.4	13	0	86				RMS= 17.32 E.RMS=-99.9 Q=-99.9	
				2	1	0	0	0	0	0	86					
12098N	740 EDMONTON	HN	4	1	1.0801	1	180.8	180.8	103	0	86				RMS= 17.07 E.RMS=-99.9 Q=-99.9	
				2	1.22	271	202.17	202.17	76.43	0	86					
				3	1.1299	270	90.4	90.4	13	0	86					
				4	1	0	0	0	0	0	0	86				
12099N	740 MARYSTOWN	HN	2	1	1	0	0	0	0	0	0	90			RMS= 10.38 E.RMS=-99.9 Q=-99.9	
				2	0.9199	269	90	90	95	0	90					
12101N	750 BONAVISTA BAY	HN	2	1	0.95	299	120	120	80	0	90				RMS= 9.76 E.RMS=-99.9 Q=-99.9	
				2	1	0	0	0	0	0	0	90				
12101D	750 BONAVISTA BAY	HJ	2	1	1	0	120	120	80	0	90				RMS= 9.60 E.RMS=-99.9 Q=-99.9	
				2	1	0	0	0	0	0	0	90				
12108N	790 BAIE COMEAU	HN	2	1	1	270	90	90	0	0	0	70			RMS= -6.32 E.RMS=-99.9 Q=-99.9	
				2	1	0	0	0	0	0	0	70				
12108D	790 BAIE COMEAU	HJ	2	1	1	270	90	90	0	0	0	70			RMS= -.30 E.RMS=-99.9 Q=-99.9	
				2	1	0	0	0	0	0	0	70				
12105N	790 BEDFORD-SACK.	HN	3	1	0.425	126	180	180	120	0	90				RMS= 10.30 E.RMS=-99.9 Q=-99.9	
				2	1.313	239.3	90	90	120	0	90					
				3	1	0	0	0	0	0	0	90				
12105D	790 BEDFORD-SACK.	HJ	2	1	0.65	257	90	90	120	0	90				RMS= 9.93 E.RMS=-99.9 Q=-99.9	
				2	1	0	0	0	0	0	0	90				

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
12106N	790 BRAMPTON	HN	10	1	1	0	0	0	0	86.1		RMS=	6.63 E.RMS=-99.9 Q=-99.9
				2	0.5305	359.7	240	303	0	86.1			
				3	0.1228	356.8	480	303	0	86.1			
				4	0.1155	275.8	507.03	314.2	0	86.1			
				5	0.4985	278.7	275.56	323.93	0	86.1			
				6	0.9399	279	100	23	0	86.1			
				7	0.8894	278.3	243.44	99.13	0	86.1			
				8	0.3679	275.8	472.99	110.98	0	86.1			
				9	0.3916	356.8	480	123	0	86.1			
				10	0.9463	359.3	240	123	0	86.1			
12106D	790 BRAMPTON	HJ	8	1	0.6	0	240	123	0	86.1		RMS=	6.63 E.RMS=-99.9 Q=-99.9
				2	1.275	17	0	0	0	86.1			
				3	1.125	31	240	303	0	86.1			
				4	0.4	48	480	303	0	86.1			
				5	0.4	-33	243.44	99.13	0	86.1			
				6	1.125	-50	100	23	0	86.1			
				7	1.275	-64	100	23	0	86.1			
				8	0.6	-81	507.03	314.2	0	86.1			
12102N	790 CAMROSE	HN	6	1	1	0	0	0	0	84		RMS=	16.51 E.RMS=-99.9 Q=-99.9
				2	1.7	232.91	80	349	0	84			
				3	0.873	103.87	160	349	0	84			
				4	0.4189	142.87	264.53	307.27	0	84			
				5	0.8159	271.92	211.63	292.7	0	84			
				6	0.48	39	180	271	0	84			
12102D	790 CAMROSE	HJ	3	1	0.45	79.42	160	349	0	84		RMS=	17.11 E.RMS=-99.9 Q=-99.9
				2	1.217	222.79	80	349	0	84			
				3	1	0	0	0	0	84			
12103N	790 NEWCASTLE	HN	2	1	1.499	30	180	252.5	0	60		RMS=	-.93 E.RMS=-99.9 Q=-99.9
				2	1	0	0	0	0	60			
12103D	790 NEWCASTLE	HJ	2	1	1	0	0	0	0	60		RMS=	5.92 E.RMS=-99.9 Q=-99.9
12104N	790 PORT AUX CHOIX	HN	2	1	1	0	0	0	0	60		RMS=	-.50 E.RMS=-99.9 Q=-99.9
12104D	790 PORT AUX CHOIX	HJ	2	1	1	285	120	105	0	60		RMS=	-.50 E.RMS=-99.9 Q=-99.9
12107N	790 SUDBURY	HN	6	1	0.9719	107	200	359	0	83.8		RMS=	16.98 E.RMS=-99.9 Q=-99.9
				2	1.8691	191.5	138.5	21.5	0	83.8			
				3	0.9346	285	120	61.5	0	83.8			
				4	0.9346	163	180	322.5	0	83.8			
				5	2	265	90	322.5	0	83.8			
				6	1	0	0	0	0	83.8			
12107D	790 SUDBURY	HJ	4	1	1.625	231	200	359	0	83.8		RMS=	16.46 E.RMS=-99.9 Q=-99.9
				2	1.25	294	138.5	21.5	0	83.8			
				3	1.25	270	90	322.5	0	83.8			
				4	1	0	0	0	0	83.8			

CAN

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
12112N	800 BELLEVILLE	HN	6	1	1	0	0	0	0	85.5		RMS=	9.71 E.RMS=-99.9 Q=-99.9
				2	0.5715	336.7	193	269.5	0	85.5			
				3	0.5542	234.2	195.26	296.3	0	85.5			
				4	1.0498	257.45	90	11.5	0	85.5			
				5	0.5542	272.7	229.5	66.97	0	85.5			
				6	0.5715	15.2	193	89.5	0	85.5			
12112D	800 BELLEVILLE	HJ	6	1	1	257.5	207.08	77.28	0	85.5		RMS=	9.71 E.RMS=-99.9 Q=-99.9
				2	1	0	188.84	102.97	0	85.5			
				3	1.4371	321.35	45	191.5	0	85.5			
				4	0.552	271	207.08	257.22	0	85.5			
				5	0.552	168.5	188.84	282.97	0	85.5			
				6	1.393	216.7	45	11.5	0	85.5			
12109N	800 LANGLEY	HN	6	1	1	0	0	0	0	70		RMS=	9.40 E.RMS=-99.9 Q=-99.9
				2	1.8501	37.5	250	31	0	70			
				3	1	67	508	32	0	70			
				4	1	184	488.5	41.5	0	70			
				5	1.8501	135	236.4	50.87	0	70			
				6	1	97	85	140	0	70			
12109D	800 LANGLEY	HJ	6	1	0.95	99.51	85	140	0	70		RMS=	9.40 E.RMS=-99.9 Q=-99.9
				2	1.95	129.31	236.4	50.87	0	70			
				3	0.85	185.51	488.5	41.5	0	70			
				4	0.97	101.41	508	32	0	70			
				5	1.89	33.91	250	31	0	70			
				6	1	0	0	0	0	70			
12116N	800 MONTREAL	HN	4	1	1	80	395.98	6.48	0	195		RMS=	11.43 E.RMS=-99.9 Q=-99.9
				2	1	0	0	0	0	195			
				3	1	90	278	341	0	195			
12116D	800 MONTREAL	HJ	4	1	1	0	188	0	0	195		RMS=	18.51 E.RMS=-99.9 Q=-99.9
				2	1	127	278	341	0	195			
				3	1	119	0	0	0	195			
				4	1	352	395.98	6.48	0	195			
12118N	800 MOOSE JAW	HN	3	1	1	0	0	0	0	60		RMS=	9.35 E.RMS=-99.9 Q=-99.9
				2	1.6001	291.5	138.5	327	0	60			
				3	1	37.5	165	294	0	60			
12117N	800 QUEBEC	HN	6	1	1	0	0	0	0	60		RMS=	16.67 E.RMS=-99.9 Q=-99.9
				2	0.5	61	135	228	0	60			
				3	0.3	271	148.03	271.25	0	60			
				4	0.6001	210	105	333	0	60			
				5	0.3	149	191.28	16	0	60			
				6	0.54	299	135	48	0	60			
12117D	800 QUEBEC	HJ	6	1	0.54	299	135	48	0	60		RMS=	16.67 E.RMS=-99.9 Q=-99.9
				2	0.3001	149	191.28	16	0	60			
				3	0.6001	210	105	333	0	60			
				4	0.3005	271	148.03	271.25	0	60			
				5	0.5	61	135	228	0	60			
				6	1	0	0	0	0	60			
12114N	800 THUNDER RAY	HN	3	1	0.5701	207	140	25	0	74.6		RMS=	6.68 E.RMS=-99.9 Q=-99.9
				2	1	0	70	25	0	74.6			
				3	0.5801	141	0	0	0	74.6			

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
12114D	800 THUNDER BAY	HJ	3	1	0.57	207	140	25	0	74.6	RMS=	9.69 E.	RMS=-99.9 Q=-99.9
			2	1	0	0	70	25	0	74.6			
			3	0.58	141	0	0	0	0	75.6			
12115N	800 WINDSOR	HN	5	1	1	89	135	140	0	88	RMS=	17.13 E.	RMS=-99.9 Q=-99.9
			2	0.98	271	135	320	0	88				
			3	1.1799	344	115	108	0	88				
			4	1.1299	16	115	288	0	88				
			5	0.5701	215	0	0	0	0	88			
12115D	800 WINDSOR	HJ	5	1	1	127	135	140	0	88	RMS=	15.98 E.	RMS=-99.9 Q=-99.9
			2	1	-127	135	320	0	88				
			3	1	-37	155	108	0	88				
			4	1	37	115	288	0	88				
			5	0.7	150	0	0	0	0	88			
12119D	810 CALGARY	HJ	2	1	0.623	172.2	90	184	0	90	RMS=	17.16 E.	RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	90			
12119N	810 CALGARY	HN	5	1	1	0	0	0	0	90	RMS=	17.14 E.	RMS=-99.9 Q=-99.9
			2	3.5989	233.83	90	4	0	0	90			
			3	5.2114	107.07	180	4	0	0	90			
			4	3.5989	340.31	270	4	0	0	90			
			5	1	214.14	360	4	0	0	90			
12121N	810 CARAQUET	HN	3	1	1	0	0	0	0	86	RMS=	9.73 E.	RMS=-99.9 Q=-99.9
			2	0.5071	252	90	60	0	0	86			
			3	0.5071	108	90	240	0	0	86			
12120D	810 WINNIPEG	HJ	4	1	1	266	270	10	0	60	RMS=	9.93 E.	RMS=-99.9 Q=-99.9
			2	2.907	57.3	180	10	0	0	60			
			3	2.907	208.7	90	10	0	0	60			
			4	1	0	0	0	0	0	60			
12120N	810 WINNIPEG	HN	4	1	1	0	0	0	0	60	RMS=	9.93 E.	RMS=-99.9 Q=-99.9
			2	2.907	208.7	90	10	0	0	60			
			3	2.907	57.3	180	10	0	0	60			
			4	1	266	270	10	0	0	60			
12123D	850 ABBOTSFORD	HJ	4	1	0.364	333.5	330	3200	0	71.5	RMS=	10.56 E.	RMS=-99.9 Q=-99.9
			2	1	102.8	220	320	0	71.5				
			3	1	231	110	320	0	71.5				
			4	0.364	0	0	0	0	0	71.5			
12123N	850 ABBOTSFORD	HN	4	1	1	0	0	0	0	71.5	RMS=	10.23 E.	RMS=-99.9 Q=-99.9
			2	0.3701	105	110	140	0	71.5				
			3	1	254.5	110	320	0	71.5				
			4	0.3701	148.2	220	320	0	71.5				
12122N	850 RED DEER	HN	3	1	0.49	82.5	115	150	0	62	RMS=	-0.07 E.	RMS=-99.9 Q=-99.9
			2	0.49	271.5	115	330	0	62				
			3	1	0	0	0	0	0	62			
12124D	850 SPANIARDS BAY	HJ	2	1	0.85	0	145	95	0	70	RMS=	6.39 E.	RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	70			
12124N	850 SPANIARDS BAY	HN	2	1	0.8501	0	145	95	0	70	RMS=	6.39 E.	RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	70			
12125D	850 TIMMINS	HJ	4	1	1	0	0	0	0	93.3	RMS=	10.58 E.	RMS=-99.9 Q=-99.9
			2	2.64	231	-109.9	13	0	0	93.3			
			3	2.64	101.6	219.9	13	0	0	93.3			
			4	1	332.5	329.8	13	0	0	93.3			

