

SPECIAL REPORT No 8

REVISED GEOGRAPHICAL POSITION OF BOUNDARY POINTS
AND UPDATED MAPS

SOUTHWEST AND SOUTH LINES SECTION

OF THE INTERNATIONAL BOUNDARY BETWEEN
CANADA AND THE UNITED STATES

(Quebec/Maine)



INTERNATIONAL BOUNDARY COMMISSION

2017

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INTERNATIONAL BOUNDARY COMMISSION
SPECIAL REPORT No 8

INTRODUCTION

Article IV of the Treaty of Washington, February 24, 1925, provides for “the maintenance of an effective line” between Canada and the United States. The article further stipulates that:

“The said Commissioners shall submit to their respective governments from time to time, at least once in every calendar year, a joint report containing a statement of the inspections made, the monuments and buoys repaired, relocated, rebuilt, moved, and established, and the mileage and location of vistas opened, and shall submit with their reports, plats, and tables certified and signed by the Commissioners, giving the locations and geodetic positions of all monuments moved and all additional monuments established within the year, and such other information as may be necessary to keep the boundary maps and records accurately revised.”

This joint report is the eighth in a series of special publications that provide revised or supplementary information concerning the geographical positions of the boundary monuments, turning points and reference marks that define the location of a section of the boundary between Canada and the United States. Attached to this report is a series of seven (7) updated maps showing the boundary demarcation.



INTERNATIONAL BOUNDARY COMMISSION
SPECIAL REPORT No 8

THE SOUTHWEST AND SOUTH LINES SECTION

This report concerns the Southwest and South Lines section that forms part of the boundary between the province of Quebec (Canada) and the state of Maine (United States). The section starts at the source of the St. Francis River near Pohénégamook, Quebec and Estcourt Station, Maine, and generally follows a straight-line course in a southwesterly direction for a distance of 103 kilometres (64 miles) to Lac-Frontière, Quebec. The region is heavily forested with very little development along the boundary. At Lac-Frontière, the line swings in a southerly direction for a distance of 32 kilometres (20 miles) until it intersects the Southwest Branch of the St. John River. The original description of this section can be found on pages 169 to 171 of the “Report of the Reestablishment of the Boundary between the United States and Canada – Source of the St. Croix River to the St. Lawrence River” published in 1924 by the International Boundary Commission.

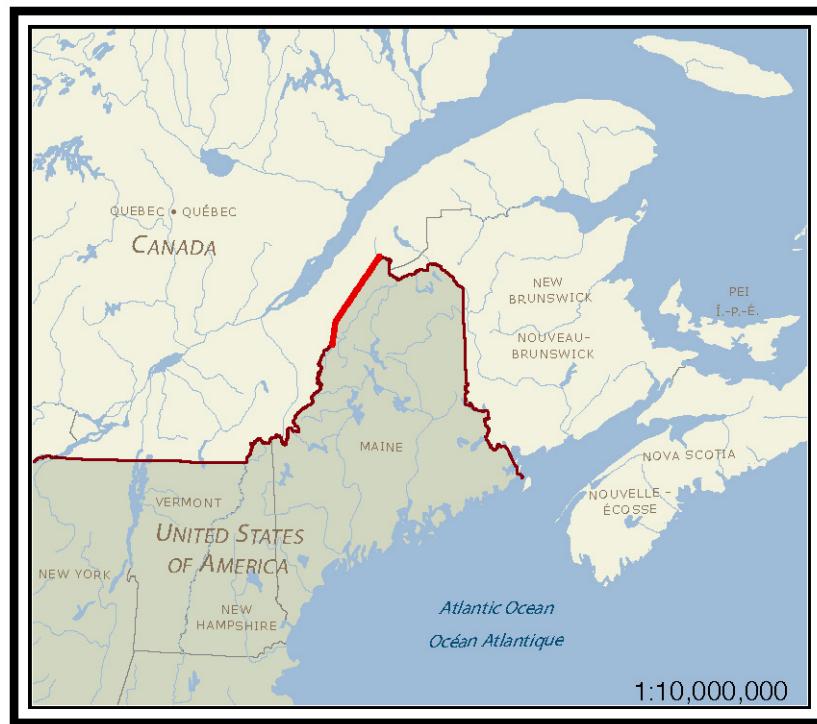


Figure 1 - Location of the South & Southwest Lines Section



INTERNATIONAL BOUNDARY COMMISSION
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NAD 83 REFERENCE FRAME

Evolution of the knowledge of the shape and geometry of the terrestrial globe has led to the regular revision of the reference frame supporting the coordinate system (in terms of latitudes and longitudes) used to locate objects on the earth's surface. The current reference system adopted as the national georeferencing standard by the United States and Canada is the North American Datum of 1983 (NAD83), when the datum used to describe the boundary in the original report of 1924 was the North American Datum (NAD). In 1983, the International Boundary Commission published Special Report No 6 to provide with an updated description in North American Datum 27 (NAD 27), but a revision is required to update those values once more in the new common reference frame. Furthermore, additional boundary monuments were added over the years to enhance demarcation. In order to provide with a more precise position of boundary points, the Commission has decided to re-capture the geographic position of all monuments using state-of-the art GPS technology.

NEW SURVEY OF BOUNDARY MONUMENTS

The new survey of boundary monuments position took place during the field seasons of 2013 and 2015 under the supervision of Rodger Reid, CLS, OLS, from the Canadian Section. Details of the survey operation can be found in the following reports:

- “Survey of the Southwest Line and South Line and Inspection of Part of the Southwest Line” Project 2013-19-005, 647IBC.
- “Field Report of Survey and Inspection of Part of the South Line” Project 2015-19-006, 670 IBC.

Surveys were conducted using GPS methodology and latitudes and longitudes were computed based on the NAD 83, epoch 2010.0.



