

# THE NOVA SCOTIAN SURVEYOR

Summer 1994

No. 146

*The Association of Nova Scotia Land Surveyors*

## CERTIFICATE of MEMBERSHIP

This is to certify that

Having met the qualifications  
for admission to the  
ASSOCIATION OF NOVA SCOTIA LAND SURVEYORS  
under the  
Nova Scotia Land Surveyors Act  
and  
having taken the prescribed oath  
is a member of

THE ASSOCIATION OF NOVA SCOTIA LAND SURVEYORS  
and authorized to practise  
PROFESSIONAL LAND SURVEYING  
in accordance with the provisions  
of the said Act

IN WITNESS WHEREOF we have subscribed our names  
as Chairman and Secretary of the Board and  
Secretary of the Association at                      Nova Scotia  
this              day of              , 19

\_\_\_\_\_  
Secretary of the Association  
Secretary of the Board

*Is Your Certificate of Membership  
Proudly Displayed?*



Ashtech means GPS... receivers, software and training for precision geodetic surveying



and global

navigation, real-time differential positioning on land or sea, aerial

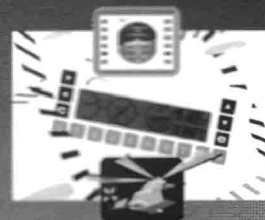


photogrammetry, advanced dual P-Code surveying, attribute

tagging for GIS, precision



GPS avionics and 3-dimensional direction finding.



## From field to finish, Ashtech has the future covered!

As the Navstar Global Positioning System constellation nears completion, the scope of applications for its use moves into the 21st Century. Ashtech, the world leader in GPS technology offers the best solutions for both global surveying and differential navigation. ■ Ashtech's Z-12 dual-bit, analog-to-digital GPS Receiver mitigates the effects of Anti-Spoofing (AS), allowing the continuation of civilian applications. ■ Our PRISM state-of-the-art software modules provide user-friendly processing support to GPS users involved with acquisition, analysis and management of data collected with GPS Receivers. ■ Our Precision Navigation software (PNAV), when combined with

dual-frequency data from an Ashtech Z-12 receiver, presents a powerful new capability for GPS surveying, providing centimeter-level accuracy on-the-fly! This capability is valuable to terrestrial surveyors and crucial to the creation of robust sub-decimeter photogrammetric flight trajectories. ■ Ashtech continues to anticipate the requirements of the future, designing advanced, fully-integrated systems to meet those needs. Our global distribution network has ancillary offices in Houston, Paris and Moscow.



**GEMINI  
POSITIONING  
SYSTEMS LTD.**

CANADIAN DISTRIBUTOR  
CANADIAN TECHNICAL CENTRE  
1-800-361-0978

REPRESENTATIVES:

QUEBEC - OPTRON INC. (514) 385-3333

ONTARIO - GEOMATICS POSITIONING (416) 373-8865

WESTERN CANADA - BUTLER SURVEY - CALGARY 1-800-661-1129

- EDMONTON 1-800-661-8816

- VANCOUVER 1-800-667-5944

**ASHTECH**



# THE NOVA SCOTIAN SURVEYOR

SUMMER 1994

No. 146

## CONTENTS

## PAGE

President's Report .....	<i>Gordon Isaacs</i>	2
Executive Director's Report .....	<i>Robert A. Daniels</i>	4
Survey Review Department Update .....	<i>James D. Gunn</i>	6
President's Travels .....	<i>Gordon Isaacs</i>	7
Obituaries - Edward Ritchie & James Sherren .....		11
From the Fieldbook .....		12
Copyright for Surveyors .....		17
The New Environment Act .....	<i>James D. Gunn</i>	18
Complaints, Communication and the Surveyor .....	<i>Robert A. Daniels</i>	19
Personality Profile - Russell V. MacKinnon .....		21
Letter to the Editor .....		22
How Many is Enough? .....	<i>John H. Webb, Retired</i>	23
Reminiscences .....	<i>David C. Clark</i>	25

## THE NOVA SCOTIAN SURVEYOR

**Editor:** Robert A. Daniels  
**Production:** Kathy Alcorn  
Norman Wade Company Limited  
**Circulation:** Free of charge to ANSLS members. To non-members at a yearly rate of \$12.00 in Canada and the USA; \$16.00 for other countries, plus handling charges.

The Nova Scotian Surveyor is published twice a year. Address all enquiries to: Association of Nova Scotia Land Surveyors, 159 Portland Street, Suite 301, Dartmouth, Nova Scotia, B2Y 1H9.

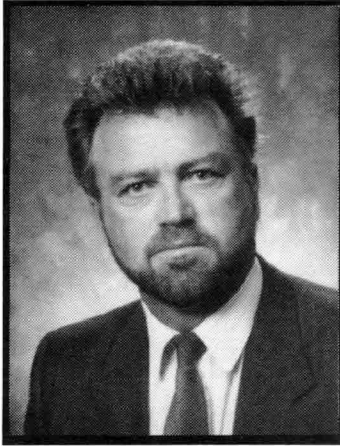
Views expressed in articles appearing in this publication are those of the author and not necessarily those of the Association.

Letters to the Editor should be limited to one page.

Articles or material originating with the Association of Nova Scotia Land Surveyors or its members may be reprinted without permission.

## PRESIDENT'S REPORT

*Gordon P. Isaacs, CLS, NSLS, NBLs*



It's hard to believe that six months have passed since becoming President of our Association. My wife, Linda, and I have travelled across Canada from the east coast to the west coast to attend the annual meetings of other provincial associations. With the support given to me by the Surveyor General's Office, we have managed to attend meetings in British Columbia, Alberta, Saskatchewan, Ontario, Newfoundland and also the CCLS agm. In June, we attended the PEILS meeting and hope to attend the Manitoba meeting in October. I had some idea of the value of attending these meetings from listening to Past Presidents of our Association, however, it's only now that I can fully appreciate the learning experience that the position of President has to offer. I would recommend the experience to any of our members and encourage each of you to consider a term as President.

In Nova Scotia, we are very fortunate to have some excellent staff who have made my job a lot less of a challenge than some of the other Presidents across the country with

whom I have spoken. I feel that with the adoption of some standard administrative guidelines for our office, the interchange between our staff and Council will be a routine matter. We have made some significant changes to our office this year. Council approved the re-staffing of our Executive Director position and we were very fortunate to receive excellent candidates for the position. Your Selection Committee consisted of Marcellin Chiasson, Lester Berrigan, Mike Crant, Jim Gunn, Clive MacKeen and myself. We felt that it was important for the Selection Committee to represent a good cross-section of our Association, and I must say it worked very well.

The committee's choice for the position was Bob Daniels, and Bob's appointment was unanimously approved at our March 24 Council meeting. I feel that we are very lucky to have a person of Bob's character and obvious dedication to the Association as our new Executive Director.

The second major change to our operations resulted from a resolution by Paul Harvey, NSLS at our 1993 annual meeting. The resolution was brought forward as a result of Jim Gunn's intention to resign from the position of SRD Manager so that he could return to Cape Breton. Jim has proven to be a very good manager for our Association and the expertise he has developed in SRD would be hard to replace. Council therefore decided that, since Jim was interested in running SRD out of Cape Breton, a proposal should be submitted by Jim to Council outlining the pros and cons and a cost analysis for such a move. Following a round of zone presenta-

tions and a significant debate at Council, we decided that a two-year pilot project was an appropriate way to test the concept. The Executive Council was instructed to prepare an offer to Jim outlining the terms and conditions for the new position in Cape Breton. The offer will be presented to Jim in July. If the offer is accepted, we will be the first association in Canada with two office locations.