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
12125N	850 TIMMINS	HN	4	1 1	0	0	0	0	0	93.3		RMS=	10.58 E.RMS=-99.9 Q=-99.9
			2	2.6399	231	109.9	13	0	0	93.3			
			3	2.6399	101.6	219.9	13	0	0	93.3			
			4	1	332.5	329.8	13	0	0	93.3			
12126D	850 VERDUN	HJ	2	1 1	324	140	335	0	60			RMS=	15.86 E.RMS=-99.9 Q=-99.9
12126N	850 VERDUN	HN	3	1 1	0	0	0	0	0	60		RMS=	9.78 E.RMS=-99.9 Q=-99.9
			2	0.5249	229	72	30	0	60				
			3	0.5249	131	72	210	0	60				
12128N	860 HALIFAX	HN	2	1 1	90	90	269.5	0	90			RMS=	10.44 E.RMS=-99.9 Q=-99.9
12127D	860 PRINCE RUPERT	HJ	2	1 1.5	150	73.62	55	0	84.8			RMS=	9.71 E.RMS=-99.9 Q=-99.9
12127N	860 PRINCE RUPERT	HN	2	1 1	0	0	0	0	84.8			RMS=	9.71 E.RMS=-99.9 Q=-99.9
			2	1.5	150	73.62	55	0	84.8				
12131N	860 SASKATOON	HN	4	1 0.7	226	161	307	0	88			RMS=	10.51 E.RMS=-99.9 Q=-99.9
			2	0.8999	45	135	273	0	88				
			3	1.1001	199	90	3	0	88				
			4	1	0	0	0	0	88				
12131D	860 SASKATOON	HJ	2	1 0.75	45	135	273	0	88			RMS=	-99.00 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	88				
12134N	900 AMHERST	HN	2	1 1	0	0	0	0	60			RMS=	-.30 E.RMS=-99.9 Q=-99.9
12134D	900 AMHERST	HJ	2	1 0.3	260	90	111	0	60			RMS=	-.07 E.RMS=-99.9 Q=-99.9
12136N	900 HAMILTON	HN	8	1 0.8579	194	854.5	17.22	0	90.7			RMS=	16.71 E.RMS=-99.9 Q=-99.9
			2	1.6106	183.76	586.5	14.56	0	90.7				
			3	1.6738	157.6	321.88	7.48	0	90.7				
			4	0.95	148	95	318	0	90.7				
			5	0.9033	46	810	23	0	90.7				
			6	1.6953	35.76	540	23	0	90.7				
			7	1.762	9.6	270	23	0	90.7				
			8	1	0	0	0	0	90.7				
12136D	900 HAMILTON	HJ	8	1 0.65	160.75	854.5	17.22	0	90.7			RMS=	16.44 E.RMS=-99.9 Q=-99.9
			2	1.45	141.75	586.5	14.56	0	90.7				
			3	1.6123	120.27	321.88	7.48	0	90.7				
			4	0.825	103	95	318	0	90.7				
			5	0.6885	59.17	810	23	0	90.7				
			6	1.7375	40.8	540	23	0	90.7				
			7	1.8412	18.27	270	23	0	90.7				
			8	1	0	0	0	0	90.7				
12132N	900 PENTICTON	HN	4	1 1	256.5	95	76	0	70			RMS=	-.40 E.RMS=-99.9 Q=-99.9
			2	0.8301	112.5	68.39	20.19	0	70				
			3	0.8301	216	80	301	0	70				
			4	1	0	0	0	0	70				
2132D	900 PENTICTON	HJ	4	1 1	0	0	0	0	70			RMS=	-.40 E.RMS=-99.9 Q=-99.9
			2	0.8301	216	80	301	0	70				
			3	0.8301	122.5	68.39	20.19	0	70				
			4	1	256.5	95	76	0	70				

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
12142N	900 PRINCE ALBERT	HN	2	1	1	0	0	0	0	99		RMS=	10.28 E.RMS=-99.9 Q=-99.9
				2	0.7	260	90	5	0	99			
12138N	900 RIMOUSKI	HN	2	1	1	0	0	0	0	163.3		RMS=	9.49 E.RMS=-99.9 Q=-99.9
				2	0.77	139	45	230	0	63.9			
12139D	900 SHERBROOK	HJ	3	1	1.4	334	172	265	0	60		RMS=	9.71 E.RMS=-99.9 Q=-99.9
				2	0.95	184	86	265	0	60			
12139N	900 SHERBROOK	HN	4	1	1	0	0	0	0	60		RMS=	9.71 E.RMS=-99.9 Q=-99.9
				2	1	23	172	265	0	60			
				3	1	169.4	209	284.8	0	60			
				4	1	146.4	75	335.6	0	60			
12140D	900 ST JEROME	HJ	3	1	0.6201	318	200	247.01	0	60		RMS=	-.35 E.RMS=-99.9 Q=-99.9
				2	0.6201	42	200	67.01	0	60			
12140N	900 ST JEROME	HN	3	1	1	0	0	0	0	60		RMS=	-.35 E.RMS=-99.9 Q=-99.9
				2	0.6201	42	200	67.01	0	60			
				3	0.6201	318	200	247.01	0	60			
12137N	900 SUDBURY	HN	2	1	1	0	0	0	0	107		RMS=	.12 E.RMS=-99.9 Q=-99.9
				2	0.75	265	105	312	0	56			
12137D	900 SUDBURY	HJ	2	1	0.75	292	154	0	0	107		RMS=	10.20 E.RMS=-99.9 Q=-99.9
				2	1	0	0	0	0	107			
12141D	900 VAL D'OR	HJ	5	1	0.75	0	180	274	0	65.8		RMS=	9.78 E.RMS=-99.9 Q=-99.9
				2	0.75	230	252	288.63	0	65.8			
				3	0.889	115	180	319	0	65.8			
				4	1.889	225	90	319	0	65.8			
				5	1	0	0	0	0	65.8			
12141N	900 VAL D'OR	HN	5	1	1	0	0	0	0	65.8		RMS=	3.78 E.RMS=-99.9 Q=-99.9
				2	1.8899	225	90	319	0	65.8			
				3	0.8899	115	180	319	0	65.8			
				4	0.75	230	252	288.63	0	65.8			
				5	0.75	0	180	274	0	65.8			
12133N	900 VICTORIA	HN	2	1	1	0	0	0	0	90		RMS=	10.31 E.RMS=-99.9 Q=-99.9
				2	0.8601	247	90	295	0	90			
12133D	900 VICTORIA	HJ	2	1	0.8601	247	90	295	0	90		RMS=	10.31 E.RMS=-99.9 Q=-99.9
				2	1	0	0	0	0	90			
12143N	910 DRUMHELLER	HN	3	1	1.0879	107	165	173	0	60		RMS=	9.40 E.RMS=-99.9 Q=-99.9
				2	0.9231	54	90	192.9	0	60			
				3	1	0	0	0	0	60			
12143D	910 DRUMHELLER	HJ	3	1	0.9	155	290	12.9	0	60		RMS=	9.40 E.RMS=-99.9 Q=-99.9
				2	1.6	62	200	12.9	0	60			
				3	0.8	0	0	0	0	60			
12145N	910 LINDSAY	HN	4	1	0.6001	45.9	298.4	162.7	0	82		RMS=	7.65 E.RMS=-99.9 Q=-99.9
				2	0.9299	266.3	234	159.7	0	82			
				3	1	144.6	78.3	163.1	0	82			
				4	0.77	0	0	0	0	82			
12145D	910 LINDSAY	HJ	2	1	0.86	85	100	215	0	82		RMS=	9.98 E.RMS=-99.9 Q=-99.9
				2	1	0	0	0	0	82			
12146N	910 RCHLRVAL	HN	3	1	0.9399	-256	180	5	0	66.7		RMS=	9.64 E.RMS=-99.9 Q=-99.9
				2	1.76	-134	90	5	0	66.7			
				3	1	0	0	0	0	66.7			

1	2	3	4	5	6	7	8	9	10	11	12	13	14
12150N	920 HALIFAX	HN	3	1	0.7144	150	184	44	0	84		RMS=	13.91 E.RMS=-99.9 Q=-99.9
			2	1.6162	224	92	10	0	84				
			3	1	0	0	0	0	0	84			
12154N	920 LEVIS	HN	2	1	0.8501	230	65	325	0	60.6		RMS=	.03 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	80.8			
12151D	920 OTTAWA	HJ	4	1	0.94	261	330	153	0	80		RMS=	16.80 E.RMS=-99.9 Q=-99.9
			2	3	169.4	220	150	0	80				
			3	3	85.6	110	150	0	80				
12151N	920 OTTAWA	HN	6	1	0.8999	46	144.26	256	0	80		RMS=	16.60 E.RMS=-99.9 Q=-99.9
			2	1.6169	146.51	155.44	213.14	0	80				
			3	0.8459	248.47	227.41	187.57	0	80				
			4	0.9399	202.47	220	150	0	80				
			5	1.7971	100.51	110	150	0	80				
			6	1	0	0	0	0	0	80			
12148N	920 PORTAGE LA PRA HN	3	1	1	0	0	0	0	60.7		RMS=	9.71 E.RMS=-99.9 Q=-99.9	
			2	1.6201	270	120	30	0	60.7				
			3	1	187	240	26	0	60.7				
12148D	920 PORTAGE LA PRA HJ	3	1	0.25	179	240	26	0	60.7		RMS=	9.71 E.RMS=-99.9 Q=-99.9	
			2	1.07	279	120	30	0	60.7				
			3	1	0	0	0	0	60.7				
12147N	920 QUESNEL	HN	2	1	1	0	0	0	0	67.3		RMS=	-.21 E.RMS=-99.9 Q=-99.9
			2	0.8	92	90	146.5	0	67.3				
12152D	920 SAULT STE MARI HJ	3	1	0.5	280	225	286	0	74		RMS=	9.71 E.RMS=-99.9 Q=-99.9	
			2	0.7	260	60	43	0	74				
			3	1	0	0	0	0	74				
12152N	920 SAULT STE MARI HN	4	1	1	0	0	0	0	0	74		RMS=	6.70 E.RMS=-99.9 Q=-99.9
			2	0.8701	238	60	43	0	74				
			3	0.7629	335	165	298	0	74				
			4	0.6631	213	160	320	0	74				
12153D	920 WINGHAM	HJ	3	1	0.15	140	216	266	0	76.4		RMS=	9.45 E.RMS=-99.9 Q=-99.9
			2	0.77	70	108	266	0	76.4				
			3	1	0	0	0	0	76.4				
12153N	920 WINGHAM	HN	2	1	1	0	0	0	0	76.4		RMS=	-.70 E.RMS=-99.9 Q=-99.9
			2	1.25	130	50	165	0	76.4				
12149N	920 WOODSTOCK	HN	2	1	1	0	0	0	0	60		RMS=	-.07 E.RMS=-99.9 Q=-99.9
			2	1	131	90	170	0	60				
12149D	920 WOODSTOCK	HJ	2	1	0.5	240	90	350	0	60		RMS=	10.12 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	60				
12155N	930 EDMONTON	HN	4	1	1	0	0	0	0	85		RMS=	16.97 E.RMS=-99.9 Q=-99.9
			2	1.1812	275	90	330	0	85				
			3	0.9565	280	135	60	0	85				
			4	1.5217	183	162	26.2	0	85				
12155D	930 EDMONTON	HJ	2	1	0.5	86	90	150	0	85		RMS=	16.88 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	85				
12158N	930 ESPANOLA	HN	4	1	1	0	0	0	0	85		RMS=	10.15 E.RMS=-99.9 Q=-99.9
			2	1.79	109.8	130	185	0	85				
			3	1.79	240.2	260	185	0	85				
			4	1	350	390	185	0	85				

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			1	2	3	4	5	6	7	8	9	10	11	12	13	14
12156N	930 SAINT JOHN	HN	4	1 1 0	0	0	0	0	0	0	0	90		RMS= 17.00 E.RMS=-99.9 Q=-99.9		
				2 1 198		45		10		0		90				
				3 1 202		201.23		66.03		0		90				
				4 1 4		180		78		0		90				
12156D	930 SAINT JOHN	HJ	4	1 1.13 166.5		45		167		0		60		RMS= 17.32 E.RMS=-99.9 Q=-99.9		
				2 0.75 98		186.3		91.98		0		60				
				3 0.75 283		180		78		0		90				
				4 1 0		0		0		0		90				
12157N	930 ST JOHN'S	HN	2	1 1 0		0		0		0		60		RMS= 13.68 E.RMS=-99.9 Q=-99.9		
				2 0.5801 260		180		20		0		60				
12157D	930 ST JOHN'S	HJ	3	1 1.33 310		127.3		335		0		60		RMS= 13.68 E.RMS=-99.9 Q=-99.9		
				2 1 0		180		20		0		60				
				3 1 0		0		0		0		60				
12161N	940 MONTREAL	HN	2	1 1 0		0		0		0		199.5		RMS= 19.84 E.RMS=-99.9 Q=-99.9		
				2 0.1201 270		111.3		23		0		123				
12161D	940 MONTREAL	HJ	2	1 1 0		0		0		0		199.5		RMS= 19.84 E.RMS=-99.9 Q=-99.9		
				2 0.12 -90		111.3		23		0		123				
12159D	940 RICHMOND	HJ	4	1 1 326.59		270		127		0		95		RMS= 4.83 E.RMS=-99.9 Q=-28.7		
				2 2.8794 217.83		180		127		0		95				
				3 2.8794 108.76		90		127		0		95				
				4 1 0		0		0		0		95				
12159N	940 RICHMOND	HN	4	1 1 326.59		270		127		0		95		RMS= 4.83 E.RMS=-99.9 Q=-28.7		
				2 2.8794 217.83		180		127		0		95				
				3 2.8794 108.76		90		127		0		95				
				4 1 0		0		0		0		95				
12160N	940 VERNON	HN	2	1 1 0		0		0		0		90		RMS= 10.75 E.RMS=-99.9 Q=-99.9		
				2 0.78 219		63		311		0		90				
12162N	940 YORKTON	HN	4	1 1 0		0		0		0		90		RMS= 10.15 E.RMS=-99.9 Q=-99.9		
				2 0.8 268.5		120		47.5		0		90				
				3 0.6641 358.86		196.02		65.57		0		90				
				4 0.8301 90.36		90		90		0		90				
12163D	950 ALTONA	HJ	3	1 1 294		180		239		0		90		RMS= 9.93 E.RMS=-99.9 Q=-99.9		
				2 2 145		90.09		236.5		0		90				
				3 1 0		0		0		0		90				
12163N	950 ALTONA	HN	4	1 1 0		0		0		0		90		RMS= 9.93 E.RMS=-99.9 Q=-99.9		
				2 1.8303 230		91.2		27		0		90				
				3 1.4231 90		180		29		0		90				
				4 0.4773 324		270		29		0		90				
12166D	950 BARRIE	HJ	3	1 1 320		130		176		0		90		RMS= 10.08 E.RMS=-99.9 Q=-99.9		
				2 1.77 155		70		176		0		90				
				3 1 0		0		0		0		90				
12166N	950 BARRIE	HN	3	1 1 0		0		0		0		90		RMS= 4.05 E.RMS=-99.9 Q=-99.9		
				2 1.9199 143.5		70		176		0		90				
				3 1 291		130		176		0		90				
12164D	950 CAMPBELLTON	HJ	2	1 0.7 253.5		135		100		0		70		RMS= 10.01 E.RMS=-99.9 Q=-99.9		
				2 1 0		0		0		0		70				
12164N	950 CAMPBELLTON	HN	2	1 1 0		0		0		0		70		RMS= -.30 E.RMS=-99.9 Q=-99.9		
				2 0.45 112.5		135		280		0		70				
12165D	950 SYDNEY	HJ	2	1 0.8999 233		75		70.5		0		60.8		RMS= 9.71 E.RMS=-99.9 Q=-99.9		
				2 1 0		0		0		0		60.8				