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UPDATED MAPS

A series of seven (7) maps is attached to this report and forms integral part of it. Maps are produced at the same scale and using the same map extent than the original maps published in 1924 in order to simplify map management. Base mapping comes from ortho-imagery prepared from aerial photography taken in 2008.

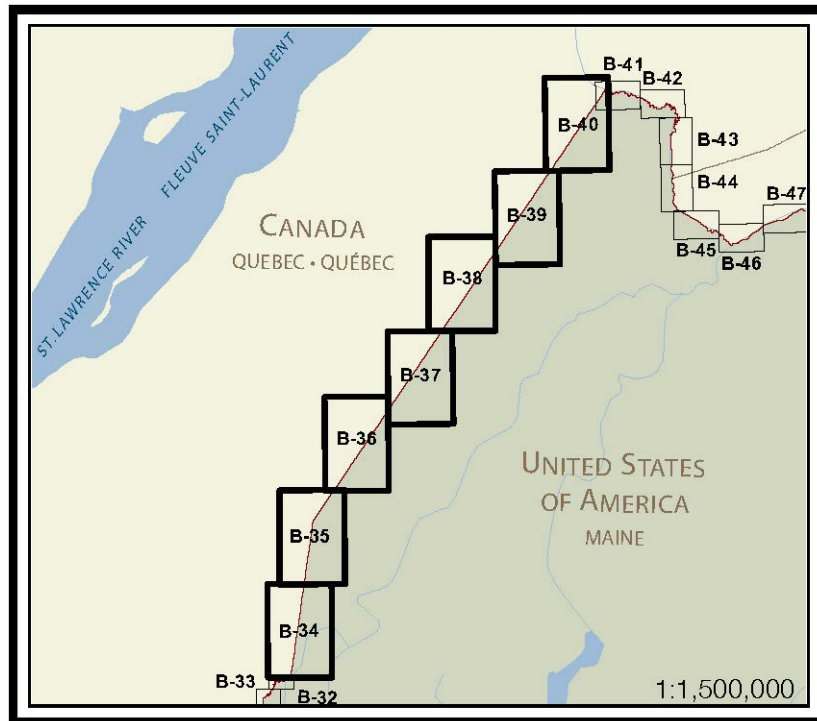


Figure 2 - Map extents



INTERNATIONAL BOUNDARY COMMISSION
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CERTIFICATION STATEMENT

We certify that the foregoing is a true record of the work done by the Commissioners on the maintenance of the International Boundary Line between Canada and the United States of America, and that the maps and tables (Appendix A) submitted herein show the true location and geodetic position of all monuments and boundary points, in accordance with the provisions of Article IV of the Treaty between the United States of America and His Britannic Majesty in respect of Canada signed at Washington, February 24, 1925.

The geographical description of the International Boundary, in terms of latitude, longitude, azimuth and distances, has no effect whatsoever on the physical location of the boundary line itself. All boundary monuments and reference marks that were used to define the boundary prior to the adoption of the NAD83 Datum, remain unaltered from their original location and they continue to define the boundary. The small differences between the geodetic azimuths and ellipsoid distances in this report compared to the original data are due to higher precision measurements. There is no resultant change in territorial sovereignty at any point on the boundary.

Original Signed by Jean Gagnon

Jean Gagnon

Commissioner for Canada

Original Signed by Kyle K. Hipsley

Kyle K. Hipsley

Commissioner for the United States



**INTERNATIONAL BOUNDARY COMMISSION
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APPENDIX A

REVISED GEOGRAPHICAL POSITION OF BOUNDARY POINTS
NAD 83, EPOCH 2010.0

SOUTHWEST AND SOUTH LINES SECTION

OF THE INTERNATIONAL BOUNDARY BETWEEN
CANADA AND THE UNITED STATES

(Quebec/Maine)





**INTERNATIONAL BOUNDARY COMMISSION
SPECIAL REPORT No 8**



GEOGRAPHIC POSITIONS OF BOUNDARY MONUMENT AND TURNING POINTS
DEFINING THE INTERNATIONAL BOUNDARY BETWEEN CANADA AND THE UNITED STATES

SPECIAL REPORT 8 - SOUTHWEST AND SOUTH LINES

NAD83 (EPOCH 2010.0)

Province: Québec

State: Maine

Station	Latitude and Longitude	To Station	Azimuth (From north)	Back Azimuth (From north)	Distance (meters)
TP716	47° 27' 35.40" 69° 13' 28.06"	MON178	214° 53' 23"	34° 53' 22"	36.00
MON178	47° 27' 34.442" 69° 13' 29.043"	MON179	214° 53' 24"	34° 53' 22"	91.33
MON179	47° 27' 32.016" 69° 13' 31.538"	MON180	214° 55' 27"	34° 55' 25"	91.96
MON180	47° 27' 29.575" 69° 13' 34.051"	MON180A	214° 54' 35"	34° 54' 32"	141.71
MON180A	47° 27' 25.812" 69° 13' 37.923"	MON180B	214° 54' 58"	34° 54' 53"	219.86
MON180B	47° 27' 19.974" 69° 13' 43.931"	MON181	214° 54' 12"	34° 54' 07"	246.88
MON181	47° 27' 13.418" 69° 13' 50.675"	MON181A1	214° 54' 22"	34° 54' 17"	237.41
MON181A1	47° 27' 07.113" 69° 13' 57.160"	MON181A2	214° 54' 18"	34° 54' 13"	261.71
MON181A2	47° 27' 00.164" 69° 14' 04.309"	MON181A3	214° 54' 00"	34° 53' 59"	55.76
MON181A3	47° 26' 58.683" 69° 14' 05.832"	MON181A	214° 54' 09"	34° 54' 07"	130.44
MON181A	47° 26' 55.219" 69° 14' 09.394"	MON182	214° 54' 08"	34° 53' 50"	925.84
MON182	47° 26' 30.632" 69° 14' 34.678"	MON182A	214° 53' 49"	34° 53' 42"	334.01
MON182A	47° 26' 21.761" 69° 14' 43.798"	MON182B	214° 53' 44"	34° 53' 28"	780.64

