

The NOVA SCOTIAN SURVEYOR



The NOVA SCOTIAN SURVEYOR

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THE ASSOCIATION OF NOVA SCOTIA LAND SURVEYORS INCORPORATED

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Past President
Col. G. E. Streb

President
L. Robert Feetham

Secretary-Treasurer
Edward P. Rice

- C O N T E N T S -

Views, expressed in articles appearing in this publication are those of the authors, and not necessarily those of the Association.

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PRESIDENT COL. G. E. STREB'S ADDRESS

Fellow Members, Honoured Guests:

The Survey Profession in the Maritimes was given great stimulus this year by the holding in Halifax of the 63rd Annual Meeting of the Canadian Institute of Surveying. Many of you attended the meeting and, therefore, it would be repetitious for me to describe the events of those five days of intense activity. I must say, however, that they were the culmination of a very great deal of long and careful planning by a committee of which a number here were members. I hesitate to mention names because virtually everyone worked hard including several of the ladies. But the greatest credit must go to Rusty March and to Al Daykin, who bore the greatest responsibility and to Dr. Gottfried Konecny of the University of New Brunswick, who was responsible for the excellent slate of Program speakers and for reproduction of their papers in book form. The whole meeting was well received and well attended, and as hosts we have had many compliments on it. I believe Hans Klinkenberg, who assumed office as President of the C.I.S. at that meeting, would be one of the first to say we, together with members of the Association of the other Atlantic Provinces, can all take a pat on the back for the happy result of our combined efforts. At the outset, this could only be possible if we could find men to head the project who were intelligent, hard working, dedicated to the task and prepared to accept the responsibility. Fortunately, we had such men. I'm sure you will all wish to join me in applauding Rusty March, Al Daykin and Gottfried Konecny.

During the year, as has been the practice, your Association sent a representative to the Annual Meeting of the Association of our neighbouring Province including Ontario and Quebec and Massachusetts. We were well received at all of these meetings and derived much profit from attending. Further details will appear in an early issue of the Nova Scotian Surveyor. I also attended last month two special meetings in Toronto. One was an all day meeting of Presidents of Provincial Associations, the first of its kind yet held. The second meeting was held at the University of Toronto by the Ontario Land Surveyors and it also was an all day session. Two very important matters were discussed:

- A. The re-structuring of the Association of Ontario Land Surveyors to permit the membership of Geodesists and Photogrammetrists, and
- B. The establishment near Metropolitan Toronto of a four year (beyond senior matriculation) degree course in Geodetic Sciences.

Time does not permit me here to elaborate on these two proposals at any length. Suffice it to say that, with respect to the restructuring of their Association, Ontario Land Surveyors feel that as Photogrammetrists (or Topographic Surveyors if you like) and Geodesists are involved, though usually indirectly, with the establishment of boundaries, they should be licensed just as a Professional Engineer or a Professional Surveyor is licensed, and they should be subject to similar qualifications and regulations. They feel further that if Geodesists and Photogrammetrists are to be licensed they should be licensed in the same Association as Land Surveyors. Thus, the status of the Profession would be kept high, indeed raised, and its membership considerably increased. The proposal is that members would practice in the area of their special knowledge; in some cases this could involve two or even all three disciplines.

I believe the indirect effect of the establishment of a degree course in Geodetic Sciences in Toronto will be to hasten the day when we shall have to offer a three year course in our Land Survey Institute. Ryerson already is taking action. They now have a three year course beyond junior matriculation; they are planning four years beginning September 1971. Ryerson says this is necessary to help their graduates qualify for certification as Ontario Land Surveyors. In view of the variety of new instruments today, the great leaps forward in computers in survey methodology, in mapping, in satellite geodesy, in control surveys, in the use of photogrammetry - in view of all of these things and the need for more precise and for faster work, the student of surveying

has much to learn. We must change or be left behind. Like "Alice" we must run very fast just to stay where we are.

Within the Province during the past year large numbers of control monuments have been let. But we shall leave it to our Director of Surveys, Burt Robertson, to tell us just what has been and is being done. In any case I believe the time is fast approaching when we, like New Brunswick and Prince Edward Island will be able to tie into Co-ordinate Monuments in many of our surveys - in other words our surveys soon will be integrated with other new surveys to help form a web which one day will cover the whole Province.

I much regret to report that our By-laws have not yet been approved by Government. Had we known a year ago that this delay would occur we might have taken a different approach. The Legislative Committee will report more fully on this matter during our proceedings.

On your behalf I wish to thank the members of Council for the work they have done for the Association during the past year. We have never had a poorly attended meeting, and members of Council and other members we have called upon for advice have been always ready to accept extra work as a matter of routine. It has been for me a pleasure to work with them and I believe they deserve your thanks. I must express special thanks to our ubiquitous Secretary-Treasurer, Ed Rice, who thinks about the welfare of the Association seven days of every week. He is capable of a great deal of hard work and he has given us of his best - we are indeed lucky to have him, and the help of his wife, Betty, who I'm sure is of great assistance to Ed.

I would also like to thank the Board of Examiners, headed by Professor Art Chisholm, who have continued quietly and efficiently to go about their work. Behind the scenes, of course, is Joe Archibald the Secretary, who is always ready to give help.

It has for me been an honour and privilege and a pleasure to serve as President of the Association. I am grateful for the opportunity to take an active part in survey affairs and to meet so many serving in the Profession from all parts of Canada.

ANNUAL REPORT OF SECRETARY-TREASURER

Mr. President, Guests and Members:

Before beginning my report, I would like to extend my own personal welcome to all our guests who are honouring us with their presence here at our 20th Annual Meeting. It is my sincere wish that you will find your stay interesting, pleasant and enjoyable.

I also wish to thank the exhibitors, not only for coming, but also for their promptness in replying to our invitation to exhibit. Your exhibits are very much appreciated and contribute greatly to the success of our meeting. This year we have a total of twelve exhibitors, which is the largest number we have ever had. Three of the exhibitors are exhibiting for the first time with us, and I would like to thank Al Daykin, who was instrumental in procuring two of the exhibitors for us. Fortunately, for us we are in larger quarters.

The credit for organizing this meeting goes to the 20th Annual Meeting Committee which is composed of our President, Col. Streb; Vice-President, Mr. Feetham; Mr. Hiltz; Mr. Gilmore and Mr. Webber. I wish to express my sincere thanks to this Committee for their cooperation, without them this meeting would not be the success it now appears to be.

The present membership statistics of the Association are as follows:

	<u>1969</u>	<u>1970</u>
Honorary Members	6	6
Honorary Life Members	12	13
Non-Practising Members	20	21
Associate	2	2
Practising Members	180	188
Arrears	<u>31</u>	<u>32</u>
	<u>251</u>	<u>262</u>

There were fifteen new members accepted this year, one member passed away, three members resigned, making a net increase of eleven members.

It is my pleasure to report that during the past year this Association made its first investment, which was a \$200.00 Nova Scotia Savings and Loan Debenture, maturing in 5 years at 9%. Although it is only a small amount, it is a start. We further opened a non chequing savings account for \$1000.00 and later in the year added another \$1000.00. These accounts bear interest at 6 1/2%. During the coming year, your executive plans to purchase more debentures to acquire the higher interest rates.

The Roll of Members was published in May of this year and distributed as in previous years. The Roll this year was amended so as to indicate those who were full time private practise only.

The Executive and Council continue to encourage the use of the Association Professional Stamp when signing survey plans. During the past year ten members purchased stamps, making a total of 66 obtained to date. I point out once again that these stamps are available only through the Secretary by paying the amount of \$3.50 in advance. Those applying for stamps must have their dues paid up before stamps will be issued.

Following the 19th Annual Meeting a Complaints Committee was formed. This Committee consists of the Secretary-Treasurer, and two other members of Council of which one must be in full time private practise. The object of this Committee is to investigate all complaints, gather all necessary information and make recommendations to Council. During the year three complaints were received by this Committee, of which two were brought to a satisfactory conclusion by the Committee and a recommendation on a third were passed to Council. This Committee worked well during the past year and served to expedite the complaints. It is an improvement over what we had in the past and should continue to operate.

In April of this year I attended the C.I.S. meeting here in Halifax and I wish to add my full hearted support to the remarks made earlier by our President to the splendid achievement which was accomplished by Mr. March and Mr. Daykin in bringing this convention to our Province. Following the C.I.S. meeting, I attended the 2nd Annual Meeting of the Association of Prince Edward Island Land Surveyors as your representative. Their meeting lasted for one day and consisted of business, three papers, and an annual dinner.

During the year regional meetings were held in Halifax, New Glasgow, Sydney and the Valley. I attended the meeting in Halifax and in New Glasgow and was impressed by the fine turn-out in both locations. Again, I feel that we must encourage these meetings and that they be held more frequently. It has been pointed out to me that some of those attending these meetings do not attend our Annual Meeting, for one reason or another, you may, therefore, see how these regional meetings provide an excellent opportunity for such persons to keep in touch with the Association.

E. P. Rice, N.S.L.S.,
Secretary-Treasurer.

THE ASSOCIATION OF NOVA SCOTIA LAND SURVEYORSFINANCIAL REPORTOCTOBER 1, 1969 TO SEPTEMBER 30, 1970

	<u>1970</u>	<u>1969</u>
Cash on hand - October 1, 1969	\$ 2,674.12	\$1,934.77
Receipts	8,741.92	7,007.39
Expenditures	\$ 7,569.73	\$6,268.04
Cash on hand - September 30, 1970	<u>3,846.31</u>	<u>2,674.12</u>
	<u>\$11,416.04</u>	<u>\$8,942.16</u>

Cash on hand September 30, 1970 is made up as follows:-

1) Nova Scotia Savings and Loan Debenture (5 years @ 9%)	\$ 200.00
2) Bonus Savings Account (non chequing @ 6 1/2%)	2,005.41
3) Current Account	<u>1,640.90</u>
	TOTAL <u>\$3,846.31</u>

DETAIL OF RECEIPTS

	<u>1970</u>	<u>1969</u>
Dues - Arrears	\$ 160.00	\$ 220.00
Current	5,485.30	3,680.75
Annual Meeting	1,582.50	1,463.50
Examination Fees	1,186.15	1,210.59
Advertising in Nova Scotian Surveyor	241.25	219.75
Subscriptions to Nova Scotian Surveyor	16.40	20.15
Donations to 19th Annual Meeting	13.00	-
Association Professional Stamps	38.80	192.65
Premium on U. S. Currency	.11	-
Interest on Debenture	9.00	-
Interest on Savings	5.41	-
Membership Certificates	<u>4.00</u>	<u>-</u>
	<u>\$8,741.92</u>	<u>\$7,007.39</u>

DETAIL OF EXPENDITURES

	<u>1970</u>	<u>1969</u>
Annual Meeting	\$2,398.40	\$1,983.82
Postage	268.58	
Stationary	259.96	409.62
Council Meetings	209.26	196.29
Stenographic Services	86.15	56.00
Board of Examiners	1,193.56	1,112.31
Honorarium to Secretary-Treasurer	500.00	250.00
Printing - Nova Scotian Surveyor	907.38	860.63
Delegates to Conventions	980.56	562.70
Bank Charges	13.50	17.75
N.S.F. Cheques	-	20.00
Telegrams and Telephone Calls	29.45	33.75
Roll of Members	266.04	248.07
Miscellaneous	-	180.16
Solicitors Fees	-	-
Donations (C.I.S. Convention)	350.00	136.75
Major Church Prizes	48.00	-
Purchasing Association Professional Stamps	28.89	200.19
Refunds	<u>30.00</u>	<u>-</u>
TOTAL	<u>\$7,569.83</u>	<u>\$6,268.04</u>

Respectfully submitted,

E. P. Rice, N.S.L.S.,
Secretary-Treasurer.

Audited and found correct by:

Auditors: _____
J. F. Archibald

Ernest Boehk

SCALE OF MINIMUM FEES FOR NOVA SCOTIA LAND SURVEYORS SERVICES

By W. S. Crooker, Jr., Councillor and Chairman of Committee on Minimum Fees

SCHEDULE "A"

Fees under this schedule shall be the payroll costs of personnel during the time they are working on the survey or project multiplied by a factor not less than 2.0, plus incurred expenses.

