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Frontispiece.



Typical Boundary Monument.

(11)

REPORT
OF THE
INTERNATIONAL WATERWAYS COMMISSION
UPON THE
INTERNATIONAL BOUNDARY
BETWEEN THE
DOMINION OF CANADA AND THE UNITED STATES
THROUGH THE
ST. LAWRENCE RIVER AND GREAT LAKES
AS ASCERTAINED AND RE-ESTABLISHED
PURSUANT TO
ARTICLE IV OF THE TREATY BETWEEN GREAT BRITAIN AND
THE UNITED STATES SIGNED 11th APRIL, 1908.

OTTAWA
GOVERNMENT PRINTING BUREAU
1916



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INTERNATIONAL WATERWAYS COMMISSION,
OFFICE OF AMERICAN SECTION,
328 FEDERAL BUILDING,
BUFFALO, N. Y., April 29, 1915.

The Secretary of State of the United States,
Washington, D.C.

The Minister of Public Works of Canada,
Ottawa, Canada.

The Boundary Treaty between Great Britain and the United States, signed at Washington, April 11, 1908, contained the following article authorizing and empowering the International Waterways Commission to ascertain and re-establish accurately the boundary between Canada and the United States from its intersection with the St. Lawrence River near the forty-fifth parallel of north latitude and thence through the Great Lakes and communicating waterways to the mouth of Pigeon River in Lake Superior.

BOUNDARY TREATY OF 1908.

ARTICLE IV.

The boundary from its intersection with the St. Lawrence River to the mouth of Pigeon River.

The High Contracting Parties agree that the existing International Waterways Commission, constituted by concurrent action of the United States and the Dominion of Canada and composed of three Commissioners on the part of the United States and three Commissioners on the part of the Dominion of Canada, is hereby authorized and empowered to ascertain and reestablish accurately the location of the international boundary line beginning at the point of its intersection with the St. Lawrence River near the forty-fifth parallel of north latitude, as determined under Articles I and VI of the Treaty of August

9, 1842, between Great Britain and the United States, and thence through the Great Lakes and communicating waterways to the mouth of Pigeon River, at the western shore of Lake Superior, in accordance with the description of such line in Article II of the Treaty of Peace between Great Britain and the United States, dated September 3, 1783, and of a portion of such line in Article II of the Treaty of August 9, 1842, aforesaid, and as described in the joint report dated June 18, 1822, of the Commissioners appointed under Article VI of the Treaty of December 24, 1814, between Great Britain and the United States, with respect to a portion of said line and as marked on charts prepared by them and filed with said report, and with respect to the remaining portion of said line as marked on the charts adopted as Treaty charts of the boundary under the provisions of Article II of the Treaty of 1842, above mentioned, with such deviation from said line, however, as may be required on account of the cession by Great Britain to the United States of the portion of Horse Shoe Reef in the Niagara River necessary for the light-house erected there by the United States in accordance with the terms of the protocol of a conference held at the British Foreign Office December 9, 1850, between the representatives of the two Governments and signed by them agreeing upon such cession; and it is agreed that wherever the boundary is shown on said charts by a curved line along the water the Commissioners are authorized in their discretion to adopt, in place of such curved line, a series of connecting straight lines defined by distances and courses and following generally the course of such curved line, but conforming strictly to the description of the boundary in the existing treaty provisions, and the geographical coordinates of the turning points of such line shall be stated by said Commissioners so as to conform to the system of latitudes and longitudes of the charts mentioned below, and the said Commissioners shall so far as practicable mark the course of the entire boundary line located and defined as aforesaid, by buoys and monuments in the waterways and by permanent range marks established on the adjacent shores or islands, and by such other boundary marks and at such points as in the judgment of the Commissioners it is desirable that the boundary should be so marked; and the line of the boundary defined and located as aforesaid shall be laid down by said Commissioners on accurate modern charts prepared or adopted by them for that purpose, in quad-

uplicate sets, certified and signed by the Commissioners, two duplicate originals of which shall be filed by them with each Government; and the Commissioners shall also prepare in duplicate and file with each Government a joint report or reports describing in detail the course of said line and the range marks and buoys marking it, and the character and location of each boundary mark. The majority of the Commissioners shall have power to render a decision.

The line so defined and laid down shall be taken and deemed to be the international boundary as defined and established by Treaty provisions and the proceedings thereunder as aforesaid from its intersection with the St. Lawrence River to the mouth of Pigeon River.

In compliance with this article, the International Waterways Commission have the honour to submit their final report on the boundary between Canada and the United States through the St. Lawrence River, Great Lakes, and communicating waterways.

The boundary between the Dominion of Canada and the United States of America, through the St. Lawrence River and the Great Lakes, was originally defined by the Provisional Treaty of Peace between Great Britain and the United States, concluded at Paris, November 30, 1782. The following is a copy of Article II of this Treaty, which relates specifically to the boundary between Canada and the United States:

PROVISIONAL TREATY OF PEACE, 1782.

ARTICLE 2D.

From the north west Angle of Nova Scotia, viz. that angle which is form'd by a Line drawn due north, from the source of St. Croix River to the Highlands, along the said Highlands which divide those Rivers that empty themselves into the River St. Laurence, from those which fall into the Atlantic Ocean, to the northwesternmost Head of Connecticut River; thence down along the middle of that River to the 45th. Degree of North Latitude; from thence by a Line due West on said Latitude, untill it strikes the River Iroquois, or Cataraquy; thence along the middle of said River into Lake Ontario; through the middle of said Lake, untill it strikes the Communication by Water be-

tween that Lake and Lake Erie; thence along the middle of the said Communication into Lake Erie; through the middle of said Lake untill it arrives at the Water Communication between that Lake and Lake Huron; thence along the middle of said water communication into the Lake Huron; thence through the middle of said Lake to the Water Communication between that Lake and Lake Superior; thence through Lake Superior northward of the Isles Royal & Phelipeaux, to the Long Lake; thence through the middle of said Long Lake, and the water Communication between it and the Lake of the Woods, to the said Lake of the Woods, thence through the said Lake to the most Northwestern point thereof, and from thence on a due west Course to the River Mississippi; thence by a Line to be drawn along the middle of the said River Mississippi, untill it shall intersect the northernmost part of the 31st. Degree of North Latitude. South, by a line to be drawn due East, from the Determination of the Line last mention'd, in the Latitude of 31 Degrees North of the Equator, to the middle of the River Apalachicola or Catahouche; thence along the middle thereof, to its junction with the Flint River; thence strait to the Head of St. Mary's River, and thence down along the middle of St. Mary's River to the Atlantic Ocean. East, by a Line to be drawn along the middle of the River St. Croix, from its Mouth in the Bay of Fundy to its Source; and from its Source directly North, to the aforesaid Highlands which divide the Rivers that fall into the Atlantic Ocean, from those which fall into the River St. Laurence; comprehending all Islands within twenty Leagues of any part of the Shores of the united States, and lying between Lines to be drawn due East from the points where the aforesaid Boundaries between Nova Scotia on the one part and East Florida on the other shall respectively touch the Bay of Fundy, and the Atlantic Ocean; excepting such Islands as now are, or heretofore have been within the Limits of the said Province of Nova Scotia.

About nine months later, September 3, 1783, a definite treaty of peace was concluded at Paris between Great Britain and the United States. Article II of this treaty defines the boundary line through the St. Lawrence River and the Great Lakes as follows:

TREATY OF 1783, GREAT BRITAIN AND UNITED STATES.

ARTICLE 2D.

And that all Disputes, which might arise in future on the Subject of the Boundaries of the said United States may be prevented, it is hereby agreed and declared, that the following are and shall be their Boundaries, viz: From the North West Angle of Nova Scotia, viz: that Angle which is formed by a Line drawn due North from the Source of St. Croix River to the Highlands, along the said Highlands, which divide those Rivers that empty themselves into the River St. Laurence, from those which fall into the Atlantic Ocean, to the North Western most Head of Connecticut River: Thence down along the middle of that River to the Forty Fifth Degree of North Latitude; from thence by a Line due West on said Latitude, until it strikes the River Iroquois or Cataraquy; Thence along the middle of said River into lake Ontario; Through the middle of said Lake until it strikes the Communication by Water between that Lake and Lake Erie; Thence along the middle of said Communication into Lake Erie, through the middle of said Lake until it arrives at the Water Communication between that Lake and Lake Huron, Thence along the middle of said Water Communication into the Lake Huron, thence through the middle of said Lake to the Water Communication between that Lake and Lake Superior, thence through Lake Superior Northward of the Isles Royal and Phelipeaux to Long Lake, Thence through the middle of said Long Lake and the Water Communication between it and the Lake of the Woods, to the said Lake of the Woods, thence through the said Lake to the most Northwestern Point thereof, and from thence on a due west Course to the River Mississippi, Thence by a Line to be drawn along the middle of the said River Mississippi until it shall intersect the Northern-most Part of the Thirty first Degree of North Latitude. South, by a Line to be drawn due East from the Determination of the Line last mentioned in the Latitude of thirty one Degrees North of the Equator to the Middle of the River Aplachicola or Catahouche, Thence along the middle thereof to its Junction with the Flint River, Thence strait to the Head of St. Mary's River; and thence down along the middle of Saint Mary's River to the Atlantic Ocean. East, By a Line to be drawn along the middle of the

River St. Croix, from its mouth in the Bay of Fundy to its source, and from its Source directly North to the aforesaid Highlands which divide the Rivers that fall into the Atlantic Ocean from those which fall into the River Saint Laurence; comprehending all Islands within twenty Leagues of any Part of the shores of the United States, and lying between Lines to be drawn due East from the Points where the aforesaid Boundaries between Nova Scotia on the one Part and East Florida on the other, shall respectively touch the Bay of Fundy and the Atlantic Ocean, excepting such Islands as now are or hertofore have been within the Limits of the said Province of Nova Scotia.

On December 24, 1814, Great Britain and the United States concluded the Treaty of Ghent, at Ghent. This treaty provided for the appointment of two Commissioners to map and locate the boundary line in accordance with Article II of the Treaty of 1783.

TREATY OF GHENT, 1814.

ARTICLE 6.

Whereas by the former Treaty of Peace that portion of the boundary of the United States from the point where the Forty Fifth Degree of North Latitude strikes the River Iroquois or Cataraquy to the Lake Superior was declared to be "along the middle of said River into Lake Ontario, through the middle of said Lake until it strikes the communication by water between that Lake and Lake Erie, thence along the middle of said communication into Lake Erie, through the middle of said Lake until it arrives at the water communication into the Lake Huron, thence through the middle of said Lake to the water communication between that Lake and Lake Superior," and whereas doubts have arisen what was the middle of the said River, Lakes, and water communications, and whether certain Islands lying in the same were within the dominions of His Britannic Majesty, or of the United States; In order therefore finally to decide these doubts, they shall be referred to Two Commissioners to be appointed, sworn and authorized to act exactly in the manner directed with respect to those mentioned in the next preceding article, unless otherwise specified in this present article. The said Commissioners shall meet, in the first instance at Albany in the State of New York, and shall

have power to adjourn to such other place or places, as they shall think fit. The said Commissioners shall by a report or declaration under their hands and seals designate the boundary through the said River, Lakes and Water communications, and decide to which of the two Contracting parties the several Islands lying within the said Rivers, Lakes and Water communications do respectively belong in conformity with the true intent of the said Treaty of Seventeen Hundred and Eighty Three. And both parties agree to consider such designation and decision as final and conclusive. And in the event of the said Two Commissioners differing or both or either of them refusing, declining or wilfully omitting to act, such reports, declarations or statements shall be made by them or either of them, and such reference to a friendly Sovereign or State shall be made in all respects as in the latter part of the Fourth Article is contained, and in as full a manner as if the same was herein repeated.

ARTICLE 7.

It is further agreed that the said Two last mentioned Commissioners, after they shall have executed the duties assigned to them in the preceding article, shall be and they are hereby authorized upon their oaths impartially to fix and determine according to the true intent of the said Treaty of Peace of Seventeen Hundred and Eighty Three, that part of the boundary between the dominions of the two Powers which extends from the water communication between Lake Huron and Lake Superior to the most north western point of the Lake of the woods; to decide to which of the two parties the several Islands lying in the Lakes, water communications and Rivers forming the said boundary do respectively belong, in conformity with the true intent of the said Treaty of Peace of Seventeen Hundred and Eighty Three, and to cause such parts of the said boundary as require it, to be surveyed and marked. The said Commissioners shall by a report or declaration under their hands and seals designate the boundary aforesaid, state their decision on the points thus referred to them, and particularize the Latitude and Longitude of the most north western point of the Lake of the Woods and of such other parts of the said boundary as they may deem proper. And both parties agree to consider such designation and decision as final and conclusive. And in the event of the said two Commissioners differing or both or either of them refusing, declining or wil-

fully omitting to act, such reports, declarations or statements shall be made by them, or either of them and such reference to a friendly Sovereign or State, shall be made in all respects as in the latter part of the Fourth Article is contained, and in as full a manner as if the same was herein repeated.

The Commission under Article VI of the Treaty of Ghent for locating the boundary from the St. Lawrence River to the communication between Lake Huron and Lake Superior met November 18, 1816, and having agreed held their last meeting June 22, 1822.

DECISION OF THE COMMISSIONERS UNDER THE SIXTH ARTICLE
OF THE TREATY OF GHENT. DONE AT UTICA, IN THE STATE
OF NEW YORK, 18TH JUNE, 1822.

The Undersigned Commissioners, appointed sworn and authorized, in virtue of the Sixth Article of the Treaty of Peace and Amity between His Britannic Majesty and The United States of America, concluded at Ghent on the twenty fourth day of December in the year of our Lord One thousand eight hundred and fourteen, impartially to examine, and, by a Report or Declaration under their hands and seals, to designate "that portion of the boundary of the United States from the point where the 45th degree of North latitude strikes the river Iroquois or Cataragua along the Middle of said river into lake Ontario through the middle of said lake until it strikes the communication by water between that lake and lake Erie thence along the middle of said Communication into lake Erie through the middle of said lake until it arrives at the Water Communication into lake Huron thence through the middle of said water communication into lake Huron, thence through the middle of said lake to the water communication between that lake and lake Superior" and to "decide to which of the two contracting parties the several islands lying within the said rivers lakes and water communications, do respectively belong in conformity with the true intent of the treaty of 1783:" do decide and declare that the following described line (which is more clearly indicated on a series of Maps accompanying this Report exhibiting correct surveys and delineations of all the rivers lakes water communications and islands embraced by the Sixth Article of the Treaty of Ghent by a Black line shaded on the British side with Red and on the American side with Blue and each sheet of which series of maps is identified by

a certificate subscribed by the Commissioners and by the two Principal Surveyors employed by them) is the true boundary intended by the two before mentioned Treaties: that is to say,

Beginning at a Stone Monument, erected by Andrew Ellicott Esquire in the year of our Lord One thousand eight hundred and seventeen on the South bank or shore of the said River Iroquois or Cataragua (now called the St. Lawrence) which Monument bears South seventy four degrees and forty five minutes west and is eighteen hundred and forty yards distant from the Stone Church in the Indian Village of St. Regis and indicates the point at which the forty fifth parallel of North latitude strikes the said river. Thence running north thirty five degrees and forty five minutes west into the river on a line at right angles with the Southern shore to a point one hundred yards south of the opposite island called Cornwall Island: Thence turning westerly and passing around the southern and western sides of said island keeping one hundred yards distant therefrom and following the curvatures of its shores to a point opposite to the north west corner or angle of said island Thence to and along the middle of the main river until it approaches the eastern extremity of Barnhart's Island: Thence northerly along the Channel which divides the last mentioned island from the Canada shore keeping one hundred yards distant from the island until it approaches Sheik's Island: Thence along the middle of the Strait which divides Barnhart's and Sheik's Islands to the Channel called The Long Sault which separates the two last mentioned islands from the Lower Long Sault Island: Thence westerly (crossing the centre of the last mentioned Channel) until it approaches within one hundred yards of the north shore of the Lower Sault Island Thence up the north branch of the river keeping to the north of and near the Lower Sault Island and also north of and near the Upper Sault (sometimes called Baxter's) Island and south of the two small islands marked on the Map A and B to the Western extremity of the Upper Sault or Baxter's Island: Thence passing between the two islands called The Cats to the middle of the river above: Thence along the middle of the river keeping to the north of the small islands marked C and D and north also of Chrystler's Island and of the small island next above it marked E until it approaches the north east angle of Goose Neck Island: Thence along the passage which divides the last mentioned island from the Canada shore keeping one hundred yards from the island to the upper end of the same:

Thence South of and near the two small islands called the Nut islands: Thence north of and near the island marked F and also of the Island called Dry or Smuggler's Island: Thence passing between the islands marked G and H*, to the north of the island called Isle au Rapid Plat: Thence along the north side of the last mentioned Island, keeping one hundred yards from the shore to the upper end thereof: Thence along the middle of the river keeping to south of and near the islands called Cousson (or Tussin) and Presque Isle: Thence up the river keeping north of, and near, the several Gallop Isles numbered on the Map 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10 and also of Tick, Tibbet's and Chimney Islands and south of and near the Gallop Isles numbered 11, 12, & 13 and also of Duck, Drummond, and Sheep Islands: Thence along the middle of the river passing north of Island No. 14, South of 15 & 16 north of 17 South of 18, 19, 20, 21, 22, 23, 24, 25 & 28, and north of 26† & 27: Thence along the middle of the river north of Gull Island and of the islands No. 29, 32, 33, 34, 35 Bluff Island and No. 39, 44, & 45 and to the south of No. 30, 31, 36 Grenadier Island and No. 37, 38, 40, 41, 42, 43, 46, 47 & 48 until it approaches the east end of Well's Island: Thence to the north of Well's Island and along the Strait which divides it from Rowe's Island keeping to the north of the small islands No. 51, 52, 54, 58, 59 & 61 and to the south of the small islands numbered and marked 49, 50, 53, 55 57, 60 & X until it approaches the north east point of Grindstone Island: Thence to the north of Grindstone Island and keeping to the north also of the small islands No. 63, 65, 67, 68, 70, 72, 73, 74, 75, 76, 77 & 78 and to the south of No. 62, 64, 66, 69 & 71 until it approaches the southern point of Hickory Island: Thence passing to the south of Hickory Island and of the two small islands lying near its southern extremity numbered 79 & 80: Thence to the south of Grand or Long Island keeping near its southern shore and passing to the north of Carlton Island until it arrives opposite to the south western point of said Grand Island in lake Ontario: Thence passing to the North of Grenadier, Fox Stony and the Gallop Islands in lake Ontario and to the south of and near the Islands called The Ducks to the middle of said lake: Thence westerly along the middle of said lake to a point opposite the mouth of the Niagara River: Thence to and

* I on maps filed at Washington. W. J. S.

† Boundary line drawn south of 26 on maps filed in Washington. W.J.S.

up the middle of the said River to the Great Falls: Thence up the Falls through the point of the Horse Shoe, Keeping to the west of Iris or Goat Island and of the group of small islands at its head and following the bends of the River so as to enter the Strait between Navy and Grand Islands Thence along the middle of said strait to the head of Navy Island: Thence to the west and south of and near to Grand and Beaver Islands and to the west of Strawberry Squaw, and Bird Islands to Lake Erie; Thence southerly and westerly along the middle of Lake Erie in a direction to enter the Passage immediately south of Middle Island being one of the easternmost of the Group of Islands lying in the western part of said lake: Thence along the said Passage proceeding to the North of Cunningham's Island, of the Three Bass Islands and of the Western Sister and to the south of the islands called The Hen & Chickens, and of the Eastern and Middle Sisters: Thence to the middle of the mouth of the Detroit River in a direction to enter the channel which divides Bois Blanc and Sugar Islands: Thence up the said Channel to the west of Bois Blanc Island and to the east of Sugar, Fox and Stony Islands until it approaches Fighting or Great Turkey Island: Thence along the western side and near the shore of said last mentioned island to the middle of the river above the same: Thence along the middle of said river keeping to the south east of and near Hog Island and to the north west of and near the island called Isle a la Pache, to lake St. Clair: Thence through the middle of said lake in a direction to enter that mouth or Channel of the river St. Clair which is usually denominated The Old Ship Channel; Thence along the middle of said Channel between Squirril Island on the south east and Herson's Island on the north west, to the upper end of the last mentioned island which is nearly opposite to Point aux Chenes on the American Shore Thence along the middle of the river St. Clair keeping to the west of and near the islands called Belle Rivière Isle and Isle aux Cerfs to lake Huron: Thence through the middle of Lake Huron in a direction to enter the strait or passage between Drummond's Island on the West, and the Little Manitou Island on the east: Thence through the middle of the passage which divides the two last mentioned islands: Thence, turning northerly and westerly around the eastern and northern shores of Drummond's island and proceeding in a direction to enter the passage between the island of St. Joseph's and the American shore passing to the north of the intermediate islands No. 61, 11, 10,

12, 9, 6, 4 & 2 and to the south of those numbered 15, 13, 5 & 1: Thence up the said last mentioned Passage keeping near to the Island St. Joseph's and passing to the North and east of Isle a la Crosse and of the small islands numbered 16, 17, 18, 19 & 20 and to the south and west of those numbered 21, 22 & 23 until it strikes a line (drawn on the Map with black ink and shaded on one side of the point of intersection with blue and on the other with red) passing across the river at the head of St. Joseph's Island, and at the foot of the Neebish Rapids: which line denotes the termination of the Boundery directed to be run by the Sixth Article of the Treaty of Ghent.

And the said Commissioners do further decide and declare that all the islands lying in the Rivers Lakes and Water Communications between the before described Boundary Line and the adjacent shores of Upper Canada Do and each of them does belong to his Britannic Majesty and that all the islands lying in the rivers Lakes and Water Communications between the said Boundary Lines and the adjacent shores of the United States or their Territories Do and each of them Does belong to the United States of America in conformity with the true intent of the second Article of the said Treaty of 1783 and of the Sixth Article of the Treaty of Ghent.

In faith whereof We the Commissioners aforesaid have signed this Declaration and thereunto affixed our Seals.

Done in Quadruplicate at Utica in the State of New York in the United States of America this eighteenth day of June in the year of our Lord One thousand eight hundred and twenty two.

ANTH. BARCLAY	[Seal.]
PETER. B. PORTER	[Seal.]

The Commission under Article VII of the Treaty of Ghent, for locating the boundary from Lake Huron to the Lake of the Woods, met June 22, 1822, and having disagreed held their final meeting December 24, 1827.

Certain portions of the boundary line between the Dominion of Canada and the United States described in the treaties of 1782 and 1783 had not been definitely ascertained and determined up to 1842. The completion was provided for in the Webster-Ashburton Treaty concluded August 9, 1842. This treaty, in Article 1, provided for settlement of the north-

eastern boundary between Canada and the United States and describes therein the point of intersection of the forty-fifth parallel of north latitude with the St. Lawrence River, or Iroquois, as formerly called.

WEBSTER-ASHBURTON TREATY.

ARTICLE I.

It is hereby agreed and declared that the line of boundary shall be as follows: Beginning at the monument at the source of the river St. Croix, as designated and agreed to by the Commissioners under the fifth article of the Treaty of 1794, between the Governments of Great Britain and the United States; thence, north, following the exploring line run and marked by the Surveyors of the two Governments in the years 1817 and 1818, under the fifth article of the Treaty of Ghent, to its intersection with the river St. John, and to the middle of the channel thereof; thence, up the middle of the main channel of the said river St. John, to the mouth of the river St. Francis; thence up the middle of the channel of the said river St. Francis, and of the lakes through which it flows, to the outlet of the Lake Pohenagamook; thence, southwesterly, in a straight line to a point on the northwest branch of the river St. John, which point shall be ten miles distant from the main branch of the St. John, in a straight line, and in the nearest direction; but if the said point shall be found to be less than seven miles from the nearest point of the summit or crest of the highlands that divide those rivers which empty themselves into the river Saint Lawrence from those which fall into the river St. John, then the said point shall be made to recede down the said northwest branch of the river St. John, to a point seven miles in a straight line from the said summit or crest; thence, in a straight line, in a course about South eight degrees west, to the point where the parallel of latitude of $46^{\circ} 25'$ north intersects the Southwest branch of the Saint Johns'; thence, southerly, by the said branch, to the source thereof in the highlands at the Metjarmette Portage; thence, down along the said highlands which divide the waters which empty themselves into the river St. Lawrence from those which fall into the Atlantic Ocean, to

the head of Hall's Stream; thence, down the middle of said Stream, till the line thus run intersects the old line of boundary surveyed and marked by Valentine and Collins previously to the year 1774, as the 45th degree of north latitude, and which has been known and understood to be the line of actual division between the States of New York and Vermont on one side, and the British Province of Canada on the other; and, from said point, of intersection, west, along the said dividing line as heretofore known and understood, to the Iroquois or St. Lawrence river.

This treaty in Article II also provided for the delimitation of the boundary line between Canada and the United States from the point in Neebish Channel, St. Marys River, where the Commissioners under the sixth article of the Treaty of Ghent terminated their labours, to the Lake of the Woods.

WEBSTER-ASHBURTON TREATY.

ARTICLE II.

It is moreover agreed that from the place where the joint Commissioners terminated their labors under the sixth article of the Treaty of Ghent, to wit: at a point in the Neebish Channel, near Muddy Lake, the line shall run into and along the ship channel between St. Joseph's and St. Tammany Islands, to the division of the channel at or near the head of St. Joseph's Island; thence, turning eastwardly and northwardly, around the lower end of St. George's or Sugar Island, and following the middle of the channel which divides St. George's from St. Joseph's Island; thence up the east Neebish Channel, nearest to St. George's Island, through the middle of Lake George; thence, west of Jonas' Island, into St. Mary's river, to a point in the middle of that river, about one mile above St. George's or Sugar Island, so as to appropriate and assign the said Island to the United States; thence, adopting the line traced on the maps by the Commissioners, through the river St. Mary and Lake Superior, to a point north of Ile Royale in said Lake, one hundred yards to the north and east of Ile Chapeau, which last mentioned Island lies near the northeastern point of Ile Royale, where the line marked by the Commissioners terminates; and from the last mentioned point, southwesterly, through the middle of the Sound between Ile Royale and the northwestern

main land, to the mouth of Pigeon river, and up the said river to, and through, the north and south Fowl Lakes, to the Lakes of the height of land between Lake Superior and the Lake of the Woods; thence, along the water-communications to Lake Saisaginaga, and through that Lake; thence, to and through Cypress Lake, Lac du Bois Blanc, Lac la Croix, Little Vermillion Lake, and Lake Namecan, and through the several smaller lakes, straights, or streams, connecting the lakes here mentioned, to that point in Lac la Pluie, or Rainy Lake, at the Chaudière Falls, from which the Commissioners traced the line to the most northwestern point of the Lake of the Woods; thence, along the said line to the said most northwestern point, being in latitude $49^{\circ} 23' 55''$ north, and in longitude $95^{\circ} 14' 38''$ west from the Observatory at Greenwich:— thence, according to existing Treaties, due south, to its intersection with the 49th parallel of north latitude, and along that parallel to the Rocky Mountains. It being understood that all the water-communications, and all the usual portages along the line from Lake Superior to the Lake of the Woods; and also Grand Portage, from the shore of Lake Superior to the Pigeon river, as now actually used, shall be free and open to the use of the subjects and citizens of both Countries.

On December 9, 1850, representatives of Great Britain and the United States signed, at the Foreign Office, a protocol of a conference ceding Horseshoe Reef, at the foot of Lake Erie, to the United States.

PROTOCOL OF A CONFERENCE HELD AT THE FOREIGN OFFICE,
DECEMBER 9, 1850, CEDING HORSE-SHOE REEF
TO THE UNITED STATES.

Viscount Palmerston, Her Britannick Majesty's Principal Secretary of State for Foreign Affairs, and Abbott Lawrence, Esquire, the Envoy Extraordinary and Minister Plenipotentiary of the United States of America at the Court of Her Britannick Majesty, having met together at the Foreign Office:—

Mr. Lawrence stated that he was instructed by his Government to call the attention of the British Government to the dangers to which the important Commerce of the great Lakes of the interior of America, and more particularly that concentrating at the Town of Buffalo near the entrance of the Niagara River from Lake Erie, and that passing through the

Welland Canal, is exposed from the want of a Lighthouse near the outlet of Lake Erie.—Mr. Lawrence stated that the Current of the Niagara River is at that spot very strong, and increases in rapidity as the River approaches the Falls; and as that part of the River is necessarily used for the purpose of a harbour, the Congress of the United States, in order to guard against the danger arising from the rapidity of the Current, and from other local causes, made an appropriation for the construction of a Lighthouse at the outlet of the Lake.—But on a local survey being made, it was found that the most eligible site for the erection of the Lighthouse was a Reef known by the name of the “Horse-shoe Reef,” which is within the Dominions of Her Britannick Majesty; and Mr. Lawrence was therefore instructed by the Government of the United States to ask whether the Government of Her Britannick Majesty will cede to the United States the Horse-Shoe Reef, or such part thereof as may be necessary for the purpose of erecting a Lighthouse; and if not, whether the British Government will itself erect and maintain a Lighthouse on the said Reef.

Viscount Palmerston stated to Mr. Lawrence in reply, that Her Majesty’s Government concurs in opinion with the Government of the United States that the proposed Lighthouse would be of great advantage to all Vessels navigating the Lakes; and that Her Majesty’s Government is prepared to advise Her Majesty to cede to the United States such portion of the Horse Shoe Reef as may be found requisite for the intended Lighthouse, provided the Government of the United States will engage to erect such Lighthouse, and to maintain a Light therein; and provided no fortification be erected on the said Reef.—

Viscount Palmerston and Mr. Lawrence, on the part of their respective Governments, accordingly agreed that the British Crown should make this Cession, and that the United States should accept it, on the above-mentioned conditions.

PALMERSTON.
ABBOTT LAURENCE.

INSTRUCTIONS FROM THE BRITISH AND UNITED STATES GOVERNMENTS TO THE INTERNATIONAL WATERWAYS COMMISSION, RELATING TO THE DEFINITION AND DEMARCATION OF THE BOUNDARY LINE BETWEEN THE DOMINION OF CANADA AND THE UNITED STATES.

On May 21, 1908, Hon. Elihu Root, Secretary of State of the United States, communicated with General O. H. Ernst, chairman, Mr. George Clinton and Mr. E. E. Haskell, United States members of the International Waterways Commission, inviting their attention to Article IV of the Boundary Treaty between Great Britain and the United States, signed at Washington, D.C., April 11, 1908, providing for a more complete definition and demarcation of the international boundary between the Dominion of Canada and the United States, and stating that in performance of their duties under this article they will act under, and report to, the Department of State.

In May, 1908, Sir Wilfrid Laurier, Premier of the Dominion of Canada, communicated with Sir George C. Gibbons, chairman of the Canadian section of the International Waterways Commission, enclosing letter from Mr. James Bryce, ambassador from His Britannic Majesty at Washington, to Earl Grey, Governor General of Canada, stating that the ascertaining and re-establishing of the boundary between the two countries through the St. Lawrence River and the Great Lakes had been assigned to the International Waterways Commission, and suggesting the desirability of the Commissioners starting work on the matter as speedily as possible.

LOCATION OF THE INTERNATIONAL BOUNDARY LINE BETWEEN CANADA AND THE UNITED STATES THROUGH THE ST. LAWRENCE RIVER, GREAT LAKES, AND COMMUNICATING WATERWAYS.

The Commission met at Buffalo, N.Y., on June 2, 1908, and appointed a committee, consisting of commissioners Haskell and

Stewart, to prepare plans for carrying out the provisions of Article IV of the treaty. This Committee reported at a meeting held in Toronto, Ontario, June 23, 1908, when a detailed project for carrying out the work was prepared and forwarded to the Secretary of State of the United States and the Minister of Public Works of Canada, as follows:

PROJECT FOR THE MORE COMPLETE DEFINITION AND DEMAR-
CATION OF THE INTERNATIONAL BOUNDARY LINE, UNDER
ARTICLE IV OF THE TREATY OF APRIL 11, 1908.

TORONTO, ONTARIO, June 23, 1908.

*The Honourable the Secretary of State of the United States of
America and,*

*The Honourable the Minister of Public Works of the Dominion
of Canada:*

The International Waterways Commission has the honour to submit the following report and preliminary estimate upon the work prescribed to it by Article IV of the treaty of April 11, 1908, relating to the more complete definition and demarcation of the international boundary line between the United States and the Dominion of Canada.

1. The Commission has decided that the series of charts be uniform in size.

That a scale of 1:20,000 be adopted for the delineation of the rivers and Pigeon Bay; that the head of the St. Lawrence River and foot of Lake Ontario, the east and west ends of Lake Erie, Lake St. Clair, False Detour Passage, and the east end of Lake Superior (Whitefish Bay) be delineated on a scale of 1:60,000; that Lakes Ontario, Erie, Huron, and Superior to be delineated on a scale of 1:300,000; and also that the Niagara River from Lewiston to La Salle, and the St. Marys River from Little Rapids to Point aux Pins, be delineated on a larger scale of 1:10,000.

The standard size of these charts to be 40 by 50 inches within the border.

Based upon the foregoing, there will be required:

Charts for the St. Lawrence River	7
Charts for Lake Ontario	2
Charts for Niagara River	2
Charts for Lake Erie	3
Charts for Detroit River	2
Chart for Lake St. Clair	1
Charts for St. Clair River	2
Charts for Lake Huron	2
Charts for St. Marys River	4
Charts for Lake Superior	3
Chart on 1:10,000 for Niagara Falls	1
Chart on 1:10,000 for St. Marys River	1
Total	<hr/> 30

That these charts be projected upon the new United States standard datum and show substantially the following:

The shore line of the lakes, rivers, islands, and the mouths of the more important tributary streams; the location of all the principal cities and towns, the location of all lighthouses, and all permanent aids to navigation; and all of the hydrography available from the Canadian and United States surveys; all of the geographical positions upon which the projections are based; the boundary line and all monuments, ranges, buoys, etc., used to mark it.

Our reasons for the foregoing recommendations are based upon a careful study of the Lake Survey charts. It was found that a series of charts based upon two scales, one for the lakes and one for the rivers, would not satisfy all of the conditions. Three scales, namely, 20, 60, and 300 thousand, cover every feature of the boundary in a fairly satisfactory manner with the possible exception of the immediate localities of Niagara Falls and the St. Marys Falls. For these localities, where large power interests are located, we have adopted a chart for each on a scale of 1:10,000. It is possible that there may be other localities where, after further consideration, it may be advisable to delineate them on a scale of 1:10,000 also. It should be understood that these charts on this scale are to be extras; that is, they will cover areas that will be delineated on the smaller scale charts. It will be seen at a glance that this method would be much cheaper than to produce all of the river charts on a scale of 1:10,000.

One of the difficulties of producing all of the river charts on a scale of 1:10,000 is that in certain localities they would not show enough of the territory adjacent to the river to permit of showing permanent marks and ranges.

2. Having, as above, determined upon the most suitable scales for the proposed charts there naturally follows the question of production, not only for delineating the boundary line, but for fulfilling the terms of the treaty by making four copies for the files of the two Governments.

For the charts, the Commission is of the opinion that the surveys of the United States Lake Survey can safely be taken, as they embrace all the United States shores and much of the Canadian, and most of the missing portions of the latter can be filled in from the work of the Canadian Hydrographic Survey.

The majority of the charts of the United States Lake Survey now in use were constructed prior to the connection between its triangulation and that of the Coast and Geodetic Survey, from which was derived the United States standard datum, and as a consequence these charts are not in accord with that datum.

In our opinion it would be quite improper for an international commission engaged in such an important work as the delineation of a boundary line to offer the public of two countries any charts not drawn from the latest information available.

It therefore becomes necessary to construct new charts for the special purpose upon nearly uniform scales.

The charts called for may be produced in three ways: (a) by drafting on paper, (b) by photolithography, and (c) by engraving.

(a) By Drafting.—In this method the projection, reduction, and drawing must all be carefully drawn on paper, and from the finished sheet four separate copies would be taken singly and independently. This process would be very laborious and costly, and would leave infinite chances for inaccuracies, inconsistencies, and omissions, to such an extent that it would be almost impossible to assert that any two copies were exactly alike. In addition, most of the accuracy obtained from redrawing would be sacrificed in the various necessary transfers.

(b) By Photolithography.—In this method one copy must be most carefully and neatly drawn in every particular for the photographer. The Commission does not feel that it would be justified in adopting this method, because of the distortion that usually accompanies the use of photography.

(c) By Engraving.—There are two kinds of engraving usually practised in the production of charts, that upon stone and that upon copper, the former being cheaper and more expeditious.

In this process the projection can be accurately drawn upon the stones and the details of shore line, hydrography, etc., placed directly there by reducing from the originals either by pantagraph or photography without any necessity for a finished drawing. The Commission has adopted this method of reproduction, because upon the stone the chart can be drawn more accurately than upon paper, and from this any number of charts can be printed immediately, each one exactly like all the others. In addition, if thought advisable, the charts can be preserved on these stones for all time; or they can be transferred to copper by the process now used by the Lake Survey, the copper plates preserved, and the stones sold.

An approximate estimate of the chart work by this method would be \$60,000.

3. Field work required for the preparation of charts: In the construction of charts for navigation purposes, the two Governments have been engaged for several years. The survey of the United States shores has been completed in conjunction with a primary triangulation that extends into Canada in many places. Of the Canadian shores, those of Lakes Huron and Erie have been completed, while that of Lake Superior is practically done, and wherever possible connection has been made with the triangulation of the United States Lake Survey, so that the two surveys may be taken as giving an accurate delineation of the outlines of the lakes. For an accurate determination of the boundary line there remains to be surveyed the whole of the north shore of Lake Ontario from False Ducks to Port Dalhousie, a portion of Lake Superior in the vicinity of Otter Head, and a resurvey of Pigeon Bay on a larger scale than has been used by the Canadian Hydrographic Survey.

4. Placing of monuments, ranges, buoys, etc., to mark the boundary: The treaty calls upon the Commission to mark the international boundary by monuments, ranges, buoys, etc., wherever possible. The cost of this work will depend upon the number and character of marks established. A rough estimate of cost would be \$100,000, making an approximate total estimate for doing the work \$160,000.

A probable estimate for expenditures the first year is \$15,000 for each Government.

All of which is respectfully submitted.

GEO. C. GIBBONS,
Chairman, Canadian Section.

LOUIS COSTE,
Member, Canadian Section.

WM. J. STEWART,
Member, Canadian Section.

O. H. ERNST,
*Brigadier General, United States Army, Retired,
Chairman, American Section.*

GEORGE CLINTON,
Member, American Section.

E. E. HASKELL,
Member, American Section.

Attest:

THOMAS COTÉ,
Secretary, Canadian Section.

W. EDWARD WILSON,
Secretary, American Section.

At the same meeting, the Commission authorized the continuance of the committee appointed at the meeting of June 2nd, as a permanent boundary committee, and instructed it to organize the necessary force and proceed with the work.

After the organization of the office staff and a further consideration of the method of producing the charts, it was decided to engrave the work on copper plates because stones of the required size could be obtained only with the greatest difficulty and at excessive cost and such plates could be duplicated by electrotyping if desired.

The preparation of the thirty boundary charts based on the North American datum (formerly United States Standard Datum) was begun in August, 1908. The Commission utilized the original Government surveys of the United States Engineer Bureau of the War Department, the Canadian Hydrographic Survey, United States Hydrographic Office, Canadian Depart-

ment of Militia and Defence, and the United States Geological Survey, besides several State, Province, Municipal, and Corporate Surveys. These original manuscript charts saved the Commission a vast amount of labour and time. It was necessary, however, to make many detached surveys to close up the gaps. These charts are 40 inches by 50 inches within the border and show the shore line of the lakes, rivers, islands, and the mouths of the more important tributary streams, the location of all the principal cities and towns, the hydrography, the location of all lighthouses and all permanent aids to navigation, the geographical positions upon which the projections are based, prominent points, the boundary line, and all monuments used to mark it. The soundings on the charts of the rivers, Lake St. Clair, and Pigeon Bay are expressed in feet, while those on the remainder are expressed in fathoms outside, and in feet inside, the four-fathom contour. They are referred to the Standard Low Water Datum adopted by the United States Lake Survey and the Canadian Hydrographic Survey in 1909. These elevations in feet above mean sea level are: Lake Ontario, 243.00; Lake Erie, 570.00; Lake Huron, 578.50; and Lake Superior, 600.50. The drafting and engraving of boundary charts was finally completed in November, 1914.

Early in 1909, the Commission discussed the general location of the boundary line as described in the treaties relating thereto and in the decision of the Commissioners acting under the sixth article of the Treaty of Ghent, and as shown on the maps accompanying it, and the Webster-Ashburton Treaty of 1842.

The location of the boundary line through these waters was tentatively drawn on United States Lake Survey charts and later transferred to copper-plate proofs of the Commission's own boundary maps as they were completed during the progress of the work. The tentative boundary line was adopted with a provision that either section was at liberty at any time to propose alterations in it. The final location was fixed and adopted by the Commissioners at Buffalo, N. Y., on August 15, 1913.

The initial point near St. Regis, Quebec, and the final point at the mouth of Pigeon River, in Lake Superior, of the boundary under Article IV of the Boundary Treaty, were agreed to jointly by this Commission and that composed of Dr. W. F. King, commissioner representing Great Britain, and Mr. O. H. Tittmann, commissioner representing the United States, acting under Articles III and V of the same treaty.

The boundary line as ascertained and re-established consists of a series of connecting straight lines, the intersections of which are called turning points. They are referenced by bearing and distance to concrete monuments and lighthouses. The number of monuments is 90 on the St. Lawrence River, including two azimuth monuments; 35 on the Niagara River; 58 on the Detroit and St. Clair Rivers; 44 on the St. Marys River, including one azimuth monument; and 4 on Pigeon Bay, including one azimuth monument, or 231 in all.

It was not deemed practicable to place buoys and monuments in the waterways or use permanent range marks on shore, as suggested in the Treaty, except in a few instances where permanent ranges were in existence and could be utilized.

The undersigned Commissioners authorized and empowered by the United Kingdom of Great Britain and Ireland and the United States of America do unanimously decide and declare that the following described line is the location of the international boundary line between the Dominion of Canada and the United States of America, beginning at the point of its intersection with the St. Lawrence River near the forty-fifth parallel of north latitude, as determined under Articles I and VI of the Treaty of August 9, 1842, between Great Britain and the United States, and thence through the Great Lakes and communicating waterways to the mouth of Pigeon River at the western shore of Lake Superior, which line is graphically shown in black on quadruplicate sets of charts certified and signed by the Commissioners and accompanying this report:

DESCRIPTION OF INTERNATIONAL BOUNDARY
LINE BETWEEN CANADA AND THE UNITED
STATES THROUGH THE ST. LAWRENCE RIVER,
GREAT LAKES, AND COMMUNICATING WATER-
WAYS.

Beginning at the point of origin, the intersection of the international boundary line with the southeast shore of the St. Lawrence River near the forty-fifth parallel of north latitude, in

Latitude 44 degrees 59 minutes 58.23 seconds N.

Longitude 74 degrees 39 minutes 41.98 seconds W.

North American datum, and bearing N. 89 degrees 55 minutes 27.6 seconds W. 106.6 feet from boundary monument 774, near St. Regis, Quebec, erected jointly in 1902 by the Dominion of Canada and the State of New York, in

Latitude 44 degrees 59 minutes 58.23 seconds N.

Longitude 74 degrees 39 minutes 40.49 seconds W.

THENCE S. 68 degrees 28 minutes 30 seconds W. 511 feet into the river to the site of the stone monument erected by Andrew Ellicott, Esquire, in the year of Our Lord 1817, in

Latitude 44 degrees 59 minutes 56.38 seconds N.

Longitude 74 degrees 39 minutes 48.59 seconds W.

and bearing S. 74 degrees 45 minutes W. 1840 yards from the (spire) stone church in St. Regis, Quebec, in

Latitude 45 degrees 00 minutes 10.72 seconds N.

Longitude 74 degrees 38 minutes 34.48 seconds W.

and bearing S. 72 degrees 09 minutes W. 611 feet from boundary monument 774, heretofore described;

THENCE N. 35 degrees 45 minutes W. 3307 feet to Turning Point No. 1, near the east shore of Cornwall Island, in

Latitude 45 degrees 00 minutes 22.88 seconds N.

Longitude 74 degrees 40 minutes 15.48 seconds W.

and bearing S. 3 degrees 44 minutes E. 1097 feet from Monument No. 1, located near the east end of Cornwall Island, in

Latitude 45 degrees 00 minutes 33.68 seconds N.

Longitude 74 degrees 40 minutes 16.48 seconds W.

THENCE along the shore of said island S. 19 degrees 41 minutes 30 seconds W. 2108 feet to Turning Point No. 2, in

Latitude 45 degrees 00 minutes 03.28 seconds N.

Longitude 74 degrees 40 minutes 25.37 seconds W.

and bearing S. 25 degrees 07 minutes E. 780 feet from Monument No. 2, on the south side of Cornwall Island, in

Latitude 45 degrees 00 minutes 10.25 seconds N.
Longitude 74 degrees 40 minutes 29.98 seconds W.

THENCE along the south shore of said island S. 79 degrees 31 minutes 40 seconds W. 2703 feet to Turning Point No. 3, in
Latitude 44 degrees 59 minutes 58.43 seconds N.

Longitude 74 degrees 41 minutes 02.35 seconds W.
and bearing S. 25 degrees 27 minutes W. 453 feet from Monument No. 3, on the south side of Cornwall Island, in

Latitude 45 degrees 00 minutes 02.47 seconds N.
Longitude 74 degrees 40 minutes 59.64 seconds W.

THENCE along the south shore of said island N. 73 degrees 58 minutes 00 seconds W. 5041 feet to Turning Point No. 4, in
Latitude 45 degrees 00 minutes 12.17 seconds N.

Longitude 74 degrees 42 minutes 09.78 seconds W.
and bearing S. 2 degrees 05 minutes E. 314 feet from Monument No. 4, on the south side of Cornwall Island, in

Latitude 45 degrees 00 minutes 15.27 seconds N.
Longitude 74 degrees 42 minutes 09.93 seconds W.

THENCE along the south shore of said island S. 70 degrees 37 minutes 30 seconds W. 5351 feet to Turning Point No. 5, in
Latitude 44 degrees 59 minutes 54.63 seconds N.

Longitude 74 degrees 43 minutes 20.02 seconds W.
and bearing S. 16 degrees 30 minutes E. 483 feet from Monument No. 5, on the south side of Cornwall Island, in

Latitude 44 degrees 59 minutes 59.20 seconds N.
Longitude 74 degrees 43 minutes 21.93 seconds W.

THENCE along the south shore of said island S. 39 degrees 10 minutes 00 seconds W. 3751 feet to Turning Point No. 6, in
Latitude 44 degrees 59 minutes 25.91 seconds N.

Longitude 74 degrees 43 minutes 52.99 seconds W.
and bearing S. 27 degrees 52 minutes E. 484 feet from Monument No. 6, located on the south side of Cornwall Island and

650 feet east of the New York and Ottawa Railway track, in
Latitude 44 degrees 59 minutes 30.13 seconds N.

Longitude 74 degrees 43 minutes 56.13 seconds W.

THENCE along the south shore of said island N. 88 degrees 50 minutes 20 seconds W. 3506 feet to Turning Point No. 7, in
Latitude 44 degrees 59 minutes 26.61 seconds N.

Longitude 74 degrees 44 minutes 41.77 seconds W.
and bearing S. 41 degrees 05 minutes W. 467 feet from Monument No. 7, on the south side of Cornwall Island, in

Latitude 44 degrees 59 minutes 30.09 seconds N.

Longitude 74 degrees 44 minutes 37.49 seconds W.

Thence along the south shore of said island N. 68 degrees 54 minutes 00 seconds W. 4393 feet to Turning Point No. 8, in

Latitude 44 degrees 59 minutes 42.22 seconds N.

Longitude 74 degrees 45 minutes 38.80 seconds W.

and bearing S. 61 degrees 55 minutes W. 551 feet from Monument No. 8, located on the southwest point of Cornwall Island, in

Latitude 44 degrees 59 minutes 44.79 seconds N.

Longitude 74 degrees 45 minutes 32.03 seconds W.

THENCE N. 10 degrees 25 minutes 40 seconds W. 3979 feet through Pollys Gut between Massena Point and Cornwall Island to Turning Point No. 9, in

Latitude 45 degrees 00 minutes 20.86 seconds N.

Longitude 74 degrees 45 minutes 48.82 seconds W.

and bearing S. 14 degrees 48 minutes E. 1175 feet from Monument No. 9 located on the Canadian side, about one-half mile below Lock 19, on the Cornwall Canal, in

Latitude 45 degrees 00 minutes 32.08 seconds N.

Longitude 74 degrees 45 minutes 53.00 seconds W.

THENCE S. 86 degrees 27 minutes 00 seconds W. 7708 feet along the middle of the river and near to Crab Island Shoal to Turning Point No. 10, east of Barnhart Island, in

Latitude 45 degrees 00 minutes 16.14 seconds N.

Longitude 74 degrees 47 minutes 35.90 seconds W.

and bearing N. 86 degrees 25 minutes E. 1719 feet from Monument No. 10, located on the easterly end of Barnhart Island, in

Latitude 45 degrees 00 minutes 15.08 seconds N.

Longitude 74 degrees 47 minutes 59.77 seconds W.

THENCE N. 37 degrees 41 minutes 00 seconds W. 2945 feet along the east shore of said island to Turning Point No. 11, east of Barnharts, New York, on Barnhart Island, in

Latitude 45 degrees 00 minutes 39.15 seconds N.

Longitude 74 degrees 48 minutes 00.95 seconds W.

and bearing S. 00 degrees 13 minutes W. 1383 feet from Monument No. 11, located on the south bank of the Cornwall Canal and about three-eighths of a mile southeast of Lock 20, in

Latitude 45 degrees 00 minutes 52.80 seconds N.

Longitude 74 degrees 48 minutes 00.88 seconds W.

THENCE N. 17 degrees 13 minutes 10 seconds W. 1421 feet along the east shore of Barnhart Island to Turning Point No. 12, in

Latitude 45 degrees 00 minutes 52.64 seconds N.

Longitude 74 degrees 48 minutes 06.88 seconds W.
and bearing S. 87 degrees 47 minutes W. 431 feet from Monument No. 11, heretofore described;

THENCE S. 83 degrees 06 minutes 30 seconds W. 3065 feet along the north shore of Barnhart Island to Turning Point No. 13, in

Latitude 45 degrees 00 minutes 49.00 seconds N.

Longitude 74 degrees 48 minutes 49.23 seconds W.
and bearing S. 47 degrees 43 minutes E. 1910 feet from Monument No. 12, located on the south bank of the Cornwall Canal and about five-eighths of a mile west of Lock 20, in

Latitude 45 degrees 01 minute 01.69 seconds N.

Longitude 74 degrees 49 minutes 08.90 seconds W.

THENCE S. 54 degrees 05 minutes 00 seconds W. 1224 feet along the north shore of Barnhart Island to Turning Point No. 14, in

Latitude 45 degrees 00 minutes 41.91 seconds N.

Longitude 74 degrees 49 minutes 03.03 seconds W.
and bearing S. 11 degrees 53 minutes E. 2047 feet from Monument No. 12, heretofore described;

THENCE N. 57 degrees 24 minutes 10 seconds W. 2903 feet along the north shore of Barnhart Island to Turning Point No. 15, in

Latitude 45 degrees 00 minutes 57.35 seconds N.

Longitude 74 degrees 49 minutes 37.08 seconds W.
and bearing N. 34 degrees 03 minutes E. 1371 feet from Monument No. 13, located on the north side of Barnhart Island, about 650 feet from shore, in

Latitude 45 degrees 00 minutes 46.14 seconds N.

Longitude 74 degrees 49 minutes 47.76 seconds W.

THENCE S. 78 degrees 06 minutes 40 seconds W. 2175 feet into the channel between Barnhart and Sheek Islands (locally called Little River) to Turning Point No. 16, in

Latitude 45 degrees 00 minutes 52.93 seconds N.

Longitude 74 degrees 50 minutes 06.71 seconds W.
and bearing N. 63 degrees 12 minutes W. 1525 feet from Monument No. 13, heretofore described;

THENCE S. 56 degrees 24 minutes 10 seconds W. 2210 feet along the middle of said channel between Barnhart and Sheek Islands to Turning Point No. 17, in

Latitude 45 degrees 00 minutes 40.85 seconds N.

Longitude 74 degrees 50 minutes 32.33 seconds W.
and bearing N. 14 degrees 27 minutes E. 1720 feet from Monu-

ment No. 14, located on the north side of Barnhart Island and about 1100 feet from shore, in

Latitude 45 degrees 00 minutes 24.41 seconds N.

Longitude 74 degrees 50 minutes 38.30 seconds W.

THENCE S. 72 degrees 00 minutes 20 seconds W. 1146 feet along the middle of said channel to Turning Point No. 18, in

Latitude 45 degrees 00 minutes 37.36 seconds N.

Longitude 74 degrees 50 minutes 47.50 seconds W.

and bearing N. 26 degrees 45 minutes W. 1469 feet from Monument No. 14, heretofore described;

THENCE S. 50 degrees 48 minutes 00 seconds W. 3362 feet along the middle of said channel to Turning Point No. 19, in

Latitude 45 degrees 00 minutes 16.38 seconds N.

Longitude 74 degrees 51 minutes 23.76 seconds W.

and bearing N. 43 degrees 45 minutes E. 1221 feet from Monument No. 15, located on the northwest point of Barnhart Island, about 600 feet from shore, in

Latitude 45 degrees 00 minutes 07.67 seconds N.

Longitude 74 degrees 51 minutes 35.51 seconds W.

THENCE N. 89 degrees 09 minutes 20 seconds W. 1663 feet along the middle of said channel to Turning Point No. 20, in

Latitude 45 degrees 00 minutes 16.62 seconds N.

Longitude 74 degrees 51 minutes 46.90 seconds W.

and bearing N. 42 degrees 04 minutes W. 1221 feet from Monument No. 15, heretofore described;

THENCE S. 33 degrees 05 minutes 00 seconds W. 1781 feet through said channel to Turning Point No. 21, in the Long Sault Rapids, in

Latitude 45 degrees 00 minutes 01.88 seconds N.

Longitude 74 degrees 52 minutes 00.43 seconds W.

and bearing S. 71 degrees 53 minutes W. 1884 feet from Monument No. 15, heretofore described;

THENCE N. 82 degrees 46 minutes 20 seconds W. 2825 feet up the Long Sault Rapids to Turning Point No. 22, located near the north shore of Long Sault Island, in

Latitude 45 degrees 00 minutes 05.39 seconds N.

Longitude 74 degrees 52 minutes 39.43 seconds W.

and bearing S. 16 degrees 43 minutes E. 989 feet from Monu-

ment No. 16, located on the south bank of the Cornwall Canal about one and one-eighth miles easterly of Lock 21, in

Latitude 45 degrees 00 minutes 14.74 seconds N.

Longitude 74 degrees 52 minutes 43.39 seconds W.

THENCE S. 79 degrees 35 minutes 00 seconds W. 2961 feet up the Long Sault Rapids and along the north shore of Long Sault Island to Turning Point No. 23, located near to said island, in

Latitude 45 degrees 00 minutes 00.10 seconds N.

Longitude 74 degrees 53 minutes 19.96 seconds W.

and bearing S. 10 degrees 23 minutes W. 963 feet from Monument No. 17, located on the south bank of the Cornwall Canal, about five-eighths of a mile northeasterly of Lock 21, in

Latitude 45 degrees 00 minutes 09.45 seconds N.

Longitude 74 degrees 53 minutes 17.55 seconds W.

THENCE S. 50 degrees 19 minutes 30 seconds W. 4230 feet up the Long Sault Rapids and along the north shore of Long Sault Island to Turning Point No. 24, located near the said island, in

Latitude 44 degrees 59 minutes 33.43 seconds N.

Longitude 74 degrees 54 minutes 05.26 seconds W.

and bearing N. 40 degrees 38 minutes W. 424 feet from Monument No. 18, located on the point on the north side of Long Sault Island and directly south of Lock 21, Cornwall Canal, in

Latitude 44 degrees 59 minutes 30.26 seconds N.

Longitude 74 degrees 54 minutes 01.42 seconds W.

THENCE S. 28 degrees 49 minutes 10 seconds W. 3764 feet along the north shore of Long Sault Island and between Long Sault and Grassy Islands to Turning Point No. 25, south of Grassy Island and near to Long Sault Island, in

Latitude 44 degrees 59 minutes 00.87 seconds N.

Longitude 74 degrees 54 minutes 30.50 seconds W.

and bearing N. 35 degrees 13 minutes W. 364 feet from Monument No. 19, on the north side of Long Sault Island, in

Latitude 44 degrees 58 minutes 57.93 seconds N.

Longitude 74 degrees 54 minutes 27.58 seconds W.

THENCE N. 87 degrees 12 minutes 20 seconds W. 10,151 feet along the north shore of Long Sault Island and south of Wagner Island to Turning Point No. 26, located near the northeast point of Croil Island, in

Latitude 44 degrees 59 minutes 05.73 seconds N.

Longitude 74 degrees 56 minutes 51.56 seconds W.

and bearing N. 13 degrees 29 minutes E. 529 feet from Monument No. 20, located on the northeast point of Croil Island, in

Latitude 44 degrees 59 minutes 00.65 seconds N.

Longitude 74 degrees 56 minutes 53.28 seconds W.

THENCE S. 85 degrees 36 minutes 00 seconds W. 6567 feet along the north shore of Croil Island to Turning Point No. 27, opposite Woodlands, Ontario, in

Latitude 44 degrees 59 minutes 00.75 seconds N.

Longitude 74 degrees 58 minutes 22.66 seconds W.

and bearing N. 1 degree 07 minutes W. 835 feet from Monument No. 21, located on the north side of Croil Island, in

Latitude 44 degrees 58 minutes 52.50 seconds N.

Longitude 74 degrees 58 minutes 22.43 seconds W.

THENCE S. 67 degrees 27 minutes 00 seconds W. 5678 feet along the north shore of said island to Turning Point No. 28, located opposite Farran Point, Ontario, in

Latitude 44 degrees 58 minutes 39.24 seconds N.

Longitude 74 degrees 59 minutes 35.61 seconds W.

and bearing N. 29 degrees 49 minutes W. 436 feet from Monument No. 22, on the northwest point of Croil Island, in

Latitude 44 degrees 58 minutes 35.51 seconds N.

Longitude 74 degrees 59 minutes 32.60 seconds W.

THENCE S. 38 degrees 48 minutes 50 seconds W. 2694 feet along the northwest shore of said island to Turning Point No. 29, opposite Farran Point Canal and about one-quarter mile above Lock 22, in

Latitude 44 degrees 58 minutes 18.51 seconds N.

Longitude 74 degrees 59 minutes 59.10 seconds W.

and bearing N. 55 degrees 51 minutes W. 625 feet from Monument No. 23, located on the west side of Croil Island, in

Latitude 44 degrees 58 minutes 15.05 seconds N.

Longitude 74 degrees 59 minutes 51.91 seconds W.

THENCE S. 00 degrees 40 minutes 30 seconds W. 2049 feet along the west shore of said island to Turning Point No. 30, located opposite Farran Point Canal, in

Latitude 44 degrees 57 minutes 58.29 seconds N.

Longitude 74 degrees 59 minutes 59.43 seconds W.

and bearing N. 88 degrees 35 minutes W. 377 feet from Monument No. 24, located on the west side of Croil Island, in

Latitude 44 degrees 57 minutes 58.19 seconds N.

Longitude 74 degrees 59 minutes 54.19 seconds W.

THENCE S. 33 degrees 43 minutes 50 seconds W. 1617 feet along the west shore of said island to Turning Point No. 31, in

Latitude 44 degrees 57 minutes 45.01 seconds N.

Longitude 75 degrees 00 minutes 11.92 seconds W.

and bearing S. 43 degrees 41 minutes W. 1846 feet from Monument No. 24, heretofore described, and also bearing N. 5 degrees 42 minutes W. 1463 feet from Monument No. 25, located on the southwest point of Croil Island, in

Latitude 44 degrees 57 minutes 30.64 seconds N.

Longitude 75 degrees 00 minutes 09.90 seconds W.

THENCE S. 20 degrees 27 minutes 40 seconds W. 1573 feet along the west shore of said island to Turning Point No. 32, opposite the southwest end of Croil Island, in

Latitude 44 degrees 57 minutes 30.45 seconds N.

Longitude 75 degrees 00 minutes 19.57 seconds W.

and bearing S. 88 degrees 27 minutes W. 696 feet from Monument No. 25, heretofore described;

THENCE S. 52 degrees 35 minutes 20 seconds W. 7064 feet along the north shore of Cat Island and the south shore of Steen Island to Turning Point No. 33, opposite the south end of Steen Island, in

Latitude 44 degrees 56 minutes 48.07 seconds N.

Longitude 75 degrees 01 minute 37.58 seconds W.

and bearing S. 10 degrees 37 minutes E. 515 feet from Monument No. 26, on the southern point of Steen Island, in

Latitude 44 degrees 56 minutes 53.07 seconds N.

Longitude 75 degrees 01 minute 38.90 seconds W.

THENCE S. 62 degrees 45 minutes 40 seconds W. 9681 feet along the middle of the river to Turning Point No. 34, opposite East Williamsburg, Ontario, in

Latitude 44 degrees 56 minutes 04.31 seconds N.

Longitude 75 degrees 03 minutes 37.22 seconds W.

and bearing N. 85 degrees 29 minutes E. 2073 feet from Monument No. 27, located on Weavers Point, on the Canadian side, in

Latitude 44 degrees 56 minutes 02.70 seconds N.

Longitude 75 degrees 04 minutes 05.95 seconds W.

THENCE S. 34 degrees 03 minutes 40 seconds W. 2192 feet along the middle of the river to Turning Point No. 35, located southeast of Weavers Point, in

Latitude 44 degrees 55 minutes 46.37 seconds N.

Longitude 75 degrees 03 minutes 54.29 seconds W.
and bearing S. 26 degrees 54 minutes E. 1854 feet from Monument No. 27, heretofore described;

THENCE S. 83 degrees 51 minutes 00 seconds W. 8270 feet along the middle of the river to Turning Point No. 36, located near to and north of Chrysler Island, in

Latitude 44 degrees 55 minutes 37.61 seconds N.

Longitude 75 degrees 05 minutes 48.57 seconds W.
and bearing N. 20 degrees 09 minutes W. 644 feet from Monument No. 28, on the north side of Chrysler Island, in

Latitude 44 degrees 55 minutes 31.64 seconds N.

Longitude 75 degrees 05 minutes 45.49 seconds W.

THENCE S. 38 degrees 38 minutes 30 seconds W. 3460 feet along the northwest shore of said island to Turning Point No. 37, located northwest of Strawberry Island, in

Latitude 44 degrees 55 minutes 10.92 seconds N.

Longitude 75 degrees 06 minutes 18.60 seconds W.
and bearing N. 19 degrees 29 minutes W. 644 feet from Monument No. 29, on Strawberry Island, in

Latitude 44 degrees 55 minutes 04.92 seconds N.

Longitude 75 degrees 06 minutes 15.62 seconds W.

THENCE N. 80 degrees 59 minutes 10 seconds W. 3360 feet to Turning Point No. 38, north of and near to Goose Neck Island, in

Latitude 44 degrees 55 minutes 16.12 seconds N.

Longitude 75 degrees 07 minutes 04.72 seconds W.

and bearing N. 6 degrees 43 minutes W. 568 feet from Monument No. 30, located on the north side of Goose Neck Island, in

Latitude 44 degrees 55 minutes 10.55 seconds N.

Longitude 75 degrees 07 minutes 03.80 seconds W.

THENCE S. 63 degrees 33 minutes 10 seconds W. 4941 feet along the north shore of said island to Turning Point No. 39, in

Latitude 44 degrees 54 minutes 54.38 seconds N.

Longitude 75 degrees 08 minutes 06.19 seconds W.

and bearing N. 31 degrees 25 minutes W. 453 feet from Monument No. 31, located on the northwest end of Goose Neck Island, in

Latitude 44 degrees 54 minutes 50.57 seconds N.

Longitude 75 degrees 08 minutes 02.91 seconds W.

THENCE S. 11 degrees 49 minutes 10 seconds W. 6745 feet along the west shore of said island to Turning Point No. 40, located southeast of Indian and Doran Islands, in

Latitude 44 degrees 53 minutes 49.20 seconds N.

Longitude 75 degrees 08 minutes 25.38 seconds W.

and bearing S. 52 degrees 41 minutes E. 1241 feet from Monument No. 32, located on the south end of Indian Island, in

Latitude 44 degrees 53 minutes 56.63 seconds N.

Longitude 75 degrees 08 minutes 39.10 seconds W.

THENCE S. 79 degrees 10 minutes 30 seconds W. 6593 feet along the south shore of Indian and Doran Islands and the north shore of Murphy Island to Turning Point No. 41, north of Murphy Island, in

Latitude 44 degrees 53 minutes 36.96 seconds N.

Longitude 75 degrees 09 minutes 55.32 seconds W. and bearing N. 18 degrees 55 minutes W. 337 feet from Monument No. 33, on the north side of Murphy Island, in

Latitude 44 degrees 53 minutes 33.82 seconds N.

Longitude 75 degrees 09 minutes 53.81 seconds W.

THENCE S. 58 degrees 38 minutes 10 seconds W. 7257 feet along the northwest shore of Dry Island and between Clark and Canada Islands to Turning Point No. 42, in

Latitude 44 degrees 52 minutes 59.66 seconds N.

Longitude 75 degrees 11 minutes 21.38 seconds W. and bearing N. 29 degrees 14 minutes W. 644 feet from Monument No. 34, located on the northwest side of Clark Island, in

Latitude 44 degrees 52 minutes 54.10 seconds N.

Longitude 75 degrees 11 minutes 17.01 seconds W.

THENCE S. 82 degrees 16 minutes 40 seconds W. 1382 feet to Turning Point No. 43, near the northeast point of Ogden Island, in

Latitude 44 degrees 52 minutes 57.82 seconds N.

Longitude 75 degrees 11 minutes 40.40 seconds W. and bearing N. 20 degrees 38 minutes W. 376 feet from Monument No. 35, on the northeast point of Ogden Island, in

Latitude 44 degrees 52 minutes 54.35 seconds N.

Longitude 75 degrees 11 minutes 38.56 seconds W.

THENCE S. 52 degrees 07 minutes 50 seconds W. 2868 feet along the north shore of said island to Turning Point No. 44, in

Latitude 44 degrees 52 minutes 40.44 seconds N.

Longitude 75 degrees 12 minutes 11.84 seconds W.

and bearing S. 12 degrees 19 minutes W. 1280 feet from Monument No. 36, located on the south bank of the Morrisburg Canal, in

Latitude 44 degrees 52 minutes 52.79 seconds N.

Longitude 75 degrees 12 minutes 08.05 seconds W.

THENCE S. 89 degrees 36 minutes 10 seconds W. 4014 feet along the north shore of Ogden Island to Turning Point No. 45, in

Latitude 44 degrees 52 minutes 40.16 seconds N.

Longitude 75 degrees 13 minutes 07.58 seconds W.

and bearing N. 19 degrees 53 minutes W. 515 feet from Monument No. 37, on the north side of Ogden Island, in

Latitude 44 degrees 52 minutes 35.38 seconds N.

Longitude 75 degrees 13 minutes 05.15 seconds W.

THENCE S. 36 degrees 35 minutes 40 seconds W. 4287 feet along the north shore of said island to Turning Point No. 46, in

Latitude 44 degrees 52 minutes 06.17 seconds N.

Longitude 75 degrees 13 minutes 43.07 seconds W.

and bearing N. 9 degrees 40 minutes W. 400 feet from Monument No. 38, on the north side of Ogden Island, in

Latitude 44 degrees 52 minutes 02.28 seconds N.

Longitude 75 degrees 13 minutes 42.14 seconds W.

THENCE S. 82 degrees 38 minutes 00 seconds W. 3344 feet along the north shore of said island to Turning Point No. 47, in

Latitude 44 degrees 52 minutes 01.93 seconds N.

Longitude 75 degrees 14 minutes 29.12 seconds W.

and bearing N. 36 degrees 16 minutes W. 423 feet from Monument No. 39, located on the northwest end of Ogden Island, in

Latitude 44 degrees 51 minutes 58.57 seconds N.

Longitude 75 degrees 14 minutes 25.65 seconds W.

THENCE S. 47 degrees 29 minutes 00 seconds W. 5293 feet along the middle of the river to Turning Point No. 48, in

Latitude 44 degrees 51 minutes 26.61 seconds N.

Longitude 75 degrees 15 minutes 23.28 seconds W.

and bearing S. 10 degrees 58 minutes E. 1243 feet from Monument No. 40, located on the Canadian side about one-half mile westerly of Leishman Point, in

Latitude 44 degrees 51 minutes 38.66 seconds N.

Longitude 75 degrees 15 minutes 26.56 seconds W.

THENCE S. 74 degrees 21 minutes 50 seconds W. 3292 feet along the middle of the river to Turning Point No. 49, in

Latitude 44 degrees 51 minutes 17.85 seconds N.

Longitude 75 degrees 16 minutes 07.29 seconds W.

and bearing N. 19 degrees 34 minutes W. 600 feet from Monument No. 41, located on the United States side, in

Latitude 44 degrees 51 minutes 12.26 seconds N.

Longitude 75 degrees 16 minutes 04.50 seconds W.

THENCE S. 60 degrees 46 minutes 40 seconds W. 4922 feet along the middle of the river to Turning Point No. 50, in

Latitude 44 degrees 50 minutes 54.12 seconds N.

Longitude 75 degrees 17 minutes 06.91 seconds W.

and bearing N. 53 degrees 13 minutes W. 1533 feet from Monument No. 42, located on the United States side, in

Latitude 44 degrees 50 minutes 45.05 seconds N.

Longitude 75 degrees 16 minutes 49.86 seconds W.

THENCE S. 53 degrees 57 minutes 00 seconds W. 7237 feet along the middle of the river to Turning Point No. 51, located opposite Iroquois, Ontario, and Rockway Point, on the United States side, in

Latitude 44 degrees 50 minutes 12.06 seconds N.

Longitude 75 degrees 18 minutes 28.10 seconds W.

and bearing N. 58 degrees 57 minutes E. 993 feet from Monument No. 43, located on the Canadian side about one-quarter mile south of Lock 25, Galop Canal, in

Latitude 44 degrees 50 minutes 07.00 seconds N.

Longitude 75 degrees 18 minutes 39.91 seconds W.

THENCE S. 21 degrees 14 minutes 10 seconds E. 3970 feet along the middle of the river to Turning Point No. 52, opposite Iroquois Point, in

Latitude 44 degrees 49 minutes 35.52 seconds N.

Longitude 75 degrees 18 minutes 08.15 seconds W.

and bearing S. 54 degrees 40 minutes W. 1006 feet from Monument No. 44, located on the United States side opposite Iroquois Point, in

Latitude 44 degrees 49 minutes 41.26 seconds N.

Longitude 75 degrees 17 minutes 56.76 seconds W.

THENCE S. 48 degrees 07 minutes 10 seconds W. 11,039 feet along the middle of the river to Turning Point No. 53, opposite the south end of Toussaint Island, in

Latitude 44 degrees 48 minutes 22.73 seconds N.

Longitude 75 degrees 20 minutes 02.15 seconds W.

and bearing S. 14 degrees 00 minutes W. 726 feet from Monument No. 45, located on the south end of Toussaint Island, in

Latitude 44 degrees 48 minutes 29.69 seconds N.

Longitude 75 degrees 19 minutes 59.71 seconds W.

THENCE N. 70 degrees 14 minutes 40 seconds W. 2995 feet along the middle of the river to Turning Point No. 54, opposite Sparrowhawk Point, on the United States side, in

Latitude 44 degrees 48 minutes 32.73 seconds N.

Longitude 75 degrees 20 minutes 41.24 seconds W.

and bearing S. 43 degrees 40 minutes E. 1028 feet from Monument No. 46 on the southeasterly bank of the Galop Canal, north of Sparrowhawk Point, in

Latitude 44 degrees 48 minutes 40.06 seconds N.

Longitude 75 degrees 20 minutes 51.09 seconds W.

THENCE S. 40 degrees 07 minutes 10 seconds W. 10,143 feet along the middle of the river to Turning Point No. 55, located near to Lotus Island, and opposite Cardinal, Ontario, in

Latitude 44 degrees 47 minutes 16.12 seconds N.

Longitude 75 degrees 22 minutes 11.87 seconds W.

and bearing N. 24 degrees 37 minutes W. 981 feet from Monument No. 47, located on the west side of Lotus Island, in

Latitude 44 degrees 47 minutes 07.32 seconds N.

Longitude 75 degrees 22 minutes 06.20 seconds W.

THENCE S. 3 degrees 05 minutes 50 seconds W. 1748 feet along the west shore of said island to Turning Point No. 56, near the north shore of Lalone Island, in

Latitude 44 degrees 46 minutes 58.89 seconds N.

