

THE NOVA SCOTIAN **SURVEYOR**

Winter/Spring 1999

No. 159



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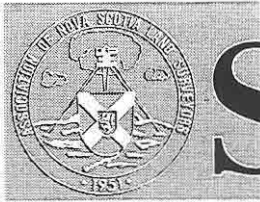
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THE NOVA SCOTIAN SURVEYOR

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THE NOVA SCOTIAN SURVEYOR

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

Letters to the Editor should be limited to one page.

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PRESIDENT'S REPORT

Gerald A. Pottier, NSLS



It is difficult to believe that it has already been five months since our annual general meeting in Halifax. Since then we have had only one Council meeting. This meeting took place at our association office in Dartmouth on January 29 of this year. All members of Council were in attendance.

Since October, I have had several non-official meetings with our Executive Director, Bob Daniels, and with the manager of our Survey Review Department, Fred Hutchinson, to discuss association business. Almost each day something needs to be addressed, commented upon or reviewed by the President. I believe that the everyday affairs of our association are well handled by our staff. Kathy continues to lead the way with her friendly "hello". I am sure that many of our members have yet to visit our new office building. Please do so on your next visit to Dartmouth.

The annual Committee Workshop was held in Truro again this year and was well attended. Eight dif-

ferent committees were invited to participate. As a result of various motions and resolutions at our last annual meeting, these committees will be busy preparing reports for Council's consideration. Our Continuing Education Committee will be expanded to meet the expectations of our members in a new vision for our future in relation to continuing education.

A new committee has been formed to deal with concerns of our members related to the QP II qualifications. Also, a committee has been appointed to review and make recommendations with respect to Surveyors Location Certificates as per a resolution passed at our last AGM.

One of the more enjoyable duties of the President is to attend annual general meetings of our sister provinces and states. This unique opportunity of meeting, working and sharing ideas with other surveyors both within our association and in other provinces is extremely rewarding and informative, not only for the President, but for the association as a whole.

In January of this year, I represented our association at the Society of Maine Land Surveyors in Rockport, Maine. Audrey and I then attended the Corporation of British Columbia Land Surveyors' AGM in Kelowna, BC on January 20-23, 1999. Our vice-president, David Wedlock, attended the Association of New Brunswick Land Surveyors' conference in Fredericton in January. In February, Aud-

rey and I represented Nova Scotia at the Association of Ontario Land Surveyors AGM in Toronto. Reports of all these meetings have been or will be presented to Council.

During my term of office, I have made a commitment to attend at least one zone meeting in each zone. It is also my intention to visit as many members as possible, especially the less active members in hope of encouraging them to become more aware of the benefits of our association.

The date of our next annual meeting has been set for October 21-23, 1999. Please mark these on your calendar. The location will be at Rodd's Grand Hotel in Yarmouth. This will mark the first time ever that our convention will be in Yarmouth and, although we do not have a large number of members, our committee will make every effort to put together one of the best ever conventions.

Finally, I encourage any member who has a concern regarding our association or suggestions on ways to promote our geomatics profession to contact myself, your Councillor or the Executive Director. I assure you that we will strive to address the comments received in a satisfactory manner. ■

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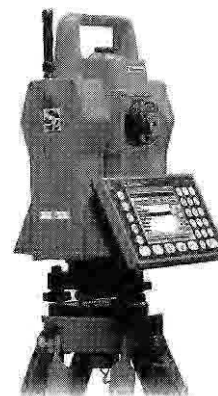
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EXECUTIVE DIRECTOR'S REPORT

Robert A. Daniels, NSLS, CLS

Here we are in the last year of the 1900's. It is hard to believe that the association will be celebrating its 50th year in the year 2000. There is an old saying "Good things come to those who wait". My mother used to put it another way, "Keep your shirt on, you weren't born in a hurry". In any event, maybe some good things will come to Nova Scotia in the next few years. The open winter and activities from the natural gas pipeline are a good start.

Every few months I send out an update of association activities by e-mail. If we do not have your e-mail address, please send it to us. This report will be very similar to the last update, therefore if you have received and read it, you can go back to watching Jerry Springer.

All appears to be quiet with APENS at this point in time. We are still waiting for the latest version of their revised act.

The annual workshop was held in Truro on January 30, 1999. There were a number of committees in attendance. Three are of particular interest. The Regulations Committee is examining the existing regulations with a view to making them more current. There are a number of regulations that are outdated and others that are no longer applicable. It is hoped that the revised regulations will be ready for discussion at the next AGM.

A new committee has been formed to review the Surveyors Location Certificate regulations. This is a result of different interpretations of the present regulations and, in particular, the SLC without a diagram. A memorandum was sent

to all members from the committee seeking input. If you have any comments please send them to the committee or this office.

A Qualified Persons Level II committee has also been established. The committee met and identified several issues that need to be discussed with the Department of the Environment. One meeting was held with a department representative to discuss matters of concern, and a future meeting will be held with the appropriate director. If you want to know more about the issues being discussed, contact Lester Berrigan or Jim Gunn. The next QP II courses are tentatively scheduled for April 1999 in the Halifax area, and in May 1999 in the Annapolis Valley.

The sixteen-week survey assistant course being presented at Cornwallis, NS is nearing completion. It is my understanding that most, if not all, of the twelve students have found opportunities for the four weeks of on-the-job-training. It would appear that this may lead to more permanent employment for some. Phil Milo is the instructor, therefore the students should be well prepared for employment. The success of the course will be evaluated and there may be an opportunity for people from other parts of Nova Scotia to take the course. Plans are being considered to conduct a second course for individuals from the northern part of the province.

Talks concerning the proposed amalgamation of CIG, GLAC and CCLS are ongoing. I am attempting to get a summary of the current state of affairs for distribu-

tion to Council and members. I should have access to a report within a month or so. If the amalgamation is recommended by the three groups, they will be looking for support from the members of our association. If you want to know more, please contact John Pope, our CCLS representative, or Phil Milo, the CCLS vice-president.

I attended a Registry 2000 presentation and offered comments from the surveyor's perspective. The object of this initiative is to modernize the current registry system and move toward a land titles system. Although there will not be a requirement to survey all parcels being registered, there are some positive recommendations being considered. Parcels registered under the new system that have been properly surveyed will not be subject to possessory claims in the future. Although not required, surveys of parcels being registered under the new system will be promoted. I have suggested that only plans signed and certified by a NSLS be included in the system. Other graphic representations such as sketches, instruments of subdivision and mapping marked with a coloured marker should not be included. We have a copy of the report available.

We still do not have a reply from HRM with respect to any tax relief for the office. However, we did apply \$12,000 to the principal of the mortgage. The money came from surplus funds available at the end of 1998. Presently the mortgage is \$68,000 on a property appraised at \$165,000. So far, so good! ■

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David Whyte

SRD MANAGER'S REPORT

by Fred Hutchinson, NSLS, CLS

Another calendar year has slipped by and the resulting statistics for SRD are available. There were 7631 "Surveyor's Location Certificate" numbers issued in 1998. This relates quite well to the original estimate when we started the program and appears to be reliable for 1999 budgeting purposes.

The survey plans received for 1998 totaled 3175. This was a drop from 1997 when 3631 plans were received. The shortfall in anticipated revenue has been offset by the income from location certificates and a reduction in payroll costs related to not having an assistant for 5 months. The accompanying graph provides a history of plan submissions for the past 8 years.

The invoicing, account management and issuing of numbers is now the responsibility of Barbara Young, our new office assistant. Barb is an Ontario native and has an extensive background in office procedures. She will be working 3 days a week with staggered hours.

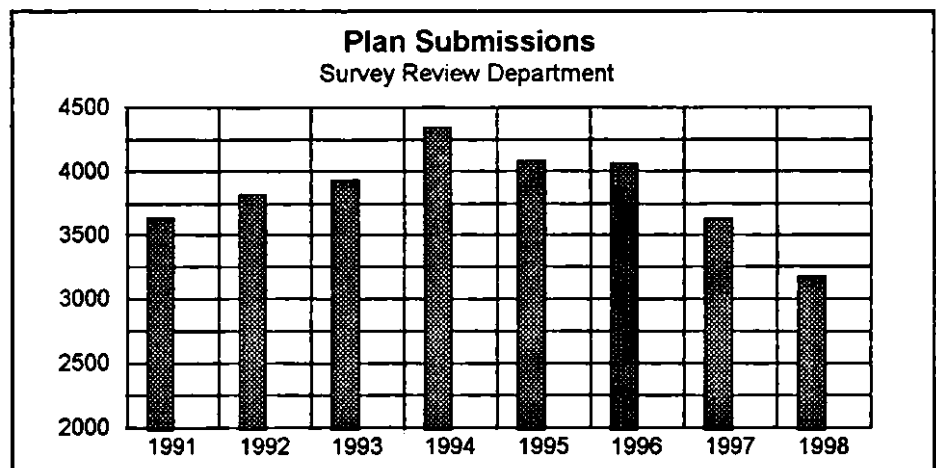
My time can now be directed more towards the review of plans, checking field surveys and visiting with members to consult about submitted projects. The review of plans can result in comments about violations of the regulations, the formation of title blocks, math checks or general survey practice with regard to legal principles.

