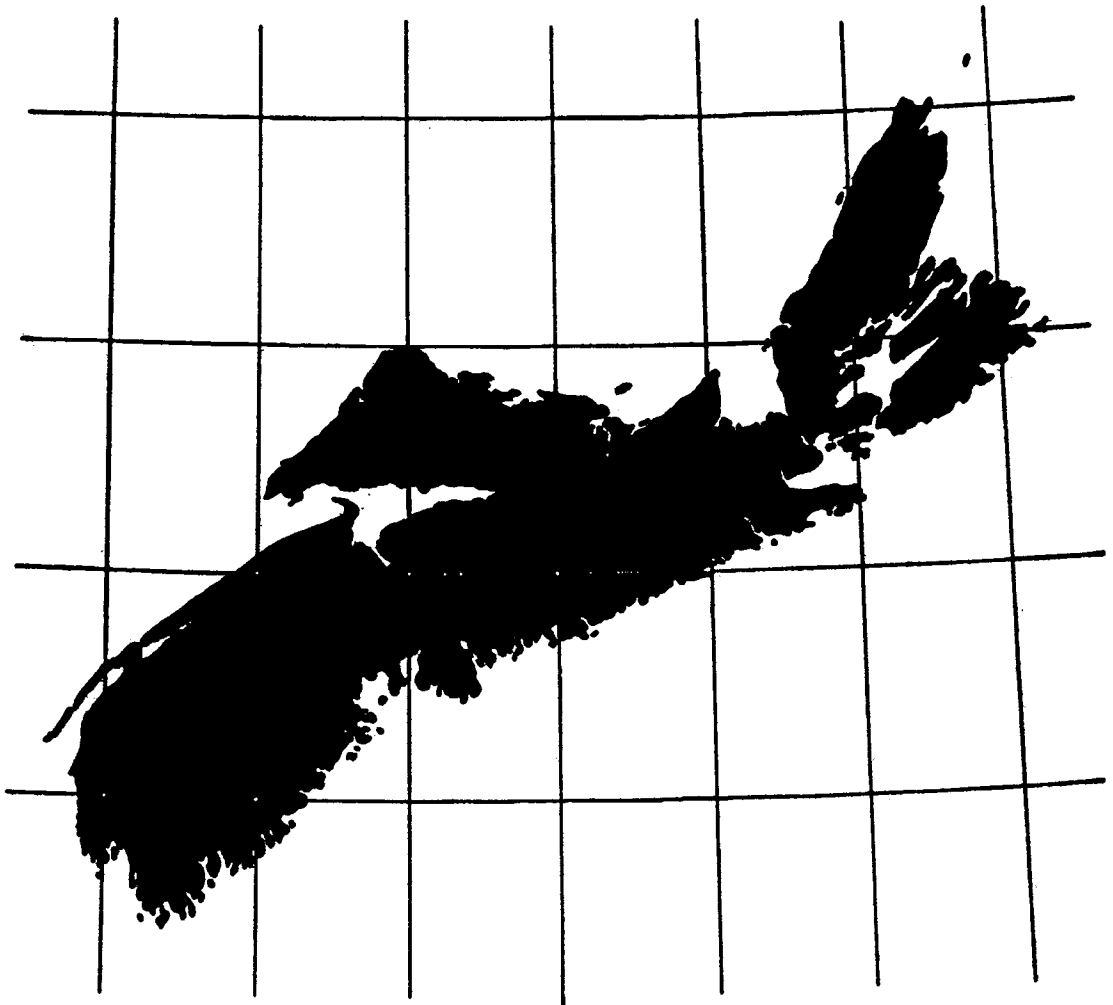


# The NOVA SCOTIAN SURVEYOR



*Published by  
The Association of Provincial Land Surveyors  
of Nova Scotia*

---

Founded 1951  
Volume 11

R. E. Millard, P.L.S., Managing Editor  
SEPTEMBER, 1961

Incorporated 1955  
Number 28

---

# The NOVA SCOTIAN SURVEYOR

*Published four times a year by  
The Association of Provincial Land Surveyors of Nova Scotia Incorporated*

DONALD ELDRIDGE  
*President*

H. B. ROBERTSON  
*Secretary-Treasurer*

R. E. MILLARD  
*Managing Editor*

Address all communications to P. O. Box 1541, Halifax, Nova Scotia

---

## Minutes of Tenth Annual Meeting

HELD IN THE LORD NELSON HOTEL, HALIFAX, N. S.,  
MONDAY AND TUESDAY, NOVEMBER 21 AND 22, 1960

MONDAY,, NOVEMBER 21, 1960:

The Tenth Annual Meeting opened at 10:30 a.m. with the address of welcome by President Servant.

President Servant reminded the meeting that there were many distinguished guests with us this year, and proceeded to introduce them by calling on Mr. A. C. Tuttle, Chief Topographic Engineer, Topographical Survey, Ottawa.

Mr. Tuttle thanked President Servant and the members of the Association for the opportunity to attend this Annual Meeting. He said that he was pleased to be here, but that he had heard good results about our meetings. He reminded the meeting that he was a native of Nova Scotia, hailing from Pugwash, and that he was a graduate of the Nova Scotia Technical College. He said that he brought greetings from the Department of Mines and Technical Surveys, from Mr. Boyer the Deputy Minister, and from Mr. Gamble, the Director of the Surveys and Mapping Branch, who is well known by a good many of our members. He said that he had been asked by the Council of the Canadian Institute of Surveying to express their best wishes. He again reminded the members that it was a pleasure to be here and hoped that as many as possible will get up to the Annual Meetings of the Canadian Institute of Surveying in Ottawa.

President Servant thanked Mr. Tuttle. He then introduced Mr. McKeil of the Surveys Branch, Department of Lands and Mines, Fredericton, N. B.

Mr. McKeil said that he was very pleased to be here and wished the Association a most successful meeting.

President Servant thanked Mr. McKeil and then introduced Mr. Brenton Schofield, Vice President of the Massachusetts Association of Land Surveyors and Civil Engineers.

Mr. Schofield thanked President Servant and the members for the opportunity to be here. He said that it was his first time here, but that he had tried several times to get here, and had not been able to make it until this year. He said that he brings greetings from the Massachusetts Association of Land Surveyors and Civil Engineers. He reminded the members that their Annual Meeting will be held at Northampton, Mass. in December. He said that the theme of their meeting will be education for surveyors, and that he feels sure that anyone who can attend will enjoy it.

President Servant thanked Mr. Schofield. He said that the importance of a better education for surveyors is becoming more and more common throughout the world. He then introduced Mr. H. D. G. Currie, President of the Association of Ontario Land Surveyors, Toronto, Ontario.

Mr. Currie said that it was a great deal of pleasure to be here and to represent the Association of Ontario Land Surveyors, and to extend on their behalf their best wishes for a successful Annual Meeting. He said that their Annual Meeting will be held in Windsor, in February and hoped that a representative of this Association will be in attendance, and extended an invitation to all Nova Scotia Land Surveyors who may be in the Windsor area at that time.

President Servant thanked Mr. Currie. He said that he had attended their last years' meeting in Hamilton and had enjoyed it very much, and hoped that he would have the opportunity to attend one of their meetings again.

President Servant then introduced Mr. Marcel Ste. Marie, President of the Corporation des Arpenteurs-Geometres de la Province de Quebec, from Hull, P. Q.

Mr. Ste. Marie said that he wished to thank the President and the members of this Association for the honour of attending their meeting. He said that on behalf of the Quebec Land Surveyors he wished to convey their best wishes for a successful Annual Meeting.

President Servant thanked Mr. Ste. Marie and said that he regretted that he had been unable to attend their last Annual Meeting in Quebec.

President Servant next introduced Mr. Lester C. Higbee, Vice Chairman, W. & L. E. Gurley, Troy, New York, U. S. A., and a Past President of the American Congress on Surveying and Mapping.