At last year's annual meeting, the membership rejected a motion to deal with concerns which had been expressed by the Competition Bureau over our regulations. At our meeting in January, Council reviewed the implications of this action and made a decision to go back to the membership using a mail-out secret ballot under Section 8(2) of our Act, and again seek approval to comply with the Competition Bureau's suggestions. We felt that it was in the best interest of our Association if these matters were dealt with. The membership voted in favour of compliance with the Bureau's suggestions and our regulations will be changed accordingly. Our letter to the Competition Bureau indicating our compliance came on the heels of a raid on several office of the members of the Quebec Land Surveyors' Association by the Competition Bureau.

As a result of comments received pertaining to legal ramifications of the new complaints and discipline procedures, Council decided to seek legal opinion on possible pitfalls associated with the approved procedures. After reviewing the legal opinion, Council voted to withdraw the package from the Legislature for further study. We felt that it was



prudent to make certain that we were not putting our members in a position whereby they would not be treated in a fair and legal manner on such a serious matter as complaints and discipline. This decision was not taken lightly by Council, however, we felt that this was in the best interests of the Association to take this action.

Several topics being dealt with by our Association seem to be common issues across Canada. In nearly all the provinces I visited, the unauthorized use of Surveyor's Real Property Reports, the need for public relations initiatives to promote our profession, and communications between members are common issues. The need for professional surveyors to communicate and work with each other to solve issues before they reach the complaint stage is paramount if we are to create a professional image for ourselves, and I encourage all our members to keep this in mind. We must remember what is best for the public and this very often is the resolution of disputes in an amicable and supportive manner, rather than through a confrontational process.

A rather disturbing trend is happening in several of our sister organizations with technologists and other professionals practicing professional land surveying and challenging the associations' right to sole jurisdiction. One of the major defenses against the intrusions into our profession is to set standards for these products so that we can prove that we are the best qualified to have this mandate. We must make every effort to ensure that RPR's become a reality in Nova Scotia, and I hope that the members will give full support to the Committee trying to put these standards in place. We have to start pulling together - or someone else may make this decision for us.

I would like to ask that all those committees which have been mandated to carry out activities for this Association make that extra effort which is sometimes required to get the job done. The work of committees is a key factor in how successful our Association is from year to year, and I encourage each of you who are involved to give it your best shot.

In May I was able to sit in as an observer at the CCLS annual meeting in St. John's, Nfld. The following paragraphs outline some of my views on this subject.

My own personal feeling is that CCLS should be association-driven rather than a self-steering group. The role of CCLS as a national body representing provincial associations has never been an issue with me, although I did have some concerns on the directions CCLS was taking. I believe many of these concerns have been addressed in the new structure and in the plan of action adopted by CCLS. With a new business-type approach to completing projects approved by the provincial member organizations, I believe CCLS can be an important vehicle to cost-share research and actions pertaining to issues affecting our industry on a national level.

I would fundamentally oppose any action by CCLS to have its directors elected by a vote of the membership of the member associations. I believe that CCLS must accept the fact that it is the associations which form its membership and they must be answerable to the associations for their actions. I also do not agree that directors need to be elected for a three year term for continuity purposes. The directors of each member association often change from year to year, and CCLS must be able to adapt to these changes. Sometimes a view which is

contrary to an organization's own views is the correct one, and it often takes disagreement to generate good healthy discussion to arrive at the proper decision. I would recommend that CCLS directors be an integral part of our Council and Executive. If the director is not an elected member of our regular Council, then he/she must attend Council meetings as required, to brief Council on CCLS activities and to take direction from Council in order that he/she can represent our Association's views at CCLS meetings. An association CCLS director's views must be presented to his Council - along with recommended actions, and the director must be willing to accept Council's decisions and promote their wishes at CCLS meetings.

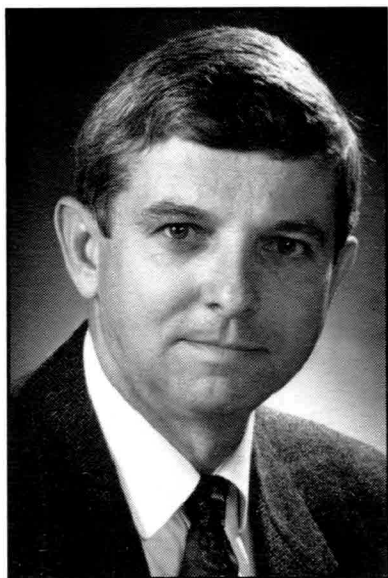
I believe that CCLS must not embrace the expanded membership concept in CCLS at this time. It must, however, support and accept the concept of an expanded survey profession within member associations and the expanded role of land surveyors in the future. CCLS must not lose sight of the fact that it is the ultimate right of each member association to choose who will represent them at CCLS, whether that director is a cadastral surveyor, a geodetic surveyor, a GIS expert - or otherwise, and to think otherwise may prove to CCLS's detriment.

If CCLS continues to follow these underlying principles, then I will continue to promote the benefits of CCLS to our Association membership and to fully support its funding.

In closing, I would like to thank the Association staff, the Convention Committee in Cape Breton, Council and those other people who have made the first half of my term enjoyable and productive. ■

## EXECUTIVE DIRECTOR'S REPORT

*Robert A. Daniels, NSLS, CLS*



The tasks facing the Executive Director of the Association are now beginning to fall into place. Although I have not had the opportunity to visit the office of our members to date, I hope to spend time discussing concerns with the membership in the near future.

I have been amazed with the number of phone calls from the public, who are not happy with the service that they have received from Nova Scotia Land Surveyors. Discontent has been expressed with the work and service of at least a dozen different members across the province. Not all of these calls have resulted in a formal complaint being lodged, however it does indicate that many of our members are not dealing with their clients in a proper manner.

The financial position of the Association appears to be on track, at the end of seven months of operation, 58% of the budget has been used. Council approved the purchase of a new computer for the office. A new 486 was purchased to replace the outdated 286.

The move of the Survey Review Department to Cape Breton was approved by Council at the March 24, 1994 meeting. Details of the move are presently being discussed by the Executive and SRD Manager, Jim Gunn.

CCLS and the Association of Ontario Land Surveyors are investigating the potential impact of Title Insurance on the survey profession. I have been informed by several members that some credit unions are no longer requiring surveys in order to approve the lending of mortgage funds. If any member is aware of instances that have the appearance of Title Insurance, please compile as much information as possible and send it to the Association office. If Title Insurance begins to have an impact on the survey business, it is important that we have as much information as possible to inform our members and the public.

I have been made aware of several instances across the province where development officers have refused to approve a plan of subdivision prepared and certified by a Nova Scotia Land Surveyor. The reason for not granting approval is because of perceived problems with title or boundary location. It is the opinion of the surveyors involved that they are responsible for their boundary decisions and that the approval process should not be delayed.

I attended a day-long hearing on one of these issues, held before the Nova Scotia Utility and Review Board. The decision of the

Board is not yet available. The most interesting element of this situation is the location of the Ordinary High Water Mark and the potential claim of Her Majesty the Queen to alleged infilling by virtue of the Water Act. There may be more claims or situations arising from the Water Act, so it may be timely to re-evaluate your approach to surveying land that abuts water.

The Municipality of the County of Halifax is in the process of amending its by-laws to enable increased fees for building permits and new fees for mobile home units and subdivision approval.

A submission was made by the Association of Nova Scotia Land Surveyors at the public meeting on June 13, 1994 to oppose the increased fees, as any increased costs to development will have an adverse effect.

Contact has been made with most of the committees for an update on their activities. Reports have been received from the Building Committee with their recommendations, and from the Professional Practice Committee outlining the long range plan for the Association.

If any member has any concerns or items of interest that affect the survey profession, please contact the office.