I would ask that the membership realize regulations are established as a minimum standard. Sometimes the minimum standard is not enough to fully describe the issues presented by a survey plan. Notes of explanation can be given about found evidence, methods of retracement, various encroachments or title concerns relating to easements or rights of way. The plan should be self-explanatory with no ambiguity. The evidence found and set should be fully described, broken distances along a straight course should be summed, distances along natural boundaries need to be provided, alterations to shorelines should be illustrated, cultural features that relate to occupation can be added and the list goes on.

The plan has just been completed and sits before you awaiting the much-valued signature. Has the print received a systematic plan check? Have closures been carried out by using only the print? A scenario that I like to present is as fol-

lows: Imagine that the plan you are viewing has just been presented to you by a client and is the result of a neighbor's survey. Your job is to survey the adjacent lands for your client. Does the plan in front of you describe the boundaries and the related evidence properly? Are important cultural features missing. Does the plan instill confidence in the proper placement of the boundaries or does it only show four lines, four corners set and no evidence found? The previous illustration is what goes through my mind when I review a drawing, regardless of what regulations say.

I would like to thank the membership for the cooperation that has been extended to me over the past year. My reviews are intended to produce positive results so I would like to suggest that none of my comments are negative. If you should see me on the side of the road checking one of your surveys, please drive carefully. ■





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Other Surveyors' Boundaries

by Robert A. Daniels, NSLS, CLS

During the course of surveying boundaries, every land surveyor will, at one time or another, face difficult decisions. One of the most difficult and often argued is - What do you do when you do not agree with corner markers established by another surveyor? The decisions that need to be made centre around the corner posts and often lead to one of the following options:

- Do you set your marker in a different location than the one you found?
- Do you accept the location of the marker found?
- Do you remove the marker found and leave only yours?
- Do you not set your marker and show the one found as being out of position on the plan?

One solution is to put all the choices in a hat and draw one. Although this would be a completely unbiased decision, it may not be the best.

There are as many opinions as there are surveyors about how to determine boundary corners. I certainly do not intend to tell anyone how each instance should be handled, but it may be beneficial to examine the options that are available and give consideration to your approach.

Option 1 - Set your marker in a different location than the one you found.

This is sometimes the easiest approach to use. You have gathered the evidence, weighed it and made a decision as to where the corner should be. Guess what, you do not agree with the marker found during the course of the survey. This option is used by surveyors far too often for several reasons. You do not have to contact the other surveyor to discuss the matter and you can set markers where you believe the boundary corners to be. You can go home and get a good night's sleep. But what about the land owners?

Every surveyor will agree that two or more survey markers at any single corner will cause confusion for the land owners. Survey experts state that *setting multiple monuments is one of the most damaging things the survey profession can do to itself* (Dennis Mouland - Utah Foresights, November 1997). This practice can lead to boundary disputes and frantic calls to the surveyors involved. If this is the case, then why would you do it?

The most logical and professional approach is to contact the other surveyor before placing your marker and make arrangements to review each other's files and the logic used to determine the location of the corner. A sincere effort must be made to resolve the matter before it is made public by setting

additional markers. There are too many instances where one or both surveyors simply state that their corner is correct and if anyone is not satisfied, they can take the matter to court.

Option 2 - Accept the location of the marker found.

Most surveyors will agree this is the best approach, providing the marker found has not been moved either inadvertently or intentionally. Experts in cadastral surveying recommend that as much effort should be put into trying to justify why you will hold the found marker as you would to prove it is incorrect. By accepting a found marker you are maintaining peace and continuity in the neighbourhood.

However, the chances of two surveyors making exactly the same determination for a common boundary or corner are very remote. *Where two boundary surveys agree precisely with one another, either one or both of the surveys is a copy* (Joel M. Leininger, PLS - The Nevada Traverse, Vol. 24, No. 1, 1997). The accuracy of measurements, methods of adjustment and coordinate control systems all influence negatively the possibility of exact agreement at a common corner. If this is true, then how close is close enough?

Every surveyor has their own rule of thumb regarding how close they have to be to a found marker in order to accept it as a corner.

Some surveyors will never accept a found survey marker and show the marker as being one or two hundredths of a foot out of position. Other surveyors will accept any marker found and simply connect the dots. Then there are surveyors who use a statistical approach. For example, they correlate the length of the boundary survey to the linear discrepancy between their corner and the found marker. For shorter boundary surveys, markers found within one or two tenths of a foot of their corners are accepted as being "right on", while on longer boundary surveys the tolerance may be up to one or two feet from the calculated position. This is a very subjective matter and each surveyor will have to establish the tolerances they can support to their clients, other surveyors and the courts.

Option 3 - Remove the marker found and leave only yours.

"You can't do that!" "You wouldn't dare do that!" or "There's no way I would do that!" appear to be the most common responses to removing a survey marker set by another surveyor without consultation with and permission from that surveyor. Arbitrarily moving another surveyor's marker could be seen as a violation of the rights of others. Any surveyor who removes markers set by other surveyors may be viewed as making a unilateral decision that their marker is correct and the other is incorrect. We all know that any final determination of a boundary location is the jurisdiction of the courts.

Undoubtedly, the public would take great offence if a surveyor removed

the marker of another. In their mind they have hired their surveyor to protect their interests and have paid to have markers set at their boundary corners. The removal of markers could be interpreted as willful destruction of private property. In short, it is probably not good practice to remove another surveyor's survey marker without consulting with the other surveyor and agreeing on the course of action.

It may be advisable or even beneficial to remove the marker of another surveyor in certain situations. One example is when the existing survey marker is significantly damaged or disturbed. If this approach is used, it should be clearly defined on the plan (FD. SM (Disturbed) PL SM). This tells the world there is a new marker at the corner and why.

Option 4 - Not set your marker and show the one found as being out of position on the plan.

This approach is sometimes considered acceptable for two reasons. Only one marker is left at the corner and the second surveyor can determine the location of their corner is a different location from the existing marker without any discrepancy being apparent on the ground. If there is not a plan prepared, then the survey marker left at the corner does not reflect the corner as determined by the second surveyor. If a plan is prepared, it will clearly show there is more than one location for the corner. This will cause many of the same concerns as discussed in Option 1.

In my opinion, both surveyors should make a genuine effort to resolve the difference and agree to one common corner for both lots.

Sometimes surveyors are reluctant to discuss their boundary decisions with other members. This may be for several reasons - they are not comfortable with their decision; the additional time will cause the cost estimate to be exceeded; they do not want the competition to know how they conduct their business or, after discussing the matter, they may have to explain to their client why they are changing a boundary. These reasons and others are purely self-serving and do not conform with the objects of the survey profession.

Sections 4(a)(i) and (ii) of the Land Surveyors Act clearly identify protection of the public interest and establishing levels of knowledge and skill as goals for each surveyor to strive to maintain. Multiple markers at a corner are a sure sign that an amateur has placed one or all of the markers. There are those who are slaves to the mathematical manipulation of numbers and others who survey by the deed calls. These people cannot make a decision whether they should hold a found marker or not.

Remember, *the real issues in surveying boundaries are legal not mathematical. When we cross the line and worry more about "precision" than "right", we undo the purpose of our profession.* (Dennis Moulard - Utah Foresights, November 1997).



The Year 2000

by George M. Clarke

A computer problem, referred to as the "Year 2000", "Y2K", "Century Date Change" or "Millennium Bug" problem, faces many businesses and organizations. The problem refers to an inability of some computer systems to operate correctly with dates that reference the year 2000 and beyond.

The problem arises as a result of the use of two digits rather than four to indicate the year in dates in computer hardware and software. In the 1960's, when computers were first used to automate business processes, memory and storage space were very expensive. To save space and reduce costs, programmers eliminated the century portions of dates stored on file. For example, September 26, 1963 would be stored as 630926. Programs assumed that the century portion of each date was 19. The assumption works until a date in the twenty-first century is introduced resulting in an inability of the program to distinguish between twentieth and twenty-first century dates.

The problem affects not only hardware and software, but also "embedded systems". Embedded systems are computer chips which contain instructions for operating computer-instructed processes which are found in equipment such as automated telephone systems, fax machines, building access and security systems, elevators, vaults, sprinklers and smoke detectors and postage meters. Because these are often "hardwired" they must be

replaced as they cannot be reprogrammed.