Longitude 75 degrees 22 minutes 13.18 seconds W.

and bearing S. 30 degrees 31 minutes W. 991 feet from Monument No. 47, heretofore described ;

THENCE S. 75 degrees 07 minutes 10 seconds W. 4817 feet along the north shore of Lalone Island and north of Baycraft, Sears, and Dixon Islands to Turning Point No. 57, located north of Dixon Island, in

Latitude 44 degrees 46 minutes 46.67 seconds N.

Longitude 75 degrees 23 minutes 17.72 seconds W.

and bearing S. 60 degrees 50 minutes E. 1074 feet from Monument No. 48, located on the south bank of the Galop Canal, about one-half mile northeasterly of Lock No. 27, in

Latitude 44 degrees 46 minutes 51.84 seconds N.

Longitude 75 degrees 23 minutes 30.72 seconds W.

THENCE S. 45 degrees 24 minutes 20 seconds W. 3158 feet along the north shore of Galop Island to Turning Point No. 58, at the foot of the Galop Rapids, in

Latitude 44 degrees 46 minutes 24.78 seconds N.
 Longitude 75 degrees 23 minutes 48.90 seconds W.
 and bearing S. 30 degrees 57 minutes E. 1377 feet from
 Monument No. 49, located on the south bank of the Galop
 Canal at Lock 27, in

Latitude 44 degrees 46 minutes 36.44 seconds N.
 Longitude 75 degrees 23 minutes 58.72 seconds W.

THENCE S. 83 degrees 50 minutes 10 seconds W. 4493
 feet along the north shore of Galop Island and up the Galop
 Rapids to Turning Point No. 59, located at the foot of "The
 Gut" Channel, in

Latitude 44 degrees 46 minutes 20.01 seconds N.
 Longitude 75 degrees 24 minutes 50.81 seconds W.
 and bearing S. 34 degrees 00 minutes E. 297 feet from Monu-
 ment No. 50, located on the east end of Adams Island, in

Latitude 44 degrees 46 minutes 22.44 seconds N.
 Longitude 75 degrees 24 minutes 53.12 seconds W.

THENCE S. 23 degrees 43 minutes 10 seconds W. 6403
 feet up "The Gut" Channel and across "The Gut" dam to
 Turning Point No. 60, located between Butternut and Lame
 Squaw Islands, in

Latitude 44 degrees 45 minutes 22.12 seconds N.
 Longitude 75 degrees 25 minutes 26.51 seconds W.
 and bearing N. 71 degrees 10 minutes E. 3049 feet from Monu-
 ment No. 51, located on the east side of Drummond Island, in

Latitude 44 degrees 45 minutes 12.40 seconds N.
 Longitude 75 degrees 26 minutes 06.50 seconds W.

THENCE S. 46 degrees 39 minutes 00 seconds W. 18,758
 feet along the middle of the river and between Drummond and
 Chimney Islands to Turning Point No. 61, in

Latitude 44 degrees 43 minutes 14.93 seconds N.
 Longitude 75 degrees 28 minutes 35.41 seconds W.
 and bearing S. 40 degrees 21 minutes E. 1755 feet from Monu-
 ment No. 52, located on the Canadian side, about three-eighths
 mile northeast of Windmill Point Light, in

Latitude 44 degrees 43 minutes 28.14 seconds N.
 Longitude 75 degrees 28 minutes 51.15 seconds W.

THENCE S. 53 degrees 07 minutes 20 seconds W. 9365
 feet along the middle of the river to Turning Point No. 62,
 located opposite Prescott, Ontario, and Ogdensburg, New York,
 in

Latitude 44 degrees 42 minutes 19.42 seconds N.

Longitude 75 degrees 30 minutes 19.13 seconds W.
and bearing N. 45 degrees 48 minutes W. 3008 feet from Monument No. 53, located on the United States side about one-quarter mile northeasterly of the mouth of the Oswegatchie River, Ogdensburg, New York, in

Latitude 44 degrees 41 minutes 58.71 seconds N.

Longitude 75 degrees 29 minutes 49.28 seconds W.

THENCE S. 42 degrees 30 minutes 50 seconds W. 43,531 feet along the middle of the river to Turning Point No. 63, opposite Brooks Point, and about one-quarter mile northerly of Catamaran Shoal, in

Latitude 44 degrees 37 minutes 07.48 seconds N.

Longitude 75 degrees 37 minutes 13.49 seconds W.

and bearing S. 54 degrees 41 minutes E. 2780 feet from Monument No. 54, located on the Canadian side about one and one-quarter miles southwest of Maitland, Ontario, in

Latitude 44 degrees 37 minutes 23.34 seconds N.

Longitude 75 degrees 37 minutes 44.84 seconds W.

THENCE S. 48 degrees 39 minutes 10 seconds W. 14,339 feet along the middle of the river to Turning Point No. 64, located opposite Morristown, New York, in

Latitude 44 degrees 35 minutes 33.91 seconds N.

Longitude 75 degrees 39 minutes 42.24 seconds W.

and bearing S. 41 degrees 50 minutes E. 403 feet from Monument No. 55, located on Murray Island, on the Canadian side, in

Latitude 44 degrees 35 minutes 36.87 seconds N.

Longitude 75 degrees 39 minutes 45.96 seconds W.

THENCE S. 45 degrees 10 minutes 30 seconds W. 13,969 feet along the middle of the river to Turning Point No. 65, located opposite Delack Point, on the United States side, and south of Conran Island, on the Canadian side, in

Latitude 44 degrees 33 minutes 56.64 seconds N.

Longitude 75 degrees 41 minutes 59.09 seconds W.

and bearing S. 16 degrees 20 minutes E. 864 feet from Monument No. 56, located on the southerly point of Conran Island, in

Latitude 44 degrees 34 minutes 04.83 seconds N.

Longitude 75 degrees 42 minutes 02.45 seconds W.

THENCE S. 40 degrees 10 minutes 30 seconds W. 8461 feet along the middle of the river to Turning Point No. 66, located easterly of Sheaffe Island, on the Canadian side, in

Latitude 44 degrees 32 minutes 52.80 seconds N.

Longitude 75 degrees 43 minutes 14.46 seconds W.

and bearing N. 77 degrees 53 minutes E. 696 feet from Mouu-ment No. 57, located on the southerly end of Sheaffe Island, in

Latitude 44 degrees 32 minutes 51.36 seconds N.

Longitude 75 degrees 43 minutes 23.86 seconds W.

THENCE S. 50 degrees 12 minutes 30 seconds W. 1026 feet along the channel between Sheaffe Island, on the Canadian side, and American Island, on the United States side, to Turning Point No. 67, located north of and near to American Island, in

Latitude 44 degrees 32 minutes 46.32 seconds N.

Longitude 75 degrees 43 minutes 25.35 seconds W.

and bearing S. 11 degrees 54 minutes W. 522 feet from Monu-ment No. 57, heretofore described;

THENCE S. 38 degrees 04 minutes 00 seconds W. 1085 feet along the westerly shore of American Island to Turning Point No. 68, in

Latitude 44 degrees 32 minutes 37.88 seconds N.

Longitude 75 degrees 43 minutes 34.59 seconds W.

and bearing S. 2 degrees 00 minutes W. 422 feet from Monu-ment No. 58, located on the southerly of the Twin Sisters Islands, situated between American and Meyers Islands, in

Latitude 44 degrees 32 minutes 42.05 seconds N.

Longitude 75 degrees 43 minutes 34.38 seconds W.

THENCE S. 45 degrees 48 minutes 10 seconds W. 14,940 feet along the middle of the river to Turning Point No. 69, located about five-eighths of a mile westerly from Oak Point, on the United States side, in

Latitude 44 degrees 30 minutes 55.01 seconds N.

Longitude 75 degrees 46 minutes 02.40 seconds W.

and bearing N. 79 degrees 01 minute W. 3375 feet from Monu-ment No. 59, located on the westerly end of Oak Point, in

Latitude 44 degrees 30 minutes 48.66 seconds N.

Longitude 75 degrees 45 minutes 16.67 seconds W.

THENCE S. 33 degrees 45 minutes 00 seconds W. 19,101 feet along the middle of the river and between the Amateur Islands, on the Canadian side, and Bilberry and Big Islands, on the United States side, to Turning Point No. 70, in

Latitude 44 degrees 28 minutes 18.15 seconds N.

Longitude 75 degrees 48 minutes 28.74 seconds W.

and bearing S. 68 degrees 57 minutes W. 2292 feet from Monu-ment No. 60, located on the westerly side of Middle Island, situated opposite Chippewa Point, on the United States side, in

Latitude 44 degrees 28 minutes 26.28 seconds N.

Longitude 75 degrees 47 minutes 59.24 seconds W.

THENCE S. 13 degrees 59 minutes 30 seconds W. 14,904 feet along the middle of the river, passing near to the western shore of Dark Island, to Turning Point No. 71, located between Grenadier Island, on the Canadian side, and Oak Island, on the United States side, in

Latitude 44 degrees 25 minutes 55.34 seconds N.

Longitude 75 degrees 49 minutes 18.40 seconds W.

and bearing S. 32 degrees 10 minutes E. 3463 feet from Monument No. 61, located on the southeasterly point of Peel Island, on the Canadian side, in

Latitude 44 degrees 26 minutes 24.28 seconds N.

Longitude 75 degrees 49 minutes 43.80 seconds W.

THENCE S. 44 degrees 08 minutes 50 seconds W. 18,221 feet along the southeasterly shore of Grenadier Island, to Turning Point No. 72, located opposite Round Island, on the Canadian side, in

Latitude 44 degrees 23 minutes 46.19 seconds N.

Longitude 75 degrees 52 minutes 13.18 seconds W.

and bearing S. 45 degrees 35 minutes E. 496 feet from Monument No. 62, located on the easterly side of Round Island, in

Latitude 44 degrees 23 minutes 49.62 seconds N.

Longitude 75 degrees 52 minutes 18.06 seconds W.

THENCE S. 47 degrees 19 minutes 50 seconds W. 15,258 feet along the southeasterly shore of Grenadier Island and the northwesterly shores of Sport, Little Lehigh and Idlewild Islands to Turning Point No. 73, located about one-quarter of a mile northwest of Deer Island, in

Latitude 44 degrees 22 minutes 04.04 seconds N.

Longitude 75 degrees 54 minutes 47.61 seconds W.

and bearing S. 8 degrees 22 minutes E. 578 feet from Monument No. 63, located on the easterly side of Aspasia Island, in

Latitude 44 degrees 22 minutes 09.69 seconds N.

Longitude 75 degrees 54 minutes 48.77 seconds W.

THENCE N. 81 degrees 27 minutes 00 seconds W. 2334 feet along the south shore of Aspasia and Bull Islands, on the Canadian side, and north of the northeast point of Wells Island to Turning Point No. 74, in

Latitude 44 degrees 22 minutes 07.47 seconds N.

Longitude 75 degrees 55 minutes 19.39 seconds W.

and bearing N. 27 degrees 25 minutes W. 651 feet from Monu-

ment No. 64 located on the northwesterly side of the northeast point of Wells Island, in

Latitude 44 degrees 22 minutes 01.76 seconds N.

Longitude 75 degrees 55 minutes 15.27 seconds W.

THENCE S. 30 degrees 46 minutes 20 seconds W. 4017 feet along the westerly shore of the northeast end of Wells Island to Turning Point No. 75, in

Latitude 44 degrees 21 minutes 33.39 seconds N .

Longitude 75 degrees 55 minutes 47.68 seconds W.

and bearing N. 68 degrees 36 minutes W. 437 feet from Monument No. 65, located on the westerly side of the northeast end of Wells Island, about one-quarter of a mile north of Westminster Park, in

Latitude 44 degrees 21 minutes 31.81 seconds N.

Longitude 75 degrees 55 minutes 42.08 seconds W.

THENCE S. 60 degrees 23 minutes 00 seconds W. 3409 feet along the channel between Wells Island, on the United States side, and Hill Island, on the Canadian side, to Turning Point No. 76, in

Latitude 44 degrees 21 minutes 16.75 seconds N .

Longitude 75 degrees 56 minutes 28.47 seconds W.

and bearing S. 26 degrees 02 minutes W. 707 feet from Monument No. 66, located on the point on the easterly end of Hill Island, directly west of Westminster Park, in

Latitude 44 degrees 21 minutes 23.02 seconds N.

Longitude 75 degrees 56 minutes 24.20 seconds W.

THENCE S. 48 degrees 12 minutes 50 seconds W. 3113 feet along the middle of the channel between Wells and Hill Islands to Turning Point No. 77, located at the foot of the Lake of the Isles, in

Latitude 44 degrees 20 minutes 56.26 seconds N.

Longitude 75 degrees 57 minutes 00.41 seconds W.

and bearing N. 4 degrees 36 minutes E. 217 feet from Monument No. 67, located on the northwesterly side of Wells Island near the foot of the Lake of the Isles, in

Latitude 44 degrees 20 minutes 54.13 seconds N.

Longitude 75 degrees 57 minutes 00.65 seconds W.

THENCE S. 66 degrees 18 minutes 00 seconds W. 5845 feet through the Lake of the Isles and north of Islands (51) and (52) to Turning Point No. 78, midway between Island (52), on the United States side, and the southerly point of Hill Island, on the Canadian side, in

Latitude 44 degrees 20 minutes 33.05 seconds N.
 Longitude 75 degrees 58 minutes 14.06 seconds W.
 and bearing S. 63 degrees 20 minutes E. 577 feet from Monument No. 68, located on the southwest end of the southerly point of Hill Island, in

Latitude 44 degrees 20 minutes 35.61 seconds N.
 Longitude 75 degrees 58 minutes 21.16 seconds W.

THENCE N. 75 degrees 42 minutes 50 seconds W. 742 feet along and near to the south shore of Hill Island to Turning Point No. 79, located at the head of the Lake of the Isles, in

Latitude 44 degrees 20 minutes 34.86 seconds N.
 Longitude 75 degrees 58 minutes 23.95 seconds W.
 and bearing S. 69 degrees 24 minutes W. 217 feet from Monument No. 68, heretofore described;

THENCE N. 27 degrees 05 minutes 10 seconds W. 1210 feet along the channel between Wells and Hill Islands to Turning Point No. 80, in

Latitude 44 degrees 20 minutes 45.50 seconds N.
 Longitude 75 degrees 58 minutes 31.53 seconds W.
 and bearing N. 4 degrees 05 minutes W. 210 feet from Monument No. 69, located on the north side of Wells Island, in

Latitude 44 degrees 20 minutes 43.43 seconds N.
 Longitude 75 degrees 58 minutes 31.32 seconds W.

THENCE N. 78 degrees 33 minutes 50 seconds W. 913 feet along the channel between Wells and Hill Islands to Turning Point No. 81, in

Latitude 44 degrees 20 minutes 47.28 seconds N.
 Longitude 75 degrees 58 minutes 43.84 seconds W.
 and bearing N. 77 degrees 53 minutes E. 363 feet from Monument No. 70, located on the southerly point of the island between Wells and Hill Islands and about one-half mile easterly of The Rift, in

Latitude 44 degrees 20 minutes 46.53 seconds N.
 Longitude 75 degrees 58 minutes 48.72 seconds W.

THENCE S. 69 degrees 17 minutes 40 seconds W. 492 feet along the channel between Wells and Hill Islands to Turning Point No. 82, in

Latitude 44 degrees 20 minutes 45.56 seconds N.
 Longitude 75 degrees 58 minutes 50.18 seconds W.
 and bearing S. 47 degrees 15 minutes W. 144 feet from Monument No. 70, heretofore described;

THENCE N. 40 degrees 21 minutes 30 seconds W. 693 feet along the channel between Wells and Hill Islands to Turning Point No. 83, in

Latitude 44 degrees 20 minutes 50.78 seconds N.

Longitude 75 degrees 58 minutes 56.36 seconds W.
and bearing N. 87 degrees 39 minutes E. 476 feet from Monument No. 71, located on the southerly side of Hill Island and about three-eighths of a mile easterly of The Rift, in

Latitude 44 degrees 20 minutes 50.59 seconds N.

Longitude 75 degrees 59 minutes 02.90 seconds W.

THENCE S. 79 degrees 10 minutes 30 seconds W. 1106 feet along the channel between Wells and Hill Islands to Turning Point No. 84, in

Latitude 44 degrees 20 minutes 48.73 seconds N.

Longitude 75 degrees 59 minutes 11.31 seconds W.

and bearing S. 72 degrees 53 minutes W. 640 feet from Monument 71, heretofore described;

THENCE N. 77 degrees 37 minutes 50 seconds W. 534 feet along the channel between Wells and Hill Islands to Turning Point No. 85, located about one-eighth of a mile easterly of The Rift, in

Latitude 44 degrees 20 minutes 49.86 seconds N.

Longitude 75 degrees 59 minutes 18.48 seconds W.

and bearing N. 83 degrees 43 minutes E. 587 feet from Monument No. 72, located on the north side of Wells Island at The Rift, in

Latitude 44 degrees 20 minutes 49.22 seconds N.

Longitude 75 degrees 59 minutes 26.52 seconds W.

THENCE S. 87 degrees 13 minutes 40 seconds W. 584 feet along The Rift to Turning Point No. 86, in

Latitude 44 degrees 20 minutes 49.58 seconds N.

Longitude 75 degrees 59 minutes 26.52 seconds W.

and bearing North 36 feet from Monument No. 72 heretofore described;

THENCE S. 77 degrees 34 minutes 00 seconds W. 93 feet through The Rift to Turning Point No. 87, in

Latitude 44 degrees 20 minutes 49.38 seconds N.

Longitude 75 degrees 59 minutes 27.76 seconds W.

and bearing N. 79 degrees 54 minutes W. 92 feet from Monument No. 72, heretofore described;

THENCE N. 78 degrees 28 minutes 10 seconds W. 470 feet along the channel between Wells and Hill Islands to Turning Point No. 88, in

Latitude 44 degrees 20 minutes 50.31 seconds N.

Longitude 75 degrees 59 minutes 34.10 seconds W.

and bearing N. 78 degrees 42 minutes W. 562 feet from Monument No. 72, heretofore described;

THENCE N. 85 degrees 04 minutes 30 seconds W. 2282 feet along the channel between Wells and Hill Islands to Turning Point No. 89, located about 500 feet south of the island directly east of Lindoe Island, in

Latitude 44 degrees 20 minutes 52.24 seconds N.

Longitude 76 degrees 00 minutes 05.39 seconds W.

and bearing S. 29 degrees 31 minutes E. 542 feet from Monument No. 73, located on the southerly end of the island directly east of Lindoe Island, in

Latitude 44 degrees 20 minutes 56.90 seconds N.

Longitude 76 degrees 00 minutes 09.06 seconds W.

THENCE S. 53 degrees 28 minutes 30 seconds W. 2245 feet along the northwest shore of Wells Island and the southeast shore of Bingham Island, to Turning Point No. 90, in

Latitude 44 degrees 20 minutes 39.05 seconds N.

Longitude 76 degrees 00 minutes 30.21 seconds W.

and bearing N. 11 degrees 58 minutes W. 303 feet from Monument No. 74, located on the northwest side of Wells Island, in

Latitude 44 degrees 20 minutes 36.12 seconds N.

Longitude 76 degrees 00 minutes 29.34 seconds W.

THENCE S. 65 degrees 15 minutes 00 seconds W. 10,806 feet along the northwest shore of Wells Island to Turning Point No. 91, located north of and near to Grand View Park, on the northwest point of said island, in

Latitude 44 degrees 19 minutes 54.35 seconds N.

Longitude 76 degrees 02 minutes 45.22 seconds W.

and bearing N. 31 degrees 28 minutes W. 413 feet from Monument No. 75, located on the northwest side of Wells Island, directly north of Grand View Park, in

Latitude 44 degrees 19 minutes 50.87 seconds N.

Longitude 76 degrees 02 minutes 42.25 seconds W.

THENCE S. 49 degrees 02 minutes 40 seconds W. 17,838 feet along the northwest shore of Wells Island and the north shore of Grindstone Island to Turning Point No. 92, located on the north side of Grindstone Island and opposite Endymion Island, in

Latitude 44 degrees 17 minutes 58.86 seconds N.

Longitude 76 degrees 05 minutes 50.44 seconds W.

and bearing N. 21 degrees 42 minutes E. 844 feet from Monument No. 76, located on the north side of Grindstone Island, in

Latitude 44 degrees 17 minutes 51.11 seconds N.

Longitude 76 degrees 05 minutes 54.74 seconds W.

THENCE S. 81 degrees 18 minutes 10 seconds W. 3936 feet along the north shore of Grindstone Island to Turning Point No. 93, located southeast of Netley Island, on the Canadian side, in

Latitude 44 degrees 17 minutes 52.98 seconds N.

Longitude 76 degrees 06 minutes 43.94 seconds W.

and bearing S. 30 degrees 55 minutes E. 363 feet from Monument No. 77, located on the southeast side of Netley Island, in

Latitude 44 degrees 17 minutes 56.05 seconds N.

Longitude 76 degrees 06 minutes 46.50 seconds W.

THENCE S. 55 degrees 23 minutes 20 seconds W. 2022 feet along the north shore of Grindstone Island to Turning Point No. 94, located southeast of Deathdealer Island, on the Canadian side, in

Latitude 44 degrees 17 minutes 41.63 seconds N.

Longitude 76 degrees 07 minutes 06.81 seconds W.

and bearing N. 30 degrees 42 minutes W. 812 feet from Monument No. 78, located on the north side of Grindstone Island and opposite Deathdealer Island, in

Latitude 44 degrees 17 minutes 34.74 seconds N.

Longitude 76 degrees 07 minutes 01.12 seconds W.

THENCE N. 88 degrees 33 minutes 20 seconds W. 2951 feet along the north shore of Grindstone Island to Turning Point No. 95, located south of and near to Gig Island, on the Canadian side, in

Latitude 44 degrees 17 minutes 42.37 seconds N.

Longitude 76 degrees 07 minutes 47.37 seconds W.

and bearing S. 79 degrees 56 minutes E. 278 feet from Monument No. 79, located on the northeast end of the island on the United States side midway between Jolly and Gig Islands, in

Latitude 44 degrees 17 minutes 42.84 seconds N.

Longitude 76 degrees 07 minutes 51.12 seconds W.

THENCE N. 44 degrees 49 minutes 30 seconds W. 639 feet along the southwest shore of Gig Island to Turning Point No. 96, located one-eighth of a mile westerly of said island, in

Latitude 44 degrees 17 minutes 46.84 seconds N.

Longitude 76 degrees 07 minutes 53.56 seconds W.

and bearing N. 23 degrees 40 minutes W. 442 feet from Monument No. 79, heretofore described;

THENCE S. 54 degrees 34 minutes 40 seconds W. 9846 feet along the northwest shore of Grindstone Island and the southeast shore of Thwartway Island to Turning Point No. 97, in

Latitude 44 degrees 16 minutes 50.48 seconds N.

Longitude 76 degrees 09 minutes 43.85 seconds W.
and bearing N. 87 degrees 52 minutes W. 2157 feet from Monument No. 80, located on a small island about 500 feet west of Grindstone Island and about one-half mile south of the south end of Thwartway Island, in

Latitude 44 degrees 16 minutes 49.69 seconds N.

Longitude 76 degrees 09 minutes 14.21 seconds W.

THENCE S. 2 degrees 30 minutes 20 seconds W. 14,924 feet along the west shore of Grindstone Island and the east shores of Francis and Arabella Islands, on the Canadian side, to Turning Point No. 98, located about three-eighths of a mile southeast of Arabella Island, in

Latitude 44 degrees 14 minutes 23.25 seconds N.

Longitude 76 degrees 09 minutes 52.80 seconds W.

and bearing S. 40 degrees 22 minutes E. 1704 feet from Monument No. 81, located on the southeast side of Arabella Island, in

Latitude 44 degrees 14 minutes 36.07 seconds N.

Longitude 76 degrees 10 minutes 07.96 seconds W.

THENCE S. 46 degrees 59 minutes 30 seconds W. 9828 feet along the southeast shore of Wolfe Island to Turning Point No. 99, in

Latitude 44 degrees 13 minutes 17.03 seconds N.

Longitude 76 degrees 11 minutes 31.49 seconds W.

and bearing S. 37 degrees 29 minutes E. 994 feet from Monument No. 82, located on the southeast side of Wolfe Island, in

Latitude 44 degrees 13 minutes 24.82 seconds N.

Longitude 76 degrees 11 minutes 39.79 seconds W.

THENCE S. 59 degrees 21 minutes 10 seconds W. 4603 feet along the southeast shore of Wolfe Island to Turning Point No. 100, in

Latitude 44 degrees 12 minutes 53.86 seconds N.

Longitude 76 degrees 12 minutes 25.85 seconds W.

and bearing S. 39 degrees 35 minutes E. 528 feet from Monument No. 83, located on the southeast side of Wolfe Island, in

Latitude 44 degrees 12 minutes 57.88 seconds N.

Longitude 76 degrees 12 minutes 30.48 seconds W.

THENCE S. 68 degrees 11 minutes 30 seconds W. 10,914 feet along the south shore of Wolfe Island to Turning Point No. 101, in

Latitude 44 degrees 12 minutes 13.79 seconds N.

Longitude 76 degrees 14 minutes 44.96 seconds W.

and bearing S. 2 degrees 51 minutes E. 881 feet from Monument No. 84, located on the southerly side of Wolfe Island, in

Latitude 44 degrees 12 minutes 22.48 seconds N.

Longitude 76 degrees 14 minutes 45.56 seconds W.

THENCE S. 89 degrees 54 minutes 50 seconds W. 10,805 feet along the south shore of Wolfe Island to Turning Point No. 102, in

Latitude 44 degrees 12 minutes 13.61 seconds N.

Longitude 76 degrees 17 minutes 13.28 seconds W.

and bearing S. 3 degrees 38 minutes E. 722 feet from Monument No. 85, located on the south side of Wolfe Island, in

Latitude 44 degrees 12 minutes 20.72 seconds N.

Longitude 76 degrees 17 minutes 13.90 seconds W.

THENCE S. 75 degrees 45 minutes 00 seconds W. 7045 feet along the south shore of Wolfe Island to Turning Point No. 103, in

Latitude 44 degrees 11 minutes 56.47 seconds N.

Longitude 76 degrees 18 minutes 47.01 seconds W.

and bearing S. 32 degrees 46 minutes W. 1454 feet from Monument No. 86, located on the south side of Wolfe Island, in

Latitude 44 degrees 12 minutes 08.54 seconds N.

Longitude 76 degrees 18 minutes 36.20 seconds W.

THENCE S. 24 degrees 04 minutes 10 seconds W. 25,833 feet along the southeast shore of Wolfe Island and between Mud Island, on the Canadian side, and Carleton Island, on the United States side, to Turning Point No. 104, located near to and opposite Hinckley Point, on Wolfe Island, and opposite Cape Vincent, New York, in

Latitude 44 degrees 08 minutes 03.51 seconds N.

Longitude 76 degrees 21 minutes 11.47 seconds W.

and bearing S. 39 degrees 53 minutes E. 846 feet from Monument No. 87, located on the easterly end of Hinckley Point, on Wolfe Island, in

Latitude 44 degrees 08 minutes 09.93 seconds N.

Longitude 76 degrees 21 minutes 18.91 seconds W.

THENCE S. 57 degrees 02 minutes 20 seconds W. 26,957 feet along the south shore of Wolfe Island to Turning Point

No. 105, located opposite Bear Point, on the southwest end of Wolfe Island, in

Latitude 44 degrees 05 minutes 38.56 seconds N.

Longitude 76 degrees 26 minutes 21.38 seconds W.

and bearing S. 22 degrees 56 minutes E. 897 feet from Monument No. 88, located on the southeast side of Bear Point, on Wolfe Island, in

Latitude 44 degrees 05 minutes 46.72 seconds N.

Longitude 76 degrees 26 minutes 26.17 seconds W.

THENCE S. 29 degrees 19 minutes 59 seconds W. 193,346 feet into Lake Ontario, passing southeast of the Duck Islands to Turning Point No. 106, located between Peter Point, on the Canadian side, and Oswego, New York, in

Latitude 43 degrees 37 minutes 51.91 seconds N.

Longitude 76 degrees 47 minutes 49.19 seconds W.

and bearing N. 51 degrees 01 minute 12 seconds W. 96,450 feet from Oswego Light, located at Oswego, New York, in

Latitude 43 degrees 27 minutes 53.95 seconds N.

Longitude 76 degrees 30 minutes 49.77 seconds W.

THENCE due West 501,388 feet along the middle of Lake Ontario to Turning Point No. 107, in

Latitude 43 degrees 37 minutes 51.91 seconds N.

Longitude 78 degrees 41 minutes 26.26 seconds W.

and bearing N. 30 degrees 04 minutes 12 seconds W. 107,985 feet from Thirtymile Point Light, located on Thirtymile Point, New York, about thirty miles east of the mouth of Niagara River, in

Latitude 43 degrees 22 minutes 29.60 seconds N.

Longitude 78 degrees 29 minutes 10.61 seconds W.

THENCE S. 64 degrees 13 minutes 24 seconds W. 150,480 feet along the middle of Lake Ontario to Turning Point No. 108, located opposite the mouth of Niagara River and approximately midway between the mouth of the said river and Toronto, Ontario, in

Latitude 43 degrees 27 minutes 01.51 seconds N.

Longitude 79 degrees 12 minutes 03.18 seconds W.

and bearing N. 28 degrees 23 minutes 49 seconds W. 73,240 feet from Fort Niagara Light, at Fort Niagara, on the United States side of Niagara River, in

Latitude 43 degrees 15 minutes 42.05 seconds N.

Longitude 79 degrees 03 minutes 38.77 seconds W.

THENCE S. 26 degrees 51 minutes 30 seconds E. 76,813 feet in a direction to enter the mouth of Niagara River to Turning Point No. 109, in

Latitude 43 degrees 15 minutes 44.43 seconds N.

Longitude 79 degrees 04 minutes 14.20 seconds W.
and bearing N. 84 degrees 45 minutes W. 2633 feet from Fort Niagara Light, heretofore described;

THENCE S. 53 degrees 48 minutes 10 seconds E. 4770 feet along the middle of the Niagara River to Turning Point No. 110, in

Latitude 43 degrees 15 minutes 16.60 seconds N.

Longitude 79 degrees 03 minutes 22.18 seconds W.
and bearing N. 32 degrees 43 minutes E. 1353 feet from Monument No. 1, located on the Canadian side about one-eighth of a mile easterly of Fort George, Niagara-on-the-Lake, Ontario, in

Latitude 43 degrees 15 minutes 05.36 seconds N .

Longitude 79 degrees 03 minutes 32.06 seconds W.

THENCE S. 8 degrees 48 minutes 30 seconds E. 2182 feet along the middle of the river to Turning Point No. 111, located opposite Youngstown, New York, in

Latitude 43 degrees 14 minutes 55.30 seconds N.

Longitude 79 degrees 03 minutes 17.67 seconds W.
and bearing S. 46 degrees 18 minutes E. 1474 feet from Monument No. 1, heretofore described;

THENCE S. 4 degrees 48 minutes 10 seconds W. 3535 feet along the middle of the river to Turning Point No. 112, in

Latitude 43 degrees 14 minutes 20.51 seconds N.

Longitude 79 degrees 03 minutes 21.67 seconds W.
and bearing N. 79 degrees 56 minutes W. 1091 feet from Monument No. 2, located on the United States side about three-quarters of a mile south of Youngstown, New York, in

Latitude 43 degrees 14 minutes 18.63 seconds N.

Longitude 79 degrees 03 minutes 07.16 seconds W.

THENCE S. 7 degrees 19 minutes 00 seconds E. 5745 feet along the middle of the river to Turning Point No. 113, located opposite Point Elinor, on the Canadian side, in

Latitude 43 degrees 13 minutes 24.22 seconds N.

Longitude 79 degrees 03 minutes 11.79 seconds W.
and bearing S. 80 degrees 44 minutes E. 1184 feet from Monument No. 3, located on the Canadian side on Point Elinor, in

Latitude 43 degrees 13 minutes 26.11 seconds N.

Longitude 79 degrees 03 minutes 27.57 seconds W.

THENCE S. 11 degrees 03 minutes 20 seconds W. 4881 feet along the middle of the river to Turning Point No. 114, in
Latitude 43 degrees 12 minutes 36.91 seconds N.

Longitude 79 degrees 03 minutes 24.43 seconds W.
and bearing S. 86 degrees 28 minutes W. 1230 feet from Monument No. 4, located on the United States side, in

Latitude 43 degrees 12 minutes 37.66 seconds N.

Longitude 79 degrees 03 minutes 07.85 seconds W.

THENCE S. 29 degrees 31 minutes 40 seconds W. 4255 feet along the middle of the river to Turning Point No. 115, in

Latitude 43 degrees 12 minutes 00.34 seconds N.

Longitude 79 degrees 02 minutes 56.11 seconds W.

and bearing N. 87 degrees 32 minutes E. 996 feet from Monument No. 5, located on the Canadian side, in

Latitude 43 degrees 11 minutes 59.91 seconds N.

Longitude 79 degrees 03 minutes 09.55 seconds W.

THENCE S. 10 degrees 21 minutes 10 seconds W. 5965 feet along the middle of the river to Turning Point No. 116, located about three-quarters of a mile north of Lewiston, New York, in

Latitude 43 degrees 11 minutes 02.38 seconds N.

Longitude 79 degrees 03 minutes 10.58 seconds W.

and bearing N. 77 degrees 49 minutes W. 1402 feet from Monument No. 6, located on the United States side about five-eighths of a mile north of Lewiston, New York, in

Latitude 43 degrees 10 minutes 59.46 seconds N.

Longitude 79 degrees 02 minutes 52.08 seconds W.

THENCE S. 2 degrees 26 minutes 30 seconds W. 3704 feet along the middle of the river to Turning Point No. 117, located opposite Lewiston, New York, in

Latitude 43 degrees 10 minutes 25.82 seconds N.

Longitude 79 degrees 03 minutes 12.71 seconds W.

and bearing N. 33 degrees 11 minutes E. 1636 feet from Monument No. 7, located on the Canadian side about three-eighths of a mile north of Queenston, Ontario, in

Latitude 43 degrees 10 minutes 12.30 seconds N.

Longitude 79 degrees 03 minutes 24.80 seconds W.

THENCE S. 14 degrees 35 minutes 40 seconds E. 2368 feet along the middle of the river to Turning Point No. 118, located opposite Queenston, Ontario, in

Latitude 43 degrees 10 minutes 03.19 seconds N.

Longitude 79 degrees 03 minutes 04.66 seconds W.

and bearing S. 58 degrees 17 minutes E. 1755 feet from Monument No. 7, heretofore described;

THENCE S. 31 degrees 47 minutes 50 seconds E. 2248 feet along the middle of the river to Turning Point No. 119, in
Latitude 43 degrees 09 minutes 44.32 seconds N.

Longitude 79 degrees 02 minutes 48.63 seconds W.
and bearing S. 88 degrees 00 minutes W. 499 feet from Monument No. 8, located about 150 feet south of the east anchorage of the Suspension Bridge, in

Latitude 43 degrees 09 minutes 44.49 seconds N.
Longitude 79 degrees 02 minutes 41.95 seconds W.

THENCE S. 10 degrees 48 minutes 50 seconds E. 2394 feet along the middle of the river to Turning Point No. 120, in
Latitude 43 degrees 09 minutes 21.09 seconds N.

Longitude 79 degrees 02 minutes 42.62 seconds W.
and bearing N. 42 degrees 01 minute W. 1013 feet from Monument No. 9, located on the United States side about five-eighths of a mile south of the Suspension Bridge, in

Latitude 43 degrees 09 minutes 13.66 seconds N.
Longitude 79 degrees 02 minutes 33.47 seconds W.

THENCE S. 7 degrees 32 minutes 20 seconds E. 1487 feet along the middle of the river to Turning Point No. 121, in
Latitude 43 degrees 09 minutes 06.53 seconds N.

Longitude 79 degrees 02 minutes 39.98 seconds W.
and bearing S. 33 degrees 47 minutes W. 869 feet from Monument No. 9, heretofore described;

THENCE S. 21 degrees 24 minutes 10 seconds E. 1019 feet along the middle of the river to Turning Point No. 122, in
Latitude 43 degrees 08 minutes 57.16 seconds N.

Longitude 79 degrees 02 minutes 34.97 seconds W.
and bearing S. 88 degrees 13 minutes E. 753 feet from Monument No. 10, located on the Canadian side, in
Latitude 43 degrees 08 minutes 57.39 seconds N.

Longitude 79 degrees 02 minutes 45.12 seconds W.

THENCE S. 3 degrees 55 minutes 40 seconds E. 2051 feet along the middle of the river to Turning Point No. 123, in
Latitude 43 degrees 08 minutes 36.95 seconds N.

Longitude 79 degrees 02 minutes 33.07 seconds W.
and bearing S. 67 degrees 06 minutes W. 655 feet from Monument No. 11, located on the United States side directly east of the New York Central & Hudson River Railroad tracks and about three-eighths of a mile north of Niagara University, in

Latitude 43 degrees 08 minutes 39.47 seconds N.
Longitude 79 degrees 02 minutes 24.94 seconds W.

THENCE S. 10 degrees 49 minutes 50 seconds W. 1951 feet along the middle of the river to Turning Point No. 124, in Latitude 43 degrees 08 minutes 18.02 seconds N.

Longitude 79 degrees 02 minutes 38.02 seconds W. and bearing S. 70 degrees 23 minutes E. 780 feet from Monument No. 12, located on the Canadian side directly east of the International Railway tracks and opposite Niagara University, in

Latitude 43 degrees 08 minutes 20.60 seconds N.

Longitude 79 degrees 02 minutes 47.93 seconds W.

THENCE S. 52 degrees 35 minutes 30 seconds W. 1955 feet along the middle of the river to Turning Point No. 125, in Latitude 43 degrees 08 minutes 06.29 seconds N.

Longitude 79 degrees 02 minutes 58.96 seconds W.

and bearing N. 10 degrees 06 minutes W. 928 feet from Monument No. 13, located on the United States side about five-eighths of a mile southwest of Niagara University, in

Latitude 43 degrees 07 minutes 57.26 seconds N.

Longitude 79 degrees 02 minutes 56.76 seconds W.

THENCE S. 32 degrees 32 minutes 30 seconds W. 1518 feet along the middle of the river to Turning Point No. 126, in

Latitude 43 degrees 07 minutes 53.65 seconds N.

Longitude 79 degrees 03 minutes 09.97 seconds W.

and bearing S. 69 degrees 32 minutes W. 1045 feet from Monument No. 13, heretofore described;

THENCE S. 26 degrees 55 minutes 20 seconds W. 928 feet along the middle of the river to Turning Point No. 127, in

Latitude 43 degrees 07 minutes 45.47 seconds N.

Longitude 79 degrees 03 minutes 15.64 seconds W.

and bearing S. 87 degrees 09 minutes E. 1018 feet from Monument No. 14, located on the Canadian side about seven-eighths of a mile northeast of the Whirlpool, in

Latitude 43 degrees 07 minutes 45.97 seconds N.

Longitude 79 degrees 03 minutes 29.35 seconds W.

THENCE S. 42 degrees 57 minutes 20 seconds W. 1162 feet along the middle of the river to Turning Point No. 128, in

Latitude 43 degrees 07 minutes 37.08 seconds N.

Longitude 79 degrees 03 minutes 26.31 seconds W.

and bearing S. 14 degrees 01 minute E. 928 feet from Monument No. 14, heretofore described;

THENCE S. 71 degrees 44 minutes 30 seconds W. 653 feet along the middle of the river to Turning Point No. 129, in

Latitude 43 degrees 07 minutes 35.06 seconds N.

Longitude 79 degrees 03 minutes 34.67 seconds W.
and bearing S. 19 degrees 40 minutes W. 1174 feet from Monument No. 14, heretofore described;

THENCE S. 50 degrees 37 minutes 50 seconds W. 3537 feet along the middle of the river to Turning Point No. 130, located in the Whirlpool, in

Latitude 43 degrees 07 minutes 12.89 seconds N.

Longitude 79 degrees 04 minutes 11.54 seconds W.
and bearing S. 87 degrees 35 minutes W. 954 feet from Monument No. 15, located on DeVeaux Point, on the United States side, opposite the Whirlpool, in

Latitude 43 degrees 07 minutes 13.29 seconds N.

Longitude 79 degrees 03 minutes 58.68 seconds W.

THENCE S. 50 degrees 49 minutes 50 seconds E. 2441 feet up the middle of the Whirlpool Rapids to Turning Point No. 131, in

Latitude 43 degrees 06 minutes 57.67 seconds N.

Longitude 79 degrees 03 minutes 46.03 seconds W.
and bearing N. 1 degree 46 minutes W. 699 feet from Monument No. 16, located on the Canadian side about five-eighths of a mile southeast of the Whirlpool, in

Latitude 43 degrees 06 minutes 50.77 seconds N.

Longitude 79 degrees 03 minutes 45.74 seconds W.

THENCE S. 38 degrees 59 minutes 30 seconds E. 1044 feet up the middle of the Whirlpool Rapids to Turning Point No. 132, in

Latitude 43 degrees 06 minutes 49.66 seconds N.

Longitude 79 degrees 03 minutes 37.17 seconds W.
and bearing S. 79 degrees 57 minutes E. 645 feet from Monument No. 16, heretofore described;

THENCE S. 19 degrees 56 minutes 00 seconds E. 1142 feet up the middle of the Whirlpool Rapids to Turning Point No. 133, in

Latitude 43 degrees 06 minutes 39.05 seconds N.

Longitude 79 degrees 03 minutes 31.92 seconds W.
and bearing N. 61 degrees 12 minutes W. 419 feet from Monument No. 17, located on the United States side about 300 feet north of the east end of the Grand Trunk Railway bridge, in

Latitude 43 degrees 06 minutes 37.06 seconds N.

Longitude 79 degrees 03 minutes 26.97 seconds W.

THENCE S. 8 degrees 27 minutes 00 seconds E. 1409 feet up the middle of the Whirlpool Rapids to Turning Point No. 134, located near the head of the Whirlpool Rapids, in

Latitude 43 degrees 06 minutes 25.28 seconds N.

Longitude 79 degrees 03 minutes 29.13 seconds W.

and bearing S. 7 degrees 40 minutes W. 1202 feet from Monument No. 17, heretofore described;

THENCE S. 21 degrees 09 minutes 20 seconds W. 6158 feet along the middle of the river to Turning Point No. 135, located about 1000 feet northeast of the Upper Steel Arch Bridge, in

Latitude 43 degrees 05 minutes 28.56 seconds N.

Longitude 79 degrees 03 minutes 59.08 seconds W.

and bearing S. 66 degrees 17 minutes E. 645 feet from Monument No. 18, located on the Canadian side about 800 feet northeast of the Canadian end of the Upper Steel Arch Bridge, in

Latitude 43 degrees 05 minutes 31.12 seconds N.

Longitude 79 degrees 04 minutes 07.05 seconds W.

THENCE S. 43 degrees 03 minutes 20 seconds W. 1398 feet along the middle of the river to Turning Point No. 136, located opposite the American Falls, in

Latitude 43 degrees 05 minutes 18.47 seconds N.

Longitude 79 degrees 04 minutes 11.94 seconds W.

and bearing N. 14 degrees 15 minutes W. 1024 feet from Monument No. 19, located on the United States side at Prospect Point, near the crest of the American Falls, in

Latitude 43 degrees 05 minutes 08.67 seconds N.

Longitude 79 degrees 04 minutes 08.55 seconds W.

THENCE S. 30 degrees 36 minutes 00 seconds W. 2931 feet along the middle of the river to Turning Point No. 137, in

Latitude 43 degrees 04 minutes 53.55 seconds N.

Longitude 79 degrees 04 minutes 32.05 seconds W.

and bearing N. 39 degrees 58 minutes E. 1242 feet from Monument No. 20, located on the Canadian side near the crest of the Horseshoe Falls, in

Latitude 43 degrees 04 minutes 44.15 seconds N.

Longitude 79 degrees 04 minutes 42.80 seconds W.

and also bearing N. 46 degrees 15 minutes W. 1199 feet from Monument No. 21, located on the southwest side of Goat Island, in

Latitude 43 degrees 04 minutes 45.36 seconds N.

Longitude 79 degrees 04 minutes 20.38 seconds W.

THENCE S. 13 degrees 59 minutes 00 seconds E. 1416 feet up the Horseshoe Falls to Turning Point No. 138, in

Latitude 43 degrees 04 minutes 39.98 seconds N.

Longitude 79 degrees 04 minutes 27.44 seconds W.

and bearing S. 69 degrees 42 minutes E. 1215 feet from Monument No. 20, heretofore described, and also bearing S. 43 degrees 54 minutes W. 756 feet from Monument No. 21, heretofore described;

THENCE S. 76 degrees 18 minutes 20 seconds E. 18,340 feet, passing the south side of Goat Island and the Three Sister Islands, and along the middle of the river to Turning Point No. 139, located north of Navy Island and about 1500 feet westerly of the west end of Buckhorn Island, in

Latitude 43 degrees 03 minutes 57.03 seconds N.

Longitude 79 degrees 00 minutes 27.42 seconds W.

and bearing N. 3 degrees 31 minutes W. 2305 feet from Monument No. 22, located on the northeast side of Navy Island, in

Latitude 43 degrees 03 minutes 34.30 seconds N.

Longitude 79 degrees 00 minutes 25.51 seconds W.

THENCE S. 29 degrees 48 minutes 50 seconds E. 4170 feet along the channel between Navy Island, on the Canadian side, and Buckhorn and Grand Islands, on the United States side, to Turning Point No. 140, located between Navy and Grand Islands, in

Latitude 43 degrees 03 minutes 21.29 seconds N.

Longitude 78 degrees 59 minutes 59.49 seconds W.

and bearing N. 77 degrees 27 minutes W. 820 feet from Monument No. 23, located on the northwest end of Grand Island about three-eighths of a mile south of the mouth of Burnt Ship Creek, in

Latitude 43 degrees 03 minutes 19.53 seconds N.

Longitude 78 degrees 59 minutes 48.71 seconds W.

THENCE S. 25 degrees 22 minutes 50 seconds W. 3528 feet along the middle of the channel between Navy and Grand Islands to Turning Point No. 141, in

Latitude 43 degrees 02 minutes 49.81 seconds N.

Longitude 79 degrees 00 minutes 19.86 seconds W.

and bearing S. 64 degrees 19 minutes E. 1339 feet from Monument No. 24, located on the south end of Navy Island, in

Latitude 43 degrees 02 minutes 55.54 seconds N.

Longitude 79 degrees 00 minutes 36.10 seconds W.

THENCE S. 14 degrees 49 minutes 40 seconds W. 6818 feet along the west shore of Grand Island to Turning Point No. 142, located about 1000 feet north of the mouth of Big Sixth Creek, in

Latitude 43 degrees 01 minute 44.71 seconds N.

Longitude 79 degrees 00 minutes 43.35 seconds W.

and bearing N. 49 degrees 32 minutes W. 504 feet from Monument No. 25, located on the west side of Grand Island, about 150 feet southwest of the mouth of Little Sixth Creek, in

Latitude 43 degrees 01 minute 41.48 seconds N.

Longitude 79 degrees 00 minutes 38.19 seconds W.

THENCE S. 33 degrees 28 minutes 30 seconds W. 5624 feet along the west shore of Grand Island to Turning Point No. 143, located near to and opposite Cook Point, on Grand Island, in

Latitude 43 degrees 00 minutes 58.37 seconds N.

Longitude 79 degrees 01 minute 25.10 seconds W.

and bearing N. 85 degrees 31 minutes E. 2169 feet from Monument No. 26, located on the Canadian side about one mile north of the mouth of Snake Creek, in

Latitude 43 degrees 00 minutes 56.70 seconds N.

Longitude 79 degrees 01 minute 54.20 seconds W.

THENCE S. 6 degrees 19 minutes 50 seconds E. 7871 feet along the west shore of Grand Island, to Turning Point No. 144, located opposite Sheenwater, Grand Island, New York, in

Latitude 42 degrees 59 minutes 41.10 seconds N.

Longitude 79 degrees 01 minute 13.42 seconds W.

and bearing S. 70 degrees 03 minutes W. 715 feet from Monument No. 27, located on the west side of Grand Island, at Sheenwater, New York, in

Latitude 42 degrees 59 minutes 43.51 seconds N.

Longitude 79 degrees 01 minute 04.38 seconds W.

THENCE S. 33 degrees 16 minutes 00 seconds E. 4155 feet along the west shore of Grand Island to Turning Point No. 145, located opposite Black Creek, Ontario, in

Latitude 42 degrees 59 minutes 06.78 seconds N.

Longitude 79 degrees 00 minutes 42.76 seconds W.

and bearing N. 43 degrees 38 minutes E. 3493 feet from Monument No. 28, located on the Canadian side about one-quarter mile southeast of the mouth of Black Creek, in

Latitude 42 degrees 58 minutes 41.81 seconds N.

Longitude 79 degrees 01 minute 15.19 seconds W.

THENCE S. 58 degrees 29 minutes 10 seconds E. 11,505 feet along the southwest shore of Grand Island to Turning Point No. 146, located about three-quarters of a mile northwest of Beaver Island, in

Latitude 42 degrees 58 minutes 07.36 seconds N.

Longitude 78 degrees 58 minutes 30.84 seconds W.

and bearing S. 68 degrees 13 minutes W. 570 feet from Monument No. 29, located on the southwest side of Grand Island about three-quarters of a mile northwest of the lower end of Beaver Island, in

Latitude 42 degrees 58 minutes 09.45 seconds N.

Longitude 78 degrees 58 minutes 23.72 seconds W.

THENCE S. 41 degrees 42 minutes 40 seconds E. 5336 feet along the southwest shore of Grand and Beaver Islands to Turning Point No. 147, located near to and opposite Beaver Island, on the United States side, in

Latitude 42 degrees 57 minutes 28.02 seconds N.

Longitude 78 degrees 57 minutes 43.10 seconds W.

and bearing N. 15 degrees 50 minutes E. 3026 feet from Monument No. 30, located on the Canadian side directly opposite Beaver Island and about one-quarter mile east of Shipyard, Ontario, in

Latitude 42 degrees 56 minutes 59.26 seconds N.

Longitude 78 degrees 57 minutes 54.20 seconds W.

THENCE S. 85 degrees 05 minutes 30 seconds E. 7795 feet along the south shores of Beaver and Grand Islands to Turning Point No. 148, located at the head of the channel between Grand and Strawberry Islands, in

Latitude 42 degrees 57 minutes 21.41 seconds N.

Longitude 78 degrees 55 minutes 58.66 seconds W.

and bearing N. 8 degrees 15 minutes E. 2967 feet from Monument No. 31, located on the Canadian side about one-half mile northwest of the mouth of Frenchmans Creek, in

Latitude 42 degrees 56 minutes 52.41 seconds N.

Longitude 78 degrees 56 minutes 04.39 seconds W.

THENCE S. 48 degrees 00 minutes 40 seconds E. 4869 feet along the southwest shore of Strawberry Island to Turning Point No. 149, located near the head of Strawberry Island, in

Latitude 42 degrees 56 minutes 49.24 seconds N.

Longitude 78 degrees 55 minutes 10.00 seconds W.

and bearing N. 47 degrees 30 minutes E. 2576 feet from

Monument No. 32, located on the Canadian side about 300 feet southeast of the mouth of Frenchmans Creek, in

Latitude 42 degrees 56 minutes 32.05 seconds N.

Longitude 78 degrees 55 minutes 35.53 seconds W.

THENCE S. 28 degrees 09 minutes 10 seconds E. 5529 feet along the middle of the river to Turning Point No. 150, located near the lower end of Squaw Island, in

Latitude 42 degrees 56 minutes 01.09 seconds N.

Longitude 78 degrees 54 minutes 34.94 seconds W.

and bearing S. 55 degrees 11 minutes E. 5490 feet from Monument No. 32, heretofore described; and also bearing N. 12 degrees 14 minutes E. 3952 feet from Monument No. 33, located on the Canadian side about three-eighths of a mile south of the west end of the International Bridge, in

Latitude 42 degrees 55 minutes 22.94 seconds N.

Longitude 78 degrees 54 minutes 46.19 seconds W.

THENCE S. 14 degrees 12 minutes 10 seconds E. 3739 feet along the west shore of Squaw Island and through the center of the draw pier of the International Bridge to Turning Point No. 151, located near the head of Squaw Island, in

Latitude 42 degrees 55 minutes 25.29 seconds N.

Longitude 78 degrees 54 minutes 22.61 seconds W.

and bearing N. 82 degrees 16 minutes E. 1770 feet from Monument No. 33, heretofore described;

THENCE S. 0 degrees 14 minutes 50 seconds E. 8554 feet along the middle of the river to Turning Point No. 152, located near the angle in the Bird Island Pier, in

Latitude 42 degrees 54 minutes 00.80 seconds N.

Longitude 78 degrees 54 minutes 22.12 seconds W.

and bearing S. 58 degrees 46 minutes W. 1667 feet from Monument No. 34, located on the United States side at Fort Porter, Buffalo, New York, in

Latitude 42 degrees 54 minutes 09.34 seconds N.

Longitude 78 degrees 54 minutes 02.97 seconds W.

and bearing S. 79 degrees 03 minutes E. 3108 feet from Monument No. 35, located on the Canadian side about one-half mile north of Limekiln Reef, in

Latitude 42 degrees 54 minutes 06.63 seconds N.

Longitude 78 degrees 55 minutes 03.11 seconds W.

THENCE S. 20 degrees 18 minutes 00 seconds W. 7384 feet along the middle of the river to Turning Point No. 153,

located 100 feet west of Horseshoe Reef Light, at the head of Niagara River, in

Latitude 42 degrees 52 minutes 52.39 seconds N.

Longitude 78 degrees 54 minutes 56.52 seconds W.

and bearing W. 100 feet from the Horseshoe Reef Light, in

Latitude 42 degrees 52 minutes 52.39 seconds N.

Longitude 78 degrees 54 minutes 55.18 seconds W.

THENCE S. 10 degrees 04 minutes 20 seconds W. 978 feet into Lake Erie to Turning Point No. 154, in

Latitude 42 degrees 52 minutes 42.88 seconds N.

Longitude 78 degrees 54 minutes 58.82 seconds W.

and bearing S. 15 degrees 43 minutes W. 1000 feet from Horseshoe Reef Light, heretofore described;

THENCE S. 15 degrees 43 minutes 00 seconds W. 19,064 feet along the middle of Lake Erie to Turning Point No. 155, in

Latitude 42 degrees 49 minutes 41.62 seconds N.

Longitude 78 degrees 56 minutes 08.13 seconds W.

and bearing S. 15 degrees 43 minutes 00 seconds W. 20,064 feet from Horseshoe Reef Light, heretofore described;

THENCE S. 63 degrees 10 minutes 28 seconds W. 346,460 feet along the middle of Lake Erie to Turning Point No. 156, located between Long Point, on the Canadian side, and Erie, Pennsylvania, on the United States side, in

Latitude 42 degrees 33 minutes 36.53 seconds N.

Longitude 80 degrees 04 minutes 48.33 seconds W.

and bearing S. 6 degrees 35 minutes 46 seconds W. 57,442 feet from Long Point Light, located on the easterly end of Long Point, Ontario, in

Latitude 42 degrees 33 minutes 00.20 seconds N.

Longitude 80 degrees 03 minutes 20.40 seconds W.

and bearing N. 6 degrees 33 minutes 21 seconds E. 83,580 feet from Presque Isle Light, located on the northwest side of Presque Isle, at Erie, Pennsylvania, in

Latitude 42 degrees 09 minutes 56.30 seconds N.

Longitude 80 degrees 06 minutes 55.50 seconds W.

THENCE S. 78 degrees 15 minutes 49 seconds W. 322,577 feet along the middle of the lake to Turning Point No. 157, located on a line between Fairport, Ohio, and Port Stanley, Ontario, in

Latitude 42 degrees 12 minutes 26.97 seconds N.

Longitude 81 degrees 14 minutes 44.92 seconds W.

and bearing N. 2 degrees 59 minutes 14 seconds E. 164,452 feet from Fairport Light, located at Fairport, Ohio, in

Latitude 41 degrees 45 minutes 24.57 seconds N.

Longitude 81 degrees 16 minutes 38.79 seconds W.

THENCE S. 58 degrees 41 minutes 21 seconds W. 368,279 feet along the middle of the lake to Turning Point No. 158, in

Latitude 41 degrees 40 minutes 35.31 seconds N.

Longitude 82 degrees 23 minutes 51.10 seconds W.

and bearing S. 38 degrees 23 minutes 17 seconds E. 81,642 feet from Pelee Passage Light, located in Pelee Passage between Pelee Island and Pelee Point, in

Latitude 41 degrees 51 minutes 08.07 seconds N.

Longitude 82 degrees 34 minutes 59.17 seconds W.

THENCE due West 77,106 feet along the middle of the lake and in a direction to enter the passage immediately south of Middle Island to Turning Point No. 159, located about one-half mile south of Middle Island, in

Latitude 41 degrees 40 minutes 35.31 seconds N.

Longitude 82 degrees 40 minutes 47.15 seconds W.

and bearing South 2,500 feet from Middle Island Light, located on the southeast end of Middle Island, in

Latitude 41 degrees 41 minutes 00.01 seconds N.

Longitude 82 degrees 40 minutes 47.15 seconds W.

THENCE N. 57 degrees 11 minutes 18 seconds W. 126,206 feet, passing the southwest shore of Middle Island and along the passage between the Bass Islands and West Sister Island, on the United States side, and the Hen and Chickens Islands, East Sister, and Middle Sister Islands, on the Canadian side, to Turning Point No. 160, in

Latitude 41 degrees 51 minutes 48.58 seconds N.

Longitude 83 degrees 04 minutes 08.93 seconds W.

and bearing S. 62 degrees 35 minutes 35 seconds W. 54,351 feet from Colchester Reef Light, located on Colchester Reef, about four miles southeast of Colchester, Ontario, in

Latitude 41 degrees 55 minutes 56.24 seconds N.

Longitude 82 degrees 53 minutes 31.28 seconds W.

and bearing N. 62 degrees 18 minutes 06 seconds E. 79,941 feet from Toledo Harbour Light, located near the northeast entrance to the straight channel through Maumee Bay, and about three and one-half miles north of Cedar Point, Ohio, in

Latitude 41 degrees 45 minutes 42.54 seconds N.

Longitude 83 degrees 19 minutes 44.33 seconds W.

THENCE N. 18 degrees 41 minutes 52 seconds W. 68.262 feet to Turning Point No. 161, located at the mouth of Detroit River, in

Latitude 42 degrees 02 minutes 27.25 seconds N.

Longitude 83 degrees 08 minutes 58.93 seconds W.
and bearing N. 60 degrees 53 minutes 00 seconds E. 10,468 feet from Monument No. 1, located on the United States side at Pointe Mouillée, Michigan, in

Latitude 42 degrees 01 minute 36.96 seconds N.

Longitude 83 degrees 11 minutes 00.14 seconds W.
and also bearing S. 60 degrees 56 minutes 00 seconds W. 10,468 feet from Monument No. 2, located on the Canadian side at Bar Point, Ontario, in

Latitude 42 degrees 03 minutes 17.51 seconds N.

Longitude 83 degrees 06 minutes 57.68 seconds W.

THENCE N. 13 degrees 51 minutes 30 seconds E. 31,696 feet along the middle of Detroit River and passing the west shore of Bois Blanc Island and the east shore of Grosse Isle to Turning Point No. 162, located about 1700 feet east of Stony Island, on the United States side, in

Latitude 42 degrees 07 minutes 31.25 seconds N.

Longitude 83 degrees 07 minutes 18.20 seconds W.
and bearing S. 75 degrees 00 minutes W. 2080 feet from Monument No. 3, located on the Canadian side opposite Stony Island and about one and three-quarters miles north of Amherstburg, Ontario, in

Latitude 42 degrees 07 minutes 36.57 seconds N.

Longitude 83 degrees 06 minutes 51.54 seconds W.

THENCE N. 10 degrees 27 minutes 00 seconds W. 18,294 feet along the middle of the channel east of Grosse Isle, on the United States side, to Turning Point No. 163, in

Latitude 42 degrees 10 minutes 28.98 seconds N.

Longitude 83 degrees 08 minutes 02.26 seconds W.
and bearing N. 81 degrees 37 minutes E. 2740 feet from Monument No. 4, located on the east side of and near the north end of Grosse Isle and directly opposite the foot of Fighting Island, in

Latitude 42 degrees 10 minutes 25.03 seconds N.

Longitude 83 degrees 08 minutes 38.26 seconds W.

THENCE N. 3 degrees 57 minutes 10 seconds E. 23,339 feet along the west shore of Fighting Island and the east shore of Grassy Island to Turning Point No. 164, in

Latitude 42 degrees 14 minutes 18.99 seconds N.

Longitude 83 degrees 07 minutes 40.87 seconds W.
and bearing N. 42 degrees 46 minutes W. 940 feet from Monument No. 5, located on the west side of Fighting Island and directly opposite Ecorse, Michigan, in

Latitude 42 degrees 14 minutes 12.17 seconds N.

Longitude 83 degrees 07 minutes 32.39 seconds W.

THENCE N. 29 degrees 33 minutes 10 seconds E. 8985 feet along the middle of the river to Turning Point No. 165, located about one and one-eighth miles north of the north end of Fighting Island, in

Latitude 42 degrees 15 minutes 36.19 seconds N.

Longitude 83 degrees 06 minutes 41.94 seconds W.

and bearing N. 63 degrees 05 minutes W. 1885 feet from Monument No. 6, located on the Canadian side about three-eighths of a mile south of Ojibwa, Ontario, and about one mile north of the mouth of Turkey Creek, in

Latitude 42 degrees 15 minutes 27.76 seconds N.

Longitude 83 degrees 06 minutes 19.59 seconds W.

THENCE N. 20 degrees 17 minutes 00 seconds E. 11,591 feet along the middle of the river to Turning Point No. 166, located about three-eighths of a mile northeast of the mouth of River Rouge, in

Latitude 42 degrees 17 minutes 23.59 seconds N.

Longitude 83 degrees 05 minutes 48.48 seconds W.

and bearing N. 78 degrees 37 minutes W. 1482 feet from Monument No. 7, located on the Canadian side about one mile south of Sandwich Courthouse, Sandwich, Ontario, in

Latitude 42 degrees 17 minutes 20.70 seconds N.

Longitude 83 degrees 05 minutes 29.15 seconds W.

THENCE N. 34 degrees 23 minutes 50 seconds E. 8277 feet along the middle of the river to Turning Point No. 167, located between Detroit, Michigan, and Sandwich, Ontario, in

Latitude 42 degrees 18 minutes 31.05 seconds N.

Longitude 83 degrees 04 minutes 46.25 seconds W.

and bearing N. 55 degrees 43 minutes W. 1395 feet from Monument No. 8, located on the Canadian side about one-half mile north of Sandwich Courthouse, Sandwich, Ontario, in

Latitude 42 degrees 18 minutes 23.29 seconds N.

Longitude 83 degrees 04 minutes 30.91 seconds W.

THENCE N. 52 degrees 41 minutes 40 seconds E. 5467 feet along the middle of the river to Turning Point No. 168, located between Detroit, Michigan, and Windsor, Ontario, in

Latitude 42 degrees 19 minutes 03.78 seconds N.

Longitude 83 degrees 03 minutes 48.38 seconds W.

and bearing N. 33 degrees 32 minutes W. 1393 feet from Monument No. 9, located on the Canadian side about one-quarter mile below the Detroit River Tunnels, in

Latitude 42 degrees 18 minutes 52.31 seconds N.

Longitude 83 degrees 03 minutes 38.14 seconds W.

THENCE N. 70 degrees 36 minutes 50 seconds E. 12,725 feet along the middle of the river to Turning Point No. 169, located between Detroit, Michigan, and Walkerville, Ontario, in

Latitude 42 degrees 19 minutes 45.48 seconds N.

Longitude 83 degrees 01 minute 08.58 seconds W.

and bearing N. 34 degrees 11 minutes W. 1609 feet from Monument No. 10, located on the Canadian side at Walkerville, Ontario, in

Latitude 42 degrees 19 minutes 32.33 seconds N.

Longitude 83 degrees 00 minutes 56.54 seconds W.

THENCE N. 82 degrees 13 minutes 40 seconds E. 8255 feet to Turning Point No. 170, located near to and south of Belle Isle Park, on the United States side, in

Latitude 42 degrees 19 minutes 56.49 seconds N.

Longitude 82 degrees 59 minutes 19.69 seconds W.

and bearing S. 11 degrees 50 minutes E. 409 feet from Monument No. 11, located on the southwest end of Belle Isle Park, Detroit, Michigan, in

Latitude 42 degrees 20 minutes 00.45 seconds N.

Longitude 82 degrees 59 minutes 20.81 seconds W.

THENCE N. 72 degrees 20 minutes 40 seconds E. 8405 feet along the south shore of Belle Isle Park to Turning Point No. 171, located near the southeast end of Belle Isle Park, in

Latitude 42 degrees 20 minutes 21.66 seconds N.

Longitude 82 degrees 57 minutes 33.05 seconds W.

and bearing S. 50 degrees 57 minutes E. 361 feet from Monument No. 12, located on the southeast point of Belle Isle Park, in

Latitude 42 degrees 20 minutes 23.90 seconds N.

Longitude 82 degrees 57 minutes 36.78 seconds W.

THENCE N. 53 degrees 41 minutes 20 seconds E. 4619 feet to Turning Point No. 172, located about one-quarter mile west of the lower end of Peach Island, in

Latitude 42 degrees 20 minutes 48.68 seconds N.

Longitude 82 degrees 56 minutes 43.48 seconds W.
and bearing N. 87 degrees 10 minutes W. 1809 feet from Monument No. 13, located on the south side of the west end of Peach Island, in

Latitude 42 degrees 20 minutes 47.79 seconds N.

Longitude 82 degrees 56 minutes 19.42 seconds W.

THENCE N. 73 degrees 01 minute 30 seconds E. 33,111 feet along the middle of the river, passing the north shore of Peach Island, into Lake St. Clair to Turning Point No. 173, in

Latitude 42 degrees 22 minutes 23.96 seconds N.

Longitude 82 degrees 49 minutes 41.60 seconds W.

and bearing N. 27 degrees 40 minutes W. 28,839 feet from Monument No. 14, located on the Canadian side of Lake St. Clair near the mouth of Rivière aux Puces, in

Latitude 42 degrees 18 minutes 11.69 seconds N.

Longitude 82 degrees 46 minutes 43.21 seconds W.

and also bearing S. 20 degrees 14 minutes E. 31,309 feet from Monument No. 15, located on Milk River Point, on the United States side, in

Latitude 42 degrees 27 minutes 14.16 seconds N.

Longitude 82 degrees 52 minutes 05.89 seconds W.

THENCE N. 36 degrees 32 minutes 09 seconds E. 72,617 feet through the middle of Lake St. Clair to Turning Point No. 174, located near the head of, and east of, St. Clair Flats Canal, in

Latitude 42 degrees 31 minutes 59.92 seconds N.

Longitude 82 degrees 40 minutes 04.22 seconds W.

and bearing S. 80 degrees 27 minutes E. 346 feet from Monument No. 16, located on the upper end of the east wall of St. Clair Flats Canal, in

Latitude 42 degrees 32 minutes 00.48 seconds N.

Longitude 82 degrees 40 minutes 08.77 seconds W.

THENCE N. 27 degrees 19 minutes 00 seconds E. 3307 feet along the middle of South Channel of St. Clair River to Turning Point No. 175, located about five-eighths of a mile northeast of the head of St. Clair Flats Canal, in

Latitude 42 degrees 32 minutes 28.94 seconds N.

Longitude 82 degrees 39 minutes 43.95 seconds W.

and bearing N. 42 degrees 03 minutes W. 888 feet from Monument No. 17, located on the Canadian side about five-eighths of a mile northeast of St. Clair Flats Canal Upper Light, in

Latitude 42 degrees 32 minutes 22.42 seconds N.

Longitude 82 degrees 39 minutes 36.00 seconds W.

THENCE N. 46 degrees 06 minutes 30 seconds E. 2927 feet along the middle of South Channel to Turning Point No. 176, in

Latitude 42 degrees 32 minutes 48.98 seconds N.

Longitude 82 degrees 39 minutes 15.76 seconds W.

and bearing N. 50 degrees 43 minutes W. 896 feet from Monument No. 18, located on the Canadian side about one and one-quarter miles northeast of St. Clair Flats Canal Upper Light, in

Latitude 42 degrees 32 minutes 43.38 seconds N.

Longitude 82 degrees 39 minutes 06.50 seconds W.

THENCE N. 51 degrees 02 minutes 10 seconds E. 4580 feet along the middle of South Channel to Turning Point No. 177, in

Latitude 42 degrees 33 minutes 17.43 seconds N.

Longitude 82 degrees 38 minutes 28.18 seconds W.

and bearing N. 44 degrees 33 minutes W. 677 feet from Monument No. 19, located on the Canadian side directly opposite Maybury Highway, in

Latitude 42 degrees 33 minutes 12.67 seconds N.

Longitude 82 degrees 38 minutes 21.84 seconds W.

THENCE N. 70 degrees 06 minutes 20 seconds E. 2332 feet along the middle of South Channel to Turning Point No. 178, in

Latitude 42 degrees 33 minutes 25.27 seconds N.

Longitude 82 degrees 37 minutes 58.89 seconds W.

and bearing N. 8 degrees 02 minutes W. 675 feet from Monument No. 20, located on the Canadian side about one mile below the head of Little Bassett Channel, in

Latitude 42 degrees 33 minutes 18.67 seconds N.

Longitude 82 degrees 37 minutes 57.63 seconds W.

THENCE S. 89 degrees 33 minutes 20 seconds E. 2461 feet along the middle of South Channel to Turning Point No. 179, in

Latitude 42 degrees 33 minutes 25.08 seconds N.

Longitude 82 degrees 37 minutes 26.01 seconds W.

and bearing N. 16 degrees 36 minutes E. 702 feet from Monument No. 21, located on the Canadian side about five-eighths of a mile below the head of Little Bassett Channel, in

Latitude 42 degrees 33 minutes 18.43 seconds N.

Longitude 82 degrees 37 minutes 28.69 seconds W.

THENCE S. 64 degrees 02 minutes 30 seconds E. 2151 feet along the middle of South Channel to Turning Point No. 180, in

Latitude 42 degrees 33 minutes 15.78 seconds N.
 Longitude 82 degrees 37 minutes 00.17 seconds W.
 and bearing N. 38 degrees 43 minutes E. 524 feet from Monument No. 22, located on the Canadian side about one-quarter mile below the head of Little Bassett Channel, in

Latitude 42 degrees 33 minutes 11.74 seconds N.
 Longitude 82 degrees 37 minutes 04.55 seconds W.

THENCE S. 44 degrees 25 minutes 10 seconds E. 2283 feet along the middle of South Channel to Turning Point No. 181, located about one-quarter mile above the head of Little Bassett Channel, in

Latitude 42 degrees 32 minutes 59.68 seconds N.
 Longitude 82 degrees 36 minutes 38.83 seconds W.
 and bearing N. 28 degrees 00 minutes E. 795 feet from Monument No. 23, located on the Canadian side about one-quarter mile above the head of Little Bassett Channel, in

Latitude 42 degrees 32 minutes 52.74 seconds N.
 Longitude 82 degrees 36 minutes 43.81 seconds W.

THENCE S. 69 degrees 18 minutes 50 seconds E. 1498 feet along the middle of South Channel to Turning Point No. 182, located about one-half mile above the head of Little Bassett Channel, in

Latitude 42 degrees 32 minutes 54.45 seconds N.
 Longitude 82 degrees 36 minutes 20.11 seconds W.
 and bearing N. 4 degrees 33 minutes E. 794 feet from Monument No. 24, located on the Canadian side about one-half mile above the head of Little Bassett Channel, in

Latitude 42 degrees 32 minutes 46.63 seconds N.
 Longitude 82 degrees 36 minutes 20.95 seconds W.

THENCE N. 82 degrees 12 minutes 40 seconds E. 3978 feet along the middle of South Channel to Turning Point No. 183, located about one-quarter mile west of the head of Bassett Channel, in

Latitude 42 degrees 32 minutes 59.77 seconds N.
 Longitude 82 degrees 35 minutes 27.46 seconds W.
 and bearing N. 18 degrees 03 minutes W. 692 feet from Monument No. 25, located on the Canadian side about one-quarter mile below the head of Bassett Channel, in

Latitude 42 degrees 32 minutes 53.27 seconds N.
 Longitude 82 degrees 35 minutes 24.60 seconds W.