"Payroll Cost" means salary or wages plus provisions for statutory holidays, vacation pay, unemployment insurance, pension plan, sick time allowance and any other fringe benefits.

The multiplying factor will vary depending upon the magnitude and duration of the job and the experience and professional status of the personnel engaged in the work. If the survey staff engaged on a particular survey project can be used continuously on this project for a long period of time the overhead costs will be lower and the factor applied can be near the lower limit of 2.0. For jobs of short duration or where the work is not continuous a higher factor should be used.

"Incurred Expenses" shall be those expenses incurred specifically for the survey or projects, independent of the normal operating expense covered by regular wages and overhead. Without limiting the generality of the foregoing, these shall include:

- 1) travelling expenses
- 2) communication expenses such as telegrams and long distance telephone calls
- 3) reproduction costs for plans and other documents
- 4) outside professional or technical services
- 5) mileage
- 6) materials such as iron bars and stakes
- 7) registry office fees.

Incurred expenses shall be reimbursed by the client at actual invoice cost plus a minimum of fifteen (15) per cent to cover bookkeeping, interest on investment and other handling time.

SCHEDULE "B"

Fees under this schedule shall be calculated in accordance with the following minimum rates plus incurred expenses:

Principals	\$15.00 per hour
Senior Surveyors	12.00 per hour
Intermediate Surveyors	10.00 per hour
Junior Surveyors	8.00 per hour
Senior Instrumentmen	9.00 per hour
Intermediate Instrumentmen	7.50 per hour
Junior Instrumentmen	6.00 per hour
Senior Draftsmen	9.00 per hour
Intermediate Draftsmen	7.50 per hour
Junior Draftsmen	6.00 per hour
Chainmen and Rodmen	5.00 per hour
Casual Labour	4.00 per hour
Clerical Staff on reports and other documents applicable to the survey or project	5.00 per hour
Automobile mileage	.15 per mile.

In both Schedule "A" and "B", charges shall be made for the full time personnel who are working on the survey or project and shall include travelling time between the surveyor's office and the site.

SCHEDULE "C"

For surveys of commercial, industrial or high class residential properties, hourly rates plus one-tenth of one per cent of the assessed value of the land and building and not to exceed two hundred per cent of the calculated fee based on the preceding schedules.

APPROVED BY COUNCIL NOVEMBER 1970

20TH ANNUAL MEETING

OFFICIAL GUEST LIST

<i>William R. Dabbs</i>	-	Association of Alberta Land Surveyors
<i>John MacLaughlin</i>	-	Guest Speaker, Association of New Brunswick Land Surveyors
<i>Brenton Schofield</i>	-	M.A.L.S.C.E.
<i>Willis Roberts</i>	-	Director of Surveys, Province of New Brunswick
<i>J. Boldon</i>	-	Secretary-Treasurer, Seaboard Surveys, Fredericton, N. B.
<i>Walter Nason</i>	-	President, Association of New Brunswick Land Surveyors
<i>R. Sutherby</i>	-	Secretary, Association of Newfoundland Land Surveyors
<i>Hans Klinkenberg</i>	-	President, Canadian Institute of Surveying
<i>Winford L. Schofield</i>	-	President, M.A.L.S.C.E.
<i>David Schofield</i>	-	M.A.L.S.C.E.
<i>Everett Green</i>	-	Department of Education, Province of Nova Scotia
<i>E. Carl Grantor</i>	-	President, Association of Newfoundland Surveyors
<i>Douglas K. MacDonald</i>	-	Representing the Surveyor General of Canada
<i>Dr. V. E. Vaughan</i>	-	Representing Nova Scotia Technical College
<i>Dr. Godfried Konecny</i>	-	Civil Engineering Department, University of New Brunswick
<i>Neil Fleming</i>	-	Control Survey Consultant, Province of Prince Edward Island
<i>Robert D. Fitzner</i>	-	Department of Highways, Province of Nova Scotia.

LIST OF EXHIBITORS

AGATRONICS	- Mr. Ian Murray
CARROLE AND REED	- Mr. I. R. Fairbairn
EASTWARD INDUSTRIES & K. & E.	- Mr. Murdock Hattie, Mr. Cliff Morris
ENAMEL & HEATING PRODUCTS LIMITED	- Mr. William Hastings
HEWLETT PACKARD	- Mr. John Vezina
HUGHES OWENS LIMITED	- Mr. Roy Kempt
JENA INSTRUMENTS (TORONTO) LIMITED	- Mr. D. Zeuner
MUNROE CALCULATORS	- Mr. L. J. MacDonald
NORMAN WADE COMPANY LIMITED	- Mr. King Flood, Mr. T. Marshall
TELLURMOTER CANADA LIMITED	- Mr. Mike Mogg
WANG LABORATORIES (CANADA) LIMITED	- Mr. Paul Amirault
WILD OF CANADA	- Mr. Keith Rosebrugh

20TH ANNUAL MEETINGREGISTERED MEMBERS

Brian Alexander	Bill Crooker	Carl MacDonald	Burt Robertson
J. F. Archibald	Lionel Crowe	Edward MacDonald	Otto Rosinski
W. Russell Atkinson	Al Daykin	Ivan Macdonald	Jack Ryan
Murray Banks	J. F. Doig	Ken MacDonald	Bob Sarty
A. T. Barry	R. J. Donovan	Rod MacDonald	Laurie Schofield
George Bates	Roy Dunbrack	Gerald MacDougall	Roy Schofield
Ernest Boehk	Don Eldridge	John McElmon	Walter Servant
John Brown	Lewis Elliott	John MacInnis	James Sherren
Arthur Burgess	L. R. Feetham	Fred McKeown	Burney Smith
Bert Cain	Glen Gilbert	Stewart MacPhee	Lewis Smith
Brian Cameron	Lyndon Gray	Rusty March	T. B. Smith
Stuart Cameron	A. C. Grant	Doug Mehلمان	Sterling Snow
Don Campbell	E. B. Hall	Roger Melanson	George Streb
Kent Carrick	Noel Harrington	Russell Melanson	George Swanburg
Bill Chambers	Mervin Hartlen	Bruce Millar	Forbes Thompson
Art Chisholm	Errol Hebb	R. E. Millard	Bill Thompson
Jim Chisholm	David Hiltz	Bob Miller	J. L. Vielleux
Ronald Chisholm	Ed Hingley	Brian Peel	Donald Wagstaff
David Clark	Neiff Joseph	John Pope	Ted Webber
Garnet Clarke	John Kaulback	Donald Purcell	Arthur White
Victor Comeau	Emerson Keen	Max Rafuse	Tom Williston
Murray Cossitt	Stew Laurence	Ed Rice	Brian Wolfe
E. A. Crawley	Granville Leopold	Len Robb	Stewart MacPhee
David Crooker	Frank Longstaff	Fred Roberts	

SURVEY, MAPPING AND LAND REGISTRATION PROGRAM UNDER THE DEVELOPMENT PLAN FOR THE PROVINCE OF PRINCE EDWARD ISLAND by L. Neil Flemming, Control Survey Consultant

The Program of Survey, Mapping and Land Registration began in 1968 with an Agreement between the Province of Prince Edward Island and the Atlantic Development Board in which the ADB paid 100 per cent of the cost of the program from 1968 to 1970. It is continued under the Comprehensive Development Program.

The Program is composed of four Phases:

PHASE I - THE ESTABLISHMENT OF A NETWORK OF SECOND ORDER MAPPING CONTROL

PHASE II - THE PREPARATION OF LARGE SCALE TOPOGRAPHIC MAPS

PHASE III - THE IMPLEMENTATION OF A LAND TITLES SYSTEM OF REGISTRATION

PHASE IV - THE ESTABLISHMENT OF A DATA BANK.

PHASE I - THE ESTABLISHMENT OF A NETWORK OF SECOND ORDER MAPPING CONTROL -

This involves the establishment of concrete monuments along the highways at intervals of approximately one mile in rural areas, in suburban areas 2,000 feet, and in urban areas 600 - 1,500 feet.

The purpose of the survey is twofold:

- 1) To provide a system whereby aerial photographs may be controlled to produce accurate maps, and
- 2) To provide a system of permanent markers at which property surveys may begin.

Since these markers are all interconnected and in turn are tied to the Geodetic Triangulation Network of Canada, all points in North America are connected.

To get down to practicalities, it means that if the monument to which the boundary survey is tied is destroyed, another monument may be used to locate the boundary. To illustrate, a property in Sydney may be located from a monument in Halifax.

If such a system were established in 1764 in P.E.I., and maintained throughout the 205 years of surveys in the Province of Prince Edward Island, retracement surveys would not be so costly and time consuming as they presently are.

A Central survey office located in a Land Management Centre will provide facilities whereby a record of survey plans shall be kept.

As stated previously, surveys have taken place in the Province for 205 years.

An amount of \$100,000 per year is presently being expended on property surveys. If approximately an equivalent amount, taking into consideration the dollar value, was expended each year on surveys, this would constitute an expenditure of \$20.5 million dollars over the 205 year period.

What do we have to show for such an expenditure? Not much. Have we a record of all such plans and is the information readily available? The answer is NO.

There are presently 40,000 properties in the Province. This constitutes an expenditure of \$512 per property.

There are many descriptions which still leave some doubt as to where they begin. We are striving to eliminate the difficulties of the past and not perpetuate them into the future.

PHASE II - PREPARATION OF LARGE SCALE TOPOGRAPHIC MAPS -

This Phase will involve the production of map sheets at various scales and series.

The basic series are orthophotomaps at a scale of 1:10,000 and will be produced covering the Province.

The agricultural series will be orthophotomaps at a scale of 1:5,000 with two meter contours with complete coverage of the Province.

The Development Series will be line maps at a scale of 1:1,250 with two foot contours covering areas of subdivisions of villages and towns.

These maps shall show the coordinate grid lines so that any point in a survey tied to the coordinate monument and having coordinates computed may be plotted directly from the grid lines. This is a tremendous saving of time in preparation of plans and the identification of properties.

PHASE III - LAND TITLES SYSTEM OF REGISTRATION -

Under this Phase of the operation, the proposal is to set up a Land Titles System of Registration. The objective of such a system is to assign a parcel index number for each property in the Province. As documents are registered in the Registry Office affecting the title to the particular property, the document number is noted under the property file.

