

An Introduction to Surveys and Surveyors In the Exploration of North-Eastern Ontario

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Foreword: There are several reasons why this paper has to be an introduction to the history of surveying in North-Eastern Ontario. The surveying and exploration of North-Eastern Ontario and certainly Northern Ontario as a whole is a fantastic story involving a curious variety of men whose biographies, maps, and diaries etc. are scattered through an incredible range of sources far beyond the general national outlines of such books as Don Thomson's "Men and Meridians". It is all great material for an adventurous book which I would like to put together when the time is available to research, paddle the routes used by the early surveyors, and get some first-hand experience of what they saw and did. So this paper is just a crude picture frame . . . the picture would fill a good book.

Surprisingly enough, the initial interest in North-Eastern Ontario came from the north . . . not from the south.

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Anyone using the base line without a reservation must immediately leave if they are overlapping another's reserved time.

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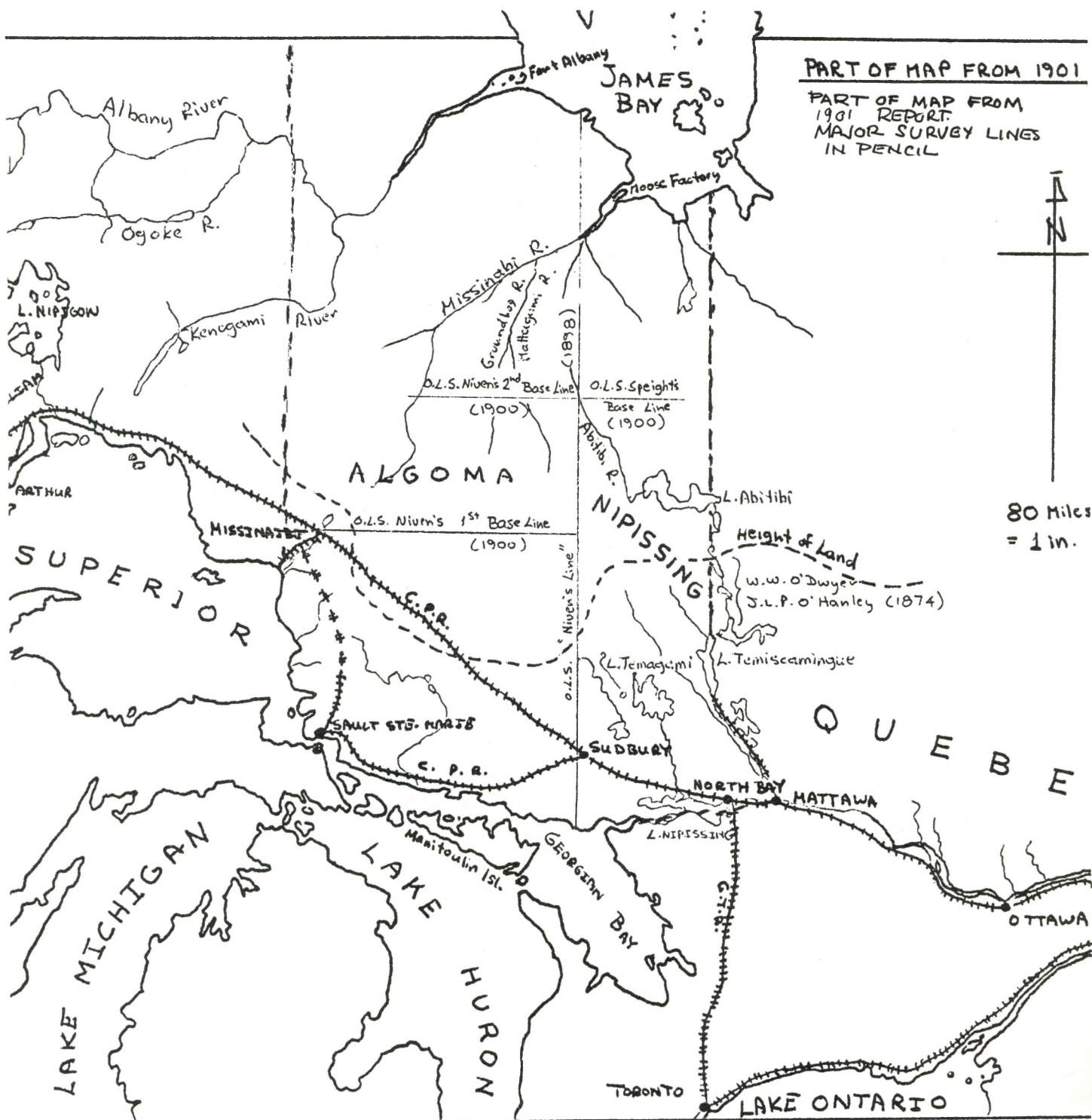
Any EDM instruments used on contracts for survey work for the Municipality of Metropolitan Toronto shall consider it part of the contract to have an instrument/reflector constant test performed monthly on the base line. A copy of the results shall be returned with the job package upon completion of the contract.