Date errors will occur after midnight on December 31, 1999 causing systems which are not Year 2000 "compliant" to produce incorrect results, delete data or shut down. An example of a Year 2000 date calculation error is the calculation of a person's age, which is an essential piece of information for many business and government computer applications. A person born in 1935 will turn 65 in 2000. On January 1, 2000 a computer that cannot process twenty-first century dates may assume that the date, in fact, is January 1, 1900 and subtract 1935 from 1900 and calculate the individual's age to be -35. Other possible consequences of incorrect computer calculations are:

- cancellation of customer accounts, orders and shipment of goods and supplies;
- premature expiration of licenses, credit cards and contracts;
- miscalculation (or non-payment) of employee compensation, pension or other benefits and interest payments;
- inability to issue invoices, track accounts receivable and process tax, loan and lease payments;
- miscalculation of insurance premiums;
- disruption of inventory control.

These are only a few possible scenarios. One obvious consequence will be business interruption. While a business may successfully fix its own internal systems, it nevertheless will be dependent on suppliers or other third parties who may experience disruptions due to their own failure to address the problem, resulting in business interruptions for an otherwise Year 2000 compliant organization. As a result, organizations are beginning to implement projects to assess both internal and external Year 2000 risk exposure.

In view of the problem, the tasks for businesses should be to maintain business operations, protect business transactions and prepare for possible litigation by and against the company.

Maintaining Operations

Businesses should take steps to avoid or minimize Year 2000 related disruptions. Some tasks include the following:

- conduct business risk assessments to identify the extent to which information technology systems, embedded chip systems and third party dependencies may be susceptible to Year 2000 failures;
- conduct a legal audit of existing contractual, insurance and other legal rights, obligations and remedies in order to determine whether third parties might be responsible for correcting the com-

pany's own Year 2000 computer problems or bearing some or all of the cost and to identify where the organization might face liability exposure;

- monitor Year 2000 compliance efforts by third parties upon which the business relies, including vendors, service providers, trading partners, data providers and suppliers of equipment containing date-sensitive embedded chips;
- develop and implement Year 2000 compliant contracting and purchasing policies, procedures and documents;
- review insurance policies to see if they cover the cost of correcting Year 2000 problems or if business interruption coverage is available; and negotiate contracts with Year 2000 solutions to vendors.

Protecting Business Transactions

A prerequisite for many business transactions will be the ability of a company to demonstrate its own Year 2000 compliance. In com-

mercial real estate transactions, environmental due diligence is now routinely required. Similarly, Year 2000 due diligence will likely be required as a basic requirement for financing, mergers and acquisitions, asset and share purchases and other business transactions. Companies should also consider their obligations to disclose information regarding significant Year 2000 costs or potential liability in financial statements and filings with regulators.

Preparing for Litigation

The work described above will provide businesses with the best protection against litigation exposure. However, a company may have obligations to investors, shareholders and others who may commence legal action for Year 2000 related losses. As such, the following steps should be considered in addition to those listed above:

- provide management briefings on Year 2000 risks and liability exposures;
- document Year 2000 compliance efforts;

- avoid copyright infringement and warranty invalidation during remedying or upgrading non-compliant software programs by ensuring that the company has the right to modify the program; and
- notify vendors and insurers of potential claims.

The tasks referred to in this article are not intended to be an exhaustive list of steps for consideration when undertaking Year 2000 compliance efforts and are meant for general information only. For specific advice, a lawyer should be consulted.

George M. Clarke is a lawyer with the firm Boyne Clarke in Dartmouth. His preferred area of practice is Corporate and Commercial law.

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1999 Calendar of Events

April 22 - 24	Alberta Annual Meeting	Jasper Park Lodge, Jasper
May 27-29	Saskatchewan Annual Meeting	Travelodge Hotel, Saskatoon
June 3 - 5	Quebec Annual Meeting	Manoir du Lac Delage
June 10 - 12	Newfoundland Annual Meeting	Hotel Newfoundland, St. John's
June 24 - 25	PEI Annual Meeting	H.J. Dutch Inn, North River
August 16	CIG & ICA 99 Conferences	Westin Hotel, Ottawa
Sept 16 - 19	Manitoba Annual Meeting	Country Inn & Resort, Gimli
October 21 - 23	Nova Scotia Annual Meeting	Rodd Grand Hotel, Yarmouth

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6	Tripods (good shape)	\$ 100 / unit

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BUSINESS PROMOTION ON A BUDGET

Land surveyors can promote their businesses and services without spending large amounts of money. The following are suggestions that can be implemented on a budget and that will increase the public's awareness of you, your company and your profession.

1. Have company business cards available and distribute them at every opportunity.
2. Place the corporate name on company vans or trucks.
3. Keep the office environment as neat and professional as possible.
4. Proudly display professional certifications and academic qualifications.
5. Meet as many clients as possible in person.
6. Offer additional services to the client (eg. making applications or sending information to third parties).
7. Provide the service on time and within budget. If this is not possible, notify the client immediately upon identifying any problem.
8. Follow up with clients to ensure the service and products met their objectives.



Surveying History

From the Ames Instrument Company Web Site

Very little is known about how the surveyor worked in the field. The following article is from "The Penny Magazine" (Society for the Diffusion of Useful Knowledge), published in England on August 1, 1840. It was written by an English surveyor after his trip to lower Canada in the New World. It offers interesting insight into how the field work was performed in times gone by.

Having spent a second day in making some further exploration and getting our camp a little into order, on the third day I prepared to run our first line of the township that had been previously surveyed, which was the front line of our survey; and employing a two-rod chain (four-rod ones do not answer for the rough woods), I found that in chaining 960 chains (six miles) we varied from one old measurement only four yards, or eight-elevens of a rod. This was very satisfactory; for as it was desirable that the corners or angles of the lots I was about to survey should correspond with the corners of the lots in the old survey on the opposite side of the division line, I now found there would be no difficulty on this head.

I next chained one side of my own block, staking, as I went along the points from which the cross-lines were to be taken, then the cross, or end-line, if I may so call one side of a square; and have returned to the old township line, I then ran the other side-line, meeting the end of the last line where I left it, uniting

the two lines without either of them varying from the correct length above one-third part of a rod, which I considered good work with a plain seven-inch compass.

But the method of chaining in the woods remains to be explained: the surveyor (in the instance alluded to it was myself) carries the compass slung under his left arm, and covered with a brass cover or case, except when in use, the sights projecting inwards, one in front, and the other in rear of his person, in order to prevent accidents happening to them where there is a difficulty in creeping through the thick underwood. The compass stand has not three legs, as is usual with mathematical instruments of this sort in open countries, but consists of a single stout staff, well shod with iron pointed with steel, which is stuck firmly in the ground when the surveyor has a sight to take, the head of which is supplied with the ordinary ball and socket on which such instruments traverse.

Having planted his compass at the commencement of the line he intends to run, and having arranged the sights to the proposed course or particular degree, when the underwood is not thick, it frequently happens that a tolerably clear way may be seen among the trees to a distance of ten or twenty chains, until some stout tree appears to stand upon the exact line that has to be run, and interrupts the view. This tree the surveyor particularly notices, for he calls it a sight-tree; and having slung his compass un-

der his arm, pulled up his compass staff, and called out "chain" (as a signal for the chain-men to commence measuring), he sets off ahead of the chain-men, taking the axe-man along with him, who here and there cuts down small saplings that seem in the way of the chain-men, which serves also to mark the line; and having reached the sight-tree, on which he has kept his eye the whole way, he goes to the front side of it, and there resets his compass, during which the axe-man is engaged in marking the tree in a particular manner (three, four or five notches both in front and rear); while the surrounding trees, particularly the young ones, are scored with a similar number of notches on the side of each, looking inwards, or towards the sight-tree. The trees thus marked are called witnesses, and the object in marking them in this manner is, that in case of the sight-tree being cut or blown down hereafter, its place may be nearly ascertained by the position of the witnesses.

When the chain-men have measured up to the tree in question, the distance, as well as the sort of tree, is noted in the surveyor's field-book. By this time a new object has been taken, and forward goes the surveyor and the axe-man again. He never, however, heads the chain-men so far as to be out of hearing of anything either party may have to communicate; for in order to prevent mistakes of ten chains, he carries a tally-strap round his waist, with sliding rings or pieces of horn upon it; so that

when the leading chain-man has got to the end of ten chains, and consequently used his whole number (10) of pins or arrows, he calls out to the hind chain-man "tally", the reply to which from the hind chain-man is "tally one", or "tally fifteen," or any other number, as the case may be; upon hearing which, the surveyor counts the tallies he has passed from one side of his belt to the other, to ascertain if the chain-man is correct in his number of tallies, he, as well as the surveyor, carrying a strap round his waist with the number of tallies upon it. If there be no error in counting the number, no remark is made; but if the tallies do not correspond, the matter has to be examined into. It sometimes happens that the underwood is so thick that it is impossible to see four rods

ahead, in which case the chain-men have to assist the axe-man in opening a track sufficiently wide for the surveyor to get a sight through; this, however, makes the work progress very slowly.