Mr. Higbee thanked President Servant and the members for the kind invitation to attend this Annual Meeting. He said that it was the first time that he had seen the sun shine in Halifax, and that it was really very nice. He said that Mr. Walter Dix, Secretary for the American Congress on Surveying and Mapping had asked him to represent the Congress and express greetings and best wishes for a successful meeting. He said that for the past few years the American Congress on Surveying and Mapping have been holding meetings in the mid year. These meetings are usually held in the West so that those members who cannot attend the meetings in Washington will have an opportunity to attend the mid year meeting. He said that this year the meetings were held in Dallas, Texas, as a joint meeting with the Texas Society of Land Surveyors, and that next year the meetings will be held in Los Angeles. He said that any member who wished to attend the Annual Meetings of the Congress in Washington, in March would be most welcome.

President Servant thanked Mr. Higbee and informed him that he is always welcome to our meetings, and that we are most honoured by his presence.

President Servant then introduced Mr. Willis Roberts, Director of Surveys, Department of Lands and Mines, Fredericton, N. B.

Mr. Roberts thanked President Servant and the members, and said that he was glad to be back again to attend another Annual Meeting. He said that they in New Brunswick are watching with interest the progress of this Association.

President Servant then thanked Mr. Roberts, and reminded him that we in Nova Scotia are also interested in the progress being made in New Brunswick.

President Servant then introduced Dr. Gottfried Konecny, Head of the new Survey Engineering course at the University of New Brunswick, Fredericton, N. B.

Dr. Konecny thanked the President and members, and said that it is a pleasure to be here. He said that it was his first time in Halifax. He said that he is not a maritimer, but that he is beginning to feel like one, and that at the University of New Brunswick the problems of the Nova Scotian surveyor are not unknown. He said that many students have attended the Nova Scotia Land Survey Institute, and are now very successful in the new Survey Engineering course.

President Servant thanked Dr. Konecny and assured him that he is always welcome. He then introduced Mr. G. W. LaCroix, Regional Hydrographer, Canadian Hydrographic Service, Halifax, N. S.

Mr. LaCroix thanked President Servant and the members for the invitation to attend. He said that he remembers that last year, shortly after he came to Nova

Scotia, we were most kind in inviting him to our meetings, and that he is glad to be with us again. He said that after living in the West for so long, they were worried about coming East, but have found that they like it here. He said that with the completion of the new four million dollar base on the shore of Bedford Basin, the staff of the Hydrographic Service in this area will be increased. He said that they have a small survey ship building in Halifax at the present time, and will soon have one in the Saint John area as well. He said that many of his staff are Provincial Land Surveyors, and graduates of the Nova Scotia Land Survey Institute, and that some have reached senior positions, and that others are on their way. He said that he feels this is a credit to them and to Major Church.

President Servant then thanked Mr. LaCroix. He said that it gave him great pleasure to see so many guests, and said that we will welcome any comments from these people. He then called on the Secretary to read the minutes of the last Annual Meeting.

The Secretary informed the President and the members that the minutes of the last meeting had been published in the Nova Scotian Surveyor, and asked that the minutes be adopted as printed.

It was moved by Major Church and seconded by Col. Ball, that the minutes of the last meeting be adopted as printed. Motion carried.

President Servant then asked the Secretary-Treasurer to read the Financial Report.

The Secretary-Treasurer informed the President and the members that printed copies of the Financial Report had been distributed among the members, and asked that the Financial Report be adopted as printed.

It was moved by Freeman Tupper, and seconded by Prof. Piers, that the Financial Report be adopted as printed. Motion carried.

President Servant then called for the report of the Secretary-Treasurer.

The Secretary-Treasurer said that the past year had been one where we had tried to pick up some of the loose ends. He said that the new by-laws and regulations had been prepared and were now waiting the approval of the Governor-in-Council. He said that seven meetings of the Council were held during the year. Twenty-five new members joined the Association during the past year, and nine non-resident members elected to go on the non-practising list, and two members advised us that they wished to resign from the Association. He said that financially it was not a good year, although our dues were increased from \$6.00 to \$10.00 per year. He said that 62 members still owe their dues for 1960 and approximately another 50 still owe their dues for both 1959 and 1960, and some of the latter group go back much farther than 1959, but at least for this report they have been cut off at 1959. This adds up to a considerable amount of money. He said to sum it up: 62 at \$10.00 amounts to \$620.00, 50 at \$15.00 adds up to \$750.00, which amounts to \$1,370.00. He said that he doubted if we will be able to collect all of this amount as a few of the members included have not paid their dues for several years, and probably are no longer interested in the Association, but he felt that the most of these back dues can be collected.

He said that seven meetings of the Council were held during the year.

Twenty-five new members joined the Association during the past year.

Nine non-resident members elected to go on the non-practising list.

Two members advised us that they wished to resign from the Association.

President Servant thanked the Secretary-Treasurer for his report and said that the amount owing for back dues is a considerable amount. He said that each of us should make an effort to try and collect some of this money.

President Servant said that the Newfoundland and New Brunswick meetings were held during the same week. He said that Mr. Eldridge had attended the meetings in Fredericton and that he had attempted to attend the Newfoundland

meetings, but that he had been forced to cancel the trip because of bad weather. He said that in February he had the honour of representing the Association at the Annual Meeting of the Canadian Institute of Surveying in Ottawa, and during the following week he had attended the Annual Meeting of the Ontario Land Surveyors Association, which was held in Hamilton. Due to pressure of business he was unable to attend the Annual Meeting of the Quebec Land Surveyors Association in June.

President Servant said that we should be able to finance our Association. He said that we have grown up, and now should be ready to support our responsibilities. He said that the quarterly journal "The Nova Scotian Surveyor" was non-supporting, the Board of Examiners was non-supporting. He said that he would like to hear the opinion of the members about raising the annual dues to \$15.00 per year.

Col Ball said that he would like to endorse the opinions expressed by President Servant. He said that he knew no other professional body with fees as low as ours. He reminded the members that the secretary has not been paid for two years. He said that \$15.00 is a very small amount and that he would like to support President Servant.

Major Church said that he would like to support the opinions expressed by President Servant and Col. Ball. He said that we are grown up, and it is time that we stop playing around. He said that he would like to see the fees raised to \$30.00, and those members who are living outside of the Province should only be required to pay \$5.00, but the first time that they sign a plan we should jump them. He said that one of these days we are going to have a case which will need to be settled in court. He said that we are engaged in a program of raising the standards, and this is going to take money and time.

Mr. Irwin Cameron suggested that we might ask the delegates from the other Provinces what are their dues.

Mr. Willis Roberts said that in New Brunswick the dues are \$30.00 to join and \$15.00 per year.

Mr. Brenton Schofield said that their dues in Massachusetts are now \$15.00 but that they expect them to go higher. He said that he feels that if a member is interested in his profession he will pay \$15.00 as easy as \$10.00.

Mr. Ste. Marie said that the fees in the Province of Quebec used to be \$20.00 per year, but that they have been raised to \$60.00 and expect to go higher.

Mr. Currie said that in Ontario they raised their dues last year from \$30.00 to \$45.00. He said that their Board of Examiners are self supporting, and students pay \$60.00 for writing examinations. He said that they run courses once a year. He said that they operate the Ontario Land Surveyors Association as a business, that they have a nest egg of \$40,000 or \$50,000, and that they try to run the office and business on the income from fees. He said that he can see no reason why Land Surveyors should not pay higher fees.

Mr. March said that we should be grateful to our visiting delegates. He said that they have brought out the fact that we should increase our dues.