In 1610 Henry Hudson could I think be considered the first white explorer (surveyor?) to venture into what was then the front door but was eventually to become the back door to North-Eastern Ontario. Henry Hudson never got back out of his Bay but the news spread from his crew. For the next two centuries the French and English fought over each others' trading posts which sprang up around what is now southern Hudson Bay and James Bay. There was no need and no desire by either the English or the French to venture south and west from their posts into the "Great Muskeg" . . . the Indians could come to them with their furs. Ships were making regular supply trips into Hudson Bay and soon the French down in Quebec were more than interested in the tales of prosperous trading up on the Bay with the Indians. The early Hudson Bay posts were soon to serve as great magnets attracting exploration from the south through North-Eastern Ontario. (The fact that fine ladies had to have furs was probably equally responsible for the initial ventures into the area.) Nobody wanted to cross the rough and rocky terrain now separating the Muskokas and Lake Nipissing but the Ottawa River was a favorable alternative in the 1600's and early 1700's when the French schemed to surprise attack the English on Hudson Bay by paddling up "from behind" via the Ottawa River and northward. Future "voyageurs" began to think that perhaps a trip northward would be profitable and eventually lead to the Hudson Bay posts. Pointing to the north, long, narrow and deep was Lake Timiskaming (an Indian word for deep water) when the first explorers ventured north from the Ottawa. From then to the present day the "Timiskaming Corridor" or the "Birchbark Highway" was and still is the shortest route from the south to James Bay. The route left the Ottawa River upstream from the present town of Mattawa, north through Lake Timiskaming, Quinze Lake, Opasatica Lake and over the height of land through Lake Dassarat, Lake Duparquet, rivers, creeks and portages into Lake Abitibi where a Hudson Bay post had been established in 1755. From there route was a relatively fast 240 miles if one could navigate a canoe upright through the powerful waters of the Abitibi and Moose Rivers to James Bay. This route was to serve as the "colonization highway" for the settlement of North-Eastern Ontario in the following years, also the main line for the departure of surveyor-explorers into the unknown.

The first settlements began on the northern shores of Lake Timiskaming where the fertile "South Clay Belt" was attractive to farmers, and good timber stands attracted lumbermen from the Ottawa Valley who chipped at rocks in the area on the side as the earliest prospectors. This was the beginning of a nucleus for development with the beginnings of such future towns as Cobalt, Englehart, New Liskeard, and Ville Marie. The little agricultural pockets around the head of the lake dated from about 1800 which is probably the time of the first real property survey in North-Eastern Ontario when the Bell and Hickley farm was surveyed. On the north-eastern shore the French too were looking for settlers into the fertile belt and the "Société de Colonisation du Lac Temiskaming" was organized through the church in Ottawa and given the right to subdivide and settle the two townships (or "cantons" as they were sometimes called then) of Guiges and Duhamel into the usual Quebec system of ranges and 100 acre lots which sold for \$100 each.