1	2	3	4	5	6	7	8	9	10	11	12	13	14
12165N	950 SYDNEY	HN	2	1	1	0	0	0	0	60.8		RMS=	9.71 E.RMS=-99.9 Q=-99.9
12167N	960 CALGARY	HN	3	1	1	0	75	70.5	0	60.8		RMS=	18.05 E.RMS=-99.9 Q=-99.9
			2	2.3201	85	115	171	0	0	90			
			3	1	170	230	171	0	0	90			
12169D	960 CAMBRIDGE	HJ	4	1	1	0	0	0	0	85	1	RMS=	-.07 E.RMS=-99.9 Q=-99.9
			2	0.75	10	180	68	0	0	85	1		
			3	0.66	125	192.57	90.91	0	0	85	1		
			4	0.88	115	75	160	0	0	85	1		
12169N	960 CAMBRIDGE	HN	4	1	1	0	0	0	0	85	1	RMS=	-.07 E.RMS=-99.9 Q=-99.9
			2	0.6599	125	192.57	90.91	0	0	85	1		
			3	0.75	10	180	68	0	0	85	1		
			4	0.8799	115	75	160	0	0	85	1		
12168N	960 HALIFAX	HN	2	1	1	0	0	0	0	78		RMS=	9.60 E.RMS=-99.9 Q=-99.9
			2	1.2	314	145	60	0	0	78			
12170D	960 KINGSTON	HJ	4	1	0.82	303	171	356	0	61.5		RMS=	9.49 E.RMS=-99.9 Q=-99.9
			2	0.6724	206	267.35	335.51	0	0	61.5			
			3	0.82	263	122	307	0	0	61.5			
12170N	960 KINGSTON	HN	3	1	1	0	0	0	0	61.4		RMS=	6.43 E.RMS=-99.9 Q=-99.9
			2	0.5557	238	194	350	0	0	61.4			
			3	1.05	122	100	167	0	0	61.4			
12171N	960 MONT-JOLI	HN	2	1	0.8999	-109	80	333.5	0	70		RMS=	.39 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	70			
12172N	970 EDSON	HN	2	1	1	0	0	0	0	71		RMS=	10.15 E.RMS=-99.9 Q=-99.9
			2	0.95	235	80	340	0	0	71			
12172D	970 EDSON	HJ	2	1	0.9499	235	80	340	0	71		RMS=	10.15 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	71			
12173N	970 FREDERICTON	HN	2	1	1	231.2	58.63	39	0	56.7		RMS=	9.48 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	56.7			
12175D	970 HULL	HJ	3	1	0.52	83.8	123	20	0	85		RMS=	10.44 E.RMS=-99.9 Q=-99.9
			2	0.52	0	0	0	0	0	85			
			3	1	-138	61.5	20	0	0	85			
12175N	970 HULL	HN	3	1	0.5491	148.2	61.5	200	0	85		RMS=	7.65 E.RMS=-99.9 Q=-99.9
			2	0.5491	211.8	61.5	20	0	0	85			
			3	1	0	0	0	0	0	85			
12177D	980 LONDON	HJ	4	1	1.95	31	182	85	0	57.4		RMS=	9.57 E.RMS=-99.9 Q=-99.9
			2	1.4	286	203	58.7	0	0	57.4			
			3	0.7	255	90	355	0	0	57.4			
			4	1	0	0	0	0	0	57.4			
12177N	980 LONDON	HN	4	1	1	0	0	0	0	57.4		RMS=	6.54 E.RMS=-99.9 Q=-99.9
			2	0.9199	245	90	355	0	0	57.4			
			3	0.865	264	203	58.7	0	0	57.4			
			4	0.9399	19	182	85	0	0	57.4			
12179D	980 MONTREAL	HJ	6	1	1.1568	236	100	50	0	81		RMS=	9.93 E.RMS=-99.9 Q=-99.9
			2	2.227	62	124.87	7.92	0	0	81			
			3	1.1622	245	187.88	347.02	0	0	81			
			4	1.0703	9	168	315	0	0	81			
			5	2.227	183	84	315	0	0	81			
			6	1	0	0	0	0	0	81			

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
12179N	980 MONTREAL	HN	6	1	1	243	100	50	0	81		RMS=	9.93 E.RMS=-99.9 Q=-99.9
			2	1.9751	76		124.87	7.92	0	81			
			3	1	269		187.88	347.02	0	81			
			4	1	26		168	315	0	81			
			5	1.9751	193		84	315	0	81			
			6	1	0		0	0	0	81			
12176D	980 NEW WESTMINSTE HJ	HJ	4	1	0.74	249	90	298.5	0	105		RMS=	16.87 E.RMS=-99.9 Q=-99.9
			2	0.4441	224		207.52	229.1	0	105			
			3	0.6001	335		195	203.5	0	105			
			4	1	0		0	0	0	105			
12176N	980 NEW WESTMINSTE HN	HN	4	1	1	0	0	0	0	105		RMS=	16.87 E.RMS=-99.9 Q=-99.9
			2	0.6001	335		195	203.5	0	105			
			3	0.4441	224		207.52	229.1	0	105			
			4	0.74	249		90	298.5	0	105			
12178D	980 PETERBOROUGH	HJ	3	1	1.02	93	120	220	0	90		RMS=	9.95 E.RMS=-99.9 Q=-99.9
			2	0.4	78		90	150.5	0	90			
			3	1	0		0	0	0	90			
12178N	980 PETERBOROUGH	HN	3	1	1	0	0	0	0	90		RMS=	6.70 E.RMS=-99.9 Q=-99.9
			2	1.5649	137		90	150.5	0	90			
			3	1	274		180	150.5	0	90			
12180D	980 QUEBEC	HJ	3	1	0.503	-90	196	51	0	89.6		RMS=	17.43 E.RMS=-99.9 Q=-99.9
			2	1	2.6		98	51	0	89.6			
			3	0.503	90		0	0	0	89.6			
12180N	980 QUEBEC	HN	3	1	1	180	196	51	0	89.6		RMS=	17.43 E.RMS=-99.9 Q=-99.9
			2	1.988	272.6		98	51	0	89.6			
			3	1	0		0	0	0	89.6			
12181D	980 REGINA	HJ	2	1	0.3	265	90	278	0	90		RMS=	10.15 E.RMS=-99.9 Q=-99.9
			2	1	0		0	0	0	90			
12181N	980 REGINA	HN	2	1	1	0	0	0	0	90		RMS=	7.34 E.RMS=-99.9 Q=-99.9
12184N	1000 BRIDGEWATER	HN	3	1	1	0	0	0	0	60		RMS=	9.71 E.RMS=-99.9 Q=-99.9
			2	0.51	260		90	90	0	60			
			3	0.51	100		90	270	0	60			
12185N	1000 RIMOUSKI	HN	4	1	1	30	270	30	0	90		RMS=	10.78 E.RMS=-99.9 Q=-99.9
			2	2.853	139.8		180	30	0	90			
			3	2.853	250.2		90	30	0	90			
			4	1	0		0	0	0	90			
12185D	1000 RIMOUSKI	HJ	2	1	0.7	225	90	30	0	90		RMS=	18.54 E.RMS=-99.9 Q=-99.9
			2	1	0		0	0	0	90			
12186N	1010 CALGARY	HN	2	1	1	16	105	108	0	180		RMS=	18.56 E.RMS=-99.9 Q=-99.9
			2	1	0		0	0	0	180			
12186D	1010 CALGARY	HJ	2	1	1	344	105	108	0	180		RMS=	18.56 E.RMS=-99.9 Q=-99.9
			2	1	0		0	0	0	180			
12187N	1010 TORONTO	HN	4	1	1	0	0	0	0	203		RMS=	17.29 E.RMS=-99.9 Q=-99.9
			2	1.01	355		188.56	303	0	203			
			3	0.9199	289		262.04	332.52	0	92.3			
			4	1	294		135	16	0	92.3			
12187D	1010 TORONTO	HJ	3	1	1	0	0	0	0	203		RMS=	19.04 E.RMS=-99.9 Q=-99.9
			2	0.94	295		188.56	303	0	203			
			3	0.47	285		135	16	0	92.3			

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
12188N	1050 GRANDE PRAIRIE HN		2	1	0.6599	285	90	0	0	80.7		RMS=	9.78 E.RMS=-99.9 Q=-99.9
			2	1		0	0	0	0	80.7			
12188D	1050 GRANDE PRAIRIE HJ		2	1	0.66	285	90	0	0	80.7		RMS=	9.78 E.RMS=-99.9 Q=-99.9
			2	1		0	0	0	0	80.7			
12193N	1050 NORTH BATTLEFOHN		4	1	1	0	0	0	0	77		RMS=	9.45 E.RMS=-99.9 Q=-99.9
			2	1	266	90	47	0	77				
			3	1	266	222.08	103.48	0	77				
			4	1	0	188	127	0	77				
12191N	1050 SAULT STE MARIHN		2	1	0.7	185	315	32	0	87		RMS=	3.87 E.RMS=-99.9 Q=-99.9
			2	1		0	0	0	0	87			
12190N	1050 ST BONIFACEHN		2	1	1	0	0	0	0	90		RMS=	10.15 E.RMS=-99.9 Q=-99.9
			2	0.7	124	314	20	0	90				
12192D	1050 TORONTOHJ		6	1	1.212	278.3	158	316	0	92.2		RMS=	17.20 E.RMS=-99.9 Q=-99.9
			2	0.95	225	60	36	0	92.2				
			3	1.151	143.3	178.7	335.3	0	92.2				
			4	0.4061	36	332	326.25	0	92.2				
			5	0.4275	171	316	316	0	92.2				
			6	1	0	0	0	0	92.2				
12192N	1050 TORONTOHN		6	1	0.8999	237	60	36	0	92.2		RMS=	16.73 E.RMS=-99.9 Q=-99.9
			2	1.7061	217	178.7	335.3	0	92.2				
			3	0.8999	199	332	326.25	0	92.2				
			4	1	322	316	316	0	92.2				
			5	1.896	340	158	316	0	92.2				
			6	1	0	0	0	0	92.2				
12189N	1050 VERNONHN		2	1	0.95	30	150	359	0	90		RMS=	-45 E.RMS=-99.9 Q=-99.9
			2	1		0	0	0	0	90			
12194N	1060 CALGARYHN		3	1	1	0	0	0	0	174		RMS=	17.82 E.RMS=-99.9 Q=-99.9
			2	0.5173	66.5	155	125	0	90				
			3	0.5806	264.5	135	318	0	90				
12195D	1060 QUEBECHJ		2	1	1	0	0	0	0	97		RMS=	17.76 E.RMS=-99.9 Q=-99.9
			2	0.5	180	90	60	0	97				
12195N	1060 QUEBECHN		3	1	1	0	0	0	0	97		RMS=	10.35 E.RMS=-99.9 Q=-99.9
			2	1.9685	255	90	60	0	97				
			3	1	150	180	60	0	97				
12199D	1070 SARNIAHJ		3	1	8.6666	248	92	84	0	76.4		RMS=	9.45 E.RMS=-99.9 Q=-99.9
			2	22.2222	133	178	70	0	76.4				
12199N	1070 SARNIAHN		6	1	1	0	0	0	0	76.4		RMS=	9.45 E.RMS=-99.9 Q=-99.9
			2	1.7	8	178	70	0	76.4				
			3	0.72	16	356	70	0	76.4				
			4	0.5601	100	90	180	0	76.4				
			5	0.95	108	170	99.9	0	76.4				
			6	0.405	116	336	84.6	0	76.4				
12196D	1070 ST ALBERTHJ		4	1	0.446	113.8	0	0	0	90		RMS=	9.71 E.RMS=-99.9 Q=-99.9
			2	1	0	90	335	0	90				
			3	0.884	-136.2	180	335	0	90				
			4	0.304	88.8	270	335	0	90				