Mr. Phinney said that the secretary's report shows that we are still waiting for many of our members to pay their 1960 dues. He asked if this was because of the fact that the dues were raised from \$6.00 to \$10.00 in the past year. He said that since many members cannot attend the Annual Meetings and are not active in surveying, there is a lack of interest to pay the increased fees. He said that he is a non practising member and joined the Association to give moral support. He said that if the fees were raised to \$30.00 that he would have to drop out, and that he feels there are others who would do the same. He said that he may not do more than one or two survey jobs in a year.

Prof. Chisholm moved that the dues be increased to \$25.00 a year, with the dues for the non-residents to remain at \$5.00 a year.

Seconded by Major Church. Motion carried.

President Servant then brought up the matter of Honorary Life Members.

It was moved by Mr. R. E. Dickie, and seconded by Mr. March that the following members be appointed to Honorary Life Membership:

- (51) John E. MacKenzie
- (101) Peter E. Boutilier
- (126) Gordon L. Crichton
- (150) Edward S. Foster
- (107) C. S. Creighton
- (30) William P. Morrison
- (52) Andrew McGillivray

The portion of the Provincial Land Surveyors Act dealing with Dominion Land Surveyors was then brought up. President Servant explained that under our Act, any Dominion Land Surveyor who wishes may become a Provincial Land Surveyor in this Province merely by making application. He said that it was his opinion that at least a legal examination should be required, and that he should also be required to have at least nine months field experience.

Mr. Tupper said that he understood that if anyone is qualified as a D. L. S. that he should be eligible to qualify as a Provincial Land Surveyor.

President Servant said that he would also recommend nine months field experience.

Major Church said that he would be inclined to agree with Mr. Tupper, that a D. L. S. should only be required to write the legal examinations, and should not be required to serve nine months in the field.

President Servant asked how they would get their experience in legal surveys in Nova Scotia without serving in the field.

Col. Ball said that a D. L. S. does not necessarily have the qualifications to practise in Nova Scotia. He said that we require that an engineer serve his time in the field, and that a D. L. S. should be required to do the same.

Major Church said that he feels that the D. L. S. is in a different category, that he has had lots of field experience where the engineering student has had very little.

Mr. Phinney said that he did not feel that we should expect a Dominion Land Surveyor to serve under a P. L. S.

Mr. Martell asked if a D. L. S. could not go before the Board, and they could judge if he is qualified.

President Servant said that he would rather see the D. L. S. in the same category as Section 15 of the Act.

Mr. Eldridge said that he would suggest a change in the Act which would put the D. L. S. in the same standing as the University Graduate.

It was moved by Prof. Chisholm and seconded by Mr. Eldridge that Section 10 (1) (b) of the Provincial Land Surveyors Act be amended to include, and has passed an examination set by the Board. Motion carried.

The meeting then adjourned for lunch.

President Servant called the meeting to order again at 2:15 p.m. He reminded the meeting that copies of the proposed by-laws had been distributed to the members, and called for a discussion period on these by-laws. He explained that the increase in dues cannot take effect until January 1, 1962. He said that this will require an amendment to the by-laws and as the proposed by-laws have not yet been passed, he did not feel that an amendment could be made in time for the 1961 dues.

Mr. Eldridge asked if this could be brought up later in the meeting, under new business.

Prof. Piers said that with regards to the election of officers for each section, he would suggest that certain changes be made. He said that at present the entire membership may vote for the members from each district. He said that he feels that it would be better if only the members from each district vote for the members in their own district. He said that he always refrains from voting unless he really knows the man.

President Servant said that this has been brought up before but apparently little action has been taken.

It was moved by Professor Piers and seconded by Mr. Robb that candidates for the various districts be voted on only by the members in their own district.

Motion defeated.

Mr. Martell said that each district submit three names to the nominating committee, out of these three, every member could vote for two out of those three.

President Servant said that this is the system agreed upon for this year.

Mr. Robb said that in the past the same names have been cropping up year after year.

President Servant said that the nominating committee have been limited to the members who have time, finances, and have the time to spare from their business.

It was moved by Mr. Martell that the number of members of the Council be increased from ten to twelve members.

Seconded by Mr. Archibald. Motion carried.

The balance of the afternoon was taken up discussing the by-laws.

The meeting adjourned at 4:30 p.m. so that the room could be made ready for the Reception, Dinner and Dance to be held that evening.

#### TUESDAY, NOVEMBER 22, 1960:

President Servant called the meeting to order at 9:45 a.m. He then introduced Major J. A. H. Church, who, he said, is well known to all and needs no introduction.

Major Church then read a paper entitled, "Appreciation of the Problems Affecting the Nova Scotian Surveyor."

President Servant thanked Major Church for his most interesting paper. He then asked the Major if he would care to chair a committee to follow up his suggestions.

Major Church said that being situated in Lawrencetown, he finds it rather awkward to get into Halifax as often as he might have to.

It was moved by Prof. Chisholm and seconded by Col. Ball, that Mr. March, Freeman Tupper, and Walter Servant, be a committee to follow up the suggestions made by Major Church in his brief. Motion carried.

Mr. Bates moved that his committee be given the power to act. He said that they are going to have to deal with the Government, the Bar Association, and the Surveying Profession.

Seconded by Prof. Piers. Motion carried.

President Servant then introduced Mr. Tuttle, Chief Topographic Engineer, Survey and Mapping Branch, Department of Mines and Technical Surveys, Ottawa.

Mr. Tuttle then presented a report on the recent meeting of the International Congress on Photogrammetry, which was held in London, England in September.

President Servant thanked Mr. Tuttle for his most interesting report.

President Servant then called on Mr. Willis Roberts for a report of the New Brunswick co-ordinate system.

Mr. Roberts then gave a report on the New Brunswick co-ordinate system, and said that they are experimenting with photogrammetric methods to establish the

co-ordinate values in built up areas, such as towns and cities. He said that this experiment is being carried out in conjunction with Mr. T. J. Blachut of the National Research Council. He said that they would be pleased to give us whatever assistance we may need if we should start a co-ordinate system in this Province.

President Servant thanked Mr. Roberts. He said that many Nova Scotian Surveyors are watching closely the progress being made in New Brunswick.

President Servant then introduced Dr. Konecny, Head of the new Survey Engineering Department, of the University of New Brunswick.

Dr. Konecny thanked President Servant, and the members. He said that he would like to give a brief account of the Survey Engineering Course now being offered at the University of New Brunswick. He said that they will be giving a complete survey course, including, Geodesy, Photogrammetry, and Map Projections. He said that they already have the use of a Balplex photogrammetric plotter, and the LGT Electronic computer, and that they will be getting more equipment.

President Servant thanked Dr. Konecny, and said that we are most interested in the new Survey Engineering Course.

The meeting adjourned for lunch at 12:30 p.m.

President Servant called the meeting to order at 2:30 p.m., and informed the members that there would be a film showing some of the latest surveying and mapping methods, which has been donated by Wild of Canada. He then asked the members of the Council if they would meet him in Room 446 while the film was being shown.

Following the showing of the film President Servant thanked Mr. D. H. Peden, President, of Wild of Canada for the interesting film.

President Servant said that because of the limited time left to go over the proposed Regulations that we could not take them up clause by clause as he had intended, and asked the members if they have anything special to take up regarding these Regulations.

Prof. Chisholm made a motion that the proposed Regulations be approved as printed. Seconded by Col. Ball. Motion carried.

President Servant then informed the meeting that it was now time for the installation of officers for the year 1961. He said that because of the amount of business remaining, he said that we would dispense with the formality, and asked the new President, Mr. Eldridge to take over the meeting.

President Eldridge thanked the members for the honour they have bestowed upon him by making him their President. He then asked the members to consider the dates for the next Annual Meeting, and called for suggestions from the floor.

Mr. Bates made a motion that the dates of the next Annual Meeting be left to the incoming Council. Seconded by Mr. March. Motion carried.