MON - Monument

TP - Turning Point

RM - Reference Monument

SOMON - Site of Monument

SPECIAL REPORT 8 - SOUTHWEST AND SOUTH LINES

NAD83 (EPOCH 2010.0)

Province: Québec

State: Maine

Station	Latitude and Longitude	To Station	Azimuth (From north)	Back Azimuth (From north)	Distance (meters)
MON182B	47° 26' 01.028" 69° 15' 05.110"	MON183	214° 53' 35"	34° 53' 25"	495.21
MON183	47° 25' 47.876" 69° 15' 18.627"	MON183A	214° 53' 18"	34° 52' 53"	1242.14
MON183A	47° 25' 14.883" 69° 15' 52.524"	MON184	214° 53' 05"	34° 52' 58"	368.47
MON184	47° 25' 05.096" 69° 16' 02.578"	MON184A	214° 53' 01"	34° 52' 51"	499.03
MON184A	47° 24' 51.840" 69° 16' 16.192"	MON184B	214° 52' 19"	34° 52' 13"	274.91
MON184B	47° 24' 44.537" 69° 16' 23.690"	MON185	214° 52' 03"	34° 51' 46"	838.24
MON185	47° 24' 22.266" 69° 16' 46.546"	MON186	214° 52' 22"	34° 51' 50"	1607.61
MON186	47° 23' 39.557" 69° 17' 30.377"	MON186A	214° 50' 35"	34° 50' 32"	187.22
MON186A	47° 23' 34.582" 69° 17' 35.477"	MON186B	214° 53' 24"	34° 53' 22"	92.46
MON186B	47° 23' 32.126" 69° 17' 37.999"	MON187	214° 52' 33"	34° 52' 29"	169.74
MON187	47° 23' 27.617" 69° 17' 42.627"	MON188	214° 51' 37"	34° 51' 14"	1160.22
MON188	47° 22' 56.789" 69° 18' 14.242"	MON188A	214° 51' 29"	34° 51' 19"	518.78
MON188A	47° 22' 43.005" 69° 18' 28.377"	MON189	214° 50' 15"	34° 50' 12"	109.55
MON189	47° 22' 40.093" 69° 18' 31.361"	MON189A	214° 51' 08"	34° 51' 05"	138.50

SPECIAL REPORT 8 - SOUTHWEST AND SOUTH LINES
NAD83 (EPOCH 2010.0)

Province: Québec

State: Maine

Station	Latitude and Longitude	To Station	Azimuth (From north)	Back Azimuth (From north)	Distance (meters)
MON189A	47° 22' 36.413" 69° 18' 35.134"	MON190	214° 51' 08"	34° 50' 51"	840.96
MON190	47° 22' 14.066" 69° 18' 58.040"	MON190A	214° 50' 42"	34° 50' 10"	1593.65
MON190A	47° 21' 31.713" 69° 19' 41.431"	MON191	214° 51' 07"	34° 51' 07"	16.99
MON191	47° 21' 31.261" 69° 19' 41.893"	MON192	214° 50' 09"	34° 49' 55"	693.76
MON192	47° 21' 12.822" 69° 20' 00.776"	MON192A	214° 51' 38"	34° 51' 36"	100.07
MON192A	47° 21' 10.163" 69° 20' 03.502"	MON192B	214° 49' 33"	34° 49' 20"	644.51
MON192B	47° 20' 53.031" 69° 20' 21.038"	MON192C	214° 49' 22"	34° 49' 20"	100.72
MON192C	47° 20' 50.354" 69° 20' 23.778"	MON193	214° 51' 20"	34° 51' 18"	68.83
MON193	47° 20' 48.525" 69° 20' 25.652"	MON194	214° 49' 49"	34° 49' 26"	1131.19
MON194	47° 20' 18.457" 69° 20' 56.428"	MON195	214° 48' 27"	34° 48' 18"	475.87
MON195	47° 20' 05.805" 69° 21' 09.367"	MON195A-88	214° 47' 31"	34° 47' 28"	129.56
MON195A-88	47° 20' 02.360" 69° 21' 12.888"	MON195B	214° 46' 45"	34° 46' 44"	91.97
MON195B	47° 19' 59.914" 69° 21' 15.387"	SOMON195A	214° 54' 50"	34° 54' 49"	80.60
SOMON195A	47° 19' 57.774" 69° 21' 17.584"	MON195C	214° 48' 32"	34° 48' 21"	519.24

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NAD83 (EPOCH 2010.0)

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Station	Latitude and Longitude	To Station	Azimuth (From north)	Back Azimuth (From north)	Distance (meters)
MON195C	47° 19' 43.969" 69° 21' 31.701"	MON195D	214° 49' 29"	34° 49' 27"	128.36
MON195D	47° 19' 40.557" 69° 21' 35.192"	MON196	214° 49' 21"	34° 49' 08"	658.61
MON196	47° 19' 23.049" 69° 21' 53.102"	MON197	214° 48' 48"	34° 48' 34"	704.81
MON197	47° 19' 04.311" 69° 22' 12.262"	MON198	214° 48' 27"	34° 48' 09"	907.61
MON198	47° 18' 40.180" 69° 22' 36.928"	MON198A-88	214° 48' 21"	34° 48' 11"	489.19
MON198A-88	47° 18' 27.173" 69° 22' 50.222"	MON198B	214° 47' 34"	34° 47' 31"	128.93
MON198B	47° 18' 23.744" 69° 22' 53.724"	MON199	214° 47' 45"	34° 47' 26"	968.19
MON199	47° 17' 57.999" 69° 23' 20.023"	SOMON200	214° 47' 40"	34° 47' 33"	350.81
SOMON200	47° 17' 48.670" 69° 23' 29.551"	MON200-88	214° 45' 16"	34° 45' 14"	90.98
MON200-88	47° 17' 46.250" 69° 23' 32.020"	MON201	214° 47' 41"	34° 47' 17"	1191.17
MON201	47° 17' 14.573" 69° 24' 04.368"	MON201B	214° 47' 47"	34° 47' 41"	301.87
MON201B	47° 17' 06.546" 69° 24' 12.566"	MON202	214° 46' 42"	34° 46' 16"	1306.51
MON202	47° 16' 31.796" 69° 24' 48.023"	MON202A1	214° 46' 48"	34° 46' 43"	245.49
MON202A1	47° 16' 25.267" 69° 24' 54.685"	MON202B1	214° 47' 50"	34° 47' 48"	100.39

