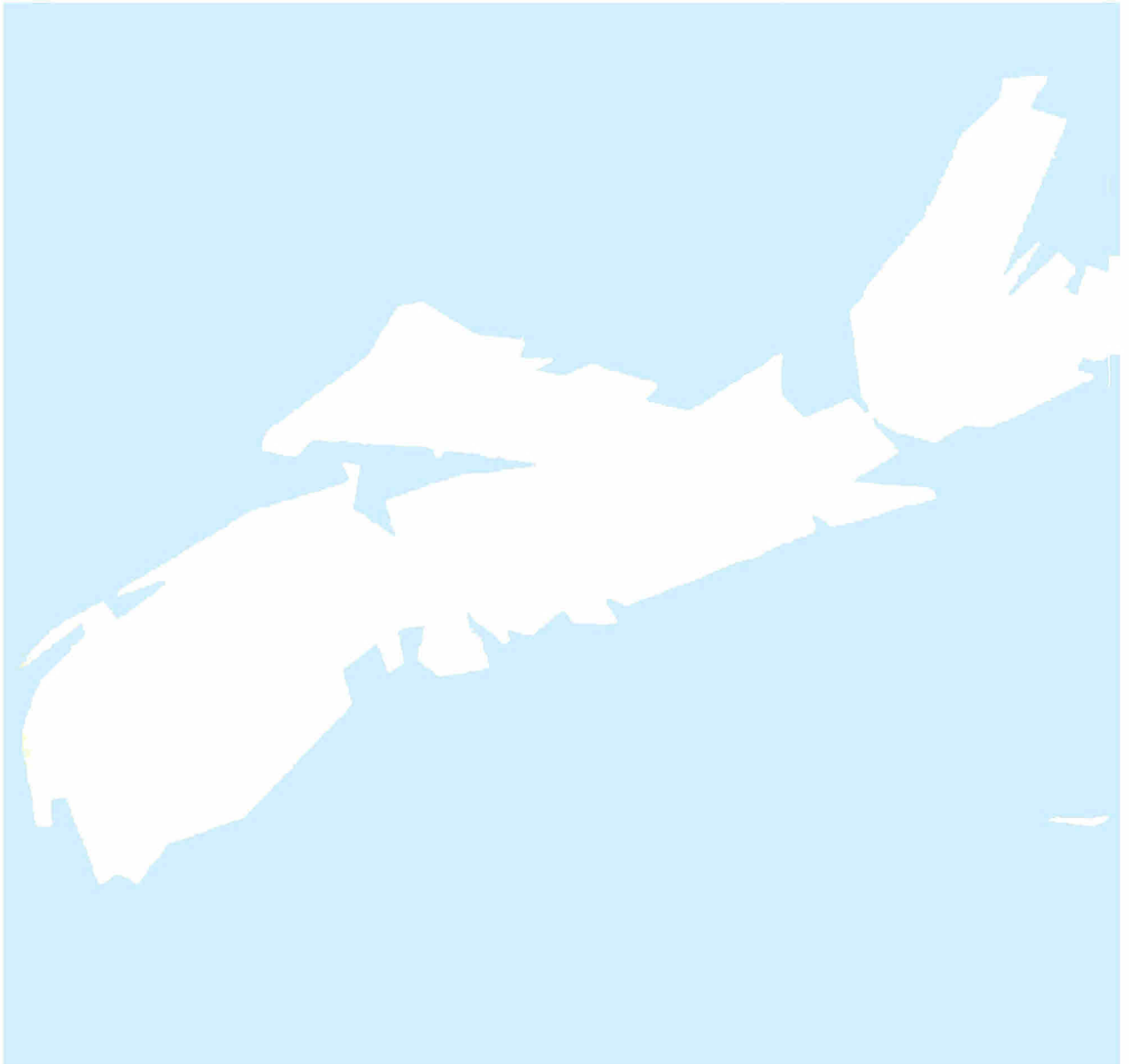
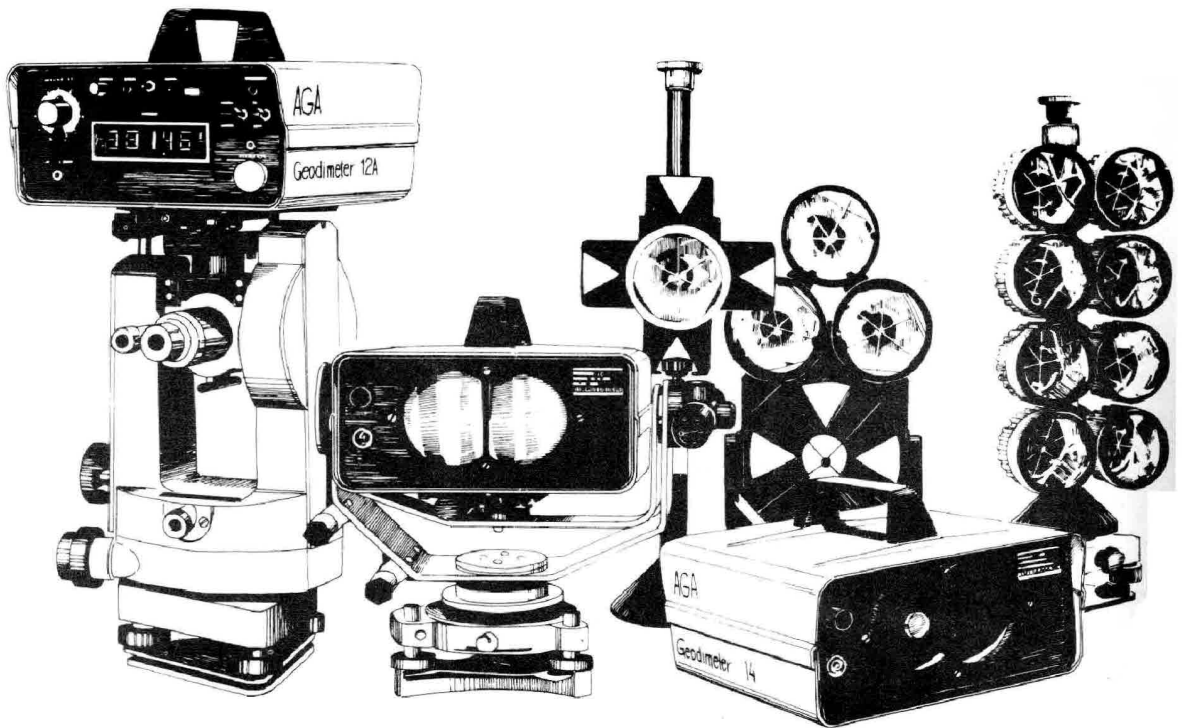


The NOVA SCOTIAN SURVEYOR



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**** 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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** F L A S H **

CONVENTION 1978

The TWENTY-EIGHTH ANNUAL CONVENTION of the ASSOCIATION OF NOVA SCOTIA LAND SURVEYORS will be held at the HOLIDAY INN in HALIFAX on NOVEMBER 2, 3 and 4, 1978.

The business sessions will be informative to all of our members as each of our various committees will be bringing you up to date on what they have been doing in the past year. There will also be time for the discussion of new Resolutions and By-laws which will affect all of our members when passed.

The EXHIBITORS have expressed a keen interest to participate this year and at this time it looks as if the exhibit hall will be filled. There will be several new exhibits on hand this year as well as those we are familiar with. The displays and the personnel associated with them add a great deal to our Convention each year, so don't miss what they have to offer in the form of information on the newest equipment and maybe a good price on something you are needing.