**RON A. LYND**  
ATLANTIC REGIONAL  
MANAGER

**SOKKIA**

SOKKIA INC.  
484 MACKENZIE PT. ROAD  
WEST BAY, INV. CO.  
N.S. B0E 3K0  
TEL: (902) 345-2262  
WATTS: 1-800-387-9726

PLEASE NOTE THE ATLANTIC REGION  
ADDRESS CHANGE SHOWN ABOVE





# SOKKIA

In surveying its the small details that make the difference. That is why Sokkia offers a full range of survey instruments and supplies. Sokkia has been manufacturing and suppling the Survey Industry for over seventy years.

Call us direct: because if you need it we have it.



## SOKKIA

WESTERN REGION  
7369 - 129TH STREET  
SURREY, B.C. V3W 7B8  
TEL. & FAX (604) 596-8424  
HOME TEL: (604) 596-8577

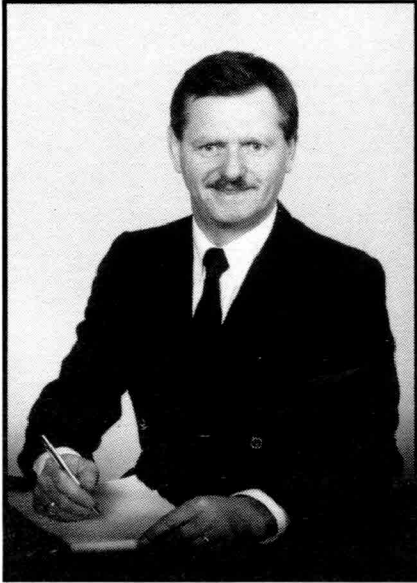
TORONTO HEAD OFFICE  
820 DENISON ST., UNIT 1  
MARKHAM, ONTARIO L3R 3Y5  
TEL.: (416) 475-1450  
FAX: (416) 475-1453  
1-800-387-9726

ATLANTIC REGION  
11 AKERLEY BLVD. SUITE 400A  
BURNSIDE INDUSTRIAL PARK  
TEL.: (902) 468-3440  
FAX: (902) 468-3772

WESTERN REGION  
315-5TH AVENUE  
STRATHMORE, ALBERTA  
TEL. & FAX: (403) 943-3551  
1-800-267-5809

## Survey Review Department Update

by Jim Gunn, NSLS, CLS



and foremost, my two year stint as executive director/SRD manager is over. This means I can devote my full attention to SRD. Did I hear a groan? The second reason I am happy is because our efforts to restore financial stability to the association over the past two years have been very productive. We have cut our administration expenses dramatically. The audited statements speak for themselves: For the years ending 1991, 1992 and 1993, excluding SRD, the association's expenses were \$234,668; \$193,453; and \$155,535 respectively. Of this overall \$79,133.00 reduction, \$23,750 was due to the saving in salary, while the other \$55,383 was rooted out of every corner of the budget. I take great pride in having played a key

role in this exercise however, credit must go to Kathy, council, committees and members for their encouragement and cooperation throughout.

The third reason I am happy is because SRD is going to be relocated much closer to my home in Cape Breton. Council has decided to allow me to continue the good work of SRD from a satellite office in the community of Ingonish, Cape Breton. Final arrangements are still being worked out and members will be given plenty of notice when the change occurs. All of this is good reason to smile would you not agree? Have a good summer. Perhaps I will see you when I am out and about doing field checks. Keep up the good work and keep sending your plans in each month. ☒

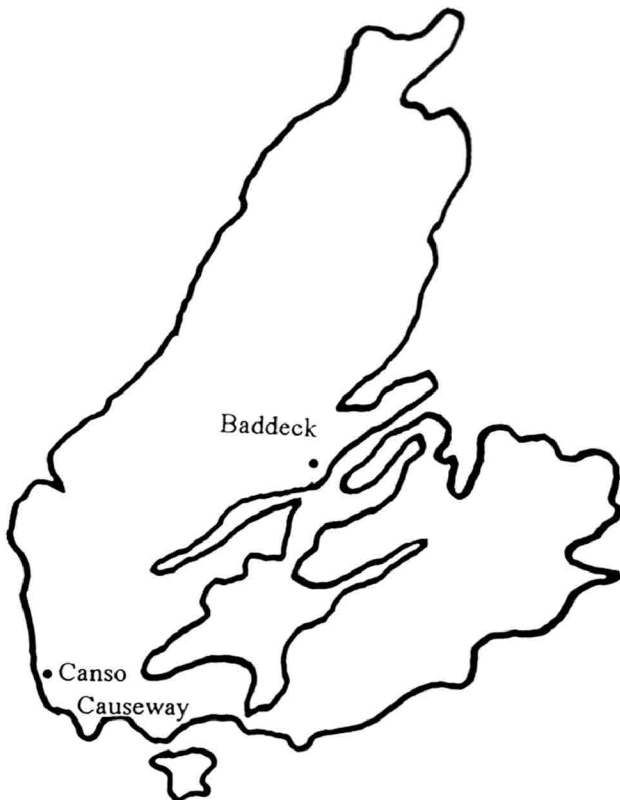
How many of you know why am I smiling in this picture? There are a number of good reasons. First

## THE ASSOCIATION OF NOVA SCOTIA LAND SURVEYORS

### CONVENTION '94

November 17, 18, 19, 1994

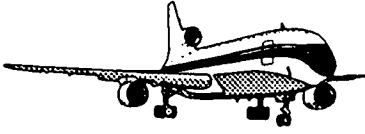
INVERARY INN  
Baddeck, NS



Will global positioning systems  
do to surveying  
what the telephone did  
to communications?

Find out in  
Alexander Graham Bell  
country.  
Baddeck, NS





## PRESIDENT'S TRAVELS

*by Gordon P. Isaacs, CLS, NSLS, NBLs*

Travelling across Canada representing our Association has been a real experience. One of the greatest benefits is the information obtained on how other associations work and the issues that they are dealing with. Following each provincial meeting, I made a full written report to Council on the proceedings, however, I feel that it is important that our membership also be informed of what's happening across the country. This report is a summary of my travels so far this year.

The 1994 annual meeting of the BCLS was held at Harrison Hot Springs, BC, on January 18-21, 1994. Two of our members, Steven Keddy and Alan Gallant were sworn in as BCLS's at the meeting. I was very pleased to see Steven presented with the Gold Medal award for the highest marks. After speaking to both Steven and Alan, I got the impression that it would not take a whole lot to get them back to Nova Scotia. A report on the infamous "Infomap" case showed that the association settled the court costs which were payable to INFOMAP at \$60,000. The case is now closed, however, the total cost for this case amounted to approximately \$130,000. The BCLS Corporation is working on their definition of "surveying" and is having problems similar to other associations with

other professions and associations. The government has "warned" the association that opposition from other groups will cause them problems in getting the legislation approved.

The association is involved in promoting the Integrated Survey Program in BC. The program is a cooperative effort between the province, the municipalities and other urban areas to create ISA's throughout the province. The concept here is much the same as in New Brunswick where parcel-based information and topographic information are linked to a control network and used as the basis for a GIS referencing other layers of administrative information. A study by the Surveyor General of BC on Digital Survey Returns showed that 80% of the returns prepared by surveyors were digitally prepared, 90% of the surveyors use a PC for survey work, and 70% use data collectors for surveys. Another study of public relations campaigns in BC was a real eye opener. For example, the Architectural Institute of BC, which has a membership of 1200, spends \$200,000 a year (\$1.65 per member) on advertising.