THENCE N. 53 degrees 09 minutes 20 seconds E. 2376 feet along the middle of South Channel to Turning Point No. 184, located near the head of Bassett Channel, in

Latitude 42 degrees 33 minutes 13.84 seconds N.
 Longitude 82 degrees 35 minutes 02.06 seconds W.
 and bearing S. 48 degrees 09 minutes E. 1141 feet from Monument No. 26, located on the United States side about one-eighth mile above Muirs, Michigan, in

Latitude 42 degrees 33 minutes 21.36 seconds N.
 Longitude 82 degrees 35 minutes 13.41 seconds W.

THENCE N. 14 degrees 39 minutes 30 seconds E. 3849 feet along the middle of South Channel to Turning Point No. 185, in
 Latitude 42 degrees 33 minutes 50.63 seconds N.

Longitude 82 degrees 34 minutes 49.04 seconds W.
 and bearing N. 73 degrees 20 minutes W. 459 feet from Monument No. 27, located on the southwest end of a small island on the Canadian side near Squirrel Island and about three-quarters of a mile northeast of Muirs, Michigan, in

Latitude 42 degrees 33 minutes 49.33 seconds N.
 Longitude 82 degrees 34 minutes 43.17 seconds W.

THENCE N. 40 degrees 37 minutes 00 seconds E. 4839 feet along the middle of South Channel to Turning Point No. 186, located opposite Maple Leaf, Michigan, in

Latitude 42 degrees 34 minutes 26.91 seconds N.
 Longitude 82 degrees 34 minutes 06.94 seconds W.

and bearing N. 50 degrees 05 minutes W. 1081 feet from Monument No. 28, located on the northwest side of Squirrel Island, on the Canadian side, and opposite Maple Leaf, Michigan, in

Latitude 42 degrees 34 minutes 20.06 seconds N.
 Longitude 82 degrees 33 minutes 55.85 seconds W.

THENCE N. 50 degrees 48 minutes 10 seconds E. 2909 feet along the middle of South Channel to Turning Point No. 187, located opposite Sans Souci, Michigan, in

Latitude 42 degrees 34 minutes 45.07 seconds N.
 Longitude 82 degrees 33 minutes 36.81 seconds W.

and bearing N. 51 degrees 04 minutes W. 903 feet from Monument No. 29, located on the northwest side of Squirrel Island, on the Canadian side, directly opposite Sans Souci, Michigan, in

Latitude 42 degrees 34 minutes 39.46 seconds N.
 Longitude 82 degrees 33 minutes 27.42 seconds W.

THENCE N. 40 degrees 36 minutes 00 seconds E. 2806 feet along the middle of South Channel to Turning Point No. 188, in
 Latitude 42 degrees 35 minutes 06.11 seconds N.

Longitude 82 degrees 33 minutes 12.40 seconds W.

and bearing N. 56 degrees 00 minutes W. 903 feet from Monument No. 30, located on the northwest side of Squirrel Island,

on the Canadian side, about one-half mile above Sans Souci, Michigan, in

Latitude 42 degrees 35 minutes 01.12 seconds N.

Longitude 82 degrees 33 minutes 02.40 seconds W.

THENCE N. 26 degrees 54 minutes 20 seconds E. 2489 feet along the middle of South Channel to Turning Point No. 189, in

Latitude 42 degrees 35 minutes 28.04 seconds N.

Longitude 82 degrees 32 minutes 57.34 seconds W.

and bearing N. 51 degrees 12 minutes W. 976 feet from Monument No. 31, located on the northwest side of Squirrel Island, on the Canadian side, and about one mile below the head of Chematogan Channel, in

Latitude 42 degrees 35 minutes 22.00 seconds N.

Longitude 82 degrees 32 minutes 47.17 seconds W.

THENCE N. 49 degrees 43 minutes 30 seconds E. 9099 feet along the middle of South Channel to Turning Point No. 190, located opposite Russell Island, on the United States side, in

Latitude 42 degrees 36 minutes 26.13 seconds N.

Longitude 82 degrees 31 minutes 24.52 seconds W.

and bearing S. 62 degrees 40 minutes E. 886 feet from Monument No. 32, located on the southeast side of Russell Island, on the United States side, in

Latitude 42 degrees 36 minutes 30.15 seconds N.

Longitude 82 degrees 31 minutes 35.04 seconds W.

THENCE N. 27 degrees 27 minutes 50 seconds E. 2626 feet along the middle of South Channel to Turning Point No. 191, located near the head of South Channel and opposite the northeast end of Russell Island, in

Latitude 42 degrees 36 minutes 49.15 seconds N.

Longitude 82 degrees 31 minutes 08.32 seconds W.

and bearing S. 81 degrees 12 minutes E. 761 feet from Monument No. 33, located on the northeast end of Russell Island, in

Latitude 42 degrees 36 minutes 50.30 seconds N.

Longitude 82 degrees 31 minutes 18.38 seconds W.

THENCE N. 15 degrees 39 minutes 40 seconds E. 9250 feet along the middle of St. Clair River to Turning Point No. 192, located at the head of Chenal Ecarté, in

Latitude 42 degrees 38 minutes 17.13 seconds N.

Longitude 82 degrees 30 minutes 34.92 seconds W.

and bearing S. 69 degrees 21 minutes E. 1560 feet from Monu-

ment No. 34, located on the United States side about one-half mile above Locust Point, Michigan, and opposite the head of Chenal Ecarté, on the Canadian side, in

Latitude 42 degrees 38 minutes 22.56 seconds N.

Longitude 82 degrees 30 minutes 54.45 seconds W.

THENCE N. 1 degree 20 minutes 30 seconds W. 9791 feet along the middle of the river to Turning Point No. 193, located about three-eighths of a mile above Roberts Landing, Michigan, and about one-half mile above Port Lambton, Ontario, in

Latitude 42 degrees 39 minutes 53.81 seconds N.

Longitude 82 degrees 30 minutes 37.99 seconds W.

and bearing N. 77 degrees 13 minutes W. 1143 feet from Monument No. 35, located on the Canadian side about one-half mile north of Port Lambton, Ontario, in

Latitude 42 degrees 39 minutes 51.31 seconds N.

Longitude 82 degrees 30 minutes 23.07 seconds W.

THENCE N. 18 degrees 16 minutes 30 seconds E. 13,276 feet along the middle of the river to Turning Point No. 194, located near to and opposite Woodtick Island, on the Canadian side, in

Latitude 42 degrees 41 minutes 58.33 seconds N.

Longitude 82 degrees 29 minutes 42.24 seconds W.

and bearing N. 71 degrees 55 minutes W. 411 feet from Monument No. 36, located on the west side of Woodtick Island, in

Latitude 42 degrees 41 minutes 57.07 seconds N.

Longitude 82 degrees 29 minutes 37.00 seconds W.

THENCE N. 24 degrees 00 minutes 20 seconds E. 7509 feet along the middle of the river to Turning Point No. 195 located opposite Marine City, Michigan, in

Latitude 42 degrees 43 minutes 06.09 seconds N.

Longitude 82 degrees 29 minutes 01.32 seconds W.

and bearing N. 81 degrees 26 minutes W. 1699 feet from Monument No. 37, located on the Canadian side about one-quarter mile north of Sombra, Ontario, in

Latitude 42 degrees 43 minutes 03.59 seconds N.

Longitude 82 degrees 28 minutes 38.81 seconds W.

THENCE N. 0 degrees 43 minutes 50 seconds W. 5451 feet along the middle of the river to Turning Point No. 196, in

Latitude 42 degrees 43 minutes 59.93 seconds N.

Longitude 82 degrees 29 minutes 02.25 seconds W.

and bearing S. 74 degrees 28 minutes E. 1581 feet from Mon-a-

ment No. 38, located on the United States side about one and one-eighth miles north of Marine City, Michigan, in

Latitude 42 degrees 44 minutes 04.11 seconds N.

Longitude 82 degrees 29 minutes 22.66 seconds W.

THENCE N. 22 degrees 47 minutes 50 seconds E. 11,470 feet along the middle of the river to Turning Point No. 197, located about one-half mile northeast of Recors Point, on the United States side, in

Latitude 42 degrees 45 minutes 44.37 seconds N.

Longitude 82 degrees 28 minutes 02.67 seconds W.

and bearing N. 83 degrees 04 minutes W. 1257 feet from Monument No. 39, located on the Canadian side about five-eighths of a mile north of the mouth of Clay Creek, in

Latitude 42 degrees 45 minutes 42.88 seconds N.

Longitude 82 degrees 27 minutes 45.95 seconds W.

THENCE N. 2 degrees 29 minutes 00 seconds W. 2872 feet along the middle of the river to Turning Point No. 198, located about three-eighths of a mile southeast of China, Michigan, in

Latitude 42 degrees 46 minutes 12.71 seconds N.

Longitude 82 degrees 28 minutes 04.34 seconds W.

and bearing S. 84 degrees 44 minutes E. 997 feet from Monument No. 40, located on the United States side about one-quarter mile south of China, Michigan, in

Latitude 42 degrees 46 minutes 13.62 seconds N.

Longitude 82 degrees 28 minutes 17.64 seconds W.

THENCE N. 10 degrees 48 minutes 00 seconds W. 5889 feet along the middle of the river to Turning Point No. 199, in

Latitude 42 degrees 47 minutes 09.86 seconds N.

Longitude 82 degrees 28 minutes 19.14 seconds W.

and bearing S. 75 degrees 32 minutes W. 950 feet from Monument No. 41, located on the Canadian side about seven-eighths of a mile north of the mouth of Bowens Creek, in

Latitude 42 degrees 47 minutes 12.20 seconds N.

Longitude 82 degrees 28 minutes 06.80 seconds W.

THENCE N. 21 degrees 42 minutes 00 seconds W. 6372 feet along the middle of the river to Turning Point No. 200, in

Latitude 42 degrees 48 minutes 08.33 seconds N.

Longitude 82 degrees 28 minutes 50.74 seconds W.

and bearing S. 71 degrees 30 minutes W. 949 feet from Monument No. 42, located on the Canadian side about one and one-quarter miles south of Courtright, Ontario, in

Latitude 42 degrees 48 minutes 11.31 seconds N.

Longitude 82 degrees 28 minutes 38.66 seconds W.

THENCE N. 9 degrees 25 minutes 30 seconds W. 2158 feet along the middle of the river to Turning Point No. 201, located about seven-eighths of a mile south of the mouth of Pine River, in

Latitude 42 degrees 48 minutes 29.36 seconds N.

Longitude 82 degrees 28 minutes 55.48 seconds W.

and bearing S. 83 degrees 49 minutes E. 1064 feet from Monument No. 43, located on the United States side about three-quarters of a mile south of the mouth of Pine River, in

Latitude 42 degrees 48 minutes 30.49 seconds N.

Longitude 82 degrees 29 minutes 09.66 seconds W.

THENCE N. 7 degrees 46 minutes 20 seconds E. 6292 feet along the middle of the river to Turning Point No. 202, located opposite St. Clair, Michigan, in

Latitude 42 degrees 49 minutes 30.94 seconds N.

Longitude 82 degrees 28 minutes 44.06 seconds W.

and bearing N. 73 degrees 19 minutes W. 1867 feet from Monument No. 44, located on the Canadian side about one-quarter mile north of Courtright, Ontario, in

Latitude 42 degrees 49 minutes 25.64 seconds N.

Longitude 82 degrees 28 minutes 20.05 seconds W.

THENCE N. 21 degrees 33 minutes 40 seconds E. 4463 feet along the middle of the river to Turning Point No. 203, in

Latitude 42 degrees 50 minutes 11.94 seconds N.

Longitude 82 degrees 28 minutes 22.04 seconds W.

and bearing S. 65 degrees 22 minutes E. 1507 feet from Monument No. 45, located on the United States side about one mile north of St. Clair, Michigan, in

Latitude 42 degrees 50 minutes 18.14 seconds N.

Longitude 82 degrees 28 minutes 40.43 seconds W.

THENCE N. 9 degrees 53 minutes 00 seconds E. 7006 feet along the middle of the river to Turning Point No. 204, in

Latitude 42 degrees 51 minutes 20.11 seconds N.

Longitude 82 degrees 28 minutes 05.90 seconds W.

and bearing N. 81 degrees 05 minutes W. 1304 feet from Monument No. 46, located on the Canadian side about one and three-eighths miles south of the lower end of Stag Island, in

Latitude 42 degrees 51 minutes 18.12 seconds N.

Longitude 82 degrees 27 minutes 48.61 seconds W.

THENCE N. 2 degrees 46 minutes 20 seconds W. 11,581 feet along the middle of the river and near to the west shore of Stag Island to Turning Point No. 205, located near to and opposite Stag Island, in

Latitude 42 degrees 53 minutes 14.37 seconds N.

Longitude 82 degrees 28 minutes 13.42 seconds W.

and bearing N. 87 degrees 33 minutes E. 1318 feet from Monument No. 47, located on the United States side about one-quarter mile south of the mouth of Cuttle Creek and directly opposite Stag Island, in

Latitude 42 degrees 53 minutes 13.81 seconds N.

Longitude 82 degrees 28 minutes 31.11 seconds W.

THENCE N. 17 degrees 58 minutes 30 seconds E. 6977 feet along the west shore of Stag Island and the middle of the river to Turning Point No. 206, located opposite Marysville, Michigan, in

Latitude 42 degrees 54 minutes 19.92 seconds N.

Longitude 82 degrees 27 minutes 44.50 seconds W.

and bearing N. 78 degrees 17 minutes W. 1271 feet from Monument No. 48, located on the Canadian side about one-eighth mile north of the mouth of Talford Creek, in

Latitude 42 degrees 54 minutes 17.37 seconds N.

Longitude 82 degrees 27 minutes 27.77 seconds W.

THENCE N. 13 degrees 40 minutes 10 seconds E. 7924 feet along the middle of the river to Turning Point No. 207, located about seven-eighths of a mile south of South Park, Michigan, in

Latitude 42 degrees 55 minutes 35.97 seconds N.

Longitude 82 degrees 27 minutes 19.33 seconds W.

and bearing S. 65 degrees 49 minutes E. 1162 feet from Monument No. 49, located on the United States side about one-quarter of a mile north of the mouth of Bunce Creek, in

Latitude 42 degrees 55 minutes 40.67 seconds N.

Longitude 82 degrees 27 minutes 33.58 seconds W.

THENCE N. 26 degrees 52 minutes 50 seconds E. 4463 feet along the middle of the river to Turning Point No. 208, located opposite South Park, Michigan, in

Latitude 42 degrees 56 minutes 15.28 seconds N.

Longitude 82 degrees 26 minutes 52.20 seconds W.

and bearing N. 61 degrees 34 minutes W. 1083 feet from Monument No. 50, located on the Canadian side directly opposite South Park, Michigan, in

Latitude 42 degrees 56 minutes 10.19 seconds N.

Longitude 82 degrees 26 minutes 39.40 seconds W.

THENCE N. 44 degrees 03 minutes 10 seconds E. 7286 feet along the middle of the river to Turning Point No. 209, located about one-half mile south of the west end of St. Clair Tunnel, in

Latitude 42 degrees 57 minutes 07.00 seconds N.

Longitude 82 degrees 25 minutes 44.09 seconds W.

and bearing S. 56 degrees 35 minutes E. 1028 feet from Monument No. 51, located on the United States side about one-half mile southwest of the west end of St. Clair Tunnel, in

Latitude 42 degrees 57 minutes 12.59 seconds N.

Longitude 82 degrees 25 minutes 55.62 seconds W.

THENCE N. 31 degrees 00 minutes 10 seconds E. 6275 feet along the middle of the river to Turning Point No. 210, located opposite Port Huron, Michigan, and Sarnia, Ontario, and about one-half mile southeast of the mouth of Black River, in

Latitude 42 degrees 58 minutes 00.12 seconds N.

Longitude 82 degrees 25 minutes 00.62 seconds W.

and bearing N. 36 degrees 41 minutes W. 1457 feet from Monument No. 52, located on the Canadian side about five-eighths of a mile south of the Custom House at Sarnia, Ontario, in

Latitude 42 degrees 57 minutes 48.57 seconds N.

Longitude 82 degrees 24 minutes 48.91 seconds W.

THENCE N. 14 degrees 17 minutes 20 seconds E. 3981 feet along the middle of the river to Turning Point No. 211, located opposite Port Huron, Michigan, and Sarnia, Ontario, and about one-half mile northeast of the mouth of Black River, in

Latitude 42 degrees 58 minutes 38.22 seconds N.

Longitude 82 degrees 24 minutes 47.40 seconds W.

and bearing N. 69 degrees 29 minutes W. 1574 feet from Monument No. 53, located on the Canadian side and about one-quarter mile north of the Custom House at Sarnia, Ontario, in

Latitude 42 degrees 58 minutes 32.77 seconds N.

Longitude 82 degrees 24 minutes 27.57 seconds W.

THENCE N. 36 degrees 59 minutes 20 seconds W. 3699 feet along the middle of the river to Turning Point No. 212, located opposite Port Huron, Michigan, and Bay Point, on the Canadian side, in

Latitude 42 degrees 59 minutes 07.40 seconds N.

Longitude 82 degrees 25 minutes 17.34 seconds W.

and bearing N. 85 degrees 10 minutes E. 736 feet from Monument No. 54, located on the United States side at Port Huron, Michigan, and opposite Bay Point, on the Canadian side, in

Latitude 42 degrees 59 minutes 06.79 seconds N.

Longitude 82 degrees 25 minutes 27.21 seconds W.

THENCE N. 18 degrees 48 minutes 40 seconds W. 2622 feet along the middle of the river to Turning Point No. 213, located opposite Port Huron, Michigan, in

Latitude 42 degrees 59 minutes 31.91 seconds N.

Longitude 82 degrees 25 minutes 28.72 seconds W.

and bearing N. 56 degrees 02 minutes W. 1094 feet from Monument No. 55, located on the Canadian side about three-eighths of a mile north of the lower end of Bay Point, in

Latitude 42 degrees 59 minutes 25.87 seconds N.

Longitude 82 degrees 25 minutes 16.50 seconds W.

THENCE N. 3 degrees 26 minutes 50 seconds E. 2025 feet along the middle of the river to Turning Point No. 214, located opposite Port Huron, Michigan, in

Latitude 42 degrees 59 minutes 51.88 seconds N.

Longitude 82 degrees 25 minutes 27.08 seconds W.

and bearing S. 44 degrees 25 minutes E. 683 feet from Monument No. 56, located on the United States side at Port Huron, Michigan, about one-half mile south of Fort Gratiot Light, in

Latitude 42 degrees 59 minutes 56.70 seconds N.

Longitude 82 degrees 25 minutes 33.51 seconds W.

THENCE N. 29 degrees 26 minutes 00 seconds E. 5643 feet along the middle of the St. Clair River into Lake Huron to Turning Point No. 215, located at the foot of Lake Huron, in

Latitude 43 degrees 00 minutes 40.42 seconds N.

Longitude 82 degrees 24 minutes 49.76 seconds W.

and bearing N. 21 degrees 32 minutes W. 3006 feet from Monument No. 57, located on the Canadian side of Lake Huron directly north of Point Edward, Ontario, in

Latitude 43 degrees 00 minutes 12.80 seconds N.

Longitude 82 degrees 24 minutes 34.91 seconds W.

and also bearing S. 76 degrees 51 minutes E. 3095 feet from Monument No. 58, located on the United States side of Lake Huron about one-half mile north of Fort Gratiot Light, in

Latitude 43 degrees 00 minutes 47.38 seconds N.

Longitude 82 degrees 25 minutes 30.32 seconds W.

THENCE N. 20 degrees 01 minute 52 seconds E. 225,118 feet along the middle of Lake Huron to Turning Point No. 216, located on a line between Port Sanilac, Michigan, and Goderich, Ontario, in

Latitude 43 degrees 35 minutes 28.03 seconds N.

Longitude 82 degrees 07 minutes 22.05 seconds W.

and bearing N. 61 degrees 47 minutes 44 seconds E. 125,400 feet from Port Sanilac Light, located on the United States side at Port Sanilac, Michigan, in

Latitude 43 degrees 25 minutes 45.43 seconds N.

Longitude 82 degrees 32 minutes 23.61 seconds W.

THENCE N. 9 degrees 04 minutes 17 seconds W. 645,430 feet along the middle of Lake Huron to Turning Point No. 217, located on a line between Thunder Bay Island, Michigan, on the United States side, and South Baymouth, Ontario, on the Canadian side, in

Latitude 45 degrees 20 minutes 19.35 seconds N.

Longitude 82 degrees 31 minutes 06.40 seconds W.

and bearing N. 57 degrees 31 minutes 41 seconds E. 205,920 feet from Thunder Bay Island Light, located on Thunder Bay Island, Michigan, in

Latitude 45 degrees 02 minutes 14.95 seconds N.

Longitude 83 degrees 11 minutes 38.39 seconds W.

THENCE N. 57 degrees 06 minutes 19 seconds W. 327,499 feet along the middle of Lake Huron to Turning Point No. 218, located opposite the entrance to False Detour Channel, in

Latitude 45 degrees 49 minutes 17.13 seconds N.

Longitude 83 degrees 35 minutes 49.19 seconds W.

and bearing S. 41 degrees 40 minutes 53 seconds W. 41,515 feet from Monument No. 1, located on the north end of Smith Point, on Cockburn Island, Ontario, on the Canadian side, and directly east of Kitchener Island, in

Latitude 45 degrees 54 minutes 23.41 seconds N.

Longitude 83 degrees 29 minutes 19.40 seconds W.

and also bearing S. 26 degrees 38 minutes 10 seconds W. 39,564 feet from Monument No. 2, located on the southeast end of Drummond Island, Michigan, on the United States side, in

Latitude 45 degrees 55 minutes 06.34 seconds N.

Longitude 83 degrees 31 minutes 38.75 seconds W.

THENCE N. 32 degrees 45 minutes 24 seconds E. 76,756 feet in a direction to enter False Detour Channel and through the middle of said channel to Turning Point No. 219, located in North Channel of Lake Huron, in

Latitude 45 degrees 59 minutes 53.96 seconds N.

Longitude 83 degrees 26 minutes 00.94 seconds W.

and bearing N. 67 degrees 31 minutes 00 seconds E. 10,923 feet

from Monument No. 3, located at Marblehead, on the east end of Drummond Island, in

Latitude 45 degrees 59 minutes 12.74 seconds N.

Longitude 83 degrees 28 minutes 23.90 seconds W.

THENCE N. 41 degrees 44 minutes 27 seconds W. 52,641 feet along North Channel and following the northeast shore of Drummond Island to Turning Point No. 220, located opposite Reynolds Point, Drummond Island, in

Latitude 46 degrees 06 minutes 21.42 seconds N.

Longitude 83 degrees 34 minutes 18.32 seconds W.

and bearing N. 21 degrees 17 minutes 00 seconds E. 6512 feet from Monument No. 4, located on Reynolds Point, Drummond Island, in

Latitude 46 degrees 05 minutes 21.52 seconds N.

Longitude 83 degrees 34 minutes 51.86 seconds W.

THENCE N. 74 degrees 34 minutes 42 seconds W. 21,848 feet along North Channel and following the north shore of Drummond Island to Turning Point No. 221, located opposite Poe Point, Drummond Island, in

Latitude 46 degrees 07 minutes 18.66 seconds N.

Longitude 83 degrees 39 minutes 17.31 seconds W.

and bearing N. 20 degrees 45 minutes 00 seconds W. 6968 feet from Monument No. 5, located on the north side of Drummond Island on point about three-quarters of a mile west of Poe Point, in

Latitude 46 degrees 06 minutes 14.33 seconds N.

Longitude 83 degrees 38 minutes 42.26 seconds W.

THENCE S. 75 degrees 28 minutes 20 seconds W. 27,483 feet along North Channel and following the north shore of Drummond Island to Turning Point No. 222, located about one-half mile south of Maple Island, in Potagannissing Bay, in

Latitude 46 degrees 06 minutes 10.43 seconds N.

Longitude 83 degrees 45 minutes 34.86 seconds W.

and bearing S. 18 degrees 34 minutes 00 seconds E. 2669 feet from Monument No. 6, located on the south end of Maple Island, on the Canadian side, in

Latitude 46 degrees 06 minutes 35.40 seconds N.

Longitude 83 degrees 45 minutes 46.92 seconds W.

THENCE N. 70 degrees 45 minutes 10 seconds W. 17,850 feet along the channel between Cedar, Wilson, and Burnt Islands, on the United States side, and Maple, South Seine, and Salt Islands, on the Canadian side, to Turning Point No. 223, located in Potagannissing Bay, in

Latitude 46 degrees 07 minutes 08.44 seconds N.

Longitude 83 degrees 49 minutes 34.08 seconds W.
and bearing S. 39 degrees 38 minutes W. 4915 feet from Monument No. 7, located on the south end of Koshkawong Point, St. Joseph Island, Ontario, in

Latitude 46 degrees 07 minutes 45.81 seconds N.

Longitude 83 degrees 48 minutes 49.58 seconds W.

THENCE S. 42 degrees 38 minutes 40 seconds W. 28,932 feet along the northwest shores of Burnt, Butterfield, Macomb, Cass, and Little Cass Islands, on the United States side, and the southeast shores of St. Joseph, Duncan, Archibald, Janden, and Pirate Islands, on the Canadian side, to Turning Point No. 224, located about one-quarter mile southeast of Pirate Island, on the Canadian side, and three-eighths mile west of Little Cass Island, on the United States side, in

Latitude 46 degrees 03 minutes 38.26 seconds N.

Longitude 83 degrees 54 minutes 12.02 seconds W.
and bearing S. 26 degrees 47 minutes E. 1728 feet from Monument No. 8, located on the south end of Pirate Island, in

Latitude 46 degrees 03 minutes 53.48 seconds N.

Longitude 83 degrees 54 minutes 23.06 seconds W.

THENCE S. 84 degrees 10 minutes 40 seconds W. 13,260 feet along the south shore of St. Joseph Island, Ontario, to Turning Point No. 225, located at the mouth of St. Marys River and about one-half mile southwest of Old Fort St. Joe Point, on the south end of St. Joseph Island, Ontario, in

Latitude 46 degrees 03 minutes 24.94 seconds N.

Longitude 83 degrees 57 minutes 19.06 seconds W.
and bearing S. 35 degrees 48 minutes W. 2866 feet from Monument No. 9, located on the west side of Old Fort St. Joe Point, in

Latitude 46 degrees 03 minutes 47.89 seconds N.

Longitude 83 degrees 56 minutes 55.29 seconds W.

THENCE N. 17 degrees 37 minutes 30 seconds W. 17,470 feet along the channel in the St. Marys River between St. Joseph Island, on the Canadian side, and Lime, Hart, and Edward Islands, on the United States side, to Turning Point No. 226, located about one-eighth mile northeast of the north end of Edward Island, in

Latitude 46 degrees 06 minutes 09.30 seconds N.

Longitude 83 degrees 58 minutes 34.12 seconds W.
and bearing N. 31 degrees 06 minutes E. 1112 feet from

Monument No. 10, located on the west side of Edward Island, in

Latitude 46 degrees 05 minutes 59.89 seconds N.

Longitude 83 degrees 58 minutes 42.27 seconds W.

THENCE N. 52 degrees 40 minutes 10 seconds W. 9561 feet along the west shore of St. Joseph Island to Turning Point No. 227, located about one-half mile southwest of Hay Point, St. Joseph Island, in

Latitude 46 degrees 07 minutes 06.52 seconds N.

Longitude 84 degrees 00 minutes 22.04 seconds W.

and bearing S. 56 degrees 36 minutes W. 1677 feet from Monument No. 11, located on the small island about one-eighth mile southwest of Hay Point, in

Latitude 46 degrees 07 minutes 15.63 seconds N.

Longitude 84 degrees 00 minutes 02.17 seconds W.

THENCE N. 0 degrees 25 minutes 20 seconds E. 11,360 feet along the west shore of St. Joseph Island into Mud Lake to Turning Point No. 228, located about one and three-eighths miles north of Hay Point, in

Latitude 46 degrees 08 minutes 58.66 seconds N.

Longitude 84 degrees 00 minutes 20.85 seconds W.

and bearing N. 69 degrees 35 minutes W. 3011 feet from Monument No. 12, located on the west side of St. Joseph Island about one and one-quarter miles north of Hay Point, in

Latitude 46 degrees 08 minutes 48.29 seconds N.

Longitude 83 degrees 59 minutes 40.77 seconds W.

THENCE N. 52 degrees 31 minutes 10 seconds W. 22,715 feet along the west shore of St. Joseph Island to Turning Point No. 229, located about three-eighths of a mile southwest of Richardson Point, St. Joseph Island, in

Latitude 46 degrees 11 minutes 15.03 seconds N.

Longitude 84 degrees 04 minutes 37.05 seconds W.

and bearing S. 45 degrees 21 minutes W. 1974 feet from Monument No. 13, located on Richardson Point, St. Joseph Island, in

Latitude 46 degrees 11 minutes 28.72 seconds N.

Longitude 84 degrees 04 minutes 17.09 seconds W.

THENCE N. 14 degrees 46 minutes 40 seconds W. 8599 feet along the west shore of St. Joseph Island, on the Canadian side, and east of Two Tree Island, on the United States side, to Turning Point No. 230, in

Latitude 46 degrees 12 minutes 37.11 seconds N.

Longitude 84 degrees 05 minutes 08.24 seconds W.

and bearing N. 15 degrees 04 minutes E. 1444 feet from Monument No. 14, located on the north end of Two Tree Island, in

Latitude 46 degrees 12 minutes 23.34 seconds N.

Longitude 84 degrees 05 minutes 13.57 seconds W.

THENCE N. 26 degrees 27 minutes 30 seconds W. 12,749 feet along the west shore of St. Joseph Island and through Mud Lake to Turning Point No. 231, located about one-quarter mile northwest of Everens Point, St. Joseph Island, in

Latitude 46 degrees 14 minutes 29.77 seconds N.

Longitude 84 degrees 06 minutes 29.05 seconds W.

and bearing N. 79 degrees 30 minutes W. 1348 feet from Monument No. 15, located on the west side of St. Joseph Island about one-eighth mile north of Everens Point, in

Latitude 46 degrees 14 minutes 27.34 seconds N.

Longitude 84 degrees 06 minutes 10.19 seconds W.

THENCE N. 26 degrees 15 minutes 20 seconds E. 6072 feet along the channel between St. Joseph Island, on the Canadian side, and Neebish and Rains Islands, on the United States side, to Turning Point No. 232, located about one-quarter mile northeast of Johnson Point, on Rains Island, in

Latitude 46 degrees 15 minutes 23.52 seconds N.

Longitude 84 degrees 05 minutes 50.83 seconds W.

and bearing N. 63 degrees 58 minutes E. 1256 feet from Monument No. 16, located on Johnson Point, on the east side of Rains Island, in

Latitude 46 degrees 15 minutes 18.08 seconds N.

Longitude 84 degrees 06 minutes 06.88 seconds W.

THENCE N. 46 degrees 35 minutes 30 seconds W. 6192 feet along the channel between St. Joseph Island, on the Canadian side, and Rains Island, on the United States side, to Turning Point No. 233, located about one-eighth mile east of Mirre Point, on the east side of Neebish Island, in

Latitude 46 degrees 16 minutes 05.52 seconds N.

Longitude 84 degrees 06 minutes 54.85 seconds W.

and bearing S. 62 degrees 18 minutes E. 1239 feet from Monument No. 17, located on the east side of Neebish Island, about one-eighth mile north of Mirre Point, in

Latitude 46 degrees 16 minutes 11.21 seconds N.

Longitude 84 degrees 07 minutes 10.47 seconds W.

THENCE N. 3 degrees 24 minutes 20 seconds W. 17,113 feet along the channel through Little Mud Lake, between St. Joseph

Island, on the Canadian side, and Neebish Island, on the United States side, to Turning Point No. 234, located about three-eighths of a mile south of the south end of Sugar Island, in

Latitude 46 degrees 18 minutes 54.15 seconds N.

Longitude 84 degrees 07 minutes 09.33 seconds W.

and bearing N. 67 degrees 22 minutes W. 1814 feet from Monument No. 18, located on Stribling Point, St. Joseph Island, in

Latitude 46 degrees 18 minutes 47.26 seconds N.

Longitude 84 degrees 06 minutes 45.48 seconds W.

THENCE N. 52 degrees 48 minutes 40 seconds E. 4284 feet along the channel between St. Joseph Island, on the Canadian side, and Sugar Island, on the United States side, to Turning Point No. 235, located about three-eighths of a mile east of Harwood Point, on Sugar Island, in

Latitude 46 degrees 19 minutes 19.71 seconds N.

Longitude 84 degrees 06 minutes 20.71 seconds W.

and bearing N. 19 degrees 29 minutes W. 1917 feet from Monument No. 19, located on the north end of St. Joseph Island, about one-half mile east of Stribling Point, in

Latitude 46 degrees 19 minutes 01.87 seconds N.

Longitude 84 degrees 06 minutes 11.60 seconds W.

THENCE N. 30 degrees 51 minutes 10 seconds W. 6962 feet along the channel on the east side of Sugar Island to Turning Point No. 236, located between Sugar Island, on the United States side, and East Neebish Island, on the Canadian side, in

Latitude 46 degrees 20 minutes 18.71 seconds N.

Longitude 84 degrees 07 minutes 11.59 seconds W.

and bearing S. 36 degrees 53 minutes W. 1020 feet from Monument No. 20, located on the southwest side of East Neebish Island, directly opposite Point Augustus, on Sugar Island, in

Latitude 46 degrees 20 minutes 26.76 seconds N.

Longitude 84 degrees 07 minutes 02.87 seconds W.

THENCE N. 21 degrees 01 minute 30 seconds W. 13,315 feet along the channel between Sugar and Duck Islands, on the United States side, and East Neebish Island and the mainland, on the Canadian side, to Turning Point No. 237, located about three-eighths of a mile west of Birch Point, on the Canadian side, in

Latitude 46 degrees 22 minutes 21.39 seconds N.

Longitude 84 degrees 08 minutes 19.72 seconds W.

and bearing N. 56 degrees 47 minutes E. 1010 feet from Monument No. 21, located on the northeast end of Duck Island, in

Latitude 46 degrees 22 minutes 15.92 seconds N.

Longitude 84 degrees 08 minutes 31.77 seconds W.

THENCE N. 6 degrees 00 minutes 00 seconds W. 16,992 feet into Lake George to Turning Point No. 238, located about one and one-half miles northwest of Pumpkin Point, on the Canadian side, in

Latitude 46 degrees 25 minutes 08.20 seconds N.

Longitude 84 degrees 08 minutes 45.07 seconds W.
and bearing S. 85 degrees 15 minutes E. 10,955 feet from Monument No. 22, located on Whipple Point, on the east side of Sugar Island, in

Latitude 46 degrees 25 minutes 17.19 seconds N.

Longitude 84 degrees 11 minutes 20.89 seconds W.

THENCE N. 15 degrees 45 minutes 40 seconds E. 32,380 feet along the middle of Lake George to Turning Point No. 239, located about seven-eighths of a mile southeast of Churchville Point, on Sugar Island, in

Latitude 46 degrees 30 minutes 15.80 seconds N.

Longitude 84 degrees 06 minutes 39.34 seconds W.
and bearing S. 61 degrees 18 minutes W. 3659 feet from Monument No. 23, located on the southwest side of Sand Island, on the Canadian side, in

Latitude 46 degrees 30 minutes 33.15 seconds N.

Longitude 84 degrees 05 minutes 53.47 seconds W.

THENCE N. 19 degrees 32 minutes 00 seconds W. 5308 feet through Lake George to the foot of the channel between Squirrel Island, on the Canadian side, and Sugar Island, on the United States side, to Turning Point No. 240, in

Latitude 46 degrees 31 minutes 05.18 seconds N.

Longitude 84 degrees 07 minutes 04.72 seconds W.
and bearing S. 22 degrees 07 minutes E. 936 feet from Monument No. 24, located on the southwest side of Squirrel Island, in

Latitude 46 degrees 31 minutes 13.74 seconds N.

Longitude 84 degrees 07 minutes 09.76 seconds W.

THENCE N. 48 degrees 29 minutes 00 seconds W. 1735 feet along the channel between Squirrel Island, on the Canadian side, and Sugar Island, on the United States side, to Turning Point No. 241, in

Latitude 46 degrees 31 minutes 16.53 seconds N.
 Longitude 84 degrees 07 minutes 23.29 seconds W.
 and bearing N. 73 degrees 23 minutes W. 988 feet from Monument No. 24, heretofore described;

THENCE N. 22 degrees 32 minutes 10 seconds W. 3713 feet to Turning Point No. 242, located about three-eighths of a mile northwest of the northwest end of Squirrel Island, in

Latitude 46 degrees 31 minutes 50.38 seconds N.
 Longitude 84 degrees 07 minutes 43.65 seconds W.
 and bearing S. 55 degrees 41 minutes W. 757 feet from Monument No. 25, located on the Canadian side about three-eighths of a mile northwest of Squirrel Island, in

Latitude 46 degrees 31 minutes 54.60 seconds N.
 Longitude 84 degrees 07 minutes 34.70 seconds W.
 THENCE N. 74 degrees 44 minutes 20 seconds W. 2732 feet to Turning Point No. 243, in

Latitude 46 degrees 31 minutes 57.48 seconds N.
 Longitude 84 degrees 08 minutes 21.35 seconds W.
 and bearing N. 53 degrees 48 minutes E. 1128 feet from Monument No. 26, located on the north side of Sugar Island about one-eighth of a mile west of Payment, Michigan, in

Latitude 46 degrees 31 minutes 50.91 seconds N.
 Longitude 84 degrees 08 minutes 34.37 seconds W.
 THENCE S. 74 degrees 15 minutes 50 seconds W. 1928 feet to Turning Point No. 244, in

Latitude 46 degrees 31 minutes 52.32 seconds N.
 Longitude 84 degrees 08 minutes 47.90 seconds W.
 and bearing N. 81 degrees 24 minutes W. 957 feet from Monument No. 26, heretofore described;

THENCE S. 59 degrees 49 minutes 20 seconds W. 1986 feet to Turning Point No. 245, located opposite the mouth of Garden River, in

Latitude 46 degrees 31 minutes 42.46 seconds N.
 Longitude 84 degrees 09 minutes 12.46 seconds W.
 and bearing N. 31 degrees 07 minutes W. 379 feet from Monument No. 27, located on the north side of Sugar Island, directly opposite the mouth of Garden River, in

Latitude 46 degrees 31 minutes 39.26 seconds N.
 Longitude 84 degrees 09 minutes 09.66 seconds W.
 THENCE S. 77 degrees 43 minutes 00 seconds W. 3390 feet to Turning Point No. 246, in

Latitude 46 degrees 31 minutes 35.34 seconds N.

Longitude 84 degrees 09 minutes 59.83 seconds W.
and bearing N. 48 degrees 16 minutes E. 1911 feet from
Monument No. 28, located on the north side of Sugar Island
directly south of Point Charles, on the Canadian side, in

Latitude 46 degrees 31 minutes 22.78 seconds N.

Longitude 84 degrees 10 minutes 20.22 seconds W.

THENCE N. 84 degrees 04 minutes 00 seconds W. 2754
feet along the channel between Sugar Island, on the United
States side, and the Canadian mainland to Turning Point No.
247, located at the foot of Little Lake George, in

Latitude 46 degrees 31 minutes 38.15 seconds N.

Longitude 84 degrees 10 minutes 39.01 seconds W.

and bearing N. 40 degrees 10 minutes W. 2037 feet from
Monument No. 28, heretofore described;

THENCE N. 39 degrees 58 minutes 30 seconds W. 6255
feet into Little Lake George to Turning Point No. 248, located
about three-quarters of a mile east of Bells Point, on the
Canadian side, in

Latitude 46 degrees 32 minutes 25.46 seconds N.

Longitude 84 degrees 11 minutes 36.49 seconds W.

and bearing N. 23 degrees 45 minutes E. 2708 feet from
Monument No. 29, located about three-eighths of a mile east
of Palmers Point, on the north side of Sugar Island, in

Latitude 46 degrees 32 minutes 00.99 seconds N.

Longitude 84 degrees 11 minutes 52.09 seconds W.

THENCE S. 74 degrees 29 minutes 30 seconds W. 8415 feet
through Little Lake George and along the middle of the channel
between Palmers Point, on the United States side, and Bells
Point, on the Canadian side, to Turning Point No. 249, in

Latitude 46 degrees 32 minutes 03.23 seconds N.

Longitude 84 degrees 13 minutes 32.47 seconds W.

and bearing N. 52 degrees 17 minutes W. 1717 feet from Monu-
ment No. 30, located on the northwest side of Sugar Island
about one and one-half miles northeast of Point Lewis, in

Latitude 46 degrees 31 minutes 52.86 seconds N.

Longitude 84 degrees 13 minutes 13.04 seconds W.

THENCE S. 30 degrees 59 minutes 20 seconds W. 14,148
feet along the channel between Sugar Island and the Canadian
mainland to Turning Point No. 250, located about one-quarter
mile west of Cass Point, on Sugar Island, in

Latitude 46 degrees 30 minutes 03.50 seconds N.

Longitude 84 degrees 15 minutes 16.60 seconds W.

and bearing S. 40 degrees 45 minutes E. 1370 feet from Monu-

ment No. 31, located on the Canadian side opposite Cass Point, on Sugar Island, in

Latitude 46 degrees 30 minutes 13.74 seconds N.

Longitude 84 degrees 15 minutes 29.38 seconds W.

THENCE S. 49 degrees 07 minutes 40 seconds W. 3560 feet to Turning Point No. 251, located about 200 feet southeast of Cook Island, on the Canadian side, in

Latitude 46 degrees 29 minutes 40.50 seconds N.

Longitude 84 degrees 15 minutes 55.06 seconds W.

and bearing S. 19 degrees 37 minutes E. 190 feet from Monument No. 32, located on the east end of Cook Island, in

Latitude 46 degrees 29 minutes 42.27 seconds N.

Longitude 84 degrees 15 minutes 55.98 seconds W.

THENCE S. 78 degrees 42 minutes 50 seconds W. 2763 feet to Turning Point No. 252, located about one-quarter mile southwest of Point Nolan, on the Canadian side, in

Latitude 46 degrees 29 minutes 35.16 seconds N.

Longitude 84 degrees 16 minutes 33.79 seconds W.

and bearing N. 74 degrees 45 minutes W. 967 feet from Monument No. 33, located on the west end of a small island about 400 feet northwest of Hog Island, near Black Point, on Sugar Island, in

Latitude 46 degrees 29 minutes 32.65 seconds N.

Longitude 84 degrees 16 minutes 20.46 seconds W.

THENCE S. 89 degrees 49 minutes 20 seconds W. 4410 feet to Turning Point No. 253, located about one-quarter mile southeast of Topsail Island, on the Canadian side, in

Latitude 46 degrees 29 minutes 35.02 seconds N.

Longitude 84 degrees 17 minutes 36.82 seconds W.

and bearing S. 44 degrees 52 minutes E. 1306 feet from Monument No. 34, located on the south end of Topsail Island, in

Latitude 46 degrees 29 minutes 44.16 seconds N.

Longitude 84 degrees 17 minutes 49.99 seconds W.

THENCE N. 72 degrees 15 minutes 50 seconds W. 8309 feet along the middle of St. Marys River to Turning Point No. 254, in

Latitude 46 degrees 29 minutes 59.99 seconds N.

Longitude 84 degrees 19 minutes 29.94 seconds W.

and bearing S. 5 degrees 12 minutes W. 1987 feet from Monument No. 35, located on the Canadian side at Sault Ste. Marie, Ontario, in

Latitude 46 degrees 30 minutes 19.52 seconds N.

Longitude 84 degrees 19 minutes 27.37 seconds W.

THENCE N. 56 degrees 22 minutes 10 seconds W. 5058 feet along the middle of the river to Turning Point No. 255, located at the foot of St. Marys Falls, in

Latitude 46 degrees 30 minutes 27.64 seconds N.

Longitude 84 degrees 20 minutes 30.15 seconds W.

and bearing N. 2 degrees 22 minutes E. 2457 feet from Monument No. 36, located on the United States side at Sault Ste. Marie, Michigan, in

Latitude 46 degrees 30 minutes 03.42 seconds N.

Longitude 84 degrees 20 minutes 31.61 seconds W.

THENCE N. 85 degrees 45 minutes 30 seconds W. 8143 feet up the St. Marys Falls and near to Whitefish Island, on the Canadian side, and through the pier between the third and fourth spans of the International Bridge to Turning Point No. 256, located about five-eighths of a mile west of said bridge, in

Latitude 46 degrees 30 minutes 33.57 seconds N.

Longitude 84 degrees 22 minutes 26.25 seconds W.

and bearing N. 6 degrees 44 minutes W. 2936 feet from Monument No. 37, located on the west end of South Pier, at Sault Ste. Marie, Michigan, in

Latitude 46 degrees 30 minutes 04.79 seconds N.

Longitude 84 degrees 22 minutes 21.33 seconds W.

THENCE S. 54 degrees 28 minutes 50 seconds W. 6614 feet along the middle of the river to Turning Point No. 257, located opposite Algonquin, Michigan, in

Latitude 46 degrees 29 minutes 55.63 seconds N.

Longitude 84 degrees 23 minutes 43.20 seconds W.

and bearing S. 13 degrees 03 minutes E. 3049 feet from Monument No. 38, located on the Canadian side about 800 feet northeast of Old Vessel Point, in

Latitude 46 degrees 30 minutes 24.95 seconds N.

Longitude 84 degrees 23 minutes 53.04 seconds W.

THENCE N. 83 degrees 41 minutes 20 seconds W. 6494 feet along the middle of the river to Turning Point No. 258, in

Latitude 46 degrees 30 minutes 02.67 seconds N.

Longitude 84 degrees 25 minutes 15.46 seconds W.

and bearing N. 14 degrees 32 minutes W. 4634 feet from Monument No. 39, located on the United States side at Big Point, Michigan, in

Latitude 46 degrees 29 minutes 18.39 seconds N.

Longitude 84 degrees 24 minutes 58.83 seconds W.

THENCE S. 55 degrees 21 minutes 30 seconds W. 7374 feet along the middle of the river to Turning Point No. 259, in Latitude 46 degrees 29 minutes 21.28 seconds N.

Longitude 84 degrees 26 minutes 42.16 seconds W. and bearing N. 25 degrees 34 minutes W. 4352 feet from Monument No. 40, located on the United States side about one mile northeast of Brush Point, Michigan, in

Latitude 46 degrees 28 minutes 42.53 seconds N.

Longitude 84 degrees 26 minutes 15.31 seconds W.

THENCE S. 30 degrees 08 minutes 00 seconds W. 15,272 feet along the middle of the river to Turning Point No. 260, located in Mosquito Bay, in

Latitude 46 degrees 27 minutes 10.89 seconds N.

Longitude 84 degrees 28 minutes 31.65 seconds W.

and bearing South 4277 feet from Monument No. 41, located on the south side of Pointe aux Pins, on the Canadian side, in

Latitude 46 degrees 27 minutes 53.11 seconds N.

Longitude 84 degrees 28 minutes 31.65 seconds W.

THENCE N. 81 degrees 54 minutes 50 seconds W. 20,662 feet along the middle of the river to Turning Point No. 261, located about one-half mile east of the southeast end of Point Iroquois Shoals, in

Latitude 46 degrees 27 minutes 39.47 seconds N.

Longitude 84 degrees 33 minutes 23.86 seconds W.

and bearing S. 52 degrees 41 minutes W. 9490 feet from Monument No. 42, located on the Canadian side at Pointe aux Chênes, Ontario, in

Latitude 46 degrees 28 minutes 36.28 seconds N.

Longitude 84 degrees 31 minutes 36.05 seconds W.

THENCE N. 39 degrees 15 minutes 15 seconds W. 81,796 feet through the St. Marys River and into Whitefish Bay, Lake Superior, to Turning Point No. 262, located about two miles westerly of the south end of Ile Parisienne, on the Canadian side, in

Latitude 46 degrees 38 minutes 04.03 seconds N.

Longitude 84 degrees 45 minutes 45.51 seconds W.

and bearing S. 67 degrees 37 minutes 00 seconds W. 10,598 feet from Monument No. 43, located on the southwest point of Ile Parisienne, in

Latitude 46 degrees 38 minutes 43.89 seconds N.

Longitude 84 degrees 43 minutes 25.08 seconds W.

THENCE N. 14 degrees 40 minutes 49 seconds W. 96,014 feet along the west shore of Ile Parisienne and through Whitefish Bay to Turning Point No. 263, located between Whitefish Point, on the United States side, and Coppermine Point, on the Canadian side, in

Latitude 46 degrees 53 minutes 20.67 seconds N.

Longitude 84 degrees 51 minutes 35.83 seconds W. and bearing N. 29 degrees 30 minutes 30 seconds E. 49,368 feet from Whitefish Point Light, located on the United States side at Whitefish Point, Michigan, in

Latitude 46 degrees 46 minutes 16.74 seconds N.

Longitude 84 degrees 57 minutes 25.91 seconds W. and also bearing S. 27 degrees 40 minutes 35 seconds W. 39,210 feet from Coppermine Point Light, located on the Canadian side at Coppermine Point, Ontario, in

Latitude 46 degrees 59 minutes 03.49 seconds N.

Longitude 84 degrees 47 minutes 13.63 seconds W.

THENCE N. 57 degrees 52 minutes 49 seconds W. 1,008,035 feet along the middle of Lake Superior, passing about two and one-half statute miles southwest of Caribou Island, on the Canadian side, and about 100 yards northeast of Gull Island, formerly known as Ile Chapeau, on the United States side, to Turning Point No. 264, in

Latitude 48 degrees 18 minutes 20.36 seconds N.

Longitude 88 degrees 22 minutes 06.60 seconds W. and bearing N. 1 degree 21 minutes 48 seconds E. 29,906 feet from Passage Island Light, located on the southwest end of Passage Island, on the United States side, in

Latitude 48 degrees 13 minutes 25.32 seconds N.

Longitude 88 degrees 21 minutes 56.07 seconds W.

THENCE S. 73 degrees 33 minutes 13 seconds W. 78,915 feet to Turning Point No. 265, in

Latitude 48 degrees 14 minutes 38.37 seconds N.

Longitude 88 degrees 40 minutes 44.73 seconds W. and bearing N. 84 degrees 21 minutes 00 seconds W. 76,772 feet from Passage Island Light, heretofore described;

THENCE S. 58 degrees 46 minutes 04 seconds W. 188,545 feet along the middle of the channel between Isle Royal, on the United States side, and the Canadian mainland to Turning Point No. 266, in

Latitude 47 degrees 58 minutes 26.82 seconds N.

Longitude 89 degrees 20 minutes 14.05 seconds W.

and bearing N. 8 degrees 02 minutes 46 seconds W. 39,615 feet from Rock of Ages Light, located on Rock of Ages, on the United States side, in

Latitude 47 degrees 51 minutes 59.72 seconds N.

Longitude 89 degrees 18 minutes 52.56 seconds W.

and also bearing S. 8 degrees 04 minutes 47 seconds E. 39,615 feet from Victoria Island Light, located on Victoria Island, on the Canadian side, in

Latitude 48 degrees 04 minutes 53.89 seconds N.

Longitude 89 degrees 21 minutes 35.88 seconds W.

THENCE N. 68 degrees 17 minutes 43 seconds W. 40,029 feet to Turning Point No. 267, located at the mouth of Pigeon Bay, in

Latitude 48 degrees 00 minutes 52.54 seconds N.

Longitude 89 degrees 29 minutes 21.04 seconds W.

and bearing N. 11 degrees 04 minutes 00 seconds E. 3317 feet from Monument No. 1, located on the east end of Pigeon Point, Minnesota, in

Latitude 48 degrees 00 minutes 20.42 seconds N.

Longitude 89 degrees 29 minutes 30.40 seconds W.

THENCE S. 76 degrees 42 minutes 48 seconds W. 18,943 feet along the middle of Pigeon Bay, passing to the south of Boundary Islands to Turning Point No. 268, in

Latitude 48 degrees 00 minutes 09.49 seconds N.

Longitude 89 degrees 33 minutes 52.12 seconds W.

and bearing N. 13 degrees 34 minutes 00 seconds E. 1378 feet from Monument No. 2, located on the United States side about 1800 feet northeast of the mouth of Pigeon River, in

Latitude 47 degrees 59 minutes 56.27 seconds N.

Longitude 89 degrees 33 minutes 56.88 seconds W.

THENCE S. 44 degrees 53 minutes 20 seconds W. 1719 feet along the middle of Pigeon Bay in a direction to enter the mouth of Pigeon River to Turning Point No. 269, located at the mouth of Pigeon River at the western shore of Lake Superior, in

Latitude 47 degrees 59 minutes 57.48 seconds N.

Longitude 89 degrees 34 minutes 09.96 seconds W.

and bearing S. 68 degrees 09 minutes 00 seconds E. 283 feet from Monument No. 3, located on the Canadian side near the mouth of Pigeon River, in

Latitude 47 degrees 59 minutes 58.52 seconds N.

Longitude 89 degrees 34 minutes 13.82 seconds W.

and also bearing N. 68 degrees 14 minutes 13.8 seconds W.

GEOGRAPHIC POSITIONS OF TURNING POINTS AND OF MONUMENTS,
INTERNATIONAL BOUNDARY, UNITED STATES AND CANADA,
FROM ST. REGIS, QUEBEC, TO MOUTH OF PIGEON RIVER, LAKE
SUPERIOR.—*Continued.*

Number of		Azimuth Distance		Azimuth Distance.		Position of			
Turning Point.	Mon.	Between Turning Points.		From Monument to Turning Point.		Turning Point.		Monument.	
		° ' "	Feet.	° ' "	Feet.	° ' "	° ' "		
7	7	.....	.....	41 05	467	44 59 26·61	44 59 30·09		
		.....	.....	.....	.....	74 44 41·77	74 44 37·49		
8	8	111 06 00	4393	61 55	551	44 59 42·22	44 59 44 79		
		.....	.....	.....	.....	74 45 38·80	74 45 32·03		
9	9	169 34 20	3979	345 12	1175	45 00 20 86	45 00 32·08		
		.....	.....	.....	.....	74 45 48·82	74 45 53·00		
10	10	36 25 00	7708	266 25	1719	45 00 16 14	45 00 15·08		
		.....	.....	.....	.....	74 47 35·90	74 47 59·77		
11	11	142 19 00	2945	00 13	1383	45 00 39 15	45 00 52·80		
		.....	.....	.....	.....	74 48 00·95	74 48 00·88		
12	11	162 41 50	1431	87 47	431	45 00 52·64	45 00 52·80		
		.....	.....	.....	.....	74 48 06·88	74 48 00·88		
13	12	83 06 30	3065	312 17	1910	45 00 49 00	45 01 01 69		
		.....	.....	.....	.....	74 48 49·23	74 49 08·90		
14	12	54 05 00	1224	348 07	2047	45 00 41·91	45 01 01·69		
		.....	.....	.....	.....	74 49 03·03	74 49 08·90		
15	13	122 35 50	2903	214 03	1371	45 00 57 35	45 00 46 14		
		.....	.....	.....	.....	74 49 37·08	74 49 47·76		
16	13	78 06 40	2175	116 48	1525	45 00 52 93	45 00 46 14		
		.....	.....	.....	.....	74 50 06 71	74 49 47 76		
17	14	56 24 10	2210	194 27	1720	45 00 40 85	45 00 24 41		
		.....	.....	.....	.....	74 50 32 33	74 50 38 30		
18	14	72 00 20	1146	153 15	1469	45 00 37 36	45 00 24 41		
		.....	.....	.....	.....	74 50 47 50	74 50 38 30		
19	15	50 48 00	3362	223 45	1221	45 00 16 38	45 00 07 67		
		.....	.....	.....	.....	74 51 23 76	74 51 35 51		
20	15	90 50 40	1663	137 56	1221	45 00 16 62	45 00 07 67		
		.....	.....	.....	.....	74 51 46 90	74 51 35 51		
21	15	33 05 00	1781	71 53	1884	45 00 01 88	45 00 07 67		
		.....	.....	.....	.....	74 52 00 43	74 51 35 51		
22	16	97 13 40	2825	343 17	989	45 00 05 39	45 00 14 74		
		.....	.....	.....	.....	74 52 39 43	74 52 43 39		
23	17	79 35 00	2961	10 23	963	45 00 00 10	45 00 09 45		
		.....	.....	.....	.....	74 53 19 96	74 53 17 55		
		50 19 30	4230						

GEOGRAPHIC POSITIONS OF TURNING POINTS AND OF MONUMENTS,
INTERNATIONAL BOUNDARY, UNITED STATES AND CANADA,
FROM ST. REGIS, QUEBEC, TO MOUTH OF PIGEON RIVER, LAKE
SUPERIOR.—Continued.

Number of		Azimuth		Azimuth		Position of			
Turning Point.	Mon.	Between Turning Points.		From Monument to Turning Point		Turning Point.		Monument.	
		° ' "	Feet.	° ' "	Feet.	° ' "	° ' "	° ' "	° ' "
24	18	.....	.....	139 22	424	44 59 33.43	44 59 30.26	74 54 05.26	74 54 01.42
		28 49 10	3764						
25	19	.....	.....	144 47	364	44 59 00.87	44 58 57.93	74 54 30.50	74 54 27.58
		92 47 40	10151						
26	20	.....	.....	193 29	529	44 59 05.73	44 59 00.65	74 56 51.56	74 56 53.28
		85 36 00	6567						
27	21	.....	.....	178 53	835	44 59 00.75	44 58 52.50	74 58 22.66	74 58 22.43
		67 27 00	5678						
28	22	.....	.....	150 11	436	44 58 39.24	44 58 35.51	74 59 35.61	74 59 32.60
		38 48 50	2694						
29	23	.....	.....	124 09	625	44 58 18.51	44 58 15.05	74 59 59.10	74 59 51.91
		00 40 30	2049						
30	24	.....	.....	91 25	377	44 57 58.29	44 57 58.19	74 59 59.43	74 59 54.19
		33 43 50	1617						
31	24	.....	.....	43 41	1816	44 57 45.01	44 57 58.19	75 00 11.92	74 59 54.19
		00 00 00	0000						
31	25	.....	.....	174 18	1463	44 57 45.01	44 57 30.64	75 00 11.92	75 00 09.90
		20 27 40	1573						
32	25	.....	.....	88 27	696	44 57 30.45	44 57 30.64	75 00 19.57	75 00 09.90
		52 35 20	7064						
33	26	.....	.....	349 23	515	44 56 48.07	44 56 53.07	75 01 37.58	75 01 38.90
		62 45 40	9681						
34	27	.....	.....	265 29	2073	44 56 04.31	44 56 02.70	75 03 37.22	75 04 05.95
		34 03 40	2192						
35	27	.....	.....	333 06	1854	44 55 46.37	44 56 02.70	75 03 54.29	75 04 05.95
		83 51 00	8270						
36	28	.....	.....	159 51	644	44 55 37.61	44 55 31.64	75 05 48.57	75 05 45.49
		38 38 30	3460						
37	29	.....	.....	160 31	641	44 55 10.92	44 55 04.92	75 06 18.60	75 06 15.62
		99 00 50	3360						
38	30	.....	.....	173 17	568	44 55 16.12	44 55 10.55	75 07 04.72	75 07 03.80
		63 33 10	4941						
39	31	.....	.....	148 35	453	44 54 54.38	44 54 50.57	75 08 06.19	75 08 02.91
		11 49 10	6745						

GEOGRAPHIC POSITIONS OF TURNING POINTS AND OF MONUMENTS,
INTERNATIONAL BOUNDARY, UNITED STATES AND CANADA,
FROM ST. REGIS, QUEBEC, TO MOUTH OF PIGEON RIVER, LAKE
SUPERIOR.—Continued.

Number of		Azimuth Distance.		Azimuth Distance.		Position of			
Turning Point.	Mon.	Between Turning Points.		From Monument to Turning Point.		Turning Point.		Monument.	
		° ' "	Feet.	° ' "	Feet.	° ' "	° ' "	° ' "	° ' "
40	32	.....	.....	307 19	1241	44 53 49·20	44 53 56·63	75 08 25·38	75 08 39·10
		79 10 30	6593						
41	33	.....	.....	161 05	337	44 53 36·96	44 53 33·82	75 09 55·32	75 09 53·81
		58 38 10	7257						
42	34	.....	.....	150 46	644	44 52 59·66	44 52 54·10	75 11 21·38	75 11 17·01
		82 16 40	1382						
43	35	.....	.....	159 22	376	44 52 57·82	44 52 54·35	75 11 40·40	75 11 38·56
		52 07 50	2868						
44	36	.....	.....	12 19	1280	44 52 40·44	44 52 52·79	75 12 11·84	75 12 08·05
		89 36 10	4014						
45	37	.....	.....	160 07	515	44 52 40·16	44 52 35·38	75 13 07·58	75 13 05·15
		36 35 40	4287						
46	38	.....	.....	170 20	400	44 52 06·17	44 52 02·28	75 13 43·07	75 13 42·14
		82 38 00	3314						
47	39	.....	.....	143 44	423	44 52 01·93	44 51 58·57	75 14 29·12	75 14 25·65
		47 29 00	5293						
48	40	.....	.....	349 02	1243	44 51 26·61	44 51 38·66	75 15 23·28	75 15 26·56
		74 21 50	3292						
49	41	.....	.....	160 26	600	44 51 17·85	44 51 12·26	75 16 07·29	75 16 04·50
		60 46 40	4922						
50	42	.....	.....	126 47	1533	44 50 54·12	44 50 45·05	75 17 06·91	75 16 49·86
		53 57 00	7257						
51	43	.....	.....	238 57	993	44 50 12·06	44 50 07·00	75 18 28·10	75 18 39·91
		338 45 50	3970						
52	44	.....	.....	54 40	1006	44 49 35·52	44 49 41·26	75 18 08·15	75 17 56·76
		48 07 10	11039						
53	45	.....	.....	14 00	726	44 48 22·73	44 48 29·69	75 20 02·15	75 19 59·71
		109 45 20	2995						
54	46	.....	.....	316 20	1028	44 48 32·73	44 48 40·06	75 20 41·24	75 20 51·09
		40 07 10	10143						
55	47	.....	.....	155 23	981	44 47 16·12	44 47 07·32	75 22 11·87	75 22 06·20
		03 05 50	1748						
56	47	.....	.....	30 31	991	44 46 58·89	44 47 07·32	75 22 13·18	75 22 06·20
		75 07 10	4817						

GEOGRAPHIC POSITIONS OF TURNING POINTS AND OF MONUMENTS,
INTERNATIONAL BOUNDARY, UNITED STATES AND CANADA,
FROM ST. REGIS, QUEBEC, TO MOUTH OF PIGEON RIVER, LAKE
SUPERIOR.—Continued.

Number of		Azimuth Distance.		Azimuth Distance.		Position of			
Turning Point.	Mon.	Between Turning Points.		From Monument to Turning Point.		Turning Point.		Monument.	
		° ' "	Feet.	° ' "	Feet.	° ' "	° ' "	° ' "	° ' "
57	48	.....	.....	299 10	1074	44 46 46·67	44 46 51·84	75 23 17·72	75 23 30·72
		45 24 20	3153	.....	.....	44 46 24·78	44 46 36·41	75 23 48·90	75 23 58·72
58	49	.....	.....	329 03	1377	.....	.....	.....	.....
59	50	83 50 10	4493	326 00	297	44 46 20·01	44 46 22·44	75 24 50·81	75 24 53·12
	
60	51	23 43 10	6403	251 10	3049	44 45 22·12	44 45 12·40	75 25 26·51	75 26 06·50
	
61	52	46 39 00	18758	319 39	1755	44 43 14·93	44 43 28·14	75 28 35·41	75 28 51·15
	
62	53	53 07 20	9365	134 12	3008	44 42 19·42	44 41 58·71	75 30 19·13	75 29 49·28
	
63	54	42 30 50	43531	305 19	2780	44 37 07·48	44 37 23·34	75 37 13·49	75 37 44·84
	
64	55	48 39 10	14339	318 10	403	44 35 33·91	44 35 36·87	75 39 42·24	75 39 45·96
	
65	56	45 10 30	13969	343 40	864	44 33 56·64	44 34 04·83	75 41 59·09	75 42 02·45
	
66	57	40 10 30	8461	257 53	696	44 32 52·80	44 32 51·36	75 43 14·46	75 43 23·86
	
67	57	50 12 30	1026	11 54	522	44 32 46·32	44 32 51·36	75 43 25·35	75 43 23·86
	
68	58	38 04 00	1085	02 00	422	44 32 37·88	44 32 42·05	75 43 34·59	75 43 34·38
	
69	59	45 48 10	14940	100 59	3375	44 30 55·01	44 30 48·66	75 46 02·40	75 45 16·67
	
70	60	33 45 00	19101	68 57	2292	44 28 18·15	44 28 26·28	75 48 28·74	75 47 59·24
	
71	61	13 59 30	14904	327 50	3463	44 25 55·34	44 26 24·28	75 49 18·40	75 49 43·80
	
72	62	44 08 50	18221	314 25	496	44 23 46·19	44 23 49·62	75 52 13·18	75 52 18·06
	
73	63	47 19 50	15258	351 38	578	44 22 04·04	44 22 09·69	75 54 47·61	75 54 48·77
	
		98 33 00	2334						

GEOGRAPHIC POSITIONS OF TURNING POINTS AND OF MONUMENTS,
INTERNATIONAL BOUNDARY, UNITED STATES AND CANADA,
FROM ST. REGIS, QUEBEC, TO MOUTH OF PIGEON RIVER, LAKE
SUPERIOR.—Continued.

Number of		Azimuth Distance.		Azimuth Distance		Position of			
Turning Point.	Mon.	Between Turning Points.		From Monument to Turning Point.		Turning Point.		Monument.	
		°	' "	°	' "	°	' "	°	' "
74	64		Feet.	152 35	651	44 22 07.47	44 22 01.76		
		30 46 20	4017			75 55 19.39	75 55 15.27		
75	65			111 24	437	44 21 33.39	44 21 31.81		
		60 23 00	3409			75 55 47.68	75 55 42.08		
76	66			26 02	707	44 21 16.75	44 21 23.02		
		48 12 50	3113			75 56 28.47	75 56 24.20		
77	67			184 36	217	44 20 56.26	44 20 54.13		
		66 18 00	5845			75 57 00.41	75 57 00.65		
78	68			296 40	577	44 20 33.05	44 20 35.61		
		104 17 10	742			75 58 14.06	75 58 21.16		
79	68			69 24	217	44 20 34.86	44 20 35.61		
		152 54 50	1210			75 58 23.95	75 58 21.16		
80	69			175 55	210	44 20 45.50	44 20 43.43		
		101 26 10	913			75 58 31.53	75 58 31.32		
81	70			257 53	363	44 20 47.28	44 20 46.53		
		69 17 40	492			75 58 43.84	75 58 48.72		
82	70			47 15	144	44 20 45.56	44 20 46.53		
		139 38 30	693			75 58 50.18	75 58 48.72		
83	71			267 39	476	44 20 50.78	44 20 50.59		
		79 16 30	1106			75 58 56.36	75 59 02.90		
84	71			72 53	640	44 20 48.73	44 20 50.59		
		102 22 10	534			75 59 11.31	75 59 02.90		
85	72			263 43	587	44 20 49.86	44 20 49.22		
		87 13 40	584			75 59 18.48	75 59 26.52		
86	72			180 00	36	44 20 49.58	44 20 49.22		
		77 34 00	93			75 59 26.52	75 59 26.52		
87	72			100 06	92	44 20 49.38	44 20 49.22		
		101 31 50	470			75 59 27.76	75 59 26.52		
88	72			101 18	562	44 20 50.31	44 20 49.22		
		94 55 30	2282			75 59 34.10	75 59 26.52		
89	73			330 29	542	44 20 52.24	44 20 56.90		
		53 28 30	2245			76 00 05.39	76 00 09.06		
90	74			168 02	303	44 20 39.05	44 20 36.12		
		65 15 00	10806			76 00 30.21	76 00 29.34		

GEOGRAPHIC POSITIONS OF TURNING POINTS AND OF MONUMENTS,
INTERNATIONAL BOUNDARY, UNITED STATES AND CANADA,
FROM ST. REGIS, QUEBEC, TO MOUTH OF PIGEON RIVER, LAKE
SUPERIOR.—Continued.

Number of		Azimuth Distance.		Azimuth Distance.		Position of			
Turn- ing Point.	Mon.	Between Turning Points.		From Monument to Turning Point.		Turning Point.	Monument.		
		° ' "	Feet.	° ' "	Feet.		° ' "	° ' "	° ' "
91	75	.....	.....	148 32 00	413	44 19 51·35	44 19 50·87		
		49 02 40	17838			76 02 45·22	76 02 42·25		
92	76	.....	.....	201 42 00	844	44 17 58·86	44 17 51·11		
		81 18 10	3936			76 05 50·44	76 05 54·74		
93	77	.....	.....	329 05 00	363	44 17 52·98	44 17 56·05		
		55 23 20	2022			76 06 43·94	76 06 46·50		
94	78	.....	.....	149 18 00	812	44 17 41·63	44 17 34·74		
		91 26 40	2951			76 07 06 81	76 07 01·12		
95	79	.....	.....	280 04 00	278	44 17 42·37	44 17 42·84		
		135 10 30	639			76 07 47·37	76 07 51·12		
96	79	.....	.....	156 20 00	442	44 17 46·84	44 17 42 84		
		54 34 40	9846			76 07 53·56	76 07 51·12		
97	80	.....	.....	92 08 00	2157	44 16 50·48	44 16 49·69		
		02 30 20	14924			76 09 43·85	76 09 14·21		
98	81	.....	.....	319 38 00	1704	44 14 23·25	44 14 36·07		
		46 59 30	9828			76 09 52·80	76 10 07·96		
99	82	.....	.....	322 31 00	994	44 13 17·03	44 13 24·82		
		59 21 10	4603			76 11 31·49	76 11 39·79		
100	83	.....	.....	320 25 00	528	44 12 53·86	44 12 57·88		
		68 11 30	10914			76 12 25·85	76 12 30·48		
101	84	.....	.....	357 09 00	881	44 12 13·79	44 12 22·48		
		89 54 50	10805			76 14 44·96	76 14 45·56		
102	85	.....	.....	356 22 00	722	44 12 13·61	44 12 20 72		
		75 45 00	7045			76 17 13·28	76 17 13·90		
103	86	.....	.....	32 46 00	1454	44 11 56·47	44 12 08·54		
		24 04 10	25833			76 18 47·01	76 18 36·20		
104	87	.....	.....	320 07 00	846	44 08 03·51	44 08 09·93		
		57 02 20	26957			76 21 11·47	76 21 18·91		
105	88	.....	.....	337 04 00	897	44 05 38·56	44 05 46·72		
		29 19 59	193946			76 26 21·38	76 26 26·17		
106	Oswego Lt.	.....	.....	128 58 48	96450	43 37 51·91	43 27 53·95		
		Due West..	501388			76 47 49·19	76 30 49 77		
107	30 Mile Pt. Lt.	.....	.....	149 55 48	107985	43 37 51·91	43 22 29·60		
		64 13 24	150480			78 41 26·26	78 29 10·61		

GEOGRAPHIC POSITIONS OF TURNING POINTS AND OF MONUMENTS,
INTERNATIONAL BOUNDARY, UNITED STATES AND CANADA,
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SUPERIOR.—Continued.

Number of		Azimuth Distance.		Azimuth Distance.		Position of	
Turning Point.	Mon.	Between Turning Points.		From Monument to Turning Point.		Turning Point.	Monument.
		° ' "	Feet.	° ' "	Feet.	° ' "	° ' "
108	Fort Niagara Lt.	.....	.....	151 36 11	78240	43 27 01·51 79 12 03·18	43 15 42·05 79 03 38·77
109	"	333 08 30	76813	95 15 00	2633	43 15 44·43 79 04 14 20	43 15 42·05 79 03 38·77
110	1	306 11 50	4770	212 43 00	1353	43 15 16·60 79 03 22·18	43 15 05·36 79 03 32·06
111	1	351 11 30	2182	313 42 00	1474	43 14 55·30 79 03 17·67	43 15 05·36 79 03 32·06
112	2	04 48 10	3535	100 04 00	1091	43 14 20·51 79 03 21·67	43 14 18·63 79 03 07·16
113	3	352 41 00	5745	279 16 00	1184	43 13 24·22 79 03 11·79	43 13 26·11 79 03 27·57
114	4	11 03 20	4681	86 23 00	1230	43 12 36·91 79 03 24·43	43 12 37·66 79 03 07·85
115	5	330 28 20	4255	267 32 00	996	43 12 00·34 79 02 56·11	43 11 59·91 79 03 09·55
116	6	10 21 10	5965	102 11 00	1402	43 11 02·38 79 03 10·58	43 10 59·46 79 02 52·08
117	7	02 26 30	3704	213 11 00	1636	43 10 25·82 79 03 12·71	43 10 12·30 79 03 24·80
118	7	345 24 20	2368	301 43 00	1755	43 10 03·15 79 03 04·66	43 10 12·30 79 03 24·80
119	8	328 12 10	2218	88 00 00	499	43 09 44·32 79 02 48·18	43 09 44·49 79 02 41·95
120	9	349 11 10	2394	137 59 00	1013	43 09 21·09 79 02 42·62	43 09 13·66 79 02 33·47
121	9	352 27 40	1487	33 47 00	869	43 09 06·53 79 02 39·98	43 09 13·66 79 02 33·47
122	10	338 35 50	1019	271 47 00	753	43 08 57·16 79 02 31·97	43 08 57·39 79 02 45·12
123	11	356 04 20	2051	67 06 00	655	43 08 36·95 79 02 33·07	43 08 39·47 79 02 24·94
124	12	10 49 50	1951	289 37 00	780	43 08 18·02 79 02 38·02	43 08 20·60 79 02 47·93
		52 35 30	1955				

GEOGRAPHIC POSITIONS OF TURNING POINTS AND OF MONUMENTS,
INTERNATIONAL BOUNDARY, UNITED STATES AND CANADA,
FROM ST. REGIS, QUEBEC, TO MOUTH OF PIGEON RIVER, LAKE
SUPERIOR.—Continued.