The SOCIAL EVENTS at this year's Convention promise to be varied and entertaining. On THURSDAY EVENING a WINE AND CHEESE ICE BREAKER PARTY will be held at the HOLIDAY INN, FRIDAY EVENING we hit the MICMAC CLUB in DARTMOUTH for a DOWN EAST STOMP and SATURDAY EVENING is the ANNUAL DINNER AND DANCE. During the day there will be the joint C.I.S. and A.N.S.L.S. LUNCHEON on FRIDAY and a new MEN'S LUNCHEON on SATURDAY, which will take place while the ladies are having their LUNCHEON AT CHINATOWN. The ladies have also planned a POOLSIDE FASHION SHOW, an informative KITCHEN UPDATE and a CENTENNIAL BREAKFAST.

Don't forget that the Hotel facilities are also available, including the POOL, SAUNA, LOUNGES and RESTAURANT.

If you have any questions prior to or during the Convention, don't hesitate to contact any member of the Convention Committee.

We are looking forward to seeing you at our yearly get together, CONVENTION '78.

- Robert A. Daniels,
Convention Manager



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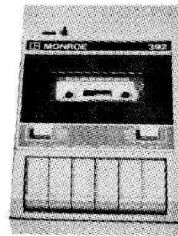
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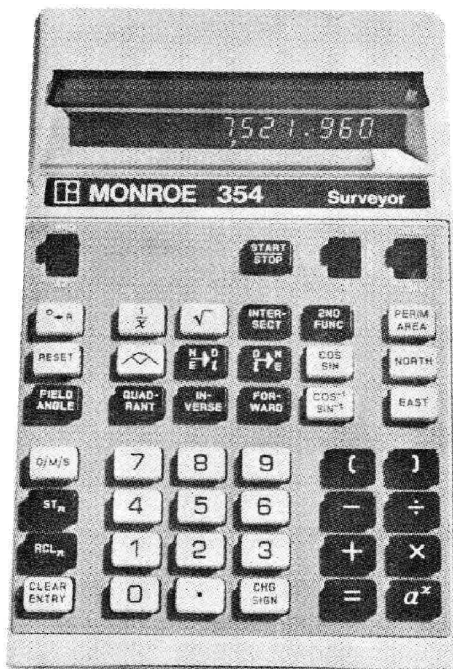


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You're looking at the Monroe Micro Surveyor—the very first hand-held, battery-powered programmable micro computer specifically designed for the surveying professional.

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**** COMMENTS FROM THE PRESIDENT ****

- Murray J. Banks -

The fall season is upon us once again, evident as one casts an eye over the beautiful splendor of our Province's forested countryside. It is that time of year when many an avid sportsman begins making plans for a few days away from it all at the hunting camp where pressures of the survey office are left behind.

I find myself during this period, as we approach yet another Annual Meeting, reflecting back over the progress that has been made by the Association during the last few years. I am looking back over the period since the Annual Meeting in 1973 when it was recommended that a standing committee be formed to study the Land Surveyors Act with a view to rewriting it if necessary. It is now history as to what became of that recommendation since we now have a new Act in place. As a result of the new Act, regulations designed to improve the educational standing of future land surveyors, as well as regulations designed to improve surveying standards in Nova Scotia, are now ready for presentation to the Provincial Cabinet.

During this same five year period, we increased our annual membership fee to \$150.00, providing the capital necessary to establish a professional office with full time staff. This enabled us to emerge from the basement offices of those members over the years who utilized their own homes and donated a great deal of personal time for the benefit of the Association.

As I reflect back, I see the commencement of a continuing education program designed to further the knowledge of land surveyors. The seminars held so far have been well attended and well received, indicating to me that a definite demand exists for this type of program.

Another area in which I view the Association as having made strides, is in the area of discipline. I realize this is not a desirable subject but one which I feel should be discussed, since it is a major responsibility of this Association in its role as a self-governing body. We seem to always have a few members who try to get along in the surveying business by carrying out substandard work. This type of activity, when brought to the fore, has to be dealt with by the Discipline Committee. In my opinion, the committee has been accepting their responsibility seriously and has taken action whenever necessary.

Many of our members can easily reflect back to the founding of the Association in 1951 and I have no doubt they see quite a change today; however, it is fine to look back once in a while at our accomplishments, but we must also look ahead to the future. I look ahead with a great deal of optimism as I see our Association striving to better serve its members and the public.

* * * * *

** Reprinted from the No. 7, July 1978 Publication of the **

COMMONWEALTH ASSOCIATION OF SURVEYING AND LAND ECONOMY

MEETING IN BARBADOS

CASLE'S Atlantic region comprises Canada, Belize, Guyana and all the Commonwealth islands in the Caribbean. The meeting held in Barbados on 24-26 April 1978 was the third major CASLE conference in the region and was attended by participants from Antigua, Bahamas, Barbados, Bermuda, Canada, Guyana, Jamaica, St. Lucia, Trinidad and Tobago and the Turks and Caicos Islands. The meeting was opened by The Hon. Ronald G. Mapp, Minister of Housing and Lands, Barbados, and keynote addresses were given by Dr. Courtney Blackman, Governor of the Central Bank of Barbados, Robert Steel, Secretary of CASLE, and Mrs. Corrine McLarty of the National Housing Trust of Jamaica. Fourteen other papers were also presented and discussed. The full proceedings are being published separately by CASLE.

At the third plenary session papers were presented on two different topics, namely project management and the Law of the Sea Conference.

The address on project management was prepared by Charles Nolan of Canada and presented on his behalf by Harland Lindsay, President of the Canadian Institute of Quantity Surveyors.

The second address at this session by Tom McCulloch, Past President of the Canadian Institute of Surveying, dealt with the Law of the Sea Conference and its implications for the surveyor. The author traced the history of international discussions on the entitlement to sea-bed zones and illustrated with the aid of slides the extent of oceans that would be embraced within national economic areas if these were extended to 200 miles-off-shore (or to median lines where other countries were closer than 400 miles apart). The terms on which the sea-bed might be exploited had still to be decided, but it was clear that if zones of the size contemplated were to be worked there would be an extensive need for hydrographic surveys to delineate boundaries. Within the delineated areas there would also be a need for reconnaissance surveys to identify the resources available for exploitation. Canada's exclusive economic zone would be roughly 1.37 million square miles; and the other Commonwealth nations in the region would together be able to claim half a million square miles.

LAND SURVEYING

The land surveying group received papers by Randolph Choo-Shee-Nam (Guyana) on land surveying services and techniques in the 1980's; Alex McEwen (Canada) on the challenge and opportunity of tomorrow; Lorraine Setterington (Canada) on land surveying education in the 1980's; Harry Armstrong (Jamaica) on land surveying education in the 1980's (presented in the absence of the author by Horace McLarty); and Lance Murray (Trinidad and Tobago) on the land surveyor's role in housing. These papers made a comprehensive study of services and techniques which land surveyors were likely to need in the next decade and of the educational provision that would be necessary to produce the skills required.

Finally, in his review of the meeting, CASLE'S Secretary urged the member-societies in the region to do everything possible to develop their involvement in public affairs, by maintaining a dialogue with governments on all subjects on which the profession was competent to express an informed opinion. To do less was to deprive the community of one of the benefits it was entitled to expect from all professions. It was idle to suggest that such a dialogue could be achieved without much voluntary effort by the profession itself.

The President brought the proceedings to a close by thanking all who had contributed to the success of the meeting, including particularly the Barbados Land Surveyors Association which had made the arrangements and the speakers who had stimulated such productive discussions.

** LAND CONVEYANCING SYSTEMS **

Most countries use one of three systems for land tenure (ownership) and transfer. These are:

1. Private Conveyancing - where the transfer of ownership of land must be evidenced by long complicated instruments (documents) which are then kept by the new owner as proof of his ownership. Any person buying land, therefore, will require the seller to show these documents going back over many years as evidence of his title.
2. Deeds Registration - where all deeds have to be sent to a central registry office which keeps them and indexes them under the name of the grantee or purchaser so anyone interested in the land may examine them in the registry office and satisfy himself as to what they contain.
3. The Torrens System - where a government office has custody of all original land titles and all original documents registered against them. Government staff examine and register the documents and issue the titles, and the government guarantees the accuracy of them.