The Ontario meeting was held February 9-11, 1994 in Ottawa. I attended a seminar dealing with Legal Surveys Division's GIS soft-

were called RESULTS, which dealt with the impact of the "information highway" and the role surveyors can play. Sue Nichols from UNB spoke on the international trends in cadastral systems. She indicated that security of title is required for development purposes in the "New Market Society". Nichols also pointed to the government trend to transfer its traditional role in land management, administration and registration to the private sector as an opportunity for surveyors. Did you know that in 1990, the Canadian geomatics market was \$1.3 billion?! Of this, \$750 million was in the private sector. The traditional surveying part of this market was \$400 million - and declining. The need for diversification of services of the land surveyor is becoming apparent.

Proposed by-laws at the OLS meeting included a \$500 fee to be charged to firms who fail to comply with a request from the SRD to submit returns for review, and a "certificate of authorization" for new members which will cost an extra \$300 in addition to annual dues.

A highlight of the OLS meeting was the President's Breakfast. This was the chance for the Presidents to make short presentations on what is going on in their associations and to discuss common

issues and possible areas where cooperation would be beneficial. The following summary will give some indication of what is happening in other associations in Canada and the US. In the ACLS, a new act is to be finalized by March, 1995 and the Canada Lands Surveyors Act will be re-drafted by the Surveyor General. In the SLS, association monumentation destruction by utility companies is a problem and it is being discussed at the governmental level. Monument destruction is also a problem in Manitoba. They are also embarking on a strong public relations campaign. The Newfoundland Association is looking at co-sponsoring seminars with lawyers for lending institutions and real estate associations. The OLS Association was not in favour of CCLS becoming a stand-alone agency. The OLS spent over \$110,000 this year on discipline (legal costs), reduced its office staff (mostly administrative) this year by 4 person years. The NB Association is involved in provincial government initiatives in changing the Planning Act and also in proposed implementation of the Boundary Confirmation Act.

In the United States, the Minnesota Association is upgrading educational requirements to a four year program. They are having a problem with their definition and are getting some hassle from the engineers. Under their proposed definition, surveyors will obtain some preliminary design work. In the New York Association, mandatory continuing education is being introduced. The association is having problems with lawyers and with title companies doing "mortgage certificates". They are also looking at their scope of practice. The union rates for their employees is a

serious issue. Prevailing union rate for a rodman is \$21 per hour (US). A proposed four year program of study was turned down by government because they felt it would limit access to minorities. This association is also looking at legislation to give the surveyor the mandate for GIS (ie. the graphics data bases).

Linda and I were very fortunate to represent our Association at the Alberta Land Surveyors meeting held in Calgary from April 20-24, 1994. This was Calgary's 100th anniversary and the association participated extensively in the centennial celebrations. One of the highlights was the re-enactment of the first survey carried out in the City of Calgary which included surveyors dressed in period costumes traversing from City Hall to Fort Calgary under the guidance of Steeles Scouts and the RCMP in full dress. The business meeting of the ALS was very well attended and involved discussions on some very significant topics, including public relations and discussions with government re: the devolution of Planning Act activities to provincial land surveyors. The subject of Real Property Reports was also discussed with two recommendations pertaining to increasing the content of RPR's presented. The professional approach of the ALS with regard to the information to be dealt with on RPR's and their proposal to initiate a repository index for RPR's is an example from which we can all learn. Surveyors cannot expect to expand their role, unless they can show that they are willing to accept responsibility. A Presidents' meeting was held to continue discussion of common issues. The role of CCLS as a national representative for provincial associations was discus-

sed and recommendations made to the CCLS representative, Syd Loeppky, for discussion at the CCLS agm in St. John's, Newfoundland. Everyone feels that CCLS is a valuable entity, providing it is a membership-focused group and not a self-focusing association. Discussions showed that almost all associations are experiencing the ageing phenomenon and decreasing membership. The expanded profession is seen as a possible solution to this problem, providing we can carry out this expansion with built-in safeguards for the legislated functions of professional land surveyors. Title insurance was discussed at length. Several provinces, including Ontario, Alberta, Nova Scotia and Newfoundland have encountered situations where insurance is being offered. All the Presidents felt that this was an issue which could have a serious impact on our profession and proposed to promote some action on this topic through CCLS. We felt we should deal with this before it becomes established as an option to RPR's.

The ALS has been asked for input by the government on the proposal to privatize the LTO. The association is also looking at a possible expanded role for their members in certain planning activities carried out within government structures. Several proposed by-law changes were presented at the meeting. One of the recommendations pertained to amendments to the section of the *Manual of Good Practice* dealing with "delayed posting" of subdivision plans. The Surveys Act already allows for delayed posting where a subdivision plan must be processed prior to completion of construction. The proposed amendment added six new requirements which must be addressed





# WE'VE GOT THE SOLUTION

## SERVICES

- Installation on the site for geodesic markers
- Desing of special markers on request
- Shipping all around the world

## LEGAL SURVEY

### MARKERS

- aluminium
- plastic
- steel
- boundary
- terminus type

### STATIONS

- stainless station
- PK nails
- identified washers

## GEODESY

### MAGNETIC MARKERS

- for soil
- for rock or concrete

### PROTECTIVE COVERS

- aluminium
- mix
- lifts

### POST

- witness post
- raised characters



J.P. MORASSE INC. 1321, MARIE-VICTORIN, ST-NICOLAS, QUÉBEC G0S 3L0

TÉL.: (418) 831-3811 1 800 463-6866 FAX: (418) 831-7827

ASK FOR OUR NEW BROCHURE

reported that they also have a pending court case similar to Manitoba's against technologists providing survey services. A task force has been formed by the Saskatchewan Association to prepare and present briefs to government and other groups concerning monument destruction by government agencies such as SASKTEL and other utility companies.

The Saskatchewan Land Surveyors Association is looking at a mandatory continuing education by-law for their association. This by-law was presented to the members for approval to implement on a pilot project basis until their new act is approved. The problems with RPR's continue to be a major topic for discussion and Saskatchewan members have pointed out problems caused by lawyers seeking out and using old certificates in real estate transac-

tions. It was pointed out that in the City of Calgary, the surveyors have agreed not to give out old copies of RPR's. A proposed court case in Saskatchewan deals with a civil engineer who is signing RPR's as a Civil Engineer. (The document shows "Surveyor's Certificate" and is signed "Joe Blow, P.Eng.") In other areas, Saskatchewan Power is recommending that RPR's be obtained by builders to identify underground installations. They have encountered problems with people building garages, etc., over major power lines and the associated costs to fix these situations are substantial.

Murray Marian, SLS, was elected as the new President of the ASLS and the transfer of power ceremonies in Saskatchewan included the passing of the Nova Scotia tartan tie which was presented to them some years ago. It

was indicated by the outgoing President that a more modern version of the tie would be much appreciated. I assured him that we would be willing to comply with this request, considering its importance as a ceremonial symbol.

I hope that this report has provided the readers with some insight about what's happening across the country. If you feel this should be continued in the future as a regular report in the "Surveyor", please let me know. ■

\*\*\*\*\*

When one door closes, another opens; but we often look so long and so regretfully upon the closed door that we do not see the one which has opened for us.

- Alexander Graham Bell

\*\*\*\*\*

#### OBITUARY

##### EDWARD BRUCE RITCHIE

Edward B. Ritchie, NSLS #115, a life member of our Association, passed away at the age of 92 in Liverpool, NS, on February 14, 1994. During the 1920's he was employed as a forest ranger and became a land surveyor in 1928. He was employed with Bowater Mersey Paper Company Limited, Brooklyn, NS, surveying company-owned wood lots across the province. Ed was an excellent woodsman and canoeist, and in his early years, was active in baseball, track and field and bowling. He was a member of the original Conn Martell Bowling Team. As a land surveyor, he had an uncanny ability to put himself in the footsteps of the original surveyor which allowed him to retrace many original woodlot surveys. He retired in 1967 and was subsequently made a Life Member of the Association. He is survived by a stepson, Vernon Delancey, sister Gertrude, three grandchildren and five great-grandchildren. Our deepest sympathies are extended to his family.