This will provide a system whereby title searches may be made with ease and efficiency. At some future date the Master of Titles may provide insurance that the registered owner is the owner of the property.

A complete set of property ownership maps are available for ready reference. This in essence, is the preparation of another atlas providing for a revision procedure so that it is always updated whenever transfers take place.

The Meachems Atlas was published in 1880. This Atlas is a book depicting property ownership. It is still used as the bible for land in Prince Edward Island.

The Cummins Atlas was prepared in the interval 1925 - 1927. This constitutes an interval of 47 years.

This is the year 1970, 43 years after the last atlas, we are at it again.

In this round an updating system connected with the Registry Office will take place so that it will be unnecessary in the next forty year period to go through the process once more. In fact, if the Land Titles System is carried out during the next forty year period most titles should be verified and a guaranteed certificate issued.

PHASE IV - THE ESTABLISHMENT OF A DATA BANK -

The spade work has been done by setting up a unique parcel identification system to which any data relating to land shall be filed. The field of data banks is very complex, and there is considerable discussion on what may be required. This takes in the complete scope of every feature on the face of the earth for a particular area. Information respecting persons may be filed under the Social Insurance Number. With people and

parcel numbers, the way is clear for filing information.

PROGRESS TO DATE

PHASE I - The coordinate survey has been completed in the Province. During the past 28 months, 3200 survey monuments have been established along the highways throughout the Province.

The angular measurements were made with the Wild T2 Theodolite and Wild Targets. The distances were measured with a Model 6 Geodimeter which by a phase comparison of light waves determines the distance.

Final condition equations have been written for a consistent adjustment throughout.

Seven hundred stations were adjusted in one block and takes in the land area west of Summerside; 2500 stations were adjusted in another block and covers the area east of Summerside.

A total of 79 Island students have been employed on the Project by contractors and the Economic Improvement Corporation since it began in 1968.

Alpha Listings of owners by Township Lot are being prepared to provide an updating system of property ownership. The Alpha Listing by lot indicates the parcel index number and owner's name. As a document is registered by name, the document number and parcel index number are connected through the Alpha list. Document numbers are then placed on the computer file under the appropriate parcel index numbers.

All Provinces in Canada west of Ontario have had a Land Titles System from the beginning.

The Registry Offices will be microfilmed to produce a security copy of documents in their vaults. The security copy shall be filed in a separate vault.

Microfilming of the Summerside Registry Office has been completed. We have begun microfilming the Charlottetown Office.

A Master of Titles has been appointed.

A proposed Land Surveys Act has been prepared and forwarded to the Secretary of the P.E.I. Land Surveyors for distribution. Several meetings have been held with a Committee consisting of the executive to discuss the Act.

We feel confident that a reasonable and common approach can be made. I understand that your Association has a standing committee working with your Director of Surveys on the Programme in Nova Scotia working toward the same goal.

We are still seeking a solution for a method to bring all properties on the coordinate system in the most economical and efficient way possible.

We have programs available to compute coordinates for traverses for the private land surveyors. The system as set up is not the most efficient and convenient at the present time. We are sorting out our problems in this respect to bring it up to the expectations of the Land Surveyors.

During the next year we expect to employ a P.E.I. Land Surveyor as Director of Surveys and Examiner of Surveys. This gentlemen will be an Islander. When the Examiner of Surveys and the Director of Surveys are employed, my obligation to the Province and the Program will be completed. At the present time, I am working strictly in an

advisory capacity with no definite term of employment stipulated.

During the past two years, we have been editorials in the Charlottetown paper such as "Have no Fear, the Experts are Here", March 14, 1970, Guardian. I quote from the editorial "into the hands of the high-priced help that is trying to impose its development blueprint on this Province". Another quote from the Guardian, March 3, 1970, "to the present approach of plucking the Island clean by this cloud of locusts and superstars concentrated in the Department of Development and Economic Improvement Corporation Planners".

I have heard reports from Nova Scotia of a feeling that your Association is being pushed by outsiders to adopt a new system. Your Association, I believe, has one basic question to answer. Does your Association feel that the Program is worth having to sort out the many problems which seem to be discussed at all Meetings of Land Surveyors? If the answer is "YES" then the Association should make itself heard and demand the system be implemented with all possible haste. If the answer is "NO" then it is appropriate to shout it from the rooftops.

The attitude of the Associations seems to be one of complacency. The attitude of the Associations is one of "let the boys in government worry about it; if they come up with something we don't like we'll complain".

In my opinion the Atlantic Provinces are fortunate to have a person such as Mr. W. F. Roberts who has actually contributed his whole career in promoting better surveys, mapping, and land registration in the Atlantic Region. The Surveys & Mapping Program for the Atlantic Provinces is a result of his efforts.

In Ontario, we see the opposite reaction - The Land Surveyors Association urging the Government to adopt the system.

If the Land Surveyors don't understand what the objective of the Program is, then it is high time they found out.

When the members of the Association feel they are well versed in the subject and the question has been answered "yes" or "no" then the Association should be heard with a strong voice and contribute actively to the direction which the Program takes.

INTEGRATED SURVEYS AND HOW THEY WILL AFFECT THE SURVEYOR IN PRIVATE PRACTICE
by J. Boldon, Secretary-Treasurer, Seaboard Surveys, Fredericton, N. B.

First let me say how pleased I am to be here, and how much I have enjoyed the meetings and social events. It is my first visit to a Provincial Meeting outside of New Brunswick, not my last I hope, and this is my first attempt at speaking to a group of this size and stature.

As you are all aware, Provincial Coordinate Surveys are very much on the mind of the surveyor, particularly here in the Atlantic Provinces. New Brunswick, I understand, under the direction of Willis Roberts and Archie McLaughlin began monumenting the Province some years ago, work is still progressing favorably and we would hope to have the work completed in the next few years.

Prince Edward Island did its control surveys on a crash program and has completed its project.

Newfoundland is also progressing in control surveys.

Nova Scotia has had an active programme for at least two years and perhaps longer.

As most of us are aware, these surveys are the preliminary step for the setting up of data bank systems to catalogue the resources of every area of the Province. The data collected will be used for many and varied purposes. We should consider it a privilege to be part of (and a very important part of) such a large and extensive programme. We, as surveyors, will continue to be involved in this programme for many generations to come.

Our main interest at this time is integrated survey and the private surveyor. Webster's Dictionary describes the word "INTEGRATED" as:

- 1) To make whole, to renew; to make whole or complete by adding or bringing together parts.
- 2) To put or bring (parts) together into a whole; to unify.

When we apply this word "INTEGRATED" to our practice, we are not only speaking of tying our various surveys together by a common grid coordinate system, but we are also standardizing our survey procedures, our accuracy requirements, our plans and the content of these plans; so that our work will represent a more true and comprehensive picture of an overall area, be it a county, parish, city or a block within a city. The long range planning and the ultimate goal, of course, is to have every property in the Province "INTEGRATED" into this system.

In New Brunswick, we have had a Survey Act prepared and regulations under this Act submitted and passed by the Legislature. Basically, they will be implemented by the Lieutenant-Governor in Council, who may constitute any portion or area as an integrated survey area and, in so doing, shall define the boundaries of this area.

There are many conditions which must be met by the Government, of course, before any area may be so designated. Some of these conditions are as follows:

A Control System of Monumentation must have been established and the monumentation must be so densified that it is reasonably convenient and accessible to the surveyor.

All monuments must be numbered and indexed, and these indexes made readily available to the surveyor.

All monuments must have been surveyed horizontally and vertically. The survey results have been computed, adjusted and published so that these are readily available to the surveyor.

The Director of Surveys must have appointed an examiner of surveys to handle, check and record all surveys executed within a designated area.

He must be certain that surveyors who are to execute surveys in these integrated areas are familiar with the regulations governing the survey to be undertaken, the field and office procedures to be followed and the presentation of plans, notes and substantiating evidence to the Director of Surveys for approval. In New Brunswick, when an area is designated as an integrated survey area; all surveys executed under an order of survey from the Crown and all surveys which are conducted under town or Provincial Planning regulations are subject to the integrated surveys regulations under the Surveys Act of the Province.

There are presently three areas of New Brunswick ready to be designated as integrated areas. None as yet have been proclaimed because of the problems of acquiring staff and space for the Director of Surveys to handle the presentation of these surveys and the subsequent recording of notes, plans, etc., however, we hope that this problem may be overcome within the next few months and we will have at least one area designated so that the system can be tested and the bugs worked out. Designated areas for integrated surveys will encompass, first of all, the growth centres and urban areas, with the rural areas being included at some future date.

In our Province, I would estimate that fifty per cent of the surveyors in private practice are at least semi-prepared to handle surveys under the Survey Act and its Regulations. These include mostly surveyors working within a survey company with a staff of five or more. These also include for the most part the younger surveyors. It appears that the older members do not seem as keen as we would like them to be, however, I would urge them to become involved and interested in coordinate surveys, at least to the point of encouraging their younger affiliates. It is regrettable, however, that there are some of our younger members, and there are some, who have not taken advantage of the many facilities available to familiarize themselves with and to utilize the coordinate system where it is available and accessible. These individuals, and you will have some too, will be left behind and relegated to doing work of a menial nature in the foreseeable future.

Many of us ask: Why do we as surveyors need integrated surveys? I covered the general and broad benefits in my opening remarks, but what are the benefits to the surveying profession? I believe it is one way to bring about much needed improvements and upgrading for the survey itself, the surveyor, his techniques, his plans and accuracy. His survey will be conducted under standard procedures; all relevant data will be recorded and available for future use and not hidden away in some surveyor's files or lost due to a fire or other reason from the surveyor's files, or as in one case which we in New Brunswick are aware of, lost to other surveyors, to the Crown and to the client because of conditions stated in the "Will" of a now deceased surveyor. All survey records should be available to anyone concerned for the betterment and advancement of our profession.

There are, of course, many benefits to be had from integrated surveys by others, included we would name planning commissions, urban renewal bodies, tax assessment departments, realtors, major developers and municipal engineering departments.

One question which we and many other professions are daily plagued with is: Are we ready and/or willing or capable to accept new survey ideas and techniques, or are we too old, too young, too stubborn or too apatetic to accept the challenge of change.

In every field of engineering, medicine, space technology, etc., the change has been so rapid in the last ten years that it is just too much for most human beings to comprehend. In the field of survey alone, it simply scares us half to death to hear of the technological advances being made through electronic surveying, satellite surveys, astronomic surveys, lunar surveys and surveys within our own sphere. Computerization is advancing so rapidly that you and I lost tract of it when they left the hand-operated calculator and slide rule. Yet these are now the accepted forms of every day planning today and certainly in the future. Nobody expects you and I with our limited knowledge and our limited mental capacity to study and learn all of these concepts, but we can keep an open mind and accept these new changes as they come for the betterment of our profession and mankind itself.

Will working under an integrated coordinate system require us to upgrade our equipment?

This depends entirely on what type of equipment you are presently using. It does require a one-second theodolite and preferable some type of a electronic distance measuring equipment. Some of you may shudder at the thought of putting out \$7,000 to \$12,000 or more for new equipment. We certainly did; however, I feel it is well worthwhile. This type of equipment is now everyday standard equipment for ourselves and some other surveyors in New Brunswick and I understand that some Nova Scotia firms use it extensively. If we are to upgrade our work and our standards of work to fall in line with advances being made in other professions, we must use the most effective and modern equipment available.