The principles of the Torrens System are as follows:

The Mirror Principle - this refers to the "register" or certificate of title which supposedly reflects accurately and completely the current facts that are material to a person's title. It does not allow consideration of facts or charges that may be capable of being registered but which are not. In other words, a title is free of adverse claims or burdens unless they are mentioned on the title. In practice, this mirror principle cannot be absolutely reliable as there are certain public rights and burdens which do affect a person's title even though they are not reflected in the title. Some obvious examples are (a) the right of expropriation by certain authorities, (b) unpaid taxes, (c) fraud - title or right gained by fraud, (d) certain rights or burdens granted by legislation even though no notice appears on the title.

The Curtain Principle - this provides that the register or certificate of title is the sole source of information surrounding the title. Thus, a potential purchaser need not concern himself with any charges behind the register. That is, the owner should not have to resort to historical searches in order to verify that the title is good. Here again, this principle is not always adhered to and historical or "chain" searches are made in certain circumstances.

The Insurance Principle - this provides compensation for loss of rights. The principle is that the register must reflect the absolute correct status of the land and if, through human error, a flaw appears and anyone suffers loss thereby, it is made right so far as money is able to compensate.

The Torrens System has been in use in Alberta since 1887. An Assurance Fund has been established to provide compensation to anyone deprived as a result of errors by the Land Titles Office.

* * * * *

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** GLOSSARY OF COMMON CONVEYANCING TERMS **

- ACCESS** - The means of approach to land over other land, usually by a public road or an easement.
- AFFIDAVIT** - A written statement signed and sworn before a person having authority to administer an oath.
- ASSIGNMENT** - A transfer to a trustee for the benefit of creditors.
- ASSURANCE FUND** - A fund set up to compensate any person who is deprived of land because of the operation of the Land Titles Act.
- BENEFICIARY** - The person having the beneficial enjoyment of property of which an executor, administrator or trustee has the legal possession.
- BONA FIDE PURCHASER FOR VALUE** - A purchaser who in good faith has purchased for good and valuable consideration.
- CAVEAT** - Translated means "Let him take heed", A document containing a warning or caution that there are persons other than the registered owner interested in the land.
- CHARGE** - Any charge on land created or effected for any purpose whatever inclusive of mortgage, encumbrance, builders' lien, at common law or created by statute.
- CONDOMINIUM TITLE** - A title to space in a building, townhouse, etc. which recognizes the space in a unit and the share in the common property of the condominium.
- CONSIDERATION** - The amount actually paid for something (not necessarily the same as its value).
- CONVEYANCE** - An instrument which transfers property from one person to another.
- CORPORATION** - A body corporate.
- CROWN LAND** - Land owned by the government.
- DOWER** - The right of one spouse to a life estate in the homestead.
- EASEMENT** - A right acquired by one person from another, permitting use of the other's land without profit, such as for a right-of-way across it.
- ENCUMBRANCE** - Same as charge.
- ESTATE IN LAND** - The condition and circumstances in which an owner stands with regard to his land; either fee simple or leasehold estate.
- ESTATE TAX** - A tax payable on the death of a person to the Federal Government under the Estate Tax Act. (Repealed on January 1, 1972).
- EXECUTION OF INSTRUMENTS (Documents)** - The signing, sealing and delivery of them by the parties as their own acts and deeds, in the presence of witnesses.
- EXECUTOR** - A person appointed by a testator in his will to carry out its provisions after his death, including the disposition of property.
- FEE SIMPLE** - The greatest ownership it is possible to have in land.
- FORECLOSURE** - An action in Court taken after a breach of the conditions of the mortgage. The mortgagor must redeem the pledges in the mortgage or the Court must extinguish his right to redeem (called the equity of redemption) and offer the property for sale under process of law.
- FREEHOLD LAND** - Land owned by the Crown (Government).
- GRANT** - Conveyance or transfer of ownership of land, usually from the Crown.
- HOMESTEAD** - A parcel of land (i) on which the dwelling house occupied by the owner of the parcel has his residence is situated, and (ii) that consists of (a) not more than four adjoining lots in one block in a city, town or village as shown on a plan duly registered in the proper Land Titles Office, or (b) not more than one quarter section of land other than land in a city, town or village.
- INDEFEASIBLE** - Not to be made void.

INSTRUMENT - Document, such as a transfer, map, title, etc.

INTEREST IN LAND - Ownership in land or of an encumbrance against it, such as a mortgage.

JOINT TENANCY - Where two or more persons own property jointly with a right of survivorship. When there is only one survivor, the joint tenancy ceases.

JUDGMENT - Decree or order of a Court.

LEASE - A grant of property for life or for years by a lessor to a lessee.

LEGAL DESCRIPTION - The description given by the Land Titles Office to land (1) for unsubdivided land - giving number of section, township, range, meridian, and (2) for subdivided land - lot, block and plan number. Municipal addresses quoting number of streets or avenues are not legal descriptions.

LIEN - A charge upon property for the satisfaction of some debt or duty ordinarily arising by operation of law.

LIFE ESTATE - An estate during a person's life, ending on his death.

LIS PENDENS - A notice of a pending Court action.

MEMORANDUM - Endorsement on a title, showing registration details.

MERGING - The fusion of two or more estates or interests occurring where one person acquires both a greater and a lesser interest without there being any intervening interest and that person signifies an intention that the lesser interest should be extinguished by being merged in the greater interest.

METES AND BOUNDS - Means of describing land by measurement, bearings and boundaries.

MORTGAGE - A document executed between a borrower of money (Mortgagor) and a lender (Mortgagee) wherein the borrower's land is pledged as security for the loan.

PARCEL - A legal term for a part of land.

PARTY WALL - A wall between properties belonging to different owners.

POWER OF ATTORNEY - A writing authorizing another person, who is called the attorney of the person appointing him, to do any lawful act in the place of another.

PROBATE - Granted by the Court to the effect that the will has been proved and that administration is granted to the executor.

REGISTRATION - Means (i) the bringing of lands under the provisions of the Land Titles Act, (ii) the entering upon the certificate of title of a memorandum authorized by this Act of any document, and (iii) the entering in the proper register of any instrument authorized to be registered of which a memorandum is not required to be entered upon a certificate of title.

RESTRICTIVE COVENANT - A covenant restricting the use of certain land for the benefit of other land.

STATUTORY DECLARATION - A written statement of facts signed by the maker and declared to be true before a commissioner or notary.

SUBDIVISION PLAN - A plan based on a survey dividing land into two or more parcels.

SURRENDER OF LEASE - Giving up a lease before the expiration of its term.

TENANCY IN COMMON - Where two or more persons own property jointly but without the right of survivorship.

TRANSFER - To convey an estate or interest in land from one party to another, whether for valuable consideration or otherwise.

TRANSMISSION - Applies to change of ownership consequent upon death, lunacy, sale under execution, order of court, or other act of law, sale for arrears of taxes or upon any settlement of any legal succession in case of intestacy.

TRUST - The relationship under which one person (the trustee) holds property on behalf of and for the benefit of another called the beneficiary.

** Translation from French into English of a Code Proposal **

PROFESSIONAL ETHICS

Regarding

THE INDEPENDENT REGISTERED LAND SURVEYOR

*by Jacques Tassou, Registered Surveyor, France
to the XV International Congress of Surveyors, Stockholm, 1977*

The current study follows up partly the reports presented on this subject at Wiesbaden - read to Commission I of the I.F.S. by Messrs. Harris and Perin - in 1971, as well as the study for which we were responsible within the Commission as part of the proceedings of the Washington Conference held in 1974.

Without reverting to the priorities mentioned by Mr. Perin (which, moreover, indicate that the drafting and adoption of such a code has long been of concern in the Profession) we, too, shall resume in preamble:

1 - What a Registered Land Surveyor is

first of all as defined by the statutes of the I.F.S.