#### OBITUARY

##### JAMES C. SHERREN

James Sherren, Life Member # 189, passed away at the age of 81 on June 2, 1994 in Moncton, NB. He was active in the survey profession having been a member of the New Brunswick, Newfoundland and Nova Scotia associations and was a former member of the Canadian Institute of Surveying. He served with the Canadian Corps of Engineers during WWII, and was a member of the Royal Canadian Legion Branch # 6, Moncton, and of the Moncton Garrison Officers Mess. He is survived by one sister, Miss Hazel Sherren; two daughters, Mary and Jane, one son Jim; 4 grandchildren and two great-grandchildren. We extend our sincere sympathies to his family.



## FROM THE FIELDBOOK

We are very grateful to everyone who participated in the selection of our new Executive Director. A sincere thank you to committee members Marcellin Chiasson, Clive MacKeen, Gordon Isaacs, Lester Berrigan, Mike Crant and Jim Gunn. A special thanks to the candidates.

\*\*\*\*\*

### RETIRED - RETIRED - RETIRED

On behalf of the members of ANSLs, we would like to congratulate two of our members on the occasion of their retirement from the staff of COGS. Mr. Philip Milo and Mr. Jack Kaulback will be stepping down after spending many years of dedicated service to the students of the college. Also retiring are Mr. John Wightman, Mr. Charles Williams and Mr. Len Telfer. Congratulations on a job well done!

Four members of the Association are also to be congratulated on their retirement from the NS Department of Natural Resources. Mr. Garnet Clarke, Mr. Jack Ryan, Mr. Edward Hanifen and Mr. Courtney Lewis will be able to enjoy a more relaxed lifestyle after many years of fine service to the provincial government and the Association.

\*\*\*\*\*

### ARE YOU SURVEYING OR STEALING TV SETS?

In the last issue of the *Right Angle*, there was notification that a truck and survey equipment had been stolen from Dave Hiltz. Luckily, the truck and all of the contents were found

several days later on an old road and have since been returned to Dave.

There is, however, more to the story. It seems that the truck was stolen from Dave's driveway shortly after midnight and was reported to the police by an observant resident in another part of the city a few hours later. What the resident observed was the truck being loaded with a television set from a neighbour's house in the middle of the night. Knowing full well that appliance service companies do not supply around-the-clock house calls, the neighbour called the local police department. By the time the police finished their coffee and arrived at the scene, the truck and the television were long gone. The neighbour did, however, get the license number of the truck and reported it to the police. A check of the license number indicated that Dave Hiltz was the owner. Not knowing how honest and forthright all land surveyors are, the police staked out Dave's home hoping to catch the culprit. When Dave became aware that his truck had been stolen, he did not know that all he had to do was step outside his door and he would have had all the police he wanted. Luckily, Dave was not hauled off to jail, and all of his equipment was returned.

\*\*\*\*\*

### THANK YOU

The following thank you was sent to the members of ANSLs from Heather Langill, this year's G.T. Bates Scholarship winner, from Yellowknife, NWT, where she is working for the summer: "I would like to thank you for donating the G.T. Bates Scholarship which I received for having the highest standing in the first year Surveying Program. It was an honour to receive this award. It is good knowing that this association is helping out students

taking Surveying; the future members of the Association thank you."

\*\*\*\*\*

### GPS POSITIONING GUIDE

*GPS Positioning Guide* by Caroline Erickson is available from Natural Resources Canada. The objective of the guide is to provide the background and procedural information needed to effectively apply GPS technology.

If you would like a copy, the cost is \$24.00 + \$1.00 shipping and handling (GST and provincial taxes will be added where applicable). This must be prepaid by VISA, MasterCard or cheque made payable to the Receiver General for Canada. To order, contact:

Information Services Section  
615 Booth Street  
Ottawa ON K1A 0E9  
Tel: 613-995-4421  
Fax: 613-995-3215

\*\*\*\*\*

### BUSINESS CARDS

Recently, one of our members had some business cards made which included the Association seal with the word "Member" printed under it. If anyone is interested in getting some or wants more information, please contact the Association office.

\*\*\*\*\*

### SURVEYOR OF THE YEAR

If anyone would like to make a nomination for Surveyor of the Year, please make sure to fill out the enclosed form and fax or mail it to the ANSLs office by Sept. 15/94. ■

\*\*\*\*\*

**NEW!**

## **TOPCON MARKSMAN RL-50B LASER C/W LS-50B LEVEL SENSOR**

**SPECIAL  
INTRODUCTORY  
PRICE \$1749.00 PKG  
CATALOGUE NO.  
512/8745333**



**TOPCON MARKSMAN  
RL-50B LASER**

This economical new rotating laser level is completely waterproof and can be used in all types of weather conditions. Together, the RL-50B Laser and the LS-50B Sensor provide stability, reliability and durability at a very reasonable price!

**Specifications:**

Accuracy:  $\pm 15''$   
Range (w/LS-50B): 100m/330 ft  
Self Levelling Range:  $\pm 10'$   
Power: 3 D-cell

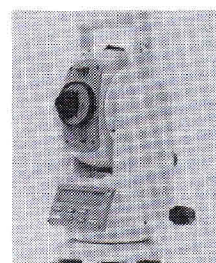


**norman wade company limited**  
**SPRING & SUMMER SPECIALS**  
PRICES IN EFFECT FROM APRIL 1, 1994 TO AUGUST 31, 1994



**Specifications:**

Magnification: 26x  
Range: 350 m/1150 ft (1 prism)  
Accuracy:  $\pm(5\text{mm} + 5\text{ppm})$  m.s.e.  
Minimum Reading: 5"  
Minimum Focusing Distance: 0.9m



**CTS-2B CONSTRUCTION TOTAL STATION**

## **TOPCON CTS-2B CONSTRUCTION TOTAL STATION**

**NEW FEATURES:**

**2-WAY COMMUNICATION • STAKE OUT FUNCTION**

**SPECIAL PRICE ONLY \$7995.00**

**CATALOGUE NO. 512/8690000**

**OR LEASE FOR \$263.85/MONTH\***

\*BASED ON A 36 MONTH LEASE

NORMAN WADE COMPANY RESERVES THE  
RIGHT TO REVISE THE PRICE OR  
SPECIFICATIONS OF ANY PRODUCT  
SHOWN WITHOUT NOTIFICATION. ALL  
ITEMS SUBJECT TO AVAILABILITY.



# "MAGNETIC" SPECIALS

## FT-50X PIN FINDER \$799.00

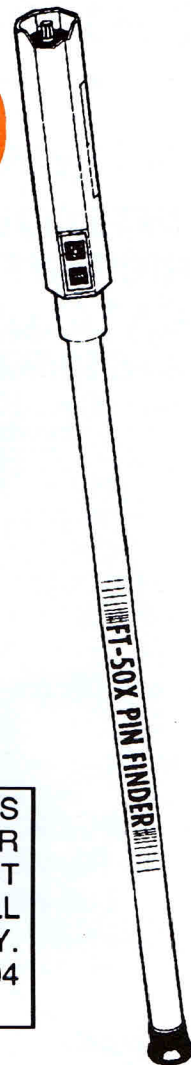
CATALOGUE NO. 515/8450500

- Dual Axial Control Knob for volume and sensitivity
- Magnetic Waterproof Speaker
- Waterproof Battery Compartment (separate from electronics)
- High Impact, Non-conductive Plastic Construction
- Rugged Aluminum Housing
- Unit "Peaks" Over Object

OR RENT-TO-OWN FOR ONLY \$76.00 MONTH  
(MINIMUM 2 MONTH RENTAL)



NORMAN WADE COMPANY RESERVES THE RIGHT TO REVISE THE PRICE OR SPECIFICATIONS OF ANY PRODUCT SHOWN WITHOUT NOTIFICATION; ALL ITEMS SUBJECT TO AVAILABILITY. PRICES IN EFFECT FROM APRIL 1, 1994 TO AUGUST 31, 1994.