If we are to continue to be a profession, we cannot afford not to acquire the best equipment we can find.

I have heard statements made that this will cost our clients more money and we may, therefore, lose various survey jobs or contracts or even price ourselves out of business.

This may be true in some cases, but we know from experience that the larger construction companies, the aerial photo companies, many municipalities, engineering firms and certainly Government Agencies are more and more demanding that their surveys be conducted to higher standards of accuracy and in many instances they specify that the work be done with one-second theodolites and E.D.M. equipment.

Many of these people were aware of the availability of this equipment before the surveying profession itself.

These people are aware of the cost of this equipment and are prepared to pay a higher price for the higher standard. We, as surveyors, are neglecting our duty to the public if we do not provide the services which they require.

We must be able to assure the client that any increased cost of survey service will be more than justified by the increased efficiency and accuracy of the work undertaken.

How does this affect the one-man survey organization?

It is my opinion that the days of the one surveyor are numbered. It has become more and more difficult each year for this type of individual to survive. The amount and cost of equipment necessary to carry out surveys makes it almost prohibitive for an individual to carry on a business. Under the standards required for today's work and

certainly after the implementation of integrated areas, it will be necessary to acquire the more sophisticated equipment and to maintain a staff of trained personnel. The trend may very well be for smaller companies to amalgamate in order to pool their resources, both of equipment and personnel. I feel that this type of amalgamation or whatever will not only benefit the individual surveyor, but will benefit the client as well because of the increased knowledge and capacity to perform, which should result from any such joining of forces.

What about computers? Is it necessary that we use or purchase this equipment?

It is becoming more and more necessary every day to have access to, or to own some type of computer. This equipment can save limitless time for the surveyor and, in many cases, eliminate countless hours due to errors which we ourselves make.

In most centres, computer services are available on relatively short notice with trained personnel anxious to assist in any way.

It is very advisable to have at least one of your office staff trained in the use of computers and capable of setting up notes, keypunching, if necessary, and able to handle minimal programming problems.

There are now many types of computers and computer services available. In New Brunswick, we are fortunate to have centres such as U.N.B., the Department of Natural Resources and others, whose desire, it seems, is to encourage us continually to utilize their programmes and equipment. The Department of Natural Resources has in the past and will continue in the future to make available any of their survey programmers. They are continually developing new and better programmes as problems are put before them.

Computers come in many sizes, capacities and price ranges. They can be rented or purchased directly from most of the companies who handle them. They are continually being improved and, in some cases, the price range has dropped since they were first introduced on the market.

To those of you who contemplate working in the field of surveys in the Atlantic Provinces, now and in the future, I would advise very strongly that you consider the use of, if not the acquisition of, a computer or the computing services which are presently available.

One item which, I feel, I should touch on and which is very important to some surveyors, is this problem of making records, plans and field notes, etc., available to the public and to their fellow surveyors.

I am aware that some surveyors have built up files of surveys, plans and notes, both of their own work and, in many cases, work of surveyors now retired or deceased. They have filed and indexed these documents and have spent considerable time and money to keep these various records available. The sale of these records, in some cases, constitutes a large portion of their income. There are, of course, arguments, both for and against this type of transaction, and I do not at this time wish to create a controversy over it.

I will point out, however, that under the regulations which govern integrated surveys in New Brunswick, copies of all notes, plans, deeds and information used to execute a survey must be filed with the Director of Surveys, and will be made available at reproduction cost to any surveyor who requires them. It is my personal opinion that this requirement is necessary to make all survey records available to those interested and to ensure the safekeeping of these records against theft, decay, destruction by heirs and by that thing dreaded by so many of us, fire.

Another point I must bring up which may be a touchy subject and of which we have all been guilty at one time or other, is the omission of information from survey plans prepared by ourselves. Whether it be from sheer laziness, lack of information or directly intentional, it is an unethical attitude and does nothing to enhance our profession in the eyes of the public. Any of you who has prepared a survey for Federal Government Agencies such as the Department of Energy, Mines & Resources, know how closely the plans are checked and scrutinized for content. (Have you ever heard of any surveyor having his plan accepted on its first submission?)

Under integrated surveys, it will be necessary to show all data on the face of the plan. If the requirement is not met, the plan and survey simply will not be accepted by the Director of Surveys.

I will attempt to list some advantages to the surveyor of this system, some of which I have already touched on:

Availability and reliability of survey information and plans from a public source.

The acceptance of this system by other Government and municipal agencies.

The general upgrading of our own work and the standardization of working techniques.

The ease with which control may be re-established in any area for the purpose of reposting lots, preparing mortgage certificates, adding to existing subdivisions, etc.

This system, where it is applied, will do away with attempting to establish azimuth or bearing control by the use of magnetic bearing with a stiff compass or astronomic bearings by observations. The azimuth control is already there, proved and accepted, ready for you to use.

The more desirable type of filing conditions, etc. which will come about within our Registry Offices. Both in conjunction with, and as result of the implementation of this system.

The increased training and education which will be required by newer surveyors will bring into our profession and association many young and ambitious individuals who will be an asset to both our profession and our Association.

To the surveyor unfamiliar with a Provincial Coordinate Survey System, I should point out that it is not as ominous as it may first appear. Surveys executed within these systems are basically the same as any survey controlled by a grid system; whether it be an underground operation, such as in mining where this grid cannot be physically posted on the ground, or a construction grid for plant and building layout, where stakes or pins are planted at every intersection of a 100' grid.

To all surveyors who can foresee the day when this system will become a reality and these areas include all of each of the Atlantic Provinces within the next few years, I cannot emphasize enough the need to start familiarizing yourself with the Coordinate System in your respective areas. If monumentation is available and values for these monuments are available, use them and train your crews to utilize them at every opportunity. If the monuments exist and there are no values available, tie them to your survey anyway. The future benefits of these ties are invaluable.

Many of us must accept the fact that major changes in attitude are needed by ourselves if we are to survive as a profession, with the implementation of this system.

We must decide for ourselves whether we are too old in years or experience to

accept change. I hope we are not.

We must accept and implement a more progressive training programme for our instrumentmen, apprentice surveyors and crews.

I am afraid we, who are loners, must accept the fact that the one man survey firm is no longer workable or feasible.

We must accept the fact that technological advances in survey and specialization have robbed us of our dominance in the survey profession.

We must accept the intrusion which Government Agencies are making into our own individual empires.

We must accept the fact that we are employing younger men who will no doubt be better educated and may be more capable than ourselves. These young men have something to say and we should listen.

Lastly, heaven forbid, but we will probably have to spend more time considering minimum standards than we will minimum tariffs.

The implementation of this programme is in itself a challenge to every surveyor. It is challenge which we must face up to and accept. It represents a giant step forward in the concept of surveying and the survey profession. Are we willing to accept the challenge? I think so, but it is up to each individual to do his part and support the planning and implementation of the integrated system in his area.

MODELLING TECHNIQUES FOR THE DESIGN OF LAND SURVEY SYSTEMS

by John McLaughlin, Association of New Brunswick Land Surveyors

INTRODUCTION

The private possession of real property is an important characteristic of our society which has had a profound effect upon the evolution of man and upon the definition of western civilization [1, 2, 3]. That society acknowledges the special importance of real property has long been confirmed by the efforts of the state to control its use and ownership. This has been done, in part, through the establishment of systems for the acceptance and recording of information pertaining to interests in real property.

As early as the first Dynasty (3,400 B.C.), the Egyptians and the Babylonians had developed land survey and land registration procedures. They were followed by the Greeks and especially the Romans who recognized the need for a well constructed land survey system in the administration of government. It is from the Romans that we have obtained the concept of the cadastre. The word is probably derived from "capitastum" which was a register of the "units of territorial taxation into which the Roman provinces were divided for the purposes of a land tax" [4, page 3]. The cadastre has now come to mean any system which is constructed for the purpose of determining and recording land tenure information. Various systems have evolved but, in general, their functions can be divided into:

- 1) the determination and representation of the physical boundaries of real property
- 2) the determination of possession or ownership of real property
- 3) the assessment or valuation of real property.

A research project, under the supervision of Mr. Willis Roberts, has recently been carried out at the University of New Brunswick to study one of the components of the

cadastre - the physical definition of property - especially as it applies to New Brunswick. This project has also been concerned with the need for a change in approach towards land surveying and the need for an analysis of the forces and parameters which must be considered in developing better land survey systems.

Modelling Techniques -

In an effort to promote a rigorous analysis, modelling techniques were applied to the study of the land survey system. Models are devices constructed for the assimilation and utilization of contentual and methodological knowledge. Contentual knowledge is, in effect, our total understanding of the universe. Methodological knowledge is the "body of techniques which the decision maker may use to order his contentual knowledge so that he may bring it to bear on his decision problem" [5, abstract].

In a broad context, models may be either of two types. They may be prediction devices used directly in the process of decision making for determining action-consequence routines, or they may be descriptive devices used as a means of enhancing our understanding of the workings of the system. Prediction models can be very useful design tools and have successfully been used by civil engineers for transportation studies. Their success, however, has been at least partly based on an ability to use a limited number of measurable factors in the design analysis. We are not able, at this time, in cadastral surveying to reduce all our factors to measurable quantities. Until such time that we can overcome this obstacle, our most advantageous approach in land survey research is to utilize description models.

Descriptive models can be represented by what I call an universal inversion structure (see Figure 1). The subject to be analyzed, or theme, becomes the centre of the model. About it is built a framework of inter-related influencing subjects. This framework extends outward until ultimately it encompasses the universe. For analysis purposes, however, a limiting boundary is defined and a model of dominant influence is established. The subjects within this model produce the dominant influencing forces upon the parameters, or defining characteristics, of the theme. These forces may be variables or they may serve as constraints. If the variable forces are of importance, then the model is dynamic in nature.

Land Survey Model of Dominant Influence -

A land survey system is, fundamentally, an information system. It can be technically defined as an organized structure which utilizes a set of coordinated doctrines to provide items of knowledge with respect to real property boundaries. The generated knowledge is communicated in terms of structured sets of informational symbols such as maps, field notes and monuments. These are relevant, not as physical material, but as a means for representing property information.

Any land survey system may be separated into integral parts, or parameters, which define its operations. There are five parameters:

- 1) the gathering of boundary information
- 2) the analysis of this information
- 3) the recording of the information
- 4) the storage and retrieval of the information, and
- 5) the display of the information.

A rigorous analysis of the parameters of a land survey system necessitates examining the system within the context of a social structure. This can be assisted by constructing a model of dominant influence. The land survey system becomes the theme of the model and about it can be developed a framework of influencing subjects. There are at least six subjects which directly influence the system and hence produce the dominant

forces in the model (Figure 2). They are: real property law, land economics, sociology, technology, geography, government.