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Station	Latitude and Longitude	To Station	Azimuth (From north)	Back Azimuth (From north)	Distance (meters)
MON202B1	47° 16' 22.598" 69° 24' 57.411"	MON202C1	214° 46' 07"	34° 45' 54"	634.26
MON202C1	47° 16' 05.726" 69° 25' 14.617"	MON202A	214° 46' 56"	34° 46' 54"	101.99
MON202A	47° 16' 03.014" 69° 25' 17.385"	MON202B	214° 46' 18"	34° 46' 13"	214.66
MON202B	47° 15' 57.304" 69° 25' 23.209"	MON203	214° 45' 52"	34° 45' 46"	305.18
MON203	47° 15' 49.186" 69° 25' 31.486"	MON203A	214° 45' 44"	34° 45' 33"	510.57
MON203A	47° 15' 35.604" 69° 25' 45.333"	MON204	214° 45' 27"	34° 45' 05"	1100.32
MON204	47° 15' 06.330" 69° 26' 15.165"	MON205	214° 45' 34"	34° 45' 14"	995.40
MON205	47° 14' 39.849" 69° 26' 42.151"	MON206	214° 44' 56"	34° 44' 43"	616.93
MON206	47° 14' 23.434" 69° 26' 58.870"	MON207	214° 44' 45"	34° 44' 13"	1608.19
MON207	47° 13' 40.642" 69° 27' 42.440"	MON207A	214° 43' 53"	34° 43' 50"	121.51
MON207A	47° 13' 37.409" 69° 27' 45.731"	MON207B	214° 44' 16"	34° 44' 13"	119.80
MON207B	47° 13' 34.221" 69° 27' 48.976"	MON208	214° 44' 01"	34° 43' 34"	1367.76
MON208	47° 12' 57.821" 69° 28' 26.012"	MON208A	214° 43' 49"	34° 43' 23"	1296.08
MON208A	47° 12' 23.328" 69° 29' 01.098"	MON208B	214° 41' 57"	34° 41' 55"	127.91

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NAD83 (EPOCH 2010.0)

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Station	Latitude and Longitude	To Station	Azimuth (From north)	Back Azimuth (From north)	Distance (meters)
MON208B	47° 12' 19.923" 69° 29' 04.558"	MON209	214° 43' 38"	34° 43' 34"	187.55
MON209	47° 12' 14.931" 69° 29' 09.635"	MON210	214° 43' 03"	34° 42' 52"	570.90
MON210	47° 11' 59.735" 69° 29' 25.083"	MON210A	214° 42' 45"	34° 42' 44"	68.56
MON210A	47° 11' 57.911" 69° 29' 26.938"	MON211	214° 42' 54"	34° 42' 34"	970.55
MON211	47° 11' 32.076" 69° 29' 53.194"	MON211A	214° 42' 35"	34° 42' 23"	591.96
MON211A	47° 11' 16.319" 69° 30' 09.205"	MON211B	214° 41' 56"	34° 41' 50"	315.38
MON211B	47° 11' 07.922" 69° 30' 17.733"	MON212	214° 42' 30"	34° 42' 16"	702.43
MON212	47° 10' 49.223" 69° 30' 36.729"	MON212A	214° 42' 13"	34° 42' 10"	152.75
MON212A	47° 10' 45.157" 69° 30' 40.859"	MON212B	214° 41' 52"	34° 41' 47"	243.97
MON212B	47° 10' 38.661" 69° 30' 47.454"	MON212C	214° 42' 12"	34° 42' 05"	340.99
MON212C	47° 10' 29.584" 69° 30' 56.674"	MON212D	214° 41' 34"	34° 41' 29"	276.14
MON212D	47° 10' 22.231" 69° 31' 04.137"	MON213	214° 41' 25"	34° 41' 13"	589.30
MON213	47° 10' 06.541" 69° 31' 20.063"	MON214	214° 43' 07"	34° 43' 05"	100.25
MON214	47° 10' 03.873" 69° 31' 22.774"	MON215	214° 41' 09"	34° 40' 52"	843.03

SPECIAL REPORT 8 - SOUTHWEST AND SOUTH LINES

NAD83 (EPOCH 2010.0)