Number of		Azimuth Distance.		Azimuth Distance.		Position of			
Turning Point.	Mon.	Between Turning Points.		From Monument to Turning Point.		Turning Point.		Monument.	
		°	' "	°	' "	°	' "	°	' "
125	13	.....	.....	169	54 00	928	43 08 06·29	43 07 57·26	79 02 56·76
		32 32 50	1518	.....	.....	.....	79 02 58·96	79 02 56·76	.....
126	13	.....	.....	69	32 00	1045	43 07 53·65	43 07 57·26	79 02 56·76
		26 55 20	928	.....	.....	.....	79 03 09·97	79 02 56·76	.....
127	14	.....	.....	272	51 00	1018	43 07 45·47	43 07 45·97	79 03 29·35
		42 57 20	1162	.....	.....	.....	79 03 15·64	79 03 29·35	.....
128	14	.....	.....	345	59 00	928	43 07 37·08	43 07 45·97	79 03 29·35
		71 44 30	653	.....	.....	.....	79 03 26·31	79 03 29·35	.....
129	14	.....	.....	19	40 00	1174	43 07 35·06	43 07 45·97	79 03 29·35
		50 37 50	3537	.....	.....	.....	79 03 34·67	79 03 29·35	.....
130	15	.....	.....	87	35 00	954	43 07 12·89	43 07 13·29	79 03 58·68
		309 10 10	2441	.....	.....	.....	79 04 11·54	79 03 58·68	.....
131	16	.....	.....	178	14 00	699	43 06 57·67	43 06 50·77	79 03 45·74
		321 00 30	1044	.....	.....	.....	79 03 46·03	79 03 45·74	.....
132	16	.....	.....	280	03 00	645	43 06 49·66	43 06 50·77	79 03 45·74
		340 04 00	1142	.....	.....	.....	79 03 37·17	79 03 45·74	.....
133	17	.....	.....	118	48 00	419	43 06 39·05	43 06 37·06	79 03 26·97
		351 33 00	1409	.....	.....	.....	79 03 31·92	79 03 26·97	.....
134	17	.....	.....	07	40 00	1202	43 06 25·28	43 06 37·06	79 03 26·97
		21 09 20	6158	.....	.....	.....	79 03 29·13	79 03 26·97	.....
135	18	.....	.....	293	43 00	645	43 05 28·56	43 05 31·12	79 04 07·05
		43 03 20	1398	.....	.....	.....	79 03 59·08	79 04 07·05	.....
136	19	.....	.....	165	45 00	1024	43 05 18·47	43 05 08·67	79 04 08·55
		30 36 00	2931	.....	.....	.....	79 04 11·94	79 04 08·55	.....
137	20	.....	.....	219	58 00	1242	43 04 53·55	43 04 44·15	79 04 42·80
		00 00 00	0000	.....	.....	.....	79 04 32·05	79 04 42·80	.....
137	21	.....	.....	133	45 00	1199	43 04 53·55	43 04 45·36	79 04 20·38
		346 01 00	1416	.....	.....	.....	79 04 32·05	79 04 20·38	.....
138	20	.....	.....	290	18 00	1215	43 04 39·98	43 04 44·15	79 04 42·80
		000 00 00	0000	.....	.....	.....	79 04 27·44	79 04 42·80	.....
138	21	.....	.....	43	54 00	756	43 04 39·98	43 04 45·36	79 04 20·38
		283 41 40	18840	.....	.....	.....	79 04 27·44	79 04 20·38	.....
139	22	.....	.....	176	29 00	2305	43 03 57·03	43 03 34·30	79 00 25·51
		330 11 10	4170	.....	.....	.....	79 00 27·42	79 00 25·51	.....

GEOGRAPHIC POSITIONS OF TURNING POINTS AND OF MONUMENTS,
INTERNATIONAL BOUNDARY, UNITED STATES AND CANADA,
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SUPERIOR.—Continued.

Number of		Azimuth Distance.		Azimuth Distance.		Position of	
Turning Point.	Mon.	Between Turning Points.		From Monument to Turning Point.		Turning Point.	Monument.
		° ' "	Feet.	° ' "	Feet.	° ' "	° ' "
140	23	.....	.....	102 33 00	820	43 03 21 29 78 59 59 49	43 03 19 53 78 59 48 71
		25 22 50	3528				
141	24	.....	.....	295 41 00	1339	43 02 49 81 79 00 19 86	43 02 55 54 79 00 36 10
		14 49 40	6818				
142	25	.....	.....	130 28 00	504	43 01 44 71 79 00 43 35	43 01 41 48 79 00 38 19
		33 28 30	5624				
143	26	.....	.....	265 31 00	2169	43 00 58 37 79 01 25 10	43 00 56 70 79 01 54 20
		353 40 10	7871				
144	27	.....	.....	70 03 00	715	42 59 41 10 79 01 13 42	42 59 43 51 79 01 04 38
		326 41 00	4155				
145	28	.....	.....	223 38 00	3493	42 59 06 78 79 00 42 76	42 58 41 81 79 01 15 19
		301 30 50	11505				
146	29	.....	.....	68 13 00	570	42 58 07 36 78 58 30 84	42 58 09 45 78 58 23 72
		314 17 20	5336				
147	30	.....	.....	195 50 00	3026	42 57 28 02 78 57 43 10	42 56 59 26 78 57 54 20
		274 54 30	7795				
148	31	.....	.....	188 15 00	2967	42 57 21 41 78 55 58 66	42 56 52 41 78 56 04 39
		311 59 20	4869				
149	32	.....	.....	227 30 00	2576	42 56 49 24 78 55 10 00	42 56 32 05 78 55 35 53
		331 50 50	5529				
150	32	.....	.....	304 49 00	5490	42 56 01 09 78 54 34 94	42 56 32 05 78 55 35 53
		00 00 00	0600				
150	33	.....	.....	192 14 00	3952	42 56 01 09 78 54 34 94	42 55 22 94 78 54 46 19
		345 47 50	3739				
151	33	.....	.....	262 10 00	1770	42 55 25 29 78 54 22 61	42 55 22 94 78 54 46 19
		359 45 10	8554				
152	34	.....	.....	58 46 00	1667	42 54 00 80 78 54 22 12	42 54 09 34 78 54 02 97
		00 00 00	0000				
152	35	.....	.....	280 57 00	3108	42 54 00 80 78 54 22 12	42 54 06 63 78 55 03 11
		20 18 00	7384				
153	Horse- shoe Reef Light.	.....	.....	90 00 00	100	42 52 52 39 78 54 56 52	42 52 52 39 78 54 55 18
		10 04 20	978				
154	"	.....	.....	15 43 00	1000	42 52 42 88 78 54 58 82	42 52 52 39 78 54 55 18
		15 43 00	19064				

GEOGRAPHIC POSITIONS OF TURNING POINTS AND OF MONUMENTS,
INTERNATIONAL BOUNDARY, UNITED STATES AND CANADA,
FROM ST. REGIS, QUEBEC, TO MOUTH OF PIGEON RIVER, LAKE
SUPERIOR.—Continued.

Number of		Azimuth Distance.		Azimuth Distance.		Position of			
Turn- ing Point.	Mon.	Between Turning Points.		From Monument to Turning Point.		Turning Point.		Monument.	
		° ' "	Feet.	° ' "	Feet.	° ' "	° ' "	° ' "	° ' "
155	Horse- shoe Reef Lt.	.....	.....	15 43 00	20064	42 49 41·62	42 52 52·39	78 56 08·13	78 54 55·18
		63 10 28	346460						
156	Long Pt. Light.	.....	.....	06 35 46	57442	42 23 36·53	42 33 00·20	80 04 48·33	80 03 20·40
		00 00 00	0000						
156	Presque Isle Light.	.....	.....	186 33 21	83580	42 23 36·53	42 09 56·30	80 04 48·33	80 06 55·50
		78 15 49	322577						
157	Fairport Light.	.....	.....	182 59 14	164452	42 12 26·97	41 45 24·57	81 14 44·92	81 16 38·79
		58 41 21	368279						
158	Pelee Passage Light.	.....	.....	321 36 43	81642	41 40 35·31	41 51 08·07	82 23 51·10	82 34 59·17
		Due West.	77106						
159	Middle Island Light.	.....	.....	000 00 00	2500	41 40 35·31	41 41 00·01	82 40 47·15	82 40 47·15
		122 48 42	126206						
160	Colches- ter Reef Light.	.....	.....	62 35 35	54351	41 51 48·58	41 55 56·24	83 04 08·93	82 53 31·28
		00 00 00	0000						
160	Toledo Harbour Light.	.....	.....	242 18 06	79941	41 51 48·58	41 45 42·54	83 04 08·93	83 19 44·33
		161 18 08	68262						
161	1	.....	.....	240 53 00	10468	42 02 27·25	42 01 36·96	83 08 58·93	83 11 00·14
		00 00 00	0000						
161	2	.....	.....	60 56 00	10468	42 02 27·25	42 03 17·51	83 08 58·93	83 06 57·68
		193 51 30	31696						
162	3	.....	.....	75 00 00	2080	42 07 31·25	42 07 36·57	83 07 18·20	83 06 51·54
		169 33 00	18294						
163	4	.....	.....	261 37 00	2740	42 10 28·98	42 10 25·03	83 08 02·26	83 08 38·26
		183 57 10	23339						
164	5	.....	.....	137 14 00	940	42 14 18·99	42 14 12·17	83 07 40·87	83 07 32·39
		209 33 10	8985						
165	6	.....	.....	116 55 00	1885	42 15 36·19	42 15 27·76	83 06 41·94	83 06 19·59
		200 17 00	11591						
166	7	.....	.....	101 23 00	1482	42 17 23·59	42 17 20·70	83 05 48·48	83 05 29·15
		214 23 50	8277						
167	8	.....	.....	124 17 00	1395	42 18 31·05	42 18 23·29	83 04 46·25	83 04 30·91
		232 41 40	5467						

GEOGRAPHIC POSITIONS OF TURNING POINTS AND OF MONUMENTS,
INTERNATIONAL BOUNDARY, UNITED STATES AND CANADA,
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SUPERIOR.—Continued.

Number of		Azimuth Distance.		Azimuth Distance.		Position of	
Turning Point.	Mon.	Between Turning Points.		From Monument to Turning Point.		Turning Point.	Monument.
		° ' "	Feet.	° ' "	Feet.	° ' "	° ' "
168	9			146 28 00	1393	42 19 03·78	42 18 52·31
						83 03 48·38	83 03 38·14
169	10	250 36 50	12725	145 49 00	1606	42 19 45·48	42 19 32·33
						83 01 08·58	83 00 56·54
170	11	262 13 40	8253	348 10 00	409	42 19 56·49	42 20 00·45
						82 59 19·69	82 59 20·81
171	12	252 20 40	8405	309 03 00	361	42 20 21·66	42 20 23·90
						82 57 33·05	82 57 36·78
172	13	233 41 20	4619	92 50 00	1809	42 20 48·68	42 20 47·79
						82 56 43·48	82 56 19·42
173	14	253 01 30	33111	152 20 00	28839	42 22 23·96	42 18 11·69
						82 49 41·60	82 46 43·21
173	15	00 00 00	0000	339 46 00	31309	42 22 23·96	42 27 14 16
						82 49 41·60	82 52 03·89
174	16	216 32 09	72617	279 33 00	346	42 31 59·92	42 32 00·48
						82 40 04·22	82 40 08·77
175	17	207 19 00	3307	137 57 00	888	42 32 28·94	42 32 22·42
						82 39 43·95	82 39 36·00
176	18	226 06 30	2927	129 17 00	896	42 32 48·58	42 32 43·38
						82 39 15·76	82 39 06·50
177	19	231 02 10	4580	135 27 00	677	42 33 17·43	42 33 12·67
						82 38 28·18	82 38 21·84
178	20	950 06 20	2332	171 58 00	675	42 33 25·27	42 33 18·67
						82 37 58·89	82 37 57·63
179	21	270 26 40	2461	196 36 00	702	42 33 25·08	42 33 13·43
						82 37 26·01	82 37 28·69
180	22	295 57 30	2151	218 43 00	524	42 33 15·78	42 33 11·74
						82 37 00·17	82 37 04·55
181	23	315 34 50	2283	208 00 00	795	42 32 59·68	42 32 52·74
						82 36 38·83	82 36 43·81
182	24	290 41 10	1498	184 33 00	794	42 32 54·45	42 32 46·63
						82 36 20·11	82 36 20·95
183	25	262 12 40	3978	161 57 00	692	42 32 59·77	42 32 53·27
						82 35 27·46	82 35 24·60
		233 09 20	2376				

GEOGRAPHIC POSITIONS OF TURNING POINTS AND OF MONUMENTS,
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SUPERIOR.—Continued.

Number of		Azimuth Distance.		Azimuth Distance.		Position of			
Turn- ing Point.	Mon.	Between Turning Points.		From Monument to Turning Point.		Turning Point.		Monument	
		° ' "	Feet.	° ' "	Feet.	° ' "	° ' "		
201	43	.....	.....	276 11 00	1064	42 48 29.36	42 48 30.49	82 28 55.48	82 29 09.66
		187 46 20	6292						
202	44	.....	.....	106 41 00	1867	42 49 30.94	42 49 25.64	82 28 44.06	82 28 20.05
		201 33 40	4463						
203	45	.....	.....	294 38 00	1507	42 50 11.94	42 50 18.14	82 28 22.04	82 28 40.43
		189 53 00	7006						
204	46	.....	.....	98 55 00	1304	42 51 20.11	42 51 18.12	82 28 05.90	82 27 48.61
		177 13 40	11581						
205	47	.....	.....	267 33 00	1318	42 53 14.37	42 53 13.81	82 28 13.42	82 28 31.11
		197 53 30	6977						
206	48	.....	.....	101 43 00	1271	42 54 19.92	42 54 17.37	82 27 44.50	82 27 27.77
		193 40 10	7924						
207	49	.....	.....	294 11 00	1162	42 55 35.97	42 55 40.67	82 27 19.33	82 27 33.58
		206 52 50	4463						
208	50	.....	.....	118 26 00	1083	42 56 15.28	42 56 10.19	82 26 52.20	82 26 39.40
		224 03 10	7286						
209	51	.....	.....	303 25 00	1028	42 57 07.00	42 57 12.59	82 25 44.09	82 25 55.62
		211 00 10	6275						
210	52	.....	.....	143 19 00	1457	42 58 00.12	42 57 48.57	82 25 00.62	82 24 48.91
		194 17 20	3981						
211	53	.....	.....	110 31 00	1574	42 58 38.22	42 58 32.77	82 24 47.40	82 24 27.57
		143 00 40	3699						
212	54	.....	.....	265 10 00	736	42 59 07.40	42 59 06.79	82 25 17.34	82 25 27.21
		161 11 20	2622						
213	55	.....	.....	123 58 00	1094	42 59 31.91	42 59 25.87	82 25 28.72	82 25 16.50
		183 26 50	2025						
214	56	.....	.....	315 35 00	683	42 59 51.88	42 59 56.70	82 25 27.08	82 25 33.51
		209 26 00	5643						
215	57	.....	.....	153 28 00	3006	43 00 40.42	43 00 12.80	82 24 49.76	82 24 34.91
		00 00 00	0000						
215	58	.....	.....	283 09 00	3095	43 00 40.42	43 00 47.38	82 24 49.76	82 25 30.32
		200 01 52	225118						
216	Port Sanilac Light.	.....	.....	241 47 44	125400	43 35 28.03	43 23 45.43	82 07 22.05	82 32 23.61
		170 55 43	645430						

GEOGRAPHIC POSITIONS OF TURNING POINTS AND OF MONUMENTS,
INTERNATIONAL BOUNDARY, UNITED STATES AND CANADA,
FROM ST. REGIS, QUEBEC, TO MOUTH OF PIGEON RIVER, LAKE
SUPERIOR.—Continued.

Turning Point.	Number of Mon.	Azimuth Distance.		Azimuth Distance.		Position of			
		Between Turning Points.		From Monument to Turning Point.		Turning Point.		Monument.	
		° ' "	Feet.	° ' "	Feet.	° ' "	° ' "	° ' "	° ' "
217	Thunder Bay I. Lt.			237 31 41	205920	45 20 19·35	45 02 14·95	82 31 06·40	83 11 38·39
218	1	122 53 41	327499	41 40 53	41515	45 49 17·13	45 54 23·41	83 35 49·19	83 29 19·40
218	2	000 00 00	0000	26 38 10	39564	45 49 17·13	45 55 06·34	83 35 49·19	83 31 38·75
219	3	212 45 24	76756	247 31 00	10923	45 59 53·96	45 59 12·74	83 26 00·94	83 28 23·90
220	4	138 15 33	52641	201 17 00	6512	46 06 21·42	46 05 21·52	83 34 18·32	83 34 51·86
221	5	105 25 18	2·848	159 15 00	6968	46 07 18·66	46 06 14·33	83 39 17·31	83 38 42·26
222	6	75 28 20	27483	341 26 00	2669	46 06 10 43	46 06 35·40	83 45 34·86	83 45 46·92
223	7	109 14 50	17850	39 38 00	4915	46 07 08·44	46 07 45·81	83 49 34 08	83 48 49·58
224	8	42 38 40	28932	333 13 00	1728	46 03 33 26	46 03 53·48	83 54 12 02	83 54 23·06
225	9	84 10 40	13260	35 48 00	2866	46 03 24·94	46 03 47·89	83 57 19·06	83 56 55·29
226	10	162 22 30	17470	211 06 00	1112	46 06 09·30	46 05 59·89	83 53 34·12	83 53 42·27
227	11	127 19 59	9561	56 36 00	1677	46 07 06·52	46 07 15 63	84 00 22·04	84 00 02·17
228	12	180 25 20	11360	110 25 00	3011	46 08 58·66	46 08 48·29	84 00 20·85	83 59 40 77
229	13	127 28 50	22715	45 21 00	1974	46 11 15·03	46 11 28·72	84 04 37·05	84 04 17 09
230	14	165 13 20	8599	195 04 00	1444	46 12 37·11	46 12 23 34	84 05 08·24	84 05 13·57
231	15	153 32 30	12749	100 30 00	1348	46 14 29·77	46 14 27 34	84 06 29·05	84 06 10·19
232	16	206 15 20	6072	243 58 00	1256	46 15 23·52	46 15 18·08	84 05 50·83	84 06 06·88
		133 21 30	6192						

GEOGRAPHIC POSITIONS OF TURNING POINTS AND OF MONUMENTS,
INTERNATIONAL BOUNDARY, UNITED STATES AND CANADA,
FROM ST. REGIS, QUEBEC, TO MOUTH OF PIGEON RIVER, LAKE
SUPERIOR.—Continued.

Number of		Azimuth Distance.		Azimuth Distance.		Position of			
Turn- ing Point.	Mon.	Between Turning Points.		From Monument to Turning Point.		Turning Point		Monument.	
		° ' "	Feet.	° ' "	Feet.	° ' "	° ' "	° ' "	° ' "
266	Rock of Ages Lt.	.....	.....	171 57 14	39615	47 58 26·82	47 51 59·72	89 20 14 05	89 18 52·56
		00 00 00	0000						
266	Victoria I. Lt.	.....	.....	351 55 13	39615	47 53 26·82	48 04 53·89	89 20 14·05	89 21 35·88
		111 42 17	40029						
267	1	.....	.....	191 04 00	3317	48 00 52·54	48 00 20·42	89 29 21·04	89 29 30·40
		76 42 48	18943						
268	2	.....	.....	193 34 00	1378	48 00 09·49	47 59 56·27	89 33 52·12	89 33 56·88
		44 53 20	1719						
269	3	.....	.....	291 51 00	283	47 59 57·48	47 59 58·52	89 34 09·96	89 34 13·82

There are transmitted to each Government for its archives the following records: Two leather portfolios, each containing a set of the thirty boundary charts, certified and signed by the Commissioners; thirty of the sixty engraved copper plates, 27½ inches by 43 inches, covering alternate charts along the boundary line; and thirty of the sixty aluminum plates, 43 inches by 53 inches, consisting of fifteen black and fifteen tint plates, covering the remaining alternate charts along the boundary line.

Attached hereto is Appendix I, a detailed description of the operations of the Commission under Article IV of the Boundary Treaty; Appendix II, a table of positions, azimuths, and lengths of triangulation on the St. Lawrence River and the Great Lakes, determined by the Commission in its boundary work and Appendix III, a table of positions, azimuths, and lengths of prominent points, lights, boundary turning points and monuments determined by the Commission.

GEO. C. GIBBONS, <i>Chairman, Canadian Section.</i>	O. H. ERNST, <i>Brig. Gen'l,</i> <i>U. S. Army, Retired.</i> <i>Chairman, American Section.</i>
LOUIS COSTE, <i>Member, Canadian Section.</i>	GEORGE CLINTON, <i>Member, American Section.</i>
WM. J. STEWART, <i>Member, Canadian Section.</i>	E. E. HASKELL, <i>Member, American Section.</i>

ATTEST:

W. EDWARD WILSON,
Secretary.

APPENDIX I.

DETAILED DESCRIPTION OF THE OPERATIONS OF THE COMMISSION UNDER ARTICLE IV OF THE BOUNDARY TREATY.

OPERATIONS OF COMMISSION UNDER ARTICLE IV OF BOUNDARY TREATY OF 1908.

The Commission held its first meeting, under Article IV of the Boundary Treaty, at Buffalo, N.Y., June 2, 1908. At this meeting, a committee of two commissioners—Mr. E. E. Haskell, of the American section, and Mr. W. J. Stewart, of the Canadian section,—was appointed to prepare a plan for ascertaining and re-establishing accurately the water boundary line between St. Regis, on the St. Lawrence River, and the mouth of Pigeon River, Lake Superior, and report to the Commission at a meeting to be held at Toronto, June 23, 1908.

The report of the Committee was submitted to, and unanimously adopted by, the Commission at its meeting at Toronto on the above date. It provided for (1) the engraving on lithographic stones, and printing therefrom, a set of thirty charts showing the boundary line, (2) the necessary field work for the construction of these charts, and (3) erection and location of the monuments necessary to mark it. Later, the Commission decided to engrave the thirty boundary charts on copper instead of stone, using sixty plates $27\frac{1}{2}$ inches by 43 inches, to print the charts from stone and transfer to a set of aluminum plates the work covering the thirty charts, so that each Government will have a complete record on metal, consisting of one-half of the engraved copper plates and one-half of the aluminum transfer plates.

BOUNDARY CHART WORK.

The Commission decided that the office of the American section at Buffalo, N.Y., was the most suitable place for preparing the boundary charts. Through the courtesy of the Secretary

of the Treasury, several rooms in the Federal Building were added to those already in use. The necessary furniture was also provided by the Treasury Department, some of it from special designs by the officers of the Commission.

A boundary committee composed of Commissioners Haskell and Stewart was formed and authorized to organize a force and proceed with the work. This was placed under the immediate personal direction of the secretary of the American section, Mr. W. Edward Wilson, subject to the close supervision of the Boundary Committee, who submitted reports to, and received instructions from, the full Commission. Expert draughtsmen and surveyors were secured equally from both countries as far as possible. Great difficulty was experienced in securing competent engravers. Mr. A. D. Hollingsworth was appointed principal draughtsman for the United States, Mr. L. R. Voligny for Canada, and Mr. R. F. Bartle, chief engraver. These officers reported at the Buffalo office during the summer and early autumn of 1908. Additional assistants were employed when required.

On September 20, 1909, Mr. G. L. Crichton succeeded Mr. Voligny, who had resigned to accept a position with the Department of Public Works of Canada. On May 15, 1913, Mr. R. F. Bartle, chief engraver, died. The engraving division was then placed in direct charge of Mr. A. D. Hollingsworth.

The following assistants have been employed under the Commission on the boundary work:—

TABLE I.—EMPLOYEES OF COMMISSION ON BOUNDARY WORK.

Name.	Position.
W. Edward Wilson.....	Secretary, American section, and supervising engineer.
Thomas J. Haney.....	Clerk.
A. D. Hollingsworth.....	Principal draughtsman for the United States.
L. R. Voligny.....	Principal draughtsman for Canada.
R. F. Bartle.....	Chief engraver.
David G. Morris.....	Engraver.
Frank P. Deane.....	Draughtsman.
W. W. Arnold.....	Engraver.
Wm. C. Perkins.....	"
Grover C. Brown.....	Assistant engineer.
K. W. MacPherson.....	" "
Alfred Illing.....	Draughtsman.
G. L. Crichton.....	Principal draughtsman for Canada.
Jos. L. Shed.....	Assistant engineer.
Hugo E. Franke.....	Engraver.
A. E. Drake.....	Assistant engineer.
Douglas Ellis.....	" "
H. A. Fisher.....	Recorder.
N. E. D. Sheppard.....	"
A. M. Sutherland.....	"
S. E. Dockstader.....	Junior engineer.
C. R. Harding.....	Observer.
D. G. Anglin.....	"
J. Wm. Mackie.....	Recorder.
G. Wollenweber.....	"
F. W. Clarke.....	Assistant engineer.
W. P. Stranahan.....	Engraver.
Thos. S. Brock.....	"
R. F. Bartle, jr.....	Engraver's assistant.
Robert T. Franke.....	" "
Edward Wegner.....	" "
James Claxton.....	" "

In addition, the necessary labourers were employed on the surveying parties during the field seasons of 1909, 1910, 1911, 1912, and 1913.

The charts of the United States Lake Survey and those of the Canadian Hydrographic Survey were not suitable for delineating the boundary line because of their various sizes and scales. Some are too small for clearly showing the boundary line, many are not delineated upon the North American datum (the geodetic reference plane to which all charts in North America are now referred), and many did not contain sufficient information for boundary-line purposes, so that new surveys were required. Of the thirty charts constructed, eighteen are on a scale of 1:20,000, the smallest that the Commission felt could be used to delineate the boundary line through the rivers

and show details clearly. Of these eighteen, seven cover the St. Lawrence River; two, the Niagara River; two, the Detroit River; two, the St. Clair River; four, the St. Marys River; and one, Pigeon Bay. Five of the thirty charts are projected on a scale of 1:60,000, one of which covers the eastern end of Lake Ontario; one, the western end of Lake Erie; one, Lake St. Clair; one, the northern end of Lake Huron; and one, the eastern end of Lake Superior. The four lake charts are on a scale of 1:300,000. In addition to the charts enumerated above, there are two on a scale of 1:10,000,—one, covering Niagara Falls, and the other, St. Marys Falls,—and an index chart on a scale of 1:1,200,000. All are of the same size, forty inches by fifty inches within the border, and are projected on the North American datum.

The following table, No. 2, gives the number, geographical location, and scale of the thirty boundary charts:—

TABLE II.—INTERNATIONAL BOUNDARY CHARTS PREPARED BY THE INTERNATIONAL WATERWAYS COMMISSION, SHOWING LOCATION OF BOUNDARY LINE BETWEEN THE UNITED STATES AND CANADA THROUGH THE ST. LAWRENCE RIVER, GREAT LAKES, AND COMMUNICATING WATERWAYS.

No.	Chart.	Scale.
Index	Great Lakes	1 : 1,200,000
1	St. Lawrence River	1 : 20,000
2	" "	1 : 20,000
3	" "	1 : 20,000
4	" "	1 : 20,000
5	" "	1 : 20,000
6	" "	1 : 20,000
7	" "	1 : 20,000
8	Eastern end of Lake Ontario	1 : 60,000
9	Lake Ontario	1 : 300,000
10	Niagara River	1 : 20,000
11	"	1 : 10,000
12	"	1 : 20,000
13	Lake Erie	1 : 300,000
14	Western end of Lake Erie	1 : 60,000
15	Detroit River	1 : 20,000
16	"	1 : 20,000
17	Lake St. Clair	1 : 60,000
18	St. Clair River	1 : 20,000
19	"	1 : 20,000
20	Lake Huron	1 : 300,000
21	North end of Lake Huron	1 : 60,000
22	St. Marys River	1 : 20,000
23	"	1 : 20,000
24	"	1 : 20,000
25	"	1 : 10,000
26	"	1 : 20,000
27	Eastern end of Lake Superior	1 : 60,000
28	Lake Superior	1 : 300,000
29	Pigeon Bay	1 : 20,000

These charts show the shore lines of the lakes, rivers, islands and the mouths of the more important streams; the location of the principal cities and towns and of lighthouses and other permanent aids to navigation; all hydrography available from the United States and Canadian surveys; all the geodetic positions upon which the projections are based; and the boundary line with all monuments used to mark it. Unnecessary topography and all other matter not essential for the special purpose are omitted.

The greater part of the data for the charts has been secured from the Engineer Bureau of the United States War Department. Under the authority of the Secretary of War, the Chief of Engineers, United States Army, placed at the disposal of the Commission the original large-scale manuscript charts constructed in the office of the Lake Survey, and other records of that bureau. The Canadian Hydrographic Survey also furnished the Commission with all its available data. Additional chart data were also secured from the Canadian Department of Militia and Defence, United States Geological Survey, United States Hydrographic Office, the State of Michigan, and several municipalities, corporations, and individuals. It was found necessary, however, to send out surveying parties to make a considerable number of detached topographical surveys to supplement the information on record. The Commission has made a considerable number of such surveys; some, as the Niagara River from Lake Erie to the Falls, Prince Edward Bay and Amherst Island in Lake Ontario, False Detour Passage, Drummond and Cockburn Islands in Lake Huron, and Pigeon Bay, Lake Superior, being quite extensive. The following is a list of the topographical surveys made by the Commission for completing the boundary charts:—

TABLE III.—TOPOGRAPHIC SURVEYS MADE BY COMMISSION FOR COMPLETING BOUNDARY CHARTS.

Locality.	Title.
St. Lawrence River.....	North shore of Barnhart Island. Entrance to Massena Power Canal. American Island and vicinity. The Rift. Hickory and Arabella Islands.
Lake Ontario	Prince Edward Bay and Amherst Island.
Niagara River.....	Niagara Falls to Lake Erie.
Detroit River.....	West shore of Detroit River, between Trenton and Pointe Mouillée.
Lake Huron	False Detour Passage. Drummond and Cockburn Islands.
St. Marys River.....	West Neebish Channel. Islands at head of Sugar Island, St. Marys River, near Little Rapids. Sault Ste. Marie, Ontario, and vicinity. Parts of Sault Ste. Marie, Michigan.
Lake Superior.....	Pointe aux Pins, Ontario. Taquamenaw Bay. Pigeon Bay.

Every effort was made to increase the engraving force, but unfortunately engravers were not obtainable in the United States or Canada. The draughting and engraving were finally completed in November, 1914.

The boundary charts were printed by A. Hoen & Company, Baltimore, Md. The official charts filed with each Government are signed by the Commissioners; all others have facsimile signatures only.

1909 FIELD WORK.

During the winter of 1908-9, the Commission outlined their plans for necessary surveys.

In accordance therewith, a complete triangulation and topographic survey of Niagara River from Lake Erie to Niagara Falls, including all the islands lying in the river, was executed by a party in charge of Mr. Grover C. Brown, assistant engineer. A base line about three-quarters of a mile in length was measured along the river front on the west side of the freight tracks of the New York Central Railroad, between Jersey and Carolina streets, Buffalo, N.Y. From this base, a triangulation system was carried from the head of the Niagara River down both channels, around Grand Island, to the head of the rapids approaching Niagara Falls. This triangulation was also tied

to the old Lake Survey primary triangulation stations "Tonawanda 1875" and "Buffalo City Hall Tower 1875". Seventy-eight triangulation stations were located and observed in this survey. Permanent buried concrete monuments were left to mark the new stations. For the topography of the survey, a line of levels was run from P. B. M. "Tonawanda No. 2" in Tonawanda, N.Y., across the Tonawanda Channel to Grand Island; thence westward following the Whitehaven Road to the Chippawa Channel, a distance of about seven miles, where a permanent bench mark was established, consisting of a brass plug on triangulation station "Windsor". The mean elevation of P. B. M. "Windsor" is 584.05, 1903 levels. Permanent bench marks were likewise established on Grand Island on the brass plugs at stations "Tonawanda Ferry", elevation 589.31 feet; "Oak Grove", elevation 591.02 feet; and "Electric", elevation 576.35. The section of the American shore from station "Wheatfield" to Niagara Falls was not mapped at this time, this having been done in 1907, but was connected with the new triangulation system. The survey was continued until February 9, 1910, when owing to the severity of the weather, work was suspended until April 28, 1910. During the interval, the party was engaged on the reduction of its field work. Outdoor work was finally completed on May 19, 1910.

A field party sent out under the direction of the Canadian section of the Commission made a topographic survey of all the shore line on the Canadian side of the boundary, including Navy Island, from near Chippawa to Point Abino, Ontario. They also surveyed the Welland River several miles from Chippawa. All of the topography taken by the Canadian party was connected with the Commission's triangulation.

A topographical survey was also made by Mr. A. D. Hollingsworth of the American shore near the mouth of Detroit River from Slocum Island, near Trenton, to half a mile south of Pointe Mouillée, Mich., between October 15th and 19th, 1909. Twenty-eight miles of shore line were surveyed. He also located the positions of twenty-eight lights on the St. Clair River and head of Detroit River, returning to Buffalo on November 5th.

1910 FIELD WORK.

Upon the completion on May 19th of the Niagara River survey, Mr. Grover C. Brown and party were transferred to Sault Ste. Marie, Ontario, arriving there on May 24th. A triangulation and topographic survey in the vicinity of Sault Ste. Marie,

Ontario, and a portion of Whitefish Bay, Lake Superior, was made in accordance with the Commission's orders. The triangulation system extended from Topsail Island, a few miles below the city of Sault Ste. Marie, Ontario, as far west as station "Iron", located near the plant of the Algoma Iron & Steel Company, and consisted of eleven stations, forming nine triangles. The line "14 Ripley" to "East Base" of the United States Lake Survey triangulation system was used as a base. The stations were marked by permanent buried concrete monuments. The topographic survey extended from a point on the Canadian shore opposite Topsail Island to the old triangulation station on Dick Moore Island, above St. Marys Falls, and included the city of Sault Ste. Marie, Ontario. This work was completed on June 14th.

The survey in Whitefish Bay, Lake Superior, was next undertaken. The line from the tall chimney of the saw mill at Emerson to station "Taquamenon Island" was used as a base, described as "Taquamenon Island" to "Russell 95." The topographic survey extended from Salt Point to a point about half a mile west of Emerson, Mich. This survey was completed on July 13th and the party divided; one part under Mr. Grover C. Brown moved to the St. Lawrence River, while the other under Mr. Jos. L. Shed, junior engineer, located lights in St. Marys River and made topographic surveys in the vicinity of the West Neebish Channel and at two or three other localities where changes had occurred.

Before the monumenting was started, the Commission spent a great deal of time investigating the question of form and character of monument to be used, and adopted one of concrete, the form of the frustum of a cone with a hemispherical top. These monuments are two feet six inches high, two feet in diameter at the base, one foot six inches at the top, and with a radius for the hemispherical crown of nine inches. The foundations extend five feet below the surface, except where rock occurred, when the monument was built on and bonded to the rock by several iron pins. Each monument has its centre marked by a brass plug three-quarters of an inch in diameter and has a number cast in its side. They are numbered consecutively, starting with unity for each of the following groups: (1) St. Lawrence River, (2) Niagara River, (3) Detroit and St. Clair Rivers, (4) False Detour Passage, Potagannissing Bay, and St. Marys River, (5) Pigeon Bay. Through lakes

Ontario, Erie, Huron, and Superior, lighthouses are used as reference monuments. A photograph of a typical monument accompanies this report.

It was found necessary to make a new triangulation of the St. Lawrence River to locate the monuments and turning points in the international boundary line. This began on July 18, 1910, at boundary post 774, erected in 1902 by Dr. W. F. King, chief astronomer for Canada, and Edward A. Bond, state engineer and surveyor for the state of New York, at St. Regis, Quebec, the eastern end of the work assigned to this Commission. Mr. Grover C. Brown, assistant engineer, was placed in charge of this work, which was also under the field supervision of commissioners Haskell and Stewart, the Boundary Committee. For control of the triangulation, three base lines were measured in 1912—one on the north bank of the Cornwall Canal, one on the south bank of the Cardinal Canal, and one on the railway at Cape Vincent. An astronomic observation for the azimuth of the line Boundary Post 774 to Monument No. 1 was made. During the season, sixty-eight triangulation stations and eight old Lake Survey stations were located and thirty-six boundary monuments, the last one being on the foot of Ogden Island, were built and located. This work covered about twenty-three miles of river to the westward of St. Regis. The following old Lake Survey stations were connected with this triangulation: "16," "18," "23," "24," "28," "Croil Island," "McLeod," and "Whalen." A small topographic survey was made of the north and east sides of Barnhart Island. The field work closed on December 1st, the survey officers returning to the Buffalo office.

1911 FIELD WORK.

The field work of the preceding season was largely in the nature of an experiment to develop a method of procedure. The experience gained was satisfactory. Three parties were therefore organized at the beginning of the season, one for the St. Lawrence River, one for the Detroit and St. Clair Rivers, and a third for the north end of Lake Huron and the St. Marys River. Later in the year, an additional party was sent to Pigeon Bay, Lake Superior.

• The 1911 field work on the St. Lawrence River began on May 2nd under the immediate supervision of Mr. A. E. Drake, assistant engineer. The triangulation started in 1910 was

continued westward to the foot of Wolfe Island, a distance of approximately eighty miles. During the season, 216 triangulation stations, 45 boundary monuments, and 14 United States Lake Survey stations were located and observed. Eighteen lighthouses and 36 prominent points were also tied in. The old United States Lake Survey stations forming a part of our main system were "Bradford," "Allison," "Red Mill," "Morristown Point," and "Bluff," and correspond to the Commission's stations 72, 76, 90, 132, 150, and 181, respectively. Old Lake Survey stations "Wort," "Sparrowhawk," "Chimney," "Nevins Point," "K," "Oak Point," "Peach," "Hill," and "Waterloo," were also located. The lights tied in were North Channel Dyke light, North Channel Dyke West End light, Windmill Point light, Prescott beacon, Ogdensburg light, Cole Shoal light, Crossover Island light, Bridge Island light, Sister Island light, Grenadier Island light, Sunken Rock light, Lindoe Island light, Gananoque Narrows light, Jackstraw Shoal light, Spectacle Shoal light, Red Horse Rock light, Burnt Island light, and Wolfe Island light. Observations for azimuth were made at Cardinal, Gananoque, and station 162. At several places along the river, new topographical surveys were made as follows: A portion of the east and north shores of Barnhart Island; American Island; the Rift and contiguous shores of Wells and Hill Islands; and Hickory and Arabella Islands. The monumenting work began at Ogden Island. Forty-five monuments were erected during the season, the last, number 81, on Arabella Island. The party disbanded on November 20th, when the survey officers returned to the Buffalo office.

The Detroit and St. Clair Rivers survey party took the field on May 3rd under the immediate supervision of Mr. Douglas Ellis, assistant engineer. This monumenting and survey work began at the mouth of Detroit River and was carried to the head of St. Clair River. Monuments 1 and 2 were built at Pointe Mouillée, on the American side, and Bar Point, on the Canadian side, respectively. The United States Lake Survey triangulation system was used for locating all the monuments on the Detroit and St. Clair Rivers, except on a portion of the latter where an independent triangulation system was run from about one mile below the foot of Stag Island to the head of St. Clair River, a distance of about twelve miles. On October 3rd, Mr. Ellis severed his connection with the Commission and was succeeded by Mr. A. D. Hollingsworth,

who had just completed a survey in the vicinity of Pigeon Bay, Lake Superior. The last monument located at the head of St. Clair River and the foot of Lake Huron was completed on October 26th. During the season, fifty-eight monuments were built on the Detroit and St. Clair Rivers and Lake St. Clair and 131 triangulation stations occupied. On November 25th, the party disbanded and the survey officers returned to the Buffalo office.

The triangulation and monumenting work on the St. Marys River was under the immediate supervision of Mr. Jos. L. Shed, assistant engineer. Actual field work began on May 23rd. The work consisted of a triangulation of False Detour Passage and portions of the western end of the North Channel, Lake Huron, and Potagannissing Bay, with some topography on Drummond and Cockburn Islands. The triangulation began on the old Lake Survey line "Fort St. Joe"—"Drummond" as a base and was carried eastward to the south end of False Detour Passage. The following Lake Survey stations were included in the triangulation system:—"Drummond," "Fort St. Joe," "305," "285," "Burnt Island," "Serpent," and "345." The position of Sulphur Island light as rebuilt was determined. The topographical survey covered the north and east sides of Drummond Island from Poe Point to Shoal Cove, a distance of 31 miles, the west side of Cockburn Island between Tolsmaville and Boom Point, a distance of $32\frac{3}{4}$ miles, and Harbor, Kitchener, and Bigsby Islands. Whilst this work was in progress, boundary monuments 1 to 8 were constructed and located between the south end of False Detour Passage and Fort St. Joe.

On September 8th, Mr. Shed started the monumenting of the St. Marys River from Fort St. Joe northward. Boundary monuments Nos. 9 to 36, inclusive, were constructed and located from the existing Lake Survey triangulation. Topographic surveys were made of several localities in the river, including the small islands of East Neebish Rapids, Cook Island, and the small islands adjacent thereto. All of the shore-line changes and new islands were due to the stage of water being lower than when the original surveys were made. During the season, 36 monuments were built and located, the last at Sault Ste. Marie, Mich., and 97 triangulation stations occupied, 46 of which were Lake Survey stations. The party disbanded on October 28th and the survey officers returned to the Buffalo office.

At the beginning of the season, it was expected that Mr. Shed would complete the work on this river and make a survey of Pigeon Bay, but owing to adverse weather conditions this was found impossible. Accordingly, Mr. A. D. Hollingsworth, assisted by Messrs. G. L. Crichton and E. P. Deane, was sent from the Buffalo office on August 22nd to make a complete survey of Pigeon Bay and monument the same. The topographic survey was controlled by the triangulation of the International Boundary Commissioners acting under Article V of the 1908 Boundary Treaty, and such other additional triangulation as was found necessary. Four monuments were built, one of which was an azimuth monument, located on detached rock lying to the eastward of Marin Island. Monument No. 1 was located on Pigeon Point, and 2 and 3 near the mouth of Pigeon River. Twelve triangulation stations were occupied and 23 miles of shore line traversed. The party completed its work and disbanded on September 28, 1911, and the survey officers returned to the Buffalo office.

1912 FIELD WORK.

Mr. A. E. Drake, assistant engineer, resumed work on the St. Lawrence River on May 21, 1912. Monuments 82 to 88 were erected and located, thus completing the monumenting on this river. The United States Lake Survey base line at Cape Vincent, N.Y., was found and remeasured with a fifty-meter Invar tape, standardized at Washington, and loaned by the College of Civil Engineering of Cornell University, Ithaca, N.Y. Bases located near Cardinal, Ontario, and Cornwall, Ontario, were also measured with this tape.

The main secondary triangulation system was carried from the foot of Wolfe Island through the channel south of it to its head, a distance of about 18 miles. A small tertiary system was carried through the Rift for the purpose of locating the boundary monuments through this narrow reach. Topography was also taken at the head of the Massena Canal, near Massena, N.Y. All geodetic positions of stations on this river depend upon the adjusted position of "West Base" at Cape Vincent, which is in the first triangle off the United States Lake Survey primary line "Carleton"—"Wolfe." On this portion of the work, 26 triangulation stations were occupied, 6 monuments built and located, and the positions determined of four lights, viz: Rock Island light, Carleton Island light, Cape Vincent Breakwater East light, and Cape Vincent Breakwater West light.

Upon the completion of the base-line work at Cape Vincent on July 12th, the party proceeded to Prince Edward Bay, Lake Ontario. A triangulation and topographic survey was made of the bay, Amherst Island and some small islands in that vicinity, and the Canadian mainland between Sandhurst and Bath. The base line used for the triangulation was "Duck Island"—"False Ducks Lighthouse." From this base, another system was carried through the lower gap to the vicinity of Kingston, Ont., a distance of 28 miles, where Pigeon Island light, Ninemile Point light, Snake Island light, Center Brother Island light, Knapp Point light, Portsmouth Front Range light, Portsmouth Back Range light, Barriefield Common Front Range light, Barriefield Common Back Range light, and Kingston City Hall were located. This work was completed and the party disbanded on November 12th. The engineers returned to the Buffalo office and were immediately transferred to the lower Niagara River with instructions to take up base-line and triangulation work.

The St. Marys River field work was resumed on May 21st under the supervision of Mr. Jos. L. Shed, assistant engineer. Monuments 38 to 43, between St. Marys Falls and the lower end of Ile Parisienne, in Whitefish Bay, were erected and located from existing Lake Survey triangulation. During the season, a topographic survey was made of the canal of the Michigan Northern Power Company, including topography near the works of the Union Carbide Company at Sault Ste. Marie, Mich. A topographic survey of Topsail Island was made and the dock of the Great Lakes Dredge & Dock Company at Little Rapids was located.

In 1911, all monuments between Fort St. Joe and Sault Ste. Marie were located from local United States Lake Survey stations, using those nearest the monument. Upon investigation, some of these stations were found to be merely flag stations for local river surveys and no information was available as to the accuracy of their location. It was decided, therefore, to have these monuments relocated from the main triangulation system. This necessitated the relocating of fourteen monuments and the occupation of thirty-two stations. The party completed the field work on this river and disbanded on July 9th, when the survey officers returned to Buffalo.

The work of monumenting and locating the boundary line in the Niagara River was immediately started under the field supervision of Mr. Jos. L. Shed, assistant engineer. Thirty-five monuments were built and located. The triangulation survey of the upper Niagara River made by the Commission

in 1909 was used for the location of the monuments in the upper river. Between Lake Ontario and Niagara Falls, a new system of triangulation was made for the location of monuments. On this work, 95 triangulation stations were occupied, 4 of which were Lake Survey stations.

Upon the completion of its work, the St. Lawrence River party was also transferred to this river, and measured three base lines,—one at Niagara Falls, N.Y., one at Queenston, Ontario, and a third at Youngstown, N.Y. The Niagara Falls base was located in Niagara Falls, N.Y., along the New York Central Railroad tracks near the Niagara Falls brewery and the plant of The Aluminum Company of America. The Queenston base was located near the site of the United States Lake Survey base “Volt”—“Bolt,” on the International Railway tracks just north of where the Ontario Power Company’s transmission line crosses the Gorge. This base is not the same as the Lake Survey base, only one point “Volt” being common, the other end of the base line being eccentric to “Bolt” and “Bolt Eccentric.” The Youngstown base was laid out on United States Government property, parallel to the macadam road along the river bank between the officers’ quarters and the St. Vincent Catholic Institution.

During the Niagara River work, the party under Mr. Shed secured the topography of the small islands on the Canadian side near the head of the Niagara River, the shore line, roads, etc., in the vicinity of Black Creek, Ontario, including a mile up the creek and a mile each way up and down the river from the mouth of the creek, and in the vicinity of Chippawa, Ontario, including the town and Hog Island, and the banks of the Welland River as far as the mouth of Lyons Creek. A hydrographic survey in the vicinity of Diamond Rock, in the Chippawa Channel, was also made. The field work of the two parties was completed on December 16th, when the parties disbanded and the survey officers returned to the Buffalo office.

Mr. A. D. Hollingsworth, principal draftsman for the United States, made a triangulation survey for the location of Presque Isle light, at Erie, Pa., between September 12th and 28th, inclusive. On this work, 12 triangulation stations were occupied and 4 lights located. Thirtymile Point light, on the south shore of Lake Ontario, was also located by Mr. Hollingsworth between October 7th and 21st. Twenty triangulation stations were necessary in this triangulation.

During August, 1912, Commissioners Gibbons and Stewart of the Canadian section, and Ernst, Clinton, and Haskell, of the American section, the secretaries Coté and Wilson, made an inspection trip over the tentative boundary line through the Great Lakes, St. Lawrence River, and communicating waters. Through the courtesy of Mr. J. G. MacPhail, commissioner of lights, Department of Marine and Fisheries, Dominion of Canada, the Canadian Government steamer *Simcoe* was placed at the disposal of the Commission. The party left Port Arthur, Ontario, August 20th, arrived at the mouth of Pigeon River, and then cruised along the tentative boundary line through the Great Lakes, reaching Cape Vincent, N.Y., on August 29th. At this point, the party left the *Simcoe* and completed their inspection of the St. Lawrence River work on the launch *Choice* and steamer *Rapid Prince*, reaching Cornwall, Ontario, near the eastern terminus of the Commission's work on August 30th.

Colonel J. G. Warren, Corps of Engineers, U.S.A., in charge of the Buffalo District, and Lieut.-Col. Mason M. Patrick, Corps of Engineers, U.S.A., in charge of the Detroit District, very courteously furnished the Commission the use of United States Government steamers for the inspection of the tentative boundary through the upper Niagara River and the St. Marys River from Sault Ste. Marie, through the Lake George Channel, to the foot of Sugar Island, respectively.

1913 FIELD WORK.

At the beginning of 1913, the field work had been completed with the exception of a small amount at several scattered localities along the waterways. In August, 1913, Mr. G. L. Crichton, principal draftsman for Canada, took up this work and made additional surveys on the St. Marys River in the vicinity of the International bridge; at the head of Sugar Island and near Pointe aux Chenês. Mr. Crichton made additional surveys on the St. Clair River in the vicinity of Port Huron and Sarnia; on the Detroit River near its head; on the St. Lawrence River in the vicinity of Morrisburg; and on the Niagara River near the Suspension bridge at Lewiston, N.Y.; and in the vicinity of the International bridge at Buffalo and Bridgeburg. This work was completed on November 7, 1913.

APPENDIX II.
TABLE OF POSITIONS, AZIMUTHS, AND LENGTHS OF TRIANGULATION ON THE ST. LAWRENCE RIVER AND THE GREAT LAKES, DETERMINED BY THE COMMISSION IN ITS BOUNDARY WORK.

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.
 Locality, Saint Lawrence River. Date.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Monument No. 1.	° ' "		° ' "	° ' "			
	45-00-33-685	3411.7	22-13-55.1	202-13-45.6	Monument No. 2.	2563.6	3.4088567
	74-40-16.476	1183.7	356-15-32.9		T. P. No. 1.	1096.9	3.0401490
			324-14-30.0		Boundary Post No. 774.		
			325-22-38.4	145-23-02.8	Origin.	4363.5	3.6398965
			332-03-33.1		Andrew Ellicott Monument.	4276.8	3.6311239
			287-35-50.		St. Regis Church Spire.		
Turning Point No. 1.	45-00-22.878	2316.9	19-41-25.9		T. P. No. 2.	2108.3	3.3239406
	74-40-15.480	1112.2					
Boundary Post No. 774.	44-59-58.228	5897.3	90-04-32.4		Origin.	106.6	2.0277339
	75-39-40.492	2909.8	72-09-02.2		Andrew Ellicott Monument.	611.3	2.7862349
			255-04-13.		St. Regis Church Spire.		
			181-45-30.		St. Regis Dyke Back Light.		
Origin.	44-59-58.229	5897.3	68-28-26.9		Andrew Ellicott Monument.	510.9	2.7063500
	74-39-41.976	3016.1					

Andrew Ellicott Monument..	44-59-56-378 74-39-48-389	5710-0 3491-5	144-15-00.	T. P. No. 1.....	3307-1	3-5194447
St. Regis Church Spire.....	45-00-10-721 74-38-34-478	1086-0 2477-7	74-45-00.	Andrew Ellicott Monument.....	5520-0	3-7419393
St. Regis Dyke Back Light	45-01-01-48 74-39-37-75	149-9 2711-9				
Monument No. 2.....	45-00-10-254 74-40-29-375	1038-4 2153-9	69-42-08-5 334-83-00. 288-94-06-1 215-52-30.	249-41-47-5 Monument No. 3..... T. P. No. 2..... Boundary Post No. 774. St. Regis Dyke Back Light.	2272-9 780-2	3-3565747 2-8921961
Turning Point No. 2.....	45-00-03-278 74-40-25-366	332-3 1823-2	79-31-44-4	T. P. No. 3.....	2702-8	3-4318127
Monument No. 3.....	45-00-02-468 74-40-59-641	250-0 4285-8	104-24-09-6 25-27-00. 115-57-45.	284-23-19-9 Monument No. 4..... T. P. No. 3..... West end Catholic Church Spire, Cornwall.	5214-7 453-4	3-7172271 2-6564922
Turning Point No. 3.....	44-59-58-426 74-41-02-352	5917-6 169-0	131-14-35. 265-24-15.	East end Catholic Church Spire, Cornwall. St. Regis Church Spire.		
West end Catholic Church Spire, Cornwall.	45-01-16-020 74-43-57-220	1622-4 4110-9	106-02-01-8	T. P. No. 4.....	5040-7	3-7024934
East end Catholic Church Spire, Cornwall.	45-01-08-090 74-42-45-169	819-2 3244-7				
Monument No. 4.....	45-00-15-269 74-42-09-934	1546-6 713-9	72-32-54-4 357-55-00. 154-40-50.	252-32-09-5 Monument No. 5..... T. P. No. 4..... East end Catholic Church Spire, Cornwall.	5423-3 314-3	3-7342598 2-4973497
			271-40-55.	St. Regis Church Spire.		

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
	° ' "		° ' "	° ' "			
Turning Point No. 4.....	45-00-12.167 74-42-09.776	1232.6 702.8	70-37-26.1	.....	T. P. No. 5.....	5351.1	3-7284400
Monument No. 5.....	44-59-59.204 74-43-21.931	5996.0 1576.1	39-51-33.9 343-30-00. 358-42-50.	219-51-09.7	Monument No. 6..... T. P. No. 5..... Chimney on small house across river.	3835.2 482.9	3-6837859 2-6838920
Turning Point No. 5.....	44-59-54.632 74-43-20.022	5532.8 1438.6	39-09-55.8	.....	T. P. No. 6.	3751.3	3-5741869
Monument No. 6.....	44-59-30.135 74-43-56.132	3052.2 4033.4	89-54-50.8 332-08-00. 69-48-24.0	269-54-21.6	Monument No. 7..... T. P. No. 6..... Azimuth Monument.....	2872.6 483.6 6884.0	3-4731434 2-6844817 3-8378424
Tallest Stack, Lower Cotton Mills, Cornwall, Ontario.	45-00-58.244 74-42-39.677	5898.9 2850.7	91-09-42.5	.....	T. P. No. 7.	3506.5	3-5448707
Turning Point No. 6.....	44-59-25.913 74-43-52.987	2624.0 3808.4	110-48-01.0 41-05-00. 55-46-40.3	290-47-22.5	Monument Nu. 8..... T. P. No. 7..... Azimuth Monument.....	4192.3 467.2 4218.2	3-6294563 2-6694942 3-6251313
Monument No. 7.....	44-59-30.089 74-44-37.494	3017.2 2694.5	.....	.....	.....	.....	.....
Azimuth Monument.....	44-59-06.662 74-45-28.020	674.9 1870.4	.....	.....	.....	.....	.....

Locality, Saint Lawrence River.

Date.....

Turning Point No. 7	44-50-26-612 74-44-41-766	2695-2 3002-3	111-06-04-4	T. P. No. 8	4393-0	3-6427-629
Monument No. 8	44-59-44-785 74-45-32-029	4535-8 2301-8	162-32-24-8 61-55-00- 333-37-02-0	Monument No. 9, T. P. No. 8, Azimuth Monument	5020-8 551-2 3885-1	3-7007744 2-7412935 3-5894037
Turning Point No. 8	44-56-42-224 74-45-38-796	4275-9 2788-4	169-34-17-3	T. P. No. 9	3973-0	3-5997758
Monument No. 9	45-00-32-075 74-45-52-996	3248-7 3807-7	79-18-36-8 345-12-00- 347-21-58-6 255-04-50- 261-33-10- 28-35-55- 239-34-43-3	Monument No. 10, T. P. No. 9, Azimuth Monument, Paper Mill Chimney, Cornwall, Pumping Station Chimney, Cornwall, Conical Tower on house at Massena Point, Standpipe, Cornwall	9270-2 1174-5 8865-1	3-9670906 3-0698072 3-9476855
Turning Point No. 9	45-00-20-863 74-45-48-820	2112-5 3507-9	86-27-04-8	T. P. No. 10	7708-4	3-8869665
Standpipe, Cornwall	45-00-56-490 74-44-54-368	5721-1 3905-5				
Conical Tower on house at Massena Point	45-00-11-66 74-46-08-68	1150-8 623-7				
Monument No. 10	45-00-15-077 74-47-59-773	1526-9 4294-9	178-48-27-3 266-23-00- 257-48-00- 142-19-04-9	Monument No. 11, T. P. No. 10, Paper Mill Chimney, Cornwall, Ont. T. P. No. 11	3821-6 1719-1	3-5822401 3-2853155
Turning Point No. 10	45-00-16-138 74-47-35-895	1634-5 2579-7			2945-1	3-4691042
Monument No. 11	45-00-52-802 74-48-00-890	5347-8 63-3	100-26-51-2 00-13-00- 87-47-00- 80-17-10-	Monument No. 12, T. P. No. 11, T. P. No. 12, East gable of house of L. Barnhart	4968-9 1382-5 431-1	3-6862590 3-1406787 2-6345796

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Turning Point No. 11.....	° ' " 45-00-39.151 74-48-00.953	3965.2 68.2	° ' " 162-41-46.5	° ' "	T. P. No. 12.....	1430.6	3.1555148
Turning Point No. 12.....	° ' " 45-00-52.637 74-48-06.876	5331.4 494.4	° ' " 83-06-32.8	° ' "	T. P. No. 13.....	3065.1	3.4864394
Monument No. 12.....	° ' " 45-01-01.693 74-49-08.902	171.6 639.4	° ' " 60-34-08.7 312-17-00. 348-07-00.	240-33-41.2	Monument No. 13..... T. P. No. 13..... T. P. No. 14.....	3205.3 1910.1 2047.2	3.5058697 3.2810664 3.3111688
Turning Point No. 13.....	° ' " 45-00-49.004 74-48-49.232	4963.6 3536.8	° ' " 54-04-55.2	° ' "	T. P. No. 14.....	1224.4	3.0879243
Turning Point No. 14.....	° ' " 45-00-41.912 74-49-03.034	4244.7 217.8	° ' " 122-35-47.2	° ' "	T. P. No. 15.....	2903.3	3.4628873
Monument No. 13.....	° ' " 45-00-46.140 74-49-47.750	4672.9 3431.1	° ' " 58-47-06.5 214-03-00. 116-48-00. 168-56-55. 297-37-45.	238-46-30.8	Monument No. 14..... T. P. No. 15..... T. P. No. 16..... Cross on boulder 286 feet distant N.W. corner cheese factory on Barnhart Island.	4246.2 1370.7 1024.9	3.6279970 3.1368526 3.1832503
Turning Point No. 15.....	° ' " 45-00-57.354 74-49-37.082	5808.4 2663.7	° ' " 78-06-40.8	° ' "	T. P. No. 16.....	2174.9	3.3374432
Turning Point No. 16.....	° ' " 45-00-52.929 74-50-06.707	5360.6 482.0	° ' " 56-24-06.6	° ' "	T. P. No. 17.....	2210.0	3.3443930

Locality, Saint Lawrence River.

Date.....

Monument No. 14	45-00-24-409 74-50-38-302	2472.1 2752.0	67-35-23.7 194-27-00. 153-15-00. 66-57-40.	247-34-43.8 T. P. No. 17. T. P. No. 18. East Peak of red barn on Barnhart Island.	4446.6 1719.8 1468.5	3-6490900 3-2354812 3-1668743
Turning Point No. 17	45-00-40-853 74-50-32-329	4137.1 2822.8	72-00-23.3	T. P. No. 18.	1146.2	3-0692574
Turning Point No. 18	45-00-37-357 74-50-47-502	3783.8 3412.7	50-48-05.0	T. P. No. 19.	3361.7	3-5295571
Monument No. 15	45-00-07-667 74-51-35-511	776.6 2551.8	98-21-43.2 223-45-00. 137-56-00. 71-53-00. 178-19-20.	Monument No. 16. T. P. No. 19. T. P. No. 20. T. P. No. 21. Hole drilled in boulder 254.6 feet north.	4929.7 1221.1 1221.1 1883.9	3-6929185 3-0867606 3-0867606 3-2750474
Turning Point No. 19	45-00-16-377 74-51-25-759	1659.1 1707.3	90-50-40.6	T. P. No. 20.	1692.7	3-2298172
Turning Point No. 20	45-00-16-618 74-51-46-897	1683.4 3370.1	33-05-02.0	T. P. No. 21.	1781.2	3-2507186
Turning Point No. 21	45-00-01-882 74-52-00-428	190.3 30.8	97-13-36.4	T. P. No. 22.	2625.0	3-4510293
Monument No. 16	45-00-14-740 74-52-43-389	1492.8 3117.4	77-41-13.1 343-17-00. 61-57-40. 65-13-30.	Monument No. 17. T. P. No. 22. Dickinson Landing Light. R. C. Church Spire, Dickinson Landing.	2512.1 988.8	3-4000453 2-9851274
Turning Point No. 22	45-00-05-389 74-52-39-431	545.9 2833.3	79-34-55.5	T. P. No. 23.	2961.2	3-4714696
Monument No. 17	45-00-09-449 74-53-17-546	957.0 1260.8	38-27-53.9 10-23 00. 53-03-10.	Monument No. 18. T. P. No. 23. Chimney on Lock House, Lock No. 21, Cornwall Canal.	5069.1 962.6	3-7049329 2-9834443

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.
 Locality, Saint Lawrence River.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
	° ' "		° ' "	° ' "			
Turning Point No. 23	45-00-00.100 74-53-19.960	10.2 1434.1	50-19-27.6		T. P. No. 24.	4230.0	3.6263373
Monument No. 18	44-59-30.257 74-54-01.420	3064.3 102.0	29-52-24.8 139-22-00. 106-20-40.	209-52-06.3	Monument No. 19. T. P. No. 24. R. C. Church Spire, Dickinson Landing. Dickinson Landing Light.	3775.5 423.9	3.5769745 2.6272467
Turning Point No. 24	44-59-33.433 74-54-05.261	3385.8 378.0	28-49-07.1		T. P. No. 25	3764.1	3.5756619
Monument No. 19	44-58-57.931 74-54-27.582	5867.1 1982.6	91-31-20.0 144-47-00. 170-41-40. 185-47-45.	271-29-37.0	Monument No. 20. T. P. No. 25. R. C. Church Spire, Dickinson Landing. U. S. L. S. No. 28.	10476.1 364.2	4.0201981 2.5613072
Turning Point No. 25	44-59-00.869 74-54-30.504	88.3 2192.6	92-47-39.2		T. P. No. 26.	10150.8	4.0065008
Dickinson Landing Light	44-59-31.99 74-54-36.48	3239.8 2621.7					
R. C. Church Spire, Dickinson Landing	44-59-37.606 74-54-36.743	3808.7 2640.7					

Monument No. 20.....	44-59-00-653 74-56-53-276	66-3 3829-4	82-40-04-1 193-29-00 252-05-50 249-06-10	262-39-01-1	Monument No. 21..... T. P. No. 26..... Dickinson Landing Light, R. C. Church Spire, Dickinson Landing.	6461-5 528-9	3-8103367 2-7233492
Turning Point No. 26.....	44-59-06-731 74-56-51-560	580-4 3706-0	85-36-02-8	.....	T. P. No. 27.....	6567-4	3-8173833
Monument No. 21	44-58-52-501 74-58-22-432	5317-2 1612-5	71-09-53-7 178-53-00 84-16-10	251-09-04-1	Monument No. 22..... T. P. No. 27..... Spire on Presbyterian Church, Farran Point.	5329-2 835-3	3-7266653 2-9218426
Turning Point No. 27.....	44-59-00-747 74-58-22-638	76-1 1628-9	67-27-00-1	.....	T. P. No. 28.....	5678-3	3-7542211
Spire on Presbyterian Church, Farran Point.....	44-58-45-082 75-00-06-466	4565-9 460-6	.....	.....	.....	.....	.....
Monument No. 22	44-58-35-507 74-59-32-595	3596-1 2343-2	33-49-37-7 150-11-00 111-46-10	213-49-24-0	Monument No. 23..... T. P. No. 28..... Spire on Presbyterian Church, Farran Point.	2494-0 435-7	3-3968908 2-6391823
Turning Point No. 28.....	44-58-39-240 74-59-35-609	3974-1 2560-0	152-16-50 38-48-50-9	.....	Spire on Catholic Church, Farran Point. T. P. No. 29.....	2694-1	3-4304114
Monument No. 23.....	44-58-15-050 74-59-51-906	1524-3 3731-9	05-29-06-8 124-09-00 161-05-10	185-29-05-9	Monument No. 24..... T. P. No. 29..... Spire on Presbyterian Church, Farran Point.	1715-0 624-7	3-2342819 2-7366511
Turning Point No. 29	44-58-18-512 74-59-59-087	1874-7 4248-7	00-40-25-3	.....	T. P. No. 30.....	2048-6	3-3114641

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.
 Locality, Saint Lawrence River. Date

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithma.
Monument No. 24.	° ' " 44-57-58.194 74-59-54.186	5893.7 3895.7	° ' " 22-02-33.9 91-25-00. 43-40-35. 81-40-10.	° ' " 202-02-22.8	Monument No. 25. T. P. No. 30. T. P. No. 31. S. W. corner of large brick house just below head of Farran Point Canal.	3010.7 377.3 1846.3	3-4786747 2-5766820 3-2963039
Turning Point No. 30.	° ' " 44-57-58.256 74-59-59.432	5903.5 4273.0	° ' " 33-43-49.5		T. P. No. 31.	1616.8	3-2086084
Turning Point No. 31.	° ' " 44-57-45.009 75-00-11.918	4558.7 857.3	° ' " 20-27-40.5		T. P. No. 32.	1573.5	3-1968582
Monument No. 25.	° ' " 44-57-30.639 75-00-09.899	3103.0 711.9	° ' " 59-16-46.8 174-18-00. 88-27-40. 83-13-20. 84-11-50.	° ' " 239-15-43.9	Monument No. 26. T. P. No. 31. T. P. No. 32. Church Spire, Aultsville, Ont. Flagpole, Fraternity Hall, Aultsville, Ont.	7446.1 1462.6 695.5	3-8719285 3-1651243 2-8423201
Turning Point No. 32.	° ' " 44-57-30.453 75-00-19.507	3084.0 1407.5	° ' " 52-35-24.6		T. P. No. 33.	7064.1	3-8490378
Turning Point No. 33.	° ' " 44-56-48.072 75-01-37.580	4668.4 2703.1	° ' " 62-45-41.6		T. P. No. 34.	9650.7	3-9659048

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.
 Locality, Saint Lawrence River.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Monument No. 30.....	44-55-10.549 75-07-03.796	1068.2 273.3	64-32-57.2 173-17-00. 96-01-40.	244-33-15.5	Monument No. 31..... T. P. No. 38..... Church of England Church Spire, "The Churches." Windmill, Canadian Shore. Windmill, Canadian Shore.	4710.8 567.6	3.6730086 2.7540363
Turning Point No. 38.....	44-55-16.115 75-07-04.719	1632.5 339.6	63-33-12.4		T. P. No. 39.....	4940.8	3.6937964
Monument No. 31.....	44-54-50.563 75-08-02.911	5121.4 209.6	25-29-29.8 148-35-00. 165-16-40.	205-29-04.3	Monument No. 32..... T. P. No. 39..... Lutheran Church Spire, "The Churches." Church of England Church Spire, "The Churches."	6052.1 452.8	3.7819054 2.6558633
Turning Point No. 39.....	44-54-54.383 75-08-06.190	5507.5 445.5	11-49-05.8		T. P. No. 40.....	6745.0	3.8289829
Church of England Church Spire, "The Churches."	44-55-13.727 75-07-54.726	1390.1 3938.0					
Lutheran Church Spire, "The Churches."	44-55-04.226 75-08-11.765	428.1 846.5					

Monument No. 32.....	44-53-56-6261 75-08-48-065	5734-9 2814-0	66-45-44-6 307-19-00 78-63-30	246-44-51-8	Monument No. 33. T. P. No. 40. Methodist Church Spire, Morris- burg, Ont.	5853-6 1241-5	3-7674265 3-0693953
Turning Point No. 40.....	44-53-49-195 75-08-25-380	4982-6 1827-1	79-10-28-0		T. P. No. 41.....	6592-5	3-8190618
Monument No. 33.....	44-53-33-815 75-09-53-808	3424-9 3873-7	56-07-56-3 161-05-00 316-44-30	236-06-57-6	Monument No. 34. T. P. No. 41. Weather Vane on Cupola of barn to S.E. of Monument No. 33.	7215-1 336-6	3-8589450 2-5271316
Turning Point No. 41.....	44-53-36-959 75-09-55-324	3743-1 3982-6	58-38-09-0		T. P. No. 42.....	7256-6	3-8607351
Methodist Church Spire, Mor- risburg, Ont.	44-53-37-37 75-10-56-91	3784-4 4096-8					
Roman Catholic Church Spire, Morrisburg, Ont.	44-53-44-072 75-11-03-671	4463-2 264-1					
Church of England Church Spire, Morrisburg, Ont.	44-53-40-976 75-11-06-935	4149-9 499-3					
Monument No. 34.....	44-52-54-105 75-11-17-008	5479-6 1224-7	90-54-52-1 150-46-00 147-39-20	270-54-36-9	Monument No. 35. T. P. No. 42. Flagpole at Shipyard, Morrisburg, Ont.	1552-1 644-4	3-1900331 2-8691257
Turning Point No. 42.....	44-52-59-657 75-11-21-378	6042-0 1539-4	82-16-39-7		T. P. No. 43.....	1382-3	3-1405985
Monument No. 35.....	44-52-54-349 75-11-38-561	5504-3 2776-6	85-44-59-7 159-22-00 56-06-54-9 206-09-40	265-44-38-9	Monument No. 36. T. P. No. 43. Azimuth Monument. Roman Catholic Church Spire, Morrisburg.	2129-0 376-0 1389-3	3-3281704 2-5751688 3-1268705

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.
 Locality, Saint Lawrence River.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Dis- tance in Feet.	Loga- rithms.
Turning Point No. 43.....	44-52-57.823 75-11-40.401	5855.6 2909.1	52-07-50.5	.....	T. P. No. 44.....	2867.7	3-4575360
Monument No. 36.....	44-52-52.790 75-12-08.046	5346.4 579.1	66-47-32.9 12-19-00. 221-44-10.	246-46-52.7	Monument No. 37..... T. P. No. 44..... Roman Catholic Church Spire, Morrishburg.	4474.0 1280.2	3-6506912 3-1072715
Turning Point No. 44.....	44-52-40.440 75-12-11.838	4095.5 852.4	300-12-26.2 89-36-08.9	120-12-36.1	Azimuth Monument..... T. P. No. 45.....	1170.3 4014.3	3-0692874 3-0036060
Azimuth Monument.....	44-52-46.976 75-11-54.001	4757.5 3888.4	160-07-00. 267-04-47.4	..... 77-05-37.6	..... Azimuth Monument.....	..... .....	..... .....
Monument No. 37.....	44-52-35.378 75-13-05.146	3583.0 370.7	38-28-44.0 160-07-00. 267-04-47.4	218-28-17.9	Monument No. 38..... T. P. No. 45.....	4281.7 515.1 5256.1	3-6316149 2-7118830 3-7206056
Turning Point No. 45.....	44-52-40.161 75-13-07.579	4067.2 545.9	36-35-43.1	.....	T. P. No. 46.....	4287.5	3-6322022
Monument No. 38.....	44-52-02.280 75-13-42.136	231.0 3084.8	83-09-57.4 170-20-00. 277-08-50.	263-09-26.7	Monument No. 39..... T. P. No. 46..... R. C. Church Spire, Waddington.	3156.5 399.6	3-4992023 2-6016315

Date.....