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
12196N	1070 ST ALBERT	HN	4	1	0.446	113.8	0	0	0	90		RMS=	9.71 E.RMS=-99.9 Q=-99.9
			2	1	0	90	335	0	90				
			3	0.884	-136.2	180	335	0	90				
			4	0.304	88.8	270	335	0	90				
12197D	1070 VICTORIA	HJ	4	1	2.7649	217.8	70	311	0	70.5		RMS=	9.48 E.RMS=-99.9 Q=-99.9
			2	1	293.1	210	311	0	70.5				
			3	2.765	75.29	140	311	0	70.5				
			4	1	0	0	0	0	0	70.5			
12197N	1070 VICTORIA	HN	4	1	1	0	0	0	0	70.5		RMS=	9.48 E.RMS=-99.9 Q=-99.9
			2	2.7649	217.8	70	311	0	70.5				
			3	2.7649	75.29	140	311	0	70.5				
			4	1	293.1	210	311	0	70.5				
12200N	1080 LLOYDMINSTER	HN	3	1	1	0	0	0	0	75		RMS=	9.93 E.RMS=-99.9 Q=-99.9
			2	1.7	235.5	84.5	356.5	0	75				
			3	1	156	225.5	356.5	0	75				
12202N	1090 KITCHENER	HN	9	1	1.0408	225.54	213.5	292.43	0	210.4		RMS=	12.26 E.RMS=-99.9 Q=-99.9
			2	1.969	225.25	75.07	1.98	0	211.2				
			3	1.0034	225.47	213.3	71.88	0	211.3				
			4	1.8513	0.09	200.45	272.01	0	207.6				
			5	3.6279	0	0	0	0	208.2				
			6	1.8486	0.09	200.38	92.02	0	207.8				
			7	1.0071	134.58	213.69	251.51	0	211.1				
			8	1.959	135.03	75.29	181.98	0	210.9				
			9	1.0144	134.44	213.26	122.4	0	210.3				
12202D	1090 KITCHENER	HJ	4	1	1.56	0	0	0	0	208.1		RMS=	12.26 E.RMS=-99.9 Q=-99.9
			2	1.333	225	200.45	272.01	0	207.6				
			3	1.176	240	75.07	1.98	0	211.2				
12201N	1090 LETHBRIDGE	HN	3	1	1	0	0	0	0	90		RMS=	7.14 E.RMS=-99.9 Q=-99.9
			2	1.9199	230	75	340	0	90				
12201D	1090 LETHBRIDGE	HJ	2	1	1.2	285	75	340	0	90		RMS=	7.14 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	90			
12204N	1110 EDMONTON	HN	3	1	0.5	140	160	330	0	90		RMS=	17.56 E.RMS=-99.9 Q=-19.8
			2	1	250	80	330	0	90				
			3	0.51	0	0	0	0	90				
12208D	1110 RIMOUSKI	HJ	2	1	1	0	0	0	0	89.3		RMS=	10.89 E.RMS=-99.9 Q=-99.9
			2	0.5	180	90	42	0	89.3				
12208N	1110 RIMOUSKI	HN	3	1	1	0	0	0	0	89.3		RMS=	10.75 E.RMS=-99.9 Q=-99.9
			2	0.5071	252	90	42	0	89.3				
			3	0.5071	108	90	222	0	89.3				
12205D	1110 SAINT JOHN	HJ	2	1	0.5	260	90	61	0	85.5		RMS=	10.11 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	85.5				
12205N	1110 SAINT JOHN	HN	3	1	1.01	150	180	61	0	85.5		RMS=	10.30 E.RMS=-99.9 Q=-99.9
			2	2	255	90	61	0	85.5				
			3	1.01	0	0	0	0	85.5				
12207D	1110 SARNIA	HJ	4	1	1	0	0	0	0	109.9		RMS=	9.48 E.RMS=-99.9 Q=-99.9
			2	2.9732	240.97	70	70.5	0	65				
			3	2.9732	121.93	140	70.5	0	65				
			4	1	10.79	216.75	69.34	0	65				

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(suite-continued-continua)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
12207N	1110 SARNIA	HN	9	1	1	0	0	0	0	109.9		RMS=	.39 E.RMS=-99.9 Q=-99.9
			2	1.9768	116.64	85	160.5	0	109.9				
			3	1	233.28	170	160.5	0	109.9				
			4	1.9253	4.64	207.5	101.5	0	109.9				
			5	3.8059	121.28	261.63	117.67	0	115				
			6	1.9253	237.92	329.08	127.78	0	109.9				
			7	1	9.28	415	101.5	0	109.9				
			8	1.9768	125.92	464.52	110.5	0	109.9				
			9	1	242.56	523.26	117.67	0	109.9				
12209D	1130 VANCOUVER	HJ	2	1	0.48	260	90	298	0	90		RMS=	17.16 E.RMS=-99.9 Q=-99.9
12209N	1130 VANCOUVER	HN	2	1	0.48	260	90	298	0	90		RMS=	17.16 E.RMS=-99.9 Q=-99.9
12210D	1140 CALGARY	HJ	3	1	0.53	45	120	118.5	0	90		RMS=	16.67 E.RMS=-99.9 Q=-99.9
			2	0.5	315	90	30	0	90				
12210N	1140 CALGARY	HN	4	1	1.03	67.3	120	118.5	0	90		RMS=	16.53 E.RMS=-99.9 Q=-99.9
			2	0.896	335.9	151.87	82.2	0	90				
			3	0.8701	268.6	90	30	0	90				
12211N	1140 SYDNEY	HN	2	1	0.9299	270	90	75	0	87.5		RMS=	9.93 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	87.5			
12212N	1140 TROIS RIVIERES	HN	6	1	0.1377	307.1	190	170	0	91.8		RMS=	10.85 E.RMS=-99.9 Q=-99.9
			2	0.554	153.9	95	170	0	91.8				
			3	0.1377	262.1	285	350.8	0	91.8				
			4	0.554	55.3	189.9	351.3	0	91.8				
			5	1	209.1	95	352.5	0	91.8				
			6	1	0	0	0	0	0	91.8			
12212D	1140 TROIS RIVIERES	HJ	2	1	1	86	189.9	171.3	0	91.8		RMS=	10.15 E.RMS=-99.9 Q=-99.9
12214D	1150 BRANDON	HJ	3	1	1	30	90	180	0	92.5		RMS=	16.69 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	92.5			
12214N	1150 BRANDON	HN	3	1	0.175	45	135	250	0	92.5		RMS=	10.34 E.RMS=-99.9 Q=-99.9
			2	1	160	45	205	0	92.5				
			3	1	0	0	0	0	0	80			
12218D	1150 GASPE	HJ	3	1	1.658	-126.27	70	0	0	60		RMS=	7.36 E.RMS=-99.9 Q=-99.9
			2	0.72	-254.07	140	0	0	0	60			
			3	1	0	0	0	0	0	60			
12218N	1150 GASPE	HN	3	1	0.72	-254.07	140	0	0	60		RMS=	7.36 E.RMS=-99.9 Q=-99.9
			2	1.658	-126.27	70	0	0	0	60			
			3	1	0	0	0	0	0	60			
12216D	1150 HAMILTON	HJ	5	1	0.2	0	0	0	0	90.4		RMS=	18.75 E.RMS=-99.9 Q=-99.9
			2	0.61	-136.7	80	343	0	90.4				
			3	1	77.6	160	343	0	90.4				
			4	0.85	-68	240	343	0	90.4				
			5	0.28	146.6	320	343	0	90.4				

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
12216N	1150 HAMILTON	HN	10	1	1	0	0	0	0	90.4		RMS=	17.36 E.RMS=-99.9 Q=-99.9
				2	3.446	204.1	80	343	0	90.4			
				3	4.8999	46.1	160	343	0	90.4			
				4	3.446	248.7	240	343	0	90.4			
				5	0.98	92.9	320	343	0	90.4			
				6	0.9951	20	200	120	0	90.4			
				7	3.446	224.7	151	99.1	0	90.4			
				8	4.8899	67	135	67.4	0	90.4			
				9	3.4299	269.3	163	38.5	0	90.4			
				10	0.9951	113.5	218	20.5	0	90.4			
12213N	1150 KELOWNA	HN	3	1	0.5	80	180	338	0	90.4		RMS=	10.69 E.RMS=-99.9 Q=-99.9
				2	1	-143	90	335	0	90.4			
				3	0.5	0	0	0	0	90.4			
12217D	1150 OTTAWA	HJ	4	1	2.1857	211.9	84	352	0	84.1		RMS=	17.13 E.RMS=-99.9 Q=-99.9
				2	0.6885	275	252	352	0	84.1			
				3	1.9452	62.9	168	352	0	84.1			
				4	1	0	0	0	0	84.1			
12217N	1150 OTTAWA	HN	4	1	1	0	0	0	0	84		RMS=	6.74 E.RMS=-99.9 Q=-99.9
				2	2.1858	211.9	84	352	0	84			
				3	1.9453	62.9	168	352	0	84			
				4	0.6885	275	252	352	0	84			
12215D	1150 SAINT JOHN	HJ	2	1	0.35	151	45	0	0	95		RMS=	10.45 E.RMS=-99.9 Q=-99.9
				2	1	0	0	2	0	188			
12215N	1150 SAINT JOHN	HN	2	1	1	0	0	0	0	188		RMS=	7.77 E.RMS=-99.9 Q=-99.9
				2	0.8201	156	45	182	0	95			
12220D	1170 CORNWALL	HJ	2	1	0.9	228.6	63.39	300	0	85.8		RMS=	10.15 E.RMS=-99.9 Q=-99.9
				2	1	0	0	0	0	85.8			
12219D	1170 RED DEER	HJ	2	1	0.4	-148	90	343	0	68.6		RMS=	10.10 E.RMS=-99.9 Q=-99.9
				2	1	0	0	0	0	68.6			
12219N	1170 RED DEER	HN	3	1	0.5601	232	90	343	0	68.6		RMS=	7.46 E.RMS=-99.9 Q=-99.9
				2	0.6101	127	90	163	0	68.6			
				3	1	0	0	0	0	68.6			
12221N	1190 CHARLOTTETOWN	HN	3	1	2	280	100	70	0	60		RMS=	9.71 E.RMS=-99.9 Q=-99.9
				2	1	200	200	70	0	60			
				3	1	0	0	0	0	60			
12222N	1190 WEYBURN	HN	4	1	1	252	238	12	0	87		RMS=	8.43 E.RMS=-99.9 Q=-99.9
				2	2.48	49.5	160	12	0	87			
				3	2.48	203.5	80	12	0	87			
				4	1	0	0	0	0	87			
12231N	1220 AMQUI	HN	2	1	1	0	0	0	0	84.8		RMS=	7.11 E.RMS=-99.9 Q=-99.9
				2	0.825	132.5	90	194.5	0	84.8			
12226D	1220 BOISSEVAIN	HJ	4	1	1	196	0	0	0	90		RMS=	10.15 E.RMS=-99.9 Q=-99.9
				2	1.605	70	90	0	0	90			
				3	1.214	290	180	0	0	90			
				4	0.443	164	270	0	0	90			
12226N	1220 BOISSEVAIN	HN	4	1	1	0	0	0	0	90		RMS=	10.15 E.RMS=-99.9 Q=-99.9
				2	1.876	200	90	360	0	90			
				3	1.614	50	180	360	0	90			
				4	0.636	250	270	360	0	90			