Surveying in the true sense of line and boundary surveys did not begin in North-Eastern Ontario until the late 1800's. The first true line surveyed was the Ontario-Quebec border. Before this survey the Constitutional Act of 1791 established that the boundary ". . . should ascend the Ottawa River into Lake Tomiscanning and from the Head of said lake by a line drawn due north until it strikes the boundary line of Hudson Bay". When the British North America Act was enacted in 1867 however the two provinces were created and the job of surveying and cutting the line given to W. W. O'Dwyer (P.L.S.) for Ontario and J.L.P. O'Hanley (P.L.S.) for Quebec. In the winter of 1784, after C. C. Farr, a trader's assistant from Fort Temiskaming, had helped them find where the "Head of Lake Tomiscanning" actually was, they surveyed this boundary 42 miles north to the height of land (which is a few miles north of where Ontario Highway No. 66 from Kirkland Lake crosses the border today. The job was neatly done with stone monuments brought up the line by sled and planted every mile with Ontario cut on the west face, Quebec on the east and the mile number cut on the south face.

At about this time the man I would consider to be the greatest single contributor to the surveying of townships in North-Eastern Ontario came on the



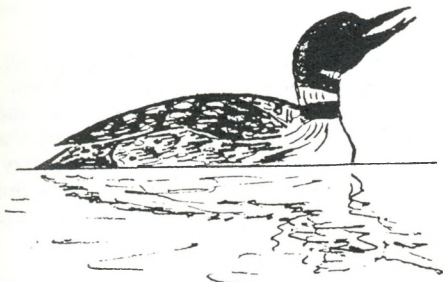
scene from his home area in Haliburton; Alex Niven (D.L.S.) (1836-1911). He was responsible for the first meridian and base lines in the area and his name and work constantly appear in the instructions from the Department of Lands, Forests, and Mines Survey Branch to such following surveyors as T. L. Patten

(O.L.S.) and William Galbraith (O.L.S.) who were assigned the task of laying out the first township lines and 1800 acre sections in areas such as the Township of Clute just west of present day Cochrane. The map shows some of Niven's early lines. The backbone for later surveys of meridians and townships and

general exploration was the line run by Niven for administrative and mapping purposes straight north from Georgian Bay to James Bay; in fact it is known as "Niven's Line" and separated what were then the Algoma and Nipissing Districts. By 1898 Niven had run this line to mile 198 which was about 40 miles north of

the future town of Cochrane. (Patten and Galbraith used this line as their western boundary when laying out the 1800 acre sections of the Township of Clute under Crown instructions in the early 1900s.)

Independent of Niven's work was the work of the railways and their surveyors further south. By 1881 the C.P.R. line from Ottawa terminated in Mattawa. From Mattawa the settlers, explorers, and lumbermen departed north to Lake Timiskaming and beyond. By 1882 the future coast-to-coast C.P.R. line had reached Lake Nipissing and the station



town of North Bay was born. In 1883 the first train pulled into Sudbury where deposits of copper were found in a rock cut. The natural consequence was that there were many schemes to use this line as a base line for line(s) running north into the Lake Timiskaming heartland of North-Eastern Ontario. All the schemes would have meant massive surveys into unknown bush. Proposed routes as early as 1884 were from Callander (just south of present day North Bay) to James Bay via Lake Timiskaming and Lake Abitibi; from Sudbury to James Bay via Lake Abitibi; and from Sault Ste. Marie to James Bay via Missinabi Station on the C.P.R. and the Missinabi and Moose Rivers. The Sault Ste. Marie and Hudson Bay Railway Co. even had some preliminary surveys made that were the extent of action for another few years. The hold-up was that the railway needed a more realistic assurance that there were resources "up there" to make the effort worthwhile . . . the old magnetic force of the Hudson Bay trading posts needed some help. The solution to this stagnant state of affairs was the ultimate in surveying achievement and exploration to that time (and perhaps of all time) in North-Eastern Ontario; it is sometimes called the Grand Survey of 1900. The Department of Crown Lands organized ten survey parties to do specific land surveys and complete resources surveys in ten "districts" covering most of Northern Ontario. In North-Eastern Ontario, District No. 1 north and west of Lake Abitibi was covered by T. B. Speight