Turning Point No. 46.....	44-52-06-170 75-13-43-068	625-0 3102-0	82-38-00-7	T. P. No. 47.....	3344-5	3-5243281
Monument No. 39.....	44-51-58-569 75-14-25-649	5931-7 1847-4	65-19-15-3 143-44-00 208-12-30	245-18-32-3 Monument No. 40 T. P. No. 47 Flingpole head of Lock No. 24, Morrisburg Canal. Stack on planing mill, Canada.	4828-5 422-6	3-6836083 2-6259001
Turning Point No. 47.....	44-52-01-933 75-14-29-119	195-5 2097-4	47-29-02-8	T. P. No. 48.....	5292-8	3-7236875
Monument No. 40.....	44-51-38-658 75-15-26-558	3015-0 1913-1	45-38-05-8 349-02-00 06-39-50	225-37-39-0 Monument No. 41 T. P. No. 48 Middle Ventilator on red barn, U. S. Shore opposite Monument No. 40.	3823-1 1242-8	3-5824126 3-0943942
Turning Point No. 48.....	44-51-26-611 75-15-23-276	2694-9 1677-2	74-21-49-2	T. P. No. 49.....	3242-3	3-5175004
Monument No. 41.....	44-51-12-261 75-16-04-496	1241-8 323-8	40-52-00-0 160-26-00 319-11-00	229-51-28-0 Monument No. 42 T. P. No. 49 North Peak of barn on hill near Monument No. 41.	4275-2 600-4	3-6390571 2-7784353
Turning Point No. 49.....	44-51-17-847 75-16-07-286	1807-7 525-3	60-46-41-1	T. P. No. 50.....	4922-0	3-6921381
Monument No. 42.....	44-50-45-049 75-16-49-861	4562-3 3692-5	61-05-31-8 128-47-00 90-21-03	244-04-17-2 Monument No. 43 T. P. No. 50 Lutheran Church Spire, Iroquois, Ont.	8816-3 1533-5	3-9452865 3-1856729
Turning Point No. 50.....	44-50-54-117 75-17-08-907	1481-0 497-7	53-57-00-0	T. P. No. 51.....	7237-1	3-8695619
Lutheran Church Spire, Iro- quois, Ont.	44-50-45-42 75-18-17-44	4600-1 1256-9				

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued

Locality.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
	° ' "		° ' "	° ' "			
Monument No. 43.....	44-50-07.000 75-18-39.906	709.0 2876.0	309-58-27.2 238-57-00. 237-23-05.	129-58-57.7	Monument No. 44..... T. P. No. 51..... Methodist Church Spire, Morris- burg, Ont. T. P. No. 52.....	4057.5 992.8	3.6082558 2.9968531
Turning Point No. 51.....	44-50-12.056 75-18-28.108	1221.5 2024.9	338-45-47.0			3970.2	3.5988143
Monument No. 44.....	44-49-41.259 75-17-56.764	4178.5 4091.2	50-44-04.9 54-40-00. 124-31-03.	230-42-38.3	Monument No. 45..... T. P. No. 52..... Small Flagpole on Square, White Cupola, Luley's House, Canada. T. P. No. 53.....	11449.0 1005.9	4.0587669 3.0025564
Turning Point No. 52.....	44-49-35.516 75-18-08.150	3597.4 587.3	48-07-10.0			11039.3	4.0429402
Monument No. 45.....	44-48-29.691 75-19-59.709	3006.9 4304.8	105-50-25.7 14-00-00. 310-03-10.	285-49-49.5	Monument No. 46..... T. P. No. 53..... West Ventilator on barn U. S. Shore, S. E. of Monument No. 45. T. P. No. 54.....	3850.2 726.4	3.5854830 2.8611618
Turning Point No. 53.....	44-48-22.732 75-20-02.146	2302.2 154.9	109-45-16.2			2965.2	3.4764231
Monument No. 46.....	44-48-40.065 75-20-51.086	4057.7 3083.1	29-58-43.8 316-20-00. 46-23-20. 39-59-10.	209-57-50.9	Monument No. 47..... T. P. No. 54..... Presbyterian Church Spire, N. end Cardinal..... Water Tank, Cardinal.....	10843.1 1027.6	4.0831461 3.0118060

Turning Point No. 54.....	44-48-32-726 75-20-41-245	3314-6 2973-1	40-07-07-01.....	T. P. No. 55.....	10143-5	4-0061871
Monument No. 47.....	44-47-07-318 75-22-06-204	741-1 447-5	75-35-12-0 155-23-00 30-31-00 104-32-40 112-21-40 119-07-30 121-24-00	255-34-12-5 Monument No. 48..... T. P. No. 55..... T. P. No. 56..... Water Tank, Cardinal. Church Spire, R. C. Church Spire, Cardinal. Presbyterian Church Spire, Car- dinal.	6294-7 981-0 990-8	3-7989749 2-9916554 2-9959911
Turning Point No. 55.....	44-47-16-124 75-22-11-870	1632-5 856-3	03-05-47-2.....	T. P. No. 56.....	1747-9	3-2425207
Turning Point No. 56.....	44-46-58-890 75-22-13-179	5964-2 950-8	75-07-11-3.....	T. P. No. 57.....	4817-3	3-6828601
Water Tank of Starch Co., Cardinal, Ont.....	44-47-12-49 75-22-34-19	1265-1 2466-2				
R. C. Church Spire, Cardinal, Ont.....	44-47-18-80 75-22-35-15	1903-9 2535-4				
Presbyterian Church Spire, Cardinal, Ont.....	44-47-23-62 75-22-43-75	2392-1 3153-5				
Monument No. 48.....	44-46-51-838 75-23-30-724	5249-7 2216-2	52-19-12-7 299-10-00 242-50-20 228-41-00	232-18-53-0 Monument No. 49..... T. P. No. 57..... Water Tank, Cardinal. Presbyterian Church Spire, Cardinal	2551-4 1074-1	3-4067746 3-0310629
Turning Point No. 57.....	44-46-46-570 75-23-17-722	4726-7 1278-2	45-24-23-9.....	T. P. No. 58.....	3156-2	3-4694438
Monument No. 49.....	44-46-36-438 75-23-58-716	3690-3 4235-9	70-08-38-4 329-03-00 239-04-40 243-18-40	250-08-00-1 Monument No. 50..... T. P. No. 58..... Water Tank, Cardinal. Large Chimney at Starch Works, Cardinal, Ont.	4172-7 1377-3	3-6204127 3-1390266

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Dis- tance in Feet.	Loga- rithms.	Date.....	
								o ' "	o ' "
Turning Point No. 58.....	44-46-24.775 75-23-48.887	2509.5 3527.6	83-50-11.4	o ' "	T. P. No. 59.....	4492.8	3.6625130		
Monument No. 50.....	41-46-22.440 75-24-63.117	2272.6 3532.0	36-44-50.5 328-00-00. 36-01-30.	216-43-58.8	Monument No. 51..... T. P. No. 59..... Presbyterian Church Spire, Ogdensburg, N. Y. Presbyterian Church Spire, Cardinal Water Tank, Cardinal.	8851.4 297.2	3.9470128 2.4731124		
Turning Point No. 59.....	44-46-20.007 75-24-50.813	2026.6 3665.7	23-43-10.2	o ' "	T. P. No. 60.....	6403.3	3.8064019		
North Channel Dyke Light..	44-46-07.65 75-25-41.30	774.6 2979.7							
Monument No. 51.....	44-45-12.401 75-26-06.499	1255.9 468.8	48-23-47.5 251-10-00. 173-49-20. 227-43-30.	228-21-51.6	Monument No. 52..... T. P. No. 60..... Windmill, Canada. Presbyterian Church Spire, Cardinal	15898.4 3049.2	4.2013533 3.4841869		
Turning Point No. 60.....	44-45-22.119 75-25-26.507	2240.2 1913.1	46-38-55.4	o ' "	T. P. No. 61.....	18758.1	4.2731895		
Large Stack, N. Y. State Hos- pital.	44-43-41.13 75-26-37.65	4165.0 2718.5							

North Channel Dyke, West End Light.	44-44-23-87 75-27-04-93	2417-3 335-6							
Monument No. 52.	44-43-28-135 75-23-51-150	2849-4 3693-2	24-52-26-4 319-39-00- 15-09-40- 31-40-00- 54-34-30- 233-37-40- 53-07-16-4	294-51-45-5 T. P. No. 61. Presbyterian Church Spire, Ogdensburg. Ogdensburg Light. Windmill Point Light. N. Channel Dyke, West End Light. T. P. No. 62.	9961-7 1755-2	3-9992047 3-2443890			
Turning Point No. 61.	44-43-14-926 75-28-35-411	1512-1 2550-9			9365-2	3-9715153			
Windmill Point Light.	44-43-15-98 75-23-15-12	1618-4 1091-9							
Monument No. 53.	44-41-58-712 75-29-49-275	5945-9 3559-4	50-59-41-8 134-12-00- 196-39-40- 43-30-45-8	230-54-07-0 T. P. No. 64. T. P. No. 62. Windmill Point Light. T. P. No. 63.	44253-9 3007-9	4-6460497 3-4782588			
Turning Point No. 62.	44-42-19-417 75-30-19-131	1966-9 1381-9				43531-3 4-63889016			
Methodist Church Spire, Ogdensburg, N.Y.	44-41-38-28 75-23-18-67	3877-3 1348-4							
Presbyterian Church Spire, Ogdensburg.	44-41-54-47 75-29-26-73	5516-4 1930-8							
Ogdensburg Light.	44-41-52-51 75-30-13-84	5317-9 969-7							
Church of England Spire, Prescott, Ont.	44-42-41-36 75-31-01-11	4188-3 79-7							
Methodist Church Spire, Prescott, Ont.	44-42-36-19 75-31-05-36	3665-3 386-8							

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.
 Locality, Saint Lawrence River.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Old Church Spire, Prescott, Ont.	44-42-33.54 75-31-07.54	3396.3 544.3	0 / 0	0 / 0			
Water Tank, Prescott.	44-42-45.68 75-31-09.17	4626.3 662.1	0 / 0	0 / 0			
Monument No. 54.	44-37-23.343 75-37-44.844	2363.8 3243.4	39-06-34.9 305-19-00. 56-02-30.	219-05-09.8	Monument No. 55 T. P. No. 63 Conical Tower on Asylum, Brockville, Ont.	13893.8 2779.5	4.1428216 3.4439701
Turning Point No. 63.	44-37-07.475 75-37-13.489	757.6 975.7	48-30-07.7		T. P. No. 64	14339.4	4.1565314
Old Distillery, Maitland, Ont.	44-38-04.87 75-36-49.02	493.1 3644.9					
Monument No. 55.	44-35-36.871 75-39-45.957	3733.9 3325.8	46-40-47.5 318-10-00. 77-35-10. 79-43-30.	226-39-11.7	Monument No. 56 T. P. No. 64 Town Hall, Brockville, Ont. Presbyterian Church Spire, Brockville, Ont. Catholic Church Spire, Morristown, N. Y.	13582.2 402.9	4.1329695 2.6051826
Turning Point No. 64.	44-35-33.907 75-39-42.244	3434.0 3056.8	45-10-27.9		T. P. No. 65	13969.0	4.1451666

Date.....

Brockville Asylum Tower.....	44-36-18-57 75-39-59-45	1880-6 4301-2						
Catholic Church Spire, Morris- town, N. Y.	44-35-09-83 75-38-47-83	995-1 3461-9						
Presbyterian Church Spire, Brockville, Ont.	44-35-25-67 75-41-12-36	2599-7 894-3						
Town Hall, Brockville, Ont...	44-35-18-80 75-41-40-73	1903-9 2947-2						
Monument No. 56.....	44-34-04-834 75-42-02-446	489-5 177-2	218-22-50-1	Monument No. 57. T. P. No. 65.	9493-2 864-2	3-9774130 2-9366000		
Turning Point No. 65.....	44-32-56-645 75-41-59-091	5735-9 4278-2	40-10-34-9	T. P. No. 66.	8461-1	3-9271267		
Flagpole, Point Comfort.....	44-33-05-09 75-42-23-36	515-4 1691-9						
Monument No. 57.....	44-32-51-358 75-43-23-863	5201-1 1728-3	38-56-11-3 257-53-00 11-54-00 252-23-00	218-56 03-9 Monument No. 58. T. P. No. 66. T. P. No. 67. Flagpole, Point Comfort.	1212-3 696-2 621-7	3-0836277 2-8427286 2-7173813		
Turning Point No. 66.....	44-32-52-801 75-43-14-464	5347-1 1047-2	50-12-33-5	T. P. No. 67.	1025-9	3-0110679		
Turning Point No. 67.....	44-32-46-318 75-43-25-348	4690-9 1836-0	38-04-01-4	T. P. No. 68.	1085-1	3-0354835		
Monument No. 58.....	44-32-42-046 75-43-34-383	4257-9 2490-2	32-50-46-3 02-00-00 61-08-00	212-49-34-6 Monument No. 59. T. P. No. 68. Cole Shoal Light.	13466-6 421-9	4-1356306 2-6252252		
Turning Point No 68.....	44-32-57-882 75-43-34-586	3835-9 2505-2	45-48-06-3	T. P. No 69.	14939-4	4-1713383		

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.
 Locality, Saint Lawrence River. Date.....

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Cole Shoal Light	0' 0" 0" 44-31-58-26 75-46-25-39	5899.9 1839.2	0' 0" 0"	0' 0" 0"			
Monument No. 59.....	44-30-48.664 75-45-16.669	4928.1 1207.7	39-16-26.4 100-59-00. 46-07-30.	219-14-32.5	Monument No. 60 T. P. No. 69 Crossover Island Light.	18622.0 3375.3	4.2706246 3.5283152
Turning Point No. 69.....	44-30-55.011 75-46-02.397	5570.9 173.9	33-44-55.8		T. P. No. 70.	19101.2	4.2810642
Crossover Island Light.....	44-29-49.10 75-46-43.20	4972.4 3131.2					
Monument No. 60.....	44-28-26.281 75-47-59.236	2661.4 4295.3	31-33-19.7 68-57-00. 74-07-50.	211-32-06.5	Monument No. 61. T. P. No. 70 Bridge Island Light.	14497.0 2292.0	4.1612791 3.3602128
Turning Point No. 70.....	44-28-18.151 75-48-28.735	1837.9 2084.0	13-59-30.0		T. P. No. 71.	14904.6	4.1733205
Bridge Island Light.....	44-28-01.89 75-49-58.47	191.3 4276.6					
Monument No. 61.	44-26-24.281 75-49-43.800	2459.0 3177.8	35-34-28.1 327.50-00. 223-55-20.	215-32-40.1	Monument No. 62. T. P. No. 71 Weather Vane on Residence, Dark Island.	19252.3 3462.6	4.2844826 3.5394013

Turning Point No. 71.....	44-25-55-336 75-49-18-396	5604-3 1335-3	44-08-49-61	T. P. No. 72.....	19220-5	4-2605610
Sister Island Light.....	44-24-50-92 75-50-41-38	5156-5 3003-6				
Monument No. 62.,	44-23-49-622 75-52-18-056	5024-9 1311-0	227-13-51-4 47-15-36-8 314-25-00 228-30-00 48-13-10	Monument No. 63..... T. P. No. 72..... Sister Island Light. Water Tank, Bolt's Farm.	14907-0 496-1	4-1739913 2-6955360
Turning Point No. 72.....	44-23-46-194 75-52-13-176	4677-5 957-0	47-19-48-4	T. P. No. 73.....	15258-4	4-1835050
Grenadier Island Light	44-22-58-40 75-54-19-42	5914-0 1410-4				
Monument No. 63.,	44-22-09-691 75-54-48-772	981-3 3643-0	67-21-22-4 351-28-00 203-22-10 227-42-40	Monument No. 64..... T. P. No. 73..... Grenadier Island Light. Sister Island Light.	2085-3 578-1	3-3191755 2-7619901
Turning Point No. 73.....	44-22-04-042 75-54-47-614	409-1 3458-7	98-32-58-3	T. P. No. 74.....	2334-4	3-3681746
Sunken Rock Light.	44-20-44-75 75-54-56-77	4531-8 4125-6				
Monument No. 64.....	44-22-01-762 75-55-15-265	178-5 1108-9	32-42-50-7 152-35-00 95-44-50 137-44-20	Monument No. 65..... T. P. No. 74..... Stone Water Tank, Club Island. R. C. Church Spire, Rockport, Ont.	3604-6 650-9	3-5568602 2-8135259
Turning Point No. 74.....	44-22-07-408 75-55-19-392	756-6 1408-5	30-46-23-0	T. P. No. 75.....	4016-7	3-6038728
Monument No. 65.....	44-21-31-812 75-55-42-078	3221-4 3067-1	73-46-55-6 111-24-00 144-54-40	Monument No. 66..... T. P. No. 75..... Water Tank, Club Island.	3187-1 487-0	3-5033892 2-6404884

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Dis- tance in Feet.	Loga- rithms.
	° ' "		° ' "	° ' "			
Turning Point No. 75.....	44-21-33-387 75-55-47-678	3381.2 3464.2	60-22-55.3		T. P. No. 76.....	3409.2	3 7826526
R. C. Church Spire, Rockport	44-22-12.67 75-56-07.09	4320.9 515.1					
Water Tank, Club Island....	44-22-06.12 75-56-15.68	619.7 1139.1					
Monument No. 66.	44-21-23 020 75-56-24 196	2331.0 1755.6	42-09-41.1 26-02-00 24-01-50	222-09-15.6	Monument No. 67..... T. P. No. 76 S. Cupola, Bolt's Farm, Wells Island	3946.7 707.0	3 5962366 2 8494315
Turning Point No. 76.....	44-21-16.747 75-56-28.467	1696.2 2068.6	48-12-45.8		T. P. No. 77.....	3113.2	3 4932105
Water Tank, Bolt's Farm, Wells Island.	41-20-56.92 75-56-47.28	5764.1 3435.4					
Monument No. 67.....	44-20-54.129 75-57-00.651	5481.6 47.2	72-14-03.5 184-36-00 28-38-24.2	252-13-07.2	Monument No. 68. T. P. No. 77 U. S. L. S. Δ Waterloo.	6143.9 216.5	3 7884491 2 3355281
Turning Point No. 77.....	44-20-56.260 75-57-00.411	5697.2 29.9	66-17-55.4		T. P. No. 78.....	5645.5	3 7668185

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Monument No. 68.....	44-20-35-609 75-58-21-139	3606-0 1537-7	136-59-16-5 296-40-00 69-24-00	316-59-09-4	Monument No. 69. T. P. No. 78. T. P. No. 79.	1083-0 577-4 216-5	3-0846359 2-7614969 2-3356281
Turning Point No. 78.....	44-20-33-050 75-58-14-059	3946-8 1022-0	104-17-05-7	T. P. No. 79. .....	.....	741-6	2-8701775
Turning Point No. 79.....	44-20-34-857 75-58-23-948	3530-2 1740-5	152-54-46-2	T. P. No. 80. .....	.....	1210-2	3-0628637
Monument No. 69.....	44-20-43-429 75-58-31-325	4398-0 2276-9	103-57-58-8 175-55-00	283-57-46-6	Monument No. 70. T. P. No. 80.	1392-5 210-0	3-1147930 2-3221642
Turning Point No. 80.....	44-20-45-497 75-58-31-531	4607-6 2291-3	101-28-09-6	T. P. No. 81. .....	.....	912-7	2-9603266
Monument No. 70.....	44-20-46-533 75-58-48-719	4712-3 3640-3	111-44-09-1 267-53-00 47-15-00	201-43-59-2	Monument No. 71. T. P. No. 81. T. P. No. 82.	1109-2 362-5 144-4	3-0449984 2-5668465 2-1594369
Turning Point No. 81.....	44-20-47-284 75-58-43-841	4787-7 3185-7	69-17-35-7	T. P. No. 82. .....	.....	492-3	2-6922482
Turning Point No. 82.....	44-20-45-566 75-58-50-178	4613-8 3646-6	139-38-32-4	T. P. No. 83. .....	.....	693-3	2-8409222
Monument No. 71.....	44-20-50-589 75-59-02-887	5123-0 210-6	85-23-42-1 267-39-00 72-53-00	265-23-25-6	Monument No. 72. T. P. No. 83. T. P. No. 84.	1722-1 475-7 639-8	3-2960590 2-6773922 2-8060188
Turning Point No. 83.....	44-20-50-782 75-58-56-356	5142-4 4095-8	79-10-31-4	T. P. No. 84. .....	.....	1106-5	3-0439404
Turning Point No. 84.....	44-20-48-730 75-59-11-311	4934-7 821-8	102-22-09-5	T. P. No. 85. .....	.....	533-7	2-7273157

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Stations.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
	° ' "		° ' "	° ' "			
Monument No. 72.....	44-20-49.223 75-59-26.518	4984.6 1927.2	104-07-21.7 263-43-00. 180-00-00. 100-06-00. 101-18-00.	284-06-52.0	Monument No. 73. T. P. No. 85. T. P. No. 86. T. P. No. 87. T. P. No. 88.	3187.9 587.3 36.1 91.9 562.0	3.5035069 2.7688372 1.5573769 1.9631422 2.7497416
Turning Point No. 85.....	44-20-49.859 75-59-18.485	5049.2 1343.2	87-13-44.7		T. P. No. 86.	584.4	2.7667405
Turning Point No. 86.....	44-20-49.580 75-59-26.518	5020.7 1927.2	77-33-55.0		T. P. No. 87.	92.7	1.96668356
Turning Point No. 87.....	44-20-49.383 75-59-27.763	5000.6 2017.4	101-31-49.4		T. P. No. 88.	470.1	2.6722284
Turning Point No. 88.....	44-20-50.311 75-59-34.102	5094.8 2478.3	94-55-25.2		T. P. No. 89.	2281.9	3.35892912
Monument No. 73.....	44-20-56.902 76-00-09.062	5762.1 653.5	35-00-27.4 330-29-00.	215-00-13.2	Monument No. 74. T. P. No. 89.	2569.2 542.0	3.4097980 2.7539942
Turning Point No. 89.....	44-20-52.244 76-00-05.387	5290.0 391.7	53-28-28.0		T. P. No. 90.	2244.7	3.3511604
Monument No. 74.....	44-20-36.121 76-00-29.343	3657.6 2132.2	64-38-04.1 168-02-00.	244-36-31.2	Monument No. 75. T. P. No. 90.	10651.4 303.2	4.0590371 2.4816562

Locality, Saint Lawrence River.

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Turning Point No. 90.....	44-20-89-0500 76-00-30-208	3954.4 2195.5	65-15-00.2	T. P. No. 91.....	10806.1	4-0836699
Lindoe Island Light.....	44-20-59-66 76-00-15-68	6041.7 1139.4					
Rock Island Light.....	44-16-50-19 76-01-02-94	5082.7 213.9					
Monument No. 75.....	44-19-50-871 76-02-42-246	5151.6 3071.2	49-06-37.1 148-32-00. 76-39-10.	229-04-22.6	Monument No. 76..... T. P. No. 91..... Ganaoqe Narrows Light.	18519.2 413.4	4-2676213 2-6163547
Turning Point No. 91.....	44-19-54-383 76-02-45-215	5503.9 3287.1	49-02-45.0	.....	T. P. No. 92.....	17837.5	4-2513945
Ganaoqe Narrows Light..	44-19-27-53 76-04-52-37	2787.7 3807.4					
R. C. Church Spire, Clayton, N. Y.	44-14-19-12 76-05-11-76	1936.0 856.3					
Monument No. 76.....	44-17-51-114 76-05-54-735	5176.2 3981.0	97-33-58.0 201-42-00.	277-33-21.8	Monument No. 77..... T. P. No. 92.....	3798.0 843.8	3-5795529 2-9262552
Turning Point No. 92.....	44-17-58-856 76-05-50-445	5960.6 3688.6	81-18-05.3	.....	T. P. No. 93.....	3935.8	3-5950382
Monument No. 77.....	44-17-56-049 76-06-46-501	5675.8 3381.9	26-13-50.2 329-05-00.	204-13-40.0	Monument No. 78..... T. P. No. 93.....	2405.3 362.9	3-3811751 2-5597383
Turning Point No. 93.....	44-17-52-975 76-06-43-938	5365.1 3195.9	55-23-16.0	.....	T. P. No. 94.....	2021.7	3-3057123
Monument No. 78.....	44-17-34-742 76-07-01-117	3518.0 81.4	102-43-03.6 149-18-00. 131-40-50.	282-42-28.0	Monument No. 79..... T. P. No. 94..... Church of England Spire, Ganaoqe, Ont. Jackstraw Shoal Light.	3728.7 811.7	3-5715559 2-9063839

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.
 Locality, Saint Lawrence River. Date.....

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Dis- tance in Feet.	Loga- rithms.
	° ' "		° ' "	° ' "			
Turning Point No. 94.....	44-17-41.634 76-07-06.814	4215.9 495.4	91-26-36.7	.....	T. P. No. 95.....	2950.5	3.4698992
Jackstraw Shoal Light.....	44-19-31.36 76-07-11.02	3175.8 801.2					
Monument No. 79.....	44-17-42.845 76-07-51.124	4338.9 3718.5	48-19-07.1 280-04-00 156-20-00 138-51-00	228-18-09.1	Monument No. 80..... T. P. No. 95..... T. P. No. 96..... Church of England Spire, Gana- noque, Ont. Jackstraw Shoal Light.	8093.7 277.6 442.3	3.9061486 2.4433546 2.6456741
Turning Point No. 95.....	44-17-42.366 76-07-47.367	4290.7 3445.2	135-10-32.2	.....	T. P. No. 96.....	639.5	2.8058312
Turning Point No. 96.....	44-17-46.845 76-07-53.565	4743.4 3895.3	54-34-43.1	.....	T. P. No. 97.....	9845.5	3.9932389
Presbyterian Church Spire, Gananoque, Ont.	44-19-42.93 76-09-40.75	4547.4 2962.2					
Monument No. 80.....	44-16-49.687 76-09-14.212	5031.5 1083.8	16-07-48.1 92-08-00 120-23-30 167-59-00	196-07-10.6	Monument No. 81..... T. P. No. 97..... Church Spire, Howe Island. Burnt Island Light. Church of England Spire, Gana- noque, Ont.	14085.2 2157.5	4.1487619 3.3339460

Turning Point No. 97.....	44-16-50-480 76-09-43-847	5111.9 3190.3	02-30-16-5	T. P. No. 98.....	14923.8	4-1738810
Monument No. 81.....	44-14-36-067 76-10-07-965	3652.2 579.7	42-49-55-3 319-38-00 67-58-00 274-31-20	222-48-51-2 Monument No. 82..... T. P. No. 98..... Wolfe Island Light..... R. C. Church Spire, Clayton, N. Y.....	9636.2 1704.1	3-9928262 3-2314861
Turning Point No. 98.....	44-14-23-246 76-09-52-805	2854.3 3844.2	46-59-25-5	T. P. No. 99.....	9827.8	3-9924546
Burnt Island Light.....	44-17-46-88 76-11-30-06	4747.4 2185.7				
Methodist Church Spire, Gan- anoque, Ont.	44-19-41-00 76-10-07-00	4151.9 508.9				
Wolfe Island Light.....	44-14-19-85 76-11-03-69	2010.2 268.7				
Spectacle Shoal Light.....	44-18-40-56 76-11-01-21	4107.3 87.9				
Red Horse Rock Light.....	44-18-09-17 76-11-27-32	928.5 1986.9				
Monument No. 82.....	44-13-24-824 76-11-39-793	2513.8 2898.0	53-32-00-4 322-31-00 23-25-10 258-54-40	233-31-25-1 Monument No. 83..... T. P. No. 99..... Church Spire, Riverview, N. Y..... R. C. Church Spire, Clayton, N. Y.....	4589.9 994.1	3-6618075 2-9974268
Turning Point No. 99.....	44-13-17-034 76-11-31-486	1724.4 2293.3	59-21-07-1	T. P. No. 100.....	4602.7	3-6630142
Monument No. 83.....	44-12-57-881 76-12-30-475	5801.2 2219.5	69-59-34-8 320-25-00	249-59-00-6 Monument No. 84..... T. P. No. 100.....	10471.9 528.2	4-0200265 2-7228101
Turning Point No. 100.....	44-12-53-860 76-12-25-864	5454.1 1882.9	68-11-26-2	T. P. No. 101.....	10914.4	4-0380002

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.
 Locality, Saint Lawrence River.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Roman Catholic Church Spire, Wolfe Island.	44-12-22-92 76-14-27-66	3333.7 2014.8	0 / °	0 / °			
Church Spire, Riverview, N. Y.	44-10-18-91 76-14-30-17	1915.0 2198.8					
Monument No. 84	44-12-22-478 76-14-45-558	2276.2 3318.6	89-04-12.2 357-09-00. 354-52-50.	269-02-28.8	Monument No. 85. T. P. No. 101. Church Spire, Riverview, N. Y.	10808.0 880.6	4-0337316 2-9447667
Turning Point No. 101	44-12-13-793 76-14-44-957	1396.3 3275.3	89-54-50.7		T. P. No. 102.	10804.6	4-0336106
Monument No. 85	44-12-20-719 76-17-13-905	2098.1 1013.1	78-23-08.0 356-22-00. 34-17-50. 315-56-20.	258-22-10.6	Monument No. 86. T. P. No. 102. Carleton Island Light. Church Spire, Riverview, N. Y.	6120.8 721.8	3-7563051 2-8584069
Turning Point No. 102	44-12-13-606 76-17-13-277	1378.3 967.5	75-44-56.2		T. P. No. 103.	7045.3	3-8478988
Monument No. 86	44-12-08-542 76-18-36-205	864.8 2637.5	26-09-30.0 32-46-00. 01-34-40. 270-03-10.	206-07-36.6	Monument No. 87. T. P. No. 103. Carleton Island Light. Red Water Tank at Cape Vincent, N. Y.	26916.5 1454.1	4-4300190 3-1625840

Turning Point No. 103.....	44-11-56-468/ 76-18-47-007	5718-2 3424-9	24-04-10-1	T. P. No. 104.....	25833-5	4-4121828
Cape Vincent Breakwater, East End Light.	44-07-55-91 76-19-55-89	5661-7 4076-4				
Cape Vincent Breakwater, West End Light.	44-07-53-36 76-20-07-23	5163-5 527-2				
Church of England Spire, Cape Vincent, N. Y.	44-07-29-19 76-20-08-39	2955-7 611-9				
Presbyterian Church Spire, Cape Vincent, N. Y.	44-07-40-49 76-20-07-90	4100-0 576-1				
R. C. Church Spire, Cape Vincent, N. Y.	44-07-27-97 76-20-22-80	2832-3 1663-1				
Carleton Island Light.....	44-10-50-74 76-18-39-18	5138-1 2855-3				
Monument No. 87.....	44-08-09-927 76-21-18-912	1005-2 1379-3	57-07-44-5 390-07-00- 17-22-30- 287-47-00- 316-04-10-	237-04-10-6 Monument No. 88. T. P. No. 104..... Tibbetts Point Light. Cape Vincent Breakwater, West End Light. R. C. Church Spire, Cape Vincent, N. Y.	26697-5 846-5	4-4264710 2-9276039
Turning Point No. 104.....	44-08-03-513 76-21-11-470	355-3 836-6	57-02-19-0	T. P. No. 105.....	26956-6	4-4306652
Tibbetts Point Light.....	44-06-02-361 76-22-14-301	238-8 1043-6				
Monument No. 88.....	44-05-46-718 76-25-26-166	4731-0 1909-4	265-03-00- 337-04-00-	Tibbetts Point Light. T. P. No. 105.....	897-0	2-9527827
Turning Point No. 105.....	44-05-38-560 76-26-21-377	3904-8 1560-4	29-19-59-2	T. P. No. 106.....	198346-1	5-2863354

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Locality, Lake Ontario.		Date.....					
Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Oswego Light.....	° ' " 43-27-53.954 76-30-49.770	5462.9 3670.6	° ' " 128-58-47.9	° ' " 0 ' "	T. P. No. 106.....	96450	4.9843020
Turning Point No. 106.....	° ' " 43-37-51.908 76-47-49.187	5255.9 3617.4	Due West..	Due East..	T. P. No. 107.....	501368	5.7001740
Thirtymile Point Light.....	° ' " 43-22-29.598 78-29-10.606	2996.7 783.5	149-55-48.1		T. P. No. 107.....	107985	5.0333624
Turning Point No. 107.	° ' " 43-37-51.908 78-41-26.259	5255.9 1931.1	64-13-23.8		T. P. No. 108.....	150480	5.1774788
Fort Niagara Light.....	° ' " 43-15-42.048 79-03-38.774	4257.2 2869.1	151-36-10.6		T. P. No. 108.....	78240	4.8934289
Turning Point No. 108.....	° ' " 43-27-01.507 79-12-03.178	152.6 294.6	333-08-29.9		T. P. No. 109.....	76313	4.8854324
Locality, Niagara River.		Date.....					
Fort Niagara Light.....	° ' " 43-15-42.048 79-03-38.774	4257.2 2869.1	95-15-00.		T. P. No. 109.....	2632.5	3.4208751
Turning Point No. 109.....	° ' " 43-15-44.426 79-04-14.201	4498.4 1050.9	306-11-45.3		T. P. No. 110.....	4770.0	3.6785308

Monument No. 1.....	43-15-05-360 79-03-32-064	542-61 2873-4	338-42-59-2 212-43-05-0 313-42-02-1 172-24-08-1 237-57-55 276-19-35 304-04-35	138-43-16-3 Monument No. 2..... T. P. No. 110 T. P. No. 111 Fort Niagara Light..... Water Tank, Villa St. Vincent. Standpipe, Youngstown. Methodist Church Spire, Youngs- town. Niagara-on-the-Lake Front Range Light. Storm Signal Station, Fort Niagara.	5077-8 1352-6 1473-5 3753-2	3-7056773 3-1311804 3-1683470 3-5744312
Turning Point No. 110.....	43-15-16-600 79-03-22-185	1680-8 1641-4	159-05-55 159-54-15		2181-7	3-3388118
Turning Point No. 111.....	43-14-55-305 79-03-17-671	5539-1 1307-7	04-48-11-2		3535-4	3-5484385
Catholic Church Spire, Nia- gara-on-the-Lake.	43-15-13-56 79-04-04-57	1373-0 338-3				
Niagara-on-the-Lake, Back Range Light.	43-15-13-58 79-03-38-35	1375-0 2838-2				
Court House Flagpole, Nia- gara-on-the-Lake.....	43-15-17-26 79-04-20-01	1747-4 1481-0				
Presbyterian Church Spire, Niagara-on-the-Lake.	43-15-18-57 79-04-48-62	1880-2 3598-4				
Niagara-on-the-Lake, Front Range Light.	43-15-19-43 79-03-43-13	1967-2 3191-9				
Cupola, Queen's Royal Hotel, Niagara-on-the-Lake.	43-15-30-12 79-04-14-74	3049-5 1060-9				
Storm Signal Station, Fort Niagara.	43-15-43-82 79-03-51-32	4436-7 3797-6				

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Monument No. 2	° ' " 43-14-18.627 79-03-07.165	1885.8 530.5	° ' " 15-51-34.8 100-04-00 137-16-15	° ' " 195-51-20.8	Monument No. 3 T. P. No. 112 Center line of Chimney at Water-works, Niagara-on-the-Lake, Water Tank, Fort Niagara.	5527.7 1090.5	3.7425477 3.0376452
Turning Point No. 112	° ' " 43-14-20.599 79-03-21.670	2076.4 1604.3	° ' " 352-41-02.1		T. P. No. 113	5745.4	3.7593157
Monument No. 3	° ' " 43-13-26.108 79-03-27.567	2643.4 2041.0	° ' " 343-25-12.8 279-16-00	° ' " 163-25-26.3	Monument No. 4 T. P. No. 113	5118.2 1183.7	3.7091112 3.0732507
Turning Point No. 113	° ' " 43-13-24.225 79-03-11.789	2452.1 873.0	° ' " 11-03-21.2		T. P. No. 114	4381.2	3.6885234
Monument No. 4	° ' " 43-12-37.658 79-03-17.847	3812.7 581.0	° ' " 01-53-18.3 86-28-00 135-26-10 176-26-55 163-06-25	° ' " 181-53-17.1	Monument No. 5 T. P. No. 114 Water Tank at Jackson's Farm, Flappole, Fort Niagara, Windmill, Ft. Elmor.	3823.5 1230.3	3.5824621 3.0900155
Turning Point No. 114	° ' " 43-12-36.909 79-03-24.428	3736.9 1809.1	° ' " 330-28-15.2		T. P. No. 115	4255.6	3.6239434
Cross on Stella Niagara	° ' " 43-12-01.40 79-02-28.28	141.7 2094.5					

Localty, Niagara River.

Date

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Dis- tance in Feet.	Loga- rithms.
Methodist Church Spire, Queenston, Ont.	0 / / 43-09-52.61 79-03-16.73	5326.4 1239.8	0 / /	0 / /			
Monument No. 8.	43-09-44.488 79-02-41.951	4504.3 3109.2	348-36-35.1 88-00-00 69-14-40 107-40-55	168-36-40.9	Monument No. 9 T. P. No. 119 Brock's Monument Methodist Church Spire, Queenston.	3184.1 498.7	3.5029370 2.6978278
Turning Point No. 119.	43-09-44.316 79-02-48.675	4486.9 3607.6	349-11-10		T. P. No. 120	2393.8	3.3790932
Brock's Monument.	43-09-36.235 79-03-11.736	3668.6 870.7					
Monument No. 9.	43-09-13.658 79-02-33.468	1382.9 2481.0	27-40-42.4 137-59-00 33-46-48.6 128-52-05	207-40-34.4	Monument No. 10 T. P. No. 120 T. P. No. 121 Brock's Monument	1800.1 1013.1 868.8	3.2695341 3.0056615 2.9383310
Turning Point No. 120.	43-09-21.092 79-02-42.616	2136.2 3159.1	352-27-36.1		T. P. No. 121	1487.5	3.1724561
Turning Point No. 121.	43-09-06.527 79-02-39.983	661.1 2963.9	338-35-53.0		T. P. No. 122	1019.0	3.0081897

Locality, Niagara River.

Date.....

Monument No. 10	43-08-57-388 79-02-40-123	5810-4 3345-1	320-29-02-01 202-23-00 271-47-00 298-52-30 337-17-45	140-29-15-8 T. P. No. 121 T. P. No. 122 Water Tank, U. S. Shore Cross on Niagara University.	Monument No. 11 T. P. No. 121 T. P. No. 122 Water Tank, U. S. Shore Cross on Niagara University.	2352-01 1000-6 753-3	2-3714427 3-0602840 2-8769561
Turning Point No. 122	43-08-57-156 79-02-34-967	5787-4 2592-5	356-04-24-7	T. P. No. 123	T. P. No. 123	2050-5	3-3118960
Monument No. 11	43-08-39-466 79-02-24-987	3995-7 1848-7	41-45-27-4 67-06-00 148-52-40 167-32-40 355-54-10	221-45-11-7 Brock's Monument Water Tank, Bottle Works Cross, Niagara University.	Monument No. 12 T. P. No. 123 Brock's Monument Water Tank, Bottle Works Cross, Niagara University.	2559-8 654-9	3-4082034 2-8161447
Turning Point No. 123	43-08-36-949 79-02-33-073	3740-8 2452-1	10-49-47-2	T. P. No. 124	T. P. No. 124	1951-4	3-2903515
Monument No. 12	43-08-20-605 79-02-47-929	2086-0 3553-8	15-20-30-0 289-37-00 276-36-55 327-45-40 349-55-55	195-29-33-0 T. P. No. 124 Cross, Niagara University Water Tank, U. S. Shore Stack, U. S. Light and Heat Co.	Monument No. 13 T. P. No. 124 Cross, Niagara University Water Tank, U. S. Shore Stack, U. S. Light and Heat Co.	2453-0 780-2	3-3896969 2-8521961
Turning Point No. 124	43-08-18-018 79-02-38-018	1824-5 2819-2	52-35-27-3	T. P. No. 125	T. P. No. 125	1955-0	3-2911604
Cross on Niagara University	43-08-18-48 79-02-22-90	1871-1 1697-8					
Monument No. 13	43-07-57-257 79-02-56-766	5796-9 4209-0	64-41-42-6 169-54-00 69-32-00 160-43-00	244-41-20-3 T. P. No. 125 T. P. No. 126 Water Tank, Larkin's Farm.	Monument No. 14 T. P. No. 125 T. P. No. 126 Water Tank, Larkin's Farm.	2672-5 928-5 1045-3	3-4269165 2-9677706 3-0192300
Turning Point No. 125	43-08-06-286 79-02-58-961	636-8 4372-0	32-32-28-5	T. P. No. 126	T. P. No. 126	1517-7	3-1812212
Turning Point No. 126	43-07-53-648 79-03-09-971	5431-7 739-2	26-55-23-8	T. P. No. 127	T. P. No. 127	928-1	2-9676834

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.
 Locality, Niagara River.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Monument No. 14	43-07-45.973 79-03-29.346	4654.5 2176.2	33-19-42.0 272-51-00 345-59-00 19-40-00 35-11-50 236-15-40	213-19-22.0	Monument No. 15. T. P. No. 127 T. P. No. 128 T. P. No. 129 Observatory Tower, Lundy's Lane. Cross, Niagara University. T. P. No. 128	3959.9 1017.7 928.5 1173.9	3.5970890 3.0070260 2.9677706 3.0699245
Turning Point No. 127	43-07-45.473 79-03-15.639	4603.7 1159.8	42-57-23.1		T. P. No. 128	1161.7	3.0651127
Turning Point No. 128	43-07-37.075 79-03-26.314	3754.3 1951.1	71-44-30.9		T. P. No. 129	652.9	2.8147661
Turning Point No. 129	43-07-35.055 79-03-34.673	3549.5 2571.2	50-37-47.4		T. P. No. 130	3536.7	3.5486082
Monument No. 15	43-07-13.292 79-03-58.681	1345.8 4352.4	337-09-55.9 87-35-00 03-09-15	157-10-04.7	Monument No. 16. T. P. No. 130 St. Andrew's Church Spire, Niagara Falls, Ont. Water Tank, Wm. Rogers Silver Co., Niagara Falls, Ont. Water Tank of Grand Trunk Ry., Niagara Falls, Ont. T. P. No. 131	2474.3 954.4	3.3934567 2.9797279
Turning Point No. 130	43-07-12.894 79-04-11.557	1305.1 856.0	309-10-13.2		T. P. No. 131	2440.6	3.3875245

Monument No. 16.....	43-06-50-768 79-03-45-736	5139-8 3892-4	314-55-53-1 178-14-00- 280-03-00- 310-59-35- 320-20-20- 350-34-50-	134-56-05-9	Monument No. 17..... T. P. No. 131..... T. P. No. 132..... Flagpole, Post Office, Suspension Bridge, N. Y. Congregational Church Spire, Sus- pension Bridge, N. Y. Water Tank of Wm. Rogers Silver Co., Niagara Falls, Ont.	1966-01 3-2935866 698-8 2-8443638 645-0 2-8095677
Turning Point No. 131.....	43-06-57-666 79-03-46-026	5838-6 3414-0	321-00-27-6	.....	T. P. No. 132.....	1043-6 3-0185082
Turning Point No. 132.....	43-06-49-655 79-03-37-174	5027-9 2757-2	340-04-01-3	.....	T. P. No. 133.....	1142-0 3-0577113
Monument No. 17.....	43-06-37-053 79-03-26-973	3751-3 2061-0	24-00-42-8 118-48-00- 07-40-00- 51-19-15- 106-16-45- 295-27-15-	204-00-15-4	Monument No. 18..... T. P. No. 133..... T. P. No. 134..... P. O. Flagpole, Niagara Falls, Ont. Water Tank, Wm. Rogers Silver Co., Niagara Falls, Ont. Old P. O. Flagpole at Suspension Bridge, N. Y.	7307-3 3-8637572 419-3 2-6225150 1202-4 3-0800582
Turning Point No. 133.....	43-06-39-050 79-03-31-925	3053-4 2367-8	351-32-58-0	.....	T. P. No. 134.....	1408-8 3-1488878
Stack, Acme Process, Niagara Falls, N. Y.	43-05-37-03 79-03-38-79	3749-0 2878-3	.....	.....	.....	.....
Water Tank of Wm. Rogers Silver Co., Niagara Falls, Ont.	43-06-40-57 79-03-43-43	4107-3 3221-4	.....	.....	.....	.....
Flagpole of Malting Co., Sus- pension Bridge, N. Y.	43-06-38-65 79-03-19-54	3913-0 1449-5	.....	.....	.....	.....
Flagpole on Old P. O. Suspen- sion Bridge, N. Y.	43-06-34-92 79-03-20-87	3635-4 1548-2	.....	.....	.....	.....

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.
 Locality, Niagara River.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Flagpole on P. O. Niagara Falls, Ont.	43-06-27.74 79-03-42.84	2808.4 3178.1	0 / 0	0 / 0			
Turning Point No. 134.....	43-06-25.285 79-03-29.134	2559.4 2151.1	21-09-16.6	.....	T. P. No. 135.....	6158.1	3.7894527
Stack, Dominion Suspender Co., Niagara Falls, Ont.	43-06-24.69 79-03-41.64	2499.7 3089.2					
Christ Church Spire, Niagara Falls, Ont.	43-06-17.00 79-03-42.64	1721.1 3163.4					
Congregational Church Spire, Suspension Bridge, N. Y.	43-06-24.64 79-03-16.18	2194.7 1200.1					
Monument No. 18.....	43-05-31.122 79-04-07.046	3150.9 523.0	02-48-24.9 293-43-00. 59-30-30.	182-48-23.9	Monument No. 19..... T. P. No. 135..... Water Tank, Clifton Hotel, Niagara Falls, Ont.	2276.2 .645-3	3.3572036 2.8697886
			214-52-00. 316-49-00. 340-25-00.	..... ..... .....	Congregational Church Spire, Suspension Bridge, N. Y. Methodist Church Spire, Niagara Falls, N. Y. Museum Flagpole, Niagara Falls, N. Y.		

Turning Point No. 135.....	43-05-28-588 79-03-59-084	2891-4 4353-8	43-03-23-0	T. P. No. 136.....	1397-8	3-145467
Methodist Church Spire, Niag- ara Falls, N. Y.	43-05-12-84 79-03-43-64	1299-9 3238-5				
Water Tank, Clifton Hotel, Niagara Falls, Ont.	43-05-26-29 79-04-18-25	2661-7 1354-3				
Monument No. 19.....	43-05-08-667 79-04-08-548	877-6 634-5	45-40-45-5 165-45-00 44-46-50 157-59-50	Monument No. 20..... T. P. No. 136. Spire, Loretto Abbey. Water Tank, Clifton Hotel, Nia- gara Falls, Ont.	3553-2 1024-0	3-5506256 3-0102780
Turning Point No. 136.....	43-05-18-470 79-04-11-946	1870-1 885-8	30-36-01-2	T. P. No. 137.....	2931-3	3-4670630
West Stack, Union Carbide Co.	43-05-02-76 79-00-27-00	279-5 5003-6				
Monument No. 20.....	43-04-44-145 79-04-42-800	4469-5 3176-5	94-13-35-0 219-57-43-1 290-18-20-7 42-43-45 174-87-15 203-08-00	Monument No. 21..... T. P. No. 137 .. T. P. No. 138..... Cross, Loretto Abbey. Table Rock Observation Tower. Water Tank, Clifton Hotel, Nia- gara Falls, Ont.	1668-6 1242-1 1215-2	3-2223484 3-0941490 3-0847208
Turning Point No. 137.....	43-04-53-549 79-04-32-051	5421-6 2378-6	346-01-00-3	T. P. No. 138.....	1415-7	3-1509650
West Stack of International Paper Co.	43-04-54-03 79-02-51-72	5470-1 3638-2				
West Stack of Hooker Co.....	43-04-48-55 79-00-30-85	4915-3 2289-7				
West Stack of Ramapo Iron Works.	43-04-48-29 79-00-48-62	4889-1 3608-3				

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.
 Locality, Niagara River.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Table Rock Observation Tower	° ' " 43-04-50.63 79-04-43.63	5126.0 3238.2	° ' " 0 0 0	° ' " 0 0 0			
Turning Point No. 139.	43-04-39.980 79-04-27.442	4048.9 2036.6	283-41-37.3		T. P. No. 139	18339.5	4.9633876
Cross on Loretto Abbey.	43-04-32.79 79-04-57.11	3319.9 4238.8					
Monument No. 21.	43-04-45.359 79-04-20.379	4592.2 1512.5	232-24-04.5 133-45-00. 43-54-28.6 64-58-30.	112-26-44.5	Monument No. 22. T. P. No. 137. T. P. No. 138. Cross on Loretto Abbey.	18660.0 1199.1 756.9	4.2755493 3.0788716 2.8784630
Monument No. 22.	43-03-34.300 79-00-25.511	3472.8 1894.0	298-41-02.7 176-29-00. 167-09-00. 176-56-00.	118-41-27.8	Monument No. 23. T. P. No. 139. E. Stack, Ramapo Iron Works. Stack, Hooker Electro Chemical Co. Stack, Carbide Co. Intake, Filtration Plant.	3114.5 2305.4	3.4933889 3.3627541
Turning Point No. 139.	43-03-57.028 79-00-27.416	5773.9 2035.4	330-11-10.4		T. P. No. 140	4169.6	3.6201063

Monument No. 23.....	43-03-19-533 78-09-48-711	1977-7 3616-5	55-26-00-51 102-33-00- 153-45-15- 153-48-10- 160-55-00- 25-22-49-4	235-22-28-1 T. P. No. 140..... W. Stack, Rampo Iron Works, E. Stack, " Stack, Hooker Electro Chemical Co. T. P. No. 141.....	4276-3 820-2	3-6310642 2-9139242
Turning Point No. 140.....	43-03-21-233 78-09-50-494	2155-5 4416-7	01-10-51-8 295-41-00- 14-49-35-6	Monument No. 24..... T. P. No. 141.....	3528-2	3-5475644
Monument No. 24.....	43-02-55-536 79-00-36-105	5622-7 2681-1	51-14-55-5 130-28-00- 163-18-15- 33-28-29-0	Monument No. 25..... T. P. No. 141..... T. P. No. 142.....	7499-5 1338-6 6817-6	3-8750301 3-1266444 3-8336330
Turning Point No. 141.....	43-02-49-806 79-00-19-860	5043-0 1474-7	231-14-03-6 187-19-31-5 326-44-03-5	Monument No. 26..... T. P. No. 142..... Stack, Alkali Works, Niagara Falls, N. Y. T. P. No. 143.....	7241-3 503-9 5623-7	3-8598184 2-7023704 3-7500215
Monument No. 25.....	43-01-41-478 79-00-38-186	4199-5 2836-6	333-27-05-4 265-31-00- 267-14-50- 353-40-13-4	Monument No. 27..... T. P. No. 143..... Flagpole, Cook Point T. P. No. 144.....	8283-0 2168-6 7571-0	3-9181886 3-3361857 3-8960288
Turning Point No. 142.....	43-01-44-708 79-00-43-347	4526-6 3219-8	07-19-38-9 70-03-00- 326-44-03-5	Monument No. 28..... T. P. No. 144..... T. P. No. 145.....	6298-0 714-6 4155-2	3-7992012 2-8540421 3-0185941
Monument No. 26.....	43-00-56-701 79-01-54-198	5740-5 4026-6	284-23-52-4 223-38-00- 4283-2 1129-3	Monument No. 29..... T. P. No. 145.....	13162-0 3493-4	4-1169303 3-6482622
Turning Point No. 143.....	43-00-58-373 79-01-25-098	5909-4 1864-8				
Monument No. 27.....	42-59-43-511 79-01-04-384	4405-2 325-8				
Turning Point No. 144.....	42-59-41-103 79-01-13-422	4161-1 987-4				
Monument No. 28.....	42-58-41-812 79-01-15-189	4283-2 1129-3				

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Turning Point No. 145.	42-59-06.785 79-00-42.759	686.4 3178.5	301-30-49.8	° ' "	T. P. No. 146.	11505.2	4.0609060
Monument No. 29.	42-58-09.450 78-58-23.724	956.7 1703.8	342-49-45.2 68-13-00 125-00-30 359-16-40	162-50-05.3	Monument No. 30. T. P. No. 146. Flagpole, Club Island Hotel. Water Tank, Ship Yard, Ont.	7437.7 569.6	3.8714966 2.7555389
Turning Point No. 146.	42-58-07.362 78-58-30.837	745.1 2293.0	318-17-24.3	° ' "	T. P. No. 147.	5335.5	3.7271840
Monument No. 30.	42-56-59.259 78-57-54.201	5999.3 4031.2	274-50-34.6 195-50-00 111-02-20 208-56-35 209-10-50 261-50-05	94-51-49.4	Monument No. 31. T. P. No. 147. Water Tank, Ship Yard, Ont. N. Stack Wickwire Steel Plant. S. " " Strawberry Island Upper Cut Rear Range Light.	8196.9 3026.2	3.9136515 3.4809035
Turning Point No. 147.	42-57-28.016 78-57-43.098	2836.6 3205.0	274-54-32.8	° ' "	T. P. No. 148.	7795.0	3.8918303

Date.....

Monument No. 31.....	42-56-52-409 78-56-04-386	5305-8 326-1	313-50-07-6 188-15-00 271-49-49-1 173-28-30 183-56-30 246-33-30 295-52-00 305-38-50	133-50-27-3 T. P. No. 148 Monument No. 32 (Strawberry) W. Stack, Wickwire Steel Plant. Strawberry Island Lower Cut Rear Range Light. Strawberry Island Upper Cut Rear Range Light. St. Francis Church Spire, Black Rock. Red Gas Tank, Black Rock.	2975-3 2967-2 4820-9	3-4735321 3-4723448 3-6831289
Turning Point No. 149.	42-57-21-414 78-55-58-661	2167-7 4362-2	311-59-15-4	T. P. No. 149	4868-9	3-6874301
Monument No. 32, (Mainland)	42-56-32-051 78-55-35-533	3245-1 2643-0	332-18-47-6 227-30-00 304-48-50 221-23-30	152-19-21-2 Monument No. 33. T. P. No. 149 T. P. No. 150 Strawberry Island Upper Cut Rear Range Light. Monument No. 32, (Strawberry) Red Gas Tank Black Rock.	7901-7 2575-5 5490-5	3-8972223 3-4198339 3-7396033
Turning Point No. 149.	42-56-49-239 78-55-10-004	4985-2 743-8	331-50-54-5	T. P. No. 150	5528-7	3-7426230
Turning Point No. 150.	42-56-01-089 78-54-34-941	110-2 2599-4	345-47-50-7	T. P. No. 151	3738-5	3-5726985
Center of Swing Span, International Bridge.....	42-55-45-948 78-54-23-726	4651-9 2211-6	175-40-43-6 132-52-54-1	355-40-41-2 Hertel 312-52-33-2 Hoyt	3491-8 3118-8	3-5430458 3-4939629
Monument No. 32, (Strawberry).....	42-56-50-883 78-51-59-002	5151-2 4433-1	353-36-17-1 96-18-15 07-11-45 315-06-15 339-33-00	173-36-26-2 Monument No. 33. Water Tank, Ship Yard, Ont. Standpipe, Bridgeburg St. Francis Church Spire, Black Rock. Water Tank, Thomas Motor Car Co., Buffalo, N. Y.	8959-3	3-9522734

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.
 Locality, Niagara River. Date.....

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
	° ' "		° ' "	° ' "			
Monument No. 33.	42-55-22-939 78-54-46-190	2322.5 3437.0	336-38-57.5 192-13-31.2 262-16-00. 214-25-50.	156-39-26.9	Monument No. 34. T. P. No. 150. T. P. No. 151. St. Francis Church Spire, Black Rock.	8115.8 3962.0 1770.3	3-9063318 3-5968128 3-2480561
Turning Point No. 151.	42-55-25-291 78-54-22-613	2560.4 1682.4	239-20-20. 325-57-20. 359-45-11.6		Red Gas Tank, Black Rock. Niagara River Rear Range Light. T. P. No. 152.	8553.8	3-9321606
Monument No. 34.	42-54-09-339 78-54-02-972	945.5 221.1	86-30-17.0 58-46-00. 26-31-30. 59-58-10. 12-10-30. 341-47-50.	266-29-36.1	Monument No. 35. T. P. No. 152. Horseshoe Reef Light. Monument Fort Erie Ruins. Standpipe, Fort Erie. Buffalo Light.	4484.6 1666.7	3-6517247 3-2218479
Turning Point No. 152.	42-54-00-802 78-54-22-118	81.0 1646.3	20-17-57.9		T. P. No. 163.	7384.4	3-8683146
Monument No. 35.	42-54-06-634 78-55-03-111	671.6 231.6	280-56-52.7 265-14-40. 287-08-42. 291-50-05.		T. P. No. 152. Flagpole, 74th Armoury. St. Michael's Church Spire, Buffalo, N. Y. Tower, General Electric Building, Buffalo, N. Y.	3107.9	3-4924580

Horseshoe Reef Light.....	42-52-52-392 78-54-55-182	5304.8 4107.9	301-22-40- 550-23-40- 355-31-40-	Tower, City Hall, Buffalo, N. Y. New Intake Light, Buffalo, N. Y. Horseshoe Reef Light.	100 1000	2-00000000 3-00000000
Turning Point No. 153.....	42-52-52-392 78-54-56-525	5304.4 4206.3	90-00-00- 15-43-13-7	T. P. No. 153. T. P. No. 154.	100 977.7	2-9901862
Stack, Tonawanda Iron and Steel Co.....	43-02-12-29 78-53-13-35	1244.0 991.4	10-04-15-4	T. P. No. 154.		
Stack, Upper Water Works, Tonawanda.....	43-01-14-28 78-53-06-81	1445.5 506.2				
Stack on Brewery, Tona- wanda.....	43-00-47-03 78-53-53-01	4760.8 3938.3				
Cupola, Electric Beach Hotel, Grand Island.	43-00-46-98 78-55-01-31	4756.4 96.7				
Flagpole, District School No. 1, Grand Island, N. Y.	42-59-57-56 78-56-27-11	5827.0 2014.3				
Stack, Wickwire Steel Plant, Rattlesnake Island, N. Y.	42-58-59-09 78-56-23-92	5982.5 1777.1				
Flagpole, Island Park Club...	42-58-34-66 78-59-12-74	3509.2 947.2				
Cupola, Bedell House, Grand Island.	42-58-23-24 78-56-43-46	2352.4 3230.9				
Flagpole on House, Beaver Island.	42-57-33-20 78-57-36-98	3361.2 2750.0				
Water Tank, Ship Yard, Ont. (Larger of two.)	42-57-07-30 78-58-22-67	739.2 1686.0				

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Locality, Niagara River.							
Cross on St. Francis Church, Black Rock.	° ' " 42-56-09.17 78-54-03.06	928.5 227.7	□ ' "	□ ' "			
Red Gas Tank, Black Rock...	42-55-44.78 78-53-56.06	4533.5 4170.9					
Presbyterian Church Spire, Bridgeburg.	42-55-44.29 78-54-53.40	4484.2 3972.8					
School Tower, Fort Erie...	42-54-39.45 78-54-52.86	3993.4 3983.7					
Niagara River Rear Range Light.	42-54-33.53 78-54-00.77	3394.7 57.4					
North Chimney of Old Pumping Station, Buffalo, N. Y.	42-54-30.06 78-54-05.47	3043.3 407.2					
Northwest Stack of New Pumping Station, Buffalo, N. Y.	42-53-46.45 78-54-01.03	4702.7 76.8					
Buffalo North Breakwater, Southend Light.	42-52-49.46 78-53-45.50	5007.2 3387.8					
Buffalo Light	42-52-39.97 78-53-23.00	4046.9 1712.9					

Locality, Lake Erie.	Date					
Buffalo Old " Breakwater, Northend Light.	42-52-39-24 78-53-56-16	3972.8 4181.7				
New Intake Light, Buffalo, N. Y.	42-52-46-33 78-54-44-59	4690.4 3320.0				
Horseshoe Reef Light.....	42-52-52-392 78-54-55-182	5304.8 4107.9	15-43-13-7 15-43-13-7	T. P. No. 154 T. P. No. 155	1000. 20004	3-0000000 4-3024175
Turning Point No. 154.....	42-52-42-884 78-54-58-821	4341.5 4379.9	15-43-13-7	T. P. No. 155	19064	4-2802128
Turning Point No. 155.....	42-49-41-616 78-56-08-131	4213.2 006.0	63-10-28-4	T. P. No. 156	346460	5-5396538
Long Point Light.....	42-33-00-205 80-03-20-402	20.7 1526.9	06-35-46-4	T. P. No. 156	57442	4-7502296
Presqu' Isle Light.....	42-09-56-299 80-06-55-499	5699.1 4179.4	186-33-21-4	T. P. No. 156	83580	4-9221024
Turning Point No. 156.....	42-23-36-530 80-04-48-334	3697.8 3627.0	78-15-48-9	T. P. No. 157	322577	5-5086332
Fairport Light.....	41-45-24-566 81-16-38-788	2486.5 2940.0	182-59-13-9	T. P. No. 157	164452	5-2160385
Turning Point No. 157.....	42-12-26-973 81-14-44-919	2730.3 3380.9	58-41-21-2	T. P. No. 158	308279	5-5661774
Pelce Passage Light.....	41-51-08-070 82-34-59-168	816.9 4478.3	321-36-42-8	T. P. No. 158	81642	4-9119153
Turning Point No. 158.....	41-40-35-313 82-23-51-101	3574.1 3877.9	Due West. Due East.	T. P. No. 159	77106	4-8870882

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Middle Inland Light.	° ' " 41-41-00-012 82-40-47-147	1.3 3577.4	° ' " 00-00-00.	° ' "	T. P. No. 159.	2500.	3.3979400
Turning Point No. 159.	° ' " 41-40-35-313 82-40-47-147	3574.1 3577.7	122-48-41.7	. . . . .	T. P. No. 160.	126206.	5.1010311
Colchester Reef Light.	° ' " 41-55-56-236 82-53-31-277	5632.2 2364.2	62-35-35.2	. . . . .	T. P. No. 160.	54351.	4.7352075
Toledo Harbor Light.	° ' " 41-45-42-543 83-19-44-327	4306.1 3359.4	242-18-05.7	. . . . .	T. P. No. 160.	79941.	4.9027684
Turning Point No. 160.	° ' " 41-51-48-582 83-04-08-931	4917.3 675.9	161-18-07.3	. . . . .	T. P. No. 161.	68262.	4.8841765
Presque Isle, Pierhead Light.	° ' " 42-09-18-884 80-04-21-183	1911.4 1585.5					
Erie Light No. 1.	° ' " 42-09-06-312 80-04-52-657	639.1 3966.5					
Erie Light No. 2.	° ' " 42-09-11-394 80-04-43-206	1153.5 3254.6					

Locality, Lake Erie.

Date.....

Locality, Detroit River.

Date

Monument No. 1	42-01-36 961 83-11-00 136	3741 5 10 2	240-53-24 6 240-53-24 6 309-33-19 6	60-56-07 0	Monument No. 2	20986 3 10468 1	4 320004 4 0198702
Turning Point No. 161	42-02-27 254 83-08-58 932	2758 2 4446 5	193-51-25 1		T. P. No. 162	31696 3	4 5010064
Detroit River Light Station (U.S.L.S.)	42-00-03 295 83-08-23 154	333 7 2126 0					
Monument No. 2	42-03-17 510 83-06-57 675	1772 6 4351 0	181-00-37 8 60-56-07 0 108-04-21 2	01-00-41 9	Monument No. 3	26227 8 10468 1 69 8	4 4187603 4 0198702 1 8437434
Monument No. 3	42-07-26 570 83-06-51 537	3701 8 3883 5	154-46-04 0 75-00-00 0 152-15-00	334-44-52 4	Monument No. 4	18853 0 2080 0	4 2753812 3 3180735
Turning Point No. 162	42-07-31 251 83-07-18 198	3163 4 1371 4	169-32-59 7		Grosse Isle, N. Channel Rear Range Light. Grosse Isle, N. Channel Front Range Light. Fort Malden Back Range Light.		
Monument No. 4	42-10-23 031 83-08-38 285	2533 8 2861 6	192-09-47 1 261-37-00 0 331-33-35 257-23-44	12-10-31 4	Monument No. 5	29521 2 2740 1	4 3714589 3 4377747
Turning Point No. 163	42-10-28 976 83-08-02 284	2933 4 170 3	183-57-11 7		T. P. No. 164	23339 3	4 3680885

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Monument No. 5	° ' " 42-14-12.168 83-07-32.387	1231.3 2436.3	° ' " 215-34-37.7 137-14-00. 104-36-55. 173-26-50. 183-39-36.	° ' " 35-35-26.6	Monument No. 6	9409.6	3.9735707
Turning Point No. 164	° ' " 42-14-18.987 83-07-40.875	1922.2 3074.5	° ' " 209-33-10.0		T. P. No. 164. Catholic Church Spire, Ecorse. △ Salt Works. Wireless Station, River Rouge, Mich. Stack, Solway Works.	940.3	2.9732604
Catholic Church Spire, Ecorse.	° ' " 42-14-27.32 83-08-50.63	2765.7 3898.4					
Hotel Tower, head of Fighting Island.	° ' " 42-14-36.62 83-06-56.15	3696.8 4223.4					
Monument No. 6	° ' " 42-15-27.764 83-06-19.590	2810.7 1473.1	° ' " 198-20-48.1 116-55-00. 110-41-10. 151-46-30.	18-21-22.0	Monument No. 7	12045.1	4.0808197
Turning Point No. 165	° ' " 42-15-36.193 83-06-41.943	3663.4 3153.9	° ' " 161-40-30. 174-59-25. 200-17-03.6		T. P. No. 165. Wireless Station, River Rouge, Mich. Tank at Stone Crusher, River Rouge, Mich. △ 62 located on Smith's Dock, Stack, Solway Works. T. P. No. 166.	1885.2	3.2753498
						11561.0	4.0664202

Locality, Detroit River.

Date

Wireless Station, River Rouge, Mich.	42-15-45-32 83-07-24-32	4648-6 1828-7							
Tank at Stone Crusher, River Rouge, Mich.	42-16-41-06 83-07-11-23	4156-5 844-2							
Monument No. 7	42-17-20-701 83-05-29-149	2095-5 2190-6	214-37-45-3 101-23-00 18-38-00 41-59-20	34-38-24-5	Monument No. 8 T. P. No. 166 Stack, Salt Works, Windsor, Ont. Wireless Station, River Rouge, Mich. Spire, Church of Assumption, Sand- wich, Ont. Spire, St. John's Church, Sandwich. T. P. No. 167	7700-7 1482-3	3-8865280 3-1709304		
Turning Point No. 166	42-17-23-501 83-05-48-482	2388-1 3643-7	221-03-50 226-01-10 214-23-49-2			8277-1	3-9178771		
Stack, Solvay Works	42-17-26-72 83-06-32-02	2704-7 2406-8							
Catholic Church Spire, Belle River, Ont.	42-17-30-30 82-42-19-90	3066-6 1495-4							
Stack, Edison Co., Detroit	42-17-40-35 83-06-03-02	4145-3 227-0							
Spire, Catholic Church, Stony Point, Ont.	42-18-15-56 82-32-50-31	1575-5 3780-2							
Monument No. 8	42-18-23-292 83-04-30-914	2357-9 2323-2	233-28-05-9 124-17-00 95-47-30 109-07-25 173-47-50	53-28-41-4	Monument No. 9 T. P. No. 167 △ 64 (U.S.L.S.) Tank, Flanders' Motor Co. E. of twin spires on R. C. Church, Detroit. T. P. No. 168	4935-1 1395-0	3-6933001 3-1445775		
Turning Point No. 167	42-18-31-054 83-04-46-254	3143-0 3475-1	232-41-37-1			5406-7	3-7377275		

Table of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Locality, Detroit River.							
	° ' "		° ' "	° ' "			
Spire, Catholic Church, Tecumseh.	42-18-40.47 82-53-11.31	4096.8 849.7					
Wireless Station, Detroit, Mich.	42-18-42.97 83-04-54.06	4350.1 4062.0					
Tank, Flanders' Motor Co. . .	42-18-33.92 83-05-12.24	3433.7 919.9					
Monument No. 9	42-18-52.349 83-03-38.135	5295.3 2865.2	251-31-49.3 146-28-00. 133-35-25. 200-25-15.	71-52-38.1	Monument No. 10. T. P. No. 168. Tank, Twist Drill Co., Detroit. Spire, 3rd Presbyterian Church, Detroit. Court House Tower, Detroit.	12798.3 1393.0	4.1071522 3.1439642
Turning Point No. 169,	42-19-03.780 83-03-48.373	382.5 3634.8	250-36-45.6		T. P. No. 169.	12725.4	4.1046723
Tower, Church of the Immaculate Conception.	42-19-04.47 83-01-30.15	452.4 2265.1					
E. of twin spires on R. C. Church, Detroit, Mich.	42-19-14.93 83-04-36.03	1511.5 2706.7					

Tower, Fire Hall at Windsor, Ont.	42-19-15-40 83-01-50-63	1559-1 3803-8				
Tank, Twist Drill Co., Detroit, Mich.	42-19-16-54 83-04-12-44	1674-2 934-7				
Stack, Parke Davis Co., Walkerville, Ont.	42-19-33-66 83-00-32-17	3407-5 2416-7				
Spire, 3rd Presbyterian Church, Detroit, Mich.	42-19-39-14 83-03-14-64	3962-3 1039-7				
Tower on Distillery, Walker- ville, Ont.	42-19-34-92 83-00-18-04	3534-8 3608-3				
Tank on Ford Motor Co. Plant, Ford, Ont.	42-19-36-19 83-00-14-08	3663-4 1057-4				
Monument No. 10.	42-19-32-330 83-06-56-542	3272-6 4247-4	248-23-44-3 145-49-00- 93-48-35-	08-24-48-8	Monument No. 11. T. P. No. 169. Spire, 3rd Presbyterian Church, Detroit.	7734-4 3-88-1192 1608-9 3-2063347
Turning Point No. 169.	42-19-45-478 83-01-08-576	4604-0 644-4	107-23-35- 122-44-30- 232-00-15- 233-18-35-		Curt House Tower, Detroit. Tank, Screw Works, Detroit. △ 88, (U.S.L.S.) Flagpole, East end Belle Isle.	8254-8 3-9167047
Stack, Water Works, Wind- sor, Ont.	42-19-24-22 83-01-31-17	2451-8 2341-5				
Wayne County Court House Tower.	42-19-55-03 83-02-34-32	5570-5 2577-4				

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.
 Locality, Detroit River. Date.....

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Monument No. 11.....	° ' " 42-20-00.450 82-50-20.806	45.6 1563.0	° ' " 253-05-15.3 348-10-00. 53-57-50.	° ' " 73-06-25.4	Monument No. 12..... T. P. No. 170..... East Tower on R. C. Church near Ford Motor Co. Works, Ford, Ont. Tank, Walker's Distillery, Walkerville, Ont.	8166.1 409.5	3-9120121 2-6121988
Turning Point No. 170.....	42-19-56.491 82-59-19.688	5718.5 1478.7	247-23-34.3	67-24-26.4	T. P. No. 171.....	8105.1	3-9245447
Flagpole, East end of Belle Isle.	42-20-07.28 82-59-53.33	736.9 4005.6	309-03-60. 50-21-50. 67-46-40.		Monument No. 13..... T. P. No. 171..... Windmill Point Light. Tank at Ford Motor Co. Works, Ford, Ont. △ 91, (U.S.L.S.)	6293.1 360.9	3-7988633 2-5573769
Stack, Parke Davis Co., Detroit, Mich.	42-20-14.44 83-00-59.47	1461.6 4466.5	335-41-30.		T. P. No. 172.....	4619.4	3-6645894
Monument No. 12.....	42-20-23.904 82-57-36.779	2419.6 2762.1	283-41-22.3 2482.0				
Turning Point No. 171.....	42-20-21.658 82-57-33.047	2192.6 2482.0					

Tank, Queen Ann's Soap Co.	42-20-24-28 83-00-36-98	2458-0 2777-2					
Monument No. 13.	42-20-47-794 82-56-19-418	4838-2 1468-3	290-00-08-3 92-50-00. 67-52-16. 208-15-45. 239-39-25. 245-55-25.	110-06-36-3	Monument No. 14. T. P. No. 172. Belle Isle Light. Windmill Point Light. Peach Island, Front Range Light. Peach Island, Rear Range Light.	46080-0 1869-0	4-6636141 3-2574510
Turning Point No. 172. . . .	42-20-48-677 82-56-43-478	4927-6 3265-1	253-01-29-3		T. P. No. 173.	33110-7	4-5199080
Intake, New Water Works, Detroit, (U.S.L.S.)	42-21-07-99 82-58-00-05	808-4 3-3					
Peach Island Rear Light.	42-21-14-40 82-54-58-81	1458-0 4415-7					
Windmill Point Light (U.S. L.S.)	42-21-31-705 82-55-47-327	3909-6 3553-5					
Windmill Point Front Range Light.	42-21-32-64 82-55-51-29	3304-8 3871-0					
Tower, Waterworks, Detroit.	42-21-34-25 82-58-50-77	3466-5 3811-7					
Windmill Point Rear Range Light.	42-21-34-82 82-55-48-32	3524-9 3628-6					
Peach Island Front Range Light.	42-21-37-89 82-54-24-00	3835-6 1801-8					
Monument No. 14.	42-18-11-0866 82-46-43-214	1183-1 3247-4	156-13-52-7 152-20-00. 267-22-31-4	336-10-15-2	Monument No. 15. T. P. No. 173. △ Pucc, (U.S.L.S.)	60019-0 28839-0	4-7782888 4-4594731
Turning Point No. 173.	42-22-23-655 82-49-41-600	2424-9 3122-7	216-32-06-8		T. P. No. 174.	72617-1	4-8610399

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Monument No. 15.....	° ' " 42-27-14.162 82-52-05.888	1433.7 441.3	° ' " 241-35-11.2 339-43-39.2 339-54-20.	° ' " 61-43-15.6	Monument No. 16..... T. P. No. 173..... △ Gaukler, (U.S.L.S.)	61047.0 31309.1	4.7856614 4.4956705
Locality, Saint Clair River.							
Monument No. 16.....	° ' " 42-32-00.483 82-40-08.772	48.9 656.8	° ' " 227-50-59.3 279-33-00. 110-50-30. 125-40-20. 194 00-25.	° ' " 47-51-21.5	Monument No. 17..... T. P. No. 174..... Rear Range Light, St. Clair Flats, Upper Light, St. Clair Flats Canal, Flagpole on Old Club, South Chan- nel, St. Clair River, Mich.	3309.5 345.8	3.5197572 2.5386248
Turning Point No. 174.....	° ' " 42-31-59.916 82-40-04.218	6065.6 315.9	° ' " 207-19-02.5	.....	T. P. No. 175.....	3306.7	3.5193919
Monument No. 17.....	° ' " 42-32-22.420 82-39-35.999	2269.7 264.9	° ' " 296-08-50.5 137-57-00. 232-16-38.	° ' " 46-09-10.5	Monument No. 18..... T. P. No. 175..... Monument No. 20	3062.6 888.4	3.4860577 2.9486329
Turning Point No. 175.....	° ' " 42-32-28.937 82-39-43.948	2929.5 3290.0	° ' " 226-06-34.3	.....	T. P. No. 176.....	2927.4	3.4664882

Date

Date.....