In the survey alluded to, we found three or four cedar swamps, marshy pieces of ground where those trees grow in such close contact, that it is next to impossible to squeeze through among them. Besides the trees being so close to each other, the ground is generally so boggy that a person will sink knee-deep; and what renders these places still more dreary and dismal is that the branches of the trees are so intermingled with each other, that the brightest sun that ever shone cannot penetrate the dark foliage one-third of the distance

from the top to the ground, so that when fairly within a tolerable-sized cedar-swamp, though at noon on a cloudless summer day, you find yourself in a pitchy darkness. It is impossible, therefor, to run a line with any degree of accuracy through such places until the axe-man, perhaps up to his knees in mud, has exercised his calling, which renders the surveying of a cedar-swamp a slow and disagreeable business; and, when the work is performed, such tracts are absolutely worthless, as no settler, while there is another acre of land to be had, would think of attempting the cultivation of the cedar-swamp.

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FIG Adopts Charter for Quality

The International Federation of Surveyors (FIG) recently adopted a Charter for Quality as a guideline for member associations to use to develop Total Quality Management principles within their organizations. Recognizing that the role of the surveyor is to provide certainty, it is important for all surveyors to recognize the importance of quality and ensure that the product of their services is a quality product. Many of the surveyors services and plans provide the legal cadastral framework for future generations of land records, and are relied on by governmental and private land management agencies as well as the public at large.

The seven principles in the charter are:

- ▶ To commit our respective organizations and member associations to quality, service and client/customer satisfaction.
- ▶ To develop a total quality culture through management commitment and leadership within our organizations.
- ▶ To develop a continuous improvement approach to all our activities.
- ▶ To work towards achieving recognition of our respective organizations to internationally recognized standards for quality systems.
- ▶ To encourage suppliers of products and services to surveyors to embrace the principles of the quality movement.
- ▶ To train surveyors through a total quality approach.
- ▶ To share and participate in bench marking and performance measurement.

It is the intention of FIG Commission 1 to have the charter for quality printed in a format for framing and display in the offices of professional practitioners.

Seven Rules of Professional Practice

Canon 1. A professional surveyor should refrain from conduct that is detrimental to the public. Every professional surveyor recognizes that a license is a trust from the public and therefore has a duty to meet technical and ethical standards. As such, the surveyor is bound to behave in a manner that will be in the public's interest. In fact, it has been proposed that surveyors have a duty to the public and should actively look for opportunities to provide pro bono services.

Canon 2. A professional surveyor should abide by the rules and regulations pertaining to the practice of surveying within the licensing jurisdiction. The surveyor should be expert in applying laws that affect the practice and the profession. The public will look to the surveyor for information and interpretation of rules and regulations. It is the surveyor's responsibility to adhere to the rules of the licensing jurisdiction.

Canon 3. A professional surveyor should accept assignments only within her or her area of professional competence and expertise. All too often, someone says that the surveyor is an expert in all facets of the profession. We must recognize that the varied scope of the surveying profession precludes any single individual from knowing it all. Each practicing professional should acknowledge the area of practice in which he or she excels. By concentrating on that area, the surveyor can maximize returns.

Canon 4. A professional surveyor should develop and communicate a professional analysis and opinion without bias or personal interest. The professional surveyor's opinion is his or her primary product, and the public should have a reasonable expectation of being able to rely on it. If an opinion is to have any credibility, the surveyor must not allow personal interest or bias to cloud his or her judgement.

Canon 5. A professional surveyor should maintain the confidential nature of the surveyor-client relationship. The law does not create a confidential relationship between surveyor and client; however, the surveyor still has the duty to recognize that frequently he or she is brought into a project during its sensitive stages. The surveyor must respect the confidential nature of the

project while recognizing the bona fide rights of all landowners and occupants.

Canon 6. A professional surveyor should use care to avoid advertising or solicitations that are misleading or otherwise contrary to the public's interest. The duty of any professional is to provide the public with enough information to make an informed choice. Advertising is a means of presenting this information. Surveyors should also actively seek opportunities to disseminate information that presents a positive image of the profession to the public.

Canon 7. A professional surveyor should maintain professional integrity when dealing with members of other professions. The surveyor should strive to enhance the profession through interaction with other professionals and professions. The respect that surveying professionals receive is directly proportional to the respect and consideration they give. We often hear someone say, "We knew we should have done things differently, but the client could not afford to have it done right." The real question is "Can we, as surveying professionals, not afford to do it right?"

As seen in the Wisconsin Professional Surveyor - December 1997, reprinted from ACSM Bulletin, No. 148, March/April 1994. ■

And the Year's Best Headlines Are ...

Police Begin Campaign to Run Down Jaywalkers

Cold Wave Linked to Temperatures

Drunk Gets Nine Months in Violin Case

Prostitutes Appeal to Pope

Panda Mating Fails; Veterinarian Takes Over

Juvenile Court to Try Shooting Defendant

Enraged Cow Injures Farmer With Axe

Man Struck By Lighting Faces Battery Charge

Hospitals Are Sued by 7 Foot Doctors

As seen in The Nevada Traverse, Vol. 25, No. 2, 1998, reprinted from The Cornerpost (Vermont), Vol. 29, No. 1, March 1998. ■

MINUTES OF THE 48th ANNUAL MEETING

Held at the Prince George Hotel

Halifax, Nova Scotia

October 29 & 30, 1998

Thursday, October 29, 1998

1. President Joseph Alcorn introduced the honourable Kennie MacAskill, Minister of the NS Department of Natural Resources and Walter Fitzgerald, the Mayor of Halifax Regional Municipality. They brought greetings from the province and the municipality, welcomed the out-of-province delegates and wished the members a successful meeting.

2. Joe introduced the out-of-province guests who brought greetings and wishes for a successful meeting:

- Corporation of Land Surveyors of the Province of BC - President Greg Browne.
- Alberta Land Surveyors' Association - President Alex Hittel.
- Saskatchewan Land Surveyors' Association - President Bob Webster.
- Association of Manitoba Land Surveyors - President Peter Isaac.
- Association of Ontario Land Surveyors - President Hugh O'Donnell.
- L'Ordre des arpenteurs-géomètres du Québec - President Denis Vaillancourt.
- Association of NB Land Surveyors - President David Jones.
- Association of Newfoundland Land Surveyors - President Dave Vallis.
- Maine Society of Land Surveyors - President Joe LaBranche.
- CCLS - Vice-president Phil Milo (on behalf of President Dick Wright).
- Association of PEI Land Surveyors - member Jim Banks (on behalf of President Dave Morris).
- ACLS - Atlantic Regional Director Jim Banks (on behalf of President Terry Hauff).
- CIG - President Jim Simpson.

3. Member Marcellin Chiasson addressed the members present. He thanked the ANSLs on behalf of himself and his wife, Yvette, for the fund-raising effort that took place

at the 1997 annual meeting. The new computer and the Internet access have linked him to the rest of the world.

4. President Joe introduced the exhibitors, thanked them for their support and encouraged members to visit the exhibits. The exhibitors are:

- Wade Company Limited (Atlantic) - Gary Wright, Bill Phillips, Ken Totten, Dick Honan, Jeff Ogden, Dave Crighton, Kevin Roche, Pat Hills (Sokkia).
- Spectra Precision - Bob Martin, Rob Ragsdale.
- NS Geomatics Centre - Dave Purdy, Perry Hamilton.
- Leica Geosystems - Paul Lyon, Jim Johnson, Michel Bourdon, Gene Maynard.
- Gemini Positioning Systems - Cameron Baird.
- Cantel Worldwide - Terri MacDonald, Kelly Sheperd, Amy Baker.
- Cansel Survey Equipment - Len Kincaid, Stan Jackson, Dina Desjardins, Tom Hogan (Topcon).
- Azon Canada - King Flood, Bill MacGillivray, Mark Ogden, Ken Ratushny.
- AM Laser & Survey - David Page, Michael Yates, Harry Otani (Pentax).

5. President Alcorn called the meeting to order at 11:30 am. The meeting will be governed by Robert's Rules of Order and common sense. Phil Milo was appointed Parliamentarian.

6. Mr. Alcorn introduced the past year's Council and Executive. Councillors: Zone 1 - Lester Berrigan; Zone 2 - Michael MacNeil; Zone 3 - David Roberts; Zone 4 - George Sellers; Zone 5 - David Attwood and John Pope; Zone 6 - Allen Hunter, Paul Slaunwhite, Rod MacInnis, Forbes Thompson; vice-president - Gerald Pottier; past president - Valerie George.

7. Joe asked that everyone stand and observe a moment's silence in memory of honorary member, J. Ruskin (Rusty) March, NSLS # 4, who passed away in the last year.