Province: Québec

State: Maine

Station	Latitude and Longitude	To Station	Azimuth (From north)	Back Azimuth (From north)	Distance (meters)
MON215	47° 09' 41.425" 69° 31' 45.551"	MON216&217	214° 41' 17"	34° 40' 58"	959.32
MON216&217	47° 09' 15.881" 69° 32' 11.468"	MON218	214° 40' 50"	34° 40' 24"	1314.61
MON218	47° 08' 40.873" 69° 32' 46.970"	MON218A	214° 40' 44"	34° 40' 43"	56.99
MON218A	47° 08' 39.355" 69° 32' 48.509"	MON218B	214° 40' 29"	34° 40' 21"	390.96
MON218B	47° 08' 28.944" 69° 32' 59.065"	MON218C	214° 39' 59"	34° 39' 58"	77.04
MON218C	47° 08' 26.892" 69° 33' 01.144"	MON218D	214° 40' 19"	34° 40' 02"	847.93
MON218D	47° 08' 04.309" 69° 33' 24.034"	MON219	214° 39' 59"	34° 39' 54"	239.74
MON219	47° 07' 57.924" 69° 33' 30.504"	MON219A	214° 39' 54"	34° 39' 26"	1384.04
MON219A	47° 07' 21.060" 69° 34' 07.851"	MON220	214° 39' 54"	34° 39' 49"	229.72
MON220	47° 07' 14.942" 69° 34' 14.050"	MON220A	214° 38' 49"	34° 38' 46"	149.48
MON220A	47° 07' 10.960" 69° 34' 18.081"	MON221	214° 39' 15"	34° 39' 05"	506.61
MON221	47° 06' 57.465" 69° 34' 31.746"	MON222	214° 39' 28"	34° 39' 09"	954.65
MON222	47° 06' 32.036" 69° 34' 57.495"	MON222A	214° 39' 01"	34° 38' 57"	158.22
MON222A	47° 06' 27.821" 69° 35' 01.762"	MON223	214° 39' 01"	34° 38' 32"	1452.82

SPECIAL REPORT 8 - SOUTHWEST AND SOUTH LINES
 NAD83 (EPOCH 2010.0)

Province: Québec

State: Maine

Station	Latitude and Longitude	To Station	Azimuth (From north)	Back Azimuth (From north)	Distance (meters)
MON223	47° 05' 49.118" 69° 35' 40.931"	MON223A	214° 39' 19"	34° 39' 11"	398.45
MON223A	47° 05' 38.505" 69° 35' 51.674"	MON224	214° 37' 46"	34° 37' 44"	103.22
MON224	47° 05' 35.754" 69° 35' 54.456"	SOMON225	214° 38' 29"	34° 38' 07"	1124.28
SOMON225	47° 05' 05.801" 69° 36' 24.754"	MON225-90	214° 38' 41"	34° 38' 34"	309.19
MON225-90	47° 04' 57.564" 69° 36' 33.086"	MON226	214° 37' 53"	34° 37' 27"	1288.38
MON226	47° 04' 23.233" 69° 37' 07.790"	MON227	214° 37' 46"	34° 37' 13"	1634.89
MON227	47° 03' 39.668" 69° 37' 51.816"	MON227A	214° 37' 29"	34° 37' 19"	480.31
MON227A	47° 03' 26.869" 69° 38' 04.747"	MON227B	214° 37' 46"	34° 37' 41"	260.63
MON227B	47° 03' 19.925" 69° 38' 11.765"	MON228-90	214° 36' 42"	34° 36' 31"	568.92
MON228-90	47° 03' 04.762" 69° 38' 27.076"	SOMON228	214° 34' 25"	34° 34' 20"	281.60
SOMON228	47° 02' 57.254" 69° 38' 34.646"	MON229	214° 36' 23"	34° 36' 09"	681.48
MON229	47° 02' 39.089" 69° 38' 52.981"	MON230-51	214° 35' 24"	34° 35' 08"	844.97
SOMON230	47° 02' 14.217" 69° 39' 18.086"	SOMON230	214° 46' 10"	34° 46' 08"	88.21
MON230-51	47° 02' 16.563" 69° 39' 15.703"	MON230A	214° 36' 06"	34° 35' 40"	1309.76

SPECIAL REPORT 8 - SOUTHWEST AND SOUTH LINES

NAD83 (EPOCH 2010.0)

Province: Québec

State: Maine

Station	Latitude and Longitude	To Station	Azimuth (From north)	Back Azimuth (From north)	Distance (meters)
MON230A	47° 01' 39.304" 69° 39' 53.309"	MON231	214° 35' 56"	34° 35' 50"	305.54
MON231	47° 01' 31.160" 69° 40' 01.525"	MON232	214° 34' 53"	34° 34' 49"	245.98
MON232	47° 01' 24.602" 69° 40' 08.136"	MON232A	214° 35' 02"	34° 34' 53"	455.15
MON232A	47° 01' 12.467" 69° 40' 20.369"	MON233	214° 34' 50"	34° 34' 31"	937.62
MON233	47° 00' 47.468" 69° 40' 45.564"	MON234	214° 34' 10"	34° 34' 02"	388.29
MON234	47° 00' 37.114" 69° 40' 55.995"	MON235	214° 34' 15"	34° 34' 04"	570.82
MON235	47° 00' 21.893" 69° 41' 11.328"	MON236	214° 34' 02"	34° 33' 50"	635.21
MON236	47° 00' 04.956" 69° 41' 28.390"	MON236A	214° 34' 05"	34° 33' 35"	1539.51
MON236A	46° 59' 23.901" 69° 42' 09.725"	MON237	214° 30' 57"	34° 30' 56"	77.56
MON237	46° 59' 21.831" 69° 42' 11.805"	MON237A	214° 34' 18"	34° 34' 15"	137.77
MON237A	46° 59' 18.157" 69° 42' 15.504"	MON237B	214° 32' 39"	34° 32' 35"	163.39
MON237B	46° 59' 13.799" 69° 42' 19.889"	MON238	214° 32' 53"	34° 32' 47"	307.32
MON238	46° 59' 05.603" 69° 42' 28.136"	MON239	214° 32' 42"	34° 32' 41"	70.65
MON239	46° 59' 03.718" 69° 42' 30.031"	MON239A	214° 34' 52"	34° 34' 51"	73.01

SPECIAL REPORT 8 - SOUTHWEST AND SOUTH LINES
NAD83 (EPOCH 2010.0)