## FT-70 BAR LOCATOR \$895.00

CATALOGUE NO. 515/8450700

- Unit "Peaks" Over Point
- Water-resistant
- 50 Hours of Operating Time Between Charges
- Ultra-light, weighs only 2.8 lbs/1.25 kg
- High-impact Plastic and Aluminum Construction
- One-handed Operation

OR RENT-TO-OWN FOR ONLY \$85.00 MONTH  
(MINIMUM 2 MONTH RENTAL)



# TOPCON GTS-304 ELECTRONIC TOTAL STATION



TOPCON GTS-304  
TOTAL STATION

## Specifications:

Magnification: 30x  
Range: 2,000 m (with triple prism)  
Accuracy:  $\pm(3\text{mm} + 5\text{ppm})$  m.s.e.  
Minimum Reading: 5"

**SPECIAL  
PRICE  
ONLY...  
\$11799.00**

Catalogue No.  
**512/8673500**

OR  
LEASE FOR  
**\$389.40/MONTH\***

\*BASED ON A 36 MONTH LEASE

NORMAN WADE COMPANY RESERVES THE RIGHT TO REVISE THE PRICE OR SPECIFICATIONS OF ANY PRODUCT SHOWN WITHOUT NOTIFICATION; ALL ITEMS SUBJECT TO AVAILABILITY. PRICES IN EFFECT FROM APRIL 1, 1994 TO AUGUST 31, 1994.

ON THE JOB COMMUNICATIONS FROM RITRON®  
**JOBCOM**

## Purchase a complete Jobcom two-way radio package including:

- 2 JBC-100 VHF 2-way radios\* (please specify which frequency when ordering: 151.115, 169.710, 148.075, 173.370 or 156.960 MHZ; custom frequencies are available at a nominal upgrade charge)
- 2 Leather Holsters
- 2 Nicad Batteries
- 2 Chargers

1-2 mile  
range

**\$777.00**

**All for only...**

Catalogue No. 515/8835333 PKG



\* Jobcom Two-way Radios operate on professional FM frequencies (license required).

# WE'VE LEVELLED THE PRICE AGAIN!!

## Purchase an AT-G6 Level...

**Specifications:**

Magnification: 24x  
Accuracy:  $\pm 2.0\text{mm/km}$   
Minimum Focus: 0.5m  
Weight: 1.6 kg/3.5 lb

*only*  
**\$699.00**

**OR RENT-TO-OWN  
FOR \$67.00/MONTH**

(minimum 2 month rental)



TOPCON AT-G6 LEVEL

Catalogue No. 513/8496000



# norman wade company limited SPRING & SUMMER SPECIALS

PRICES IN EFFECT FROM APRIL 1, 1994 TO AUGUST 31, 1994

**HALIFAX**

TEL: (902) 429-5002

FAX: (902) 423-0490

**ST. JOHN'S**

TEL: (709) 722-8772

FAX: (709) 722-7125

**SAINT JOHN**

TEL: (506) 634-1820

FAX: (506) 648-9681

**MONCTON**

TEL: (506) 857-9096

FAX: (506) 859-8894

**QUEBEC CITY**

TEL: (418) 653-2828

FAX: (418) 653-9468

**MONTREAL**

TEL: (514) 697-6130

TOLL FREE: 1-800-361-6741

FAX: (514) 697-5239

**LONDON**

TEL: (519) 681-0330

TOLL FREE: 1-800-265-6002

FAX: (519) 681-7396

**OTTAWA**

TEL: (613) 592-2210

TOLL FREE: 1-800-465-9255

FAX: (613) 592-0336

**HAMILTON**

TEL: (905) 561-9195

TOLL FREE: 1-800-263-4537

FAX: (905) 561-5979

**TORONTO**

TEL: (416) 291-4211

TOLL FREE: 1-800-268-5656

FAX: (416) 291-7171

**SUDBURY**

TEL: (705) 670-2110

FAX: (705) 675-7756

**WINNIPEG**

TEL: (204) 694-6242

FAX: (204) 694-6277

**CALGARY**

TEL: (403) 253-8410

FAX: (403) 259-4401

**EDMONTON**

TEL: (403) 426-0410

FAX: (403) 420-1120

**KAMLOOPS**

TEL: (604) 372-3245

TOLL FREE: 1-800-565-0170

FAX: (604) 372-2358

**VANCOUVER**

TEL: (604) 736-6323

FAX: (604) 736-3823

**VICTORIA**

TEL: 1-800-665-1794

NORMAN WADE COMPANY RESERVES THE RIGHT TO REVISE THE PRICE OR SPECIFICATIONS OF ANY PRODUCT SHOWN WITHOUT NOTIFICATION;  
ALL ITEMS SUBJECT TO AVAILABILITY.



## COPYRIGHT FOR SURVEYORS

For years, the professional surveyors of Nova Scotia have been faced with a problem that deprives them of income and puts them at risk in situations that they are unaware of. This is caused by the misuse or unauthorized use of their survey plans by third parties. The following is a Policy Statement that has been prepared by the Association of Newfoundland Land Surveyors. This Policy Statement clearly defines copyright protection under the Copyright Act.

### NEWFOUNDLAND POLICY STATEMENT

*Reprinted with permission from the Association of Newfoundland Land Surveyors.*

The author of the survey plans is the owner of the plan (SURVEYOR) which means the client does not have unlimited use of the survey plan in subsequent dealings and also means the client does not have the right to reuse the plan for some other purpose than was originally intended. No other person other than the surveyor has the right to alter the plan and a third party does not have the right to use the plan bearing in mind that the plan was not prepared for his use.

Where the author of a survey plan was, at the time of preparation, an employee of another person under contract of service or apprenticeship and the work was done in the course of employment, then unless the parties agree to the contrary, the first owner of the copyright is the employer.

The Canadian Copyright Act provides copyright protection to "Literary Works" which, in Section 2 of the said Act, includes among other works: maps, charts, plans and reports, tables and compilations. It is under the category of "Literary Works" that maps and plans and reports relating to surveys are protected by the Copyright Act. Section 5 of the said Act states "*The term for which copyright shall subsist shall, except as otherwise expressly provided by this act be the life of the author and a period of fifty years after his death*".

Section 12 of the Copyright Act defines the author of a work subject to copyright, as being the first owner of the copyright in such work. Section 12(4) of the Copyright Act states "*The owner of the copyright in any work may assign the right, either wholly or partially, but no such assignment or grant is valid unless it is in writing signed by the owner of the right in respect of which the assignment or grant is made, or by his duly authorized agent*."

Copyright protection in Canada is automatically acquired upon creation of an original work. It is only necessary to include the Universal Copyright Symbol on works where international protection, in accordance with the provisions of the Berne Convention, is desired. Although it is not necessary to include the Universal Copyright Symbol on plans and reports that are intended for use in Canada, the use of this symbol and a cautionary

statement provides indisputable notice to those unsuspecting persons who have a tendency to copy or alter someone else's work.

Section 17(1) of the Copyright Act defines infringement - "*Copyright in a work shall be deemed to be infringed by any person who, without the consent of the owner of the copyright, does anything that, by this Act, only the owner of the copyright has the right to do*." However, Section 17(2) says that any "*fair dealing*" with a copyrighted work for the purpose of "*private study, research, criticism, review or newspaper summary*" does not constitute an infringement of copyright.