"The Registered Land Surveyor is the professional who identifies, delimits, measures, and appraises real estate, public or private, developed or not on the surface and/or underground, as well as the works already undertaken on it. He makes arrangements for its registration as well as that of its rights of realty. He deals with the sciences - technical, judicial, economic, agricultural and social - associated with the subjects listed above.

To conclude, as a Scientist turned towards the earth, the Surveyor is undoubtedly, among the specialists of today's world, the one who, located at the cross-roads of their disciplines, can supply them with a concrete and co-ordinated application."

2 - What the practice of a Liberal Profession implies

We shall say that the practice of a Liberal Profession is one who, without carrying on business acts, being totally independent, free of any ties, and under his full responsibility, devotes his knowledge and abilities to the service of others in an endeavor where mental activity prevails.

3 - What is today the Registered Land Surveyor exercising a Liberal Profession

The Registered Land Surveyor undoubtedly remains a "Scientist" in possession of a general background and advanced technical knowledge which he places at the disposal of his administrative or private clients, and from which his profession as a whole must profit. This profession, however, practiced as such in numerous countries for many years, now finds itself quite deeply modified:

- by the increasingly more important establishment of administrative technical services destined to serve a State which tends, in numerous countries, to become the most important, if not the sole land-owner, and to exert controls on any modification regarding the scope and development of land structure;
- by the useful methods brought about by modern equipment, faster and more efficient than the past one, but also much more expensive;
- furthermore, by the fact that the rational use of lands, in urban as well as rural areas, now demands preliminary studies and a multi-disciplinary supervision of the work, operations carried out by a body of technicians

from various professions, among which the Registered Land Surveyor naturally has his place, even if it might entail his withdrawal from such an association should his colleagues have a right to exert pressure of any kind on matters pertaining to his profession;

- by the fact that the bid for concurrence brought by the client, who constitutes, in matters commercial as well as industrial, one of the quarantors of today's economy, is more and more often demanded or at least suggested, but is incompatible with the free exercise of work and the indispensable assurance of quality.

All of these reasons require that the Registered Land Surveyor, who has an obligation to keep himself informed of all the evolutions of techniques and methods and adapt himself accordingly, must remember in all instances that phrase by Alexander Vinet:

"I want man to be master of himself
so that he may be of better service to all".

Thus, it is more for the services rendered as responsible beings that we are than by the work accomplished by a professional mechanism, that a member of a profession characterizes himself.

This requires intellectual, moral and professional qualities which we have tried to summarize in the following draft:

D R A F T

I - Intellectual qualities and technical skills

The private Registered Land Surveyor, before being allowed to practice his profession, must be in a position that enables him to practice it skillfully:

- by his background which consists of undertaking an education - classical, university or technical - corresponding to the present standard as it is or will be defined in terms of the proceedings of the I.F.S.

Should there be an association or organization regulating the profession, he will have to fulfill the educational requirements set by this association before entering practice:

- by his practical experience which can only be attained through practical training, whether it be with professionals or with qualified administrative services clearly defined. The length, nature of work to be carried out, and share of responsibility to be undertaken by the trainee must be defined according to the general interest of the profession. During this training period, the future Registered Land Surveyor will have to participate in the works to which he is assigned with the utmost conscientiousness;
- through continuing education. During his professional life, the Registered Land Surveyor shall keep himself abreast the legal texts and new development methods by either following the seminars proposed by his professional organization, if the case may be, or by his own personal endeavour.

If he intends to direct his practice towards the compatible framework of his activity, he shall complete his basic training so that he may appear on the restrictive acceptance lists concerning his practice, or may be capable of assuring a satisfying guarantee of competence in all cases.

II - Human qualities towards his Personnel

The more or less numerous personnel attached to a practice ensures an important potential for the execution of work properly elaborated.

The Registered Land Surveyor in charge of the practice shall assure his personnel of proper working conditions, thus respecting the Collective Agreements which may exist in the profession, or else the conditions of humaneness due to professionals, some of which may be highly qualified, as far as fees, quality of furnished material, work quota or efficiency required are concerned but also with regards to the importance of remunerations to warrant them (in the form of salaries or fringe benefits).

He must install into his employees, along with professional technique, a deep regard for the utmost integrity which is the fundamental quality of a Registered Land Surveyor.

III - Kindness towards students or trainees

The Registered Land Surveyor in possession of a practice, acting in the capacity of training Mentor, teacher or in charge of complementary practical instruction must:

- show the same regards towards his trainees as those described above and from which he himself benefited;
- adopt a lenient attitude towards the students taking preparatory courses for one of the professional qualifications - operator, foreman, supervisor, etc.. while still demanding in return the qualities of candour and frankness;
- to follow attentively the theoretical grounding of his trainees as well as of his students, and to offer them his help whenever necessary;
- in particular, he will authorize them to present documents in communication, allowing them during exams to have the result of their practical instruction evaluated.

IV - Dignity towards his clients

Professional conscience is the Registered Land Surveyor's prime rule.

The Registered Land Surveyor's main care should be to give satisfaction to his clients, as long as the latter's demands are compatible with the rules of honor, moral, law, reason and professional art. Consequently, the Registered Land Surveyor must refuse any assignment that would not be consistent with these conditions.

He must decline any work which would be related to personal or family interests, or in opposition with an assignment already in progress.

The Registered Land Surveyor must guide his client in selecting the work that better corresponds to its intended use and strive to spare him unnecessary expenses.

Acting as expert, arbitrator or mediator in a judicial, administrative or friendly capacity, the Registered Land Surveyor shall refrain from defending any one of the many interests brought forth, and express himself in total independence, factually, legally, and fairly. He seeks the conciliatory solutions each time his assignment or the nature of the disagreement make it possible.

The Registered Land Surveyor may counsel a client but must refuse the role of expert or arbitrator:

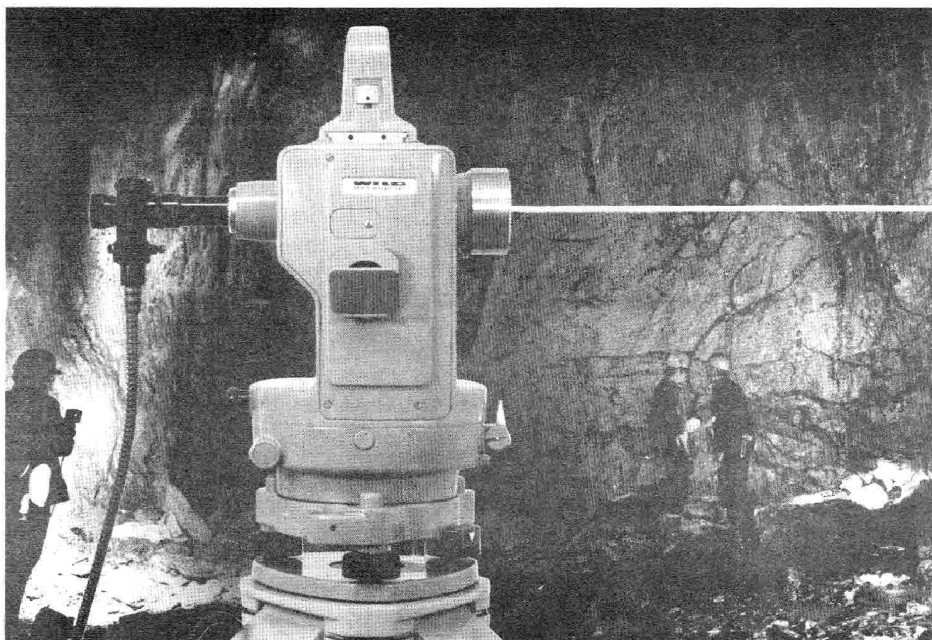
- a) if he has already given advice or expressed his opinion to one of the parties involved in the problem in question;
- b) if his personal interests might be involved in the dispute;
- c) if he is a permanent agent, related or associated to one of the parties involved;