Province: Québec

State: Maine

Station	Latitude and Longitude	To Station	Azimuth (From north)	Back Azimuth (From north)	Distance (meters)
MON239A	46° 59' 01.771" 69° 42' 31.992"	MON239B	214° 32' 48"	34° 32' 46"	117.94
MON239B	46° 58' 58.625" 69° 42' 35.157"	MON239C	214° 32' 45"	34° 32' 35"	509.01
MON239C	46° 58' 45.048" 69° 42' 48.814"	MON240	214° 33' 15"	34° 33' 10"	233.78
MON240	46° 58' 38.814" 69° 42' 55.088"	MON240A	214° 32' 38"	34° 32' 29"	472.57
MON240A	46° 58' 26.208" 69° 43' 07.765"	MON240B	214° 32' 23"	34° 32' 11"	602.77
MON240B	46° 58' 10.129" 69° 43' 23.933"	MON241-90	214° 32' 11"	34° 32' 06"	235.39
MON241-90	46° 58' 03.850" 69° 43' 30.246"	MON241	214° 32' 20"	34° 32' 14"	303.42
MON241	46° 57' 55.756" 69° 43' 38.383"	MON241A	214° 32' 30"	34° 32' 06"	1242.87
MON241A	46° 57' 22.604" 69° 44' 11.715"	MON242	214° 30' 20"	34° 30' 12"	370.68
MON242	46° 57' 12.707" 69° 44' 21.642"	MON242A	214° 31' 50"	34° 31' 43"	370.35
MON242A	46° 57' 02.830" 69° 44' 31.571"	MON242-77	214° 32' 10"	34° 31' 49"	1084.49
MON242-77	46° 56' 33.899" 69° 45' 00.642"	SOMON242A	214° 26' 06"	34° 26' 05"	33.85
SOMON242A	46° 56' 32.995" 69° 45' 01.547"	MON243	214° 31' 33"	34° 31' 31"	126.55
MON243	46° 56' 29.619" 69° 45' 04.938"	MON243A1	214° 31' 54"	34° 31' 44"	509.52

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MON243A1	46° 56' 16.026" 69° 45' 18.593"	MON243A	214° 31' 28"	34° 31' 19"	437.40
MON243A	46° 56' 04.356" 69° 45' 30.313"	MON243B	214° 31' 18"	34° 31' 11"	356.53
MON243B	46° 55' 54.843" 69° 45' 39.865"	MON244	214° 31' 24"	34° 31' 18"	311.48
MON244	46° 55' 46.533" 69° 45' 48.210"	MON245	214° 30' 35"	34° 30' 15"	1014.55
MON245	46° 55' 19.459" 69° 46' 15.377"	MON245A	214° 33' 16"	34° 33' 13"	145.43
MON245A	46° 55' 15.581" 69° 46' 19.275"	MON246	214° 29' 52"	34° 29' 43"	453.78
MON246	46° 55' 03.470" 69° 46' 31.422"	MON247	214° 30' 27"	34° 29' 56"	1613.13
MON247	46° 54' 20.421" 69° 47' 14.602"	MON247A	214° 29' 41"	34° 29' 33"	369.68
MON247A	46° 54' 10.554" 69° 47' 24.494"	MON247B	214° 29' 17"	34° 29' 16"	59.27
MON247B	46° 54' 08.972" 69° 47' 26.080"	MON247C	214° 30' 39"	34° 30' 36"	166.43
MON247C	46° 54' 04.531" 69° 47' 30.535"	MON248	214° 30' 06"	34° 30' 03"	173.97
MON248	46° 53' 59.888" 69° 47' 35.190"	SOMON249	214° 29' 41"	34° 29' 34"	351.86
SOMON249	46° 53' 50.497" 69° 47' 44.604"	MON249-77	214° 28' 06"	34° 28' 05"	51.73
MON249-77	46° 53' 49.116" 69° 47' 45.987"	MON250	214° 29' 43"	34° 29' 34"	439.17

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MON250	46° 53' 37.395" 69° 47' 57.737"	MON250A1	214° 28' 48"	34° 28' 44"	187.84
MON250A1	46° 53' 32.381" 69° 48' 02.760"	MON250A2	214° 28' 17"	34° 28' 13"	216.08
MON250A2	46° 53' 26.612" 69° 48' 08.537"	MON250A	214° 29' 46"	34° 29' 43"	147.75
MON250A	46° 53' 22.669" 69° 48' 12.490"	MON251	214° 33' 41"	34° 33' 39"	81.30
MON251	46° 53' 20.500" 69° 48' 14.668"	MON251A	214° 29' 45"	34° 29' 44"	38.30
MON251A	46° 53' 19.478" 69° 48' 15.693"	MON252	214° 29' 21"	34° 29' 02"	943.02
MON252	46° 52' 54.307" 69° 48' 40.913"	MON252A	214° 29' 05"	34° 28' 48"	908.38
MON252A	46° 52' 30.059" 69° 49' 05.201"	MON252B	214° 28' 16"	34° 28' 12"	197.25
MON252B	46° 52' 24.793" 69° 49' 10.473"	MON253	214° 28' 35"	34° 28' 25"	509.86
MON253	46° 52' 11.182" 69° 49' 24.101"	MON253A	214° 28' 01"	34° 27' 40"	1095.86
MON253A	46° 51' 41.923" 69° 49' 53.381"	MON254	214° 27' 42"	34° 27' 32"	518.47
MON254	46° 51' 28.079" 69° 50' 07.230"	MON254A	214° 28' 04"	34° 27' 55"	424.70
MON254A	46° 51' 16.740" 69° 50' 18.576"	MON255	214° 27' 47"	34° 27' 36"	603.83
MON255	46° 51' 00.618" 69° 50' 34.705"	MON256	214° 27' 29"	34° 27' 18"	586.11