Therefore, under fair use, a surveyor has the right to use the information from a plan in the preparation of another plan, a lawyer has the right to use a copy of a plan in order to do title research and to obtain the necessary consents as required in a conveyance of title, a professional association has the right to critique a surveyor's plan and a client has the right to use the plan for his own private use in accordance with the purpose of the plan, without infringing copyright. ■

*Please notify your councillor or the association office if you feel that a policy statement similar to that issued in Newfoundland would be of benefit.*



## The New Environment Act

*by Jim Gunn, NSLS, CLS*

In November 1993 the government outlined its proposal to bring 13 different pieces of legislation together under one umbrella act. Ken Robb reviewed the first draft of this new Nova Scotia Environment Act and made a presentation to council. Ken was particularly concerned that this new legislation would confirm crown ownership of all wetlands in the province. A position paper was prepared using Ken's comments as a guide and it was taken to all zone meetings for input. The issues addressed in the brief included: the definition of watercourse; the clause that vested watercourses to the crown; right by prescription; and an amnesty or validation clause. All of these issues are con-

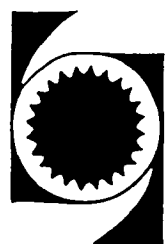
sidered to be well within the surveyor's field of expertise.

With the help of a number of our members, the brief was presented to five of the eight town hall meetings organized by the government as part of the public consultation process. Support for our position paper was received from the Barrister's Society, the Engineering Association and from Voluntary Planning.

Ken Robb and I attended a workshop on the proposed new legislation on April 14, 1994. Our views were well received from almost everyone in attendance. There are those who disagree of course. In particular, the right wing environmentalists treat the entire province as a watershed

therefore, they feel the state should have ultimate control over any aspects of ownership of private property that impact on the environment.

It seems to me the government has opened a can of worms by proposing this new legislation. It is unlikely they can reconcile all the opposing views that have been expressed. Our concerns only deal with one aspect of this new legislation: the rights of landowners with respect to watercourses. We do not disagree with the environmentalists who say the government has a duty to manage the environment. We do believe however, that the government does not need to own all of the wetlands, and small rivulets and brooks in this province in order to control their use. ☒



## BELL & GRANT

---

### INSURANCE SPECIALISTS

#### COMPETITIVE INSURANCE PACKAGE AVAILABLE FOR LAND SURVEYORS

- |                      |                   |
|----------------------|-------------------|
| - Errors & Omissions | - Office Contents |
| - Survey Equipment   | - Computer        |
| - General Liability  | - Crime           |

Payment Plan Available

SUSAN BOUTILIER 429-4150

# COMPLAINTS, COMMUNICATION AND THE SURVEYOR

by Robert A. Daniels, NSLS, CLS

Every year the Complaints Committee of the Association of Nova Scotia Land Surveyors receives a varied assortment of complaints from both the public and surveyors against surveyors. These complaints cover a variety of issues including:

- discontent with boundary location
- disagreeing boundary locations
- perceived overcharging for survey services
- surveys unsuitable for required purpose
- delays in completing surveys
- surveys not carried out in accordance with regulations, ie. improper monumentation, lack of research or boundary lines shown incorrectly.

After investigating and evaluating numerous complaints, the Complaints Committee has come to the conclusion that a large percentage of complaints received stem from misunderstanding and/or lack of communication between the surveyor and client or between surveyor and surveyor. It is the opinion of the Complaints Committee that many of the complaints would not have been filed if good, clear, ongoing communications had been established and maintained.

## SURVEYOR-CLIENT RELATIONS

Traditionally, Nova Scotia surveyors have been lacking in proper communication skills or customer service techniques. This is due primarily to lack of appropriate training and little or no understand-

ing of the value of maintaining good client relations.

Statistics have shown that a happy client will be a return client and will tell 2 or 3 others of the good service and product they received. While conversely, an unhappy client will rarely be a return client and will take great delight in telling 8 to 10 others of the poor service and mistreatment they received. Therefore the negative impact of an unhappy client is at least three times the positive impact of a happy client.

The following recommendations will reduce client misunderstanding, greatly increase client satisfaction, improve the image of the surveyor and reduce the number of complaints.

1. Listen to the client as they explain their situation and requirements. It is very important that the client has the opportunity to express their view of the situation. This is to ensure that the client feels the surveyor has an interest in, and an understanding of their situation and requirements.
2. Ask appropriate questions to demonstrate that you have a thorough understanding of the situation and requirements, explain the different types of surveys and their uses; then recommend the type of survey required.
3. Obtain mutual agreement with the client, identifying the situation to be resolved and the

type of survey that will be provided.

4. Inform the client when the survey will be completed and how and where the final plans will be supplied. Act on behalf of the client by distributing copies of plans and reports to others as required and make submissions to get approval from the appropriate authorities.
5. If, during the course of the survey, situations arise which will cause delays or affect the cost of the survey, notify the client immediately and discuss the reasons and impact of the changes. Statistics show that clients who are kept informed of changes during the process are more likely to accept the changes and continue with the project. There are very few clients who appreciate being informed at the last minute that the survey has been delayed and there will be additional costs.
6. Client follow-up is important after the completion of the project to ensure the survey was satisfactory. This will also give the surveyor an opportunity to determine if further service can be extended to the client.
7. If there is no written contract between the surveyor and client, it is good business practice to send a letter of understanding to the client after receiving authorization to carry out the survey. This letter will outline

the scope of the survey services to be supplied, with time and cost estimates as applicable.

As professionals, many members of the association are lax in maintaining good communications with the clients. By including the client in the discussions and the decision-making process, they will have a better understanding of what is involved in carrying out a survey and feel that they are contributing to the final solution.

Better communications and improved client service is one way of improving business in the changing world of the 90's.

### SURVEYOR-SURVEYOR COOPERATION

In the province of Nova Scotia, there are too many situations that cause the public grief which result from two surveyors disagreeing on the location of a boundary line. Many of these problems result from lack of communication and discussion between surveyors. Surveyors will disagree with the boundary as determined by another surveyor and then prepare a conflicting plan or set survey markers in a different location. This practice causes the public to become confused and creates ill feeling between neighbours. As a result, the public loses faith in surveyors and blames them for the ensuing problem. The standard answer then given to the public in these situations is, "My boundary is right, anything different will have to be decided by the courts." As we all know, court proceedings are both costly and time consuming. The general public does not want to spend the time or money settling a boundary dispute in the courts, especially since they feel the sur-

veyors caused the problem in the first place.

All surveyors would better serve the public if they tried, through a better communication process, to remedy the problem when there is a difference of opinion on a boundary. Some ways to achieve this are:

1. Ensure that the proper research is done before determining the final boundary location.
2. When a difference of opinion on a boundary is recognized, contact the other surveyor and identify the problem.
3. Meet with the other surveyor to examine the different approaches used to determine the boundary, share research material and try to resolve the discrepancy before the client is even aware a problem exists.
4. Surveyors should be more willing to share their information

### "FOR THE BEST STAKES IN TOWN"

Contact:



*LakeCity Woodworkers*

386 Windmill Road  
Dartmouth, N.S.  
B3A 1J5

**Survey Stakes**

*Available in all sizes*

**Compare Our Prices**

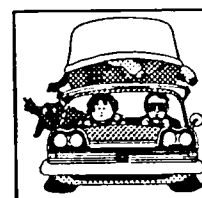
Ph: (902) 465-5000

Fax: (902) 465-5009

on boundaries with other surveyors working in the same area. This will ensure that all surveyors have more information on which to base their boundary decisions.