President Eldridge then informed the meeting that Mr. Robb would like the opportunity to read a brief that he has prepared for presentation to this meeting. Mr. Robb's Brief:

#### PLANNING BOARD

I need not remind my listeners of the importance to Land Surveyors here assembled of the County Planning Board for Halifax County and the regulations of this Board.

At present there is before the Minister of Municipal Affairs for approval a by-law to change gravely the regulations of this Board. In my opinion, these regulations, if approved unchanged, will have the following detrimental results:

1. Unnecessary extra work will be required by the surveyor and thus unnecessary expense will be put upon the land owning public, and (2.) Certain of the regulations are ambiguous and thus difficult to conform with.



I feel that this association has made no, or very little, study of these regulations which so deeply affect our interests. The Minister would be justified in assuming, if the Surveyors association has made no recommendations on the proposed by-laws, that it must be satisfied with them. If the association has made no study of these regulations and no recommendations flowing from the study—there is still time to do so. It should be done at once.

### ROYAL COMMISSION

Recently the Provincial Government approved a Royal Commission to study, among other things, the operation of the County Planning Board and the surveying work done by the Capital School committee. The truth or untruth of the matter alleged before the commission were grave and general interest to the members of the association.

This commission met, with adjournments, over a period of several months. This association had a copy of my brief some ten days or more before the commission met. It did not even acknowledge it. Three surveyors, all practising in this area, appeared and adduced evidence before this commission. This association made no step either to support the complaining surveyors or to make an independent move to participate in this inquiry in any manner whatsoever. I make no comment on the evidence as adduced or on the proceedings taken. I merely ask you members to take time to study the evidence and then ask yourselves the question: "Why did this association fail to participate in this inquiry which was so important to all surveyors practising in the Halifax area?"

Each Land Surveyor appearing, appeared on his own behalf, and incidently, on behalf of all honest and competent surveyors. He did so at a great personal expense to himself, both through loss of prime field time and through expense for legal counsel. This association chose not to participate. When was this decision taken; why was it taken?

### COUNCIL OF THE ASSOCIATION

I have made honest efforts through legitimate mediums such as public meeting, the press, and this association

1. To obtain an official investigation of what I felt to be genuinely wrong, and
2. To insure the proper representation to be made before that investigation.

On the part of the Council of this association, I received only a negative approach: The Council sent me a letter which, instead of offering me support, called on me to explain my conduct within a certain fixed time, namely ten days. From this letter I took the only inference possible from its context: I must answer to the Council for my actions as a citizen in criticizing what I honestly felt to be public grievances. So sure was I that the Council wished to discipline me for exercising freedom of speech that I felt it necessary to retain legal council. This action of the Council of the association is indicative of the support and interest it took in these matters. We received no support but only obstacles. We had the right to expect support or interest of a positive sort. I received instead an implied threat of dismissal from this association. The Council was ready to discipline me: They were not even interested in investigating my serious charges against the County administration.

### GENERAL RECOMMENDATIONS

This association might request the Planning Board to send notices of technical error to the Surveyors concerned rather than to the landowner. Members of all professions help to maintain high standards of public service and public esteem. All professional men make technical errors, or what might appear to be, to other experts, technical errors. I feel that the surveyor concerned ought to be given an opportunity for an exchange of Professional views before the error, if it truly exists, is brought to the attention of the public. We must remember that what is or what is not an error is often a matter for true professional difference. If there be an er-

ror, the surveyor concerned would be most happy to correct it quickly without embarrassment before his client. If this course of action were followed, it would:

1. Prevent the public from being caught in a professional controversy—the net result of which must only be a lowering in the public esteem of that profession, and,

2. Enable the profession to maintain a high standard of public esteem without public embarrassment to the surveyor concerned. I feel that the association could legitimately request the Planning office to co-operate with us in this respect.

I feel that the voting system to elect the Council of this association is open to the following abuses:

1. The nominating committee solicits votes for specific individuals and
2. Some persons ignorant of the problems of this Association are asked to vote for these individuals.

The vote taker at this meeting could tell us what percentage of the ballots taken come from voters absent from the Province. It may or may not be a significant number, yet I feel that this system allows the Council, if it should wish, to perpetuate itself in office.

I feel that this Association should inquire into its voting procedures with a view to the desirability of the following objectives:

1. That we allow out of the Province members to vote only for the offices of President, Vice-President, and Secretary Treasurer, and

2. That the nomination committee send out no names at all, merely a ballot or, in the alternative, that it send out three alternative names for each position and in any event that these only be sent to out of Province members.

3. That nominating committees be set up for the following areas:

1. Halifax City
2. Halifax County
3. Western Nova Scotia
4. Eastern Nova Scotia
5. Cape Breton, and

that the nominations of these committees be then voted on within the area and with the successful candidate from the area being the member of the executive from that area.

4. The meeting here assembled should then elect a delegate or delegates at large at each annual meeting.

I feel that the adoption of these recommendations or modifications thereof would cause land surveyors to take a greater interest and voice in the association and would remove any suspicions that might exist that this organization is controlled by a small clique bent on forwarding their own interest rather than the interests of all members.

Respectfully submitted,

K. W. Robb, P. L. S.

Following Mr. Robb's brief, President Eldridge asked for a discussion from the floor.

Col. Ball said that it appears that Mr. Robb has certain complaints and charges, but that this is neither the time or place for this to be brought up. The proper procedure would be to bring this up before the Council.

Mr. Lemmon said that in the matter of the Planning Board writing client and discussing plans with them, he feels that the Planning Board should deal directly with the surveyor.

Major Church said that he does not feel that the Planning Board has a right to deal with the client. He said that he feels that the Council should take this up

with the Planning Board. He said that he does not know if the other charges made by Mr. Robb are going on, but if so something should be done about it.

Mr. Ken Reardon said that with regards to the County sending out letters to clients, as well as to the surveyor, that this came about through the Royal Commission, and that clients had come to the County complaining about not receiving plans.

Mr. Lemmon said that the letter he had received were letters addressed to the client with a copy to the surveyor.

Mr. Servant said that until two years ago there were complaints that the clients had not been receiving plans. He said that in some cases the Planning Board had sent out plans to the surveyor who was surveying part time and may not always be home, and that there have been delays, and for that reason the Planning Board began to send plans to the client.

Prof. Piers said that with regards to nominating the members of the Council, that this has been a problem since the beginning of the Association, and it has not been easy to find members who were willing to accept the responsibility of serving on the Council. He said that he does not know of any member who has tried to keep himself on the Council. He said that they only once had the President serve for more than one year.

President Eldridge asked for other comments from the floor.

Major Church said that he feels that we are making mountains out of mole hills. He said that if anyone feels that the Association is being run by cliques, then it is up to him to form his own clique and clear them out.

Mr. Clark said that he does not feel that the Planning Board should set the standards for Land Surveyors.

Mr. Bates said that he had served as a consultant when the Planning Board was first set up. He said that he had drawn up the first sub-division regulations at that time, and that he had based them on his own standards. He said that he sees nothing in the proposed regulations that would give this Association any cause for concern.

President Eldridge said that from comments from the floor he feels that a committee of some sort should be set up to look into this matter, which he feels is a local issue. He said that perhaps it would be in order for the Halifax Metropolitan Committee to take up this matter.

Mr. Reardon said that he would like to see a committee formed by some of the older and most experienced surveyors. He said that whoever takes on this committee should be unbiased.

Col. Ball said that if anyone has a complaint, all that is necessary is to bring the matter before the Council, with evidence to back up their charges.

Mr. Servant said that he has not seen the new regulations. He said that he had met with Mr. Lloyd, the Dartmouth Planning Engineer, and had gone over their proposed regulations. He said that Mr. Lloyd was very co-operative, and was very pleased to hear any suggestions. He said that he feels the client has the right to ask that the plans be drawn up as he desires.