8. Presentation from CCLS by vice-president Phil Milo - A written report, outlining CCLS activities in 1998, was previously submitted and circulated by John Pope. (A full copy of the report is available at the association office).

In November 1998, CCLS president, Dick Wright, along with Wayne Brubacher, will attend the NSPS meeting in Fort Worth, Texas. Full CCLS representation is important with respect to NAFTA.

Phil is chair of the Board of Education Coordinating Committee (BECC), which has recently been reactivated in order to review university accreditations. Paul Slaunwhite, John MacInnis and Grant McBurney have allowed their names to be on the list of those willing to serve on the University Accreditation Team. Curricula and textbooks will be reviewed. The committee will then send out an information package, including what the university must provide so that an evaluation can be done. There will be an on-site inspection which will include student interviews, seeing the site in operation and inspection of the equipment. The University of Calgary's accreditation was extended to September 1, 1999 to give the committee time to do an evaluation. The UNB Geomatics Program accreditation was extended to May 1, 1999 to allow completion of current UNB curriculum changes and to allow CCLS to begin the process of ensuring that several programs are not up for review in the same year.

There is a cost-sharing proposal which includes CCLS covering travel expenses and the university funding expenses for the evaluation team while on site.

Phil's name has been put forward to serve on the CCLS Geomatics Futures Task Force. The task force will look at the geomatics industry and where it fits in both Canadian and international business fabrics.

Mr. Milo thanked Bob Daniels and Gordon Isaacs for their work on the CCLS Public Relations Committee. CCLS is aware of the national importance of this issue.

He also thanked Jim Gunn for his work on the CCLS Professional Liability Insurance Committee and congratulated him on his presentation at FIG.

Phil thanked Kevin Brown for serving as the CCLS director from PEI and for starting the CCLS web page.

Greg Browne (BC) commented that members should make an effort to address the Geomatics Future issue as it is something that is going ahead. Views are required at the provincial level.

9. Presentation from CIG by president Jim Simpson - CIG was involved in the Geomatics Future issue at the conference in Ottawa in June 98. The three main organizations involved are: the Geomatics Industry Association of Canada (GIAC), the Canadian Institute of Geomatics (CIG) and the Canadian Council of Land Surveyors (CCLS).

CIG will be distributing information to members in a more timely fashion through the CIG branch chairs. CIG also has a segment in the DND's Altavista forum, which can be accessed by CIG members.

The Halifax branch of CIG is seeking a new chair. The current chairman is Dennis Kingston of COGS who suggested that someone closer to the Metro area be canvassed as 22 of the 52 Nova Scotia CIG members are in the Metro area.

After 1999, the MOU with the federal government regarding the co-sponsoring of national and international geomatics conferences will expire and will not be renewed. For the past few years the CIG agm has been held in Ottawa in conjunction with these conferences. CIG branches will put in bids to hold the national conference in their city. Mr. Simpson invited the members to attend the International Cartographic Association meeting in Ottawa in August 1999. The \$600 registration cost will be reduced for CIG members.

10. President Alcorn reviewed the meeting agenda.

11. Secretary's Report on Attendance: Bob Daniels reported that 80 members had registered to date. A recent head count showed 45± members present at the meeting, fulfilling the requirement of 35 for a quorum.

12. Approval of Minutes of 47th Annual Meeting: It was moved by Bob Feetham, seconded by Marcellin Chiasson, that the minutes of the 47th annual meeting, held on October 17 and 18, 1997 at Keltic Lodge Resort, Ingonish Beach, NS be approved as published in the Winter / Spring 1998 issue of *The Nova Scotian Surveyor*. Motion carried.

13. Business Arising from the Minutes of the Last Annual Meeting: There was none.

14. Report on Council Activities: Council met 4 times this year - January 30, February 23 (teleconference), May 8 and September 11. There was one executive meeting, held on June 23.

The annual committee workshop was held in Truro in January 1997. It was not well attended, but much good work was accomplished by those present.

APENS - ongoing meetings were held at the executive level. Presently, APENS is revising their new act and will seek support from other groups. They have indicated that they will keep their existing definition and revise Section 28, which impacts on related groups (technicians and technologists). ANSLs is waiting to receive the revised legislation. Once received, it will go to our APENS committee. The committee will then review our definition with respect to the words "engineering principles".

Our definition was sent to government for consideration. It was not taken forward, but was not rejected either. Government wants the matter with APENS resolved first.

The DOT & PW Committee has had ongoing meetings. The committee is working on a subset of the ANSLs regulations that will bring the level of DOT & PW survey work closer to the standards set out in our regulations.

Fred Hutchinson accepted the SRD Manager position in April.

ANSLs moved into the new office in mid-July.

Public Relations - 3000 copies of a title insurance brochure were prepared and distributed. Contributed an article to a public awareness campaign regarding title insurance in the Daily News.

The first version of the Manual of Good Practice has been compiled and printed and is being distributed to members. The Board of Examiners for Nova Scotia Land Surveyors Handbook has been revised and is being distributed to members.

An Alternate Dispute Resolution proposal was prepared and will be discussed at this annual meeting.

A complaint was filed by the association against a member.

The association has tried to keep members informed of the courses necessary to become a Qualified Person II (QP II). This is for providing services related to on-site disposal systems.

15. Report from the Secretary of the NS Board of Examiners: Bob Daniels referred to the report published in the Fall 1998 issue of the "Surveyor". He also reported that changes have been made to the handbook. The changes include a more detailed breakdown under the article time heading. Each category has been expanded to give more information regarding what should be included when reporting article time. An economic component has also been added to the final retracement project. Time and cost estimates will be submitted to the examining committee at the beginning of the project, and a detailed invoice will be provided once the project is complete.

The NS Board of Examiners is investigating the possibility of changing the current examination process to include more emphasis on boundary determination.

16. President Alcorn changed the order of business to cover Motion # 5 regarding COGS, which is one of the items in "Motions for Consideration".

It was moved by Phil Milo, seconded by Michael MacNeil that the following resolution be approved:

Whereas the College of Geographic Sciences has an international reputation in the geomatics industry, and

Whereas the loss of its identity will have a negative impact on recruiting students and in expanding employment opportunities for graduates, and

Whereas two resolutions and a petition have been tabled in the Legislature (by the New Democratic Party and the Conservative Party) asking that the name be reinstated.

Therefore be it resolved that the Association of Nova Scotia Land Surveyors, with the support of its members, formally request the government of

Nova Scotia to reinstate the name "College of Geographic Sciences".

Phil Milo spoke to the motion. He has attended a number of meetings including one with the Nova Scotia Community College (NSCC) Board of Governors. He met with Ray Ivany, the new NSCC president, and they agreed on many points but Phil was unable to convince Mr. Ivany of the importance of the word "college". This motion has received support from both the New Democratic Party and the Conservative Party, but support from the current government would strengthen the position.

Motion carried unanimously.

The remainder of the motions will be covered in tomorrow's agenda.

17. Presentation on Geomatics Alliance - Hugh O'Donnell of AOLS made a presentation on the proposed national geomatics alliance group being investigated by GIAC, CIG and CCLS. The Association of Ontario Land Surveyors sees the alliance as a positive thing. In the near future, Ontario will be expanding the profession by regulation to bring in a new designation - Ontario Land Information Professional (OLIP). Current land surveyors will carry the OLIP designation. Other specialists who can use the designation are computer science technicians, information technologists and geographers whose area of expertise is the management of land information and structure. The Ontario government is looking to put out activities into the private sector. Once the ministries managing the Ontario land infrastructure begin this process, OLS's will be part of the operation.

Presently there are 3 national geomatics-related associations (GIAC, CCLS and CIG) which are in difficulty both financially and in competition for members. One of the difficulties faced by these organizations is that funding is available to carry out studies on issues of national importance, but there are not enough funds to carry the study through.

It makes professional and financial sense to combine funds, magazines, web sites and various resources into one source to provide services to members. In addition, the federal government prefers to deal with only one national group instead of several. Amalgamation can be

achieved in phases beginning with combining the offices followed by a plan of transition to create a single body.

18. Secretary-Treasurer's Report: Bob Daniels reported on the 1997 audited financial statement, as published in the Fall 1998 issue of *The Nova Scotian Surveyor*. Mr. Daniels reviewed both administration and SRD revenue and expenses for the year showing a net surplus of \$25,111.

It was moved by William Thompson, seconded by Harold Lively that the 1997 audited statement be approved as published in the Fall 1998 issue of *The Nova Scotian Surveyor*. Motion carried unanimously.

Mr. Daniels reviewed an unaudited statement to August 31, 1998. Both administration and SRD revenue and expenses are on target to date.