Locality, Detroit River.

Locality, Saint Clair River.

Monument No. 18.....	42-32-43-378 82-39-06-497	4391-4 486-2	228-25-04-5 129-17-00- 59-28-55- 112-07-35- 198-06-45-	48-25-34-7	Monument No. 19 T. P. No. 176..... Flagpole on Old Club, South Chan- nel, St. Clair River, Mich. Flagpole on Mervue Hotel, South Channel, St. Clair River, Mich. Flagpole on Star Island House, South Channel, St. Clair River, Mich.	4468-3 896-3	3-6501451 2-9524649
Turning Point No. 176.....	42-32-48-984 82-39-15-765	4953-7 1180-1	231-02-09-7	T. P. No. 177.....		4580-3	3-6608905
Monument No. 19.....	42-33-12-670 82-38-21-843	1282-5 1634-8	251-28-59-7 135-27-00- 58-39-50- 64-50-30- 77-09-20-	71-29-16-1	Monument No. 20..... T. P. No. 177..... Flagpole, Humphrey's Hotel, South Channel, St. Clair River, Mich. Flagpole, Mervue Hotel, South Channel, St. Clair, Mich. Flagpole, Star Island House, South Channel, St. Clair River, Mich.	1911-5 676-5	3-2813843 2-8302729
Turning Point No. 177.....	42-33-17-432 82-38-28-184	1764-7 2109-6	250-06-15-6	T. P. No. 178.....		2332-0	3-3677159
Monument No. 20.....	42-33-18-666 82-37-57-626	1889-8 4313-3	270-37-06-9 171-58-00- 57-06-00- 66-34-25- 202-23-17-	90-37-26-5	Monument No. 21..... T. P. No. 178..... Flagpole at Old Club, South Chan- nel, St. Clair River, Mich. Flagpole, Mervue Hotel, South Channel, St. Clair River, Mich. Flagpole, Riverside Hotel, South Channel, St. Clair River, Mich.	2166-1 675-2	3-3356873 2-8294296
Turning Point No. 178.....	42-33-25-270 82-37-56-887	2558-1 4407-5	270-26-43-6	T. P. No. 179.....		2461-0	3-3911107
Riverside Hotel, Flagpole, South Channel, St. Clair River, Mich.	42-33-31-80 82-37-50-31	3219-2 3765-4					

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
St. Clair River Light No. 1.	0° 42-33-30-20 82-37-42-82	3057.1 3205.0	0° 00-00-00	0° 00-00-00			
St. Clair River Light No. 2.	0° 42-33-33-77 82-37-30-92	3418.6 2314.8					
St. Clair River Light No. 3.	0° 42-33-27-82 82-37-21-78	2816.3 1630.2					
Monument No. 21.	0° 42-33-18-434 82-37-28-687	1896.1 2147.0	290-32-40.8 196-36-00. 79-52-60.	110-32-57.1	Monument No. 22. T. P. No. 179. Flagpole, Star Island House, South Channel, St. Clair River, Mich. Flagpole, Marshland Hotel, South Channel, St. Clair River, Mich. Flagpole, Joe Bedore's Hotel, South Channel, St. Clair River, Mich.	1929.4 702.1	3.2854139 2.8463080
Turning Point No. 179.	0° 42-33-25-080 82-37-26-007	2539.0 1946.5	295-57-26.2		T. P. No. 180.	2150.5	3.3925405
Joe Bedore's Hotel, Flagpole.	0° 42-33-20-51 82-36-56-22	2076.4 4208.0					

Date.....

Monument No. 22.	42-33-11-745 82-37-04-550	1189-0 340-6	321-05-50-4 218-43-00- 141-38-20- 215-06-50-	141-06-04-4 T. P. No. 180. St. Clair River Light No. 3. Flagpole, Joe Bedore's Hotel, South Channel, St. Clair River, Mich.	2471-7 523-6	3-3929939 2-7190171
Turning Point No. 180.	42-33-15-781 82-37-00-174	1597-4 12-8	315-34-49-2	T. P. No. 181.	2282-7	3-3538449
Monument No. 23.	42-32-52-744 82-36-43-814	5339-6 3280-0	289-52-49-8 208-06-00- 131-09-05- 141-49-00- 214-24-25- 242-39-55-	Monument No. 24. T. P. No. 181. Flagpole, Foster's Hotel, South Channel, St. Clair River, Mich. Flagpole, Joe Bedore's Hotel, South Channel, St. Clair River, Mich. " " " " 4. " " " " 5.	1815-9 794-6	3-2900582 2-9601583
Turning Point No. 181.	42-32-59-675 82-36-38-830	6041-0 2906-8	290-41-14-3	T. P. No. 182.	1497-9	3-1754764
St. Clair River Light No. 4.	42-33-01-61 82-36-28-82	163-1 2157-1				
St. Clair River Light No. 5.	42-32-59-39 82-35-54-66	6012-1 4091-5				
Monument No. 24.	42-32-46-630 82-36-20-951	4720-5 1568-2	260-56-42-5 184-33-00-	Monument No. 25. T. P. No. 182.	4271-7 794-0	3-0305990 2-8997996
Turning Point No. 182.	42-32-54-448 82-36-20-110	5512-1 1505-2	262-12-44-5	T. P. No. 183.	3977-6	3-5096204
Monument No. 25.	42-32-53-267 82-35-24-597	5392-4 1841-2	196-34-05-6 161-57-00- 105-25-45- 169-16-25- 200-38-20-	Monument No. 26. T. P. No. 183. St. Clair River Light No. 5. " " " " 6. Catholic Church Spire, U. S. Shore.	2965-1 692-3	3-4729329 2-8402607

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.
 Locality, Saint Clair River. Date

Stations.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
	° ' "		° ' "	° ' "			
Turning Point No. 183	42-32-59-769 82-35-27-462	6050-5 2053-5	233-09-18-5	.....	T. P. No. 184	2376-3	3-3759087
St. Clair River Light No. 6 ..	42-33-05-44 82-35-27-72	550-9 2074-8					
Spire R. C. Church on United States Shore.	42-34-17-43 82-34-41-70	1764-4 3120-4					
Monument No. 26	42-33-21-364 82-33-13-411	2162-7 1003-9	218-38-20-5 311-51-00-	38-38-41-0	Monument No. 27	3624-8 1141-0	3-5592870 3-0573138
Turning Point No. 184	42-33-13-844 82-35-02-055	1401-6 153-9	194-38-33-8	.....	T. P. No. 185	3849-3	3-5853881
Monument No. 27	42-33-49-331 82-34-43-167	4994-1 3230-6	228-41-40-0 104-40-00- 182-13-00- 193-41-35- 280-39-25-	48-42-12-0	Monument No. 28	4713-0 458-7	3-6732939 2-6614914
Turning Point No. 185	42-33-50-630 82-34-49-038	5125-3 3670-0	220-37-01-7	.....	T. P. No. 186	4839-0	3-6847572
St. Clair River Light No. 7 ..	42-34-14-74 82-34-45-20	1492-1 3382-2					

St. Clair River Light No. 8.	42-34-20-36 82-34-32-34	2061-0 2464-9	47-16-51-4	Monument No. 29. T. P. No. 186	2805-6 1081-4	3-4617330 3-0389714
St. Clair River Light No. 9.	42-34-25-13 82-34-30-13	2544-0 2253-9	227-16-32-2 129-55-00 81-44-10 85-34-35 101-22-30	St. Clair River Light No. 7. Spire, Catholic Church, Maple Leaf, Harsens Island, Mich. St. Clair River Light No. 9.		
Monument No. 28	42-34-20-058 82-33-55-858	2030-5 4179-5	230-48-14-1	T. P. No. 187	2908-5	3-4636727
Turning Point No. 186	42-34-26-912 82-34-06-937	2724-4 519-0	40-29-37-4	Monument No. 30. T. P. No. 187	2883-4 902-9	3-4599079 2-9556326
Monument No. 29	42-34-39-463 82-33-27-423	3995-1 2051-8	220-29-20-5 128-56-00 68-08-30 95-06-30 136-01-10	Spire, Catholic Church, Maple Leaf, Harsens Island, Mich. Flagpole, Tashmoo Dock, " , San Souci Dock.		
Turning Point No. 187	42-34-45-068 82-33-36-810	4562-3 2754-3	220-35-58-6	T. P. No. 188	2805-8	3-4490586
Flagpole San Souci Dock.	42-34-51-00 82-33-42-49	5163-0 3178-8				
Monument No. 30	42-35-01-124 82-33-02-398	113-8 179-5	28-19-12-4	Monument No. 31. T. P. No. 188	2400-5 902-9	3-3503074 2-9556326
Turning Point No. 188	42-35-06-111 82-33-12-403	618-8 927-8	208-19-32-1 124-00-00 59-14-10 204-17-15 227-21-00 206-54-16-6	Spire, Catholic Church, Maple Leaf, Harsens Island, Mich. Water Tank, Algonac. Spire, Church, Walpole Island, Ont. T. P. No. 189	2489-4	3-3961003

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Locality, Saint Clair River.							
Monument No. 31.....	42-35-21.997 82-32-47.172	2226.7 3528.5	218-01-01.3 128-48-00. 52-40-15.	38-01-50.1	Monument No. 32..... T. P. No. 189..... Spire, Catholic Church, Maple Leaf, Harsens Island, Mich. Water Tank, Algonac.	8758.3 976.4	3-9424179 2-9896171
Turning Point No. 189.....	42-35-28.040 82-32-57.344	2838.6 4289.7	229-43-31.4		T. P. No. 190.....	9098.7	3-9589782
Spire, Church on Walpole Island.	42-36-20.59 82-31-06.57	2084.3 416.7					
St. Clair River, Light No. 10.	42-36-23.58 82-31-41.38	2387.1 3094.8					
Monument No. 32.....	42-36-30.149 82-31-36.042	3052.2 2620.4	211-24-50.0 297-20-00. 35-28-40. 229-03-30. 293-41-45.	31-25-01.3	Monument No. 33..... T. P. No. 190..... St. Clair River, Light No. 10. St. Clair River, Light No. 11. Spire, Church, Walpole Island.	2390.2 885.8	3-3784269 2-9473480
Turning Point No. 190.....	42-36-26.131 82-31-24.520	2645.3 1835.3	207-27-53.5		T. P. No. 191.....	2626.1	3-4193132
St. Clair River, Light No. 11.	42-36-35.54 82-31-26.62	3597.8 1990.8					

St. Clair River, Light No. 12.	42-36-48-47 82-31-17-57	4906-81 1313-6						
Monument No. 33.	42-36-50-298 82-31-18-382	5091-9 1374-7	190-50-30-2 278-48-00. 22-24-20. 342-19-45.	10-50-46-4	Monument No. 34. T. P. No. 191 St. Clair River, Light No. 11. Spire, Church, Walpole Island.	9510-2 761-2	3-9781901 2-8814722	
Turning Point No. 191.	42-36-49-148 82-31-08-323	49-75-7 622-4	195-39-42-2		T. P. No. 192.	9250-1	3-9661447	
Water Tank, Algonac.	42-37-16-90 82-31-39-10	1711-0 2945-9						
Chenal Écarté Back Range Light.	42-38-08-81 82-30-06-78	891-7 506-9						
Chenal Écarté Front Range Light.	42-38-10-28 82-30-08-58	1010-7 641-4						
Monument No. 34.	42-38-22-562 82-30-54-450	2284-1 4070-2	194-37-34-7 290-39-00.	14-37-56-0	Monument No. 35. T. P. No. 192.	9285-7 1560-4	3-9678167 3-1932260	
Turning Point No. 192.	42-38-17-126 82-30-31-316	1733-9 2669-9	178-39-25-5		T. P. No. 193.	9790-6	3-9908082	
Monument No. 35.	42-39-51-312 82-30-23-068	5194-5 1723-7	195-07-10-0 102-47-00. 112-38-05. 179-39-05. 341-09-20.	15-07-41-2	Monument No. 36. T. P. No. 193 Flagpole, Riverside Hotel, Mich. Flagpole, Michigan Salt Works. Spire, R. C. Church, Port Lambton.	13188-3 1143-0	4-1501866 3-0580623	
Turning Point No. 193.	42-39-53-810 82-30-37-987	5447-5 2838-2	198-16-26-3		T. P. No. 194.	13276-2	4-1230739	

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
	° ' "		° ' "	° ' "			
Monument No. 36	42-41-57.072 82-29-37.003	5777.9 2703.1	212-49-40.0 108-05-40. 38-45-00. 136-20-30. 177-17-45.	32-50-19.5	Monument No. 37 T. P. No. 194 Flagpole, Michigan Salt Works. Stack, Marine City Sugar Works. Spire, Holy Cross Church, Marine City, Mich. Water Tank, Sombra.	8013.9 411.4	3.9038425 2.6142817
Turning Point No. 194.	42-41-58.333 82-29-42.240	5905.5 3154.2	204-00-22.3		T. P. No. 195	7508.8	3.8755711
Water Tank, Sombra.	42-42-39.80 82-28-49.18	4029.2 3671.9					
Spire, Holy Cross Church, Marine City, Mich.	42-42-46.56 82-29-40.18	4713.6 2099.7					
Spire, R. C. Church, Sombra.	42-43-04.58 82-28-37.40	463.6 2792.0					
Monument No. 37.	42-43-03.586 82-28-38.808	3063.2 2897.0	151-53-43.1 98-34-00. 69-23-40.	331-53-13.3	Monument No. 38. T. P. No. 195. Spire, Holy Cross Church, Marine City, Mich. Stack at Waterworks, Marine City, Mich. Spire, R. C. Church, Sombra.	6946.6 1699.5	3.8417725 3.2303140
			119-33-10. 226-01-10.				

Locality, Saint Clair River.

Date

Turning Point No. 195.	42-43-06-0865 82-29-01-319	616-1 98-4	179-16-13-6	T. P. No. 193	5-50-5	3-7361374
Monument No. 38.	42-44-04-110 82-29-22-655	416-0 1690-9	215-48-28-1 285-32-00 330-43-05	35-49-33-7 Monument No. 39 T. P. No. 196 Spire, R.C. Church, Sombra.	12330-5 1380-7	4-0999820 3-1988510
Turning Point No. 196.	42-43-59-928 82-29-02-240	6066-6 168-0	202-47-52-2	T. P. No. 197	11470-0	4-0505725
Red Tower, Crystal Salt Works.	42-44-36-86 82-29-08-96	3731-6 668-6				
Monument No. 39.	42-45-12-875 82-27-45-990	4340-5 3428-1	142-46-45-6 95-56-00-0	322-46-24-1 Monument No. 40 T. P. No. 137	3908-4 1257-0	3-5919970 3-0991830
Turning Point No. 197.	42-45-44-373 82-28-02-671	4492-1 199-1	177-31-00-7	T. P. No. 198	2871-7	3-4581370
Monument No. 40.	42-46-13-616 82-28-17-645	1378-3 1316-3	187-45-47-8 275-16-00	07-45-55-2 Monument No. 41 T. P. No. 198	5985-8 956-7	3-7771229 2-9985720
Turning Point No. 198.	42-46-12-712 82-28-04-339	1287-1 323-8	169-11-56-8	T. P. No. 199	5889-4	3-7700715
Monument No. 41.	42-47-12-200 82-28-06-802	1235-2 507-2	158-20-55-2 75-32-00 144-22-30 151-47-55	338-20-33-6 Monument No. 42 T. P. No. 199 Stack, Great Lakes Engineering Works, St. Clair, Mich. Stack, Oakland Hotel, St. Clair, Mich.	6438-2 950-1	3-8087622 2-9777828
Turning Point No. 199.	42-47-09-855 82-28-19-139	997-7 1427-2	158-18-04-6	T. P. No. 200	6371-6	3-8042505

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TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.
 Locality, Saint Clair River. Date.....

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Dis- tance in Feet.	Loga- rithms.
Monument No. 42	42-48-11.306 82-28-38.665	1144.7 2882.5	130-02-42.0 71-30-00. 96-23-10.	310-02-20.9	Monument No. 43. T. P. No. 200. Stack, Great Lakes Engineering Works, St. Clair, Mich. Stack, Oakland Hotel, St. Clair, Mich. Stack, Diamond Salt Works, St. Clair, Mich.	3018.5 949.2	3.4797944 2.9773326
Turning Point No. 200.	42-48-08.331 82-28-50.738	843.5 3782.5	170-34-29.2		T. P. No. 201.	2157.7	3.3339863
Monument No. 43.	42-48-30.488 82-29-09.664	3086.6 720.5	213-30-31.8 276-11-00. 168-37-40.	33-31-05.5	Monument No. 44. T. P. No. 201. Stack, Oakland Hotel, St. Clair, Mich. Flagpole, Hotel Bedard, Court- right, Ont. Stack, Great Lakes Engineering Works, St. Clair, Mich.	6697.1 1063.7	3.8258857 3.0267972
Turning Point No. 201.	42-48-29.356 82-28-55.478	2972.1 4135.5	220-48-05. 352-16-40.		T. P. No. 202.	6232.2	3.7989047
Stack, Oakland Hotel, St. Clair, Mich.	42-48-43.32 82-29-13.17	4285.8 981.6					

Stack, Diamond Salt Works, St. Clair, Mich.	4-49-03-10 82-29-03-42	314-0 702-1					
Flagpole, Hotel Bedard, Courtright, Ont.	42-49-06-77 82-28-27-12	685-4 2021-3					
Monument No. 44.....	42-49-25-642 82-28-20-054	2506-1 1404-4	164-03-28-4 106-41-00 42-44-30	314-03-14-5	Monument No. 45..... T. P. No. 202..... Stack, Oakland Hotel, St. Clair, Mich. Stack, Diamond Salt Works, St. Clair, Mich.	5527-9-3-74256149 1867-4-3-27124914	
Turning Point No. 202. . .	42-49-30-937 82-28-44-058	3132-2 3283-5	201-33-37-9		T. P. No. 203.....	4463-3	3-6406578
Monument No. 45	42-50-18-144 82-28-40-432	1886-9 3012-5	212-26-46-9 294-38-00 22-48-00	32-27-22-1	Monument No. 46..... T. P. No. 203..... Stack, Pumping Station, St. Clair, Mich.	7195-2 1507-2	3-8870415 3-1781752
Turning Point No. 203.....	42-50-11-938 82-28-22-045	1208-6 1642-4	180-53-02-2		Spire on Church, Moore, Ont. Flagpole, Hotel Bedard, Court- right, Ont. T. P. No. 204.....	7006-0	3-8454704
Stack, Salt Works, Moore, Ont.	42-50-31-81 82-27-55-40	3220-5 4127-6					
Monument No. 46.....	42-51-18-117 82-27-48-608	1834-3 3620-7	164-53-02-2 98-55-00 67-45-50 283-46-40 288-29-15	344-52-33-3	Monument No. 47..... T. P. No. 204..... Stag Island Middle Light. Stack, Diamond Salt Works, " at Waterworks.	12132-7 1303-8	4-0839654 3-1152121
Turning Point No. 204.....	42-51-20-113 82-28-05-900	2036-1 489-6	177-13-39-1		T. P. No. 205.....	11551-0	4-0637337
Stag Island Lower Light.....	42-51-49-58 82-28-27-42	5019-3 2042-0					

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.
 locality, Saint Clair River. Date.....

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Dis- tance in Feet.	Loga- rithms.
Stag Island Shoal Light.....	0 ° ' "	5383.8 4391.4	0 ° ' "	0 ° ' "			
Corunna Back Range Light..	42-51-53.18 82-27-58.96	609.6 1385.5					
Corunna Front Range Light..	42-53-06.02 82-27-18.61	1159.1 1324.9					
Stag Island Middle Light.....	42-53-09.22 82-28-30.38	933.4 2261.8					
Monument No. 47.	42-53-13.811 82-28-31.106	1398.3 2315.9	216-13-22.9 267-33-00. 343-39-00. 353-04-45.	36-14-06.0	Monument No. 48..... T. P. No. 205..... Stag Island Shoal Light. " Middle Light.	7976.8 1317.6	3.9018262 3.1197779
Turning Point No. 205.....	42-53-14.367 82-28-13.424	1454.4 969.0	197-58-30.3		T. P. No. 206.....	6977.0	3.8436065
Monument No. 48.....	42-54-17.368 82-27-27.774	1768.2 2067.3	177-04-13.1 101-43-00. 34-02-45. 103-11-05. 167-48-45.	357-04-09.2	Monument No. 49..... T. P. No. 206..... Stag Island Middle Light. " Upper Light. W. Stack of Salt Works above Marysville.	8441.4 1271.0	3.9265688 3.1041438

Turning Point No. 206.....	42-54-19-917 82-27-44-495	2016-4 3312 0	198-40-10-0	T. P. No. 207.....	7923-8	3-8089336
Stag Island Upper Light.....	42-54-22-64 82-27-58-76	2292 0 4373-4				
S. Stack, Marysville.....	42-54-24-45 82-27-59-98	2475-4 4463-9				
Stack at Fromfield.....	42-54-29-34 82-27-18-86	2870-5 1403-5				
N. Stack, Marysville.....	42-54-31-48 82-27-57-44	3187-0 4274-9				
W. Stack of Salt Co. above Marysville.	42-55-18-12 82-27-45-87	1884-3 3413 0				
Monument No. 49.....	42-55-40-688 82-27-33-575	4117-1 2498-0	223-25-59-2 234-11-00	53-26-36-1 Monument No. 50. T. P. No. 207.....	5017-6 1162-1	3-7004984 3-0652328
Turning Point No. 207.....	42-55-35-966 82-27-19-327	3641-1 1437-7	206-52-54-1	T. P. No. 208.....	4462-8	3-6496122
Monument No. 50.....	42-56-10-191 82-26-39-402	1031-8 2631-1	207-16-06-2 118-26-00 209-15-40	27-16-36-0 Monument No. 51. T. P. No. 208, .. Power House, Stack, Tunnel Co., Power House.	7107-0 1082-7	3-8516851 3-0344981
Turning Point No. 208.....	42-56-15-283 82-26-52-201	1547-2 3883-2	224-03-09-6	T. P. No. 209.	7286-0	3-8624602
Flagpole, Council House, Sar- ma, Ont.	42-56-30-03 82-26-08-96	3040-3 686-7				
Stack, Reid's Dry Dock.....	42-56-57-37 82-26-17-92	5808-1 1332-7				

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.
Locality, Saint Clair River.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Monument No. 51.....	42° 57' 12" 586 82° 25' 35" 619	1274.3 4136.5	233-41-55.0 303-25-00 47-07-50 214-38-00 232-42-20	53-42-40.5	Monument No. 52..... T. P. No. 209..... Stack, Reid's Dry Dock. " , Tunnel Power House. " , Lumber Yard, Sarnia, Ont.	6155.1 1027.6	3.7892356 3.0118060
Turning Point No. 209.....	42° 57' 06" 996 82° 25' 44" 087	708.3 3279.1	211-60-14.6		T. P. No. 210.....	6274.9	3.7976033
Stack, Tunnel Power House...	42° 57' 34" 19 82° 25' 35" 28	3461.6 2623.7					
Monument No. 52.....	42° 57' 48" 574 82° 24' 48" 908	4917.6 3636.5	199-31-00.8 143-19-00 141-55-50 151-28-10 153-40-35 171-18-10	19-31-24.3	Monument No. 53..... T. P. No. 210..... Federal Building, Port Huron. Tower, City Hall, " " Dome, K. O. T. M., " " Fort Gratiot Light, " "	4747.5 1457.4	3.6764656 3.1635628
Turning Point No. 210.....	42° 58' 00" 118 82° 25' 00" 617	11.8 45.9	194-17-17.4		T. P. No. 211.....	3980.6	3.5999537
High Stack, Port Huron.....	42° 58' 04" 00 82° 25' 22" 02	404.9 1637.5					
Tower, Post Office, Sarnia, Ont.	42° 58' 14" 08 82° 24' 32" 48	1425.5 2415.0					

Stack, Electric Light Co., Port Huron, Mich.	42-58-23-76 82-25-14-18	2405-5 1054-1					
Tower, City Hall, Sarnia, Ont.	42-58-24-72 82-24-23-60	2502-6 1754-8					
Spire, Methodist Church, Port Huron, Mich.	42-58-22-50 82-25-50-02	3290-3 3718-5					
Monument No. 53	42-58-52-771 82-24-27-571	3317-9 2049-9	127-50-49-2 110-31-00 103-54-10 108-50-40 223-42-10	307-50-08-5	Monument No. 54..... T. P. No. 211..... Tower, City Hall, Port Huron. Dome, K. O. T. M. Bldg., Port Huron. Spire, R. C. Church, Sarnia.	5614-1 1574-1	3-7492830 3-1970444
Turning Point No. 211.....	42-58-38-220 82-24-47-402	3869-4 3523-9	143-00-41-2		T. P. No. 212.....	3639-1	3-5680911
Spire, R. C. Church, Port Huron, Mich.	42-58-44-10 82-24-12-85	4464-9 955-4					
Tower, City Hall, Port Huron, Mich.	42-58-44-11 82-25-30-01	4465-9 2231-0					
Tower, Court House, Port Huron, Mich.	42-58-44-12 82-25-30-03	4466-5 2252-3					
Stack, Kern's Brewery, Port Huron, Mich.	42-58-46-00 82-25-50-67	4657-1 3766-7					
Dome, K. O. T. M. Bldg., Port Huron, Mich.	42-58-48-18 82-25-29-08	4877-9 2161-7					
Stack, Sawmill, Sarnia, Ont.	42-58-51-98 82-24-21-30	5262-8 1583-7					

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—*Continued.*

Locality, Saint Clair River.	Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
		° ' "		° ' "	° ' "			
	Monument No. 54	42-59-06-790 82-25-27-212	687-3 2022-6	202-23-15-8 265-10-00 136-21-30 183-28-30 287-00-30	22-23-23-1	Monument No. 55 T. P. No. 212 Soldiers' Monument. Fort Gratiot Light. Tall Stack, Lumber Yard, Sarnia, Ont.	2089-6 736-2	3-3200657 2-8670671
	Turning Point No. 212	42-59-07-408 82-25-17-343	749-3 1289-4	161-11-17-9		T. P. No. 213	2021-6	3-4185637
	Monument No. 55	42-59-25-874 82-25-16-504	2619-4 1226-7	157-57-17-9 123-58-00 19-15-40 102-29-45 176-40-55	337-57-06-3	Monument No. 56 T. P. No. 213 Soldiers' Monument. Fort Gratiot Rear Range Light. Fort Gratiot Light.	3367-3 1094-5	3-5272847 3-0392102
	Turning Point No. 213	42-59-31-914 82-25-28-717	3231-0 2134-2	183-26-55-2		T. P. No. 214	2025-4	3-3065057
	Fort Gratiot Rear Range Light.	42-59-30-16 82-25-42-65	3053-5 3169-9					
	Fort Gratiot Front Range Light.	42-59-35-93 82-25-38-58	3637-8 2867-4					

Monument No. 56	42-59-56-702 82-25-33-511	5740-8 2490-2	249-28-20-0 315-35-00 244-46-45 274-54-10 277-26-45	69-29-00-0	Monument No. 57 T. P. No. 214 Water Tank, Wees Beach, Ont. Spire on School, Ft. Edward, Ont. " Church, " T. P. No. 215	4649-9 3-657403 683-1 2-834649
Turning Point No. 214	42-59-51-883 82-25-27-078	5252-9 2012-1	209-25-59-1			5642-6 3-7514794
Point Edward Back Range Light.	43-00-04-46 82-24-59-42	451-4 4415-7				
Point Edward Front Range Light.	43-00-10-17 82-24-59-34	1029-5 4409-1				
Fort Gratiot Light.	43-00-22-41 82-55-20-96	2368-4 1557-7				
Water Tank, Wees Beach, Ontario.	43-00-51-07 82-22-56-11	5170-9 4168-6				
Monument No. 57	43-00-12-803 82-24-44-910	1206-3 2594-2	130-22-28-8 158-28-00 28-37-50 105-32-20 242-10-05	310-21-51-0	Monument No. 58 T. P. No. 215 Spire on School, Ft. Edward, Ont. Port Gratiot Light. Water Tank, Wees Beach, Ont.	5404-3 3-7327412 3005-9 3-4779745
Monument No. 58	43-00-47-378 82-25-30-324	4796-6 2252-9	283-04-26 268-06-45 328-31-45 344-36-45		T. P. No. 215 Water Tank, Wees Beach, Ont. Pt. Edward Front Range Light. Port Gratiot Light.	3665-3 3-4906947

Locality, Lake Huron.	Date.	
Turning Point No. 215	43-00-40-421 82-24-49-759	200-01-52-5 4692-5 3697-2
Port Sanilac Light.	43-25-45-428 82-32-23-608	4599-7 1741-4
	T. P. No. 216	225118
	T. P. No. 216	125400

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Dis- tance in Feet.	Loga- rithms.
Turning Point No. 216.....	43-35-28-030 82-07-22-046	2838.9 1622.4	170-55-42.6	.....	T. P. No. 217.....	648.431	5-8696494
Thunder Bay Island Light...	45-02-14-948 83-11-38-393	1513.8 2757.4	237-31 41.1	.....	T. P. No. 217	205320	5-3136985
Turning Point No. 217.....	45-20-19-346 82-31-06-405	1959.3 457.7	122 53-40.8	.....	T. P. No. 218.....	327499	5-5152105
Monument No. 1.....	45-54-23-412 83-29-19-397	2371.7 1371.7	41-40-52.7	.....	T. P. No. 218	41515	4-6182089
Monument No. 2.....	45-55-06-336 83-31-58-754	641.7 2739.8	26 38-09.7	.....	T. P. No. 218.....	38264	4-5672977
Turning Point No. 218.....	45-49-17-128 83-35-49-194	1734.9 3484.2	212 45-23.7	.....	T. P. No. 219.....	76756	4-8851118

Locality, North Channel, Lake Huron.	Date.....	Dis- tance in Feet.	Loga- rithms.
Monument No. 1.....	10770.4	4-0322328
Turning Point No. 218.....	41515.4	4-6182089
Turning Point No. 219.....	76756.0	4-8851118

Monument No. 2	45-55-06-336 83-31-38-754	641 7 2739 8	208-51-40-3 26-38-09-7	28-54-00-6 Monument No. 3 T. P. No. 218	28-05-3 38643 8	4 4549254 4 5872977
Monument No. 3	45-59-12-744 83-28-23-904	1291 0 1688 0	143-48-31-2 247-31-00 313-54-30	323-43-51-9 Monument No. 4 T. P. No. 219 Cross on Indian Mission, Cockburn Island, Ont.	46309 5 10923 0	4 6656700 4 0883502
Turning Point No. 219	45-59-53-957 83-26-00-944	5465 5 66 6	138-15-32-9	T. P. No. 220	52641 0	4 7213248
Cross on Indian Mission, Cockburn Island, Ont.	45-57-30-90 83-25-52-26	3129 9 3692 2				
Monument No. 4	46-05-21-517 83-34-51-804	2179 8 3655 8	108-15-36-2 201-17-00 161-29-44 4	288-12-50-2 Monument No. 5 T. P. No. 220 Sulphur Island Light	17045 9 6511 8 21360 6	4 2328935 3 8137010 4 3286143
Turning Point No. 220	46-06-21-415 83-34-18-319	2169 3 1290 7	105-25-18 4	T. P. No. 221	21848 4	4 3394191
Sulphur Island Light	46-08-41-472 83-36-28-145	4201 1 1981 6				
Monument No. 5	46-06-14-333 83-38-42-262	1452 1 2978 0	94-07-21 2 159-15-00 212-21-14 7	274-02-15-2 Monument No. 6 T. P. No. 221 Sulphur Island Light	29997 8 6868 5 17646 6	4 4770899 3 8431387 4 2466629
Turning Point No. 221	46-07-18-661 83-39-17-310	1890 4 1219 5	75-28-20 2	T. P. No. 222	27483 3	4 4380694
Monument No. 6	46-06-35-403 83-45-46-916	3586 3 3305 8	119-00-58 3 341-26 00 251-58 01 3	208-58-46-6 Monument No. 7 T. P. No. 222 Sulphur Island Light	14712 5 2668 6 4137 4	4 1676874 3 4282884 4 6167632
Turning Point No. 222	46-06-10-480 83-45-34-858	1056 4 2456 4	109-14-45 8	T. P. No. 223	17850 2	4 2516442

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
	° ' "		° ' "	° ' "			
Monument No. 7	46-07-45-812 83-48-49-584	4640-7 3492-4	44-59-34-9 39-38-00- 23-46-40- 263-45-45-5	224-55-34-7	Monument No. 8 T. P. No. 223 Stack, Detroit, Mich. Stulphur Island Light	33259-0 4915-0 52518-0	4-5219100 3-6314960 4-7293086
Turning Point No. 223	46-07-08-445 83-49-34-085	855-3 2401-2	42-38-38-2		T. P. No. 224	28932-0	4-4613819
Monument No. 8	46-03-53-485 83-54-23-056	5418-0 1626-0	86-59-27-2 333-13-00-0	256-57-37-6	Monument No. 9 T. P. No. 224	10756-0 1727-7	4-0314000 2-2374651
Turning Point No. 224	46-03-38-258 83-54-12-016	3875-6 847-4	84-10-39-6		T. P. No. 225	13259-8	4-1225374
Monument No. 9	46-03-47-886 83-56-55-288	4851-0 3899-6	150-35-15-9 35-48-00- 162-22-34-2	330-33-58-8	Monument No. 10 T. P. No. 225	15352-0 2866-1	4-1861734 3-4572968
Turning Point No. 225	46-03-24-937 83-57-19-061	2525-9 1344-2			T. P. No. 226	17470-0	4-2422875
Monument No. 10	46-05-59-894 83-58-42-274	6067-9 2379-0	143-44-30-2 211-06-00-0	323-43-32-6	Monument No. 11 T. P. No. 226	9515-8 1112-2	3-3784436 3-0461889

Locality, North Channel, Lake Huron. Date

Locality, Saint Marys River.	Date.								
Turning Point No. 226.	46-06-09 295 83-38-34 121	941-6 2404-5	127-19-50-0	.....	T. P. No. 227.	9561-3	3-9805179		
Monument No. 11	46-07-15 634 84-00-02 166	1584-3 152-6	189-07-01-9 56-36-00- 48-15-24-0	09-07-17-3	Monument No. 12. T. P. No. 227 Round Island Light.	9506-2 1677-2	3-9780068 3-2245750		
Turning Point No. 227.	46-07-06 519 84-06-22 042	660-4 1552-8	180-25-18-8	.....	T. P. No. 228	11360-0	4-0553752		
Monument No. 12.	46-08-48 291 83-39-40 773	4891-7 2870-7	129-54-42-4 110-25-00- 24-50-47-8	309-51-23-1	Monument No. 13. T. P. No. 228 Round Island Light.	25344-0 3011-1	4-4038817 3-4787323		
Turning Point No. 228.	46-08-58 659 84-00-20 854	5942-2 1468-2	127-28-49-1	.....	T. P. No. 229	22715-0	4-3565169		
Monument No. 13	46-11-28 724 84-04-17 089	2910-4 1292-4	144-19-22-7 45-21-00-	324-18-41-9	Monument No. 14. T. P. No. 229	6812-0 1974-4	3-8382737 3-2994364		
Turning Point No. 229.	46-11-15 026 84-04-37 053	1522-0 2696-9	165-13-24-1	.....	T. P. No. 230.	8599-2	3-9344568		
Monument No. 14	46-12-23 345 84-05-13 574	2364-9 9-5-1	162-25-20-8 195-04-00- 46-41-06-1 102-04-45-4	342-24-39-9	Monument No. 15. T. P. No. 230. Pilot Island Front Range Light. △ Winter Point (U.S.L.S.)	13177-0 1443-6	4-1198125 3-1594369		
Turning Point No. 230.	46-12-37 106 84-05-08 238	3758-8 579-4	153-32-30-5	.....	T. P. No. 231	12749-0	4-1054769		
Pilot Island Front Range Light.	46-10-31 58 84-07-59 60	3502-9 4194-5							
Monument No. 15	46-14-27 345 84-06-10 187	2769-7 716-2	182-35-16-6 100-30-00- 54-47-56-5	02-35-19-0	Monument No. 16. T. P. No. 231 Winter Point Front Range Light.	5145-2 1348-4	3-7114059 3-1298260		

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.
Locality, Saint Marys River.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Turning Point No. 231.....	46-14-29-770 84-06-29-050	3015-7 2042-0	0' 0" 206-15-19-7	0' 0"	T. P. No. 232.....	6071-8	3-7839208
Winter Point Front Range Light.....	46-13-03-26 84-09-01-82	330-4 128-0					
Monument No. 16.....	46-15-18-085 84-06-06-881	1831-7 483-3	140-18-18-8 243-58-29-0 201-01-56-2	320-17-32-9	Monument No. 17..... T. P. No. 232..... Sailor's Encampment Front Range Light.	6994-3 1255-5	3-8447431 3-0988182
Turning Point No. 232.....	46-15-23-523 84-05-50-826	2933-9 3572-5	133-24-31-5		T. P. No. 233.....	6191-6	3-7918013
Sailor's Encampment Front Range Light.....	46-15-41-17 84-05-54-08	4170-6 3800-0					
Monument No. 17.....	46-16-11-207 84-07-10-408	1135-2 735-2	186-19-57-3 297-41-38-6 299-32-36-1	06-20-15-4	Monument No. 18..... T. P. No. 233..... Sailor's Encampment Front Range Light.	15906-0 1239-4	4-2015560 3-0931979
Turning Point No. 233.....	46-16-05-520 84-06-54-849	559-1 3853-3	176-35-41-1		T. P. No. 234.....	17113-4	4-2383870
Monument No. 18.....	46-18-47-202 84-06-45-476	4787-4 3192-6	238-06-34-5 112-38-02-1	58-06-59-0	Monument No. 19..... T. P. No. 234.....	2901-0 1814-2	3-4473132 3-2586801

Turning Point No. 234	46-18-54-153 84-07-09-330	5485-9 654-9	232-48-40-4	T. P. No. 235	4283-9	3-6318404
Monument No. 19	46-19-01-868 84-06-11-595	189-3 814-0	337-17-18-9 157-17-56-0 160-31-00	Monument No. 20 T. P. No. 235	5722-3 1917-3	3-9695214 3-2828944
Turning Point No. 235	46-19-19-711 84-06-20-706	1996-7 1453-4	149-08-47-3	T. P. No. 236	6962-2	3-8127471
Monument No. 20	46-20-26-760 84-07-02-871	2711-0 201-4	330-34-22-0 150-35-26-3 36-53-00	Monument No. 21 T. P. No. 236	12696-0 1019-7	4-1036579 3-0084632
Turning Point No. 236	46-20-18-709 84-07-11-593	1895-3 813-3	158-38-30-3	T. P. No. 237	13314-8	4-1243357
Monument No. 21	46-22-15-925 84-08-31-773	1612-9 2227-7	327-08-18-7 147-10-21-2 236-47-00 173-52-13-6	Monument No. 22 T. P. No. 237 Lake George Light.	21856-0 1010-6	4-3895787 3-0045349
Turning Point No. 237	46-22-21-389 84-08-19-717	2160-6 1382-9	174-00-00-7	T. P. No. 238	16992-0	4-2302455
Monument No. 22	46-25-17-188 84-11-20-894	1741-1 1463-9	35-38-21-3 215-34-23-9 274-45-00 290-26-25-9	Monument No. 23 T. P. No. 238 Lake George Light.	33368-8 10455-4	4-5931525 4-0398296
Turning Point No. 238	46-25-08-204 84-08-45-067	831-0 3157-5	195-45-35-5	T. P. No. 239	32380-3	4-5102812
Monument No. 23	46-30-33-150 84-05-53-468	3359-2 3740-7	307-36-47-9 127-37-43-3 61-18-00 19-26-21-8	Monument No. 24 T. P. No. 239 Lake George Light.	6736-8 3658-8	3-8284554 3-5633370
Turning Point No. 239	46-30-15-803 84-06-39-345	1601-0 2752-3	160-28-00-4	T. P. No. 240	5307-8	3-7249177
Monument No. 24	46-31-13-744 84-07-09-762	1392-1 681-8	337-08-50-1 157-09-08-2 337-53-00 106-37-00	Monument No. 25 T. P. No. 240 T. P. No. 241	4491-3 936-4 987-5	3-6529734 2-9714382 2-3945567

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
	° ' "		° ' "	° ' "			
Turning Point No. 240.	46-31-05.181 84-07-04.721	524.9 330.1	131-31-02.2	.....	T. P. No. 241.	1734.7	3.2392170
Turning Point No. 241.	46-31-16.531 84-07-23.594	1674.5 1628.9	157-27-47.3	.....	T. P. No. 242	3713.3	3.5657579
Monument No. 25.	46-31-54.599 84-07-34.704	5531.1 2428.4	84-52-52.6 55-41-00.	264-52-09.3	Monument No. 26. T. P. No. 242.	4188.4 757.2	3.6226470 2.8792200
Turning Point No. 242.	46-31-50.385 84-07-43.649	5104.3 3051.8	105-15-38.4	.....	T. P. No. 243.	2732.3	3.4365250
Monument No. 26.	46-31-50.906 84-08-34.368	5177.5 2403.5	64-26-58.5 233-48-00. 38-36-00.	244-26-32.9	Monument No. 27. T. P. No. 243. T. P. No. 244.	2735.1 1128.0 956.7	3.4369707 3.0525001 2.9807717
Turning Point No. 243.	46-31-57.482 84-08-21.350	5823.2 1492.8	74-15-45.7	.....	T. P. No. 244.	1928.4	3.2852038
Turning Point No. 244.	46-31-52.315 84-08-47.897	5390.2 3348.7	59-49-19.0	.....	T. P. No. 245.	1986.5	3.2990799
Monument No. 27.	46-31-39.260 84-09-09.658	3978.3 675.5	71-18-57.7 148-53-00.	251-18-06.5	Monument No. 28. T. P. No. 245.	5208.7 31.8	3.7167394 2.5731900
Turning Point No. 245.	46-31-42.460 84-09-12.456	4301.5 871.1	77-43-00.3	.....	T. P. No. 246.	3390.0	3.5301947

Garden River Church Spire..	46-31-48-20	4882-91							
	84-09-38-17	2669-0							
Monument No. 28.....	46-31-22-783	2308-7	121-04-50-0	301-03-43-3	Monument No. 29	7500-0	3-8750619		
	84-10-20-218	1413-7	228-16-00		T. P. No. 246	1910-8	3-2812056		
			139-50-00		T. P. No. 247	2086-7	3-3089359		
Turning Point No. 246.....	46-31-35-338	3580-0	95-55-55-9		T. P. No. 247	2754-4	3-4400238		
	84-09-59-826	4183-4							
Turning Point No. 247.....	46-31-38-146	3864-5	140-01-84-3		T. P. No. 248	6255-1	3-7962312		
	84-10-39-006	2727-4							
Monument No. 29.....	46-32-00-992	100-4	81-43-51-8	261-42-53-0	Monument No. 30	5719-7	3-7573718		
	84-11-52-090	3641-7	203-45-00		T. P. No. 248	2708-0	3-4926487		
Turning Point No. 248.....	46-32-25-459	2579-1	74-29-34-9		T. P. No. 249	8415-4	3-9250741		
	84-11-36-489	2550-8							
Monument No. 30.....	46-31-52-864	5355-3	43-31-48-6	223-30-09-7	Monument No. 31	13847-0	4-1413684		
	84-13-13-044	912-1	127-43-00		T. P. No. 249	1717-2	3-2348179		
Turning Point No. 249.....	46-32-03-234	327-8	30-59-15-1		T. P. No. 250	14148-4	4-1506974		
	84-13-32-473	2270-3							
Monument No. 31.....	46-30-13-740	1392-1	30-16-25-6	210-16-06-3	Monument No. 32	3691-5	3-5572048		
	84-15-29-379	2055-4	319-15-00		T. P. No. 250	1370-1	3-1367447		
Turning Point No. 250.....	46-30-03-495	354-0	49-07-37-4		T. P. No. 251	3559-5	3-5513948		
	84-15-16-595	1160-8							
Monument No. 32.....	46-29-42-269	4282-1	60-22-22-2	240-22-04-4	Monument No. 33	1970-6	3-2946019		
	84-15-55-978	3916-7	340-23-00		T. P. No. 251	190-3	2-2794122		
Turning Point No. 251.....	46-29-40-500	4103-0	78-42-52-7		T. P. No. 252	2762-8	3-4413481		
	84-15-55-065	3852-7							
Monument No. 33.....	46-29-32-652	3307-7	100-33-04-6	280-31-59-7	Monument No. 34	6371-4	3-8042350		
	84-16-20-460	1431-8	105-15-00		T. P. No. 252	966-5	2-9852169		

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.
 Locality, Saint Marys River. Date.....

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Dis- tance in Feet.	In- scriptions.
	° ' "		° ' "	° ' "			
Turning Point No. 252.....	46-25-35.161 84-16-33.788	3562.0 2364.2	89.49-29.3		T. P. No. 253.....	4410.0	3-6444425
Indian Home Flagpole, Ont.	46-30-02.29 84-17-14.57	232.0 1019.0					
Monument No. 34.....	46-29-44.159 84-17-49.986	4473.4 3497.0	117-44-58.0 315-08-00 155-23-59.2	297-43-47.4 335-23-51.5	Monument No. 35 T. P. No. 253 Azimuth Monument	7697.3 1306.1 1776.6	3-8869407 3-1138764 3-2494470
Turning Point No. 253.....	46-29-35.021 84-17-36.817	3547.9 2576.1	107-44-14.7		T. P. No. 254.....	8309.1	3-9195552
Azimuth Monument.....	46-30-00.099 84-18-00.554	10.2 38.7					
Monument No. 35.....	46-30-19.525 84-19-27.368	1978.0 1914.4	70-02-48.0 05-12.00 287-56-45.1	250-02-01.4 107-57-48.1	Monument No. 36. T. P. No. 254 Azimuth Monument	4781.0 1986.9 6384.0	3-6795146 3-2981701 3-8069347
Turning Point No. 254.....	46-29-59.993 84-19-29.942	6077.7 2094.8	123-37-48.4		T. P. No. 255.....	5658.4	3-7040143
Spire, R. C. Church, Sault Ste. Marie, Ont.....	46-30-27.24 84-19-32.34	2759.5 2262.1					
Tower on Post Office, Sault Ste. Marie, Ont.....	46-30-29.11 84-19-39.47	2949.1 2760.8					

Flagpole, International Hotel, Sault Ste. Marie, Ont.	46-30-48-34 84-20-08-85	4896-7 619-1					
Spire, R. C. Church, Sault Ste. Marie, Mich.	46-29-54-72 84-20-27-50	5543-5 1923-9					
Monument No. 36.	46-30-08-415 84-20-31-606	345-8 2211-0	91-03-02-3 182-22-10-6 112-32-20-9	271-01-42-7	Monument No. 37. T. P. No. 256. U. S. Canal Office.	7677-4 2456-5	3-8862126 3-3903215
Turning Point No. 255.	46-30-27-643 84-20-30-154	2800-5 2109-2	94-14-25-2		T. P. No. 256.	8143-0	3-9107560
Flagpole, Court House, Sault Ste. Marie, Mich.	46-29-53-99 84-20-41-91	5469-5 2831-8					
U. S. Canal Office Tower, Sault Ste. Marie, Mich.	46-30-10-19 84-20-55-25	1032-1 3885-8					
Wireless Station on Hill, Sault Ste. Marie, Mich.	46-29-16-46 84-21-21-40	1688-0 1497-7					
Water Tower, Sault Ste. Marie, Mich.	46-29-29-41 84-21-30-15	2979-3 2109-6					
Flagpole, Fort Brady, Sault Ste. Marie, Mich.	46-29-36-03 84-21-33-27	3649-9 2327-8					
Monument No. 37.	46-30-04-790 84-22-21-331	485-9 1492-5	107-39-54-5 172-16-00	287-38-48-0	Monument No. 38. T. P. No. 256.	6732-3 2936-0	3-8291643 3-4077587
Turning Point No. 256.	46-30-33-570 84-22-26-252	3400-9 1836-3	54-28-46-0		T. P. No. 257.	6614-0	3-8204656
Wireless Station, Canal Bank, Sault Ste. Marie, Mich.	46-30-05-00 84-22-01-18	566-2 82-3					
Kelley and Meyer Stack, Sault Ste. Marie, Mich.	46-29-40-41 84-22-43-56	4053-8 3047-6					

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Dis- tance in Feet.	Loga- rithms.
	o ' "		o ' "	o ' "			
Flagpole, School, Algonquin, Mich.	46-29-26-14 84-23-12-96	2678.5 906.2					
Stack, Upper Peninsula Lumber Co., Mich.....	46-29-34-92 84-23-26-82	3537.7 1876.6					
Monument No. 38.....	46-30-24-946 84-23-53-037	2527.2 3710.0	34-19-40.7 346-57-00.	214-18-53.0	Monument No. 39. T. P. No. 257.....	8164.3 3048.5	3-9119130 3-4840634
Turning Point No. 257.....	46-29-55-631 84-23-43-198	5635.8 3022.0	96-18-42.3		T. P. No. 258.....	6493.6	3-8124879
Monument No. 39.....	46-29-18-387 84-24-58-884	1862.9 4116.8	55-50-32.6 165-28-00.	235-49-37.1	Monument No. 40 T. P. No. 258.....	6468.3 4634.2	3-8107913 3-6653727
Turning Point No. 258.....	46-30-02-668 84-25-15-457	270.3 1081.4	55-21-34.0		T. P. No. 259.....	7373.7	3-86070847
Monument No. 40.....	46-28-42-830 84-26-15-313	4308.4 1071.5	62-19-52.8 154-26-00.	242-18-13.9	Monument No. 41 T. P. No. 259.....	10777.0 4352.4	4-0324907 3-6387242
Turning Point No. 259.....	46-29-21-285 84-26-42-156	2156.2 2943.8	30-08-03.2		T. P. No. 260.....	15272.0	4-1838975
East Stack of Waterworks, Sault Ste. Marie, Mich.	46-29-16-69 84-25-01-26	1690.9 88.3					

Date.....

Monument No. 41.	46-27-53-109 84-28-31-654	5380-21 2215-9	108-44-06-1 00-00-00	288-41-52-4 T. P. No. 260	13628-0 4276-9	4-1344318 3-6311286
Turning Point No. 260.	46-27-10-891 84-28-31-634	1103-3 2216-2	98-05-05-1	T. P. No. 261	20662-5	4-3151823
Monument No. 42.	46-28-36-276 84-31-36-053	3674-9 2523-3	141-14-23-5 52-41-00	321-05-48-7 T. P. No. 261	79019-0 9490-1	4-8977317 3-9772726
Turning Point No. 261.	46-27-39-472 84-33-23-830	3898-7 1670-3	140-44-45-6	T. P. No. 262	81786-0	4-9127333
Stack at Bay Mills, Mich.	46-25-58-94 84-34-52-02	5971-1 3643-7				
Monument No. 43.	46-38-43-892 84-43-25-085	4446-5 1750-3	67-37-00	T. P. No. 262	10598-4	4-0252405
Turning Point No. 262.	46-38-04-030 84-45-45-512	408-1 3176-5				
Thessalon Light.	46-14-16-12 83-34-05-73	1633-2 402-9				
Sulphur Island Light	46-08-41-47 83-36-28-15	4201-1 1981-6				
Pilot Island, Front Range Light.	46-10-34-58 84-07-59-60	3502-9 4194-5				
Pilot Island, Rear Range Light.	46-10-16-37 84-08-07-04	1658-1 495-4				
Light No. 1, West Neebish Channel.	46-12-08-55 84-08-11-62	866-1 810-4				
" No. 2, "	46-12-11-20 84-08-08-54	1134-5 600-7				

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distances in Feet.	Logarithms.
Light No. 4, West Neebish Channel.	0° 12' 38.72" 84-08-58.78"	3922.2 4133.8	0° 1'	0° 1'			
" No. 3,	46-12-36.19 84-09-01.60	3666.0 112.5					
" No. 6,	46-13-10.82 84-09-57.44	1096.1 4039.0					
" No. 5,	46-13-19.34 84-10-20.40	1959.3 1434.4					
" No. 8,	46-13-37.71 84-10-20.46	3819.9 1438.6					
" No. 7,	46-14-20.56 84-10-33.35	2083.0 2695.5					
" No. 10,	46-14-21.15 84-10-34.12	2142.4 2398.3					
" No. 12,	46-16-02.64 84-11-29.73	267.4 2088.9					
" No. 9,	46-16-00.82 84-11-33.26	88.0 2336.6					

Locality, Saint Marys River.

Date,

Light No. 14, West Neebish Channel.			
	46-16-56-87	5761.1	
	84-12-27-92	1961.3	
" No. 11,	46-16-55-06	5577.7	
	84-12-31-49	2211.6	
" No. 14 $\frac{1}{2}$,	46-17-07-78	788.0	
	84-12-39-66	2785.4	
" No. 13,	46-17-10-83	1697.1	
	84-12-49-42	3470.8	
" No. 15,	46-17-58-20	5886.3	
	84-12-56-18	3944.9	
" No. 16,	46-17-58-10	5986.1	
	84-12-51-60	3623.0	
" No. 17,	46-18-47-57	4819.2	
	84-12-54-14	3800.8	
" No. 18,	46-18-47-42	4804.1	
	84-12-49-54	3477.7	
" No. 19,	46-19-51-74	5241.5	
	84-12-51-62	3622.4	
" No. 20,	46-19-51-64	5231.3	
	84-12-46-94	3294.0	
" No. 21,	46-20-44-85	4543.3	
	84-12-49-38	3463.9	
" No. 22,	46-21-10-85	1698.8	
	84-12-43-57	3056.6	
" No. 23,	46-21-34-23	3407.5	
	84-13-01-06	74.8	

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Locality, Saint Marys River.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Light No. 25, West Neebish Channel.	° ' " 46-22-49.62 84-13-41.67	5026.2 2921.3	° ' " 0 0 0	" " "			
" No. 24, "	46-22-50.80 84-13-37.14	5145.7 2603.7					
Winter Point Front Range Light.	46-13-03.26 84-09-01.82	336.4 128.0					
Winter Point Rear Range Light.	46-13-08.22 84-09-10.10	832.7 710.0					
Sailor's Encampment Crib Light.	46-14-58.76 84-06-07.47	5952.4 524.9					
Rains Wharf Back Range Light.	46-15-14.08 84-05-36.45	1426.2 2561.3					
Rains Wharf Front Range Light.	46-15-17.10 84-05-41.05	1732.3 2884.5					
Sailor's Encampment Front Range Light.	46-15-41.17 84-05-54.08	4170.6 3800.0					
Sailor's Encampment Back Range Light.	46-15-48.91 84-05-51.06	4954.7 3688.2					

Dark Hole Rear Range Light.	46-15-48-80 84-06-53-42	4943-6 3753-3
" Front Range Light.	46-15-53-85 84-06-53-85	5455-0 3783-5
Point of Woods Front Range Light.	46-16-18-30 84-07-14-34	1853-7 1007-2
Point of Woods Rear Range Light.	46-16-20-37 84-07-17-49	2063-6 1228-7
Hen and Chickens Rear Range Light.	46-18-30-09 84-07-57-95	3048-2 4068-2
Hen and Chickens Front Range Light.	46-18-40-34 84-07-39-39	4086-6 2765-4
Stribling Point Back Range Light.	46-18-41-86 84-06-26-03	4240-5 1827-4
Stribling Point Front Range Light.	46-18-47-18 84-06-45-17	4780-5 3170-9
Shoal Island Light.....	46-18-48-66 84-04-31-86	4929-5 2234-5
Harwood Point Front Range Light.	46-19-18-90 84-07-11-46	1915-4 804-1
Harwood Point Rear Range Light.	46-19-26-01 84-07-12-08	2634-8 847-8
Light No. 1, Middle Neebish Channel.	46-19-21-79 84-08-57-46	2207-3 4032-8
" No. 2,	46-19-25-38 84-08-53-86	2571-2 3780-7

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—(Continued.)
 Locality, Saint Marys River. Date.....

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
	° ' "		° ' "	° ' "			
Light No. 3, Middle Neebish Channel.	46-19-32-36 84-09-34-89	3278.2 2448.8					
" No. 4,	46-19-36-55 84-09-33-73	3702.7 2367.4					
" No. 5,	46-19-43-80 84-10-15-38	4437.0 1079.4					
" No. 6,	46-19-47-65 84-10-13-64	4827.1 957.3					
" No. 7,	46-19-58-30 84-11-02-23	5906.2 156.5					
" No. 8,	46-20-06-42 84-10-58-49	651.6 4104.3					
" No. 9,	46-20-05-94 84-11-30-13	601.7 2114.5					
Lower Hay Lake Front Range Light No. 10.	46-19-29-91 84-10-31-81	3030.2 2232.3					
Lower Hay Lake Rear Range Light No. 11.	46-19-14-80 84-10-19-45	1499.3 1365.2					

Lower Hay Lake Light No. 13.	46-20-47-22 84-11-38-35	4783-5 2690-6
Ninemile Point Light No. 16.	46-23-35-70 84-13-47-11	3616-1 3302-2
Sixmile Point Front Light No. 19.	46-26-22-56 84-15-56-52	2285-4 3958-6
Sixmile Point Rear Light No. 20.	46-26-04-26 84-15-43-12	432-1 3020-3
Middle Hay Lake Front Range Light No. 17.	46-26-11-34 84-15-20-90	1148-9 1464-2
Middle Hay Lake Rear Range Light No. 18.	46-26-41-12 84-15-36-74	4165-0 2572-8
Freschette Point Front Range Light No. 21.	46-27-17-92 84-16-42-28	1815-3 2960-3
Freschette Point Rear Range Light No. 22.	46-27-38-54 84-17-04-18	3904-2 292-3
Light No. 23, Lower West Light.	46-28-24-08 84-17-31-60	2439-3 2211-3
Light No. 24, Lower East Light.	46-28-31-31 84-17-25-18	3171-9 1761-8
Light No. 26, Upper East Light.	46-29-08-13 84-17-52-31	823-5 3660-4
Light No. 25, Upper West Light.	46-29-12-67 84-18-07-24	1283-5 506-6
Light No. 27, North Entrance Light.	46-29-32-79 84-18-22-89	3321-5 1001-7

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.
 Locality, Saint Marys River. Date

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
	° ' "		" ' "	° ' "			
Bayfield, Front Range Light.	46-29-20.63 84-16-58.40	2089.9 4086.6					
Bayfield, Rear Range Light..	46-29-17.59 84-16-46.72	1781.8 3199.1					
Lower Entrance, Front Range Light.	46-30-59.94 84-20-50.97	6072.2 3564.3					
Lower Entrance, Back Range Light.	46-31-10.63 84-21-02.83	1076.8 197.2					
Upper Entrance, Front Range Light.	46-30-50.98 84-22-21.64	5164.7 1513.4					
Upper Entrance, Back Range Light.	46-30-58.86 84-22-07.69	5962.9 537.7					
South Pier Light	46-30-05.19 84-22-22.49	525.3 1573.2					
Brush Point, Front Range Light.	46-27-52.56 84-27-19.32	5326.8 1352.3					
Brush Point, Rear Range Light.	46-27-56.44 87-26-50.73	5717.5 4181.1					

Pointe aux Pins, Main Light.	46-27-51-77 84-28-21-56	5244-7 1508-9
Pointe aux Pins, Front Range Light.	46-28-04-53 84-28-19-67	459-0 1376-3
Pointe aux Pins, Back Range Light.	46-27-59-21 84-28-29-91	5998-3 2093-5
Cedar Point, Front Range Light.	46-26-21-75 84-30-09-96	2202-8 687-5
Cedar Point, Rear Range Light.	46-26-16-66 84-29-55-36	167-5 3877-6
Birch Point, Front Range Light.	46-26-02-16 84-31-23-27	219-2 1629-9
Birch Point, Rear Range Light.	46-25-54-89 84-31-14-21	5560-7 995-1

Locality, Lake Superior.	Date	T. P. No. 263	Date
Turning Point No. 262	46-38-04-030 84-45-45-512	408-1 3176-b	165-19-10-5
Coppermine Point Light	46-59-03-488 84-47-13-627	353-3 944-6	27-40-35-8
Whitefish Point Light	46-46-16-736 84-57-25-912	1695-5 1804-1	209-30-30-0
Turning Point No. 263	46-53-20-668 84-51-35-830	2093-8 2488-8	122-07-10-9
Passage Island Light	48-13-25-321 88-21-56-073	2565-9 3797-2	178-38-12-2 98-39-00-0
		96014	4-9823353
		" 263	4-5983958
		" 263	4-6934450
		" 264	1006035
		" 264	29506
		" 265	76772

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Turning Point No. 264	48-18-20.355 88-22-06.597	2062.7 446.2	73-33-12.5	" "	T. P. No. 265	78915	4.8971596
Turning Point No. 265	48-14-38.368 88-40-44.728	3888.4 3027.6	58-46-04.4	" "	" 266	188545	5.2754151
Victoria Island Light	48-04-53.886 89-21-35.875	5400.6 2436.0	351-55-12.6	" "	" 266	39615	4.5978645
Rock of Ages Light	47-51-59.720 89-18-52.557	6051.2 3583.6	171-57-13.9	" "	" 266	39615	4.5978645
Turning Point No. 266	47-58-26.815 89-20-14.047	2717.2 955.7	111-42-17.4	" "	" 267	40029	4.6023762

Locality, Lake Superior.	Date
Monument No. 1	48-00-20.421 89-29-30.402
Azimuth Monument	48-00-53.379 89-31-49.306

Locality, Pigeon Bay.	Date
Monument No. 2	2069.2 2067.6
Azimuth Monument	5409.1 3352.4

Monument No. 2	Azimuth Monument	T. P. No. 267
18287 4.0007911 10018	89-20-17.2 109-29-13.9 191-04.00	292-16-59.2 289-27-30.7 T. P. No. 267
3317 3.5207354		

Turning Point No. 267	48-00-52-545 89-29-21-038	5324.5 1430.4	76-42-48	T. P. 268	18943	4-2774517
Monument No. 2	47-59-56-274 89-33-56-878	5702.4 3868.4	101-09-05-3 236-16-56-5 193-34-00	281-08-52-7 Monument No. 3 56-18-31-3 Azimuth Monument T. P. No. 268	1174.2 10428 1378	3-0697256 4-0183925 3-1892335
Turning Point No. 268	43-00-09-493 89-33-52-125	961.9 3544.9	44-53-26	T. P. No. 269	1719	3-2351816
Monument No. 3	47-59-58-515 89-34-13-816	5929.4 939.6	291-50-54-8 240-29-12-0	T. P. No. 269 Azimuth Monument	283 11290.6	2-4512112 4-0527156
Turning Point No. 269, mouth of Pigeon River	47-59-57-477 89-34-09-959	5824.1 077.5		T. P. No. 269	131.5	2-1287682
South Pigeon	47-59-56-985 89-34-08-122	5773.9 552.5	111-45-46-2			

APPENDIX III.
TABLE OF POSITIONS, AZIMUTHS, AND LENGTHS, PROMINENT POINTS, LIGHTS,
BOUNDARY TURNING POINTS, AND MONUMENTS DETERMINED BY THE
COMMISSION.

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.

Locality, Saint Lawrence River.

Date.....

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Dis- tances in Feet.	Loga- rithms.
	° ' "		° ' "	° ' "			
Boundary Post No. 774, Saint Regis.	44 59 58.228 74 39 49.491	5897.3 2909.8	72 28 05.36 144 15 45.18 108 43 16.51	252 27 17.17 324 15 19.74 288 42 42.63	2 (I.W.C.) 1 3	5125.3 4424.9 3699.8	3 7097225 3 6 630047 3 5681769
Δ 1 (I.W.C.)	45 00 33.691 74 40 16.464	3412.1 1183.1	20 55 26.31	200 55 17.26	3	2574.1	3 4106212
3	45 00 09.951 74 40 29.257	1067.9 2102.7	26 50 54.92 70 40 39.17	306 50 41.31 250 40 16.65	2 5	3061.7 2425.2	3 4859643 3 3847548
5	45 00 02.026 74 41 01.106	205.1 79.4	334 56 28.75 48 58 10.91	154 50 37.66 228 57 41.83	2 4	2131.3 3918.4	3 3286411 3 5931060
2	44 59 42.978 74 40 48.498	4352.7 3485.2	80 32 51.19 214 21 28.38	260 32 13.21 324 21 05.39	4 7	3915.1 4044.4	3 5927452 3 6068560
4	44 58 36.626 74 41 42.236	3709.3 3035.4	119 22 09.12 290 56 51.38	289 21 10.73 29 57 06.19	11 7	6869.0 4208.2	3 8339817 3 6240982

△ 7.....	45-00-15-4291	1562.7	52 47-01-29	232-46-02-57	△ 6 (U.S.L.S. No. 8)	7494.6	3 8747471
	74 41-21-298	1530.5	85 27-49-78	265 26-36 58	11.....	7461.8	3 8728416
6 (U.S.L.S. No. 8)	44 59 30 663	3105.6	59-03-13 57	239 02-34 58	8 (U.S.L.S. No. 6)	4621.7	3 6647993
	74 42 41 343	3187.0	159 32-10-29	339 51-55 82	11.....	4207.9	3 6240686
11.....	45 00-09-589	971.1	21 31 25-22	291 31-00 70	8 (U.S.L.S. No. 6)	6792.8	3 8329612
	74 42-04 817	346.1	47 39 30-82	227-38-47 58	13.....	5945.2	3 7741680
8 (U.S.L.S. No. 6)	44-59 07-193	728.3	140 34 54	10 329 34-35 39	13.....	2996.1	3 4765513
	74 43 39 490	2838.6	116-09 25 69	996 09-09 19	10.....	2218.8	3 3446884
13.....	44 59 30 046	3043.0	03 48 14 68	183 48 15 80	10.....	1339.4	3 1269288
	74 44-05 966	428.1	36 22 51 82	216 32-37 37	12.....	2466.0	3 3920937
10.....	44 59 16 850	1706.7	64 57 20 34	244-57 06 77	12.....	1522.8	3 1826464
	74 44 07 1 7	517.4	120 34 48 76	390-34 26 61	15.....	2616.2	3 4176700
12.....	44 59 10 481	1061.7	89 39 57-10	269 39-16 51	14.....	4127.5	3 6156826
	74 44-26 392	1897.0	156-09 49 31	336 09-40 73	15.....	2159.8	3 3344077
15.....	44 59-29 990	3037.4	58 25-51-35	238-25-19 34	14.....	3819.8	3 5820382
	74 44-38 536	2769.7	117 56 41 39	297-56 03 99	17.....	4647.9	3 6672613
14.....	44 59 10 242	1037.4	128-01 58-90	308 01-31 15	16.....	3381.8	3 5511015
	74 45-23 816	1711.9	168 28-22 84	318 28-14 46	17.....	4263.8	3 0267924
16.....	44 59 32 030	3244.1	161-54-02-48	341-53 54 46	18.....	2625.5	3 4192094
	74 46 03 071	220.8	224 58-00 66	44-58-20 03	17.....	2786.1	3 4449886
17.....	44 59 51 492	5215.2	100 40-10 98	290 39-43 58	18.....	2833.5	3 4529269
	74 45-35 672	2563.3	155 21-20 61	335-21-01 42	19.....	4075.6	3 6698359
19.....	45 00 33 452	3388.1	12 37-39-04	192-37-30 82	18.....	3817.5	3 5817791
	74 46-02 808	201.8	89-03-14 30	269-04-40 26	21 (U.S.L.S. No. 16)	8464.4	3 5396340
West Base, Cornwall (I.W.C.)	45 00-41 465	4199.5	278-40-18 47	98-40-47 20	East Base.....	2952.3	3 4701584
	74 47-26 840	1928.1	345-21 14 99	165-21-25 02	20 Eccentric.....	4031.9	3 6055126

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.
 Locality, Saint Lawrence River. Date

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Bank Azimuth.	To Station.	Distance in Feet.	Logarithms.
East Base, Cornwall, (I. W. C.)	45-00-37-068	3754	330-49-04-85	150-49-27-33	Δ18 (I. W. C.)	4686-0	3-6708052
	74-46-46-218	3320-5	28-47-53-50	208-47-34-80	20 Eccentric	3943-2	3-5658309
Δ20 Eccentric.	45-00-02-947	298-6	207-07-23-10	27-07-38-40	21 (U. S. L. S. No. 16)	3408-9	3-5326109
	74-47-12-053	909-1	27-8-38-01-09	98-38-42-26	18	4232-4	3-6265877
18	44-59-56-670	5739-5	98-49-40-66	278-48-59-68	20	4214-8	3-6247500
	74-46-14-422	1036-4	144-22-37-22	324-22-11-34	21 (U. S. L. S. No. 16)	4514-7	3-6546318
21 (U. S. L. S. No. 16).	45-00-32-904	3332-3	26-55-02-44	206-54-47-33	20	3390-6	3-5302713
	74-46-51-021	3665-7	81-17-17-63	261-16-33-43	22	4542-5	3-6572971
20	45-00-03-053	309-1	128-19-42-16	308-18-13-08	22	3766-5	3-5759350
	74-47-12-382	889-8	156-56-55-62	336-56-35-65	25 (U. S. L. S. No. 18)	5181-0	3-7144135
22	45-00-26-106	2644-0	105-36-21-96	285-38-48-32	26	3548-3	3-5500151
	74-47-53-515	3844-8	200-50-55-88	20-51-05-00	25 (U. S. L. S. No. 18)	2602-9	3-4154573
25 (U. S. L. S. No. 18).	45-00-50-124	5076-4	71-12-45-53	251-12-02-82	26	4588-4	3-6616378
	74-47-40-620	2918-0	119-27-51-87	299-27-22-30	27	3449-1	3-5377034
27	45-01-06-874	696-2	22-53-33-81	202-53-20-61	26	3445-9	3-5372979
	74-48-22-424	1610-9	67-35-20-99	247-34-47-63	29	3665-0	3-5640858
26	45-00-35-529	3598-4	85-12-33-09	265-11-58-98	28	3477-1	3-5412208
	74-48-41-081	2951-4	130-56-54-67	310-56-34-51	29	2711-4	3-4331980

Δ 25 (I. W. C.).....	3307 7 134-40-54-25 314-40-40-79	Δ 30 (I. W. C.).....	1923 3 3-28405-42
74-49-29-308	2105 6 214-25-04-56 84-25-18-51	20.....	2506 4 3-39300573
29.....	5375 3 75-35-49-22 255-35-21-81	30.....	2874 6 3-45858290
45-00-53-074	688 6 103-42-42-01 283-41-14-00	31.....	2931 3 3-4670622
74-49-09-588	6069 2 37-24-15-37 177-24-16-00	32.....	1410 5 3-1409857
45-00-59-924	3536 4 82-29-16-44 252-28-54-01	33.....	2297 4 3-3612903
74-49-49-232	4650 1 63-35-17-93 243-35-05-36	34.....	1425 3 3-1588963
45-00-46-012	3173 1 115-20-13-71 295-19-50-66	35.....	2590 7 3-4134237
74-49-48-343	4025 9 73-29-08-84 253-28-46-10	36.....	2409 7 3-3519713
45-00-39-751	439 3 148-33-56-32 328-33-45-84	37.....	2042 4 3-3101304
74-50-06-111	5768 7 27-09-08-38 207-08-56-12	38.....	2728 3 3-4358960
45-00-56-937	1503 9 60-37-19-65 240-36-44-75	39.....	4068 6 3-6094477
74-50-20-937	3340 9 41-22-43-86 221-22-23-15	40.....	3183 1 3-5028464
45-00-32-986	2749 3 100-37-34 08 280-37-11-44	41.....	2340 5 3-36939556
74-50-38-267	952 1 100-39-49-20 280-39-28-89	42.....	2100 0 3-3222386
45-00-09-402	542 6 176-00-50-00 356-00-48-07	43.....	2820 8 3-4513010
74-51-07-550	3772 3 37-31-18-84 217-31-00-46	44.....	3045 7 3-4865227
45-00-37-246	738 8 86-47-14-82 260-46-40-07	45.....	3576 6 3-5634757
74-51-10-285	3199 5 318-10-01 92 138-10-18-29	46.....	2494 4 3-3969609
45-00-31-589	4269 3 14-42-31-66 194-42-26-40	47.....	2106 0 3-3234394
74-51-59-424	1340 5 22-16-10-52 292-16-05-02	48.....	1474 6 3-1686740
45-00-13-238	2606 3 85-21-50-09 265-21-28-45	49.....	2205 6 3-3135273
74-51-36-272	6032 8 94-10-54-96 274-10-16-32	50.....	3928 5 3-5942285
45-00-59-765	3165 3 125-53-12-73 305-52-56-60	51.....	2023 8 3-3061573
74-51-44-048	1162 4 68-26-43-41 248-26-20-99	52.....	2449 7 3-3591140
45-00-11-477	493 4 97-10-46-92 277-10-20-10	53.....	2645 0 3-4224290
74-52-06-866		54.....	
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41 (Monument No. 16).....