Mr. Clark said that it is a matter of if we eat, or we don't eat. Standards should be set and it is up to us to follow.

Mr. Servant said that he feels that if our Council works with the Planning Boards, that in time the problems will be ironed out.

Mr. Longstaff asked if a local sub-committee could be formed to deal with local problems.

Mr. Servant said that a committee of this sort had been formed at a recent Council Meeting.

Mr. Longstaff said that he would like to see this committee meet on the first Monday of each month.

President Eldridge asked if there was any further business.

Prof. Chisholm made a motion that a special levy of \$7.50 be assessed against every member for this current year only, to assist in raising funds for the operation of the Association.

Seconded by Col. Ball. Motion defeated.

Mr. Dickie said that if we collect our outstanding dues, that this should carry us through the coming year.

Mr. Reardon said that the levy was to provide funds for carrying on the affairs of the Association. He asked how the Association is to carry on without these funds.

President Eldridge said that it has been pointed out that the back bone of any Association is the Secretary, and that it is customary of most Associations to provide their secretary with an honorarium for his services. He said that our Secretary has not been paid for several years, because there was not enough money in the funds.

Mr. Servant said that our legal adviser has had to wait before we could pay him.

Mr. Wendt said that he wanted to see the Secretary paid for his services, and suggested that we do not send delegates to other provincial meetings.

It was the feeling of most of those present that much is to be gained by sending delegates to other Provinces, and to the Annual Meetings of the Canadian Institute of Surveying in Ottawa.

It was moved by Mr. Wendt, and seconded by Mr. Robb, that we vote a special levy of \$5.00 to be assessed to each member for the year 1961, to pay the honorarium to the Secretary-Treasurer, and to pay our legal services. Motion carried.

Mr. Dickie said that he had voted against this special levy because of the number of members who are delinquent in their dues.

President Eldridge asked if there was any new business.

Mr. Currie said that this had been his first opportunity to attend a meeting of this Association. He said that although he is here as President of the Ontario Association, he is also a member in good standing of this Association.

Mr. Ste. Marie said that on behalf of his wife and himself he would like to thank the President and members for the opportunity to attend this meeting.

Mr. Millard moved a vote of thanks to the retiring President, and Council, and all who arranged the programme for this meeting.

Seconded by Prof. Piers. Motion carried.

Mr. Servant said that speaking on behalf of the Council and himself, it had been a pleasure to serve during the past year. He assured the members that the Council and committees are working earnestly.

It was moved by Major Church and seconded by Prof. Chisholm that the Tenth Annual Meeting adjourn. Motion carried.

The Tenth Annual Meeting adjourned at 4:15 p.m.

H. B. Robertson, P. L. S.  
Secretary-Treasurer

#### EXHIBITORS REGISTERED

S. E. Daykin, Atlantic Air Survey Company Limited, Dartmouth; D. H. Refoy, Atlantic Air Survey Company Limited, Dartmouth; S. S. Carver, Hughes Owens Company Limited, Halifax; R. Kemp, Hughes Owens Company Limited, Halifax; G. Mitchell, Hughes Owens Company Limited, Halifax; C. Strimper, Hughes Owens Company Limited, Halifax; D. H. Peden, President, Wild of Canada Limited, Ottawa, Ontario; Murray Lyon, Norman Wade Company Limited, Saint John, N. B.; Murdoch Hattie, Eastward Industries Limited, Halifax; C. E. (Ted) Tuffey, Keuffel & Esser of Canada Limited, Montreal, P. Q.; R. K. Rosebrugh, Manager, Tellurometer Canada Limited, Ottawa, Ontario; M. J. Mogg, Tellurometer Canada Limited, Ottawa, Ontario.

# Members Registered and Present

## AT ONE OR MORE SESSIONS:

Joseph F. Archibald, Dartmouth; Spencer Ball, Halifax; A. T. Barry, Dartmouth; George T. Bates, Halifax; Ernest F. Boehk, Halifax; R. H. Burgess, Truro; Irwin Cameron, Liverpool; H. A. Cameron, Bridgeville, Pictou Co.; W. E. Chambers, New Glasg ow; A. F. Chisholm, Halifax; J. Ronald Chisholm, Antigonish; J. A. H. Church, Lawrencetown; Orrin A. Clark, Spryfield; Murray F. Cossitt, Sydney; G. W. I. Creighton, Halifax; David W. Crooker, Caledonia; R. E. Dickie, Liverpool; A. V. Digout, Mulgrave; R. J. Donovan, Halifax; Roy A. Dunbrack, Halifax; Stewart S. Dunbrack, Halifax; D. L. Eldridge, Truro; L. R. Feetham, Halifax; Robert E. Gough, Halifax; V. P. Harrison, Halifax; Errol B. Hebb, Bridgewater; Robert Hunt, Brooklyn; Melbourne Lewis Johnson, Truro; Graeme H. King, Oxford Junction; W. Stewart Lawrence, Windsor; C. C. Lemmon, Halifax; Frank Longstaff, Rockingham; J. E. R. March, Halifax; Herbert Martell, Sydney; R. E. Millard, Liverpool; Robert A. Miller, Middleton; Philip M. Milo, Granville Ferry; John A. McElmon, Halifax; F. W. McKeown, Dartmouth; Floyd R. McNeil, North Range, Digby County; W. H. Orton, Dartmouth; Gerald F. Phinney, Bridgewater; E. O. Temple Piers, Halifax; K. V. Reardon, Halifax; E. P. Rice, Halifax; E. B. Ritchie, Liverpool; K. W. Robb, Cole Harbour; H. B. Robertson, Halifax; John Russell, Digby; Robert F. Sarty, Halifax; R. M. Schofield, Dartmouth; Walter E. Servant, Halifax; Lewis O. Smith, South Brookfield; Sterling G. Snow, Sherbrooke; W. M. Spence, Rockingham; George W. Swansburg, Shelburne; Freeman Tupper, Milton; Melvyn H. Wadden, Stellarton; Donald E. Wagstaff, Brooklyn; Brian D. Wolfe, Annapolis Royal; Frank Yates, Baddeck.

## GUESTS REGISTERED

H. D. G. Currie, O. L. S., President, Association of Ontario Land Surveyors, Toronto, Ontario; Brenton V. Schofield, Vice President, Massachusetts Association of Land Surveyors and Civil Engineers, Framingham, Mass.; Lester C. Higbee, Vice Chairman, W. & L. E. Gurley, Troy, New York, U. S. A., Past President, American Congress on Surveying and Mapping; W. F. Roberts, Director of Surveys, Department of Lands and Mines, Fredericton; Dr. Gottfried Konecny, Head, Survey Engineering Department, University of New Brunswick; A. C. Tuttle, Chief Topographical Engineer, Surveys and Mapping Branch, Department of Mines and Technical Surveys, Ottawa; Marcel Ste. Marie, Q. L. S., President, Corporation des Arpenteurs-Geometres, de la Province de Quebec, Hull, P. Q.; S. E. Daykin, Vice Chairman, Halifax Branch, Canadian Institute of Surveying, Dartmouth; C. B. McKeil, N. B. L. S., Surveys Branch, Department of Lands and Mines, Fredericton.

John Donaldson, Chairman, Nova Scotia Section, Canadian Institute of Forestry, Sheet Harbour; G. W. LaCroix, Regional Hydrographer, Canadian Hydrographic Service, Halifax; Harvey R. Blanford, Secretary-Treasurer, Halifax Branch, Canadian Institute of Surveying; William Probert, Canadian Hydrographic Service, Halifax; Maurice Lloyd, Planning Engineer, Dartmouth; L. P. Murdock, Canadian Hydrographic Service, Halifax; H. S. Coblentz, Halifax Housing Study, Halifax; J. R. Cameron, National Gypsum (Canada) Limited, Dartmouth; Hon. E. D. Haliburton, Minister, Department of Lands and Forests, Halifax; Henry Muggah, Q.C., Department of Attorney General, Halifax; George MacDonald, Vocational Education Division, Department of Education, Halifax; G. G. Meyerhoff, Head, Civil Engineering Department, Nova Scotia Technical College, Halifax.