19. Report from the Manager of the Survey Review Department: Fred Hutchinson referred members to his report published in the Fall 1998 issue of *The Nova Scotian Surveyor*. In addition, he has completed approximately 150 plan inspections. Several reports must be reviewed before mailing.

Mr. Hutchinson has completed approximately 40 field inspections, but is behind in report preparation. He has completed 2 comprehensive reviews.

A student was hired in SRD for 3 months, but there has been no assistant for the months of September and October. Mr. Hutchinson will hire someone with bookkeeping / clerical skills rather than technical skills.

20. Secretary's Report on Membership: Bob Daniels reported on membership statistics from 1993 to 1998 as follows:

<u>Category</u>	<u>1998</u>	<u>1997</u>	<u>1996</u>	<u>1995</u>	<u>1994</u>	<u>1993</u>
Regular	225	227	239	246	254	261
Life	15	14	14	14	13	14
Retired	34	33	31	36	31	27
Student	14	15	15	16	14	12
Hon.	3	3	3	3	4	4
Assoc.	1	3	3	6	7	10
<u>Non Pr.</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>4</u>
TOTAL	295	298	308	324	326	332

21. President Joe listed the committee reports which were published in the Fall 98 issue of *The Nova Scotian Surveyor* and asked that any updates be made at the time the committee name was mentioned. The committees are: APENS/ANSLS, APBELS, Building, Complaints, Database, Discipline, DOT & PW/ ANSLS, GANS Liaison, Insurance, Manual of Good Practice, NS Board of Examiners, NS Board of Examiners Special Examining Committee, Public Relations, Regulations. He called upon the following committee chairs to present reports:

SRD / Administration Review Committee: Gerald Pottier (C) reported that the committee met twice - once in Truro in February to discuss some of the issues associated with the SRD move to Dartmouth. The committee also conducted interviews and made the recommendation regarding the hiring of the new SRD manager.

By-Laws Committee: Glenn Crews (C) reported that the committee attended the annual workshops in Truro and had some brainstorming sessions. There are presently no issues of importance before the committee and consequently the committee has been relatively inactive.

Continuing Education Committee: Ray Pottier reported that a motion will be brought forward under New Business. The committee did not meet at the workshop in Truro as the other committee members could not attend.

Statutes Committee: No report.

COGS Advisory Committee: Bob Daniels reported. There are a number of program advisory committees (PAC) at the NSCC. One is the Survey Program advisory committee. Bob Daniels and Ken Robb are on this committee as well as representatives from all four Atlantic provinces. At COGS the 1-year program is called the Survey Technician Program, the 2-year program is the Geomatics Engineering Technology program. The committee meets to discuss program content. One item covered was the possibility of more cadastral content, such as boundary and legal. There was also discussion of co-op education program, which would include an on-the-job training period as part of the program. This may not be necessary as most current graduates find immediate employment. NSCC is looking at combining the Cartography, Planning, Land Information and Survey PAC's into one committee called

Geomatics. There would still be 2 meetings per year - one where all groups would meet to discuss the programs and the second would allow each group to discuss items specific to each program.

SRD Advisory Committee: Dennis Prendergast (C) submitted the following written report:

"The manager of the SRD calls upon the Advisory Committee for opinions or concerns he may have regarding surveys. The input of the Advisory Committee may be by letter, fax or phone.

Some topics dealt with in the past year include types of monumentation, where witnesses are placed and just recently, written certificates.

This past year, we saw Jim Gunn replaced by Fred Hutchinson as manager of the SRD. Thanks ever so much to Jim for his efforts and good luck to Fred.

Many thanks to Ted Webber and Grant McBurney for their valued contribution."

There were no further committee reports.

22. Michael LeBlanc of First Canadian Title Company made a presentation to members regarding title insurance. This was followed by a question and answer session.

At 4:15 pm, President Alcorn adjourned the meeting until 9:30 am on Friday, October 30, 1998.

Friday, October 30, 1998

President Joe called the meeting to order at 9:35 am.

23. Bob Daniels made a presentation to members regarding the new ANSLS building. He showed slides of the building through various stages of development and gave some information about the building and the financing involved. ANSLS is currently investigating the costs involved in getting a sign.

24. Jack Kaulback, Chairman of the Manual of Good Practice Committee, updated the members present about the Manual of Good Practice. The Manual of Good Practice is complete and is being circulated to members. Suggestions for changes or additions can be sent to the

ANSLS office at any time as the manual is always a "work in progress" and must be updated continuously to be kept current. Section A is "Legislation", which contains references to various acts which may be connected with surveying. Section B is "Government Information Sources", which contains addresses and phone numbers of various provincial and municipal development and planning agencies throughout the province. Section C is "Recommended Procedures", which contains guidelines for carrying out various types of surveys.

25. Motions for Consideration: President Joe indicated that the motions for consideration would be covered in a different order than that shown on the agenda.

Motion 2 - Mandatory Continuing Education

It was moved by Raymond Pottier, seconded by Jeff Fee that the proposed regulations for Mandatory Continuing Education prepared by the Continuing Education Committee be approved by the membership and subsequently sent to the provincial government for approval. (A copy of the proposed regulations "Part VIII - Mandatory Continuing Education" is attached to these minutes as Appendix A).

Ray Pottier spoke to the motion. At the 44th AGM held in Baddeck in 1994, a motion was approved that ANSLS establish a committee to study the concept of mandatory continuing education and prepare a written report for presentation at the 1995 annual meeting. The current proposed regulations were given to Ray for review. The only change he made to the proposal was to eliminate a credit point system. He thought the motion could get bogged down in discussion of this item. It can be added at a later time if the current proposal is accepted by the membership.

After some discussion, it was moved by John MacInnis, seconded by Valerie George that the motion be amended as follows: section 156 of the proposed regulations be amended by striking that part of the section beginning at "... notified that their license to practice land surveying..." to the end of the section, and replacing it with the words "dealt with through the Complaints / Discipline process".

Motion to amend carried.

After more discussion, it was moved by David Roberts, seconded by Jack Kaulback that the motion be amended as follows: in section 147, remove the words "... established by the Mandatory Continuing Education Committee" and replace with "... set out in the by-laws".

Motion to amend carried.

The question respecting the amended motion was called. Motion carried.

Motion 1 - Alternate Dispute Resolution

It was moved by Robert Daniels, seconded by Bob Feetham that the proposed Alternate Dispute Resolution (ADR) program be approved by the membership and subsequently sent to the provincial government for recognition and endorsement. (A copy of the draft proposal is attached to these minutes as Appendix B).

Bob Daniels spoke to the motion. ADR is a method of resolving disputes without resorting to litigation. It is less expensive, more timely and can result in a more amiable outcome. The ANSLS lawyer provided the opinion that ANSLS can implement this process under existing legislation.

After much discussion, Bob Daniels, with the approval of the seconder, agreed to withdraw the motion from the floor so the proposal can be reassessed. Mr. Daniels identified five points, based on the discussion, that will be taken to the zone level for review and possibly presented to the members at the next annual meeting:

1. There should be an opportunity for the arbitrating surveyor to provide a third opinion.
2. Remove the requirement that a surveyor cannot act as an arbitrator if there is a current complaint / discipline action against him / her. There is a presumption of innocence until proven guilty.
3. Investigate the limit of liability of all surveyors involved, including the arbitrating surveyor.
4. The association will not choose the arbitrator.

5. The surveyors will both agree to the process.

It was moved by Athol Grant, seconded by William Thompson that the motion respecting Alternate Dispute Resolution be tabled until the next annual general meeting. Motion carried.

Scrutineers' Report: Before returning to the motions, President Alcorn announced the results of the Scrutineers' Report. The positions of vice-president and councillors for Zones 1, 4 and 5 were filled by acclamation. There was an election in Zone 6. The results are as follows: president elect - Gerald Pottier; vice-president - David Wedlock. Councillors: Zone 1 - Ray Pottier; Zone 4 - Allan Chisholm; Zone 5 - Athol Grant; Zone 6 - Brian MacIntyre and Carl Hartlen.

It was moved by John MacInnis, seconded by Philip Milo that the ballots be destroyed. Motion carried.

Motion 4 - Surveyors Location Certificate

It was moved by David Roberts, seconded by Walter Rayworth that section 138 of the Nova Scotia Land Surveyors Regulations be amended by deleting subsections 138 (1) (a) and 138 (1) (b); by deleting the word "when" at the end of Section 138 (1); by creating four new subsections to be inserted as subsections 138 (2) (b), (c), (d) and (e) and by renumbering subsections 138 (2) (b), (c) and (d) to 138 (2) (f), (g) and (h), to read:

(Sections with changes shown in **bold print**):

138(1) A Surveyor's Location Certificate without a diagram may be prepared.