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
12228N	1220 CORNWALL	HN	2	1	1	0	0	0	0	90			RMS= - .43 E.RMS=-99.9 Q=-99.9
			2	0.7649	180	90	327	0	90				
12228W	1220 CORNWALL	HJ	2	1	1	0	0	0	0	90			RMS= -.18 E.RMS=-99.9 Q=-99.9
			2	0.765	180	90	327	0	90				
12224N	1220 LETHBRIDGE	HN	2	1	1	0	0	0	0	179			RMS= 7.88 E.RMS=-99.9 Q=-99.9
			2	1.175	125	75	168	0	69				
12227N	1220 MONCTON	HN	2	1	1	0	0	0	0	60			RMS= 9.04 E.RMS=-99.9 Q=-99.9
			2	0.77	25	135	255	0	60				
12232D	1220 SHAWINIGAN	HJ	3	1	1	0	112.5	1.08	0	90			RMS= 10.15 E.RMS=-99.9 Q=-99.9
			2	0.59	104	112.5	288	0	90				
12232N	1220 SHAWINIGAN	HN	3	1	1	0	112.5	108	0	90			RMS= 4.05 E.RMS=-99.9 Q=-99.9
			2	0.7451	54	112.5	288	0	90				
12230N	1220 ST CATHARINES	HN	12	1	0.374	-130.5	165.15	237.37	0	89.3			RMS= 10.38 E.RMS=-99.9 Q=-99.9
			2	0.5439	-131.6	0	0	0	0	89.3			
			3	0.3201	61.3	302.15	86.64	0	89.3				
			4	0.6279	288	308.88	70.85	0	89.3				
			5	0.3369	154.6	329.2	57.56	0	89.3				
			6	0.4351	67.7	179.43	112.17	0	89.3				
			7	0.842	296.8	152.68	85.84	0	89.3				
			8	0.437	166.5	165	57	0	89.3				
			9	0.5129	128.3	160	170	0	89.3				
			10	1	0	80	170	0	89.3				
			11	0.3459	130.3	275.83	204.14	0	89.3				
			12	0.6951	0	208.58	216.38	0	89.3				
12250D	1220 ST CATHARINES	HJ	9	1	0.252	142.9	302.15	86.64	0	89.3			RMS= 10.39 E.RMS=-99.9 Q=-99.9
			2	0.477	22.1	308.88	70.85	0	89.3				
			3	0.279	264	329.2	57.56	0	89.3				
			4	0.496	121	179.43	112.17	0	89.3				
			5	1	0	152.68	85.84	0	89.3				
			6	0.6	239.5	165	57	0	89.3				
			7	0.251	101.6	160	170	0	89.3				
			8	0.518	335.7	80	170	0	89.3				
			9	0.317	215.5	0	0	0	89.3				
12225D	1220 VICTORIA	HJ	5	1	1	0	0	0	0	105			RMS= 17.43 E.RMS=-99.9 Q=-99.9
			2	0.674	231.05	70	315	0	105				
			3	0.174	102.25	140	315	0	105				
			4	0.674	128.95	70	135	0	105				
			5	0.174	257.75	140	135	0	105				
12225N	1220 VICTORIA	HN	5	1	1	0	0	0	0	105			RMS= 17.43 E.RMS=-99.9 Q=-99.9
			2	0.6741	231.05	70	315	0	105				
			3	0.1741	102.25	140	315	0	105				
			4	0.6741	128.95	70	135	0	105				
			5	0.1741	257.75	140	135	0	105				
12234D	1230 CASTLEGAR	HJ	2	1	0.61	355	210	135	0	186			RMS= 1.79 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	186			
12249N	1240 FERNIE	HN	2	1	0.833	204	60	21	0	80			RMS= -3.44 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	80			

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
12249D	1240 FERNIE	HJ	2	1	1	0	0	0	0	80		RMS= -43 E.	RMS=-99.9 Q=-99.9
				2	0.833	204	60	21	0	80			
12275N	1250 MATANE	HN	2	1	1	0	0	0	0	90.6		RMS= 7.65 E.	RMS=-99.9 Q=-99.9
				2	0.7881	209.2	90	124	0	90.6			
12273N	1250 OAKVILLE ON					Voir CORRIGENDUM à la-fin de la liste - See CORRIGENDUM at end of List - Véase CORRIGENDUM al final de la lista							
12273D	1250 OAKVILLE ON					Voir CORRIGENDUM à la fin de la liste - See CORRIGENDUM at end of List - Véase CORRIGENDUM al final de la lista							
12274N	1250 OTTAWA	HN	6	1	1	0	0	0	0	109		RMS= 17.20 E.	RMS=-99.9 Q=-99.9
				2	1.74	137.4	72	144	0	109			
				3	0.855	257	149.46	150	0	109			
				4	0.77	254	211.2	213.14	0	109			
				5	1.5659	134	182.98	235.07	0	109			
				6	0.8999	357	196	256	0	109			
12274D	1250 OTTAWA	HJ	2	1	0.77	105	79.95	154.38	0	109		RMS= 17.45 E.	RMS=-99.9 Q=-99.9
				2	1	0	0	0	0	109			
12276N	1250 SASKATOON	HN	3	1	0.6001	143	97	178	0	65		RMS= 11.20 E.	RMS=-99.9 Q=-99.9
				2	0.45	-134	90	8	0	65			
				3	1	0	0	0	0	158			
12272N	1250 STEINBACH	HN	4	1	1	0	0	0	0	90		RMS= 10.15 E.	RMS=-99.9 Q=-99.9
				2	1.8679	247.5	120	29	0	90			
				3	1.4509	121.4	240	29	0	90			
				4	0.5669	357	360	29	0	90			
12272D	1250 STEINBACH	HJ	4	1	0.25	90	360	29	0	90		RMS= 10.15 E.	RMS=-99.9 Q=-99.9
				2	1.24	173	240	29	0	90			
				3	1.9	265.3	120	29	0	90			
				4	1	0	0	0	0	90			
12277N	1260 EDMONTON	HN	2	1	0.8	124	72	165	0	90		RMS= 18.81 E.	RMS=-99.9 Q=-99.9
				2	1	0	0	0	0	217			
12280N	1260 FREDERICTON	HN	3	1	0.5161	327	165	52.5	0	90		RMS= 9.24 E.	RMS=-99.9 Q=-99.9
				2	0.5161	30	165	232.5	0	90			
				3	1	0	0	0	0	90			
12278D	1260 NANAIMO LC	HJ	3	1	1	0	0	0	0	90	0	917.1	
				2	1	-70	120	291	0	90	0		
12278N	1260 NANAIMO LC	HN	2	1	1	0	0	0	0	90	0	925.2	
				2	2	-93	120	291	0	90	0		
				3	1	165	240	291	0	90	0		
12279D	1260 RICHMOND	HJ	6	1	0.98	-63.6	120	4	0	65		RMS= 9.51 E.	RMS=-99.9 Q=-99.9
				2	1.95	-182.7	145.4	327.5	0	65			
				3	0.98	73.8	209.3	304.9	0	65			
				4	1	137.4	180	270	0	65			
				5	1.99	-119.1	86.6	271.9	0	65			
				6	1	0	0	0	0	65			
12279N	1260 RICHMOND	HN	6	1	1	-63.6	120	4	0	65		RMS= 9.51 E.	RMS=-99.9 Q=-99.9
				2	1.99	-168.6	145.4	327.5	0	65			
				3	1	89.9	209.3	304.9	0	65			
				4	1	153.5	180	270	0	65			
				5	1.99	-105	86.6	271.9	0	65			
				6	1	0	0	0	0	65			

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(suite-continued-continua)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
12286N	1270 ALMA	HN	3	1	1	0	0	0	0	116		RMS=	6.78 E.RMS=-99.9 Q=-99.9
			2	1.1365	88	90	160	0	116				
			3	0.9092	192	140	170	0	88				
12282N	1270 CHILLIWACK	HN	2	1	0.8999	235	60	299	0	90		RMS=	10.12 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	90			
12283N	1270 CHILLIWACK	HN	2	1	0.9097	-126	60	299	0	90		RMS=	9.99 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	90			
12283D	1270 CHILLIWACK	HJ	2	1	0.91	-126	60	299	0	90		RMS=	9.99 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	90			
12281N	1270 MEDICINE HAT	HN	3	1	1	0	0	0	0	90		RMS=	9.84 E.RMS=-99.9 Q=-99.9
			2	1.8101	244.2	90	360	0	90				
			3	1	117.7	180	360	0	90				
12284N	1270 SYDNEY	HN	2	1	1	0	0	0	0	93		RMS=	10.30 E.RMS=-99.9 Q=-99.9
			2	0.6001	270	90	90	0	93				
12285D	1270 TRENTON	HJ	3	1	0.5	141	180	342	0	90		RMS=	-.30 E.RMS=-99.9 Q=-99.9
			2	1.426	235	90.6	335.7	0	90				
			3	1	0	0	0	0	0	90			
12285N	1270 TRENTON	HN	3	1	1	41	180	342	0	90		RMS=	-.30 E.RMS=-99.9 Q=-99.9
			2	1.8999	191	90.6	335.7	0	90				
			3	1	0	0	0	0	0	90			
12292N	1280 ESTEVAN	HN	3	1	0.9099	266	170	188	0	81		RMS=	10.58 E.RMS=-99.9 Q=-99.9
			2	1.73	130.5	80	185	0	80				
			3	1	0	0	0	0	0	81			
12292D	1280 ESTEVAN	HJ	2	1	0.9	130	80	185	0	81		RMS=	10.20 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	81			
12289N	1280 HAMILTON	HN	6	1	1	0	0	0	0	81		RMS=	9.49 E.RMS=-99.9 Q=-99.9
			2	1	342	196	285	0	81				
			3	1.8401	204	262	300	0	81				
			4	1	66	340	309	0	81				
			5	1	84	180	335	0	81				
			6	1.8401	222	90	335	0	81				
12289D	1280 HAMILTON	HJ	6	1	0.28	35	0	0	0	81		RMS=	9.49 E.RMS=-99.9 Q=-99.9
			2	1.1	38	196	285	0	81				
			3	0.8999	304	262	300	0	81				
			4	0.28	325	340	309	0	81				
			5	1.1	322	180	335	0	81				
			6	0.8999	56	90	335	0	81				
12287N	1280 HIGH RIVER	HN	4	1	0.3301	312	300	352	0	90		RMS=	9.93 E.RMS=-99.9 Q=-99.9
			2	1.46	88	200	352	0	90				
			3	2.0601	224	100	352	0	90				
			4	1.03	0	0	0	0	0	90			
12287D	1280 HIGH RIVER	HJ	3	1	1	0	0	0	0	90		RMS=	9.93 E.RMS=-99.9 Q=-99.9
			2	1.92	228	100	352	0	90				
			3	1	76	200	352	0	90				
12290N	1280 MONTREAL	HN	6	1	0.4399	336	450	344	0	97.3		RMS=	17.16 E.RMS=-99.9 Q=-99.9
			2	1.8979	114.6	360	344	0	97.3				
			3	3.642	262.4	270	344	0	97.3				
			4	4.498	53.3	180	344	0	97.3				
			5	2.9819	205.8	90	344	0	97.3				
			6	1	0	0	0	0	0	97.3			

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(suite-continued-continua)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
12290D	1280 MONTREAL	HJ	4	1	0.714	227.4	323.56	332.47	0	97.3	RMS=	18.14 E.	RMS=-99.9 Q=-99.9
			2	1	1.463	19.3	180	344	0	97.3			
			3	1	1.601	180.3	90	344	0	97.3			
			4	1	0	0	0	0	0	97.3			
12288N	1280 POWELL RIVER	HN	2	1	1	0	0	0	0	60	RMS=	- .55 E.	RMS=-99.9 Q=-99.9
			2	1	1	336.5	185	341	0	60			
12288D	1280 POWELL RIVER	HJ	2	1	1	336.5	185	341	0	60	RMS=	- .55 E.	RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	60			
12291N	1280 QUEBEC	HN	6	1	1	0	0	0	0	87	RMS=	17.13 E.	RMS=-99.9 Q=-99.9
			2	1	1.894	-117.21	90	65	0	87			
			3	1	1	125.59	180	65	0	87			
			4	1	-98.62	100	355	0	87				
			5	1	1.894	144.18	155.74	27.89	0	87			
			6	1	26.97	233.91	41.31	0	87				
12291D	1280 QUEBEC	HJ	3	1	1	0	0	0	0	87	RMS=	17.20 E.	RMS=-99.9 Q=-99.9
			2	1	1.947	-100.5	90	65	0	87			
			3	1	-206	180	65	0	87				
12294N	1290 LONDON	HN	9	1	0.3003	235	237.35	275.38	0	90	RMS=	9.69 E.	RMS=-99.9 Q=-99.9
			2	0	0.5181	15	210	256	0	90			
			3	0	0.3003	155	211.34	234.12	0	90			
			4	0	0.5801	140	80	156	0	90			
			5	0	0.3003	125	237.35	95.38	0	90			
			6	0	0.5181	345	210	76	0	90			
			7	0	0.3003	205	241.34	54.12	0	90			
			8	0	0.5801	220	80	336	0	90			
			9	1	0	0	0	0	0	90			
12294D	1290 LONDON	HJ	9	1	1.08	138.7	0	0	0	90	RMS=	9.71 E.	RMS=-99.9 Q=-99.9
			2	0	0.249	101	422.7	54.1	0	90			
			3	0	0.92	325.1	413.7	65	0	90			
			4	0	0.71	142	420	76	0	90			
			5	0	0.757	194.9	240.9	35.1	0	90			
			6	1	1.21	0	211.3	54.1	0	90			
			7	1	1.189	132.5	210	76	0	90			
			8	0	0.667	199.5	160	336	0	90			
			9	1	1.11	9.4	80	336	0	90			
12295N	1290 MATANE	HN	2	1	0.97	0	0	0	0	90	RMS=	10.08 E.	RMS=-99.9 Q=-99.9
			2	1	1	120	120	330	0	90			
12295D	1290 MATANE	HJ	2	1	0.7	0	120	30	0	90	RMS=	10.65 E.	RMS=-99.9 Q=-99.9
			2	1	0	60	0	0	0	90			
12293N	1290 WINNIPEG	HN	3	1	1	104	157.86	15	0	80.2	RMS=	11.70 E.	RMS=-99.9 Q=-99.9
			2	2	1	239	83.93	15	0	200.6			
			3	1	0	0	0	0	0	80.2			
12293D	1290 WINNIPEG	HJ	2	1	0.5	270	73.93	0	0	80.2	RMS=	11.89 E.	RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	200.6			
12296N	1300 MONCTON	HN	2	1	1.1499	0	0	0	0	131	RMS=	7.81 E.	RMS=-99.9 Q=-99.9
			2	1	1	305	130	62.5	0	131			
12296D	1300 MONCTON	HJ	2	1	1.15	305	130	62.5	0	131	RMS=	7.81 E.	RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	131			