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.
 Locality, Saint Lawrence River. Date.....

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
	° ' "		° ' "	° ' "			
△ 42 (I.W.C.).....	45-00-02.591 74-52-38.573	262.5 2772.0	77-18-44.31 164-17-37.73	31-257-18-24.34 344-17-34.33	△ 44 (I.W.C.)..... 41 (Monument No. 16).....	2080.5 1278.2	3.3181758 3.1066154
41 (Monument No. 16).....	45-00-14.740 74-52-43.389	1492.8 3117.8	44-56-06.61 82-39-54.17	224-35-50.04 262-39-26.86	44..... 43.....	2383.8 2797.9	3.3773690 3.4463361
41.....	44-59-58.077 74-53-06.819	5881.9 490.1	80-32 14-77 140-37-50-17	250-31-40.13 320-37-39.43	45..... 43.....	3569.1 1720.6	3.5525593 3.2336978
43.....	45-00-11.211 74-53-22.009	1135.5 1681.7	20-28-01.53 51-43-02.85	200-37-50.40 231-42-38.95	46..... 45.....	3234.0 3094.4	3.5098254 3.4905755
46.....	44-59 41.288 74-53-37.747	4181.7 2712.9	59 34-19-38 130 37-09-29	239-34-03.21 310-36-56.52	48..... 45.....	1965.6 1710.0	3.2935691 3.2330020
45.....	44-59-52.296 74-53-55.810	5294.9 4010.5	10-39-22.95 74 39-59-85	190-39-19.05 254-39-42.40	48..... 47 (U.S.L.S. No. 28).....	2145.8 1839.4	3.3315937 3.2646686
47 (U.S.L.S. No. 28).....	44-59-47.477 74 54-20.494	4808.4 1472.8	41-19-40-17 41-39-34-74	139-40-31.13 221-39-05.15	48..... 49.....	2128.0 4525.2	3.3273818 3.6556393
48.....	44-59-31.458 74-54-01.331	3186.0 95.8	47-19-10-39 68-09-08-24	227-18-33.57 248-08-25.10	50..... 49.....	5091.9 4724.6	3.7068797 3.6743645
50.....	44-58-57.372 74-54-53.408	5810.7 3838.9	83-47-37-88 159-13-50-28	263-47-07.87 339-13-43.96	52..... 49.....	3069.7 1811.2	3.4871012 3.2579700

44-59-14 094	1427 5	49-56-54 75	220-56-30 45	△ 52 (I.W.C.)	3147 6	3 4979846
74-55-02 344	168 6	96-51-01 03	276-50-24 27	51	3764 6	3 5757250
44-58-54 093	5478 3	96-49-01 98	276-48-07 21	54	5604 0	3 7484989
74-55-35 864	2578 1	151-45-57 07	331-45-44 00	51	2808 5	3 4484693
44-59-18 523	1876 0	66-52-06 69	246-51-25 03	54 (Monument No. 20)	4605 9	3 6633198
74-55-54 349	3906 1	89-40-38 17	269-39-56 53	53	4233 3	3 6286775
44-59-18 283	1851 7	00 03 53 22	180-03-53 20	54 (Monument No. 20)	1785 6	3 2517762
74-56-53 248	3827 1	37-53-55 74	217-53-40 07	54A	2592 8	3 4137689
44-59 09 654	66 3	80 42 06 74	260-41-51 10	54A	1611 8	3 2973267
74-56 53 276	3829 4	128 02 62 67	308-01-42 97	53A	2542 5	3 4052585
44-59-16 120	1632 5	347-17-18 86	167-17-22 91	54A	1872 8	3 274894
74-57 21 138	1519 3	83-31-29 23	265 31-15 77	55A	4377 4	3 1390644
44-58 58 081	5882 5	91 41-51 89	271-41-30 21	56	2206 0	3 3435965
74-57-15 405	1107 3	133-11-24 22	313-11-06 71	55A	2442 3	3 3878071
44-58-58 725	5947 5	76-36-23 57	256-25-37 87	58 (Monument No. 21)	2687 9	3 4284112
74-57-46 082	3312 3	194-47-28 56	14-47-32 73	55A	1661 3	3 2264568
44-59-14 586	1477 3	53-38-00 71	233-37-30 84	58 (Monument No. 21)	3771 7	3 5 65398
74-57-40 180	2888 1	73-25-22-39	253-24-36 07	57	4914 0	3 6914336
44-58-52 501	5317 2	69 54-27 18	249-53 51-62	60	3860 4	3 5855018
74-58-22 432	1612 5	116-30-22 02	296 30 05 57	57	1869 2	3 2716538
44-59 00 737	74 8	42-00-46 62	222-00 27 51	60	2903 3	3 4628852
74-58-45 703	3285 4	79-23-01 09	259-22-38 50	59	2386 6	3 3685787
44-58-39 436	3694 1	65-55-17 53	245-55 00 98	62	1843 5	3 2856468
74-59-12 734	915 4	168-25-35 28	348-25-31 78	59	1762 4	3 2461120
44-58 56 485	5730 8	28-12-24 88	208 12 11 79	62	2812 8	3 4491353
74-59-17 633	1269 0	59-22-40 05	239-22 09 49	61	3611 8	3 6577177

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—(Continued.)

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
△ 62. (I. W. C.)	44-58-32-009 74-59-36-147	3241.8 2598.7	11-12-29 87 191-12-24-34 109-45-31 98 289-45-14-19	0' 0" 0" 0' 0" 0"	△ 64 (I. W. C.)	2892-0 1889-9	3-4611935 3-2764396
61.	44-58-38-317 75-00-00-889	3880-6 64-0	6-34-0-42-18-32 160-42-30-28 08-54-50-26 188-54-45-06	0' 0" 0" 0' 0" 0"	64	3682-5 3414-4	3-5661373 3-5333144
63.	44-58-05-011 75-00-08-247	507-5 592-8	273-21-25-12 93-21-42-28 8339-17-50-79 159-17-59-08	0' 0" 0" 0' 0" 0"	64	1748-9 2387-8	3-2427561 3-3779913
64.	44-58-03-990 74-59-43-965	404-9 3161-1	22-56 21-05 202-56-12-18 51-54-51-13 231-54-22-83	0' 0" 0" 0' 0" 0"	66	2314-1 3958-1	3-3643820 3-5832535
65.	44-57-41-716 75-00-24-006	4224-7 1726-0	296-21-52-71 86-22-12-14 08-57-31-64 188-57-26-27	0' 0" 0" 0' 0" 0"	66	1981-3 3507-5	3-2963446 3-5449997
66.	44-57-42-956 74-59-56-508	4350-4 4063-0	07-12-04-64 187-11-58-89 35-06-25-40 215-06-00-00	0' 0" 0" 0' 0" 0"	68	5475-8 4388-5	3-7384502 3-6423129
67.	44-57-07-506 75-00-31-601	760-2 2273-0	315-04-22-83 135-04-40-38 53-55-57-77 233-55-40-21	0' 0" 0" 0' 0" 0"	68	2902-1 2211-9	3-4153257 3-3447600
68.	44-56-49-315 75-00-06-053	4994-4 435-4	65-58-14-45 245-57-20-91 98-28-41-26 278-28-05-65	0' 0" 0" 0' 0" 0"	70	5069-7 3665-6	3-7759558 3-5641369
69.	44-56-54-647 75-00-56-459	5534-4 4060-7	31-34-30-17 211-34-12-23 85-59-04-98 265-58-34-63	0' 0" 0" 0' 0" 0"	70 71	3488-0 3097-7	3-5425743 3-4910412

Locality, Saint Lawrence River.

Date

Δ 70 (I. W. C.)	44-56-25-304 75-01-21-849	2562-7 1571-8	60-01-27-91 155-21-06-55	940-01-02-68 835-20-54-14	Δ 72 (Whalem)	2966-6 3030-8	3-4729563 3-4815625
71	44-56-52-503 75-01-39-423	5317-2 2835-6	17-07-33-84 74-21-44-15	197-07-21-02 254-20-38-81	72 (Whalem)	4433-5 6905-8	3-6467448 3-8392116
72 (Whalem) U.S.L.S.	44-56-10-667 75-01-57-571	1080-4 4141-7	68-13-04-72 113-57-33-68	248-12-16-28 283-56-41-20	74	5313-9 5848-7	3-7259662 3-7670397
73	44-56-34-113 75-03-11-876	3454-7 834-3	354-35-12-75 52-59-07-23	174-35-16-79 232-58-25-29	74	4366-1 5348-9	3-6400946 3-7282610
74	44-55-51-194 75-03-06-151	5184-7 442-6	60-23-45-14 103-31-38-78	240-23-06-19 283-30-52-81	74A	4564-4 4816-4	3-6598857 3-6827264
73 A	44-56-02-313 75-04-11-243	254-3 809-1	348-03-37-17 33-02-19-19	168-03-44-19 213-01-49-31	74 A	3456-1 5584-3	3-5385831 3-7469708
74 A	44-55-28-926 75-04-01-306	2929-5 93-8	70-55-36-72 111-56-29-00	250-54-59-82 251-55-24-74	76 (Bradford)	3078-0 7057-7	3-5900383 3-8486601
76 (Bradford) U.S. L.S.	44-55-16-087 75-04-53-554	1629-3 3853-7	98-04-49-15 144-41-51-43	278-03-33-75 324-41-24-07	75	7760-4 4821-6	3-8808854 3-6833977
75	44-55-54-955 75-06-32-300	5565-6 2323-5	10-55-55-71 59-49-29-70	190-55-43-89 239-48-41-65	78	6350-2 5662-9	3-8027866 3-7580361
78	44-54-53-391 75-05-49-034	5407-1 3528-9	83-19-43-32 132-32-55-48	263-18-59-41 312-32-19-26	80	4506-8 5010-7	3-6538651 3-6999003
80	44-54-48-217 75-06-51-233	4883-2 3687-0	161-24-58-52 191-19-56-76	341-24-51-77 11-20-04-45	82	2159-0 3989-9	3-3842566 3-6009374
77	44-55-26-843 75-06-40-337	2718-5 2902-2	38-16-38-61 77-28-40-01	218-16-24-16 257-27-59-81	82	2376-5 4196-4	3-3759269 3-6228787
82	44-55-08-423 75-07-00-755	853-0 57-4	71-29-27-75 110-00-19-47	251-29-01-34 289-59-53-72	84	2838-1 2793-1	3-4530214 3-4460786

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.
 Locality, Saint Lawrence River.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
△ 84 (I. W. C.)	44-54-59.527 75-07-38.193	6028.5 2748.4	102-37-25.86 182-03-05.75	282-37-03.47 02-03-06.41	79 A (I. W. C.) 79	2838.7 1857.7	3-9486763 3-2689703
79	44-55-17.857 75-07-37.259	1808.4 2081.8	34-34-19.08 60-11-43.50	214-34-00.27 240-11-20.45	86 79 A	3378.6 2706.7	3-5287398 3-4324421
79 A	44-55-04.572 75-08-00.907	462.9 712.9	843-16-31.63 37-11-21.90	163-16-35.86 217-11-14.04	86 81	1500.0 1340.8	3-1761084 3-1273832
86	44-54-50.387 75-08-03.909	5103.0 281.2	11-18-47.20 106-31-17.31	191-18-40.65 286-31-05.12	88 81	3402.8 1295.6	3-5318344 3-1124860
81	44-54-54.024 75-08-21.169	5471.4 1523.3	851-10-51.24 35-28-26.81	171-10-56.88 215-28-15.32	88 83	3749.4 2018.2	3-5739031 3-3049663
83	44-54-37.796 75-08-37.443	3827.7 2694.9	819-43-56.04 40-40-07.57	139-44-13.77 220-39-40.98	88 85	2701.6 4159.5	3-4316189 3-6196394
88	44-54-17.441 75-08-13.183	1766.4 948.8	30-17-29.47 76-13-09.19	210-17-01.44 256-12-25.48	90 (Allison) 85	5667.0 4689.1	3-7534499 3-6617237
85	44-54-06.642 75-09-15.101	672.6 1086.9	637-10-24.21 39-25-18.05	157-10-39.89 219-24-52.23	90 (Allison) 92	4122.6 4243.4	3-6151749 3-6277187
90 (Allison) U. S. L. S.	44-53-29.123 75-08-52.886	2949.5 3807.4	96-55-15.28 133-05-32.16	276-55-13.19 313-05-03.97	92 87	4325.6 3336.4	3-6360489 3-5666947

44-52-55-674	5633-4	33-12-59-45-213-12-45-54	△ 92 (I. W. C.)	2599-6	3-4134079
75-09-82-818	2362-2	79-05-03-21-259-04-43-14	89	2684-5	3-3190000
44-53-34-273	3471-1	95-02-20-49-275-01-52-71	91	2845-0	3-4540763
75-09-52-531	3782-1	160-20-57-48-340-25-51-33	89	1880-4	3-2742645
44-53-51-775	5243-4	04-16-45-67-184-16-43-70	92 A	2692-8	3-4301986
75-10-01-252	90-2	55-23-69-03-253-22-47-40	91	2680-7	3-4282462
44-53-25-261	2558-4	68-21-28-32-248-21-08-88	94	2133-6	3-3291195
75-10-04-042	291-0	120-06-05-26-300-05-45-60	91	2317-9	3-3650880
44-53-36-739	3720-8	359-20-47-38-179-20-47-60	94	1949-5	3-2899257
75-10-31-896	2295-9	73-38-02-70-253-37-35-03	93	2941-9	3-4686209
44-53-17-491	1771-3	48-22-62-24-228-21-36-05	96	3574-8	3-5532465
75-10-31-587	2274-3	111-29-49-42-291-25-21-53	93	3057-6	3-4853784
44-53-28-553	2891-7	357-09-28-38-177-09-30-68	96	3499-6	3-5440241
75-11-11-103	799-5	48-09-43-91-228-09-17-89	95	3575-6	3-5533530
44-52-54-046	5473-1	90-50-11-38-270-49-50-30	98 (Monument No. 35)	2150-9	3-3326234
75-11-08-693	626-0	111-22-15-15-291-21-47-34	95	3047-0	3-4838710
44-52-54-319	5304-3	90-01-63-46-270-03-45-67	97	1876-1	3-2732558
75-11-38-561	2776-6	147-30-55-24-327-30-48-51	95	1279-0	3-1048630
44-53-05-001	506-6	14-17-39-65-194-17-35-11	100	1878-4	3-2737943
75-11-48-101	3463-6	47-50-30-21-227-50-18-56	97	1604-1	3-2052498
44-52-47-028	4762-8	67-50-40-57-247-49-57-65	102	4730-2	3-6748794
75-11-54-542	3927-5	135-42-33-11-313-42-26-00	97	1038-8	3-0165265
44-52-54-370	5506-2	55-20-18-81-235-19-42-49	102	1444-2	3-6477941
75-12-01-616	332-3	86-20-46-35-266-20-02-81	99	4513-5	3-6549125
44-52-29-410	2978-7	88-46-30-12-268-45-56-35	101	3447-9	3-5375591
75-12-55-376	3987-8	159-14-07-08-339-13-58-76	99	2395-4	3-4593228

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.		Back Azimuth.		To Station.	Dis- tance in Feet.	Loga- rithms.
			° ' "	° ' "	° ' "	° ' "			
Δ 99 (I. W. C.).	44-52-51.526 75-13-07.170	5218.5 516.4	356-53.54-41 48-18-43.59	176-53-55.60 228-18-18.14	Δ 102A (I. W. C.)	2251.6 3.78.7	3.3524864 3.5414177		
102A.	44-52-29.326 75-13-05.478	2970.1 394.3	40-17-46.23 88-37-28.66	220-17-21.06 268-37-02.01	104.	3973.6 2720.4	3.5991792 3.4346379		
101.	44-52-28.680 75-13-43.243	2904.5 3114.2	357-06-02.95 58-24-53.03	177-06-04.42 238-24-23.48	104.	2969.2 3541.1	3.4726338 3.5491403		
104.	44-51-59.400 75-13-14.158	6015.7 1019.7	84-42-23.01 109-19-38.66	264-41-53.85 289-19-07.63	106.	2390.9 3335.8	3.4758041 3.5258007		
103.	44-52-10.365 75-14-25.127	1049.9 1869.4	352-13-10.85 55-14-59.68	172-13-13.71 235-14-39.22	106.	1399.4 2541.8	3.1459411 3.4051354		
106.	44-51-56.674 75-14-22.497	5739.8 1620.4	45-38-22.77 88-26-03.37	225-32-57.05 248-25-41.06	108.	3678.3 227.8.7	3.5656411 3.3676923		
105.	44-51-56.059 75-14-54.123	5677.5 3898.3	07-52-51.43 51-38-37.24	187-52-48.02 231-38-15.06	108.	2537.5 2888.5	3.4049679 3.4606708		
108.	44-51-31.242 75-14-58.953	3164.0 4246.7	64-57-58.66 110-36-20.16	244-57-15.24 230-36-01.39	110.	4894.9 2048.2	3.6897497 3.3113730		
107.	44-51-38.360 75-15-25.568	3884.8 1841.9	42-02-20.52 70-24-15.16	222-01-55.87 250-23-50.37	110.	3759.8 2687.3	3.5751661 3.4238144		

Locality, Saint Lawrence River.

Date

△ 169 (I. W. C.)	44-51-29-459 75-16-00 712	2983 6 359-34-15-03 179-34-15-17 51-2 53-09-35-44 233 09 18-41	△ 110 (I. W. C.)	1891-2 3-2767265 2174-0 3-3372628
110.	44-51-10-786 75-16-00 516	1092-5 57-43-12-09 237-42-47 96 37-1108-31-13-73 288-30-56 56	112..... 111.....	2915-6 3-4647262 1849-9 3-2671384
111.	44-51-16-588 75-16-24 861	1679-8 18-20-05-05 198-19-58-09 1791-3 77-17-34-41 257-17-11-42	112..... 113.....	2259-4 3-3540020 2407-6 3-3815898
112.	44-50-55-410 75-16-34 729	5611-5 50-55-32-43 230-54-53-77 2502-3 134-35-49-76 314-35-33-73	114..... 113.....	5088-3 3-7065754 2300-3 3-3617874
113.	44-51-11-357 75-16-57-666	1150-3 25-36-44-77 205-36-22-14 4140-1 61-30-47-07 241-30-06-34	114..... 115.....	5348-1 3-7281965 4733-7 3-6752043
114.	44-50-23-737 75-17-29 350	2403-9 40-41-11-01 230-40-50-98 2129-3 144-12-33-84 324-12-15-74	116..... 115.....	3140-5 3-4969985 3161-6 3-4999119
115.	44-50-49-059 75-17-55-212	4968-5 02-17-29-33 182-17-27-39 3978-0 46-54-58-83 226-54-32-72	116..... 117.....	4970-0 3-6946029 3652-7 3-6626106
117.	44-50-24-422 75-18-32-235	2473-4 314-46-24-47 134-46-48-64 2322 8 359 09 54 02 179-09-54-65	116..... 119.....	3479-6 3-5415276 4338-9 3-6433465
116.	44-50-00-222 75-17-57-960	22-6 12-36-31-97 192-36-21-28 4176-8 51-00-55-90 231-00-32-36	118..... 119.....	5009-1 3-6397555 3065-7 3-4907471
119.	44-49-40-991 75-18-31 346	4151-6 335-56-11-17 155-56 24 01 2259-2 16 10-15-64 196 10 03-46	118..... 120.....	3220-5 3-5079292 4473-5 3-6506511
118.	44-49-11-954 75-18 13 129	1210-6 62-65-11-99 242-04-46-97 946-5 118-42-09 88-298-41-40-46	120..... 119A.....	2896-1 3-4614118 3430-0 3-6352988
119A.	44-49-28-218 75-18 54 870	2857-9 351-28-50-27 171-28-54-67 3954-7 66-52-46-12 246-52 23-94	120..... 121.....	3636-5 3-4823781 2365-0 3-3719837
120.	44-48-58 566 75 18-48-629	5031-4 46-39-19-87 226 38-20-77 3505-6 128-28 14-40 308 27-48-62	122..... 121.....	8314-5 3-9198365 3340-8 3-6238513

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
	° ' "		° ' "	° ' "			
Δ121 (I. W. C.).....	44-49-19-087 75-19-24-917	1933.1 1795.9	23-46-35-29 57-49-27-61	203-46-01-76 237-48-26-82	Δ122 (I. W. C.)..... 123 (East Base)	8507.8 7345.9	3-9298198 3-8680463
122.....	44-48-02-207 75-20-12-487	223.4 900.6	56-25-36-73 144-15-08-73	236-25-02-44 324-14-41-48	124..... 123 (East Base)	4211.7 4772.6	3-6244551 3-6787591
124.....	44-47-39-207 75-21-01-147	3970.8 82.7	137-25-11-92 186-37-10-18	317-24-47-75 06-37-17-22	125 (West Base). 123 (East Base)	3654.9 6241.3	3-5628766 3-7954825
123 (East Base) Cardinal..	44-48-40-452 75-20-51-162	4096.8 3688.3	02-23-43-54 42-16-51-40	182-23-42-10 222-16-20-20	126..... 125 (West Base)	3536.5 4746.0	3-5485728 3-6763233
126.....	44-48-05-563 75-20-53-212	563.3 3836.9	25-07-22-79 90-24-54-56	205-07-04-63 270-24-24-80	128..... 125 (West Base)	4379.0 3045.2	3-6413723 3-4836141
125 (West Base) Cardinal..	44-48-05-779 75-21-35-443	585.3 2555.8	343-25-31-43 36-51-26-13	163-25-43-02 216-50-43-43	128..... 127.....	4159.4 7287.6	3-6190350 3-8623871
128.....	44-47-26-414 75-21-18-991	2675.2 1369.7	18-29-13-87 71-38-37-89	198-28-55-83 251-37-43-59	130..... 127.....	5827.7 3835.9	3-7654953 3-7673941
127.....	44-47-08-197 75-22-36-050	830.1 2600.4	314-46-25-29 67-18-00-37	134-47-01-53 247-16-48-89	130..... 129.....	5227.5 7935.1	3-7182976 3-8995633
130.....	44-46-31-839 75-21-41-607	3224.4 3217.8	50-13-17-60 93-13-29-30	230-11-44-17 273-11-41-59	132 (Red Mill). 129.....	12458.9 11049.0	4-0954798 4-0433172

Locality, Saint Lawrence River.

Date.....

△129 (L. W. C.)	44-46 37 947 75 21 17 530	3812 8 350 21-02 43 170 21-15 69 1264 8 55-15-59 55 235-14 45 96	131	△132 (Red Mill)	8715 5 3 9402949 9174 5 3 9025815
131	44-45-46 319 75-26-02 024	4690 9 290-28-42 71 110 30 10 54 140 0 43-13-48 76 225-13 00 79	132 (Red Mill)	9609 0 3 9826799 6926 3 3 8405013	
132 (Red Mill) U. S. L. S.	44 45-13 105 75 23 57 286	1927 1 53-46 17 15 238 44 09 71 4134 2 83-48 28 55 263 46 12 76	133	15284 5 4 1842507 14001 4 4 1461712	
133	44 44 58 148 75-27 10 138	5888 8 352 24 52 56 172 25 00 80 733 3 47-48 48 77 227 47 13 76	134	6170 1 3 8109135 13153 7 4 1190487	
134	44 43-54 818 75-26 58 3 7	5551 5 48 34 20 17 228 32 46 33 4210 0 77-08 36 82 257 06 53 50	135	12846 8 4 1087951 10873 2 4 0383573	
135	44-43 30 903 75 2 25 148	3129 6 350 55 29 29 170 55 58 75 1815 9 46 55 05 51 226 54 19 69	136	6157 6 3 7894131 6438 0 3 8087537	
137	44 42 47 476 75-30 30 261	4808 1 282 30 38 9 106 31 31 17 2185 4 347 30 09 00 167 30 20 35	137	5917 9 3 7721640 5383 3 3 7310493	
136	44-42 30 861 75-29 11 700	3125 3 51 36 49 27 231 36 05 35 845 1 78-19 04 13 258-17 36 96	138	5753 5 3 7599348 9139 2 3 9109065	
138	44-41-55 578 75-30 14 134	5638 6 39 47 44 09 219 46 47 98 1021 0 111 11 17 41 291 10 34 17	139	9007 1 3 9545869 4762 3 3 6778170	
139	44-42 12 576 75-31-15 611	1273 0 08 42 10 05 188 41 57 18 1127 6 45 22 29 69 225 21 02 38	140	8742 7 3 9416443 12604 9 4 1005380	
140	44-40 47 235 75-31-33 918	4783 5 41 46 46 18 221 46 12 74 2430 8 88 24 18 88 268 23 04 46	141	5159 3 3 7125934 7651 2 3 8837308	
141	44 40 45 119 75 33 19 764	4569 2 310 46 40 14 130 47 21 12 1428 1 38 29 09 06 218 28 13 37	142	5562 4 3 7452597 9201 7 3 9638685	
142	44 40 09 243 75 32 21 482	926 0 44 37 05 30 224 35 30 52 1552 5 70 15 12 89 250 13 34 23	143	13882 5 4 1424074 10560 2 4 0236718	

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
	° ' "		° ' "	° ' "			
Δ143 (I.W.C.)	44 39-33-989 75-34-38-986	3442.2 2818.2	358-15-48-32 43-13-51-56	178-15-50-18 223-12-46-13	Δ144 (I.W.C.) 145	6316.6 9828.6	3 8004821 3 9924903
144.	44-38-31-645 75-34-36-339	3204.7 2627.6	43-49-53-29 83-01-20-69	223-49-01-38 263-00-13-41	146 145	7716.1 6975.1	3 8873959 3 8435494
145.	44-38-23-267 75-36-12-089	2356.3 874.0	341-28-20-01 45-42-45-76	161-28-35-37 225-42-18-17	146 147	4976.3 3967.6	3 6969052 3 5985221
146.	44-37-36-676 75-35-50-225	3714.2 3632.5	39-15-18-51 113-46-53-48	219-14-44-95 293-46-10-53	149 147	5462.4 4831.5	3 7373907 3 6840867
147.	44-37-55-911 75-36-51-363	5662.4 3714.6	351-06-41-56 49-30-05-55	171-06-50-94 229-29-27-81	148 149	6252.9 5110.4	3 7960831 3 7084584
148.	44-36-54-907 75-36-38-007	5560.7 2749.3	54-16-56-09 120-30-33-83	234-15-35-15 300-29-46-71	150 (Morristown) 149	10273.0 5631.9	4 0116989 3 7506533
149.	44-37-23-134 75-37-45-092	2342.8 3261.5	21-29-11-01 46-51-07-52	201-23-37-17 226-50-09-60	150 (Morristown) 151	9618.8 8177.4	3 9785839 3 9126140
150 (Morristown) U.S.L.S.	44-35-55-670 75-38-33-277	5637.8 2407.8	70-06-27-93 142-46-31-93	250-05-36-90 322-46-07-86	153 (Monument No. 55) 151	5593.2 4099.8	3 7476622 3 6127002
151.	44-36-27-904 75-39-07-557	2825.8 546.6	00-00-24-81 28-15-59-72	180-00-24-80 208-15-32-76	152 153 (Monument No. 55)	6436.4 5867.7	3 8066443 3 7684658

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44-35-24-348 75-39-07-688	2465-5 547-9	38-01-03-22-218-00-18-19 114-32-29-59-294-32-02-64	153 (Monument No. 55)	7540 6 3053-9	3-8774024 3-4848544
44-35-36-871 75-39-45-957	8733-9 3925-8	14-30-22-44-194-30-04-35 63-32-37-83-243-31-52-36	154 155	7446-7 5237-8	3-8719635 3-7191490
44-35-13-824 75-40-50-750	1399-9 3672-9	9-39-54-30-166-149-54-58-05 39-40-42-57-219-40-11-78	154 157	5634-6 4973-6	3-7508000 3-6966729
44-34-25-682 75-40-11-725	2660-7 848-8	53-54-11-74-233-53-16-92 99-54-27-16-273-53-28-98	156 157	6969-5 6091-3	3-8450467 3-7847121
44-34-36-023 75-41-34-619	3648-9 2505-9	10-13-30-176-10-16-66 38-48-17-13-218-47-50-53	156 159	5183-3 4378-9	3-7146065 3-6113008
44-33-44-354 75-41-29-838	4552-5 2160-4	44-29-58-18-224-29-20-98 119-39-15-92-269-38-45-97	158 159	5478-1 3556-0	3-7386294 3-5600224
44-34-02-324 75-42-12-323	235-2 906-8	07-31-28-72-187-31-21-47 48-09-32-40-228-08-16-18	158 161	5716-0 10568-7	3-7570435 4-0240232
44-33-06-367 75-42-22-859	644-7 1655-5	39-34-30-86-219-33-31-04 79-00-41-34-258-59-32-32	160 161	9697-0 7258-2	3-9863379 3-8608293
44-32-52-694 75-44-01-243	5336-3 89-9	351-08-27-38-171-08-36-54 47-49-07-51-227-48-08-30	160 163	6164-1 8251-8	3-7898672 3-9165484
44-31-52-552 75-43-48-139	5321-8 3487-2	49-07-40-92-229-06-35-96 94-27-05-50-274-25-57-11	162 163	8877-3 7085-4	3-9482789 3-8503652
44-31-57-970 75-45-25-655	5870-7 1868-6	7-356-49-07-37-176-49-11-29 41-38-37-90-221-37-16-17	162 165	6268-7 12713-3	3-8040482 4-1042571
44-30-55-179 75-45-20-778	5587-9 1505-6	21-13-29-81-201-12-56-45 70-21-24-93-250-19-59-79	164 165	9530-6 9345-3	3-9791198 3-9705917
44-30-24-140 75-47-22-223	2444-5 1610-6	5-316-59-51-65-137-00-43-41 41-29-31-88-221-28-48-62	164 167	7849-3 6675-8	3-8943000 3-8246025

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.		Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
			° ' "	° ' "				
Δ164 (I.W.C.)	44-29-27-449 75-46-08-376	2779.8 607.3	31-14-00-33 94-20-32-83	211-13-20-26 274-18-58-32	Δ166 (I.W.C.)	8000.8 9804.2	3-9031937 3-9914127	
166	44-28-19-890 75-47-05-584	2014.1 404.9	84-31-54-39 143-24-39-13	264-29-50-74 323-23-44-72	169. 167.	12859.0 9443.4	4-1092065 3-9751285	
167	44-29-34-757 75-48-23-286	3519.7 1684.4	352-57-47-97 39-08-17-49	172-57-56-57 219-07-08-22	168. 169.	7262.5 11358.0	3-8610887 4-0553077	
168	44-28-23-580 75-48-10-967	2387.8 795.3	342-51-31-12 78-45-37-47	162-51-55-91 258-44-19-62	170. 169.	8711.7 8216.5	3-9401039 3-9146888	
169	44-28-07-752 75-50-02-095	785.1 151.9	302-17-57-18 350-05-08-99	122-19-39-81 170-05-26-21	170. 171.	12574.8 10359.2	4-0995016 4-0153264	
170	44-27-01-375 75-47-35-572	139.1 2580.4	29-06-08-63 68-31-23-85	209-05-18-36 248-29-58-46	172. 171.	10713.6 9507.4	4-0290455 3-9720618	
171	44-26-26-984 75-49-37-512	2732.6 2721.4	329-14-38-69 27-56-30-65	148-15-13-79 207-55-59-36	172. 173.	6913.9 6922.4	3-8397224 3-8402565	
173	44-25-26-583 75-50-22-206	2692.9 1611.5	268-01-22-28 353-06-48-84	88-02-28-66 173-07-00-14	172. 174.	6886.5 9773.7	3-8380001 3-9900591	
172	44-25-28-998 75-48-47-373	2929.5 3188.0	29-53-37-93 72-26-03-51	200-52-42-86 252-24-36-73	174. 175.	11464.3 9439.6	4-0503467 3-9749268	

Locality, Saint Lawrence River.

Date.....

44-25-00 780	79-1 335 06 57 88 155 07 29 52	Δ174 (I. W. C.)	7814 4	3 8929035
75-50-51 352	3727 4 45-27 19 39 225 26 28 96	177	7341 7	3 8657977
44-23-50 775	5141 7 59-08 23 92 239-02-11 91	176	8716 2	3 9403263
75-50-06 068	440 6 102-49-42 98 282-48-20 87	177	8738 5	3 9414943
44-24-09 918	1004 3 330 44-16-21 170 44-26 30	176	6506 4	3 8133433
75-52-03 424	246 7 49 52-15-44 229 51-25 41	179	6791 6	3 8319709
44-23-06 505	658 8 37-54-04 99 217-52-48 13	178	13000 4	4 1139883
75-51-49 004	3658 7 108-08-33 32 288 07-33-21	179	6506 4	3 8173267
44-23-26 687	2702 4 08-03-42 99 188-03-26 22	178	12426 2	4 0943397
75-53-14 935	1084 6 48-54-56 26 228-53-52 14	181 (Bluff) U. S. L. S.	8834 8	3 9461944
44-22-29 344	2971 4 322-52 07 10 142-52-54 44	178	8147 9	3 9110477
75-54-46 614	3385 8 42-57-01 46 222 55-17 93	183	15794 6	4 1985082
44-21-25 192	2551 2 34 47 00 95 214-45-49 19	180	13083 8	4 1167333
75-53-38 920	2827 4 72 06 45 28 252 04-14 42	183	16478 0	4 2169051
44-19-39 064	3955 7 87-54-42 81 267 52-19 16	182	14955 0	4 1747525
75-55-21 597	1569 9 124-39-16 89 304-37-57 85	183	9982 1	3 9996586
44-19-33 632	3405 8 142-57 18 97 322-56-54 19	184	4278 3	3 6312688
75-58-47 178	3429 8 227-09-54 78 47-10-59 41	183	9165 4	3 9921501
44-20-35 156	3560 0 73-09-56 52 253 04 27 10	184	9715 8	3 9874771
75 57-14 696	1068 2 115 00 41 96 294 37-10 17	185	24282 7	4 3852970
44-20-07 352	744 4 116 33-28 31 296 30-35 05	187	20132 7	4 3039018
75-59-22 638	1645 3 135-48-25 20 315-46-22 86	185	18235 8	4 2909256
44-22-16 428	1663 7 349-33-50 05 169 34-16 81	186	15362 8	4 1864719
76-02-17 637	1281 2 52-24-05 78 232-23-14 83	187	6681 9	3 8249028
44-19-47 228	4782 5 58-27-09 39 238-25 03 72	188	15340 4	4 1588378
76-01-39 354	2860 9 143 47-52 30 323-46-34 61	187	13672 6	4 1358617

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
△187 (I. W. C.).	44-21-36.162 76-03-30.505	3662.1 2216.5	14-40-18.23 46-05-35.10	194-39-30.26 226-03-40.36	△188 (I. W. C.) 189.	19703.5 16563.5	4.2945435 4.2191927
188.	44-18-27.980 76-04-39.133	2828.4 2845.5	56-23-41.99 137-28-38.03	236-22-05.35 317-27-31.28	190. 189.	12085.7 10275.0	4.0822730 4.0117838
189.	44-19-42.700 76-06-14.668	4324.1 1066.3	12-19-32.89 56-35-08.67	192-19-02.96 236-33-55.68	190. 191.	14599.4 9100.0	4.1643339 3.9506897
190.	44-17-21.852 76-06-57.512	2212.9 4183.7	54-20-04.11 154-09-25.06	234-18-35.09 334-08-42.05	192. 191.	11420.6 10278.9	4.0576892 4.0119480
191.	44-18-53.201 76-07-59.136	5387.5 4299.8	16-46-10.24 59-31-14.17	196-45-24.23 239-29-12.96	192. 193.	16617.4 14646.0	4.2205618 4.1657168
192.	44-16-16.076 76-09-05.027	1627.9 365.8	63-27-29.18 137-17-05.96	243-26.05.02 317-15-50.80	194. 193.	9809.6 11541.8	3.9916500 4.0622743
194.	44-15-32.772 76-11-05.608	3318.6 408.1	138-42-40.27 184-11-02.11	318-41-29.20 04-11-11.14	195. 193.	11224.5 12898.4	4.0501657 4.1105357
193.	44-17-39.805 76-10-52.670	4030.8 3831.0	338-19-15.72 62-02-51.63	158-20-22.12 242-01-31.51	196. 195.	18743.7 9450.2	4.2728364 3.9754431
195.	44-16-56.046 76-12-47.416	5675.5 3449.5	310-21-29.04 334-33-02.32	130-23-55.52 154-34-14.53	196. 197.	20048.0 17529.1	4.3020721 4.2437592

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44-14-19-729	1997-7-249-50-36-25	69-51-50-49	△196 (I.W.C.)	8250-7	3-9161911
76-11-63-953	287-8-320-13-56-49	140-14-54-76	198	9510-9	3-9782237
44-14-47-791	4839-6	09-18-49-29	189-18-33-34	10288-7	4-01233563
76-09-17-551	1277-9	60-12-26-71	240-10-28-14	14260-9	4-1541484
44-13-07-327	762-1	06-02-32-25	246-00-35-55	13341-0	4-1251862
76-09-40-415	2043-6	105-58-32-75	285-56-50-16	11141-5	4-0469442
44-13-37-784	3826-1	09-52-10-10	189-51-55-97	8612-0	3-9551004
76-12-07-511	546-9	49-43-20-71	229-42-36-04	6113-9	3-7863194
44-12-58-746	5948-8	324-51-36-11	144-52-06-64	5541-1	3-7435930
76-13-11-535	841-5	58-09-22-61	238-08-46-29	4466-0	3-6499217
44-12-13-997	1417-3	38-03-57-18	218-03-11-57	7732-4	3-8883116
76-12-27-774	2023-0	107-18-27-43	287-17-20-59	7314-0	3-8941552
44-12-35-473	3592-2	344-58-27-73	164-58-48-95	8555-4	3-9322417
76-14-03-640	265-1	77-49-49-31	257-48-38-64	7552-7	3-8780993
44-11-13-874	1404-8	85-33-32-18	265-31-42-50	11501-0	4-0607394
76-13-33-201	2418-9	124-47-51-40	304-46-19-53	11631-0	4-0678479
44-11-05-049	511-1	108-00-17-26	287-59-33-88	4762-3	3-6778198
76-16-10-557	769-3	193-49-57-37	13-50-15-19	7789-2	3-8914941
44-12-19-738	1998-7	46-22-55-92	226-21-54-77	8829-2	3-9439901
76-15-44-992	3277-5	90-53-14-82	270-52-12-83	6477-6	3-8114132
44-12-20-719	2098-1	359-11-50-83	179-11-51-66	6191-7	3-7918077
76-17-13-965	1013-1	78-23-10-71	258-22-13-33	6120-7	3-7868637
44-11-19-581	1982-9	92-26-32-52	272-24-51-77	10541-5	4-0929014
76-17-12-715	926-5	129-11-28-17	309-10-29-97	7847-5	3-78947310
44-12-08-542	864-8	01-30-22-40	181-30-20-44	8145-2	3-9109016
76-18-36-205	2637-5	44-36-02-08	224-39-19-52	6335-4	3-8917764
△197 (I.W.C.)					
196					
198					
199					
201					
200					
203					
202					
204					
205					
207 (Monument No. 85)					
206					
209 (Monument No. 86)					

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.		Seconds in Feet.	Azimuth.		Back Azimuth.		To Station.	Distance in Feet.	Logarithms.
	° ' "	° ' "		° ' "	° ' "	° ' "	° ' "			
Δ208 (I.W.C.)	44-10-48-135 76-18-39-143	73-21-44-74 130-36-57-50	4874.3 2852.3	253-20-12-93 310-36-17-00	Δ213 (I.W.C.) 211	10021.9 5578.3	4-0009494 3-7465014			
213	44-10-19-776 76-20-50-887	219-31-18-44 275-55-20-20	2002.6 3709.0	39-32-09-76 95-56-49-87	211 210	8430.6 9422.4	3-9258584 3-9741603			
210	44-10-10-156 76-18-42-307	76-31-22-41 151-49-55-05	1028.5 3083.6	256-29-21-50 331-49-16-75	215 211	13009.2 8481.7	4-1142516 3-9284813			
211	44-11-23-991 76-19-37-237	334-18-05-73 39-26-16-33	2429.5 2714.6	154-19-24-32 219-24-53-69	212 215	18969.2 13609.3	4-2780491 4-1338863			
215	44-09-40-178 76-21-35-848	312-08-04-99 291-17-26-03	4068.6 2613.2	132-09-58-02 111-20-07-21	214 (West Base) 212	15960.4 18109.5	4-2030435 4-2579063			
212	44-08-35-178 76-17-44-455	50-41-11-97 8361-12-42-62	3562.3 3241.8	230-40-23-84 171-12-50-57	214 (West Base) 216 (East Base)	6515.6 5450.7	3-8139506 3-7364520			
216 (East Base), Cape Vincent, U.S.L.S. Secondary.	44-07-41-982 76-17-33-038	102-05-50-34	4251.3 2409.8	282-04-54-27	214 (West Base)	6007.1	3-7786682			
214 (West Base), Cape Vincent, U.S.L.S. Secondary.	44-07-54-407 76-18-53-571		5509.5 3907.1							
223	44-05-44-949 76-26-28-839	8233-25-14-07 264-33-11-37	4551.8 2104.6	53-27-27-78 84-36-08-50	221 222 (Tibbetts Point Light)	17450.0 18659.0	4-2417929 4-2708843			

Locality, Saint Lawrence River.

Date

Δ222 (Tibbetts Point Light) U.S.L.S. Secondary.	44-06-02-301 76-22-14-301	239-2152-10-58-23-332 1043-6197-07-59-10	332-10-14-77 96-17-08-36-95	Δ221 219	9759-6 13460-5	3-9894329 4-1280060
219	44-08-09-385 76-21-19-930	950-5 1453-4	11-36-45-79 63-35-56-43	191-36-29-20 243-34-35-12	220 221	8635-8 3-9639489 9512-6 3-9782991
221	44-07-27-598 76-23-16-737	2794-6 1220-8	269-45-41-96 301-55-29-09	89-47-33-13 121-56-33-82	218 220	10500-1 4-0253086 7992-7 3-9029358
220	44-06-45-849 76-21-43-756	4642-7 3192-6	126-08-31-95 6221-48-16-52	306-07-27-36 41-48-52-96	217 218	8379-7 3-9232280 5726-9 3-9759221
217	44-07-34-645 76-23-16-329	3508-2 1265-7	209-59-55-09 273-37-18-22	30-01-05-21 93-38-59-25	215 218	14679-7 4-1667179 10606-0 4-0255511
218	44-07-28-003 76-20-51-421	2835-6 3750-6	106-23-57-61 209-48-56-08	346-23-20-67 29-50-26-01	215 216	13771-0 4-1889656 18927-6 4-2770954
Whiskey	44-22-56-452 75-53-03-624	5716-5 263-1	164-59-06-59 1239-21-10-15	344-58-58-68 79-22-02-34	179 176	3170-1 3-5010733 5514-1 3-7414754
Sport	44-22-37-550 75-53-48-402	3802-5 3515-7	206-01-53-4 239-30-57-6	26-02-16-8 59-31-28-9	179 Whiskey	5538-0 3-7433548 3773-8 3-5767836
Grenadier	44-22-58-286 75-54-18-582	5903-5 1349-7	271-57-24-5 313-47-02-1	91-58-16-9 133-47-23-2	Whiskey Sport	5447-1 3-7361638 3036-1 3-4823138
Yeo	44-22-32-070 75-54-49-221	3247-7 3375-1	219-57-28-1 262-49-58-7	39-57-49-5 82-50-41-2	Grenadier Sport	3465-1 3-5397122 4452-3 3-6485814
Little	44-22-46-778 75-55-18-835	4736-9 1368-1	235-04-07-6 1304-41-54-8	75-04-49-8 124-42-15-5	Grenadier Yeo	4528-9 3-6560002 2616-3 3-4176806
Club	44-22-18-793 75-55-56-903	1903-2 4133-2	224-17-35-1 224-41-56-6	44-18-01-8 74-42-43-9	Little Yeo	3959-4 3-5976279 5096-8 3-7072968
Mary	44-21-53-322 75-55-24-964	5399-6 1813-3	138-02-06-5 184-42-10-8	318-01-44-2 04-42-15-1	Club Little	3469-4 3-5402561 5431-7 3-7349578

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
	° ' "		° ' "	° ' "			
△Pole	44-21-46-466 75-55-56-880	4705.4 4132.2	179-58-24.1 253-19-37.1	359-58-24.0 73-19-59.5	△Club Mary	3273.9 2420.4	3-5150944 3-3838618
Park	44-21-24-458 75-55-58-240	2476.7 4231.3	182-32-22.8 219-35-28.6	02-32-23.8 39-35-51.8	Pole. Mary	2230.9 3793.3	3-3484852 3-5796222
Point	44-21-26-703 75-56-11-044	2704.1 802.5	231-09-18.7 283-43-40.2	51-09-50.9 103-43-49.1	Mary Park	4298.4 957.8	3-6333063 2-9812557
Laundry	44-21-21-626 75-56-09-996	2190.0 726.4	171-34-06.5 251-26-24.9	351-34-05.8 71-26-33.1	Point. Park	519.7 901.1	2-7157579 2-4647520
Mon.	44-21-23-106 75-56-23-350	2339.9 1696.5	247-49-24.1 278-45-58.6	67-49-32.7 98-46-07.9	Point. Laundry	965.5 981.8	2-9847686 2-4929255
Sand	44-21-13-761 75-56-19-686	1393.4 1430.4	164-17-30.0 205-35-47.0	344-17-27.4 25-35-55.0	Mon. Point.	983.1 1453.5	2-9926027 3-1624069
Marsh	44-21-25-455 75-56-30-640	2577.8 2226.4	264-10-49.3 326-05-40.2	114-10-54.4 146-05-47.9	Mon. Sand	580.7 1426.9	2-7639425 3-1543833
Tank	44-20-57-128 75-56-47-216	5785.1 3430.8	202-46-31.2 229-53-59.6	22-46-42.8 49-54-18.8	Marsh Sand	3111.3 2615.3	3-4929482 3-4175156
Island	44-20-42-302 75-57-39-750	4283.8 2888.8	291-39-53.7 62-02-30.4	111-40-11.2 242-02-06.4	183 Lower	1959.3 2822.1	3-2929080 3-4506791

Locality, Saint Lawrence River. Date

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
	° ' "		° ' "	° ' "			
ΔB.B.	44-20-50.959 75-58-42.207	5160.4 3066.9	25-34-09.0 92-41-39.1	205-34-06.1 272-41-29.7	ΔZ. A.A.	695.5 976.3	2-84292923 2-98950688
Z.	44-20-44.763 75-58-46.338	4533.1 3367.4	109-57-58.8 134-55-30.9	289-57-49.0 314-55-24.4	Y. A.A.	1087.9 953.4	3-03657556 2-9792671
A.A.	44-20-51.412 75-58-55.626	5206.4 4042.3	49-01-18.2 77-58-40.2	229-01-14.9 257-58-35.0	Y. M.	460.2 560.6	2-64290683 2-74863896
Y.	44-20-48.432 75-59-00.407	4904.5 29.5	88-10-32.4 132-39-16.2	263-10-25.4 312-39-14.3	X. M.	736.4 273.1	2-80766897 2-4362870
M.	44-20-50.259 75-59-03.171	5089.6 230.3	68-42-56.4 85-33-53.6	248-42-51.2 265-33-48.4	X. L.	574.3 544.4	2-7591057 2-7369270
X.	44-20-48.201 75-59-10.585	4881.2 765.4	103-18-36.4 177-22-35.1	283-18-34.3 337-22-35.0	W. L.	219.1 166.6	2-3406269 2-2215634
L.	44-20-49.842 75-59-10.641	5047.2 773.3	60-34-42.4 102-12-42.0	240-34-40.4 282-12-39.1	W. K.	236.0 306.7	2-3729563 2-4852314
W.	44-20-48.698 75-59-13.470	4931.4 978.8	99-15-17.8 152-42-50.6	279-15-14.2 332-42-49.7	V. K.	378.2 203.2	2-5777724 2-3079375
K.	44-20-50.482 75-59-14.752	5112.2 1072.2	66-51-15.9 83-45-20.5	246-51-13.2 263-45-17.7	V. J.	304.7 290.8	2-4838574 2-4635993

Locality, Saint Lawrence River.

Date

ΔJ.....	5080-4 354-13-28-4 1361-2 84-18-44-0	174-13-28-5 264-18-42-9	ΔV.....	88-6 113-3	1-9473531 2-0543919
V.....	44-20-49-289 75-59-18-697	4892-4 89-39-26-5 1352-4 122-17-20-0	U.....	265-3 144-0	2-4237467 2-1982402
I.....	44-20-50-657 75-59-20-282	5069-2 61-20-26-4 1474-1 95-49-36-3	U.....	163-7 130-5	2-2139261 2-2116742
U.....	44-20-49-282 75-59-22-238	4890-5 88-53-26-4 1617-5 188-39-59-9	H.....	309-6 92-8	2-4908188 1-9673805
H.....	44-20-50-188 75-59-22-069	5082-3 81-41-52-3 1603-7 73-10-46-2	T. (Monument No. 72)	345-8 337-7	2-5388270 2-5286875
G.....	44-20-49-695 75-59-26-778	5032-5 338-26-36-7 1945-9 97-04-09-6	T. (Monument No. 72)	51-4 81-1	1-7109448 1-9691296
T. (Monument No. 72)	44-20-49-224 75-59-26-518	4984-6 93-46-22-3 1927-2 120-10-29-6	F.....	223-7 115-0	2-3497448 2-0605716
F.....	44-20-49-798 75-59-27-886	5042-3 70-49-44-9 2026-5 113-04-41-7	S.....	131-1 339-5	2-1177365 2-5907836
S.....	44-20-49-368 75-59-29-591	4909-3 92-27-55-2 2150-3 133-04-06-0	E.....	340-1 257-9	2-5316259 2-4114800
E.....	44-20-51-168 75-59-32-184	5175-5 43-08-48-2 2338-9 115-01-15-9	R.....	221-4 1124-0	2-3450809 3-0507775
R.....	44-20-49-513 75-59-34-267	5014-1 91-00-13-8 2490-2 126-17-45-6	D.....	1021-3 1675-9	3-0091679 3-0317859
D.....	44-20-55-802 75-59-46-290	5650-9 13-58-19-4 3356-9 93-50-18-4	Q.....	637-7 1665-0	2-8046442 3-2214246
Q.....	44-20-49-690 75-59-48-319	5031-8 72-44-10-0 3511-1 115-51-04-1	C. (Monument No. 73)	1355-5 1674-9	3-1321137 3-2239892
			C. (Monument No. 73)		

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.
 Locality, Saint Lawrence River.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
	° ' "		° ' "	° ' "			
ΔC. (Monument No. 73).....	44-20-56.902 76-00-09.062	5762.1 658.5	349-21-09.7 54-36-43.2	169-21-11.7 234-36-33.0	ΔP O.....	1152.5 1302.7	3.0616251 3.1148316
P.....	44-20-45.718 76-00-06.132	4629.6 445.5	106-31-29.2 150-48-48.9	286-31-16.9 380-48-42.5	O B.....	1329.9 1368.0	3.1237998 3.1360719
B.....	44-20-57.510 76-00-15.313	5823.8 1112.9	36-40-45.7 106-01-28.7	216-40-39.8 286-01-08.4	O A.....	1017.5 2191.9	3.0075463 3.3408185
O.....	44-20-49.451 76-00-23.677	5007.9 1720.8	100-44-56.0 133-28-21.1	280-44-36.8 313-28-06.7	N A.....	2036.4 2065.5	3.3088594 3.3150277
71 Eccentric.....	44-20-36.350 76-00-29.593	3681.1 2150.9	51-26-21.0	231-26-02.2	Stone.....	2563.5	3.3085492
N.....	44-20-53.201 76-00-51.208	5387.5 3721.4	06-44-56.5 71-17-31.5	186-44-52.8 251-17-04.8	Stone. Sir.....	3289.9 2931.3	3.5171795 3.4670555
Sir.....	44-20-43.916 76-01-29.413	4447.2 2137.8	314-13-43.8 37-51-42.5	134-14-06.8 217-51-12.0	Stone View.....	3385.5 5167.2	3.5281583 3.7132525
Stone.....	44-20-20.936 76-00-56.528	2120.4 4108.6	72-30-45.3 153-15-50.0	252-29-51.8 353-14-53.3	View.....	5831.2 13006.2	3.7657549 4.1171442
View.....	44-20-03.628 76-02-13.045	367.5 948.1	149-00-51.3 178-34-45.1	328-59-57.2 358-34-41.8	187. 185.....	10931.4 13453.3	4.0386768 4.1287973

ΔGrand	44-19 14.742 76 03 27 758	1492 8 2018 0	47 35 52 0 103 08 39 4	227 35 02 1 283 07 02 7	Δ188 189	7028 7 12460 0	3 8468910 4 0965181
Long	44-19 06 449 76 05 15 832	653 2 1150 6	263 53 20 1 325 37 18 5	83 54 35 7 145 37 44 1	Grand 188	7902 1 4726 0	3 8977435 3 6744953
Round	44-18 16 701 76 06 35 222	1691 3 2561 3	195 37 57 2 254 24 56 6	15 38 10 7 74 25 35 8	Long 188	5231 4 4234 2	3 7186165 3 6287076
Monument No. 76	44-17 51 114 76 05 54 735	5176 2 3981 0	208 42 19 9 235 51 01 3	28 42 33 5 55 51 54 1	Round 188	2954 2 6642 7	3 4704421 3 8223470
End	44 18 04 564 76 06 49 061	462 3 3568 2	245 02 20 6 16 51 35 0	65 03 09 5 196 51 31 1	188 Monument No. 76	5608 5 1423 2	3 7488478 3 1532707
Mion	44 18 00 890 76 06 10 436	90 2 759 2	256 32 13 5 310 55 33 7	76 32 28 4 130 55 44 6	End Monument No. 76	1568 4 1511 2	3 2936783 3 1793141
Peak	44-17 51 154 76 06 18 370	5180 4 1336 0	210 20 17 8 270 08 00 3	30 20 23 3 90 08 16 8	Mion Monument No. 76	1142 3 1718 8	3 0577979 3 2552280
Monument No. 77	44-17 56 019 76 06 46 501	5675 8 3381 9	259 24 38 9 283 37 06 1	79 25 04 0 103 37 25 7	Mion Peak	2668 2 2105 0	3 4262942 3 3232611
Grind	44-17 43 942 76 06 50 050	4449 8 3640 4	191 53 12 5 239 12 49 2	11 53 15 0 59 13 16 9	Monument No. 77 Mion	1252 9 3353 4	3 0979166 3 5254840
Death	44-17 46 240 76 07 11 290	4622 4 821 2	241 08 36 5 278 32 36 7	61 08 53 8 98 34 11 5	Monument No. 77 Grind	2058 3 1562 2	3 3135101 3 1937283
Doek	44-17 29 563 76 07 12 515	2993 8 910 1	183 01 07 4 328 17 26 9	03 01 08 3 48 17 42 5	Death Grind	1691 2 2188 5	3 2281888 3 3401528
Monument No. 79 Eccentric	44-17 42 786 76 07 51 117	4532 7 3718 2	263 06 28 0 295 29 28 3	83 06 55 8 115 29 55 2	Death Doek	2917 7 3110 6	3 4650360 3 4928576
Jones	44-18 23 507 76 06 57 564	2380 6 4185 0	123 53 30 4 201 14 48 1	303 52 47 4 21 15 18 1	191 189	5303 3 8604 7	3 7318531 3 9347333

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
ΔMelville.....	44-18-33-272 76-09-04-458	3369.4 324.1	246-58-25.1 276-06-15.2	66-59-10.7 96-07-43.9	Δ191..... Jones.....	5160.4 9280.4	3-7127137 3-9675671
Leek.....	44-17-46-980 76-08-48-380	4757.5 3512.0	165-59-46.1 245-20-08.2	345-59-34.9 65-21-25.6	Melville..... Jones.....	4831.4 8867.6	3-6840750 3-9478964
Monument No. 79 Eccentric	44-17-42-786 76-07-51-117	4332.7 3717.8	95-49-41.1 133-47-38.9	275-49-01.1 313-46-47.7	Leek..... Melville.....	4186.7 7388.2	3-6218464 3-8685401
Locality, Prince Edward Bay, Lake Ontario.							
Duck Island, U.S. L. S.....	43-56-05-448 76-37-20-685	551.5 1513.8					
False Ducks Light, U.S. L. S.	43-56-53-437 76-47-54-421	5411.1 3981.6	275-55-16-89	96-02-36-65	Duck Island (U.S. L. S.).....	46623.9	4-6686086
Nut.....	44-05-56-797 76-43-32-462	5751.3 2369.1	335-33-35.5 19-12-26.1	155-37-53.8 199-09-24.1	Duck Island U.S. L. S..... False Ducks Light (U.S. L. S.)..	65755.3 58255.3	4-8179309 4-7653356
Versey.....	44-02-06-096 76-53-58-757	617.1 4292.6	242-52-44.0 319-53-26.2	62-59-59.6 139-57-39.3	Nut..... False Ducks Light (U.S. L. S.)..	51350.5 41374.1	4-7105449 4-6167285
Traverse.....	43-56-52-600 76-52-00-536	5326.1 39	164-46-51.9 213-55-07.5	344-45-29.8 34-01-00.6	Versey..... Nut.....	32900.2 66444.4	4-5171989 4-8224581

Locality, Saint Lawrence River.

Date

Date

Date

△Corn.....	43 56-26 493	2682.7	203.59	43.4	24.02	08.9	37617.0	4 5757300
	76 57-28 322	2972.5	263.40	42.7	83.44	30.2	24128.0	4 3825203
Lower.....	43 58-52 760	5342.2	298.20	46.7	113.25	13.8	30637.5	4 4865365
	76 58-25 268	1847.4	344.17	12.4	164.17	51.9	13385.4	4 1871089
Oats.....	43 56-52 500	3291.0	212.02	07.3	92.03	31.7	16756.0	4 2241715
	77 00-20 822	1962.6	272.38	56.4	92.41	00.3	13074.9	4 1164373
Upper.....	43 58-37 575	3804.8	334.01	02.3	154.02	03.7	14704.6	4 1682221
	76 58-56 724	4148.0	27.29	57.7	207.28	55.2	14277.1	4 1546414
Earn.....	43 58-09 696	982.0	309.35	20.0	129.37	19.8	16392.4	4 2146447
	77 00-20 969	1533.8	02.29	39.1	182.29	25.0	9831.3	3 9934926
Field.....	43 56-54 384	5506.9	236.50	00.5	56.52	32.4	19110.8	4 2812795
	76 02-35 490	2596.5	283.13	59.3	103.15	28.6	9671.2	3 9854799
Edward.....	44 01-17 631	1785.4	317.21	16.7	137.25	11.2	26436.2	4 5618903
	76 57-38 206	2791.7	338.35	40.8	178.35	47.7	29489.5	4 4686670
Green.....	44 00-42 533	4306.7	327.00	50.2	147.03	13.6	27751.3	4 4432828
	76 55-27 948	1976.7	18.53	43.0	198.52	18.8	27401.3	4 4377705
Bluff.....	44 07-01 904	192.9	359.12	31.9	179.12	40.0	61620.0	4 7807300
	76 48-06 050	411.3	40.43	01.3	220.38	56.0	39500.0	4 5963572
Island.....	44 05-48 564	4917.6	02.50	23.7	182.49	58.2	54253.7	4 7344204
	76 47-17 680	1290.4	52.28	11.6	232.23	32.7	38947.4	4 5675833
Pleasant.....	44 06-44 775	4534.1	261.28	39.9	81.30	30.5	11725.5	4 0691317
	76 50-45 000	3283.5	230.35	57.1	110.38	21.4	16163.4	4 2083330
Sand.....	44 07-57 800	3853.0	288.48	03.1	108.50	41.6	17543.1	4 2441058
	76 51-53 689	3915.7	325.52	20.2	145.53	08.0	8932.4	3 9500669
Barry.....	44 08 20 330	2058.7	47.25	42.0	227.24	01.5	14299.2	4 1553127
	76 48 20 638	1567.2	81.39	58.5	261.37	30.2	15702.3	4 1959636

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—*Continued.*
 Locality, Prince Edward Bay, Lake Ontario.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.			To Station.	Dis- tance in Feet.	Loga- rithms.
			°	'	"			
Bath.....	44-10-02.529 76-47-37.909	256.2 2763.1	196-45-07.2 55-55-01.7	196-45-37.4 235-52-03.5	Barry..... Sand.....	10808.3 22524.1	4.0337576 4.3526483	
Amherst (1912).....	44-06-41.801 76-41-40.301	4232.9 2940.6	9343-34-15.4 24-40-51.6	163-37-15.8 204-36-31.6	Duck Island (U.S. L. S.) False Ducks Light (U.S. L. S.).....	67171.8 65549.0	4.8271870 4.8165667	
Locality, East end of Lake Ontario.								
Pigeon Island Light.....	44-03-59.264 76-33-00.562	6001.3 41.0	21-38-37.0 113-30-17.0	201-35-36.3 293-24-15.4	Duck Island (U.S.L.S.) Amherst (1912).....	51609.2 41351.3	4.7127267 4.6164883	
A2.....	44-10-24.724 76-37-31.418	2503.6 2508.2	332-52-08.8 38-23-01.2	152-55-19.4 218-26-10.0	Pigeon Island Light Amherst (1912).....	43878.1 28828.4	4.6419569 4.4596208	
Ninemile Point Light.....	44-09-05.604 76-33-22.402	567.6 1633.5	68-11-51.7 113-35-13.7	248-06-05.0 293-32-18.1	Amherst (1912) A2.....	39125.4 20042.4	4.5924587 4.3019497	
Snake Island Light.....	44-11-08.376 76-32-09.225	848.1 672.2	23-13-41.2 79-27-58.2	203-12-50.2 259-24-11.6	Ninemile Point Light A2.....	13528.2 24107.6	4.1312403 4.3821547	
Maple.....	44-12-30.895 76-33-53.628	3128.6 3906.5	353-44-59.1 51-33-54.3	173-45-20.9 231-31-20.4	Ninemile Point Light A2.....	20912.5 20543.5	4.3204069 4.3126736	
A3.....	44-10-23.354 76-38-28.186	2364.3 2054.1	237-07-38.0 289-25-24.8	57-10-40.4 109-28-57.9	Maple..... Ninemile Point Light.....	23811.8 23640.6	4.3767930 4.3736580	

Center Brother Island Light.	44-12-25-946 76-57-47-675	2627-6 3473-1	268-17-37-8 13-22-41-5	88-20-21-0 Maple 193-22-16-3 A3	17055-8 12760-2	4-2318708 4-1068688
Kingston (U.S.L.S.) Primary	44-13-47-510 76-29-18-618	4811-0 1356-0	37-39-19-7	217-37-20-7 Snake Island Light.	20350-0	4-3065618
Mary's.....	44-10-54-538 76-28-48-673	5522-6 3346-9	95-29-47-7 172-54-14-8	275-27-27-9 Snake Island Light. 352-53-53-9 Kingston (U.S.L.S.)	14681-6 17651-2	4-1667729 4-2467744
Ferguson.....	44-12-19-317 76-26-46-206	1956-0 3365-8	46-07-01-4 128-50-01-3	226-05-36-0 Mary's..... 308-48-15-0 Kingston (U.S.L.S.)	12382-3 14246-5	4-0928018 4-1537185
Fort.....	44-13-46-518 76-27-40-480	4710-6 2917-5	335-52-47-4 90-43-51-7	155-53-25-2 Ferguson. 270-47-43-2 Kingston (U.S.L.S.)	9674-7 7146-6	3-9856394 3-8941060
Garden.....	44-12-21-774 76-27-42-050	2205-0 3063-0	140-59-57-3 180-45-47-4	320-58-50-0 Kingston (U.S.L.S.) 00-45-48-5 Fort.	11173-1 8582-3	4-0481741 3-9336025
Barrie field Common Front Range Light.	44-14-08-116 76-28-11-249	822-2 819-2	314-18-27-2 66-57-41-9	134-18-48-7 Fort. 246-56-54-9 Kingston (U.S.L.S.)	3130-9 5330-6	3-4956659 3-7267757
Barrie field Common Back Range Light.	44-14-20-134 76-27-58-788	2035-4 4280-2	338-36-47-1 60-23-38-9	158-36-59-9 Fort. 240-22-43-2 Kingston (U.S.L.S.)	3655-8 6685-6	3-5629784 3-8251411
Knapp Point Light.....	44-13-56-300 76-23-63-449	5701-1 3892-1	60-08-31-0 86-36-35-0	240-04-51-6 Garden. 266-32-55-6 Fort.	19204-1 16500-5	4-2833938 4-2190739
City Hall, Kingston.....	44-13-47-628 76-28-50-878	4813-0 3705-0	359-28-28-2 41-53-41-3	179-28-29-7 Mary's..... 221-51-23-0 Snake Island Light.	17518-5 21644-5	4-2434959 4-3353467
Portsmouth Front Range Light.	44-12-38-772 76-32-42-859	3925-8 3122-0	301-34-12-7 345-00-40-1	121-45-56-0 Mary's..... 165-01-03-5 Snake Island Light.	20062-9 9476-2	4-3023939 3-9766341
Portsmouth Back Range Light.	44-13-12-379 76-32-27-119	1253-6 1975-1	311-14-00-4 354-04-18-3	174-16-32-7 Mary's..... 174-04-30-8 Snake Island Light.	21168-0 12624-6	4-3256805 4-1012130
Pleasant Point Light.....	44-06-37-130 76-50-57-239	3759-8 2717-5	257-10-20-8 288-38-30-9	77-12-06-0 Bluff..... 108-40-49-8 Island.....	11312-0 15370-0	4-0535411 4-1868703

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distances in Feet.	Logarithms.
	° ' "		° ' "	° ' "			
Yates Church, (U.S.L.S.).....	43-20-15.736 78-23-16.502	1593.2 1219.5					
East Base.....	43-20-51.584 78-23-20.477	5222.8 1512.8	355-22-19. 88-58-58.0	175-22-22. 268-58-38.	Yates Church. West Base.....	3641.4 2168.1	3.5612656 3.3360772
West Base.....	43-20-51.203 78-23-49.813	5184.4 3680.8	325-33-53. 236-15-42.	145-34-16. 56-16-02.	Yates Church. Smith.....	4353.7 2612.4	3.6388578 3.4170896
Smith.....	43-21-05.552 78-23-20.412	560.0 1506.2	000-11-44. 89-29-33.	180-11-44. 269-29-14.	East Base. Sheep.....	1412.2 2068.6	3.1499081 3.3219284
Sheep.....	43-21-05.347 78-23-48.813	541.3 3606.9	2-57-17. 190-33-10	182-57-16. 10-33-13.	West Base. Brook.....	1434.1 1811.5	3.1565630 3.2580302
Brook.....	43-21-22.986 78-23-14.323	2322.2 3274.9	314-55-28. 234-08-38.	134-55-44. 54-08-55.	Smith. Clover.....	2495.2 2214.5	3.3971132 3.3452752
Clover.....	43-21-35.747 78-23-20.029	3619.4 1479.6	000-31-50. 163-22-06.	180-31-50. 283-21-49.	Smith. Woods.....	3059.3 1721.4	3.4856297 3.2368672
Woods.....	43-21-39.677 78-23-42.699	4017.4 3154.5	4-03-01. 219-54-44.	184-03-00. 39-54-59.	Brook. Bank.....	1699.2 2560.1	3.2302581 3.4082519
Bank.....	43-21-59.070 78-23-20.463	5681.0 1511.5	359-13-21. 96-20-04.	179-13-21. 276-19-35.	Clover. Orchard.....	2361.7 3128.2	3.3732317 3.4952905

Orchard.....	43-22-02-477	250-7	327-34-13	147-34-27	Woods.....	2735-0	3-4360552
Corner.....	78-24-02-552	188-6	234-43-43	54-44-12	Corner.....	3611-4	3-5810809
Corner.....	43-22-24-212	2451-4	000-03-58	180-03-58	Bank.....	2545-6	3-4057848
Pasture.....	78-23-20-424	1508-8	86-53-32	266-52-43	Pasture.....	5296-4	3-7230786
Corner.....	43-22-21-370	2163-7	311-18-12	131-18-32	Orchard.....	2898-0	3-4620929
Pasture.....	78-24-32-023	2363-5	26-01-24	206-01-11	Knoll.....	3173-2	3-5015046
Knoll.....	43-21-53-206	5387-1	255-15-39	75-16-12	Orchard.....	3690-6	3-5671002
Barn.....	78-24-50-869	3757-9	158-13-42	238-13-32	Barn.....	2891-7	3-4611594
Barn.....	43-22-19-730	1997-7	266-08-26	86-08-49	Pasture.....	2470-2	3-3927343
Pasture.....	78-23-05-390	398-3	54-32-33	234-51-53	Fence.....	5199-9	3-7159938
Fence.....	43-21-50-178	5080-4	266-41-49	86-42-39	Knoll.....	5334-5	3-7270459
Knoll.....	78-26-02-161	218-8	187-41-47	7-41-50	Corn.....	2794-3	3-4462682
Corn.....	43-22-17-526	1774-6	296-26-11	116-26-57	Knoll.....	5529-6	3-7429968
Road.....	78-25-57-895	4276-6	77-11-20	237-10-48	Road.....	3593-0	3-5354546
Road.....	43-22-09-654	977-4	302-12-52	122-13-21	Fence.....	3699-0	3-5680858
Bean.....	78-26-45-325	3348-1	45-44-56	235-44-31	Bean.....	3718-2	3-5703855
Shore.....	43-21-44-028	4457-7	263-51-28	83-52-22	Fence.....	5826-3	3-7653809
Shore.....	78-27-21-376	1379-1	179-30-11	359-30-11	Shore.....	3780-7	3-5775674
Shore.....	43-22-21-366	2163-4	293-44-23	113-44-46	Road.....	2945-0	3-4600848
Shore.....	78-27-21-824	1611-5	34-34-08	214-33-45	House.....	4431-3	3-6463394
House.....	43-21-45-326	4569-2	272-37-01	275-54-41	Thirtymile Point Light.....	8078-2	3-9073155
Thirtymile Point Light.....	78-27-55-855	4126-3	129-04-37	92-57-25	Bean.....	2550-5	3-4066273
Thirtymile Point Light.....	43-22-29-598	2996-7	783-5	309-03-46	Thirtymile Point Light.....	7112-1	3-8519988
Thirtymile Point Light.....	78-20-10-606	783-5					

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
North Base (Youngstown).....	° ' " 43-15-30.455 79-08-16.082	3083.3 1190.0	24-57-52.0 320-53-13.7	204-57-41.1 140-53-22.4	Monument No. 1 South Base.....	2802.5 1488.4	3.4475500 3.1727210
Monument No. 1.....	° ' " 43-15-06.360 79-03-32.064	542.7 2373.4	236-50-48.2 186-12-34.8	56-51-07.8 06-12-37.9	South Base..... Quarters.....	2534.3 3100.3	3.4038518 3.4914089
South Base (Youngstown).....	° ' " 43-15-19.048 79-03-03.394	1928.5 251.3	133-31-21.9 51-52-10.3	313-31-05.4 231-51-50.9	Quarters..... George.....	2463.2 2060.8	3.3914962 3.4250175
Quarters.....	° ' " 43-15-35.802 79-03-27.532	3624.7 2037.4	05-14-43.0 317-46-01.6	185-14-40.2 137-46-17.1	George..... Vincent.....	3353.4 2469.4	3.5254850 3.3923978
Vincent.....	° ' " 43-15-17.742 79-03-05.103	1796.3 377.6	52-28-10.3 03-38-49.4	232-27-52.1 183-38-47.0	George..... Worth.....	2479.9 4134.9	3.3944259 3.6164608
George.....	° ' " 43-15-02.820 79-03-31.674	285.5 2344.5	00-45-41.1 326-55-12.8	180-45-40.9 146-55-28.6	Oak..... Worth.....	1944.4 3121.0	3.2887886 3.4943960
Oak.....	° ' " 43-14-43.617 79-03-32.023	4416.0 2370.1	06-24-17.1 291-12-54.5	186-24-16.0 111-13-10.5	Steps..... Worth.....	1072.7 1855.4	3.0304761 3.2684337
Worth.....	° ' " 43-14-36.985 79-03-08.656	3744.7 640.8	77-57-35.6 00-05-41.0	237-57-18.5 180-05-41.0	Steps..... Bow.....	1890.9 2849.4	3.2760776 3.4547465
Steps.....	° ' " 43-14-33.089 79-03-33.640	3350.1 2490.2	03-30-13.3 223-04-25.9	183-30-11.6 143-04-43.0	Gully..... Bow.....	2938.9 3070.7	3.4681805 3.4872386

Locality, Niagara River. Date.....