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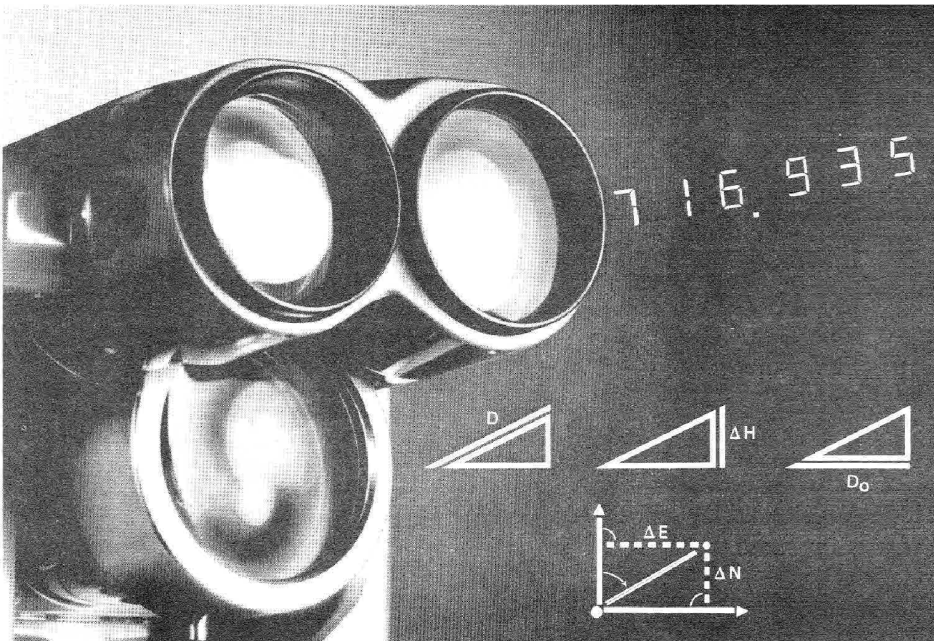
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This will result in more trust being given to the Registered Land Surveyor, who incidentally must adhere to the strictest professional confidence, and who must motivate, outside the knowledge mentioned earlier which is sanctioned by diploma and often indispensable for his admission into the profession, satisfactory conditions of execution in material as well as in personnel and qualities of Honor and Professional Dignity, answerable for his client of the quality and seriousness of his work, also answerable for the adoption of a just price in remuneration for his knowledge and labor.

V - Honor and Integrity towards the Nation

If by official documents a licence of execution is reserved wholly or partly to the Registered Land Surveyor as it exists in certain countries, the Registered Land Surveyor must orientate his activity according to public interest, and must collaborate as much as possible on works of general interest when they are encountered within the sphere of his usual activity.

If he works outside his territory, he shall always retain a loyal, honest and correct attitude, and shall respect the Code of Professional Duties of the country in which he is practicing.

VI - Loyalty and Courtesy towards his Colleagues

The Registered Land Surveyor adopts and maintains towards his colleagues a loyal and courteous attitude. He refrains from any act of dishonest rivalry namely:

- approaching directly or indirectly the client of a colleague, for personal advertising in particular.
- accepting fees inferior to a just remuneration or proposing commissions in order to obtain a contract;
- trying to entice personnel away from his colleagues;
- for a surveyor-in-training, to establish himself in the sphere of activity of his former training Mentor, and this for at least five years;
- the opening of a practice by a former agent of a public collectivity in the area where he was a public officer.

VII - Independence towards his partners

Whether it be as part of Civil Societies, Societies of Means or Groups of a multi-disciplinary character of which mention was made earlier, the Registered Land Surveyor shall in all circumstances maintain his full independence and his full responsibility; such associations should have as their only aim to better serve the client in the quality of work executed as well as in the time of execution and cost.

VIII- Devotion to the General Interests of the Profession and Concern for its Organizations

By his participation in the teaching of the profession, the Registered Land Surveyor in practice must take as much of an active part as possible in professional instruction and accept, according to his qualifications, to take charge of classes or to participate actively on the various board of examiners.

He shall also accept, if his peers request it, the various responsibilities or duties, including gratuitous ones, associated with an organization in charge of protecting, regulating or improving the quality of his profession.

In many countries where professional organizations are members of the I.F.S., the private professional members of the organizations are allowed to undertake certain assignments which, due to their technicality and their importance exceed the

realm of their professional competence, and even of an exclusiveness of execution. It derives, then, that in these countries, a collective organization, usually controlled by the State, exerts a control on the practice of the profession and the responsibility of the private Registered Land Surveyor.

This one shall:

- collaborate as much as possible to the study of issues and works useful for these organizations;
- attend the general and professional meetings, unless he may be excused for justifiable reasons;
- share in the operating fees of such organizations.

If he exerts outside or in addition to his principle profession a role of expert real estate appraiser, supervisor, expert appraiser with the courts, private or public works director, all assignments carrying with them their own responsibilities or obligations, and if these assignments are compatible with the rules of the organizations of discipline described above, he nevertheless remains subject to all the obligations and duties of these organizations.

* * * * *

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** STUDYING THE EMERGENCE OF A PROFESSION **

LAND SURVEYING

(Editor's Note: The following is a summary of remarks made at the
Annual Convention of the Michigan Society of Registered Land
Surveyors, February 22, 1974)

Walter T. Anderson
Vice-President-Director, NCEE

The author, a professional engineer member of registration boards, has been involved with the registration of land surveyors for eight years. Experiences and observations in this role have made it possible for him to view the profession of land surveying in an objective way and have given rise to the observations of this paper.

A profession may be identified by certain marks. These marks include the following: Education, Internship, Legal Recognition, Code of Ethics, Public Trust.

Let us view these marks for the profession of land surveying. Item 1, *Education*, is now being identified and implemented at the baccalaureate-degree level. The older form of education, that of civil engineer, is no longer applicable since the land surveying content of civil engineering curriculums has been reduced to an insufficiency for the profession of land surveying.

Michigan's baccalaureate-degree requirement for registration, which will become effective on January 1, 1977, is a strong force for the establishment of land surveying curriculums leading to a bachelor's degree in land surveying. This does not rule out other degrees and curriculums which have strong options in land surveying. The fact is that land surveying now has a clearly identified educational requirement for entry to the profession.

Item 2, *Internship*, is clearly defined as that part of professional training which follows education. Earlier, a person could enter the profession of land surveying by engaging in a long period of internship without educational experience. The resulting history of experience which a candidate presented to the registration board was often difficult to evaluate for conformity to statutory requirements. It is expected that the well-educated land surveyor will now have easily identifiable responsible experiences during his internship period.

Item 3, *Legal Recognition*, has been greatly strengthened in Michigan by the establishment in 1970 of a separate board of registration for land surveyors. Additional laws have put duties on the Michigan board to establish standards and controls on the profession; it is of interest to note that the architect and professional engineer registration boards do not have similar duties.

Item 4, *Code of Ethics*, has been implemented by furnishing each new registrant a copy of a Code of Ethics, as published by the Engineers Council for Professional Development. If the Michigan registration board is granted proper rule-making power through amendment to the registration act, it will adopt a Code of Professional Conduct for registered land surveyors.

Item 5, *Public Trust*, is a quality which the land surveying profession has long enjoyed. The public employs professionals to do things which the public cannot do and does not understand. In so doing, the public puts its trust in the professional person. Land surveying is completely identifiable in filling this criterion of a profession.

The emergence of land surveying as a profession is easily identified by the following happenings:

1. The revision of the Michigan registration act in 1970 created a separate registration board.

2. The Michigan land surveying board has achieved national status as an affiliate member of the National Council of Engineering Examiners.