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MON256	46° 50' 44.968" 69° 50' 50.357"	MON256A1	214° 26' 46"	34° 26' 36"	491.66
MON256A1	46° 50' 31.838" 69° 51' 03.482"	MON256A	214° 26' 46"	34° 26' 40"	335.67
MON256A	46° 50' 22.873" 69° 51' 12.442"	MON256B	214° 27' 52"	34° 27' 43"	444.19
MON256B	46° 50' 11.014" 69° 51' 24.303"	MON257	214° 28' 19"	34° 28' 12"	335.25
MON257	46° 50' 02.063" 69° 51' 33.257"	MON257A	214° 27' 07"	34° 27' 03"	191.64
MON257A	46° 49' 56.946" 69° 51' 38.373"	MON258	214° 27' 27"	34° 27' 19"	442.72
MON258	46° 49' 45.125" 69° 51' 50.192"	MON258A	214° 27' 12"	34° 26' 58"	677.88
MON258A	46° 49' 27.023" 69° 52' 08.285"	MON258B	214° 27' 00"	34° 26' 58"	91.50
MON258B	46° 49' 24.579" 69° 52' 10.727"	MON259	214° 26' 45"	34° 26' 39"	274.90
MON259	46° 49' 17.238" 69° 52' 18.062"	MON259A	214° 26' 10"	34° 26' 07"	197.47
MON259A	46° 49' 11.964" 69° 52' 23.330"	MON259B	214° 27' 09"	34° 27' 00"	466.92
MON259B	46° 48' 59.496" 69° 52' 35.790"	MON259C	214° 25' 59"	34° 25' 50"	501.02
MON259C	46° 48' 46.113" 69° 52' 49.154"	MON260	214° 27' 05"	34° 27' 01"	212.84
MON260	46° 48' 40.429" 69° 52' 54.833"	MON261	214° 27' 03"	34° 26' 53"	523.81

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MON261	46° 48' 26.441" 69° 53' 08.808"	MON262	214° 20' 04"	34° 20' 03"	41.39
MON262	46° 48' 25.335" 69° 53' 09.909"	MON263	214° 26' 39"	34° 26' 15"	1229.78
MON263	46° 47' 52.491" 69° 53' 42.710"	MON263A	214° 24' 47"	34° 24' 41"	334.53
MON263A	46° 47' 43.553" 69° 53' 51.624"	MON264	214° 26' 13"	34° 26' 08"	257.58
MON264	46° 47' 36.674" 69° 53' 58.493"	MON265	214° 24' 45"	34° 24' 25"	1022.88
MON265	46° 47' 09.345" 69° 54' 25.746"	MON265A	214° 24' 24"	34° 24' 17"	374.98
MON265A	46° 46' 59.326" 69° 54' 35.736"	MON265B	214° 23' 43"	34° 23' 37"	287.98
MON265B	46° 46' 51.631" 69° 54' 43.405"	MON266	214° 24' 10"	34° 23' 51"	952.02
MON266	46° 46' 26.192" 69° 55' 08.758"	MON267	214° 23' 47"	34° 23' 15"	1612.99
MON267	46° 45' 43.089" 69° 55' 51.698"	MON267A	214° 21' 19"	34° 21' 17"	102.13
MON267A	46° 45' 40.358" 69° 55' 54.414"	MON268	214° 23' 32"	34° 23' 02"	1512.90
MON268	46° 44' 59.927" 69° 56' 34.677"	MON268A	214° 21' 55"	34° 21' 51"	181.76
MON268A	46° 44' 55.068" 69° 56' 39.510"	MON268B	214° 22' 21"	34° 22' 12"	421.83
MON268B	46° 44' 43.793" 69° 56' 50.730"	MON269	214° 23' 05"	34° 23' 03"	96.67

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MON269	46° 44' 41.209" 69° 56' 53.302"	MON269A	214° 22' 26"	34° 22' 21"	228.44
MON269A	46° 44' 35.103" 69° 56' 59.377"	MON270	214° 22' 40"	34° 22' 27"	684.44
MON270	46° 44' 16.809" 69° 57' 17.581"	MON271	214° 22' 28"	34° 21' 57"	1620.13
MON271	46° 43' 33.503" 69° 58' 00.659"	MON271A	214° 22' 15"	34° 21' 59"	812.62
MON271A	46° 43' 11.781" 69° 58' 22.261"	MON272	214° 21' 56"	34° 21' 40"	797.25
MON272	46° 42' 50.469" 69° 58' 43.450"	MON272A	214° 21' 02"	34° 20' 39"	1185.86
MON272A	46° 42' 18.762" 69° 59' 14.949"	MON273	214° 20' 37"	34° 20' 29"	429.90
MON273	46° 42' 07.267" 69° 59' 26.365"	MON274	214° 20' 49"	34° 20' 40"	507.94
MON274	46° 41' 53.686" 69° 59' 39.855"	MON275	214° 20' 31"	34° 20' 28"	183.54
MON275	46° 41' 48.778" 69° 59' 44.728"	MON276	214° 20' 37"	34° 20' 34"	180.46
MON276	46° 41' 43.952" 69° 59' 49.520"	MON276A	214° 19' 27"	34° 19' 27"	3.01
MON276A	46° 41' 43.872" 69° 59' 49.600"	MON277	188° 23' 24"	8° 23' 20"	713.95
MON277	46° 41' 20.999" 69° 59' 54.502"	MON278	188° 23' 10"	8° 23' 09"	91.93
MON278	46° 41' 18.054" 69° 59' 55.133"	MON279	188° 23' 51"	8° 23' 50"	91.82