Bow.....	43-14-08-842	895-3	76-42-11-0	256-41-52-3	Gully.....	2080-2	3-3181149
	79-03-08-720	645-7	18-59-56-8	198-59-44-3	Elinor.....	4140-6	3-6170680
Gully.....	43-14-04-116	416-7	348-51-32-0	158-51-38-3	Elinor.....	3502-6	3-5448976
	79-03-36-066	2670-0	315-26-17-8	135-26-42-2	View.....	3760-2	3-5752937
Elinor.....	43-13-30-173	3054-8	327-15-09-9	147-15-27-7	Wood.....	3562-0	3-5516947
	79-03-26-926	1993-2	243-53-16-4	68-53-34-5	View.....	2102-8	3-3227967
View.....	43-13-37-653	3812-3	34-56-28-2	214-56-05-4	Jack.....	4320-2	3-6355014
	79-03-00-431	31-9	00-32-13-7	180-32-13-4	Wood.....	3753-4	3-5744282
Wood.....	43-13-00-582	59-0	91-57-49-3	274-57-26-7	Jack.....	2447-9	3-3868012
	79-03-00-905	67-0	34-18-01-2	214-17-38-6	Rose.....	4341-1	3-6376017
Jack.....	43-13-02-673	270-7	00-06-09-8	180-06-09-7	Rose.....	3798-0	3-5795578
	79-03-33-844	2506-2	325-03-17-7	145-03-39-8	Snow.....	4166-8	3-6197986
Rose.....	43-12-25-160	2547-3	304-34-02-6	124-34-36-1	Stella.....	4407-6	3-6442029
	79-03-33-936	2513-4	260-55-09-5	80-55-31-6	Snow.....	2423-9	3-3845060
Snow.....	43-12-28-937	2929-8	11-01-38-4	191-01-33-1	Monument No. 5. Eccentric.	2998-1	3-4768470
	79-03-01-619	119-8	336-48-12-7	156-48-24-1	Stella.....	3137-0	3-4968114
Monument No. 5 Eccentric.	43-11-59-871	6061-7	326-20-01-1	146-20-18-9	Dagon.....	2882-7	3-4597967
	79-03-09-361	693-3	268-07-08-5	88-07-25-2	Stella.....	1810-1	3-2576915
Stella.....	43-12-00-457	46-2	37-35-57-8	217-35-36-1	Gypsey.....	3851-7	3-7856577
	79-02-44-938	3328-8	04-54-46-3	184-54-44-4	Dagon.....	2467-6	3-3922773
Dagon.....	43-11-36-174	3662-4	74-29-54-3	254-29-34-5	Gypsey.....	2219-5	3-3462550
	79-02-47-791	3540-7	06-54-03-0	186-53-58-9	Left.....	3661-0	3-5639006
Gypsey.....	43-11-30-313	3068-9	21-41-51-0	201-41-46-2	Root.....	1444-0	3-1595756
	79-03-16-661	1234-3	330-48-23-4	130-48-39-1	Left.....	3483-3	3-5419298
Left.....	43-11-00-276	27-9	127-16-36-7	307-16-15-1	Root.....	2806-2	3-4481118
	79-02-53-728	3981-0	52-10-56-8	232-10-37-2	Acorn.....	2697-3	3-4309236

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Dis- tance in Feet.	Loga- rithms.	Date
								° ' "
Root.....	43-11-17 062 79-03-23 867	1727.4 1768.0	358-14-57.4 324-59-13.9	178-14-58.3 144-59-32.5	Acorn..... Medina.....	3355.0 3507.8	3.5256886 3.5430379	
Medina ..	43-10-48.684 79-02-56.705	4929.1 4201.8	75-53-15.1 02-17-28.8	255-52-57.5 182-17-27.8	Acorn..... Neil.....	1969.6 2504.5	3.2943852 3.3987287	
Acorn.....	43-10-43.940 79-03-22.484	4448.8 1666.0	03-21-40.6 318-09-54.0	183-21-38.9 138-10-10.7	Monument No. 7 Eccentric. ... Neil.....	3214.6 2714.0	3.5071339 3.4336154	
Monument No. 7 Eccentric...	43 10-12' 244 79-03-25 027	1239.5 1855.0	344-52-33.0 239-17-40.6	164-52-42.1 59-17-59.1	Brock..... Neil.....	3776.6 2324.6	3.5771068 3.3663484	
Brock's Monument (U.S.L.S.)	43-09-36.235 79-03-11.736	3668.7 869.7	268-31-45.2 191-50-49.9	88-32-09.5 11-50-59.3	Heights..... Neil.....	2631.4 4937.9	3.4201875 3.6935425	
Neil.....	43-10-23.966 79-02-58.055	2426.5 4302.2	341-15-39.9 11-50-49.7	161-15-54.8 191-50-40.4	Heights..... Brock.....	5032.0 4037.9	3.7017395 3.6935430	
Brock.....	43-09-36.232 79-03-11.734	3668.3 869.7	315-43-32.6 268-31-39.0	135-43-47.7 88-32-03.3	Chance..... Heights.....	2341.0 2631.2	3.3694064 3.4201596	
Heights.....	43-09-36.897 79-02-36.247	3735.6 2686.8	29-44-31.0 352-55-08.2	209-44-21.8 172-55-11.2	Chance..... Ogden.....	2008.2 2639.4	3.3028145 3.4215965	
Chance.....	43-09-19.672 79-02-49.687	1991.7 3683.2	349-12-18.4 303-31-19.1	169-12-23.2 123-31-31.3	Rollt..... Ogden.....	2794.2 1585.4	3.4462520 3.2001309	

43-09-11-023	1116-1	23 07-52-9	203-07-45-5 Bolt	2032-5	3-3080400
79-02-31-858	2362-0	347-04-25-4	167-04-29-0 Kiln	1744-8	3-2417469
43-08-52-560	5321-5	317-41-57-0	137-42-08-8 Monument No. 11 Eccentric	1902-8	3-2793862
79-02-42-629	3160-2	261-55-40-9	81-55-51-9 Kiln	1200-7	3-0794215
43-08-54-223	5489-8	37-41-09-5	217-40-58-6 Trans	1943-4	3-2885597
79-02-26-594	1971-5	356-40-05-0	176-40-05-8 Monument No. 11 Eccentric	1578-6	3-1982694
43-08-39-032	3951-8	333-13-44-0	153-13-54-6 College	2540-2	3-4048731
79-02-42-619	3159-8	271-41-47-8	91-41-59-6 Monument No. 11 Eccentric	1280-3	3-1073967
43-08-38-656	3913-7	42-29-13-0	222-28-57-6 Monument No. 12	2477-9	3-3940885
79-02-25-357	1879-8	03-29-00-0	183-28-58-8 College	2234-2	3-3491131
43-08-16-629	1683-7	104-40-25-4	284-40-12-2 Monument No. 12	1589-7	3-2013299
79-02-27-138	2015-6	43-34-27-6	223-33-16-7 Devil	1716-1	3-2345365
43-08-20-605	2086-0	57-46-33-5	237-46-18-7 Tie	1898-6	3-2784395
79-02-47-929	3553-8	347-48-63-9	107-48-57-2 Devil	1684-2	3-2264031
43-08-04-343	439-7	107-54-30-4	287-54-12-3 Tie	2061-5	3-3141910
79-02-43-135	3198-7	61-30-39-4	231-30-08-2 Glen	3850-3	3-5854998
43-08-10-603	1073-5	29-55-38-0	209-55-24-9 Glen	2850-7	3-4546556
79-03-09-592	711-3	358-46-03-0	178-46-03-5 Beas	2966-8	3-4033995
43-07-45-255	4581-7	93-42-14-2	273-42-00-6 Glen	1480-5	3-1704156
79-03-08-847	656-2	47-09-35-4	227-09-33-7 De Veaux	3216-8	3-5074223
43-07-46-197	4677-3	51-19-57-0	231-19-41-8 Moses	2107-8	3-3238275
79-03-28-770	2133-5	21-06-40-4	201-06-32-3 De Veaux	2447-0	3-3889253
43-07-33-188	3859-9	76-26-23-5	256-26-06-1 Junior	1946-0	3-2891494
79-03-50-961	3779-5	321-38-08-1	141-38-15-1 De Veaux	1231-7	3-0904948
43-07-23-648	2394-3	100-51-32-9	280-51-08-4 Junior	2704-6	3-4321087
79-03-40-654	3015-0	64-46-50-6	244-46-22-4 David	3386-1	3-5296924

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Locality, Niagara River.	Station.	Latitude and Longitude.		Seconds in Feet.	Azimuth.		Back Azimuth.		To Station.	Distance in Feet.	Logarithms.
		° ' "	° ' "		° ' "	° ' "					
	Junior	43-07-28.678 79-04-16.469		2903.5 1221.4	11-46-18.8 322-15-32.3	191-46-15.1 142-15-45.7	David. Pool.		1994.3 2196.7	3-2497824 3-3117692	
	David.	43-07-09.393 79-04-21.955		951.3 1628.6	276-08-57.5 262-59-38.9	116-09-06.6 82-59-55.0	Whirl. Pool.		1104.4 1764.6	3-0431100 3-2486457	
	Whirl.	43-07-04.585 79-04-08.590		464.2 637.1	327-12-04.9 227-16-50.6	147-02-17.4 47-16-57.6	Slater. Pool.		2197.2 1934.6	3-3974551 3-0147831	
	Pool.	43-07-11.516 79-03-58.341		1166.0 4326.8	347-55-14.2 317-58-34.7	167-55-19.7 137-58-52.9	Slater. Burr.		2860.4 2930.5	3-4364263 3-4638989	
	Burr.	43-06-49.864 79-03-31.713		5048.6 2352.4	66-16-21.4 332-01-24.1	246-16-08.7 152-01-31.3	Slater. Stewart.		1503.8 1714.1	3-1771801 3-2340243	
	Slater.	43-06-42.886 79-03-50.272		4443.2 3729.0	341-35-21.7 292-37-00.1	161-35-26.7 112-37-20.2	Post. Stewart.		1719.9 2362.4	3-2353113 3-3733643	
	Stewart.	43-06-34.910 79-03-20.875		3534.4 1948.6	66-10-21.7 12-34-41.3	246-10-06.6 132-34-34.9	Post. Sox.		1790.2 3167.6	3-2529100 3-5607369	
	Post.	43-06-27.764 79-03-42.951		2811.0 3186.4	338-11-05.0 286-49-09.3	158-11-13.7 106-49-23.8	Sox. Clover.		2551.0 1644.5	3-4007123 3-2160405	
	Clover.	43-06-23.062 79-03-21.732		2385.6 1612.5	54-32-50.0 18-18-44.4	234-32-33.9 198-18-33.6	Red Sox.		2141.8 1993.4	3-3307691 3-2995897	

Date.

Red.....	43-06-10-790 79-03-45-248	1092-4 3357-0	339-11-49-5 300-10-00-3	159-11-55-0 120-10-10-6	Giant..... Sox.....	1670-5 1293-6	3-2228419 3-1117956
Sox.....	43-06-04-368 79-03-30-174	442-3 2238-5	69-37-26-8 29-56-53-7	249-27-12-5 209-56-48-9	Rope..... Giant.....	1663-4 1051-9	3-2210105 3-0219990
Rope.....	43-05-58-600 79-03-51-168	5932-7 3795-2	22-14-21-0 287-36-31-8	202-14-13-6 107-36-41-3	Tug..... Giant.....	2111-1 1083-3	3-3245160 3-0347363
Giant.....	43-05-55-362 79-03-37-252	5605-0 2763-8	48-23-51-7 19-14-55-0	228-23-34-8 199-14-49-0	Tug..... Roof.....	2449-4 1965-0	3-3890571 3-2333591
Tug.....	43-05-39-298 79-01-01-936	3978-7 143-7	337-35-13-2 280-56-12-7	177-35-14-0 100-56-23-6	Tank..... Roof.....	2120-5 1205-7	3-3294346 3-0812375
Roof.....	43-05-37-036 79-03-45-982	3749-7 3411-7	72-57-30-1 30-04-50-1	252-57-16-5 210-04-40-0	Spir..... Tank.....	1545-9 2183-9	3-1891728 3-3392324
Tank.....	43-05-18-369 79-04-00-733	1859-6 54-5	165-03-22-4 99-12-21-8	345-03-18-9 279-12-07-1	Spir..... Clifton.....	1487-0 1615-3	3-1727081 3-2082565
Spir.....	43-05-32-558 79-04-05-900	3298-1 437-7	45-47-06-3 03-11-57-2	225-46-55-2 183-11-56-1	Clifton..... State.....	1689-7 2199-3	3-2277978 3-3422751
Clifton.....	43-05-20-917 79-04-22-221	2117-8 1648-9	30-51-02-8 313-04-53-7	210-50-51-7 133-04-33-7	Queen..... State.....	2346-8 1489-9	3-3704667 3-1731523
State.....	43-05-10-866 79-04-07-555	1100-1 369-7	66-29-15-2 34-18-49-1	246-28-54-1 214-18-35-1	Queen..... Terrapin.....	2499-3 2697-1	3-3678166 3-4308929
Queen.....	43-05-01-014 79-04-38-436	102-7 2852-4	12-08-34-9 327-54-47-9	192-08-30-3 147-54-55-0	Lundy..... Terrapin.....	2356-7 1452-4	3-3723046 3-1620758
Lundy.....	43-04-38-257 79-04-45-115	3873-4 3348-4	327-10-12-5 229-43-52-3	147-10-22-1 49-44-04-0	Park..... Terrapin.....	1927-0 1660-8	3-2848906 3-2203097
Terrapin.....	43-04-48-858 79-04-28-041	4946-5 2081-0	04-43-34-0 319-50-14-0	184-43-32-0 139-20-44-5	Park..... High.....	2701-9 5086-0	3-4316676 3-7063746

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Dis- tance in Feet.	Loga- rithms.
Park.....	° ' " 43-04-22.261 79-04-31.040	2253.9 2303.8	288-14-10.1 233-23-45.2	108-14-42.6 53-24-13.3	High..... Bench.....	3723.7 3802.4	3.5709712 3.5800523
Bench.....	° ' " 43-04-44.651 79-03-49.911	4520.6 3704.1	351-58-41.9 273-17-31.0	171-58-46.3 93-18-15.0	High..... Grass.....	3466.5 4792.9	3.5398903 3.6805969
High.....	° ' " 43-04-10.746 79-03-43.394	1087.9 3221.1	302-48-42.0 233-43-13.7	122-49-20.0 53-43-53.3	Chippawa..... Grass.....	4919.4 5335.6	3.6919163 3.7271857
Chippawa (1912).....	° ' " 43-03-44.411 79-01-47.701	4496.4 3541.0	240-57-52.9 181-39-00.9	60-59-14.8 01-39-02.4	Conner..... Grass.....	1018.3 5825.3	4.0079754 3.7653187
‡ Grass.....	° ' " 43-04-41.924 79-02-45.441	4244.4 3372.7	275-14-53.0	95-46-13.4	Conner.....	8781.6	3.9435756
‡ Conner.....	° ' " 43-04-33.220 79-00-47.721	3363.2 3542.0					
Grass, U.S.L.S.....	° ' " 43-04-41.924 79-02-45.441	4244.4 3372.7	305-51-28.0 01-39-09.7	125-52-43.0 181-39-08.1	Foot..... Chippawa.....	10058.0 5825.1	4.0025094 3.7653075
Conner.....	° ' " 43-04-33.220 79 00-47.721	3363.2 3542.0	60-59-18.2 95-46-13.4	240-57-56.2 275-14-53.0	Chippawa..... Grass.....	40135.0 8781.6	4.0079760 3.9435756
Lower.....	° ' " 43-03-51.919 78-59-56.427	5256.6 4189.0	79-18-22.3 137-41-04.7	259-17-41.9 317-40-29.7	Foot..... Conner.....	4473.5 5655.3	3.6506427 3.7524501

Locality, Niagara River.

Date.....

Buckhorn.....	43-03-49-979 78-58-50-562	5000-0 3753-3	92-18-24-7 241-00-49-6	272-17-30-8 61-01-38-1	Lower Upper	4893-61 3-7801152
Cayuga.....	43-04-20-382 78-58-34-523	2063-6 2-62-3	21-08-51-5 64-38-53-2	201-08-40-8 244-37-57-3	Buckhorn Lower	3300-4 3-5185636 6728-2 3-8278987
Sunken.....	43-03-46-925 78-57-17-894	4751-0 1328-4	120-46-49-5	300-45-57-2	Cayuga	6620-5 3-9208916
Upper.....	43-04-18-822 78-57-39-534	1905-6 2934-4	333-33-01-5 92-13-14-6	153-43-15-9 272-12-37-0	Sunken Cayuga	3606-8 3-5571224 4084-7 3-6111617
Manga.....	43-04-08-083 78-56-21-013	818-2 1559-7	63-06-23-0 100-34-27-9	243-05-44-1 280-33-34-3	Sunken Upper	4734-8 3-6758020 5929-1 3-7729877
Delivery.....	43-03-25-060 78-55-59-037	2540-0 4383-2	126-06-29-8 159-27-19-7	306-05-21-2 339-27-04-7	Upper Manga	9233-3 3-9653558 4648-4 3-6673066
Wheatfield.....	43-03-36-667 78-54-57-765	3712-3 4284-1	75-34-13-4 117-13-30-0	255-33-31-5 237-12-33-1	Delivery Manga	4702-1 3-6722960 6954-5 3-8422620
Edgewater.....	43-03-08-780 78-55-04-893	888-8 363-2	112-20-07-4 190-42-11-4	292-19-30-4 10-42-16-3	Delivery Wheatfield	4346-0 3-6380884 2873-4 3-4583927
Central.....	43-03-09-601 78-53-41-702	972-1 3086-5	89-14-14-5 115-54-32-1	269-13-17-7 296-53-40-2	Edgewater Wheatfield	6177-5 3-7908130 6273-1 3-7974802
Point.....	43-02-33-544 78-54-06-009	3396-0 446-2	206-18-26-2 280-20-16-8	26-18-42-8 100-20-45-7	Central Gratwick	4072-3 3-6098446 3-89-1 3-5039635
Gratwick.....	43-02-27-889 78-53-23-764	2823-5 1764-8	118-52-38-0 162-29-45-3	298-51-29-0 342-23-32-1	Edgewater Central	8575-2 3-9332420 4428-2 3-6462263
Tonawanda Island.....	43-01-57-302 78-53-19-660	5801-5 1460-3	136-49-55-9 174-22-44-5	316-49-24-3 354-22-41-7	Point Gratwick	5031-1 3-7016562 3111-7 3-4929480
Ranson.....	43-02-15-120 78-53-54-204	1530-8 4023-6	240-14-01-1 308-06-28-1	60-14-21-9 125-06-51-6	Gratwick Tonawanda Island	2604-2 3-4156766 3136-3 3-4964215

‡ Values by G. C. Brown, from I. W. C. survey, 1909-10.

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Locality, Niagara River.	Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
		° ' "		° ' "	° ' "			
	Thorn.....	43-01-37-800 78-53-40-679	3827.1 3021.6	165-06-44.8 218-19-59.2	345-06-35.6 38-20-13.5	Ranson..... Tonawanda Island.....	3909.7 2517.1	3.5921402 3.4008978
	Upper Tonawanda.....	43-01-27-705 78-53-11-849	2804.8 880.2	115-30-54.4 146-45-54.4	295-30-34.8 326-48-25.5	Thorn..... Ranson.....	2373.0 5739.6	3.3752808 3.7588723
	Niagara.....	43-00-57-660 78-53-30-809	5837.6 2288.7	169-46-24.6 204-50-40.1	349-46-17.8 24-50-53.0	Thorn..... Upper Tonawanda.....	4129.5 3352.2	3.6158990 3.5253254
	Ferry.....	43-01-05-580 78-54-00-193	565.9 14.4	238-03-13.4 230-11-12.4	58-03-46.4 110-11-32.5	Upper Tonawanda..... Niagara.....	4232.2 2325.9	3.6265659 3.3665959
	Mainland.....	43-00-46-477 78-54-03-795	4705.4 281.8	187-52-26.1 245-12-00.7	07-52-28.6 65-12-23.2	Ferry..... Niagara.....	1953.4 2699.6	3.2907844 3.4313065
	Little Oak.....	43-00-03-560 78-53-47-621	360.6 3538.7	141-46-04.3 270-29-57.3	321-45-53.3 90-30-15.6	Elm..... Tonawanda, 1875.....	1925.1 1986.9	3.2844635 3.2981754
	Shrubbery.....	43-00-16-875 78-53-37-595	1708.3 2733.6	316-58-58.4 28-55-45.4	136-59-09.8 208-55-38.5	Tonawanda, 1875..... Little Oak.....	1820.2 1540.2	3.2601166 3.1875878
	Elm.....	43-00-18-496 78-54-03-654	1872.7 271.7	116-09-07.9 274-50-29.0	296-08-42.7 94-50-46.8	Canal..... Shrubbery.....	3064.8 1943.4	3.4863382 3.2885570
	Brewery.....	43-00-43-385 78-54-04-261	4392.4 316.6	323-33-40.3 358-58-28.3	143-33-58.5 178-58-28.8	Shrubbery..... Elm.....	3336.1 2520.2	3.5232348 3.4014400

Date

Oak Grove.....	48-00-58-502 78-51-20-970	5922-9 1554-1	245-03-58-0 320-57-15-4	65-04-12-2 140-57-26-8	Ferry..... Brewery.....	1702-2 3-2946187	3-2310151 3-4694728
Canal.....	43-00-31-857 78-54-40-678	3223-4 3022-6	208-28-26-2 246-37-38-6	28-28-39-7 66-38-03-4	Oak Grove..... Brewery.....	3071-1 2947-6	3-4872989 3-4694728
Electric.....	43-00-45-597 78-54-59-664	4616-5 4432-7	245-39-19-6 314-38-23-6	65-33-46-0 134-38-36-5	Oak Grove..... Canal.....	3157-8 1982-6	3-4999447 3-2972434
Hickory.....	43-00-15-869 78-55-17-658	1606-6 1312-0	203-57-04-8 239-31-34-5	23-57-17-1 59-31-59-7	Electric..... Canal.....	3293-3 3188-1	3-5176341 3-5635368
Stack.....	43-00-23-582 78-55-46-540	2387-5 3438-3	237-22-46-5 289-39-29-2	57-23-18-4 109-59-48-9	Electric..... Hickory.....	4135-2 2283-8	3-6161945 3-3586565
Willow.....	42-59-58-205 78-55-49-913	5892-7 3709-0	185-34-18-1 223-16-14-4	05-34-20-4 43-16-36-4	Stack..... Hickory.....	2581-4 2990-5	3-4118691 3-4757487
School.....	42-59-59-482 78-56-22-621	6022-3 1681-1	227-41-35-2 273-02-32-2	47-41-59-8 93-02-51-5	Stack..... Willow.....	3625-2 2434-1	3-5393347 3-3863399
Corn.....	42-59-38-693 78-56-14-856	3917-3 1104-0	164-40-05-8 223-10-35-1	344-40-00-6 43-10-42-1	School..... Willow.....	2182-4 2709-0	3-3389384 3-4328691
Schwartz.....	42-59-24-190 78-56-51-074	2449-1 3795-9	210-36-55-9 241-23-05-5	30-37-15-3 61-23-30-2	School..... Corn.....	4151-9 3066-3	3-6182466 3-4966126
Wickwire.....	42-59-05-978 78-56-14-865	603-3 1067-9	124-03-10-8 179-22-07-6	394-02-45-8 359-22-07-2	Schwartz..... Corn.....	3293-1 3312-3	3-5176065 3-5201342
Bedell.....	42-58-27-521 78-56-44-807	2786-1 3331-0	175-21-30-4 210-09-49-6	355-21-26-1 30-10-10-4	Schwartz..... Wickwire.....	5756-2 4503-3	3-7601323 3-6536354
Rattlesnake.....	42-58-23-639 78-55-53-936	2292-0 4011-1	97-29-11-2 160-55-37-0	277-28-36-6 340-55-23-1	Bedell..... Wickwire.....	3812-7 4642-5	3-5812350 3-6667500
Motor.....	42-57-57-694 78-56-07-784	5840-9 578-7	137-39-02-7 202-09-00-4	317-38-37-5 22-09-09-6	Bedell..... Rattlesnake.....	4085-8 2726-7	3-6112793 3-4366385

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Grand.....	° ' " 42-57-54.929 78-55-19.530	5563.0 1452.1	° ' " 94-27-57.5 137-37-33.6	° ' " 274-27-25.0 317-37-10.2	Motor..... Rattlesnake.....	3598.8 3,397.6	3.5561629 3.5795078
Island.....	42-57-33.555 78-56-24.562	3397.0 1826.4	207-02-34.7 245-53-08.3	27-02-46.2 65-53-52.6	Motor..... Grand.....	2743.9 5297.8	3.4383636 3.7240072
Nettle.....	42-56-47.620 78-55-58.482	4821.2 4349.7	157-21-47.3 203-01-33.7	337-21-29.6 23-02-00.2	Island..... Grand.....	5038.8 7404.6	3.7023271 3.8695018
Strawberry.....	42-56-55.927 78-55-10.214	5662.1 759.8	76-48-39.8 173-23-07.3	256-48-06.9 353-23-01.0	Nettle..... Grand.....	3687.3 6013.5	3.5667141 3.7791255
Hoyt.....	42-56-06.910 78-55-00.446	699.5 33.1	133-40-42.3 171-40-16.5	313-40-02.7 351-40-09.8	Nettle..... Strawberry.....	5968.5 5015.3	3.7758682 3.7003086
Hertel.....	42-56-20.340 78-54-33.263	2059.4 2474.4	56-05-08.7 142-39-55.5	236-04-50.1 322-39-30.3	Hoyt..... Strawberry.....	2436.7 4531.6	3.3868103 3.6562475
Pier.....	42-55-43.419 78-54-44.409	4395.7 3304.1	153-21-35.8 192-30-23.3	333-21-24.8 12-30-30.9	Hoyt..... Hertel.....	2660.7 3828.8	3.4249980 3.5830506
Fill.....	42-55-49.366 78-54-14.622	4997.7 1087.9	74-48-02.8 156-08-42.8	254-47-41.5 336-08-30.1	Pier..... Hertel.....	2296.5 3428.8	3.3610616 3.5351355
Squaw.....	42-55-24.212 78-54-15.559	2451.1 1157.8	132-10-34.3 181-34-04.8	312-10-14.6 01-34-05.5	Pier..... Fill.....	2896.3 2547.6	3.4618498 3.4061260

Locality, Niagara River.

Date.....

Rail	42-54-54-001 78-54-54-383	5467-2 2558-4	171-31-12-2 204-36-16-2	351-31-05-4 Pier 24-36-29-1 Squaw	5058-4 3564-0	3-7040149 3-5268596
Street	42-54-54-596 78-54-08-906	5527-2 662-7	88-10-59-6 170-37-30-5	268-10-42-2 Rail 350-37-26-9 Squaw	1896-9 3039-0	3-278-343 3-4827239
Little	42-54-29-315 78-54-34-010	2967-8 2531-2	46-21-01-2 179-21-49-2 216-07-29-6 316-00-31-8	226-20-40-6 Poplars 359-21-49-0 Rail 36-07-46-7 Street 136-01-48-9 Buffalo, 1875	3108-0 2499-4 3168-8 12135-1	3-4924815 3-3978331 3-5008907 4-0840476
Fort Porter	42-54-10-171 78-54-03-215	1029-9 239-2	341-45-39-2 130-13-18-5 162-23-36-8	161-45-46-8 North Base 310-12-57-5 Little 332-23-58-1 Rail	2655-0 3001-6 5007-2	3-4240617 3-4778565 3-6943967
Poplars	42-54-08-124 78-53-04-224	822-5 314-3	326-22-52-2 267-22-54-5	146-23-31-5 Breakwater 87-23-36-1 Fort Porter	7763-8 4645-7	3-8000728 3-6576005
North Base	42-53-45-264 78-53-52-052	4582-7 387-7	321-46-14-4 113-19-53-2	141-46-37-2 South Base 293-19-04-0 Poplars	4027-9 5850-3	3-6050770 3-7671747
South Base	42-53-14-010 78-53-18-573	1414-3 1382-5	74-32-17-6	254-31-45-0 Breakwater	3701-5	3-5688374
Breakwater	42-53-04-260 78-54-06-489	431-4 482-9	166-37-12-9 194-30-50-1 271-04-48-0	346-36-54-2 Little 14-30-59-9 North Base 91-05-46-3 Buffalo, 1875	8851-3 4288-2 6380-6	3-9470090 3-6322714 3-8948626
*Foot	43-03-43-716 79-00-55-638	4425-8 4130-6	180-41-13-3 279-09-41-4	06-41-18-7 Corner 99-10-23-9 Burnt	5046-3 4079-8	3-7029713 3-6702284
Burnt	43-03-36-352 78-50-53-407	3680-4 3964-6	84-56-15-9 171-54-14-5	264-55-53-7 Baily 361-54-12-4 Lower	2429-0 1591-9	3-3854330 3-2019218
Baily	43-03-34-234 79-00-25-997	3465-9 1930-1	230-47-45-4 300-57-21-3	50-46-05-6 Lower 120-57-45-5 Boom	2632-8 3067-8	3-4522213 3-4868326
Boom	43-03-18-054 78-59-50-557	1888-4 3753-6	73-54-30-0 173-15-55-2	253-54-12-7 Camp 363-15-53-1 Burnt	1961-1 1804-3	3-2925069 3-2562377

* Beginning of Triangulation up West side of Grand Island.

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Camp.....	43-03-13.286 79-00-15.935	1345.1 1183.1	215-36-31.7 03-04-12.1	35-36-47.1 183-04-10.0	Burnt..... Cobb.....	2872.5 4294.4	3.4582608 3.6329037
Cobb.....	43-02-30.930 79-00-19.032	3131.6 1413.4	153-59-21.5 203-37-55.4	333-59-10.5 23-37-36.0	Navy..... Boom.....	2727.6 5274.1	3.4357873 3.7221500
Navy.....	43-02-55.142 79-00-35.141	5582.7 2609.6	234-16-38.6 28-30-55.1	54-17-09.0 208-30-36.4	Boom..... Spruce.....	4077.4 4263.5	3.6103824 3.6297686
Spruce.....	43-02-18.138 79-01-02.547	1836.3 189.3	248-09-27.7 308-52-33.5	68-09-57.4 128-52-55.7	Cobb..... Woodpile.....	3481.5 3102.9	3.5417663 3.4917618
Woodpile.....	43-01-58.902 79-00-30.023	5963.6 2230.0	29-00-11.7 0176 10 53.3	208-59-49.7 356-10-49.4	Windsor..... Navy.....	4934.0 5766.6	3.6931970 3.7563752
Windsor.....	43-01-16.278 79-01-02.226	1648.0 165.4	0141-22 03.3 4179-46 54.8	321-21-46.1 359-46-54.6	Lutz..... Spruce.....	2998.0 6262.9	3.4768329 3.7967768
Lutz.....	43-01-39.409 79-01-27.424	3989.8 2037.1	245-09-21.3 30-33-43.4	65-10-00.5 210-33-26.7	Woodpile..... Meyers.....	4698.1 3575.2	3.6719274 3.5533022
Meyers.....	43-01-09.001 79-01-51.894	911.4 3855.0	258-42-12.8 0311-36 06.2	78-42-46.7 131-36-29.4	Windsor..... Eagle Park.....	3762.6 3371.6	3.5751935 3.5278407
Eagle Park.....	43-00-46.838 79-01-17.960	4747.0 1334.3	201-26-45.7 54-49-19.7	21-26-56.5 234-48-59.3	Windsor..... Lee.....	3196.9 2727.0	3.5047240 3.4356832

Locality, Niagara River.

Date.....

Lee.....	49-00-31 369	3175 8	175-36-40 5	355-39-13 6	Meyers.....	3821 2	3 5821955
Road	79-01-47 958	3563 3	291-37-37 4	111-38-00 4	Road.....	2696 4	3 4307802
Mennonite	43-00-21 532	2182 1	173-49-31 6	353-49-29 1	Eagle Park.....	2580 0	3 4116274
Sheenwater.....	79-01-14 225	1056 8	30-21-46 3	210-21-28 8	Mennonite.....	3756 5	3 3747858
Black Creek.....	42-50-49 501	5020 7	171-56-42 0	351-56-36 5	Lee.....	4271 8	3 6306157
Staley.....	79-01-39 902	2905 2	277-49-02 6	37-49-23 7	Sheenwater.....	2544 2	3 4055485
Club.....	42-59-46 172	4674 5	145-46-31 8	325-46-03 2	Lee.....	5537 7	3 7432272
Palmers.....	79-01-05 987	444 9	15-51-08 5	195-50-51 5	Black Creek.....	5591 0	3 7474902
Shipyard.....	42-58-53 047	5370 7	100-09-13 2	340-09 04 0	Mennonite.....	5810 4	3 7642075
Palms.....	79-01-26 532	1972 1	225-18-11 5	45-18-37 6	Staley.....	3990 2	3 0005951
Palms.....	42-59-20 766	2102 4	127-18-41 2	307-18-06 0	Mennonite.....	4815 0	3 0825976
Palms.....	79-03-48 371	3585 1	332-20-38 3	152-21-08 9	Bluff.....	7181 5	3 8562166
Palms.....	42-58-17 933	1815 6	119-57-26 3	299-56-29 7	Black Creek.....	7120 8	3 8525302
Palms.....	79-00-03 536	262 8	173-40-51 8	353-40-47 8	Club.....	3915 2	3 5927560
Palms.....	42-58-56 370	5707 0	301-18-20 2	121-18-50 5	Persons.....	3871 4	3 5878683
Palms.....	79-00-09 333	693 9	86-39-07 0	266-38-14 4	Black Creek.....	5748 5	3 7543537
Palms.....	42-58-36 498	3695 2	299-20-19 7	119-20-55 1	Oakfield.....	4124 0	3 6458139
Palms.....	78-59-24 839	1845 8	56-50-47 3	236-50-20 9	Bluff.....	3436 5	3 5361132
Palms.....	42-58-15 034	1527 2	17-26-04 3	197-25 57 4	Palms.....	2505 6	3 3969483
Palms.....	78-58-32 968	2451 1	92-27-41 1	272-20-39 4	Bluff.....	6739 8	3 8286448
Palms.....	42-57-51 470	5210 9	145-44-13 6	325-43-45 1	Persons.....	6516 2	3 7416378
Palms.....	78-58-43 065	3202 1	276-13-28 7	96-13-55 2	Sidway.....	2906 1	3 4633085
Palms.....	42-57-48 352	4895 0	28-45-44 5	208-45-28 1	Shipyard.....	3724 6	3 5716935
Palms.....	78-58-04 213	313 3	141-41-39 1	321-41-19 5	Oakfield.....	3449 0	3 5376938
Palms.....	42-57-16 101	1029 9	102-58-03 0	342-57-53 0	Palms.....	3745 1	3 5734613
Palms.....	78-58-28 312	2106 6	249-52-21 6	69-52-55 2	Beaver.....	3901 3	3 5912079

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.		Seconds in Feet.	Azimuth.		Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
	° ' "	° ' "		° ' "	° ' "				
Beaver.....	42-57-29.858 78-57-39.054	135-47-24.0 354-14-43.7	2972.1 2904.2	315-47-06.8 174-15-15.2	Sidway..... Stockdale.....	2682.9 3429.2	3-4286070 3-5331958		
Stockdale.....	42-56-55.657 78-57-34.431	117-19-20.7 268-08-52.9	5634.8 2561.0	297-18-44.0 88-09-27.6	Shipyard..... Pleasant.....	4510.2 3791.5	3-6541988 3-5788147		
Pleasant.....	42-56-56.864 78-56-43.479	128-31-24.6 200-44-27.6 285-37-05.0	5756.9 3233.9	308-30-46.8 20-44-40.5 105-37-35.7	Beaver..... Island..... Nettle.....	5282.5 3972.2 3475.1	3-7228414 3-5990952 3-5406083		
Locality, Lake Erie.									
Erie Standpipe (U.S.L.S.)...	42-07-53.156 80-05-49.837	.....	5380.8 3755.2	.....	.....	.....	.....
Island.....	42-09-13.679 80-05-34.836	7-53-43.7 293-15-59.0 305-06-33.0	1384.8 2624.0	187-53-33.6 103-16-20.8 123-07-13.5	Erie Standpipe..... West Base..... Soldier.....	8229.0 3266.7 5554.2	3-9153467 3-5141151 3-7446183		
Soldier.....	42-08-42.118 80-04-34.524	48-52-19.4 150-51-12.0 150-51-05. 195-06-33.	4263.4 2600.7	228-51-28.9 330-50-59.9	Erie Standpipe..... West Base..... Erie Light No. 1..... Presque Isle Pierhead Light.....	7534.1 2799.6 2804.4 3855.0	3-8770294 3-4470997 3-4478334 3-5860283		

West Base	42-09-06-272 80-04-52-626	634-8 3964-2	241-58-19-2	61-58-39-0	Emt Base	2514-9	3-4005126
East Base	42-09-17-945 80-04-23-154	1816-6 1744-1	13-17-19-4 275-47-15-8 336-23-53-6 62-05-07 66-17-50	193-17-11-8 95-48-26-3 156-24-10-6	Soldier Camp Perry Erie Light No. 1 Erie Light No. 2	3726-5 7948-7 4773-1 2515-1 1649-5	3-5712986 3-9002969 3-6788425 3-4005475 3-2173566
Perry	42-08-84-736 80-03-57-788	3516-1 4353-7	105-06-44-5 153-40-49-7 239-13-26-5 137-19-40 158-28-47	285-06-19-8 333-40-02-6 59-14-19-9	Soldier Fog Camp Erie Light No. 2 Presque Isle Pierbend Light	2866-7 11912-1 6980-5 5047-4 4903-9	3-4573808 4-0758888 3-8438845 3-7039665 3-6815953
Camp	42-09-10-013 80-02-38-169	1013-4 2875-0	122-13-28-8	302-11-48-3	Fog	13330-5	4-1248477
Fog	42-10-20-208 80-05-07-925	2045-6 596-8	86-35-14-3	266-34-45-4	Surf	3247-6	3-5115425
Surf	42-10-18-296 80-05-50-973	1852-0 3838-2	75-11-44-2	255-11-19-0	Wave	2919-1	3-4652365
Wave	42-10-10-926 80-06-28-448	1105-0 2142-4	59-25-24-0	239-25-14-0	Wind	1298-5	3-1134283
Wind	42-10-04-401 80-06-43-292	445-5 3260-2	67-25-04-0	247-24-56-0	Pier	974-0	2-9835474
Pier	42-10-00-706 80-06-55-233	71-5 4159-4	2-34-19-0		Presque Isle Light	446-5	2-6486463
Presque Isle Light	42-09-56-299 80-06-55-499	5699-0 4179-8					
Erie Light No. 1	42-09-06-312 80-04-52-657	638-9 3966-5					

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Dis- tance in Feet.	Loca- tions in rithms.
Locality, Lake Erie.							
Erie Light No. 2.	42-09-11-394 80-04-43-206	1153.4 3254.6	0' 0'	0' 0'			
Presque Isle Pierhead Light..	42-09-18-884 80-04-21-183	1911.6 1595.5					
Locality, Saint Clair River.							
Δ105, Elwood (U.S.L.S.)....	42-51-23-382 82-23-29-147	2367.1 2171.3					
106 (U.S.L.S.).....	42-51-17-730 82-27-48-809	1794.9 3635.8	100-47-10-9	280-46-43-5	Δ105, Elwood.....	3058.6	3-485527
104 (I.W.C. 1911).....	42-51-50-319 82-27-44-638	5094.1 3324.5	05-22-49-5 50-33-46-1	185-22-46-6 230-33-15-8	106, New Calf..... 105, Elwood.....	3313.9 4292.7	3-520340 3-632728
101, Offset.....	42-52-06-189 82-28-32-703	623.7 2420.6	294-12-59-7 320-25-18-9	114-13-32-3 146-25-48-6	104, (I.W.C. 1911), .. 106, New Calf.....	3908.8 5884.7	3-592048 3-769723
99, Lower.....	42-52-38-246 82-27-59-192	3882.2 4408.5	347-25-58-1 37-16-56-5	167-26-05-0 217-16-38-8	104, (I.W.C. 1911), .. 101, Offset.....	4981.6 4095.3	3-697363 3-612287

Date.....

△98, Westcott.....	42-52-36-382 82-28-31-184	3680-4 2321-8	265-09-13-6 91-50-25-8	85-09-35-4 181-50-24-9	△98, Lower..... 101, Offset.....	2390-7 3068-3	3-378522 3-485486
97, Field.....	42-53-05-767 82-27-55-091	584-0 4101-7	06-16-37-1 42-03-59-4	186-16-34-3 222-02-34-8	99, Lower..... 98, Westcott.....	2702-9 4011-3	3-446055 3-608282
96, Monument No. 47.....	42-53-13-611 82-28-31-106	1398-3 2315-9	286-53-27-2 00-04-47-0	106-53-51-7 180-04-47-0	97, Field..... 99, Lower.....	2802-2 4305-6	3-447506 3-634029
95, Stag.....	42-53-13-201 82-27-42-861	4373-7 3190-6	13-30-36-8 50-21-50-9	193-30-28-5 230-21-18-1	97, Field..... 96, Monument No. 47.....	3887-7 4664-0	3-590803 3-668756
94, Marys.....	42-54-09-747 82-28-11-536	966-9 858-6	32-32-29-3 14-25-42-1	141-32-48-8 194-23-28-8	95, Stag..... 96, Monument No. 47.....	3432-0 5847-4	3-535546 3-766962
93, Point.....	42-54-21-096 82-27-27-882	2135-8 2076-1	16-11-43-8 70-31-28-2	196-11-33-6 250-30-58-5	95, Stag..... 94, Marys.....	3905-1 3445-6	3-601524 3-537260
92, Chimney.....	42-54-32-104 82-27-53-159	3250-3 4328-4	296-19-09-3 23-44-37-2	116-19-29-9 203-44-28-1	93, Point..... 94, Marys.....	2513-2 2472-7	3-400280 3-393167
91, Ruin.....	42-54-39-646 82-27-22-806	4013-8 1698-8	11-24-28-3 73-49-15-3	191-24-24-8 263-48-51-2	93, Point..... 92, Chimney.....	1915-9 2740-0	3-282370 3-437755
90, Cottage.....	42-54-51-795 82-27-48-046	5243-8 3575-5	303-12-27-2 20-40-58-4	123-12-44-4 200-40-51-5	91, Ruin..... 92, Chimney.....	2245-6 2130-9	3-351324 3-328566
89, Hill.....	42-54-55-606 82-27-17-888	5629-6 1328-7	12-49-22-1 89-15-28-3	192-49-18-7 260-15-07-7	91, Ruin..... 90, Cottage.....	1657-1 2279-4	3-219385 3-357811
88, Salt.....	42-55-10-169 82-27-41-888	1029-5 3116-8	309-30-15-6 13-50-17-7	129-30-31-9 193-50-13-4	89, Hill..... 90, Cottage.....	2317-6 1915-8	3-365043 3-282352
87, Green.....	42-55-21-839 82-27-09-347	2211-0 685-5	13-24-44-9 63-59-37-5	193-24-36-1 243-59-15-4	89, Hill..... 88, Salt.....	2730-3 2694-2	3-436211 3-430427
86, Sand.....	42-56-00-998 82-27-21-006	101-0 1792-6	344-31-58-4 14-25-39-8	164-31-48-4 194-25-27-7	87, Green..... 88, Salt.....	4113-6 5313-5	3-614222 3-725882

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Δ85, Turn	42-55-52.738 82-26-53.313	5339.2 3966.2	20-52-34.7 110-03-51.7	200-52-23.8 290-03-30.8	Δ87, Green. 86, Sand.....	3343.0 2438.1	3.524783 3.387042
88, Monument No. 50	42-56-10.191 82-26-39.402	1031.8 2931.1	30-21-30.4 74-22-02.4	210-21-20.9 254-21-32.0	85, Turn. 86, Sand.....	2047.7 3452.7	3.311269 3.538157
84, Wire.....	42-56-24.148 82-27-00.119	2444.9 8.9	3112-30-54.1 350-57-07.5	132-31-08.2 170-57-12.1	83, Monument No. 50. 85, Turn.....	2090.9 3220.1	3.320332 3.507864
82, Road.....	42-56-41.520 82-26-40.419	4203.4 3006.2	358-37-58.5 39-48-07.6	178-37-59.2 219-47-54.2	83, Monument No. 50. 84, Wire.....	3172.7 2289.2	3.501429 3.359685
81, Council.....	42-56-23.107 82-26-15.387	2845.5 1144.7	44-33-53.4 126-06-17.6	224.33-37.0 305-06-00.5	83, Monument No. 50. 82, Road.....	2545.9 2304.6	3.405838 3.362561
80, Dry.....	42-56-55.805 82-26-15.706	5649.6 1168.0	359-30-57.2 51-48-20.7	179-30-57.4 231-48-03.8	81, Council. 82, Road.....	2804.3 2638.9	3.447826 3.369920
79, Elm.....	42-56-46.397 82-25-47.011	4697.2 3496.4	48-44-30.7 114-03-12.3	228-44-11.4 294-02-52.8	81, Council. 80, Dry.....	2807.8 2337.1	3.448369 3.368685
78, Sewer.....	42-57-12.263 82-25-54.964	1241.5 4087.6	5347-16-17.0 42-47-45.0	167-16-22.4 222-47-30.9	79, Elm. 80, Dry.....	2684.7 2270.7	3.428897 3.356161
77, Barn.....	42-56-59.300 82-25-33.741	6003.6 2509.5	37-04-25.8 129-44-39.5	217-04-16.8 309-44-25.1	79, Elm. 78, Sewer.....	1637.3 2062.8	3.214123 3.312337

Locality, Saint Clair River. Date

Δ75, Chain.....	42-57-24-387 82-25-09-704	2463-9 721-8	35-11-44-3 70-02-42-6	215-11-27-9 250-02-11-8	Δ77, Barn..... 78, Sewer.....	3101-7 3581-0	3-491605 3-554006
76, Tunnel.....	42-57-36-188 82-25-33-643	3663-7 2501-6	303-58-33-7 00-06-42-1	123-58-50-0 190-06-42-0	75, Chain..... 77, Barn.....	2146-8 3734-6	3-331789 3-572241
73, Train.....	42-57-40-247 82-24-55-530	4074-8 4129-3	33-12-02-6 81-45-08-7	213-11-52-9 261-44-42-7	75, Chain..... 76, Tunnel.....	1925-0 2963-8	3-284432 3-456946
74, Elevator.....	42-57-55-090 82-25-18-563	5576-4 1380-2	311-14-27-3 348-02-53-4	131-14-43-0 168-02-59-4	73, Train..... 75, Chain.....	2977-8 3181-3	3-357520 3-562610
72, Black.....	42-58-19-144 82-25-10-771	1938-3 800-9	343-56-38-8 13-22-41-0	163-56-49-2 193-22-33-7	73, Train..... 74, Elevator.....	4067-8 2504-2	3-612548 3-349875
71, Grand.....	42-58-08-146 82-24-37-399	824-8 2780-5	66-37-47-1 114-10-17-1	246-37-19-1 294-09-54-4	74, Elevator..... 72, Black.....	3334-4 2719-4	3-523012 3-434479
69, Wreck.....	42-58-36-266 82-24-31-586	3671-6 2348-1	08-37-55-7 59-14-57-9	188-37-51-7 239-14-31-2	71, Grand..... 72, Black.....	2879-5 3389-9	3-450318 3-530187
70, Fish.....	42-58-49-293 82-25-13-107	4990-5 974-4	203-08-59-1 327-29-19-9	113-08-27-4 147-29-44-2	69, Wreck..... 71, Grand.....	3256-7 4939-8	3-525906 3-563709
67, Club.....	42-59-14-145 82-24-23-471	1432-1 1744-7	08-56-26-1 53-42-49-8	188-56-20-6 235-42-16-0	69, Wreck..... 70, Fish.....	3882-2 4465-9	3-589071 3-649307
65, Edward.....	42-59-43-050 82-24-47-912	4358-6 3561-0	328-10-65-9 18-59-26-0	148-10-22-6 198-59-08-8	67, Club..... 70, Fish.....	3444-4 5755-7	3-537118 3-760099
63, Monument No. 55.....	42-59-25-874 82-25-16-564	2619-4 1226-7	230-42-13-0 280-45-38-6	50-42-32-5 106-46-14-8	65, Edward..... 67, Club.....	2745-9 4116-8	3-438477 3-614561
66, Yard.....	42-59-54-180 82-26-32-276	5485-2 2398-6	288-51-53-8 337-45-08-6	108-52-24-1 137-45-19-4	65, Edward..... 68, Monument No. 55.....	3484-3 3096-3	3-542116 3-490836
63, Lake.....	43-00-12-479 82-24-47-134	1263-4 3502-6	01-06-14-1 61-05-39-4	161-06-43-6 241-05-08-6	65, Edward..... 66, Yard.....	2980-1 3832-4	3-474225 3-583474

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.

Station.	Latitude and Longitude.	Seconds in Feet.	*Azimuth.	Back Azimuth.	To Station.	Dis- tance in Feet.	Loga- rithms.
Δ Fort Gratiot Light.	° ' " 43-00-22.409 82-25-20.962	2268.7 1557.7	° ' " 291-47-43.9 16-23-39.4	° ' " 111-48-07.0 196-23-31.7	Δ 53, Lake. 66, Yard	2707.3 2379.1	3.432537 3.474086
62, Monument No. 58.	° ' " 43-00-47.378 82-25-30.324	4796.6 2252.9	° ' " 317-44-50.4 344-36-47.0	° ' " 137-45-19.4 164-36-53.4	63, Lake. Fort Gratiot Light.	4773.2 2621.9	3.678606 3.418613
61, Monument No. 57. . . .	° ' " 43-00-12.803 82-24 34-910	1286.3 2594.2	° ' " 105-52-10.8 130-22-28.6	° ' " 285-51-39.4 310-21-50.8	62, Monument No. 58.	3557.5 5404.3	3.551150 3.732743
Locality, False Detour Passage.							
Harbour.	° ' " 45-54-46.607 83-33-40.856	4660.4 2888.8	° ' " 294-18-34.5	° ' " 114-20-53.0	Wheeler	14971.8	4.1752763
Wheeler.	° ' " 45-53-45.115 83-30-27.947	4569.9 1976.7	° ' " 196-16-02.7	° ' " 16-16-15.3	Kitchener.	4430.6	3.6464578
Kitchener.	° ' " 45-54-27.102 83-30-10.397	2745.4 735.2	° ' " 167-34-17.4 220-20-05.8	° ' " 347-33-59.0 40-21-21.1	Mary Gladya.	8417.0 11448.0	3.9251570 4.0587221
Mary.	° ' " 45-55-48.248 83-30-36.024	4887.5 2546.9	° ' " 292-38-32.8 266-51-00.7	° ' " 22-39-02.6 86-52-34.4	Brace Gladya.	7599.4 9235.1	3.8807788 3.9654400
Gladya.	° ' " 45-55-53.237 83-28-25.570	5392.7 1807.4	° ' " 135-58-08.7 175-24-08.2	° ' " 315-57-04.7 355-23-55.0	Brace Caroline.	9053.4 16221.6	3.9568126 4.2100631

Locality, Saint Clair River.

Date.

Locality, False Detour Passage.

Date.

Brace	46-56-57-4851	5822-81	207-18-40-3	27-19-31-1	Caroline	10874-0
	83-29-54-621	3859-9	282-45-56-9	102-47-59-6	Creek	12359-8
Caroline	45-58-32-862	3228-7	286-44-19-5	105-46-11-8	Cockburn	11524-5
	83-28-43-981	3106-6	330-19-38-6	130-20-50-4	Creek	14285-3
Creek	45-56-30-488	3088-2	160-05-33-2	340-04-30-8	Marble	17966-0
	83-27-04-054	286-4	203-40-06-7	23-40-47-2	Cockburn	9907-6
Thompeon	45-59-47-743	4836-3	84-15-50-6	264-10-41-5	Marble	30498-5
	83-21-21-034	1485-2	162-11-16-7	342-07-49-9	Bigsby	66049-0
Cockburn	45-58-00-065	6-6	146-06-16-7	325-58-50-1	Sulphur Island Light	78382-0
	83-26-07-751	547-6	179-58-52-3	359-58-52-1	Bigsby	79780-0
			127-48-68-5	307-47-15-6	Marble	12785-2

Locality, North Channel, Lake Huron.

Date

Marble	45-59-17-427	1765-4	149-32-40-3	329-26-56-7	Sulphur Island Light	06314-1
	83-28-30-785	2173-6	188-39-32-5	08-41-15-3	Bigsby	66706-4
Glen	46-00-31-830	3224-7	155-39-43-4	335-35-53-9	Sulphur Island Light	54451-1
	83-31-09-454	667-3	199-57-17-5	20-00-54-6	Bigsby	62149-4
Thessalon Light	46-14-16-121	1633-2	306-42-27-3	126-48-12-1	Bigsby	41932-7
	83-34-05-732	402-9	03-22-38-2	183-22-05-5	Raynolds	54195-3
Raynolds	46-05-22-044	2232-9	164-50-45-6	344-48-56-3	Thessalon	40842-7
	83-34-51-028	3597-1	231-43-24-7	51-49-41-6	Bigsby	46834-0
Sulphur Island Light	46-08-41-472	4201-1	258-31-50-1	78-39-17-3	Bigsby	44530-0
	83-36-28-145	1361-6	336-56-39-2	156-59-13-6	Shoal	33146-3
			32-26-22-3	212-24-45-7	△345	17002-8
			118-18-10-1	298-14-45-6	Serpent	22368-0
Shoal	46-03-37-609	3809-7	161-19-05-7	341-16-12-4	Thessalon	59787-0
	83-33-22-444	1582-3	217-39-35-4	97-44-48-4	Bigsby	50036-1

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.
 Locality, North Channel, Lake Huron. Date

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
	° ' "		° ' "	° ' "			
Thessalon Church Spire.	46-15-33.31 83-33-14.88	3374.3 1045.6					
Bigaby, (I. W. C.).	46-10-08.416 83-26-08.095	852.4 569.6	66-03-17.2 102-26-09.7	245-54-13.5 282-18-02.9	△345, (U. S. L. S.) Thessalon.	58138.1 48603.4	4.7644609 4.6866671
Thessalon, (I. W. C.).	46-11-51.186 83-37-22.802	5185.4 1604.0	09-19-03.5 62-15-22.7	189-18-03.3 242-12-37.5	△345, (U. S. L. S.) Serpent, (U. S. L. S.).	34531.7 18204.6	4.5382184 4.2601795
△345, (U. S. L. S.).	46-06-14.788 83-38-42.146	1498.0 2970.1	108-51-54.0 157-38-39.5	288-45-53.1 337-36-51.6	Kocruish Serpent, (U. S. L. S.)	37261.7 27579.0	4.5712622 4.4421507

Locality, Potaganissing Bay, Lake Huron. Date

Serpent, (U. S. L. S.).	46-10-27.466 83-41-11.740	2782.5 826.1	17-27-36.3 61-15-07.9	197-26-10.1 241-10-54.7	Chippewa. Kocruish.	23066.8 28201.0	4.4485033 4.4502652
Kocruish.	46-08-13.421 83-47-02.834	1959.6 199.5	351-57-39.3 308-59-48.0	171-58-15.0 129-02-31.9	△305, (U. S. L. S.) Chippewa	24967.6 20991.3	4.3973771 4.3220447
△305, (U. S. L. S.).	46-04-09.363 83-46-13.313	948.5 938.6	131-43-41.0 228-05-24.5	311-41-46.2 48-07-35.6	Burnt Island. Chippewa.	15047.0 17232.6	4.1774495 4.2363502
Chippewa.	46-06-02.955 83-43-11.327	299.2 798.2	53-39-13.5 86-28-43.9	233-36-05.9 266-24-38.0	△285, (U. S. L. S.) Burnt Island.	22796.7 24100.6	4.3578754 4.3820282

Burnt Island, (U. S. L. S.),	46-05-48-201 83-48-52-658	4882-5 3711-3	334-23-21 91-10-52-3	154-37-21-5 271-08-10-1	Δ285, (U. S. L. S.) Whiskey	13310-0 15867-6	4-1241732 4-2005115
Whiskey	46-05-51-368 83-52-37-767	5203-4 2661-7	277-20-06-0 319-05-10-8 299-44-53-5	97-22-34-0 139-06-27-8 119-48-34-0	Burnt Maple Δ285, (U. S. L. S.)	14600-4 11506-3 24857-6	4-1643642 4-0606340 4-3954578
Maple	46-04-25-516 83-50-50-883	2584-6 3587-6	225-29-43-9 234-32-43-2	45-30-54-9 104-35-06-6	Burnt Δ285, (U. S. L. S.)	9741-7 14569-6	3-9886363 4-1610579
Δ285, (U. S. L. S.)	46-03-49-494 83-47-31-716	5013-4 2236-5	145-54-58-0 59-55-39-7	325-53-45-6 239-53-44-5	Burnt Trout	12650-8 13639-1	4-1021105 4-1152489
Burnt	46-05-32-915 83-49-12-305	3334-3 867-1	13-49-50-8 47-10-45-3	193-49-08-0 227-08-14-2	Trout Andrews	17520-9 20177-6	4-2435557 4-3048673
Trout	46-02-44-961 83-50-11-682	4554-5 824-1	24-12-29-7 107-15-13-1	204-11-15-0 287-13-24-9	Drummond Andrews	17737-3 11112-2	4-2488874 4-0465973
Monument No. 8	46-03-53-485 83-54-23-056	5418-0 1626-0	335-37-42-0 86-39-58-5 335-57-44-8	155-39-28-8 265-58-14-8 175-57-51-3	Drummond Fort St. Joe Squaw	25378-9 10171-2 9074-0	4-4044719 4-0073715 3-9-77973
Squaw	46-02-24-129 83-54-14-000	2444-2 987-5	128-16-41-5 230-09-46-8	308-14-51-3 50-10-52-9	Fort St. Joe Andrews	13752-6 8436-4	4-1343813 3-9261577
Andrews	46-03-17-471 83-52-42-149	1769-7 2972-8	100-14-26-1 350-14-26-9	280-11-29-7 170-15-01-0	Fort St. Joe Drummond	17552-6 19757-9	4-2443402 4-2957329
Drummond, (U. S. L. S.)	46-00-05-245 83-51-54-709	531-2 3862-2	137-37-11-3	317-33-40-9	Fort St. Joe	30588-7	4-4655617
Fort St. Joe, (U. S. L. S.)	46-03-48-204 83-56-47-096	4883-2 3320-9					

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—Continued.
 Locality, West Neebish Channel, Saint Marys River.

Station.	Latitude and Longitude.	Second# in Feet.	Azimuth.	Back Azimuth.	To Station.	Distance in Feet.	Logarithms.
Δ81, (U.S.L.S.).	46-17-34.34 84-12-41.66	3478.7 2925.5	20-13-02.1 90-01-20.4	90-12-51.7 Δ82. 270-00-52.4 Bush.		2925.9 2715.0	3.4662565 3.4337645
82, (U.S.L.S.).	46-17-07.20 84-12-56.06	729.3 8937.3	148-11-04.6 223-44-11.9	328-10-47.1 Bush. 43-44-25.2 Oak		3232.3 1865.9	3.5095015 3.2708972
Bush.	46-17-34.34 84-13-20.32	3478.7 1426.8	295-01-51.6 1426.8	115-02-22.4 Oak.		3304.5	3.5191005
Oak.	46-17-20.54 84-12-37.68	2080.7 2646.3	333-36-47.7 12-13-50.1	153-36-16.4 Spoil. 192-13-46.4 Dam.		1916.4 1677.0	3.2824889 3.2245430
Spoil.	46-17-03.60 84-12-25.56	364.8 1795.3	99-46-06.4 93-41-21.6	279-45-44.4 Δ82. 273-41-09.2 Dam		2173.3 1209.5	3.3371185 3.0826005
Dam.	46-17-04.37 84-12-42.74	442.6 3002.0					

Locality, Saint Marys River.	Date.
Lot.	6124.2 6872.1
Power.	3370.0 7014.3

Pile	46-30-19-521 84-19-43-577	1977-7 3048-2	282-43-12-7 345-12-28-4	102-43-39-7 Lot 163-12-33-0 Power	2671-0 3630-6	3-4286087 3-5590946
Pier	40-30-17-140 84-20-34-957	1736-2 2445-2	266-09-19-3 305-51-44-6	86-09-56-6 Pile 125-52-31-5 Power	3602-3 5579-6	3-5565775 3-7405959
Island	46-30-36-438 84-20-51-528	3691-3 3604-3	289-49-12-6 329-20-02-0	109-50-01-9 Pile 149-20-14-0 Pier	5052-5 2272-8	3-7035107 3-3565598
Pearl	46-30-52-656 84-20-19-001	5334-3 1371-1	16-37-25-6 53-39-37-5	196-37-14-5 Pier 233-39-14-3 Island	3754-8 2772-4	3-5745913 3-4428501
Knoll	43-30-45-871 84-21-38-176	4647-0 2669-9	262-51-46-3 303-20-47-3	82-52-43-3 Pearl 123-21-33-2 Pier	5538-5 5293-9	3-7433896 3-7237776
Smoke	46-31-05-061 84-21-18-285	512-8 1279-5	287-00-57-9 35-34-33-0	107-01-40-5 Pearl 215-34-18-6 Knoll	4293-0 2390-2	3-6327589 3-3784237
Iron	46-30-53-855 84-22-07-685	5962-6 537-4	279-40-44-8 302-30-27-5	79-41-20-6 Smoke 122-30-48-9 Knoll	3511-0 2447-4	3-5454254 3-3887026
Rocks	46-30-26-043 84-22-17-724	2638-1 1239-5	191-55-52-8 234-00-41-2	11-55-45-5 Iron 54-01-09-9 Knoll	3397-4 3418-6	3-5311447 3-5338493
Bridge	46-30-22-010 84-21-44-297	2229-7 3068-7	99-55-00-2 190-02-38-6	279-54-36-0 Rocks 10-02-43-0 Knoll	2373-7 2454-9	3-3754188 3-3900410
Locality, Taquamenaw Bay, Lake Superior. Date						
R. (1913)	46-26-37-179 84-30-55-216	..... .....	183-26-53-2 90-36-56-9	03-26-59-0 Δ 10, (U.S.L.S.) 270-33-42-3 Δ 1, "	9382-1 18805-7	3-9722992 4-2742679
Taquamenon Island (U.S.L.S.)	46-31-55-220 84-56-54-800	5594-1 3631-7	99-21-47-3 365-21-09-8	279-18-24-8 Emerson Smokestack 176-21-09-5 Taquamenon Eccentric	20456-0 414-7	4-3108191 2-6177498
Emerson Smokestack, (U.S.L.S.)	46-32-27-970 85-01-43-520	2834-0 3042-6	280-25-35-3	100-29-05-2 Taquamenon Eccentric	20550-2	4-3130273

TABLE of Positions, Azimuths, and Lengths, based on North American Datum.—*Continued.*
 Locality, Taquamenaw Bay, Lake Superior. Date.....

Station.	Latitude and Longitude.	Seconds in Feet.	Azimuth.	Back Azimuth.	To Station.	Dis- tance in Feet.	Loga- rithms.
Taquamenon Eccentric.....	° ' " 46-31-51.140 84-56-54.320	5180.8 3797.9	° ' " 02-18-38.2 348-35-15.2	° ' " 182-19-31.4 168-35-46.7	Woscom..... Rock.....	16332.4 15353.5	4.2130514 4.1862151
Woscom.....	° ' " 46-29-10.05 84-57-08.72	1018.0 280.2	° ' " 135-43-27.0 81-10-18.0	° ' " 315-40-04.0 261-07-36.0	Emerson Smokestack..... Creek.....	28017.2 15841.8	4.4474239 4.1998017
Rock.....	° ' " 46-29-22.58 84-56-10.90	2287.4 762.8	° ' " 128-56-57.6 289-25-15.0	° ' " 308-52-56.3 109-28-35.0	Emerson Smokestack..... Rose.....	29898.5 20536.7	4.4756491 4.3123308
Creek.....	° ' " 46-25-45.99 85-00-47.40	4659.1 3317.6	° ' " 170-06-18.0 229-09-05.0	° ' " 350-05-37.0 49-09-05.0	Emerson Smokestack..... △36.....	22828.2 70.5	4.3584625 1.8481891
Rose.....	° ' " 46-28-15.08 84-51-34.20	1527.6 2393.7	° ' " 134-22-35.0	° ' " 314-18-43.0	Taquamenon Eccentric.....	31315.0	4.4957540

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58	29th and bearing S. 72 degrees 9 minutes W. 751 feet from Monument No. 10A, located on the United States side, in			
	30th Latitude 43 degrees 08 minutes 59.43 seconds N.			
	31st Longitude 79 degrees 02 minutes 25.32 seconds W.			
66	Latitude 42 degrees 23 minutes 36.53 seconds N.			
69	2nd and bearing N. 44 degrees 22 minutes 28 seconds W. 956.6 feet from Monument No. 10A,			
	5th Latitude 42 degrees 14 minutes 12.378 seconds N.			
	6th Longitude 83 degrees 07 minutes 31.785 seconds W.			
	13th and bearing N. 63 degrees 37 minutes 15 seconds W. 1892.8 feet from Monument No. 10A,			
	17th Latitude 42 degrees 15 minutes 27.886 seconds N.			
	18th Longitude 83 degrees 06 minutes 19.394 seconds W.			
71	29th and bearing N. 78 degrees 59 minutes 36 seconds E. 437.4 feet from Monument No. 10A,			
	32nd Latitude 42 degrees 31 minutes 59.091 seconds N.			
	33rd Longitude 82 degrees 40 minutes 09.953 seconds W.			
77	31st and bearing S. 75 degrees 35 minutes W. 974 feet from Monument No. 10A,			
	34th Latitude 42 degrees 47 minutes 12.25 seconds N.			
	35th Longitude 82 degrees 28 minutes 06.49 seconds W.			
79	19th and bearing N. 78 degrees 41 minutes W. 1330 feet from Monument No. 10A,			
	22nd Latitude 42 degrees 54 minutes 17.34 seconds N.			
	23rd Longitude 82 degrees 27 minutes 26.97 seconds W.			
80	6th and bearing S. 56 degrees 03 minutes 54 seconds E. 937.9 feet from Monument No. 10A,			
	9th Latitude 42 degrees 57 minutes 12.146 seconds N.			
	10th Longitude 82 degrees 25 minutes 54.570 seconds W.			
103	Turning point 122, 10A.....72-09-00, 751,			
	43-08-57.16, 43-08-59.43			
106	Turning point 164, 5.....135-37-32, 956.6,			
	79-02-34.97, 79-02-25.32			
	42-14-18.99, 42-14-12.378			
	83-07-40.87, 83-07-31.785			
107	Turning point 174, 16 (1926).....258-59-36, 437.4,			
	42-31-59.92, 42-31-59.091			
	82-40-04.22, 82-40-09.953			
108	Turning point 199, 41.....75-35-00, 974,			
	42-47-09.86, 42-47-12.25			
	82-28-19.14, 82-28-06.49			
106	Turning point 165, 6, 116 - 22 - 45 1892.8			
	42-15-36.19 42-15-27.886			
	83-06-41.94 83-06-19.394			

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CORRECTIONS - THIRD PAGE.

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29

180 Monument No.6, 42-15-27.886, 2822.9, 198-17-25.2, 18-17-59.0, Monument No.7, 12034.0, 4.0804097
 83-06-19.394, 1458.4, 116-22-45, - - - - - T.P. No.165 1892.8, 3.2770946
 151-41-06, - - - - - United Fuel & Supply Co.,
 Tank, River Rouge 8436.5 3.9275527
 Wireless Station River Rouge
 A 62 located on Smith's Dock
 Stack, Solway Works

DELETE..... 110-41-10.....
 " 161-40-30.....
 " 174-59-25.....
 DELETE -

181 Tank at Stone Crusher, 4156.6
 River Rouge, 42-16-41.06, 844.2
 Mich. 93-07-11.23, And substitute -

United Fuel & Supply Co. Tank,
 River 42-16-41.49, 4199.9
 Rouge 93-07-12.79, 961.5

186 Monument No.15, 42-27-14.163, 1433.7, 241-29-49.3, 61-37-53.0, Monument No.16 (1926) 60902.5, 4.7846349
 Monument No.16, 42-31-59.091, 5982.0, 227-06-27.7, 47-06-50.7, Monument No.17 3469.7, 3.5402901
 (1926) 92-40-09.953, 741.8, 258-59-36, 78-59-41, T.P. No.174 437.4, 2.6409262
 44-23-32, 224-22-48,
 112-28-33, 292-27-43,
 DELETE..... 125-40-20,
 " 194-00-25,
 St. Clair River, Mich.

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195	Monument No. 40,	42-46-13.616,	1378.3,	187-58-32.5,	07-58-40.1,	Monument No. 41,	5994.0,	3.7777154
	Monument No. 41,	42-47-12.250,	1240.1,	158-08-30.5,	338-08-08.6,	Monument No. 42,	6442.1,	3.8090276
		92-28-06.493,	484.1,	75-34-51.0,		T.P.No. 199	973.7,	2.9884244
				151-40-25.5,		Stack, Oakland Hotel, St. Clair, Mich.		
	DELETE.....			144-22-30.0,		Stack, Great Lakes Eng. Works, St. Clair, Mich.		
198	Monument No. 47,	42-53-13.811,	1398.3,	216-34-46.0,	36-35-29.7,	Monument No. 48,	R009.9,	3.9036272
	Monument No. 48,	42-54-17.340,	1755.4,	176-40-02.0,	356-39-57.5,	Monument No. 49,	R450.5,	3.9268809
		R2-27-26.972,	2007.5,	101-18-44.6,		T.P.No. 206	1350.0,	3.1239629
				34-23-40.0,		Stag Island Middle Light.		
				102-46-52.0,		Stag Island Upper Light.		
				167-07-41.0,		W. Stack of Salt Works above Marysville.		
199	Monument No. 50,	42-56-10.191,	1031.8,	207-59-32.2,	28-00-02.7,	Monument No. 51 (1925)	7103.7,	3.8514836
200	Monument No. 51,	42-57-12.146,	1229.7,	232-55-48.6,	52-56-33.3,	Monument No. 52	6133.3,	3.7876931
	(1925)	82-25-54.570,	4152.9,	303-56-06		T.P.No. 209	937.8	2.9721255
				257-52-55		Tank, Mueller Brass Co.		
				262-40-35		Tank, Stove Works		
				1-39-15		Tank, Can. Alloy Steel Co.		
	DELETE.....			47-07-50		Stack, Reids Dry Dock		
	".....			214-38-00		Stack, Tunnel Power House		
	".....			232-42-20		Stack, Lumber Yard, Sarnia, Ont.		
203	Fort Gratiot Light,	43-00-22.41,	2268.4					
		82-25-20.96,	1557.7					

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