138(2) A Surveyor's Location Certificate without a diagram shall include

- (a) a notation of the name of the party to whom the Surveyor's Location Certificate is being certified, in the form, "Certified to _____";
- (b) the civic address or the PID of the property;
- (c) the location of the Registry office where the deed or plan is registered;

(d) all known and visible encroachments on or emanating from the parcel shall be noted;

(e) significant discrepancies between the title documents and the property as occupied shall be noted;

(f) the following certification:

"I, _____, Nova Scotia Land Surveyor, of _____ hereby certify that this Surveyor's Location Certificate was prepared under my supervision and that sufficient research and measurements have been made as I deemed necessary to certify that the _____ (is) (is not) located entirely within the boundaries of the subject parcel as those boundaries are described or shown by _____; no further certification is implied or to be inferred hereby.

Dated _____, _____.

_____, NSLS;"

(g) the date on which the field survey was conducted; and

(h) the surveyor's stamp.

David Roberts spoke to the motion. He would like to be able to prepare written Surveyors Location Certificate when he deems appropriate. If title insurance becomes more widely used, location certificates may no longer be required by mortgage companies. Where title insurance basically covers proven loss, location certificates can show potential problems before the transaction is completed. It can be demonstrated to the public and to the legal profession that location certificates remain a valuable option, while offering a more economical choice through written certificates.

After some discussion, the question was called. Motion defeated.

Motion 3 - GPS Regulations

It was moved by Jeff Fee, seconded by Ray Pottier that sections 7, 9, 12, 14, 17 and 19 of the regulations be

amended to include the application of GPS technology. (Copy of detailed proposal is attached to these minutes as Appendix C).

Jeff Fee spoke to the motion. GPS is a new technology that is significantly different from the conventional technologies that are currently in use. It is clear in the regulations that surveyors must deal with standards, survey equipment and the manner of doing surveys. The present regulations are technology specific and it is proposed that a new section be added to support GPS technology.

Mr. Fee reviewed the proposed amendments giving explanations regarding the updates.

Following some discussion, it was moved by James McIntosh, seconded by Jack Kaulback that the motion be amended as follows:

in section 17(b) change (1:5000 plus 20 mm) to (1:5000 plus 30 mm);

insert section 17(c) to read "The maximum allowable error of closure of a traverse after angular adjustment shall be one part in five thousand plus 30 millimetres (1:5000 plus 30 mm)";

change section 17(e) to read "The minimum horizontal accuracy and vertical accuracy of surveys carried out with GPS technology shall be "r" cm, where $r = 2(d + 1.5)$; and d = the distance in km between survey stations or monuments;

Specification recognizes GPS as a technology which provides a unique three dimensional measurement. The standard varies from (1:5000 plus 30 mm) over short distances to 1:44,000 (approximate network accuracy) over long distances. The specification is easily achieved with carrier phase GPS.";

delete section 17(f) and renumber section 17(g) to 17(f);

change section 19(1)(c) to make reference to Section 17(f) instead of 17(g) in keeping with the above-noted change.

Motion to amend carried.

After some discussion it was moved by John MacInnis, seconded by William Thompson that section 17(f) be changed to include the words "transfer of ownership" as originally stated in the regulations to read as follows: "... to retrace the boundaries of uncultivated lands where no immediate transfer of ownership or development is foreseen ... ".

Motion to amend carried.

The question was called. Amended motion carried.

26. President Joe thanked the outgoing councillors for their service to ANSLs during the past 2 years. He presented plaques to those who were present. The outgoing councillors are: Zone 1 - Lester Berrigan; Zone 4 - George Sellers; Zone 5 - David Attwood; Zone 6 - Allen Hunter and Paul Slaunwhite. Councillors who are returning for another year are: Zone 2 - Michael MacNeil; Zone 3 - David Roberts; Zone 5 - John Pope; Zone 6 - Rod MacInnis and Forbes Thompson; representing the Minister of Natural Resources - Lee Johnston.

27. President elect Gerald Pottier assumed the Chair. Past president Joe Alcorn welcomed Mr. Pottier as the new president and presented him with the President's pen.

Gerald thanked Mr. Alcorn and the outgoing councillors for their efforts on behalf of ANSLs and presented Joe with a Past President's pin.

28. New Business: President Pottier opened the meeting for new business and asked the members if they had anything to bring forward.

Ray Pottier addressed the members. He has undertaken the creation of an ANSLs web page and is in the process of making major changes. He asked those members in private practice who would like their e-mail address included on the web page to inform him. He also asked if there were any objections to his maintaining the web page. There were none.

1999 Budget: Bob Daniels presented the proposed 1999 budget for consideration. He reviewed the projected revenue and expenses. Administration revenue is projected at \$191,107, expenses at \$188,845.34 for a surplus of \$2,261.66. SRD revenue is projected at \$86,000, expenses at \$85,784 for a surplus of \$216. The

lower projected revenue in SRD is due to fewer plans coming into SRD as reported by Fred Hutchinson.

Phil Milo commented that the "COGS Outreach" program has been deleted from the budget and said it was unlikely that he would be involved in an outreach program through COGS this year. He stated his willingness to become involved in a program of that nature in talking to high school students about surveying as a profession. Mr. Milo asked that if the members of the association would like to see something like that done, perhaps some funds could be set aside for this purpose.

It was moved by Philip Milo, seconded by John MacInnis that the 1999 budget be amended to include \$500 in an "Outreach Program" account. Motion carried.

It was moved by David Roberts, seconded by Michael MacNeil that the amended budget be approved. Motion carried.

29. Plan Contest Winners: President Gerald announced the winners of the Survey Plan Contest:

Retracement - Gerald Pottier
Subdivision - John MacInnis
Government - David Attwood
Student Exercise - tie between Mike MacDonnell and Kevin Gray
Most Unique - Fred Hutchinson
Surveyors Location Certificate - Carl Hartlen

30. Gerald called on the out-of-province guests to make closing comments. All thanked Joe and Donna and the ANSLs for the invitation and hospitality, offered congratulations on a successful meeting and issued invitations to their upcoming annual meetings.

31. President Pottier announced that next year's annual meeting will be in Yarmouth in October 1999. The venue and exact date will be announced at a later date.

32. At 4:25 pm it was moved by Bob Feetham that the meeting be adjourned.

Robert A. Daniels, NSLS, CLS
Executive Director

OBITUARY

Allison (Al) B. Grant, NSLS # 255, died at home in Dartmouth on December 13, 1998 at the age of 78. He was a member of the armed forces serving in Canada and northwest Europe during the Second World War.

Following graduation from the Nova Scotia Land Survey Institute, Al joined the Topographical Surveys of Canada. He continued with Hydrographic Service, the Bedford Institute of Oceanography and eventually went into private survey practice.

Prior to retirement he was secretary-treasurer of the Association of Nova Scotia Land Surveyors.

Our sympathy is extended to his family.

OBITUARY

Ian P. MacInnis, P.Eng, NSLS # 45, died on December 28, 1998 at the age of 78 in St. Martha's Hospital, Antigonish. He served in France, Holland and Germany during WWII with the Royal Canadian Engineers.

He graduated from St. F.X. in 1950 and from TECH (Dal/TUNS) in 1952. He worked for Public Works Canada in Halifax until the mid 1970's, when he returned to Cape Breton and founded West Bay Engineering and Survey. He was an accomplished fiddle player and an avid sailor. He was a life member of the Dartmouth Yacht Club and helped initiate the Dundee Cup. Ian and his wife, Phyllis, were involved with the Boy Scouts of Canada and as well he was involved in several other community groups.

We extend our deepest sympathy to his family.

Appendix A**Part VIII - Mandatory Continuing Education**

144. The regulations in this part may be cited as the "Mandatory Continuing Education Regulations".
145. A Mandatory Continuing Education Program will be established and administered by the association, facilitated by a mandatory Continuing Education Committee under the direction of Council.
146. All members, with the exception of non-practicing, honorary, student, retired, associate and life members who do not practice professional land surveying are required to participate in the Mandatory Continuing Education Program.
147. The Mandatory Continuing Education program shall include a credit point system, to be established by the Mandatory Continuing Education Committee.
148. Members required to participate in the Mandatory Continuing Education Program will accumulate credit points based on their participation in the following:
- annual general meeting, special general meeting, zone meetings or committees of the Association;
 - land surveying related conferences, seminars or workshops organized by the Association or other groups;
 - recognized credit or non-credit courses offered by educational institutes;
 - any activity that is deemed to enhance the profession or the members ability to practice professional land surveying.
149. Members required to participate in the Mandatory Continuing Education Program shall be required to accumulate a minimum number of credit points over every consecutive two year period.
150. The Mandatory Continuing Education Committee will determine the eligibility of all courses and activities submitted by members for credit points.
151. The Mandatory Continuing Education Committee will establish a point rating system for each course or activity based on its' relevance to the association and the practice of land surveying.
152. The Mandatory Continuing Education Committee will prepare and distribute a list of possible courses types, seminars or activities to participating members.
153. The Association will maintain a current record of credit points accumulated by each member required to participate in the Mandatory Continuing Education Program.
154. The Mandatory Continuing Education Committee shall review the Mandatory Continuing Education Program an annual basis and present a report to Council.
155. The Mandatory Continuing Education Committee will have an obligation to make educational and participation opportunities readily and equally available to all members.