3. The revision of the Michigan registration act in 1969 made the baccalaureate degree a requirement in 1977.

4. Programs leading to the baccalaureate degree appropriate to the profession of land surveying are being established.

5. A need for accreditation for land surveying curriculums has arisen and is being done by the Michigan board until a national accrediting agency is established.

6. National examinations for the registration of land surveyors are published by the National Council of Engineering Examiners through its Land Surveying Committee. These examinations are being used by a majority of registration boards, including Michigan.

7. The Model Law publication of the National Council of Engineering Examiners contains three versions - one for Professional Engineers, one for Land Surveyors, and one for Professional Engineers and Land Surveyors combined.

In conclusion, land surveying is clearly identified as a unique, emerging profession. Older land surveyors question this conclusion, preferring to state that land surveying is an old profession which is now re-emerging. This observer is pleased to recognize both points of view.

* * * * *



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LEGISLATION

The Cabinet has directed that four annual "Omnibus" Bills in the years 1976 to 1979 be drafted in order to complete the metric conversion of all measurement sensitive terms and clauses in the statutes. The 1976 Bill (C-23) covering 9 Acts received royal assent on August 5, 1977. The 1977 Bill covering 7 Acts received first reading on December 20, 1977 as Bill C-22.

The Omnibus Bill is drafted by the Legislation section of the Department of Justice following requests from the various Federal Government departments that have identified measurement sensitive clauses to metric terms, the manner of conversion (hard, soft, rounding) and the mathematical accuracy. The measurement values are the administering department's responsibility. The deadline date in any year to send the requests for amendment to be included in that year's Bill is the end of the third week in May.

Some statutes may be individually amended through established procedures, outside the route of the Omnibus Bill.

A similar procedure was adopted by the Province for their Omnibus Bills.

MARITIMES (Nova Scotia, New Brunswick and Prince Edward Island)

The following recommendations were passed at the 2nd meeting (November 21, 1977) of the Maritime Land Related Sector:

- 1) January 1, 1979 be designated as M-day (metric day) for Sector 5.05 (Real Estate, Land Surveyors and Town Planners) in the Maritime Provinces.
- 2) The Provincial and Municipal Governments of the Maritime Provinces amend and pass legislation in order to implement M-day on January 1, 1979.

At the present time metric surveys can be registered in any of the three Provinces except for those areas proclaimed as Integrated Survey Areas. All surveys in these areas, since they deal with coordinates, must reflect only imperial units.

It is proposed that the use of metric units will become mandatory after January 1, 1979. This will require metric conversion of Integrated Survey Areas prior to January 1.

SACKATCHEWAN

Provincial Land Titles Act - Order-in-Council 578/76 dated April 20th, 1976 amended regulations issued under the Land Titles Act to require that projects started after July 1, 1976 be registered in metric only and that projects started before this date could be registered in either system; however, because of uncertainty concerning the use of the "acre", due to the controversy over Federal Omnibus Bill C-23, registration in either system (imperial or metric) is still being accepted.

Bill C-23 contained nine Acts, three of which contained reference to the "hectare"; the Canadian Wheat Board Act, the Prairie Grain Advance Payments Act and the Western Grain Stabilization Act. Because of representation from Western grain farmers the "hectare" was removed and the "acre" restored, which enabled grain producers to keep the acre as their official unit of area measurement for field crop yield. This decision should have had no effect on land registry, which is a matter entirely within the provincial jurisdiction.

By Minister's order dated the 20th of December 1976 under the authority of the Planning and Development Act, 1973, Municipal Subdivision Regulations were converted to metric requiring applications for proposed subdivisions prepared after April 30th, 1977 to be prepared in SI.

NORTHWEST AND YUKON TERRITORIES

The Department of Indian Affairs and Northern Development and the Territorial Governments of the Yukon and Northwest Territories have been requesting all new surveys be done in metric (SI) units since January 1977. Affected legislation should be amended sometime in 1979.

All N.W.T. Ordinances containing references to distance and area were changed by a Metric Conversion Ordinance passed in October, 1977.

* * * * *

CANADIAN INSTITUTE OF SURVEYING

GENERAL NEWS

Reprint from Vol. 2, No. 2, August 1978 - CIS Newsletter

CONGRATULATIONS to the 1978 Calgary CIS Convention Committee for an outstanding production of the Annual Meeting of the Institute. The Committee's great success stemmed from the combination of superb weather, excellent facilities, the best in western hospitality and a well balanced technical program.

The highlights of the Convention will be carried in the September issue of *The Canadian Surveyor*, but we would like to congratulate the following:

- The program Committee for its selection of W. O. Mitchell, the well known Canadian author and playwright, as the Annual Luncheon Speaker.
- The Alberta Society of Survey Technicians & Technologists for collecting \$700 for the Hans Klinkenberg Memorial Scholarship Fund.
- Doug Barnett of Edmonton for winning the award for recommending 71 new members to the CIS.
- The Niagara Branch for winning the award for the branch with the best recruitment program.
- Doreen McCulloch for being selected as the Survey Queen.
- The cowboy outlaws, complete with horses, lariats and guns for kidnapping President Dave Usher and his wife Doris for allegedly conducting "crooked surveys". (That's Dave, not Doris).
- The National Commission for Cartography for its map display.
- The Edmonton Branch for the Klondike Breakfast, complete with 'eyeopener juice'.
- The whole Calgary Committee for a tremendous well organized meeting.

And now on to Toronto for 1979 where the theme will be "Main Street Canada" (Quebec City to Windsor), Urbanization and its Impact on Surveying and Mapping.

* * * * *

** POLICY STATEMENT **

ENGAGING OF LAND SURVEYING SERVICES
ASSOCIATION OF ONTARIO LAND SURVEYORS

Land surveying firms are frequently asked by prospective clients to individually quote a fixed price for their professional services. Because it is usually difficult to predict the time and expense that will actually be incurred by a surveyor in meeting the client's requirements, and to avoid possible misunderstanding between the parties, the Association of Ontario Land Surveyors considers it appropriate to issue this policy statement as a suggested guide, not only to land surveying firms but also, to their clients.

There are many variables or unknown factors which contribute significantly to the cost of a survey of land. Fees charged by a land surveying firm often may be based on the amount of time needed to perform the service. This time can be spent in any or all of the following ways:

- searching for and locating monuments and other evidence of previous surveys
- surveying boundary lines through dense bush or other difficult terrain
- analysing and assessing conflicting survey evidence
- investigating and defining registered and unregistered easements
- searching the Land Registry Office and the records of other land surveying firms
- performing office computations and preparing survey plans and reports
- supervising all phases of the survey project.

Without a prior investigation of the site to be surveyed and a thorough examination of relevant property and survey records, it is often impossible to accurately pre-estimate all of the time that will ultimately be required to complete the work and determine the exact amount of the appropriate professional charges. In many instances, the size and location of the property does not lend itself to this preliminary investigation and examination.

The Association of Ontario Land Surveyors, therefore, suggests that the land surveying firm provide each client with an estimate of what the survey is likely to cost. This estimate should include, wherever possible, an anticipated upper limit for budgetary purposes, the basis on which the final cost is to be determined, and the date by which the survey results will be submitted. It is most advisable to prepare a written document which clearly sets out the work that the land surveying firm has been engaged to perform, the rate and method of compensation, and the time for completion applicable to matters of average complexity, and subject to increase or decrease where warranted.

The Association further recommends that, before engaging the services of a land surveying firm, the client should be encouraged to give consideration to the individual firm's experience and competence in the specific type of project, the familiarity with and proximity to the area, and its ability to complete the work in the required time and within the estimated cost.

By following these suggested guidelines, it is believed that a professional relationship will be maintained between surveyor and client to the satisfaction of all concerned.