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			1	2	3	4	5	6	7	8	9	10	11	12	13	14
12297N	1300 REGINA		HN	4	1	0.8301	0	0	0	0	0	89.9		RMS=	10.34 E.RMS=-99.9 Q=-99.9	
				2	0.8401	-155		90	11.45	0	89.9					
				3	1	-95		90.5	313.13	0	89.9					
				4	0.8401	122		156	342.16	0	89.9					
12297D	1300 REGINA		HJ	2	1	1	96	0	0	0	0	89.9		RMS=	9.98 E.RMS=-99.9 Q=-99.9	
				2	0.84	0		90.5	313.13	0	89.9					
12300N	1310 LA POCATIERF		HN	2	1	1	0	0	0	0	0	96		RMS=	9.86 E.RMS=-99.9 Q=-99.9	
				2	1.2471	262.1		90	35.85	0	96					
12299D	1310 OTTAWA		HJ	2	1	0.74	280	100	350	0	79			RMS=	16.94 E.RMS=-99.9 Q=-99.9	
				2	1	0		0	0	0	0	79				
12299N	1310 OTTAWA		HN	5	1	1	0	0	0	0	0	79		RMS=	16.49 E.RMS=-99.9 Q=-99.9	
				2	2.5701	219		100	350	0	79					
				3	3.48	75.8		200	350	0	79					
				4	2.5701	292.3		300	350	0	79					
				5	1	151.5		400	350	0	79					
12298N	1310 ST PAUL		HN	2	1	1	0	0	0	0	0	91		RMS=	10.01 E.RMS=-99.9 Q=-99.9	
				2	0.97	260		90	339	0	91					
12302N	1320 NEW GLASGOW		HN	2	1	1	0	0	0	0	0	74		RMS=	6.97 E.RMS=-99.9 Q=-99.9	
				2	0.7	270		90	70	0	74					
12303D	1320 RICHMOND HILL		HJ	4	1	1	0	0	0	0	0	193		RMS=	18.67 E.RMS=-99.9 Q=-99.9	
				2	1	18		165	132	0	193					
				3	1.428	118		186.41	171.34	0	193					
				4	1.428	100		120	232	0	193					
12303N	1320 RICHMOND HILL		HN	9	1	1	0	0	0	0	0	120.8		RMS=	16.98 E.RMS=-99.9 Q=-99.9	
				2	1.52	44.6		184.5	117	0	120.8					
				3	1	89.2		369	117	0	120.8					
				4	1.8701	219.45		387.18	128.93	0	120.8					
				5	1	349.7		420.3	139.38	0	120.8					
				6	1.53	305.1		259.39	155.09	0	120.8					
				7	1	260.5		161.22	200	0	120.8					
				8	1.8799	130.25		80.61	200	0	120.8					
				9	2.8701	174.85		210.15	139.38	0	120.8					
12304D	1320 SOREL		HJ	2	1	0.25	-124.6	90	28	0	96.5			RMS=	10.35 E.RMS=-99.9 Q=-99.9	
				2	1	0		0	0	0	96.5					
12304N	1320 SOREL		HN	4	1	1	0	0	0	0	0	96.5		RMS=	7.34 E.RMS=-99.9 Q=-99.9	
				2	0.8	95		90	208	0	96.5					
				3	1	351.5		190	118	0	96.5					
				4	1.1001	95		210.24	143.35	0	96.5					
12301N	1320 VANCOUVER		HN	3	1	1	0	0	0	0	0	87		RMS=	17.13 E.RMS=-99.9 Q=-99.9	
				2	1.96	286.5		130	360	0	87					
				3	1	213		260	360	0	87					
12301D	1320 VANCOUVER		HJ	3	1	0.174	175.16	100	230	0	87			RMS=	17.13 E.RMS=-99.9 Q=-99.9	
				2	0.8	297.16		130	0	0	87					
				3	1	0		0	0	0	87					
12306D	1330 ROSETOWN		HJ	2	1	0.899	220	60	12	0	60			RMS=	9.71 E.RMS=-99.9 Q=-99.9	
				2	1	0		0	0	0	60					
12306N	1330 ROSETOWN		HN	2	1	1	0	0	0	0	0	60		RMS=	9.71 E.RMS=-99.9 Q=-99.9	
				2	0.8999	220		60	12	0	60					

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			1	2	3	4	5	6	7	8	9	10	11	12	13	14
12305D	1330	THETFORD MINES	HJ	3	1	1	0	0	0	0	0	87.6		RMS=	10.07 E.RMS=-99.9 Q=-99.9	
				2	0.3521	123.1	45	45	263.3	0	0	87.6				
				3	0.801	227.5	45	45	65.9	0	0	87.6				
12305N	1330	THETFORD MINES	HN	3	1	0.3521	123.1	45	263.3	0	0	87.6		RMS=	10.07 E.RMS=-99.9 Q=-99.9	
				2	0.801	227.5	45	45	65.9	0	0	87.6				
				3	1	0	0	0	0	0	0	87.6				
12323D	1340	ASBESTOS	HJ	2	1	1.63	190	90	109	0	0	90		RMS=	.44 E.RMS=-99.9 Q=-99.9	
				2	1	0	0	0	0	0	0	90				
12321D	1340	WOODSTOCK	HJ	3	1	1.1741	185.51	90	19	0	0	60		RMS=	-.55 E.RMS=-99.9 Q=-99.9	
				2	0.6561	11.03	180	19	0	0	60					
				3	1	0	0	0	0	0	0	60				
12316D	1340	YARMOUTH	HJ	2	1	1	0	0	0	0	0	60		RMS=	6.48 E.RMS=-99.9 Q=-99.9	
				2	0.75	249	75	75	80	0	0	60				
12316N	1340	YARMOUTH	HN	3	1	0.7749	0	0	0	0	0	60		RMS=	-.75 E.RMS=-99.9 Q=-99.9	
				2	0.645	219	75	75	80	0	0	60				
				3	1	0	0	0	0	0	0	60				
12335D	1350	JULIETTE	HJ	2	1	0.3	220	75	345	0	0	90		RMS=	10.15 E.RMS=-99.9 Q=-99.9	
				2	1	0	0	0	0	0	0	90				
12335N	1350	JOLIETTE	HN	3	1	1	0	0	0	0	0	90		RMS=	.91 E.RMS=-99.9 Q=-99.9	
				2	1.8501	157	75	165	0	0	90					
				3	1	320	150	165	0	0	90					
12332D	1350	MIDDLETON	HJ	3	1	1	110	340	316	0	0	110		RMS=	-.11 E.RMS=-99.9 Q=-99.9	
				2	2	55	170	316	0	0	110					
				3	1	0	0	0	0	0	0	110				
12332N	1350	MIDDLETON	HN	3	1	1	0	0	0	0	0	110		RMS=	-.11 E.RMS=-99.9 Q=-99.9	
				2	2	55	170	316	0	0	110					
				3	1	110	340	316	0	0	110					
12330D	1350	NANAIMO	HJ	4	1	1	305.7	285	258	0	0	61.7		RMS=	7.38 E.RMS=-99.9 Q=-99.9	
				2	2.439	83	190	258	0	0	69.1					
				3	2.439	223	95	258	0	0	69.1					
				4	1	0	0	0	0	0	0	69.1				
12330N	1350	NANAIMO	HN	4	1	1	305.7	285	258	0	0	61.7		RMS=	7.38 E.RMS=-99.9 Q=-99.9	
				2	2.4385	83	190	258	0	0	69.1					
				3	2.4385	223	95	258	0	0	69.1					
				4	1	0	0	0	0	0	0	69.1				
12333D	1350	OSHAWA	HJ	3	1	1	15	121.46	194.61	0	0	60		RMS=	9.45 E.RMS=-99.9 Q=-99.9	
				2	1	305	78	325	0	0	60					
				3	1	0	0	0	0	0	0	60				
12333N	1350	OSHAWA	HN	4	1	1	0	0	0	0	0	60		RMS=	6.97 E.RMS=-99.9 Q=-99.9	
				2	2.3999	202	78	324	0	0	90					
				3	2.3301	45	156	325	0	0	60					
				4	1	247	234	325	0	0	60					
12334D	1350	PEMEROKE	HJ	2	1	0.8	0	198.5	211	0	0	89.9		RMS=	-.60 E.RMS=-99.9 Q=-99.9	
				2	1	0	0	0	0	0	0	89.9				
12334N	1350	PEMBROKE	HN	2	1	1	0	0	198.5	211	0	0	89.9		RMS=	-.60 E.RMS=-99.9 Q=-99.9
				2	0.8	0	0	0	0	0	0	89.9				
12336D	1350	ST PAMPHILE	HJ	2	1	1.23	197	60	351	0	0	89		RMS=	-.30 E.RMS=-99.9 Q=-99.9	
				2	1	0	0	0	0	0	0	89				
12336N	1350	ST PAMPHILE	HN	2	1	1	0	0	0	0	0	89		RMS=	-.30 E.RMS=-99.9 Q=-99.9	
				2	1.2329	197	60	351	0	0	89					

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
12337N	1360 BATHURST	HN	2	1	1	0	0	0	0	90		RMS=	9.63 E.RMS=-99.9 Q=-99.9
12338N	1360 HANOVER	HN	5	1	1	164	360	12	0	90		RMS=	10.17 E.RMS=-99.9 Q=-99.9
			2	3.52	303.5	270	12	0	90				
			3	5.05	84	180	12	0	90				
			4	3.52	220.5	90	12	0	90				
			5	1	0	0	0	0	0	90			
12338D	1360 HANOVER	HJ	3	1	1	151.4	220.46	27	0	90		RMS=	-8.91 E.RMS=-99.9 Q=-99.9
			2	1.915	-144.3	90	12	0	90				
			3	1	0	0	0	0	0	90			
12339N	1360 STE MARIE BEAU	HN	3	1	1	0	0	0	0	90		RMS=	6.59 E.RMS=-99.9 Q=-99.9
			2	0.5701	25	170	235	0	90				
			3	0.5701	335	170	55	0	90				
12339D	1360 STE MARIE BEAU	HJ	2	1	2	0	170	235	0	90		RMS=	9.78 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	90			
12341D	1370 PARKSVILLE	HJ	2	1	0.649	260	90	320	0	90		RMS=	.26 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	90			
12341N	1370 PARKSVILLE	HN	2	1	1	0	0	0	0	90		RMS=	.26 E.RMS=-99.9 Q=-99.9
			2	0.6499	260	90	320	0	90				
12344D	1370 SASKATOON	HJ	3	1	0.25	289.5	176.5	107	0	100.2		RMS=	10.44 E.RMS=-99.9 Q=-99.9
			2	0.65	205	90	32	0	100.2				
			3	1	0	0	0	0	0	100.2			
12344N	1370 SASKATOON	HN	3	1	1	0	0	0	0	100.2		RMS=	10.15 E.RMS=-99.9 Q=-99.9
			2	0.8501	231	90	32	0	100.2				
			3	0.5649	289.5	176.5	107	0	100.2				
12342D	1370 VALLEYFIELD	HJ	4	1	0.919	219	60	4	0	80		RMS=	9.71 E.RMS=-99.9 Q=-99.9
			2	0.81	88	179.39	357.36	0	80				
			3	0.879	229	120	354	0	80				
			4	1	0	0	0	0	0	80			
12342N	1370 VALLEYFIELD	HN	4	1	1	0	0	0	0	80		RMS=	6.70 E.RMS=-99.9 Q=-99.9
			2	0.8799	229	120	354	0	80				
			3	0.8101	88	179.39	357.37	0	80				
			4	0.9199	219	60	4	0	80				
12343D	1370 VILLE DEGELIS	HJ	2	1	0.975	-152	55	338.5	0	70		RMS=	-.26 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	70			
12343N	1370 VILLE DEGELIS	HN	2	1	0.9751	-152	55	338.5	0	70		RMS=	-.26 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	70			
12340N	1370 WESTLOCK	HN	2	1	1	0	0	0	0	90		RMS=	9.93 E.RMS=-99.9 Q=-99.9
			2	0.8899	270	90	1	0	90				
12349D	1380 AMQUI	HJ	2	1	1	-65	135	40	0	90		RMS=	.07 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	90			
12349N	1380 AMQUI	HN	2	1	1	-65	135	40	0	90		RMS=	.07 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	90			
12347D	1380 BRANTFORD	HJ	4	1	0.7	107.5	270	167	0	60		RMS=	9.68 E.RMS=-99.9 Q=-99.9
			2	1.73	324	180	174	0	100				
			3	1.73	158.5	90	174	0	105				
			4	1	0	0	0	0	0	200			