Appendix A

156. If a member required to participate in the Mandatory Continuing Education Program fails to accumulate the required number of credit points within the defined time period, the member will be notified that their license to practice land surveying may be suspended until such time as the requirements under the Mandatory Continuing Education Program are met. Notice of such suspension shall be forwarded to each federal, provincial and municipal department or office that may use or approve plans or documents prepared by the member; published in at least two newspapers having general circulation in the area where the member carried on a practice and published in the Association's publication.

Appendix B**ADR - Alternate Dispute Resolution - October 1998**

It appears the ANSLS can implement an ADR program under its existing legislation. It would fall into services provided for the benefit and protection of the public, similar to continuing education for members or presentations to the public on survey matters. The ADR process will have several components.

1. requirements necessary to make use of the process
2. qualification of members
3. application form
4. process guidelines
5. guidelines to implement the results of the ADR process
6. promotion of ADR to the public
7. endorsement of ADR by members and council

SUMMARY

1. The ADR process would have an independent third party land surveyor review the boundary dispute and provide an opinion indicating which boundary is most likely to be correct.

The applicants will agree to use the ADR process by completing and signing the application form.

There must be a survey and plan of each property in question. The survey must be current (since 1979 regulations).

The applicants must agree to pay the fees of the arbitrating surveyor.

The applicants must agree to provide all relevant information to the arbitrating surveyor.

2. Members would have to meet certain criteria to be considered as an arbitrating surveyor.
 - Cannot be related to the surveyors or applicants involved in the dispute.
 - Cannot be in any business relationship with the surveyors or applicants involved in the dispute.
 - Must be a member in good standing of the association.
 - The arbitrating surveyor must not have any ongoing complaints or discipline actions against them.
 - The arbitrating surveyor must have demonstrated experience in practicing land surveying for the public.
3. The application form will be developed by the association. The essence of the form is that the applicants agree to use the independent third party land surveyor to offer an opinion of which boundary is more likely to be correct and agree to pay for the land surveyor's costs.

The application will be signed by the applicants and witnessed accordingly. Copies of the application will be given to each of the applicants and the original kept on file at the association office.

Appendix B

4. The association will develop guidelines for the process to be used by the arbitrating surveyor. The guidelines will include:
 - examining the complete files of all surveyors involved in the dispute.
 - interviewing the land surveyors, applicants and any other party who may have knowledge of the boundaries in question.
 - visiting the site. This may or may not be with the land surveyors or applicants.
 - investigating the title and making calculations or measurements to confirm the work done by the other surveyors.
 - prepare a detailed report setting out the decision and the reasons supporting the decision.
 - provide an invoice detailing the time and expenses incurred.
5. The association will develop guidelines for the process to be used to implement the decision of the arbitrating surveyor. The guidelines may include:
 - removing survey markers.
 - amending plans and/or descriptions.
 - re-submitting plans for approval.

If the applicants choose to abide by the decision, they will need direction to bring the matter to a conclusion.

The cost of the arbitrating surveyor's services will have to be negotiated between the land surveyor and the applicants.

If the applicants agree with the recommendation of the arbitrating surveyor, the unsuccessful surveyor will have to make changes. He/she may be unwilling to do so.

Some members may not take kindly to having another member review and disagree with their survey. They may refuse to cooperate in any manner and insist the matter be resolved by the courts.

6. The ADR process will be promoted to the public by preparing a brochure outlining the purpose and process. The association will also promote the ADR process to lawyers, municipal offices and by articles in the newspaper. The association will also develop the application form and assist with the selection of the arbitrating surveyor, if required.
7. The process will require endorsement by council and the members before being offered to the public. The association will keep the government informed of the process.

Appendix C

PROPOSED AMENDMENTS TO NSLS REGULATIONS - OCTOBER 1998**Section 7 (2)**

(m) "radial observation", means a unique determination of the position of one survey station or monument relative to another;

Definition to reflect current practice as well as new methods such as RTK GPS

(n) "GPS" means the Global Positioning System, a satellite based system used for navigation, positioning and survey measurements.

Definition of new technology which is already being used to conduct surveys

Section 9

All instruments and survey equipment shall be kept in good working order and tested frequently to ensure that they operate within design tolerances and meet the accuracy standards specified in Section 17.

Reworked to ensure that whatever the technology, it meets the accuracy standard

Section 12

All electronic measuring equipment shall be tested on a calibration base line or network, the length or relative positions of which have been determined by an authority approved by council, including monuments in the Nova Scotia Co-ordinate Survey System.

Updated to include new electronic measuring technologies such as GPS, and to reflect current practice of verifying equipment on NSCM's

Section 14

Except as provided in Section 15, all boundaries under survey shall be measured directly or shall be determined by closed traverse, triangulation, trilateration or check measured radial observation.

Added radial methods (which must be confirmed by check measurement)

Section 17

(b) two measurements of the length of a line shall agree to within one part in five thousand plus 20 millimetres (1:5000 plus 20mm);

Make consistent with subsection 17 (c); encourages verification by independent methods which may be less precise

(e) The minimum horizontal accuracy of surveys carried out with GPS technology shall be "r" cm, where $r = 4(d+0.5)$; and d = the distance in km between survey stations or monuments;

Specification recognizes GPS as a technology which provides a unique three dimensional measurement. The standard varies from (1:5000 plus 20mm) over short distances to 1:25,000 (approximate network accuracy) over long distances. The specification is easily achieved with carrier phase GPS

(f) The minimum vertical accuracy of surveys carried out with GPS technology shall be "r" cm, where $r = 2(d+1.5)$; and d = the distance in km between survey stations or monuments;

Appendix C

See subsection (e); this specification also reflects the typical vertical accuracy of GPS over short distances and the geoid/ellipsoid separation uncertainty over long distances

(g) notwithstanding the requirements of clauses (a), (b), (c) and (e), surveys to retrace the boundaries of uncultivated lands where no development is foreseen other than forest utilization, shall meet a minimum relative accuracy of 1:1000. *Rework this section to remove mention of "transfer of ownership", and make accuracy standard more generic*

Section 19

1. (a) Bearings shall be derived from two or more suitably spaced monuments of the Nova Scotia Co-ordinate Survey System, by astronomic observation or by differential carrier phase GPS observation.

Add GPS derived azimuths to this section

1. (b) Where undue hardship and expense can be shown to exist for the determination of bearings as specified in subsection 19.1.(a), a surveyor may use a magnetic bearing reference, provided that at least two angular ties are made to permanent visible points.

Tidy up

1. (c) Surveys carried out under Section 17.(g) may use a magnetic bearing reference or bearings derived from differential code phase GPS observation.

Addition of submetre to metre accuracy GPS for woodlot surveys (provided that 1:1000 is met)

2. All bearings, except those obtained by magnetic compass, shall be referenced to the appropriate central meridian of the Nova Scotia Co-ordinate Survey System.

Reworked; emphasizes that all surveys, except magnetic, must be referenced to the NSCSS meridian

3. (a) Surveys shall be referenced to the Nova Scotia Co-ordinate Survey System with a measured bearing and distance to one or more nearby co-ordinate monuments. Co-ordinate monuments used for the survey shall be verified as undisturbed by measurement.

New section recognizes that all practitioners have EDM instruments, and that current practice includes control ties where feasible

3. (b) Surveys may be exempt from subsection 19.3.(a) where undue hardship and expense can be shown to exist.

Standard exemption, similar to subsection 1. (b)

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 Zone 4 - Allan Chisholm
 Zone 5 - Athol Grant
 Zone 5 - John Pope
 Zone 6 - Rod MacInnis
 Zone 6 - Forbes Thompson
 Zone 6 - Brian MacIntyre
 Zone 6 - Carl Hartlen
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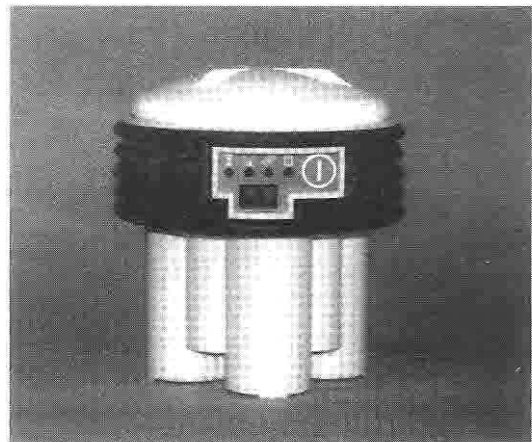
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