September 1, 1978

LETTER TO THE EDITOR:

We have a complete set of the Nova Scotian Surveyor with the exception of numbers 1, 4, 5, 12, 36 and 37.

Issues 36 and 37 are a bit of a puzzler. Issue 35 was published in June 1963, and issue 38 came in January 1964. Were there two issues in the fall of 1963?

We would like to have a complete set and, therefore, would be grateful if anyone could send us copies of the issues we are missing.

Yours very truly,

(Sgd.) J. F. Doig, Principal,
Nova Scotia Land Survey Institute,
Lawrencetown, N. S.
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* * * * *

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Right of Way
Offset from a Line
Circle Thru 3 Points
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Re-number



** ENVIRONMENT IMPACT OF THE CREATION **

by Andrew J. Hinshaw

R. Calif, Author

Reprinted from the Congressional Record

Published in "The Link" March, 1978, Vol 1, No. 4

God created heaven and earth. He was then faced with a class action lawsuit for failing to file an environmental impact statement with HEPA (Heavenly Environmental Protection Agency), an angelically staffed agency dedicated to keeping the universe pollution free.

God was granted a temporary permit for the heavenly portion of the project, but was issued a cease and desist order on the earthy part, pending further investigation by HEPA.

Upon completion of the construction permit application and environmental impact statement, God appeared before the HEPA Council to answer questions.

When asked why He began these projects in the first place, He simply replied that He liked to be creative.

This was not considered an adequate reason and He was required to substantiate this further.

HEPA was unable to see any practical use for earth since "the earth was void and empty and darkness was upon the face of the earth."

Then God said "Let there be light."

He should never have brought up this point since one member of the Council was active in the Sierrangel Club and immediately protested, asking "how was the light to be made? Would there be strip mining? What about thermal pollution? Air Pollution?" God explained the light would come from a huge ball of fire.

Nobody on the Council really understood this, but it was provisionally accepted assuming (1) there would be no smog or smoke resulting from the ball of fire, (2) a separate burning permit would be required, and (3) since continuous light would be a waste of energy it should be dark at least one-half of the time.

So God agreed to divide light and darkness and He would call the light Day, and the darkness Night. (The Council expressed no interest with in-house semantics.)

When asked how the earth would be covered, God said, "Let there be firmament made amidst the waters; and let it divide the waters from the waters."

One ecologically radical Council Member accused Him of double talk, but the Council tabled action since God would be required first to file a permit from the ABLM (Angelic Bureau of Land Management) and further would be required to obtain water permits from appropriate agencies involved.

The Council asked if there would be only water and firmament and God said, "Let the earth bring forth the green herb, and such as may seed," and the fruit tree yielded fruit after its kind, which may have been itself upon the earth.

The Council agreed as long as native seed would be used.

About further development God also said, "Let the waters bring forth the creeping creature having life, and the fowl that may fly over the earth."

Here again, the Council took no formal action since this would require approval of the Game and Fish Commission coordinated with the Heavenly Wildlife Federation and Audobongelic Society.

It appeared everything was in order until God stated He wanted to complete the project in six days.

At this time He was advised by the Council that His timing was completely out of the question, HEPA would require a minimum of 130 days to review the application and environmental impact statement, then there would be the public hearings.

It would take 10 to 12 months before a permit could be granted.

God said, "To hell with it!"

* * *

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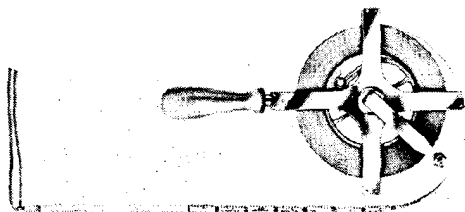
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** SUBMITTED BY JAMES B. GILLIS, N.S.L.S. **
Middleton, Nova Scotia

(Mr. Gillis has taken this information from the Public Archives in Halifax, and he feels they speak for themselves. In copying them from the handwritten originals, he tried to interpret all the peculiarities of language and handwriting, but there are some words which he could not be sure of, and these are marked with a ?)

Benjamin K. Dodge
Halifax, 13 January 1824

Honourable Charles Morris Esq.
Surveyor General of his Majesties
Lands in the Province of Nova Scotia and its
Dependencies - Halifax

Honored Sir;

I am now about to advise you on a subject in which I have but little interest, and is solely for the benefit of a few labouring and industrious families, and although a stranger to your person, I am not unacquainted with your moral character. I am a Grandson of Josiah Dodge, Esq. one of the Deputy Surveyors of this Province; and as I have my Grandfather's papers in my hand, I find by them that he always looked to your Honored Father in every emergency, respecting public and private boundaries of the lands, and I think it my duty to endeavour to benefit the public by making this application to your Honor. As I am fully persuaded, you are the only person in this province, who can have authority to decide the differences about the boundaries of the Townships of Granville and Wilmot. There are about five and thirty families settled on the new Road, near the Shore of the Bay of Fundy, who have had their lands laid off to them on a parallel line to the Township Boundary, and have made great improvements thereon. There are at this time in Granville two or three persons, who delight in disturbing the peace of those industrious people, which disturbs them very much, and gives them great uneasiness, fearing their buildings will fall to the lot of others, on account of the Township Line, (as it is said) have an angle in it of three and a half degrees, according to the needle, which can not be found to be caused by any attraction of ore, near the Beginning of said angle. The said Township Line having by my Grandfather's papers, been run by him, not as employed by Government, but as a private business, he being employed by one Amos Botsford to do the same and his account appears to have been paid by said Botsford. When the Township Line was run, by the Surveyors of Lines, Boundaries, Mr. John Harris was Deputy Surveyor, and he proceeded in the business, (I believe with the intention of making a good line) and I believe him as well qualified for such an undertaking, as any Surveyor in the province, he did also run several other lines, on the same course he run this, one of the lines which he run makes the boundary between two lots, generally known by the name of Walkers, and Phinneys, there being a road on this line, and is not much out of the way of being parallel to the Township Line, as we find by the measurement of the Lots, from the Township Line, there are two other Roads, one to the Eastward, and one to the Westward, of Phinney's Road and are both parallel to the Township Line, there being just land enough between them and the Township Line to give every lot its proper width, on the Bay of Fundy Shore, the same that they measure on the Annapolis River.

I have been about seven days with Mr. William Morehouse, Deputy Surveyor, endeavoring to discover if it was possible to run two parallel lines. We took our line to the river, at 8 and 3/4 west, when we came to the top of the Mountain the needle bore 6 1/2 west, Mr. Morehouse would often request me to examine the difference in the courses of the needle, we endeavored to keep straight and cleared everything out of the line that would obstruct the range of the bare marks, which we always endeavored to keep three in line, when we were on this line we fell upon a line that we supposed to have been run by my Grandfather, according to his books in 1763, and was used for a foot path to the Bay of Fundy Shore, until this road of Phinneys was opened. When we first saw this line, Mr. Morehouse's line was to the Eastward

about 13 links, in a short time Mr. Morehouse crossed this line, and gradually left it to Eastward, until I measured again, when it was nearly two chains and after that, when we got to the Bay of Fundy, his line was about one chain twenty links, from this line (on the Westward of this Line). The difficulty is to find out which of these two lines are straight, as they are more than five and twenty Rods, from the parallel of the Township Line. After we had finished this line, we began at the River with another line, two lots to the Eastward, when we came to the Mountain, as soon as we found it level enough, we measured from the afore mentioned line, we were about two chains 50 links too wide, we then began again, and proceeded until we had got about 2 miles, when we again measured and found we had too much by 5 chains. Mr. Morehouse then declared he thought it almost impossible to run two parallel line, on the North Mountain, however, he began again, and when we came to near the Bay Shore we had about one chain 25 links more then ought, in the width of the two lots. I hope your Honor will pardon me, for giving you so tedious a detail but when I am conscious I am doing my duty for the good of the public, I shall make no more apology, Sir, if your Honor will take this into consideration, and give a decisive answer, you will add much to the ease and happiness of a worthy, industrious, and honest chip of the community, who are at this moment, in great fear of being disturbed in their possessions, and are threatened with all the commotions of an Impending Law Suit, where their richer neighbors will with out doubt, frighten them into a compliance to all their ambitious. My request is therefore, if your Honor in your wisdom, shall see proper to issue a proclamation to have the lines all run parallel with the Township Line, as they have been laid off by Major Millidge Deputy Surveyor, some years since, I have no interest in this request but to oblige my neighbors, as I always earnestly, had the prosperity of this Country at heart.