# FINANCIAL REPORT

FOR PERIOD OCTOBER 31, 1959 TO OCTOBER 31, 1960

Bank Balance October 31, 1959	\$ 142.55
Receipts	2,227.80
Expenditures	\$ 2,236.11
Bank Balance October 31, 1960	134.24
	<hr/>
	\$ 2,370.35    \$ 2,370.35

## DETAIL OF EXPENDITURES

Printing Notices for 9th Annual Meeting	\$ 32.55
Ladies Entertainment 9th Annual Meeting	67.75
Printing Programs for 9th Annual Meeting	18.29
Printing By-Laws and Financial Reports	15.71
Entertainment 9th Annual Meeting	125.00
Examiners expenses re: December 1959 P. L. S. Examinations	40.00
Hotel Expenses 9th Annual Meeting, Reception and Dinner	493.26
Six copies, Chapter 58, Acts of 1954, The Costs and Fees Act	3.00
Presidents Expenses re: Attempt to attend Newfoundland Annual Meeting	5.72
New Cover Plate for the "Nova Scotian Surveyor"	10.67
Stamp Press for Board of Examiners	12.58
Expenses re: Meetings of the Council	31.50
Expenses re: Delegate to Colloquium on Survey Education held in Ottawa, October 29th, and 30th, 1959	117.55
President's Expenses re: Attending the Conventions of the Canadian Institute of Surveying, and Ontario Land Surveyors in Ottawa and Hamilton	285.20
P. O. Box Rental	6.00
Printing Expenses re: "The Nova Scotian Surveyor"	451.02
W. J. MacInnes: Balance of Fee for putting P. L. S. through the Legislature	200.00
Typing and Stencil Service	21.45
Editors Expenses re: December 1959 "Nova Scotian Surveyor"	1.12
W. J. MacInnes re: Attendance at Council Meeting, Amending By-Laws	75.00
Honorarium to Secretary-Treasurer for year 1958	150.00
Postage	45.00
Stationery	16.05
	<hr/>
	\$ 2,224.42

## BANK CHARGES

Exchange deducted from cheques (not deducted on deposit)	8.69
Service Charge	3.00
	<hr/>
	\$ 2,236.11

Respectfully submitted,

H. B. Robertson, P. L. S.,  
Secretary-Treasurer.

# DISCUSSION GROUPS

Presented at the 54th annual meeting of the Canadian Institute of Surveying, Ottawa, February 10, 1961; as reported in *The Canadian Surveyor*

## LAND SURVEYS

The Land Surveyors' discussion group was presided over by Mr. G. C. Hamilton, Edmonton, Provincial Councillor for Alberta, and there were about 60 surveyors present.

The theme of the discussion was plane co-ordinates and their application to land surveys. The presiding chairman informed the group that the chairman of the Land Surveyors Committee when organizing the discussion, had invited several members to be present and take part in the debates. Mr. A. Phillips Bill, of Deerfield, Mass., chairman of the Property Surveys Division of the American Congress on Surveying and Mapping, was unfortunately unable to attend, but he had written a letter in which he made the following points in relation to the theme.

1. The state of Massachusetts had had an active co-ordinate system since the early 1930's, a system that had been initiated by the U. S. Coast and Geodetic Survey and extended and protected by the Massachusetts Department of Public Works. Two thirds of the state were adequately covered by second-order control stations, the rest sparsely. Many surveyors had come to rely automatically on the system and both they and the public were better served.

2. For the system to be completely effective the control problem itself should rest entirely under the supervision of one government authority, quantities and identification on the control should be readily available at several points in the area, and it should be compulsory, by law, to tie all surveys properly to the system.

3. For the system to be practical for the private surveyor, a control pair, or at least one of an intervisible pair, should be within 1200 feet of his centre of operations.

4. The cost of establishing and maintaining a proper system is substantial and continuing. The legislative branch of the government must be educated as to the eventual public interest of the system, and this can be accomplished only by a program of public information by the surveying profession, both private and government. Large industrial concerns, public utilities, etc. will benefit most immediately and directly from a control system and should be of valuable assistance in public relations.

Several speakers, among whom were some who had had experience with co-ordinate systems in other countries, felt that a uniform system for the whole of Canada was desirable. It was pointed out that Germany, for example, had started by using different local systems in townships and cities but had found this unsatisfactory and had changed to a uniform system, in spite of the cost involved. Other speakers, however, thought that each province might well use the system that best suited its particular conditions and that the problem of changing from one system to another in areas where surveys overlapped two or more systems would not be great, now that electronic computers are available for such work.

Some surveyors made reference to the possibility of using co-ordinate references in property descriptions. Most were of the opinion that present methods of describing property were satisfactory but that the description should be tied to co-ordinate control. The surveyor's desire for co-ordinate control stemmed from the disappearance of the original markers, which was not the fault of the surveyor. With co-ordinate control the position of any point whose co-ordinates were known could be re-established without ambiguity. Attempts to change the existing methods of describing land would meet with resistance from the legal fraternity, but neverthe-

less the surveyor should build for the future and try to tie land descriptions to the co-ordinate system.

One speaker pointed out that in some places, for example London, Ontario, co-ordinate systems had been set up but had not been used because of lack of legislation, and the group was warned to expect failure unless adequate compulsory legislation was set up. A delegate from New Brunswick assured those present that the necessary legislation was being framed in that province and that properties had already been described and registered in accordance with their new co-ordinate system.

Western delegates felt that there was not the same urgency in the western provinces as in the older settled areas of the East. The D. L. S. system was well designed and carried out and provided control points at fairly frequent intervals, although their preservation was not being adequately provided for. Speakers from eastern provinces agreed that adequate control had never been established in their areas. It was also suggested that the need for proper control, tied to a co-ordinate system, was most urgent in suburban areas that were about to be developed.

While the meeting seemed to be unanimous in the opinion that a co-ordinate system was desirable, some expressed concern over the cost. The city of Montreal had made an attempt to introduce a co-ordinate system about 20 years ago but had abandoned it because of the cost. However, the Montreal Branch of the Canadian Institute of Surveying had now launched a program to promote re-activation of the old system. It was suggested that the cost would have to be borne by the people who would benefit from it, by means of a tax on the surveyor's tariff. The public would have to pay and the main job ahead was to convince the public that a co-ordinate system would be worth the cost to them.

### PHOTOGRAMMETRY

The discussion was chaired by Mr. T. J. Blachut, Chairman of the Photogrammetry Committee. There were about 30 persons present, among whom were prominent photogrammetrists and geodesists from the United States.

The chairman reminded the participants that the discussion had been planned to make up for the lack of time at the end of papers during the annual convention for any extensive exchange of ideas. In order to keep the discussion as informal as possible, the names of speakers would not be mentioned and direct quotations would not be used in the discussion minutes.

Opinions were solicited regarding the photogrammetric display to be sent to London. The prepared display met with unanimous approval. Some minor changes will be made by the Exhibition Committee.

As stated in the circular, the topic for discussion was "How can photogrammetry aid in introducing a co-ordinate system in surveying?" The chairman suggested that photogrammetry can do this in two ways—by establishing the ground control to be used as a reference in detail field surveys, and by producing complete large-scale maps based on a co-ordinate system.

In the Province of New Brunswick 40 per cent of surveying costs is being used up in establishing control points and the Province is most interested in the possibility of replacing field survey procedures by faster and cheaper photogrammetric methods. They are even considering a photogrammetric test project and are willing to pay the bill for the establishment of a small test area.