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MON279	46° 41' 15.112" 69° 59' 55.764"	MON280	188° 23' 11"	8° 23' 10"	183.18
MON280	46° 41' 09.243" 69° 59' 57.021"	MON281	188° 22' 59"	8° 22' 52"	1338.00
MON281	46° 40' 26.376" 70° 00' 06.199"	MON281A	188° 22' 35"	8° 22' 34"	147.57
MON281A	46° 40' 21.648" 70° 00' 07.210"	MON282	188° 23' 00"	8° 22' 53"	1465.37
MON282	46° 39' 34.699" 70° 00' 17.259"	MON282A	188° 22' 24"	8° 22' 23"	152.46
MON282A	46° 39' 29.815" 70° 00' 18.303"	MON283	188° 23' 00"	8° 22' 53"	1460.47
MON283	46° 38' 43.024" 70° 00' 28.316"	MON283A	188° 19' 31"	8° 19' 30"	186.44
MON283A	46° 38' 37.049" 70° 00' 29.585"	MON284	188° 22' 43"	8° 22' 36"	1425.85
MON284	46° 37' 51.367" 70° 00' 39.353"	MON285	188° 21' 28"	8° 21' 24"	940.94
MON285	46° 37' 21.218" 70° 00' 45.781"	MON286	188° 32' 03"	8° 32' 02"	52.42
MON286	46° 37' 19.540" 70° 00' 46.147"	MON287	188° 22' 13"	8° 22' 10"	620.59
MON287	46° 36' 59.656" 70° 00' 50.393"	MON287A1	188° 22' 44"	8° 22' 43"	168.67
MON287A1	46° 36' 54.252" 70° 00' 51.548"	MON287A	188° 21' 22"	8° 21' 22"	143.25
MON287A	46° 36' 49.662" 70° 00' 52.526"	MON287B	188° 21' 53"	8° 21' 47"	1182.17

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MON287B	46° 36' 11.785" 70° 01' 00.607"	MON288	188° 21' 57"	8° 21' 57"	118.66
MON288	46° 36' 07.983" 70° 01' 01.418"	MON288A-91	188° 22' 19"	8° 22' 17"	448.83
MON288A-91	46° 35' 53.603" 70° 01' 04.488"	MON289	188° 22' 20"	8° 22' 18"	357.73
MON289	46° 35' 42.141" 70° 01' 06.935"	MON290	188° 21' 14"	8° 21' 12"	342.73
MON290	46° 35' 31.160" 70° 01' 09.274"	MON291	188° 24' 08"	8° 24' 08"	80.89
MON291	46° 35' 28.568" 70° 01' 09.830"	MON291A	188° 22' 06"	8° 22' 05"	271.88
MON291A	46° 35' 19.858" 70° 01' 11.688"	MON292	188° 21' 50"	8° 21' 50"	111.16
MON292	46° 35' 16.296" 70° 01' 12.448"	MON293	188° 21' 47"	8° 21' 39"	1612.89
MON293	46° 34' 24.618" 70° 01' 23.464"	MON293A	188° 21' 25"	8° 21' 21"	889.84
MON293A	46° 33' 56.106" 70° 01' 29.537"	MON294	188° 21' 48"	8° 21' 44"	723.58
MON294	46° 33' 32.922" 70° 01' 34.478"	MON294A	188° 21' 36"	8° 21' 30"	1189.38
MON294A	46° 32' 54.813" 70° 01' 42.595"	MON295	188° 21' 45"	8° 21' 43"	423.73
MON295	46° 32' 41.237" 70° 01' 45.488"	MON296	188° 21' 23"	8° 21' 15"	1613.33
MON296	46° 31' 49.543" 70° 01' 56.490"	MON296A	188° 21' 07"	8° 21' 02"	991.47

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MON296A	46° 31' 17.775" 70° 02' 03.247"	SOMON297	188° 20' 45"	8° 20' 42"	661.60
SOMON297	46° 30' 56.575" 70° 02' 07.752"	MON297-91	188° 22' 41"	8° 22' 40"	127.93
MON297-91	46° 30' 52.477" 70° 02' 08.626"	MON297A	188° 20' 37"	8° 20' 33"	934.51
MON297A	46° 30' 22.533" 70° 02' 14.986"	MON298	188° 21' 49"	8° 21' 47"	510.40
MON298	46° 30' 06.179" 70° 02' 18.468"	MON299	188° 21' 41"	8° 21' 33"	1611.67
MON299	46° 29' 14.539" 70° 02' 29.457"	MON299A	188° 21' 29"	8° 21' 27"	556.00
MON299A	46° 28' 56.724" 70° 02' 33.246"	MON300	188° 21' 14"	8° 21' 09"	1055.82
MON300	46° 28' 22.893" 70° 02' 40.436"	MON301-91	188° 21' 15"	8° 21' 09"	1304.03
MON301-91	46° 27' 41.109" 70° 02' 49.315"	SOMON301	188° 21' 28"	8° 21' 26"	308.59
SOMON301	46° 27' 31.221" 70° 02' 51.417"	MON301A	188° 21' 12"	8° 21' 10"	426.69
MON301A	46° 27' 17.550" 70° 02' 54.322"	MON302	188° 21' 10"	8° 21' 04"	1185.31
MON302	46° 26' 39.570" 70° 03' 02.389"	MON303	188° 20' 42"	8° 20' 34"	1612.13
MON303	46° 25' 47.912" 70° 03' 13.348"	MON304	188° 21' 28"	8° 21' 26"	524.62
MON304	46° 25' 31.102" 70° 03' 16.919"	MON305	188° 17' 40"	8° 17' 40"	120.84

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MON305	46° 25' 27.230" 70° 03' 17.736"	MON306	188° 20' 56"	8° 20' 55"	99.09
MON306	46° 25' 24.055" 70° 03' 18.409"	MON307	188° 20' 55"	8° 20' 53"	361.31
MON307	46° 25' 12.477" 70° 03' 20.866"	MON308	188° 20' 35"	8° 20' 33"	322.79
MON308	46° 25' 02.134" 70° 03' 23.059"	TP1 RM309	188° 21' 09" 188° 21' 10"	8° 21' 09" 8° 21' 09"	79.76 122.10