And the most of these new settlements are composed of old comrades and school fellows with myself. I am now in this town and if your Honor will have the goodness to give me an answer in writing, shall think myself fully compensated for the interest I have taken in the cause.

I remain Sir

Your Honor most Humble and Obedient Servant
Benj Knowlton Dodge

Honourable
Charles Morris Esq.
Surveyor General of
His Majesties Land

P. S. Mr. Morehouse promised he would write to you on the same subject.

RG 20, Series "C" Volume 85, Annapolis 1824

* * *

Surveyor Generals Office
Halifax, January 14, 1824

Sir,

In reply to your letter on the subject of the division line between the Townships of Granville and Wilmot, I have to inform you that I have given to this interesting subject the fullest consideration its nature and importance seems to require/and having reverted to its descriptive boundaries, and such information as my office offers to assist my determination - I have to observe in the first place that I have been taught by my predecessors in office to consider ancient lines and land marks as perpetual and immovable (except only in cases of wilful or fraudulent design) in a Country like this where lands have been (granted ?) by a liberal - and indulgent government to encourage the settlement of the Country by Protestant Settlers, and at times when savages were lurking in every bush - when lands were granted in any form and to any extent required and we know even to a million of acres to some associates -

and to disturb such after a peaceful occupancy of so many years would be in my humble judgement not only manifest injustice to the concerned but would tend to very pernicious consequence that every sincere Friend to this, Rising Country would in the result most deeply deplore. In short, the pulling away the ancient land mark which may be considered as a Key stone of an arch which tho formed in beauty and perfect symmetry to support yet some noble edifice, yet if it could be torn from its true, firm position the whole connected fabric must inevitably fall and become a heap of ruins!!! I cannot urge you too strenuously to consider this subject as of vital importance to the well being of this Community as I am aware of attempts having been made in some parts of the Province by a few fastidious individuals - who have endeavoured by plausible suggestions to occasion attempts at New Surveys to disturb the old and altho not successful occasion much inquietude! With regard to the line in question I cannot avoid considering the ancient previous line run by William Dodge in 1783 as efficient to every intent and purpose, as if executed on the spot by the late Surveyor General Himself - since it is a well established fact that William Dodge was a duly appointed and acknowledged Deputy Surveyor of lands - for the County of Annapolis, that he was employed by the desire and direction of the late Surveyor General to run the Eastern side line of the Township of Granville according to its true course from its commencing bound on the Annapolis River to the Bay of Fundy. That he actually did perform this service and marked the line throughout was and reported the same - that this service was required of him through W. A. Botsford then a confidential agent of the late Surveyor General to my own personal knowledge and the numerous letters in this office between him and the late () - that this line was so considered as a line to remain in perpetuity and has been so acted upon since that allotments have been made within its limits and in conformity thereto - by parallels and since occupied by many industrious useful settlers - and whether this line be a true and perfect right line throughout - or whether there be any inflections or bends so that the same is ? inconsiderable - the line must be adhered to except some well known prior acknowledged line can be proved to have been run by competent authority - the subsequent line you speak of as having been run by William Harris (altho I have considered him a careful and correct Surveyor) was not run by the authority, direction or concurrence of the Sur. Gen. or the Government and if only done by the person you designate as the Surveyor of lines and Boundaries, I take it that the office of such Surveyor must be limited to the perambulating and retracing with all possible care and accuracy the ancient lines within the precincts of his appointments and not on any pretence to alter or disturb any known line and were I called to perform the Service I should without hesitation proceed to the Beginning bound of Granville on the North bank of the Annapolis River, and retrace and follow the course of Dodge's lines as run in 1783 if none more ancient would be satisfactorily proved, and from thence follow that line as far as it could be traced and from the point when it (?) where it (ceases?) I should prolong it until I hit the spot on the sea shore of the Bay of Fundy where W. Dodge has fixed its bounds - you speak of the attraction influence of some mineral substance and - or hidden cause which occasions, an alteration of the variation as you approached or passed over the summit of the mountain. In my present engagements I have not time to enter fully into this subject but must observe that I consider all the Settlers who have been located within the limites of Granville or without as justly entitled to hold their several lots as run out for them by lawful Surveyors and cultivated accordingly - except as I before observed in cases of fraud - which I think has not been the case in your respectable County -

You may soon expect to hear from me the first minutes of leisure on this subject -

I am Sir
Your Obedient
Humble Servant
Charles Morris
Surveyor General

Your report on the variation is satisfactory, it only differs a few minutes from the true line

C. M.

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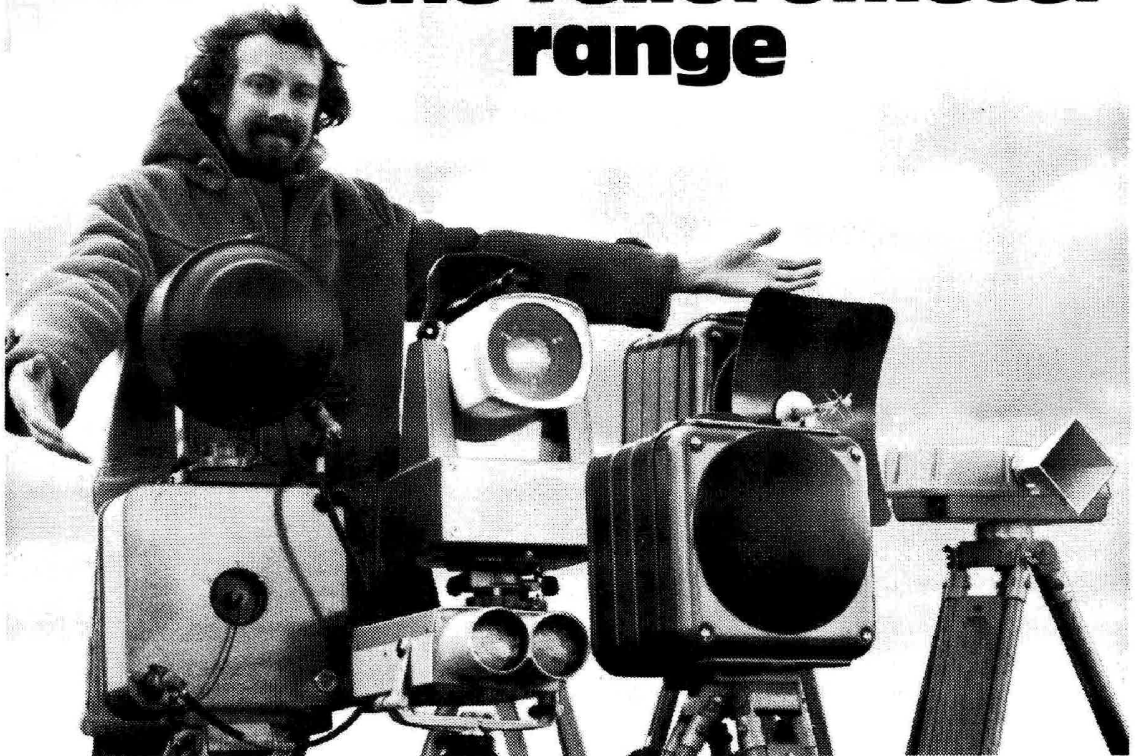


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