In the discussion that followed it was stressed that if photographs are taken from proper altitudes, the desired accuracy can always be obtained. It all resolves into a question of economics, which hinges on the desired accuracy and local conditions.

By comparing photogrammetric accuracy with the accuracy of the usual field survey we should know what the accuracy of field survey methods can be under various circumstances. Was the field survey accuracy reliably tested? Environment-



al conditions such as summer heat, physical strain, black flies, etc., greatly influence the accuracy of ground surveys. As a result, the claimed accuracy is seldom achieved in actual field operations and varies from case to case. Photogrammetry is not affected by these conditions and its accuracy can be readily predicted.

In reply to a specific question—what is the photogrammetric accuracy in point determination from 1:8000 to 1:10,000 photographs?—the statement was made that an accuracy of 3 inches to 4 inches as the mean square error of x- and y-co-ordinates is obtainable. This accuracy is very satisfactory in most legal surveys and control survey projects.

One should, however, remember that the economic conditions must always be taken into account. It would appear also that the accuracy specified above is of a rather academic nature, since the customer seldom cares about an accuracy better than one foot.

When control points are being established by photogrammetric means the accuracy of the basic ground control is of fundamental importance. Often one has not the necessary confidence in it. What is the use of employing very precise and expensive methods if the basic control is off?

It is useless to moot over whether photogrammetry can be used generally for this or that. Each case must be discussed individually and the advantage of photogrammetric methods can be assessed only if other possible methods for solving the actual project can also be studied. Again, it is a matter of what can be done best with the least money for a designated area.

The Brooks Range in Alaska was mapped by photogrammetric means. Its stated accuracy is unchallenged since no ground survey can afford to go in to test the results. There photogrammetry was used to extend control over 40 miles.

In order to establish photogrammetric accuracy for photographic scales of 1:10,000 and larger, very precise test areas are indispensable. For instance, in Switzerland and Austria, where glass plate cameras are used, an accuracy of the order of 5 to 10 cm has been reported. Establishing such an order of accuracy requires extremely accurate ground control and well signalized points. It appears that there are not suitable test areas in North America for this kind of work.

This very high accuracy is seldom asked for in this country. Private companies strive only for the accuracy required by their clients who are in the main satisfied with an accuracy of plus or minus 1 foot, expressed as mean square errors in x- and y-co-ordinates.

Surveying consists of measuring unknown quantities. Since ground methods preceded photogrammetry, the conventional methods are often preferred and one of our tasks is to get rid of this prejudiced outlook.

In the United States the rectangular system has been recognized as valid in property surveys in more than 20 states. Surveys must tie into the geodetic net with an accuracy of 1 part in 10,000. No state law specifies the use of photogrammetry, but no law bans its use either. Analytical photogrammetry may find a wide application here.

It has been stressed that even some international boundaries were defined by the use of photogrammetric means. As an example the Honduras-Salvador boundary was cited.

In British Columbia a requirement is set down that certain lines be run with chain and transit. New regulations are being written to provide openings for new techniques. The criterion here is that the tool is not important, but the results are.

New Brunswick is starting a completely new survey system that will provide accurate ground control in suitable locations. A rectangular co-ordinate system will be used throughout the Province and a new survey act will be passed. No doubt there will be ample scope for various surveying methods, including photogrammetry. The outcome of the planned experimental work will be of utmost interest to all who are concerned with the modernization of surveys.

In conclusion, it was generally agreed that the dissemination of legal and technical information on the setting up of a co-ordinate system in surveying would be welcomed.

### AIR PHOTO INTERPRETATION

This group, under the chairmanship of Mr. J. M. Robinson, Forestry Branch, Department of Northern Affairs and National Resources, was attended by about twenty-four members. The discussion centred around the outstanding development in the field during the year 1959—the work of Professor K. B. Jackson, of the University of Toronto, who had arranged rigidly controlled tests for checking resolution of air photographs and its effect on air photographic interpretation. This work had been reported in the October, 1959, issue of *The Canadian Surveyor*, under the title "Factors affecting the interpretability of air photos," and Professor Jackson himself was present to answer questions.

Reviewing Professor Jackson's work, speakers brought out the fact that apparently his suggested method of achieving better resolution was to slightly over-expose the film, develop a low gamma and print the photograph either by unsharp masking, Logetronics or Cintelle methods. This results in a rather dark-looking print that, on close study, has very good resolution and a fair range of contrast between objects of different brightness.

Group members engaged in mapping were very happy about the resultant prints, as were others whose work called for detailed study of small area. Foresters as a whole considered that the need for detailed study prevented quick appraisal of the forest potential of an area and that the differentiation of somewhat similar detail could only be achieved by a major effort. The group as a whole complimented Professor Jackson on his excellent work.

### CARTOGRAPHY

The Cartography discussion group took the form of a symposium of which five members of the staff of the Map Compilation and Reproduction Section of the Surveys and Mapping Branch, Department of Mines and Technical Surveys, and a guest speaker from industry gave facts and views on typography in mapping.

Mr. E. D. Baldock, Chief Cartographer of the Surveys and Mapping Branch, gave an illustrated paper entitled "Some historical considerations of map type." He stressed the fact that a map is actually an instrument of communication and went on to discuss the development of type and the evolving use of typography in mapping. He emphasized the perennial task of the trained cartographer to display type matter in such a way that the topographical information on the map is not obscured, and he pointed out that the slow and painstaking art of hand-lettering had almost ceased to exist, "placing the cartographer at the mercy of the commercial type designer."

Mr. A. Payne, a technical officer on the staff of the Map Compilation and Reproduction Division, speaking on "Modern type faces and their selection", showed graphically the cartographic approach to legible typography in modern map-making and demonstrated the suitability or otherwise of the various type faces now used in the production of maps. He also pointed out the "legibility value" of the recognized type faces according to style and size.

The guest speaker, Mr. Walter Adamson, President of Mono Lino Typesetting Company, Limited, Toronto, looking at maps from a non-cartographic approach, presented the professional typographer's viewpoint. He declared that few would dispute the need for distinct typography of character and weight in such a specialized medium as mapping. He was sure that professional typographers could understand the unique problems besetting the map maker and would be prepared to redesign the few acceptable type characters that might be encountered in order to facilitate the greater use of standard type faces by the exacting cartographer. Mr. Adamson touched on some of the struggle to produce—on a commercial basis—

photo lettering on transparencies thin enough for the modern mapping techniques, but felt that this still lay in the future. "Cold type" could now give the cartographer the basic requirements, but continued co-operation in the future, as in the past, would be necessary to resolve the typographical problems inherent in the fine printing of today's maps. The commercial typographer is prepared to do his part.

Mr. Howard Bagguley, speaking on "Methods of obtaining type prior to machine type," outlined the evolving pattern of hand-lettering and its influence in the use of certain type faces today. He described attempts, which met with some success, to apply a photo lettering method to meet the cartographer's specific needs, produced by Major (now Major-General) E. M. Burns some 25 years ago! He gave an interesting comparison of man hours and overall costs.

Mr. L. Baker spoke on "Materials on which type is produced for mapping. With the help of a well planned exhibit he explained the particular problems of lithographic reproduction of typography by use of paper, acetate and film bases, each meeting a definite need in the involved techniques of producing modern colourful and legible maps.

Mr. A. Payne, a technical officer on the staff of the Map Compilation and Reproduction Division, speaking on "Modern type faces and their selection," showed graphically the cartographic approach to legible typography in modern map-making and demonstrated the suitability or otherwise of the various type faces now used in the production of maps. He also pointed out the "legibility value" of the recognized type faces according to style and size.

Taking as his subject "Adhesives used for affixing type," Mr. J. Shiles touched on some of the important inherent problems of adhesives in the preparation of manuscripts for camera, the speed of drying, flexibility of use, risk of discolouring, and permanence under normal handling and storage conditions.