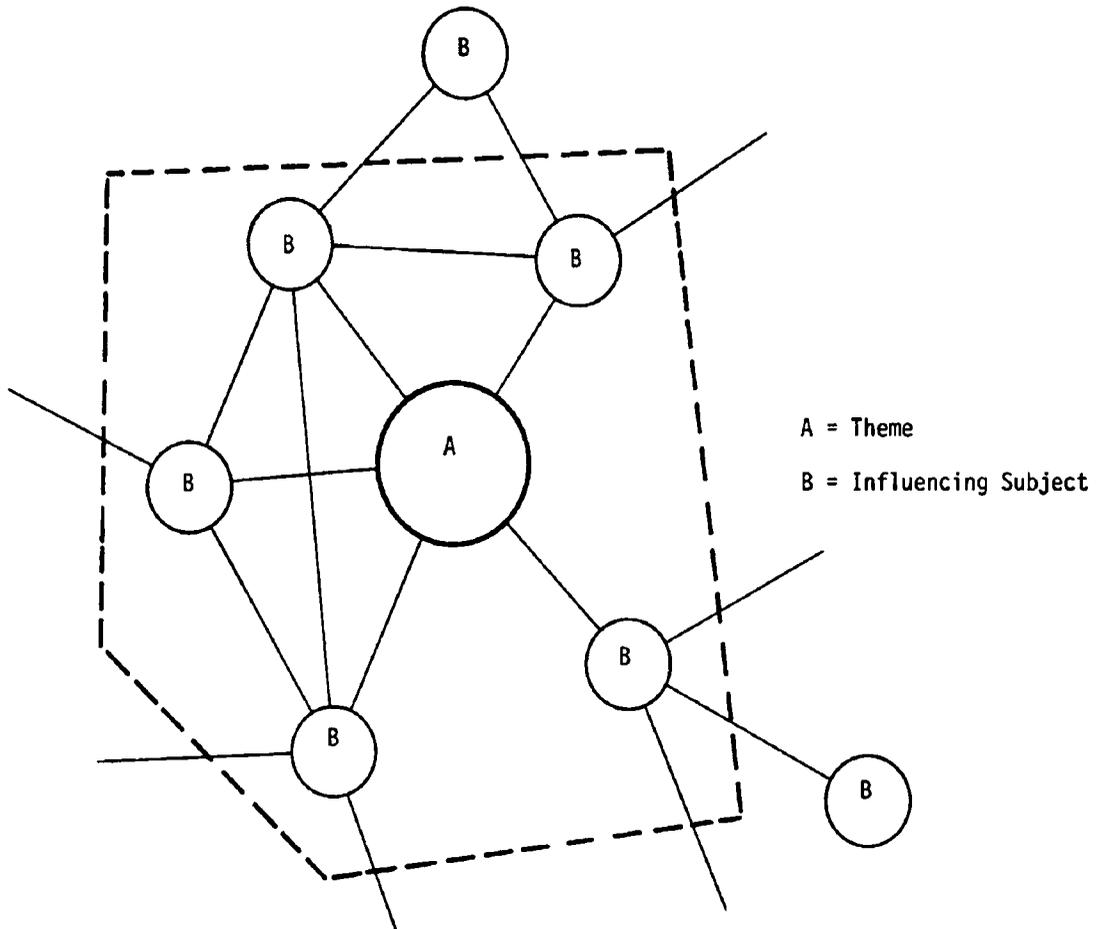


Figure 1: Model of Dominant Influence

Man's desire for land resources, as defined by legal, economical and sociological concepts of land, produce the basic forces on the system. The land survey system is constructed in response to these needs and its success is measured in terms of the satisfaction provided.

Technology provides the methodology and instrumentation for the system. It is constantly improving the hardware and software available, and thus produces variable forces on the system. At any given moment, however, technology defines the maximum quality standards of input information. It is irrelevant to demand standards which are more accurate than instrumentation can provide.

Climate, topography, and other geographical considerations influence the gathering of boundary information. These forces are constant and serve as constraints on the model.

Government is important in the model for, without question, land surveying is a public responsibility. This does not mean that there is no role for the private land surveyor to play, but is meant to suggest that the state is responsible for providing stability and security to the system. It maintains the system as a public trust and seeks to improve the system for the public good.

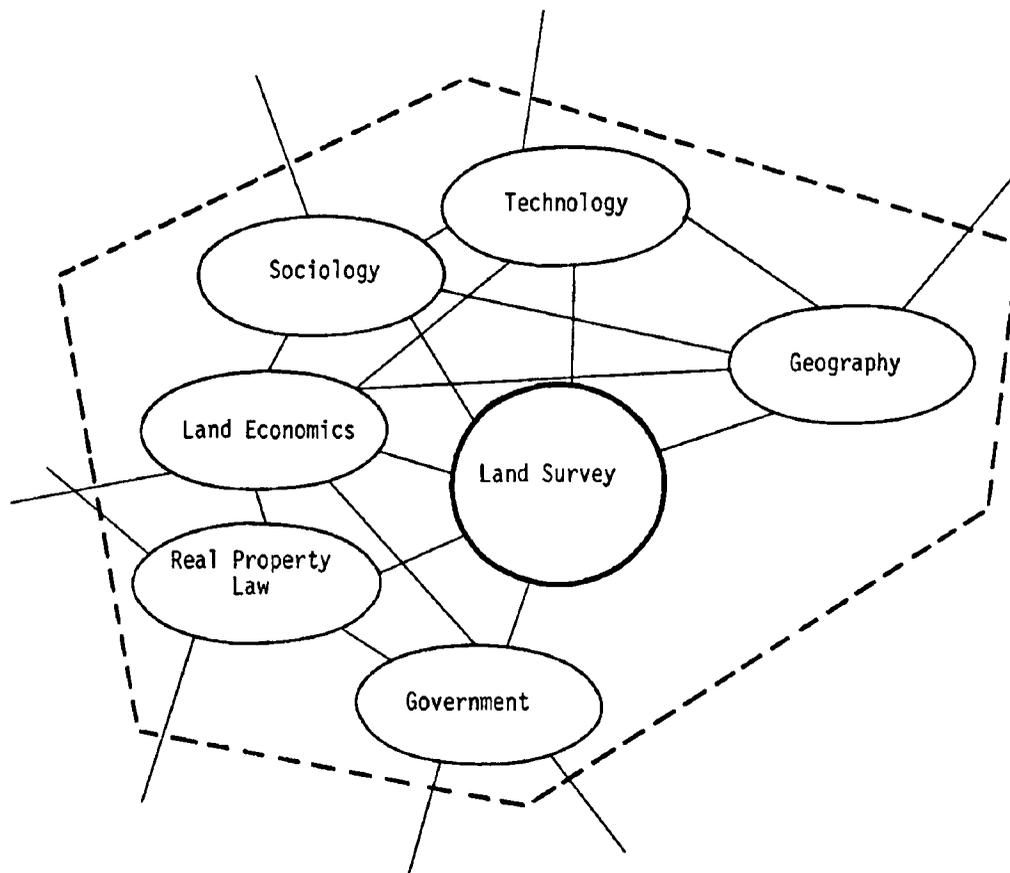


Figure 2: Land Survey Model of Dominant Influence

Applying the Model to New Brunswick -

The justification for any land survey system comes not from its claim to a historical basis, but from a capacity to satisfy certain needs of society. Using the model as a basis for understanding the design criteria, the nine following requirements of a land survey system for New Brunswick were formulated:

- 1) There must be a strong, independent, government agency responsible for the administration of the system. This agency must have sound legislative backing to be meaningful. It must be independent of all other government agencies which carry out legal surveys so that all surveys, both public and private, will be treated fairly and without bias. It must be a government agency because land surveying is a public responsibility.
- 2) Standards for all legal surveys must be introduced and a policy of rigorous public enforcement must be established. A system without legislation establishing standards is a system without security and, hence, a system without meaning.

- 3) Storage and retrieval facilities for the filing of all legal survey documents must be introduced and maintained. It is completely unacceptable that the public interest can be subverted by unethical individuals who hoard this information for personal gain.
- 4) A property mapping program must be constructed and maintained. These maps are needed for the assessment of real property, as the basis for a property index, and in the acquisition, development and administration of land.
- 5) There must be a strong, progressive association of professional surveyors dedicated to constantly improving themselves and the system, to better serve and protect the public. This is the primary purpose of such an association and all other objectives must be subordinated to it.
- 6) There must be a concerted effort to provide educational facilities in cadastral surveying at the university level. This will serve to provide a superior academic background for novice surveyors and will afford established practitioners the opportunity of keeping abreast of new developments. A study field in cadastral theory should be introduced. Cadastral theory would combine elements of surveying, land economics, real property law, geography, sociology, political science, pure science and history into a cohesive structure for analysis and application.
- 7) A viable apprenticeship program for surveyors should be maintained. In the past, apprenticeship has been used to provide both an academic education and a period of practical internship. This has often led to an inbreeding process with bad concepts being carried forward and not enough good new ideas being introduced. However, although the universities should be able to provide a more liberal educational background, there is a need in all applied disciplines for an in-service training period before certification.
- 8) Thought should be given to the introduction of a research and development program in cadastral surveying. There is a tremendous need for such a program [6] which could be established in conjunction with educational facilities. In no area is land surveying more deficient - and, yet few areas are of more importance.
- 9) Finally, a monitoring facility is required as an integral part of any land survey system. The model of dominant influence has shown that the system operates in a dynamic mode. For example, changing values of land necessitate changes in surveying standards which, in turn, may be achieved through advances in technology. The needs of society are not fixed. Land Survey systems, because they have tended to ignore this fact, are forever in a process of decay. The only alleviation for this process has been the periodic tendency to collapse completely. I repeat, the needs of society are not static. A monitoring facility is needed to ascertain how well these needs are being satisfied, when they have changed, and how the system can accommodate them.

CONCLUSIONS -

The land survey profession has the potential of playing a tremendous role in the development and utilization of our land resources - a field of endeavour that will be of primary importance in the future. It can do this, however, only by exhibiting a greater understanding of the needs of society and by developing the means to satisfy them.

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4. Dowson, E., and V. Sheppard. Land Registration, H. M. Stationery Office, London 1956.

6. Research Committee of the Surveying and Mapping Division, American Society of Civil Engineers, A Research Program in Surveying and Mapping, Proceedings of the ASCE, January 1966.

ACCEPTANCE SPEECH

Distinguished Guests and Fellow Surveyors -

It is an honor for me today to become your President for the forthcoming year. I accept this position with the deepest humility, bearing in mind that I follow in the footsteps of men who have been leaders in the field of survey with the Province of Nova Scotia for many years. During the years which I have been involved with this Association I cannot think of a single past president who has not attempted to improve the lot of the Land Surveyor and the profession as a whole. With this thought in mind I will attempt, during the coming year, to work long and hard on your behalf.

Needless to say we have many things to accomplish. Our Association has grown immensely in the past few years and it is very difficult for its President to meet personally all of its members, however, during the coming year I will attempt to meet with as many of you as time will permit. Any member of this Association may feel free to contact me at any time if there is any form of assistance which I can provide.

The responsibility of a President of any group or Association under the democratic process is to provide guidance to its members. This process guarantees the right of the majority to decide, but also provides the right of the minority to protest and be protected. During the coming year I will try to be guided by these principles.

The year ahead shall be a busy one for Council. We have reached the point where the work load on our Secretary-Treasurer has become too excessive. Today Mr. Rice has tendered to me a letter of resignation. Due to family responsibilities and an increased work load at his place of employment he advised that he has no alternative but to resign from office. It is with deep regret that I accept this resignation, which will be effective next November prior to the 21st Annual Meeting. It is nearly ten years since he has become our Secretary-Treasurer, and I think you will all agree he deserves a well earned rest. This matter will again be brought up under new business later in the meeting.