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
12347N	1380 BRANTFORD	HN	4	1	1	0	0	0	0	100			RMS= 9.59 E.RMS=-99.9 Q=-99.9
			2	2.4099	142.5	90	174	0	105				
			3	2.4099	287.7	180	174	0	100				
12437D	1380 CALGARY AB	HJ	4	1	1	71.2	270	174	0	60			
			2	1	-89	90	40	0	90	0			
			3	1	135	180	40	0	90	0			
12437N	1380 CALGARY AB	HN	4	1	0	0	0	0	0	90	0		
			2	1	-124	90	40	0	90	0			
			3	1	105	180	40	0	90	0			
12348D	1380 KINGSTON	HJ	3	1	1	228	180	165	0	90.3			RMS= 10.58 E.RMS=-99.9 Q=-99.9
			2	1.92	119	90	165	0	90.3				
			3	1	0	0	0	0	0	90.3			
12348N	1380 KINGSTON	HN	4	1	1	0	0	0	0	90.3			RMS= 9.46 E.RMS=-99.9 Q=-99.9
			2	2.24	140.8	90	165	0	90.3				
			3	2.05	282.5	180	165	0	90.3				
			4	0.72	67	270	165	0	90.3				
12345D	1380 MEDICINE HAT	HJ	2	1	0.75	-90	360	178	0	202			RMS= 12.67 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	202			
12345N	1380 MEDICINE HAT	HN	3	1	1	197.2	120	197	0	101			RMS= 11.60 E.RMS=-99.9 Q=-99.9
			2	1.8999	98.6	0	0	0	0	202			
			3	1	0	120	17	0	101				
12346D	1380 MONCTON	HJ	2	1	0.9	-88	90	60	0	90.9			RMS= 10.22 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	90.9			
12346N	1380 MONCTON	HN	2	1	0.8999	-88	90	60	0	90.9			RMS= 10.22 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	90.9			
12350D	1380 VICTORIAVILL QU	Voir CORRIGENDUM à la fin de la liste - See CORRIGENDUM at end of List - Véase CORRIGENDUM al final de la lista											
12350N	1380 VICTORIAVILL QU	Voir CORRIGENDUM à la fin de la liste - See CORRIGENDUM at end of List - Véase CORRIGENDUM al final de la lista											
12352N	1390 AJAX	HN	5	1	0.73	107.8	360	5	0	91			RMS= 10.15 E.RMS=-99.9 Q=-99.9
			2	2.4099	265.5	270	5	0	91				
			3	3.6941	61.04	180	5	0	90				
			4	2.959	211.97	90	5	0	91				
			5	1	0	0	0	0	0	91			
12352D	1390 AJAX ON	Voir CORRIGENDUM à la fin de la liste - See CORRIGENDUM at end of List - Véase CORRIGENDUM al final de la lista											
12351D	1390 NELSON	HJ	2	1	1.05	150	60	162.5	0	91.5			RMS= .52 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	91.5			
12351N	1390 NELSON	HN	2	1	1.05	150	60	162.5	0	91.5			RMS= .52 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	91.5			
12362D	1400 DRUMMONDVILLE	HJ	2	1	0.9	253	80	100	0	90			RMS= -6.13 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	90			
12362N	1400 DRUMMONDVILLE	HN	2	1	0.8999	253	80	100	0	90			RMS= -10.14 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	90			
12358D	1400 MONCTON	HJ	2	1	0.5	-60	90	87	0	90			RMS= 9.78 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	90			
12358N	1400 MONCTON	HN	3	1	0.5046	-106	90	87	0	90			RMS= 10.15 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	90			
			3	0.5046	.96	90	267	0	90				

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
12369D	1410 LONDON	HJ	4	1	0.38	261	270	352	0	90			RMS= 10.15 E.RMS=-99.9 Q=-99.9
			2	1.4	50.7	180	352	0	90				
			3	1.81	206.8	90	352	0	90				
12369N	1410 LONDON	NN	5	1	1	0	0	0	0	90			RMS= 10.15 E.RMS=-99.9 Q=-99.9
			2	2.3799	211.4	90	352	0	90				
			3	2.6311	59.6	180	352	0	90				
			4	1.5349	270.6	270	352	0	90				
			5	0.3779	126	360	352	0	90				
12370D	1410 MONTREAL	HJ	4	1	0.875	285	270	348	0	103			RMS= 11.49 E.RMS=-99.9 Q=-99.9
			2	2.07	77	180	348	0	103				
			3	2.3	219	90	348	0	103				
12370N	1410 MONTREAL	NN	4	1	1	0	0	0	0	103.3			RMS= 11.49 E.RMS=-99.9 Q=-99.9
			2	2.3	219	90	348	0	103.3				
			3	2.0701	77	180	348	0	103.3				
			4	0.875	285	270	348	0	103.3				
12371N	1410 MOOSE JAW	NN	3	1	0.5474	107.12	105	192.91	0	90			RMS= 10.39 E.RMS=-99.9 Q=-99.9
			2	0.7007	227.72	85.5	8	0	90				
			3	1	0	0	0	0	0	90			
12368D	1410 PORT HAWKESBUR	HJ	2	1	1	0	75	90	0	90			RMS= 10.31 E.RMS=-99.9 Q=-99.9
			2	1	75	0	0	0	0	90			
12368N	1410 PORT HAWKESBUR	NN	2	1	1	0	0	0	0	90			RMS= 10.58 E.RMS=-99.9 Q=-99.9
			2	1	240	75	90	0	90				
12367D	1410 VANCOUVER	HJ	2	1	1	312	120	360	0	180.5			RMS= 18.89 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	180.5			
12367N	1410 VANCOUVER	NN	2	1	1	0	0	0	0	180.5			RMS= 19.04 E.RMS=-99.9 Q=-99.9
			2	0.8501	270	105	317	0	180.5				
12374N	1420 CHICOUTIMI	NN	2	1	1	0	0	0	0	88.3			RMS= 3.96 E.RMS=-99.9 Q=-99.9
			2	0.8	232	60	15	0	0	88.3			
12372N	1420 DIGBY	NN	2	1	1	0	0	0	0	70			RMS= -.02 E.RMS=-99.9 Q=-99.9
			2	1.1899	134	53	235	0	70				
12372D	1420 DIGBY	HJ	2	1	1.189	134	53	235	0	70			RMS= -.02 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	70			
12376N	1420 MELFORT	NN	2	1	1	0	0	0	0	180			RMS= 12.01 E.RMS=-99.9 Q=-99.9
			2	0.8601	256	120	8	0	180				
12373N	1420 PETERBOROUGH	NN	4	1	0.6499	275	270	343	0	90			RMS= 0.87 E.RMS=-99.9 Q=-99.9
			2	1.74	64	180	343	0	90				
			3	2.0601	223	90.5	349	0	90				
			4	1	0	0	0	0	0	90			
12373D	1420 PETERBOROUGH	HJ	3	1	0.43	74	180	343	0	90			RMS= 9.93 E.RMS=-99.9 Q=-99.9
			2	0.99	233.5	90.5	349	0	90				
			3	1	0	0	0	0	0	90			
12375N	1420 PLESSISVILLE	NN	2	1	0.824	22	208	39	0	93.7			RMS= -3.54 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	93.7			
12378D	1430 RATHURST	HJ	2	1	1	0	0	0	0	60			RMS= 9.71 E.RMS=-99.9 Q=-99.9
			2	0.8501	300	120	45	0	60				
12378N	1430 RATHURST	NN	2	1	0.8501	300	120	45	0	60			RMS= 9.71 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	60			

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
12377v	1430 GRANDE PRAIRIE HJ		2	1	0.87	0	105	19.5	0	81.2		RMS=	9.77 E.RMS=-99.9 Q=-99.9
			2	1		77	0	0	0	81.2			
12377N	1430 GRANDE PRAIRIE HN		2	1	0.8701	0	105	19.5	0	81.2		RMS=	9.77 E.RMS=-99.9 Q=-99.9
			2	1		77	0	0	0	81.2			
12379D	1430 TORONTO	HJ	5	1	0.78	157.11	70	150.1	0	103	1	RMS=	17.38 E.RMS=-99.9 Q=-99.9
			2	0.28	313.7	140	153	0	103	1			
			3	0.22	35.29	140	333	0	103	1			
			4	0.67	197.69	70	333	0	103	1			
			5	1	0	0	0	0	0	103	1		
12379N	1430 TORONTO	HN	5	1	1	0	0	0	0	103	1	RMS=	17.15 E.RMS=-99.9 Q=-99.9
			2	3.1294	206.67	70	333	0	103	1			
			3	4.1191	50.1	140	333	0	103	1			
			4	2.7236	251.18	210	333	0	103	1			
			5	0.8	91.6	280	333	0	103	1			
12381N	1440 COURtenay	HN	2	1	1	0	0	0	0	90		RMS=	.03 E.RMS=-99.9 Q=-99.9
			2	1		305	90	360	0	90			
12382D	1440 OTTAWA	HJ	4	1	1.47	357	270	20	0	90		RMS=	17.20 E.RMS=-99.9 Q=-99.9
			2	3.56	118	180	20	0	90				
			3	3.16	239	90	20	0	90				
			4	1	0	0	0	0	0	90			
12382N	1440 OTTAWA	HN	4	1	1	0	0	0	0	90		RMS=	17.20 E.RMS=-99.9 Q=-99.9
			2	3.1599	239	90	20	0	90				
			3	3.5601	118	180	20	0	90				
			4	1.47	357	270	20	0	90				
12380N	1440 WETASKIWIN	HN	3	1	0.5149	151	0	0	0	90		RMS=	10.63 E.RMS=-99.9 Q=-99.9
			2	1	0	60	350	0	90				
			3	0.3611	211	120	350	0	90				
12388D	1450 BROCKVILLE	HJ	2	1	0.175	270	90	0	0	89.1		RMS=	.17 E.RMS=-99.9 Q=-99.9
12389N	1450 COBOURG	HN	5	1	1	0	0	0	0	90		RMS=	10.15 E.RMS=-99.9 Q=-99.9
			2	2.0696	205.95	90	358.25	0	90				
			3	1.9851	48.28	180	358.25	0	90				
			4	0.8999	248.52	270	358.25	0	90				
			5	0	0	215	16	0	90				
12389D	1450 COBOURG	HJ	5	1	1	0	0	0	0	90		RMS=	7.20 E.RMS=-99.9 Q=-99.9
			2	0.75	185	90	358.25	0	90				
			3	0	0	180	358.25	0	90				
			4	1.275	37.05	270	358.25	0	90				
			5	1.488	127.5	215	16	0	90				
12393N	1450 GRANBY	HN	4	1	0.4517	160	80	166.5	0	87.8		RMS=	6.23 E.RMS=-99.9 Q=-99.9
			2	1	0.5	0	0	0	0	87.8			
			3	0.9678	200	80	346.5	0	87.8				
			4	0.4194	42	160	346.5	0	87.8				
12393D	1450 GRANLY	HJ	3	1	0.9672	140	80	166.5	0	87.8		RMS=	10.11 E.RMS=-99.9 Q=-99.9
			2	1	10	0	0	0	0	87.8			
			3	0.6393	220	80	346.5	0	87.8				
12396D	1460 GUELPH	HJ	3	1	1	100	100	165	0	213.6		RMS=	10.26 E.RMS=-99.9 Q=-99.9
			2	1.75	0	0	0	0	0	85.4			
			3	1	-134	100	0	0	0	85.4			

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	
12396N	1460 GUELPH	HN	3	1	1	224	200	0	0	85.4		RMS= 9.61 E.	RMS=-99.9 Q=-99.9	
				2	1.6499	0	100	0	0	85.4				
				3	1	136	0	0	0	85.4				
12395N	1460 MEDICINE HAT	HN	3	1	0.96	183	207.2	0	0	103.6		RMS= 10.25 E.	RMS=-99.9 Q=-99.9	
				2	1.21	272.2	103.6	360	0	103.6				
				3	1	0	0	0	0	103.6				
12397N	1460 ST GEORGE LEAU	HN	3	1	1	0	0	0	0	107		RMS= 8.07 E.	RMS=-99.9 Q=-99.9	
				2	1.5901	183	105	315.5	0	107				
				3	0.864	59	193	335.5	0	107				
12400N	1470 POINTE CLAIRE	HN	6	1	1	0	0	0	0	210		RMS= 18.51 E.	RMS=-99.9 Q=-99.9	
				2	1.7891	207.81	70	329.5	0	210				
				3	1	55.62	140	329.5	0	210				
				4	1	52.12	262.44	16.81	0	210				
				5	1.7891	204.31	222.12	30.42	0	210				
				6	1	356.5	199	48.5	0	210				
12400D	1470 POINTE CLAIRE	HJ	6	1	1	356.5	199	48.5	0	210		RMS= 18.51 E.	RMS=-99.9 Q=-99.9	
				2	1.7891	204.31	222.12	30.42	0	210				
				3	1	52.12	262.44	16.81	0	210				
				4	1	55.62	140	329.5	0	210				
				5	1.7891	207.81	70	329.5	0	210				
				6	1	0	0	0	0	210				
12398N	1470 VANCOUVER	HN	3	1	0.99	189.5	240	340	0	90		RMS= 16.90 E.	RMS=-99.9 Q=-20.3	
				2	2	275.7	120	340	0	90				
				3	1	0	0	0	0	90				
12398D	1470 VANCOUVER	HJ	3	1	0.69	-121	240	340	0	90		RMS= 16.67 E.	RMS=-99.9 Q=-20.3	
				2	2	-60.5	120	340	0	90				
				3	1	0	0	0	0	90				
12401N	1470 VILLE DE LA BA	HN	2	1	1	0	0	0	0	90		RMS= -.30 E.	RMS=-99.9 Q=-99.9	
				2	0.8999	15	200	7	0	90				
12401D	1470 VILLE DE LA BA	HJ	2	1	0.89	15	200	7	0	90		RMS= -.30 E.	RMS=-99.9 Q=-99.9	
				2	1	0	0	0	0	90				
12399N	1470 WELLAND	HN	6	1	0.6221	106.3	288.61	124.39	0	80.7	1		RMS= 9.55 E.	RMS=-99.9 Q=-99.9
				2	0.51	129.1	180	172	0	80	1			
				3	0.9341	-22.8	236.3	109.8	0	80	1			
				4	1	0	90	172	0	80	1			
				5	0.4209	-153.9	214.76	89.67	0	80.7	1			
				6	0.605	-131.2	0	0	0	80	1			
12399D	1470 WELLAND	HJ	4	1	0.841	82.1	90	172	0	80	1		RMS= 9.45 E.	RMS=-99.9 Q=-99.9
				2	0.371	171.6	165.22	234.09	0	80.7	1			
				3	0.861	280	421.85	98.01	0	80.7	1			
				4	1	0	236.3	109.8	0	80	1			
12404N	1480 DRUIMONDVILLE	HN	3	1	1	0	0	0	0	90			RMS= 15.61 E.	RMS=-99.9 Q=-25.4
				2	0.501	255	90	25	0	90				
				3	0.51	105	90	205	0	90				
12404D	1480 DRUIMONDVILLE	HJ	3	1	0.51	134	90	205	0	90			RMS= 17.16 E.	RMS=-99.9 Q=-99.9
				2	1	0	0	0	0	90				
				3	0.41	71	90	265	0	90				
12402N	1480 EDMONTON	HN	3	1	0.4617	77.4	300	171.21	0	97.5			RMS= 11.76 E.	RMS=-99.9 Q=-99.9
				2	1	0	150	170	0	205.9				
				3	0.4019	-60.8	0	0	0	97.5				