"Positioning of map nomenclature" was the subject of the last paper, by Mr. D. Long. This paper dwelt on the importance of properly placed typography on the map—the need not only for accuracy and clarity but also for a cartographic sense in finding the best and most pleasing presentation of mapping information. Emphasis had to be felt all along the production line in modern map-making, to assure the finest graphic description of the ground covered, but a map could not do this until it had met the most discriminate and determined application of accurate, clean, and easily read type matter.

## COLLOQUIUM NEWS

From The Firty-Third Annual Meeting Canadian Institute of Surveying  
(Continued from March Issue Canadian Surveyor)

On the afternoon of February 11th a period was devoted to a review of the Colloquium on Survey Education that was held in Ottawa on October 29th and 30th, 1959. Reports presented by Mr. S. G. Gamble and Mr. A. C. Hamilton and a letter from Prof. S. H. deJong were published in the March issue of The Canadian Surveyor (p. 118). Following these reports there was a discussion from the floor. Of special interest are the comments of two eminent Institute past-presidents, Col. C. G. Lindsay and Col. G. S. Andrews, who had been unable to attend the Colloquium in October.

Col. Lindsay pointed out that the Province of Quebec not only has a full time degree course in surveying under Dr. Rousseau at Laval but there are courses being given at L'Ecole Polytechnique by Prof. Lauzon and at McGill University by Prof. Arcand. Referring to his own education at McGill he recalled that on graduation their class was told "We have given you a degree in engineering, but all we have done is to show you how to become an engineer." He emphasized that it was then, and still is, necessary to obtain experience and a solid grounding in the legal problems involved in the establishment of boundary lines. He went on to say: "This is

best done under the apprenticeship system. There are no books written on this subject apart from the bald statements of the laws of real property and the resultant juris-prudence. One has to develop a kind of sixth sense, a keen judgment, a plain common-sense or horse-sense, to solve the problems that are presented in boundary disputes, especially in heavily settled areas. Deeds to property may describe parcels of land with varying degrees of accuracy and successive transfers may take place with the same description repeated throughout, but no owner of a piece of property can be sure of his occupancy until the description in the deed has been compared to the occupancy on the ground. Therefore the surveyor is the link between the written word and the boundary post.

"It must be remembered that surveying is the measurement of land, the word land being used in its broadest sense . . . When we surveyors of today lay out a property boundary we are only retracing the work of another surveyor from an older generation, and he in turn was but repeating or making additions to the work of a predecessor, and so on back to the beginning, to the time of the first discovery. Therefore all field work and plans having to do with the ownership of land, the titles thereto, its identification, the boundaries and limits thereof, belong to the surveyor by inheritance. In our Province of Quebec this prerogative is written into our statutes in the Surveys Act. If we do not wish to be relegated to the role of an artisan or unprofessional worker it is up to us to struggle to maintain this heritage and to maintain or improve our standard of education to this end."

Col. G. S. Andrews noted that in British Columbia land surveying circles during the past decade he had noticed a definite reorientation of thinking on survey education from an attitude favouring exclusively the apprentice system to one of sympathetic interest in the possibilities of a University course in Surveying, supplemented by a suitable period of practical experience, such as is now generally required by the provincial associations of Professional Engineers. He reported that this change in viewpoint had been formally expressed in a resolution at the last annual meeting of the B. C. L. S. Corporation.

Major J. A. H. Church, the veteran advocate of higher standards for surveyors, expressed the opinion that the Colloquium had concentrated excessively on what he termed the upper echelons of the surveying profession to the neglect of the rank and file of Provincial Land Surveyors. He also expressed concern, shared by many educators over the high failure rate of first-year university students and suggested that matriculation standards across Canada should be raised.

Mr. J. E. R. March endorsed the comments of Major Church and went on to stress the importance to the surveyor of the laws relating to surveys and suggested that from an educator's standpoint it might be beneficial to have a committee of the Institute study the various acts and outline a core curriculum in survey law.

As there were many others who would have spoken at this session had time permitted another period was devoted to this subject immediately after the formal closing of the convention on February 13th.

Mr. Roberts and Dr. Konecny reviewed progress in plans to establish a degree course in surveying at the University of New Brunswick. Mr. Roberts explained that the initiative had come from within the university with of course, support from the N. B. Land Surveyors.

It was pointed out that now that some action is imminent at a University the Institute is honor-bound to lend all possible support to the project. Since U. N. B. is planning to accept students from two of its own faculties—forestry and engineering—for specialization in the two final years it is reasonable to expect that they could accept students from the other universities. Employment of students, and of graduates, was mentioned and there was assurance that this would present no serious problem for the foreseeable future. Recognition of survey graduates by provincial associations was discussed briefly and it was pointed out that the associations could hardly be expected to accredit non-existent graduates but that when graduates do appear there will certainly be strong pressure for recognition on their behalf.

The New Model MRA2

# TELLUROMETER

“Micro-Distancer”

The New MRA2 Micro-Distancer incorporates all the improvements and refinements which over the past two years have been recommended by satisfied users all over the world.

Features include —

- \* Interchangeability — Readings may be taken from either end of a line.
- \* Also new headset; reduced weight, illuminated operating panel, operating from —40 F. to + 120 F; etc.

FOR FULL DETAILS CONTACT

**TELLUROMETER CANADA LTD.**

1396 MERIVALE ROAD

OTTAWA 3, ONTARIO

**Kelvin Hughes (Can)  
LIMITED**

Halifax

Brunting Saint John

Reproduction Machines  
Kern Surveying Instruments  
Engineering Supplies

Surveying and Drafting  
Instruments  
White & Blueprinting Machines

**Instruments (1951)**

LIMITED

4646 Decarie Blvd., Montreal, P.Q.  
Montreal — Ottawa — Toronto  
— Regina

**BETTER MEASURE WITH**

**LUFKIN**

**TAPES-RULES-PRECISION TOOLS**

Send For Free Catalog

THE LUFKIN RULE CO. OF CANADA, LTD.  
BARRIE, ONT.

For Particulars write or call:

**Norman Wade**

COMPANY LIMITED

Vancouver — Toronto — Montreal  
Quebec City — Saint John  
Halifax

Exclusive Maritime Distributors

**Wild Transits  
and Levels**

For any requirements in:

Reproduction, Drafting, Surveying  
and Engineering Equipment and  
Supplies

**A. E. SIMPSON LTD.**



Aerial Photography, for all purposes. Photographic Mosaics for detailed "surface" studies. Accurate and economical planimetric or contoured maps or plans, at all scales, to meet your layout, planning, location or other engineering needs.

1810 Laval Road

Montreal 9, Que.

**Nova Scotia  
Land Survey Institute**

Operated by  
Vocational

Education Division  
Department of Education  
Province of Nova Scotia

The Two Year Course  
Prepares One To Sit For the  
Provincial Land Surveyor's  
Certificate

Full particulars from:  
J. A. H. Church, P.L.S.  
Lawrencetown, Nova Scotia

**EASTWARD  
INDUSTRIES LTD.**

exclusive representatives for the  
Keuffel & Esser Company of  
Canada

K & E Transits, Levels, Rods,  
etc., in stock.

293 Young Street Halifax, N.S.

**The Hughes Owens**

COMPANY LIMITED

A complete line of Supplies for  
the Engineer, Surveyor and  
Draftsman

Ozalid and Blueprinting  
165-169 Hollis St., Halifax

**ATLANTIC AIR SURVEY COMPANY LIMITED**



Serving Surveyors and Engineers in the Atlantic Provinces with better service at more economical cost. For further information or quotations in aerial photography, topographic mapping and other related services, call or write with no obligation.

PHONE 6-7685

DARTMOUTH, N. S.

P. O. BOX 118