In future, I will recommend to Council the appointment of a Convention Convener. This individual would have at his or her disposal a select committee of Council to assist in expediting the various matters required for an Annual Meeting. This should lighten the load on our future Secretary-Treasurer.

I also believe we should look very seriously at the possibility of establishing a part time Association office with some stenographic help available on a paid basis. I am prepared to recommend to Council in the coming year that a committee be established to look into this possibility, with the hope that by the year 1975 a full time office can be established, staffed by a permanent Secretary-Treasurer. Hopefully this would be a salaried position. I am also prepared to work with any new President and Council which will accept my services to see this become a reality. It would be my further hope that you would have an opportunity to consider recommendations on this matter at the 21st Annual Meeting in November 1971.

The foregoing are but a few ideas which I believe will strengthen our position and improve our standing in the community.

I wish to reiterate my sincerity to serve you in the best manner possible during the year ahead. I thank you for the trust you have placed in me and I ask the support of all members during the coming year to further improve the lot of the Land

Surveyor in Nova Scotia.

Before closing, I would like to thank our Past President, Col. George Streb, for the magnificent job he has done during the past year. He has been a tower of strength at Council Meetings and especially during the C.I.S. meeting last Spring. I now ask that Col. Streb stand and we show our appreciation for the excellent leadership he has provided. Thank you George.

L. R. Feetham, N.S.L.S.,
President.

THE ASSOCIATION OF NOVA SCOTIA LAND SURVEYORS

TWENTIETH ANNUAL MEETING

NOVEMBER 5, 6 AND 7, 1970

- MINUTES -

THURSDAY, NOVEMBER 5, 1970

President George Streb called the Twentieth Annual Meeting to order at 9 a.m. at the offices of Servant, Dunbrack and MacKenzie Limited, Bayers Road Shopping Centre, Halifax, Nova Scotia.

Mr. Walter Servant moved that the meeting be adjourned to 10:00 a.m., Friday, November 6, 1970, at the Holiday Inn, Dartmouth. Seconded by Mr. L. R. Feetham. Motion carried unanimously.

President Streb declared the meeting adjourned to 10:00 a.m., Friday, November 6, 1970, in Dartmouth at the Holiday Inn.

FRIDAY, NOVEMBER 6, 1970

The meeting was called to order by President George Streb, at 10:00 a.m., with the ringing of the Baffin's Bell.

President Streb introduced the exhibitors as follows:

AGATronics Limited, Carroll & Reed, Eastward Industries, Enamel and Heating Products Limited, Hewlett Packard, Hughes Owens Limited, Jena Instruments (Toronto) Limited, Munroe Calculators, Norman Wade Company Limited, Tellurimeter Canada Limited, Wang Laboratories (Canada) Limited and Wild of Canada.

Alderman O'Hearn, representing Mayor Thornhill of Dartmouth, welcomed the members and guests.

The Schofields then presented the Massachusetts flag to the meeting and also showered the members with Cape Cod dollars.

President Streb then introduced the guests as follows:

Hans Klinkenberg	- President, Canadian Institute of Surveying
D. K. MacDonald	- Representing the Surveyor General of Canada
Willis Roberts	- Ex-Director of Surveys of New Brunswick
Walter Nason	- President, New Brunswick Land Surveyors
Jim Boldon	- Guest Speaker, Seaboard Surveys, Fredericton, New Brunswick

John MacLaughlin - Guest Speaker
 Bob Sutherby - Newfoundland Association
 Carl Granter - President, Newfoundland Land Surveyors
 William Dabbs - Representing Alberta Land Surveyors
 Everett Green - Supervisor, Institute of Technology, Nova Scotia.

President's Report -

President Streb presented his report of the meeting.

Minutes of the Nineteenth Annual Meeting -

Mr. E. P. Rice, Secretary-Treasurer, moved that the minutes of the Nineteenth Annual Meeting be adopted as written and distributed. Seconded by Mr. George Streb. Motion carried.

Secretary-Treasurer's Report -

Mr. E. P. Rice presented his report to the meeting.

Financial Report -

Mr. E. P. Rice moved that the Financial Report be adopted as presented and distributed to members attending the meeting. Seconded by Mr. L. R. Feetham. Motion carried.

Mr. E. P. Rice stated the status of members as follows: Seventy-nine registered - seventy-eight in good standing.

The President asked that the members stand for a moment of silence in respect to the late John Fraser of Glace Bay, who passed away during the year.

Scrutineers Report -

In accordance with Section 18 of the By-laws of the Association, a list of candidates was mailed out two weeks prior to this meeting.

President Streb then read the results of the election of officers for the coming year:

President	- L. R. Feetham
Vice President	- J. F. Doig
Secretary-Treasurer	- E. P. Rice

Councillors:	
Halifax City	- Forbes Thompson
Halifax County	- John MacInnis
Western Nova Scotia	- E. B. Hall
Eastern Nova Scotia	- J. D. Chisholm
Cape Breton	- A. E. Briggs
Councillor at Large	- W. S. Crooker, Jr.

Report of Nova Scotian Surveyor -

Mr. Walter Servant gave his report as follows:

An Editorial Committee was appointed by Council in June and an organizational meeting of this committee was held July 7, 1970, to decide how the committee might best

allocate the tasks of drafting, editing and printing of the Nova Scotian Surveyor. The Committee appointed consists of the following:

Editor - Walter Servant
 Honorary Editor - Eric Millard
 Assistant Editors - Ivan P. Macdonald, Sec.
 Arthur Gilmour, Printing
 Roy Dunbrack, Advertising
 James Doig or a member of the Nova Scotia
 Land Survey Institute to represent
 that body.

Members ipso facto - Director of Surveys of the Department of Lands and Forests, President of the Association, Secretary-Treasurer of the Association.

Two issues have been mailed out this year. The third is now being printed and enough material is on hand for the fourth issue.

We offered a prize for the best design for a new cover but this was not taken.

We expect this to improve its service to the membership by the efforts of this larger editorial committee.

Report of Board of Examiners -

Mr. H. B. Robertson read the report on behalf of Professor A. F. Chisholm, Chairman of the Board and Mr. J. F. Archibald, Secretary, who were unable to be present at the meeting.

The Board held two regularly scheduled meetings during 1970, one on April 1 and the other on November 3, 1970.

Examinations were held on December 15, 16 and 17, 1969, and on May 11, 12 and 13, 1970.

In the December examinations fifteen candidates wrote supplementals and 10 wrote the legal examinations.

In the May sitting, seventeen candidates wrote the intermediate examinations, two of which will have to write supplements in one or two subjects and a third who will have to rewrite all subjects in order to continue.

Sixteen candidates wrote all the Finals Part I. Also three candidates wrote less than the full number of papers. Of these, seven candidates will have to write supplementals and one candidate rewrite all subjects to continue towards qualifying for certificates.

Only one candidate wrote the Legal Examination and successfully exceeded the pass mark.

During the year six candidates qualified themselves for certificates prior to October 1, 1970. These were as follows:

- Athol Clair Grant, R. R. No. 5, Lochaber, Antigonish County, Nova Scotia.
- Mervin W. Hartlen, Box 271, Milton, Queens County, Nova Scotia.
- Gerald L. Mehلمان, Port Mouton, Queens County, Nova Scotia.
- Bruce W. Millar, Sherman Apts., Apt. 4, 53-55 Caledonia Road, Dartmouth, Nova Scotia.
- Stewart E. MacPhee, R. R. No. 1, Baddeck, Nova Scotia.
- Thomas G. Williston, Bay du Vin, New Brunswick.

Five candidates recently presented affidavits and applications for certificates which have now been processed and their certificates sent out to them on October 30, 1970. Names of these candidates are as follows:

Burton Leroy Cain	- Dartmouth, N. S.
Terrance R. Doogue	- Halifax, N. S.
John R. Logan	- Pictou, N. S.
Donald F. Parker	- Dartmouth, N. S.
Garnet E. Wentzell	- Antigonish, N. S.

During the year we had inquiries from nine members of the Engineering Profession requesting information on the steps required to qualify for a N.S.L.S. Certificate. It is hoped that as many as possible of these applicants will qualify themselves and become members of our Association.

Since Professor A. F. Chisholm, our very competent Chairman on the Board of Examiners, is unable to be in here at this time, due to circumstances beyond his control, he has asked me to express his regrets and to extend his appreciation to the Board Members for their solicitous attendance at our meetings and matters pertaining thereto during the current year.

The members on the Board are: Mr. H. B. Robertson, Director of Surveys appointed by the Minister of Lands and Forests on the recommendation of his Deputy; Mr. R. D. Fitzner, representing the Association of Professional Engineers of Nova Scotia; Mr. Roy Dunbrack, Past President and Council Appointee for the current year; Col. G. E. Streb, President of the Association of Nova Scotia Land Surveyors; Prof. A. F. Chisholm, as stated above our competent Chairman, also appointed to the Board by your Council and yours truly who acts in the capacity of Secretary and tries to answer all correspondence sooner or later, sometimes more later than sooner.

Also, I feel we owe a vote of thanks to Dalhousie University by reason of Professor Chisholm, serving on our Board, in that he finds accommodations for our bi-annual meetings, as well as providing facilities, for the sitting of examinations twice yearly.

The Board further reviewed the proposed changes to the Regulations and these are now on their way for consideration and we hope approval of Executive Council.

At either a past general meeting, or meeting of Council, it was approved that a method of Registering Surveyors in Training during their term of apprenticeship be set up. The Board has approved a Form of Notice, to be completed by the Surveyors in Training and the Registered Nova Scotia Land Surveyors under whom he is serving his "training period".

At the end of six months, or termination of employment of the Trainee, whichever comes first, the Registered Surveyor completes an attached Interim Notice to the Board of Examiners.

It is hoped to have these Forms printed up shortly and made available to Land Surveyors employing Surveyors in Training.

The Board also proposes to hold a special meeting in the next few weeks to consider the updating of our Syllabi on the Courses of Study.

Report of Nova Scotia Land Survey Institute -

Mr. J. F. Doig gave his report as follows:

1) General - There have been no startling changes at the Institute during the year that has passed since last I reported to you.

2) Employment - Those graduating from our various courses in the Spring of 1970 seemed to have pretty reasonable acceptance by employers. Our basic theme of our instructional program has always been to emphasize the practical applications of surveying, photogrammetry and cartographic drafting, and I believe we have been generally successful in so doing.

3) Survey Course Content - In speaking of the content of the survey course only, I do not mean to suggest this is the only course to which my remarks are relevant but simply to keep to the point of main interest here at this meeting. All of us on the staff realize the need to increase the breadth and depth of our theoretical training in surveying and how to do this is giving us much concern. One obvious way to do this is to expand our facilities and consequent output of students and thus broaden the talents to be found among the staff. The time also may be fast arriving when the course will have to be lengthened. Possibly a third year might be offered as an option.

4) Equipment - In the Spring, a coordinatograph was installed principally for Photogrammetric training, but of relevance to both survey and drafting. We have taken delivery of two barometric instruments and expect two altimeters shortly in order to give us better facilities in barometric levelling. We have an additional optical transit and we have on order a programmable calculator with alphabetical as well as numerical point-out.