(O.L.S.) from Toronto, District No. 2 further west of Lake Abitibi was covered by the old pro to the area, Alex Niven, and District No. 3 west of Lake Timiskaming was covered by George Cray (O.L.S.) of Sudbury. The amount of work accomplished by these teams all in one summer season is awesome. Speight surveyed about 72 miles due east from the 198 mile post on "Niven's Line" to where the Ontario-Quebec border line was supposed to be but had not yet been cut that far north at the time. Niven ran a base line 102 miles west of the same 198 mile post to the Missinabi River. The vast wealth of resources information by the timber experts and geologists attached to these parties resulted in a report in 1900 which finally convinced the government that a railway north would be worthwhile. In the same year \$40,000 was allotted for surveyors for a line from North Bay to New Liskeard and W. B. Russel was assigned the task of selecting a route from North Bay. This was the birth of the "Temiskaming and Northern Ontario Railway Company" later to become the Ontario Northland Railway. As the railway and surveyors proceeded northwards silver, gold, iron, cobalt, and nickel etc. kept appearing in rock cuts and the effect was a rapid snow-balling leap-frog advancement northward as the railway substantiated itself every new mile. As the railway opened up new areas north of Lake Nipissing, curious prospectors (curious is an understatement) pushed ahead of even the surveyors and to both sides of the line finding more mineral veins and good stands of timber which drew the railway further and so on. The towns of Cobalt, Matheson, Porcupine, and Timmins all grew out of this fever. On the calmer side of life, wide farms were developing around the head of Lake Timiskaming and that meant the necessity of the less adventurous but essential property surveys around and in the new towns of Kirkland Lake, Englehart, Earleton, Thornloe and New Liskeard.

Several hundred miles away at the same time the railway survey crews were just ahead of the construction of the Transcontinental (C.N.R.) line approaching Ontario through Quebec. It must have been an exhilarating moment when the advance survey crew of the Transcontinental ran a line east from Groundhog River (west of present day Cochrane) and met the crew coming west from Low Bush station on Lake Abitibi in June 1905 at a small lake called Commando Lake which is now the centre-piece of the town of Cochrane. The logic quickly appeared that supplies for the construction of the Transcontinental could be much more easily obtained via the T.N.O.R. approaching from the south so the obvious happened. The

T.N.O.R. crew surveyed the last length to a Transcontinental survey post on the shore of Lake Commando. The junction was named "Cochrane" after the Minister of Lands and Forests at that time.

At the same time as the T.N.O.R. and the Transcontinental met, the "Porcupine Gold Rush" was on and the infant towns of South Porcupine and later Timmins brought more mining surveyors into the picture.

That somewhat mysterious attraction to "the Bay" still had to be satisfied and Cochrane was the new frontier town from which a fresh adventure northward could be made. In the summer of 1905 E. A. E. Sullivan (O.L.S.) took his canoes from New Liskeard through Quinze Lake to Lake Abitibi and down the Abitibi River to James Bay; he was making a preliminary survey for the final extension of the T.N.O.R. to James Bay and his accompanying geologist brought back good news of great hydro-electric potential. The Cochrane-Moosonee line needed the incentive of hydro-electric power to prod a first survey for construction just as The Grand Survey of 1900 and mineral discoveries were needed to prod the building of the North Bay to Cochrane line. The final railway link across North-Eastern Ontario was completed in 1932 thirty years after route surveys and construction had started in North Bay. The great "magnet" (the Bay "magnet" at least) had been satisfied and the access road was there, the primary base lines were there thanks to men like Alex Niven and so the stage was set for following surveyors of the twentieth century still in the exciting position of being the first in unseen land.

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