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
12402D	1480 EDMONTON	HJ	3	1	0.462	77.4	300	171.21	0	97.5			RMS= 11.76 E.RMS=-99.9 Q=-99.9
			2	1	0	150	170	0	0	205.9			
			3	0.402	-60.8	0	0	0	0	97.5			
12403N	1480 NEWMARKET	HN	6	1	1	0	0	0	0	90			RMS= 10.17 E.RMS=-99.9 Q=-99.9
			2	1.6375	246.64	90	360	0	0	90			
			3	0.675	132	180	360	0	0	90			
			4	0.8438	137	240.53	46.8	0	0	90			
			5	2.0476	251.64	190.57	60.93	0	0	90			
			6	1.25	5	176	95	0	0	90			
12403D	1480 NEWMARKET	HJ	6	1	0.85	10	176	95	0	90			RMS= 10.17 E.RMS=-99.9 Q=-99.9
			2	1.001	269	190.57	66.93	0	0	90			
			3	0.306	168	240.53	46	0	0	90			
			4	0.36	158	180	360	0	0	90			
			5	1.178	259	90	360	0	0	90			
			6	1	0	0	0	0	0	90			
12413N	1490 KENTVILLE	HN	2	1	1.45	147	66.3	337	0	66.3			RMS= -3.54 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	66.3			
12413D	1490 KENTVILLE	HJ	2	1	1	0	0	0	0	66.3			RMS= -.55 E.RMS=-99.9 Q=-99.9
12420N	1500 DUNCAN	HN	2	1	0.8501	297	120	275	0	71.3			RMS= -.16 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	71.3			
12420D	1500 DUNCAN	HJ	2	1	0.31	0	120	275	0	71.3			RMS= 9.55 E.RMS=-99.9 Q=-99.9
			2	1	81.7	0	0	0	0	71.3			
12422D	1510 SHERBROOKE	HJ	2	1	0.55	0	90	42	0	90			RMS= 17.15 E.RMS=-99.9 Q=-99.9
			2	1	130	0	0	0	0	90			
12422N	1510 SHERBROOKE	HN	4	1	1	-177	0	0	0	90			RMS= 9.93 E.RMS=-99.9 Q=-99.9
			2	2.8459	61	90	42	0	0	90			
			3	2.8459	-61	180	42	0	0	90			
			4	1	177	270	42	0	0	90			
12421D	1510 TILLSONEURG	HJ	3	1	0.315	70	180	0	0	165	1		RMS= 11.44 E.RMS=-99.9 Q=-99.9
			2	0.9529	223.66	90	0	0	0	165	1		
			3	1	0	0	0	0	0	165	1		
12423D	1530 MORDEN	HJ	2	1	1	-86	90	360	0	84			RMS= 9.77 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	84			
12423N	1530 MORDEN	HN	4	1	0.365	58	180	360	0	84			RMS= 1.20 E.RMS=-99.9 Q=-99.9
			2	0.365	150	90	175	0	0	84			
			3	1	207.6	90	360	0	0	84			
			4	1	0	0	0	0	0	84			
12424D	1540 TORONTO	HJ	2	1	0.78	256	110	344	0	115	1		RMS= 17.57 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	115	1		
12424N	1540 TORONTO	HN	4	1	0.385	-90.6	0	0	0	115	1		RMS= 10.58 E.RMS=-99.9 Q=-99.9
			2	1	134.8	110	20	0	0	115	1		
			3	1	0	220	20	0	0	115	1		
			4	0.385	-134.6	330	20	0	0	115	1		
12425D	1550 WINDSOR	HJ	2	1	1	0	0	0	0	179			RMS= 12.03 E.RMS=-99.9 Q=-99.9
			2	0.75	270	90	40	0	0	179			
12425N	1550 WINDSOR	HN	2	1	0.75	270	90	40	0	0	179		RMS= 12.03 E.RMS=-99.9 Q=-99.9
			2	1	0	0	0	0	0	179			

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	
12428N	1570 BRANDON	HN	3	1	1	0	0	0	0	86.1		RMS=	10.35 E.RMS=-99.9 Q=-99.9	
			2	1.3	255	80	20	0	0	86.1				
			3	0.6001	126	160	20	0	0	86.1				
12431N	1570 MONTREAL	HN	2	1	1	0	0	0	0	195		RMS=	19.53 E.RMS=-99.9 Q=-99.9	
			2	1	263.5	90	70	0	0	195				
12431D	1570 MONTREAL	HJ	2	1	0.25	225	90	70	0	195		RMS=	19.53 E.RMS=-99.9 Q=-99.9	
			2	1	0	0	0	0	0	195				
12427N	1570 NANAIMO	HN	2	1	1	0	0	0	0	86		RMS=	10.15 E.RMS=-99.9 Q=-99.9	
			2	0.8201	275	100	320	0	0	86				
12427D	1570 NANAIMO	HJ	2	1	0.5	180	100	320	0	86		RMS=	10.01 E.RMS=-99.9 Q=-99.9	
			2	1	0	0	0	0	0	86				
12429N	1570 ORILLIA	HN	2	1	0.6499	202	90	327	0	90		RMS=	7.65 E.RMS=-99.9 Q=-99.9	
			2	1	0	0	0	0	0	115				
12430N	1570 ST THOMAS	HN	8	1	0.439	310.4	200	260	0	120.9		RMS=	10.17 E.RMS=-99.9 Q=-99.9	
			2	0.439	45.4	219.31	235.77	0	120.9					
			3	1	95	90	170	0	120.9					
			4	1	142.25	219.31	104.23	0	120.9					
			5	0.439	191.9	410	92.68	0	120.9					
			6	0.439	96.9	400	80	0	120.9					
			7	1	47.26	200	80	0	120.9					
			8	1	0	0	0	0	120.9					
12430D	1570 ST THOMAS	HJ	8	1	0.333	348	200	260	0	120.9		RMS=	10.08 E.RMS=-99.9 Q=-99.9	
			2	0.333	82	219.31	235.77	0	120.9					
			3	1	94	90	170	0	120.9					
			4	1	94	219.31	104.23	0	120.9					
			5	0.333	94	410	92.68	0	120.9					
			6	0.333	0	400	80	0	120.9					
			7	1	0	200	80	0	120.9					
			8	1	0	0	0	0	120.9					
12426N	1570 TABER	HN	2	1	0.77	240	90	47	0	91.9		RMS=	7.20 E.RMS=-99.9 Q=-99.9	
			2	1	0	0	0	0	91.9					
12432N	1580 CHICOUTIMI	HN	3	1	0.562	228	380	202	0	98		RMS=	17.85 E.RMS=-99.9 Q=-99.9	
			2	0.7949	294	190	202	0	98					
12432D	1580 CHICOUTIMI	HJ	3	1	0	0	0	0	0	188		RMS=	17.85 E.RMS=-99.9 Q=-99.9	
			2	1	0	0	0	0	0	188				
			3	0.7949	294	190	202	0	98					
12438D	1590 CORNWALL ON	HJ	4	1	1	0	0	0	90	909.1				
			2	1	145	90	90	0	90					
			3	1	0	229	90	90						
			4	1	145	267	90	90						
12438N	1590 CORNWALL ON	HN	4	1	1	0	0	C	90	454.5				
			2	1	145	90	121	90						
			3	1	0	229	196	90						
			4	1	145	267	177	90						
12433N	1600 CORNWALL	HN	3	1	0.8101	177.5	215	187.8	0	114		RMS=	4.92 E.RMS=-99.9 Q=-99.9	
			2	1.7429	92	107.5	187.8	0	114					
			3	1	0	0	C	0	114					
12433D	1600 CORNWALL	HJ	3	1	1.743	92	107.5	187.8	0	114		RMS=	4.92 E.RMS=-99.9 Q=-99.9	
			2	0.81	177.5	215	187.8	0	114					
			3	1	0	0	0	0	114					

CAN

(suite-continued-continua)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
12434N	1600	SIMCOE	HN	4	1 1 2 2.25 3 2.0271 4 0.7451	0 140.85 90 277.7 180 57 256 180	0 183 183 183 183 183 180 183	0 88 0 88 0 88 0 88	RMS= 9.86 E.RMS=-99.9 Q=-99.9				
12434D	1600	SIMCOE	HJ	3	1 0.57 2 1.256 3 1	256 180 118.3 90 0 0	183 183 0 0	0 88 0 88 0 88	RMS= 10.15 E.RMS=-99.9 Q=-99.9				

HTI

Haiti

Haiti

· Haiti

HWA

Hawaii

Hawaii

Hawa

1	2	3	4	5	6	7	8	9	10	11	12	13	14
13746	870 HONOLULU	H1 CC-24	2	1	1	0	0	0	90	0	2195.98	Q=	
			2	0.9	100	70	50	90	0				

JOB

Indes Occidentales britanniques British West Indies

Indias occidentales británicas

1	2	3	4	5	6	7	8	9	10	11	12	13	14
00963	705 R ST VINCENT	10-03	1										A056
00971	1205 RED GATE	00-24	1										A023
00974	1450 RADIO ANTILLES	09-02	2	1		0			225				A057
				2		135	90	190	225				

LCA

Sainte-Lucie

Saint Lucia

Santa Lucía

CORRIGENDUM

B

1	2	3	4	5	6	7	8	9	10	11	12	13	14
10350N	970 PORTO ALEGRE	HN	2	1	0	0	60	331	0	109	0		

CAN

1	2	3	4	5	6	7	8	9	10	11	12	13	14
12009D	550 SUDBURY ON	HJ	6	1	1	0	0	0	0	65	0	1979	
			2	0	-4		86	0	0	65	0		
			3	1	-168		128	328	0	65	0		
			4	1	-35		160	0	0	65	0		
12024N	580 EDMONTON AB	HN	3	1	1	0	0	0	0	60	0	960	
			2	1	-141		90	26	0	60	0		
			3	1	-133		135	296	0	60	0		
12084D	710 LEAMINGTON ON	HJ	6	1	0	100	0	0	0	91	0	1568	
			2	1	-132		125	174	0	91	0		
			3	1	0		250	174	0	91	0		
			4	1	135		375	174	0	91	0		
			5	1	-90		500	174	0	91	0		
			6	0	44		625	174	0	91	0		
12094N	730 LEAMINGTON ON	HN	2	1	1	-43	0	0	0	94	0	281	
			2	1	0		143	48	0	71	1		
12273D	1250 OAKVILLE ON	HJ	6	1	1	0	0	0	0	90	0	950	
			2	1	-55		144	320	0	90	0		
			3	1	-136		170	352	0	90	0		
			4	1	-81		90	50	0	90	0		
12273N	1250 OAKVILLE ON	HN	6	1	1	0	0	0	0	90	0	683	
			2	2	225		73	331	0	90	0		
			3	1	80		144	320	0	90	0		
			4	1	323		170	352	0	90	0		
			5	1	108		127	15	0	90	0		
			6	1	243		90	50	0	90	0		
12350D	1380 VICTORIAVILLQ HJ		3	1	1	0	0	0	0	91	0	957	
			2	1	-113		70	35	0	91	0		
12350N	1380 VICTORIAVILLQ HN		3	1	0	100	0	0	0	91	0	981	
			2	1	0		70	35	0	91	0		
			3	1	-100		140	35	0	91	0		
12352D	1390 AJAX ON	HJ	7	1	2	0	0	0	0	91	0	941	
			2	1	132		90	185	0	91	0		
			3	2	121		70	153	0	91	0		
			4	1	-108		154	171	0	91	0		

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Canada

Discussion paper on the prop

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