5) Current Enrolment - Surveying - 33, Photogrammetry - 17, Carto Drafting - 11, making a total of 61.

6) Staff - Our staff continue to improve their educational background both technical and general, e.g. J. F. Wightman completed his studies this autumn in the degree of M.Sc. (Geology). The Teacher Training Department would like a technology instructor to acquire two full summers and two winters of study. Messrs. Chambers, Milo and Telfer are a bit more than half way through this. I mention this to remind everyone that the instructor must give attention to things over and above the pure technical specialty with which he comes equipped and seeks to improve at the same time.

7) Department of Education - The Nova Scotia Land Survey Institute is operated directly by the Department of Education. Our thanks are due E. A. Green, Supervisor of Institutes of Applied Arts and Technology and G. E. Streb, Chief Supervisor of Applied Arts and Technology Education. They manage nicely in providing us with what we need without over-controlling our operations.

The list of new members was read by Col. George Streb and welcomed by the meeting:

B. L. Kane	D. B. Mailman
L. L. Crowe	G. L. Mailman
W. H. Gates	W. B. Miller
A. Brant	B. P. Potter
M. W. Hartlen	G. E. Wade
C. C. Harris	R. G. Wallace
J. R. Logan	T. G. Williston
Stewart MacPhee	

Resolution Committee -

Mr. L. R. Feetham reported that any members can present a resolution to be discussed and voted on during the Saturday afternoon session. To date, only two resolutions had been received, which were as follows:

- 1) Be it resolved that Section 16 (b) of the Nova Scotia Land Surveyors Act, Chapter 243 of the Revised Statutes and amendments be deleted.
- 2) Be it resolved that Section 7, subsection (2) be amended by inserting the word three instead of two immediately after the words "President of the Association", and deleting the following words, "and one other member appointed by the Council of the Association of Professional Engineers of the Province of Nova Scotia who is a member in good standing of that Association and a Nova Scotia Land Surveyor".

These resolutions will be discussed under new business.

Discipline Committee -

Mr. L. R. Feetham stated that a couple of cases are being discussed at the present time and these will be processed in due course.

Department of Highways Report - Mr. L. R. Feetham

The past year has been an extremely busy one for me and I must confess a shortage of time interfered with the work I had hoped to accomplish in this regard.

Your Committee consists of J. D. McKenzie, Eric Millard and our President, Col. George Streb, who automatically sits on all such Committees and myself as Chairman.

There was only one meeting held with the Department of Highways and that was on October 26th, however, this could turn out to be the most important one to date.

The meeting was held on the above date in the Board Room of the Department of Highways on the 7th Floor of the Provincial Building. In attendance were:

- John W. Pertus, Director of Engineering, Department of Highways
- Robert Fitzner, Assistant Director of Construction
- W. Bruce Williams, Director of Claims.

Representing the Association of Nova Scotia Land Surveyors were:

- Col. George Streb, President
- J. D. McKenzie
- L. R. Feetham, Chairman.

The problem of inadequate survey procedures was extensively discussed and the following points are being taken under consideration by the Department for possible implementation:

- 1) Consideration will be given by the Department for the placement of certain fixed or permanent monuments as a further step in their program of property monumentation. This control would be either centre line offset or some prominent point such as a curve P.I., where the monuments would stand some chance of survival. Initially this will apply to new construction only.
- 2) Where possible the permanent monuments referred to in (1) above will be integrated into the Provincial Coordinate System and each monument will be given its proper coordinate values.
- 3) Consideration will be given to the improvement of plans and legal descriptions with a view to including coordinate values where possible throughout the description.
- 4) That a short course may be made available to members of their Department in the methods of integrating their surveys into the Provincial Coordinate System. This could con-

ceivably be a joint venture by the Department of Education, the Association of Nova Scotia Land Surveyors and the Department of Highways.

Mr. Pertus pointed out the fact that they have some thirty-five Nova Scotia Land Surveyors in their organization. In the writer's opinion there is a definite interest by the Department to improve their survey standards and assist the survey profession as a whole.

Following the meeting, I wrote a follow-up letter to Mr. Pertus referring to the above four points of consideration. As yet we have not received a reply but I am sure we will, just as soon as the political situation levels off.

Public Relations Committee -

Mr. George Bates stated that this Association has had very good publicity over the past year because of the C.I.S. Convention. One member has appeared on TV to demonstrate instruments and another has entered into politics.

Professional Status Committee - Mr. Walter E. Servant

This Committee attended as usual, meetings too numerous to recall entirely, some of these were at the approximately 30 meetings held by the C.I.S. Convention committee. Others at various meetings held by survey types at Halifax, Lawrencetown, Sydney, Fredericton, on trains and planes, in hotels, cars and bars. By phone and from literature we have gathered information and ideas which was spewed forth to your Council Members at regular and irregular meetings.

Following this report, the meeting adjourned for the C.I.S. luncheon.

FRIDAY, NOVEMBER 6, 1970 - 2:00 p.m.

Percolation Test Committee - Mr. K. Robb

In a report submitted to this Association last year, your Percolation Test Committee advised this Association that the Provincial Department of Health has agreed that it would be acceptable to them that the taking and rating of percolation tests be taken by Nova Scotia Land Surveyors - it was clearly pointed out, however, that the interpretation and acceptance of these tests be left to the discretion of the Sanitary Health Inspectors.

The problem arises, however, with the by-laws of the Municipality and Provincial Health Department, which state that such tests must be carried out by a Professional Engineer. The Municipality of the County of Halifax has placed before its Council a change in this matter.

The Council approved of the change and placed a request before the Governor in Council of the previous government for a change in the Provincial Act. No action was taken by the Government, however, and the recent change in government after the last election will necessitate a new request to be made by the County. I have been assured that this procedure will be followed and the new Governor in Council will soon deal with the matter. Let us hope that a favourable change will be made.

Your Committee will continue with this matter if it is the wish of Council.

Minimum Tariff Committee - Mr. W. S. Crooker, Jr.

Last year the Rates Committee submitted a proposed scale of minimum fees at the Annual Meeting. This scale of fees was prepared from replies to a questionnaire sent out to practising land surveyors. The questionnaire involved such items as the amounts

charged for various categories of personnel and the payroll cost method of determining survey fees. The schedule was generally well accepted and was adopted at the 19th Annual Meeting.

In May of this year, members in private practice were requested to write the Committee giving their comments and any suggestions for additions or changes to the schedule. The correspondence received on this matter indicated that certain revisions should be made.

A review was made of current salaries and wages and the amounts charged in addition to salaries and wages to cover overhead and profit. Committee members, Walter Servant and John McElmon assisted in reviewing the present schedule and made available information on operating expenses and overhead.

In Schedule "A", the definition of payroll cost was reworded and the usage of the multiplying factor explained. In Schedule "B", the categories of Principal and Intermediates were added. Rates for the various categories listed in last year's schedule have been increased as follows:

Senior Surveyors	- from \$10.00 to \$12.00 per hour
Junior Surveyors	- no change
Senior Instrumentmen	- from \$7.00 to \$9.00 per hour
Junior Instrumentmen	- from \$5.00 to \$6.00 per hour
Senior Draftsmen	- from \$7.00 to \$9.00 per hour
Junior Draftsmen	- from \$5.00 to \$6.00 per hour.

Chainmen and rodmen have been re-grouped under the same classification at the rate of \$5.00 per hour, giving an increase of \$1.00 per hour for chainmen and \$1.50 per hour for rodmen.

No changes have been proposed for Schedule "C".

The Committee has received excellent support from those in private practice and I would like to express my appreciation to all the members as well as those who served on the Committee who wrote letters giving their opinions and constructive criticisms. The Rates Committee is a permanent committee set up to report yearly at the Annual Meetings. Only with the support of people in private practice can the rates structure be annually updated and used by the members of this Association as a reliable guide for land surveying fees.

Legislative Committee - Col. G. E. Streb

It is my duty as Chairman of the Legislative Committee to present a report at this time. Last year at the Annual Meeting, new By-Laws were agreed upon by the general meeting, to be adopted and to be presented to the Governor in Council for approval. At that time, we were advised by our solicitor to rescind the old By-Laws and adopt new ones. It now appears that this was not the proper course to follow and we should have asked for approval of the amendments only. The former Government did not see fit to give approval to the By-Laws and we have since approached the new Government with the request to approve the By-Laws. The incoming President has indicated that he will press approval for the By-Laws as we agreed upon last year and should we be unsuccessful, your executive will determine what changes are in contention and a general meeting will be called to have these changes omitted and the remainder approved by the Governor in Council. I would like to point out at this time that with our present By-Laws, if a special general meeting is called, no fixed quorum is required; also we will leave it to you to decide if you wish to attend or not.

Mr. Robert Miller from Canadian National Railways requested time on the program to say a few words with regard to CNR right-of-way boundaries. The following is

his submission:

I would like to take a few moments of your valuable time in order to make a plea on behalf of the Canadian National Railways in regards to boundaries.

As you realize, we have a large acreage in Nova Scotia. A good portion of it being a long narrow strip of land, namely our right-of-way. Here in Nova Scotia, a goodly portion of these right-of-ways were acquired prior to confederation. It is the boundary of these right-of-ways that are causing us some concern.

Firstly, I should point out that over 80% of our holding in Nova Scotia is comprised of lands whose title is vested in the name of Her Majesty, the Queen in Right of Canada. In other words, Federal Crown lands. We of the Canadian National Railways Company have the use of these lands and are charged with the responsibility of managing and protecting same.

In the past, we were charged by the Board of Transport Commissioners with the responsibility of fencing our right-of-way in order to protect against trespass of animals and people; namely, animals. This responsibility was carried out, but the fences were not, and this is the point I wish to make quite clear, were not put up as boundary fences. These fences were put up by our Section people and were placed in such a manner as to the easiest way.

In the past eight months we have had a number of surveys brought to our attention where other surveyors have used our fences as being boundaries of our right-of-way.

What I am now doing is requesting any surveyor who is having to perform a service in which our right-of-ways are involved to please contact me, or my office for information in regard to the boundary. I can promise you our fullest cooperation in getting this information to you in the shortest time possible. Another suggestion would be to make better use of the Recording Office. Most of our lands are recorded in the Registry Offices. Let us take Pictou County as an example. The lands we hold in Pictou County are recorded in the Registry Office for the County of Pictou and so for all other counties.

One other thing is the Quietings of Titles. Any time you do a survey for a Quieting of Title we are requesting you to please supply us with a print of your plan of survey.

In summary there are two things I would like to again point out. No. 1, our fences are not boundary fences and, No. 2 the title of the lands are in the name of Her Majesty the Queen in Right of Canada.

The business meeting recessed at 2:45 p.m.

SATURDAY MORNING, NOVEMBER 7, 1970

During the Saturday morning session, the following motion was proposed: It was moved by Mr. Roy Dunbrack, and seconded by Mr. Don Eldridge, that this Association write the Minister of Lands and Forests, expressing our acceptance and whole-hearted support of the proposed Surveys Act, and that he present the bill to the Legislative Assembly at the earliest possible time.

It was then moved by Mr. Roy Dunbrack and seconded by Mr. Don Eldridge that the motion be amended to read instead of "support of the proposed Surveys Act", "support of the intent of the proposed Surveys Act".

The amended motion was put to a vote and passed.

SATURDAY AFTERNOONOld Business -

The meeting was called to order at 2:15 p.m.

Mr. Walter Servant was called to the platform to speak on the Workmen's Compensation Board.

He stated that a committee had been formed last year to look into the Workmen's Compensation Act as it pertained to Land Surveyors. It was thought at that time that we would join with the professional engineers to compose a brief to present to the Workmen's Compensation Board; however, this was not done.

The Compensation Act has changed this past year with regard to coverage of compulsory membership.

Mr. E. Hingley said he has heard that the WCB is going to the merit system of assessing its rate. He wondered if this would make any difference.

Mr. Servant stated that WCB was already using the merit system. The most accident prone groups have the highest rates. He said he didn't know how this Association rated with regard to accidents, but land surveyors are included in the same class with brick layers on high rise buildings. He felt that land Surveyors were not in the proper group. Also included in this group are draftsmen, secretaries and bookkeepers.

Mr. Hingley felt this Association should investigate its own accident rate and present it to the Workmen's Compensation Board.

Mr. Servant said that the Ontario Association did just this and after a long fight, were put in another category.

Mr. Servant stated that it had been hoped that this Association could have joined with the Association of Professional Engineers, in order to have made a greater impact on the Workmen's Compensation Board.

During the past year, regional meetings were held and Col. Streb asked the councillors to report on the same.

Halifax City and County - W. S. Crooker, Jr.

In April a meeting was held at the Nova Scotia Light and Power Company, Limited Lecture Room. There were about thirty present. This was an informal type of meeting, held specifically to have the land surveyors meet their councillors.

It was the feeling of those at the meeting that a private practice Committee should be formed. Rates, salaries and survey standards were discussed. Mr. Phil Milo and Mr. Ivan Macdonald were guest speakers and presented a report and answered questions on the Integrated Survey Program at the meeting.

Western Area - Mr. J. F. Doig

The other Councillor for this area was Mr. D. Wagstaff. Owing to the size of the area, it was divided into two groups.

There are twenty-three members between Windsor and Yarmouth. Seven attended the meeting. He said he interpreted this to mean that there were no real problems in the area. There was some discussion on the minimum tariff. The only real item that came

out of the meeting was that there should be a split in the dues structure between those who practice day to day and those who practice under contract now and then.

Western Area - South Shore - Mr. D. Wagstaff

This section did not hold a formal meeting, but on his travels, he discussed problems with those in the area.

Cape Breton Area - Mr. John Pope

One official and several unofficial meetings were held. There were a few problems which were brought before Council and attended to.

Eastern Area - Mr. E. Hingley

A meeting was held in June at the Heather Motor Inn. Out of thirty-three members, fifteen attended. Various subjects including information on survey plans, errors and omissions and insurance were discussed, but no decisions were made. Mr. E. P. Rice attended this meeting and gave a talk on the program for the Twentieth Annual Meeting.

Following the reports from the Councillors, Mr. R. March suggested that these reports would make a welcome addition to the Nova Scotian Surveyor.

Mr. J. Chisholm supported Mr. March's suggestion.

Col. Streb asked the Councillors to submit their reports to the Editor.

Col. Streb expressed his thanks to the Executive who have served with him during the past year.

INSTALLATION OF OFFICERS

The Past Presidents escorted Mr. L. R. Feetham, the new President, to the platform. Following congratulations, Mr. Feetham read his report.

New Business -

Mr. Feetham asked the Council Members to rise, in order to be introduced.

Resolutions Committee -

Two resolutions were submitted by Mr. Ivan Macdonald. They are as follows:

1) Be it resolved that Section 16 (b), of the Nova Scotia Land Surveyors Act, Chapter 243 of the Revised Statutes and amendments be deleted.

2) Be it resolved that Section 7, subsection (2), be amended by inserting the word three instead of two immediately after the words "President of the Association", and deleting the following words, "and one other member appointed by the council of the Association of Professional Engineers of the Province of Nova Scotia who is a member in good standing of THAT Association and a Nova Scotia Land Surveyor".

Mr. Macdonald was asked to come to the platform and speak on these resolutions.

With regard to the first resolution, he stated it wasn't his intention to restrict this Association to just land surveyors. He said he was pleased that we do have engineers in the Association. As the Act reads now, a Civil Engineer who writes the qualifying exam for his own Association can do land surveying without belonging to the

Association. Mr. Macdonald said that his feeling is that he would like to see all the people involved in land surveying as members of the Association. This clause in the Act could mean that in future we could have a divided interest in land surveying in that the Professional Engineer may do land surveying without belonging to this Association.

The second resolution deals with Professional Engineers on the Board of Examiners. If we delete section 16(b), we can't continue with section 7(2) with the wording as it now stands.

Mr. Feetham asked for discussion.

Mr. Dunbrack said he didn't believe the motion had been seconded.

Mr. Ivan Macdonald moved that we adopt the two resolutions.

It was then moved by Mr. James Chisholm, and seconded by Mr. Bert Robertson, that these resolutions be forwarded to Council for further consideration. Motion carried.

Professor Chisholm then spoke on this matter. He said he agreed with Mr. Macdonald in that if the first resolution was passed, the second one would also have to be passed; however, he didn't agree with Mr. Macdonald in that the resolution is not a complete one. If 16(b) is deleted then 17(1) as well as 7(2) will also have to be deleted. He stated that the engineer who practices land surveying under Section 16(b) is under the direct control of the Board of Examiners. In fact he is under more control than the Engineer who practices under Section 17(1).

A letter of resignation from Mr. E. P. Rice, effective November 1971, was read by Mr. L. R. Feetham.

It was proposed that Mr. Ted Webber be appointed as Assistant Secretary-Treasurer in order that he can take over from Mr. Rice when he resigns. This was agreed by the members. Remuneration for Mr. Webber will be discussed at the next Council Meeting.

Mr. Feetham thanked the guests for coming to the meeting.

It was then moved by Mr. W. S. Crooker and seconded by Mr. John Pope, that the revised schedule of minimum fees be adopted. Motion carried.

It was moved by Mr. E. P. Rice that Mr. A. Howard Murray and Mr. Herbert Martel be made Honorary Life Members of this Association. Seconded by Mr. E. Millard. Motion carried.

Mr. Feetham stated that the next Annual Meeting will be held on November 5, 1971, at a place to be announced.

There being no further business, it was moved by Mr. Jim Chisholm and seconded by Mr. J. Doig that the meeting adjourn.

Respectfully submitted,

E. P. Rice, N.S.L.S.,
Secretary-Treasurer.

M.A.L.S.C.E. CONVENTION - L. R. Feetham, Vice President

Since our President, Col. G. E. Streb, was unable to attend the Massachusetts Association of Land Surveyors and Civil Engineers' Sixteenth Annual Meeting, I was privileged to attend and represent him on your behalf. Their meeting this year was held at Chipocsee, near Springfield on October 1st, 2nd and 3rd.

The meeting was a good one, well attended by some two hundred and sixty-six registered members in attendance. An excellent display of the latest in survey equipment was on show with several pieces of equipment not available to us in Canada.

Their speakers were of excellent quality, covering a variety of subjects. The key note speaker was Mr. Axel Gavin a New York lawyer, specializing in international law. He will long be remembered by all as an extremely capable individual, well versed on the subject.

During the course of events, I accumulated some very good ideas for improving our own Association. It provided me with an opportunity to see how our counterparts in the State of Massachusetts functioned in the very demanding profession of Land Surveying.

My wife attended the Convention with me and was very graciously treated by the ladies in attendance. Our own George T. Bates was aboard and between us we made the Nova Scotia presence felt in the lighter vein as well.

On the whole an excellent meeting, where I was able to renew old acquaintances and make a host of new friends for Nova Scotia.

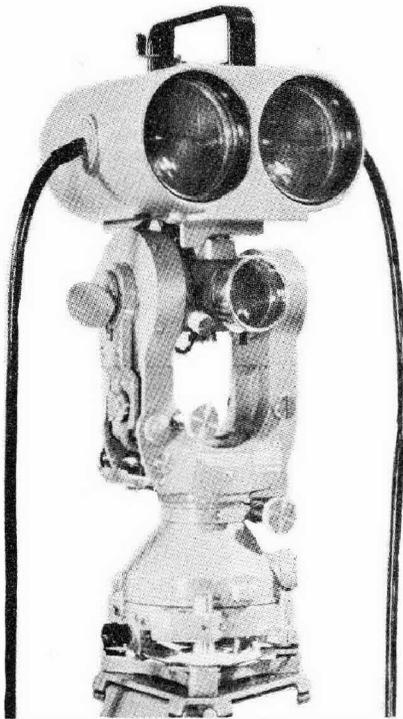
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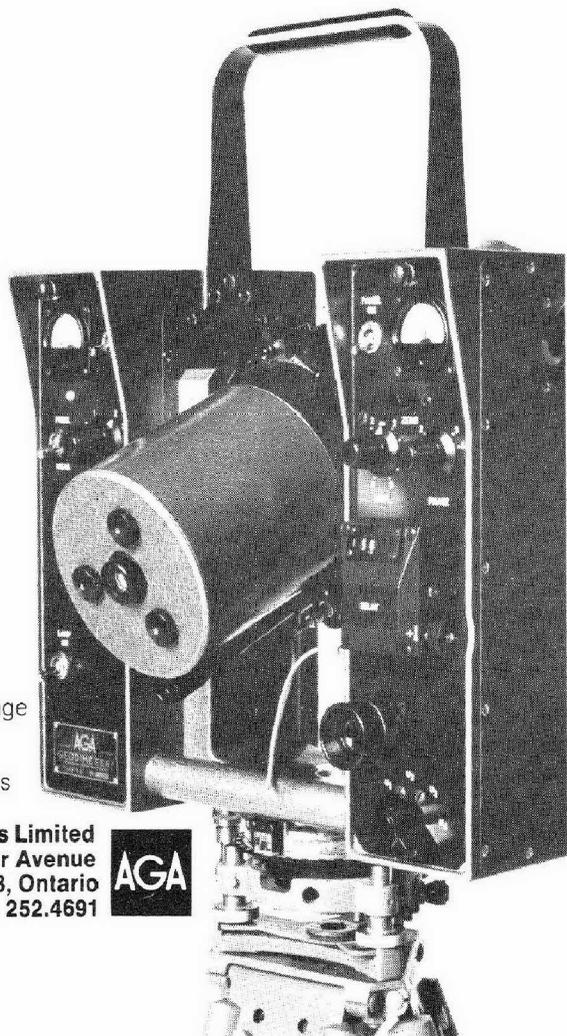
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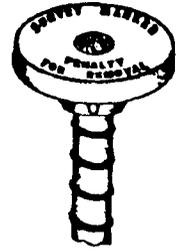
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A newly developed survey marker consisting of a corrosion resistant aluminum head threaded to a sharpened carbon steel rod and ribbed for better holding characteristics.

This marker has won approval from professional Land Surveyors in all the Maritime Provinces and is now in common use in this area.

Special heads, bearing the initials or registry number of the individual may be supplied, but time must be allowed for manufacture.

With "ENHEAT SURVEYORS' MARKERS" on the survey, it is no longer necessary to "begin at an old fence post" or such perishable reference point.

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