For years surveyors have jealously guarded the information in their files and have been reluctant to share it with other surveyors. This often causes boundaries to be established in conflicting locations. If all surveyors share their information and work towards solving potential boundary concerns by cooperation, the public will be better served, there will be fewer boundary disagreements and, as a result, there will be fewer complaints. ☒

\*\*\*\*\*



HAVE A SAFE & HAPPY  
VACATION!



## PERSONALITY PROFILE

### RUSSELL V. MACKINNON, NSLS MEMBER OF THE LEGISLATIVE ASSEMBLY FOR CAPE BRETON WEST



Russell V. MacKinnon, NSLS was born and raised at Grand Mira South, Cape Breton County, NS and now resides in Sydney River with his wife, Gail and their three children, Marion, Shaun and Melissa.

Russell graduated from Riverview Rural High School in 1972, and studied Political Science at Dalhousie University until 1974. In 1975 he enrolled at the Nova Scotia Land Survey Institute (now the College of Geographic Sciences) where he received his diploma in Land Surveying in 1977.

Early survey training was received from the Department of Lands and Forests with survey apprenticeship under Wayne Hardy NSLS, CLS, NLS. Russell also worked for the Municipality of the County of Cape Breton and received his commission as a Nova Scotia Land Surveyor in 1978. Russell is in private practice and has managed his own business, MacKinnon Surveys and Investments Limited, Sydney, NS since 1978. He has been active in

association affairs, and was a member of council in 1982-1983.

Always interested in community affairs, he is a past member of the Cape Breton Industrial Board of Trade, served as Vice President of the Board of Directors for the 1st Sydney River Boy Scouts and is a member of the Sydney Rotary Club.

In the 1980's, Russell developed a keen interest in the provincial political scene and became an executive member of the Cape Breton West Liberal Association. Continued involvement in the concerns and issues facing not only the people of Cape Breton, but also the people of Nova Scotia led to Russell's election to the Legislature in 1988 with the

second highest Liberal majority in Nova Scotia. He has served as Caucus Whip, Liberal Critic for the Department of Lands and Forests and the critic for the Department of Housing and Rent Review Commission. Further, he serves on many legislative committees such as Internal Affairs, Human Resources, Private and Local Bills, Economic Development and Resources. On May 25, 1993 Russell was re-

elected to the Legislature with the highest majority ever recorded in his riding.

Russell is a shining example of what a member of The Association of Nova Scotia Land Surveyors can accomplish by becoming an active contributor to society and truly working for the benefit of the people of Nova Scotia.

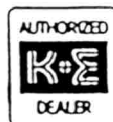
The Members of the Association of Nova Scotia Land Surveyors are proud of Russell MacKinnon's accomplishments and wish him and his family a successful future. ❧

## EASTWARD DRAFTING SUPPLIES LTD.

- Complete line of Drafting & Engineering Products for Conventional & CAD Systems
- Survey Equipment - Sales, Service & Rentals Most Major Manufacturers

95A Akerley Blvd.,  
Burnside Industrial Park  
Dartmouth, N.S. B3B 1R7

HOURS: 9 am to 5 pm Mon. to Fri.



STAEDTLER  
Koh-I-Noor  
SHARP



PHONE: 468-3971 Fax: 468-2276  
Toll Free (Atlantic Provinces):  
1-800-565-3203

## LETTER TO THE EDITOR

Dear Editor:

I have just received my copy of the April issue of *CCLS FOCUS* (published April 1994) and I am impressed. I feel that CCLS is now moving forward under new direction and vigor, and pertinent professional information is finally being communicated to land surveyors across the country.

The Canadian Council of Land Surveyors, as the umbrella organization of the provincial land surveying associations across Canada, was created to represent the collective interests of all land surveyors. The development and dissemination of information was the common thread woven through the six objectives of CCLS when it was formed in 1976.

CCLS moved about eight months ago to obtain the services of a professional journalist in the person of Ms. Diane Sims. Since that time under the dynamic leadership of Ms. Sims as communications manager,

information is flowing across the country. The *"Bulletin"* and *CCLS FOCUS* are being published and distributed while the news is still current.

As a former Chairman of the Editorial Board I can personally attest to the effort that is required to pry reports and articles of interest out of land surveyors. I applaud Ms. Sims for the superb job she is doing and for what she has already accomplished.

All of us know that CCLS has suffered some serious setbacks in the last several years and there have been a few detractors who have delighted in kicking it while it is down.. I submit that these people are a very small minority who do not truly appreciate the important functions the organization performs for the benefit of our profession.

Sure, CCLS has had some problems, but so has Canada as a country. Just because one part is unhappy with the rest is not a valid

reason to scrap all that we have. In this organization, like our country, we must come to realize that the way to make it work is for every part to do its share for the benefit of the whole. We must learn to cooperate regionally and nationally. When the whole prospers so will the individual parts.

As a small profession nationally, it is imperative that land surveyors work together for the common good of the profession. This means both moral and financial support. CCLS provides the framework whereby we communicate with one another across the country. Strengthened ties between the associations and communications to all land surveyors are necessary for our survival as a profession.

In order for all land surveyors to be kept abreast of current issues, let us give our unqualified support to CCLS and its communications.

*David C. Clark, NSLS*



## Geodesy and Geomatics Engineering (formerly Surveying Engineering)

at the University of New Brunswick

A world class centre for the study of computer mapping, spatial information management and GIS, land management systems, remote sensing, geodesy, ocean mapping and navigation, and precision engineering surveys. The Department of Geodesy and Geomatics Engineering offers a wide variety of diploma, certificate, undergraduate, and postgraduate programmes leading to a wide range of exciting high technology careers in the global marketplace. There is an ever increasing demand for graduates of our programmes to fill key positions in industrial and scientific projects as well as in all levels of government. Our faculty members serve worldwide as consultants in all above areas of geodesy and geomatics.

For further information, please contact: Chair, Department of Geodesy and Geomatics Engineering, University of New Brunswick, P.O. Box 4400, Fredericton, N.B. E3B 5A3.

Telephone: 506-453-4698

Fax: 506-453-4943

## HOW MANY IS ENOUGH?

*by John H. Webb, Retired*

*Reprinted from the Saskatchewan Land Surveyors Association Newsletter, March 1994*

Trying to compare today's needs and future needs for the number of land surveyors that will be required for the consumer, may require crystal ball gazing.

The post-war era (1945-1965) saw an explosion of activity to get our country back into a sound productive nation. Consequently, there was a large increase in the number of surveyors all across Canada which reached a maximum and viable number. This appeared to serve the public in those years.

The decrease of active members in Saskatchewan in the early 1970's was due, in part, to the retirement of members, and the movement of surveyors to other areas. There was also a slight downplay in survey needs in 1970 and 1971. This was not a good period for land surveyors in private practice. The large increase of active members in the mid-1980's was due, in part, to other

provincial land surveyors obtaining their Saskatchewan commissions. Another important factor was the rush of newly articulated students obtaining their commissions. You will recall that our association basically abolished the old article system and insisted on university trained graduates becoming land surveyors.

If we juggle population statistics in various ways across Canada, it illustrates this fact - the population has NO bearing on how many surveyors may be required to fulfill the needs of each province.

Canada has approximately 2,800 active surveyors with Canada's population at 28 million. Theoretically, there should be one surveyor for each 10,000 population. (See table below).

The statistics indicate that BC, Saskatchewan, Manitoba and Ontario require more surveyors. With tongue in cheek, why not obtain them from

Alberta, New Brunswick, Quebec or from the overabundance of surveyors in Nova Scotia and Newfoundland? What I cannot understand is, on a population basis, how can Nova Scotia support 264 active land surveyors? Statistics can be deceiving, and in this case, do not tell the true story.

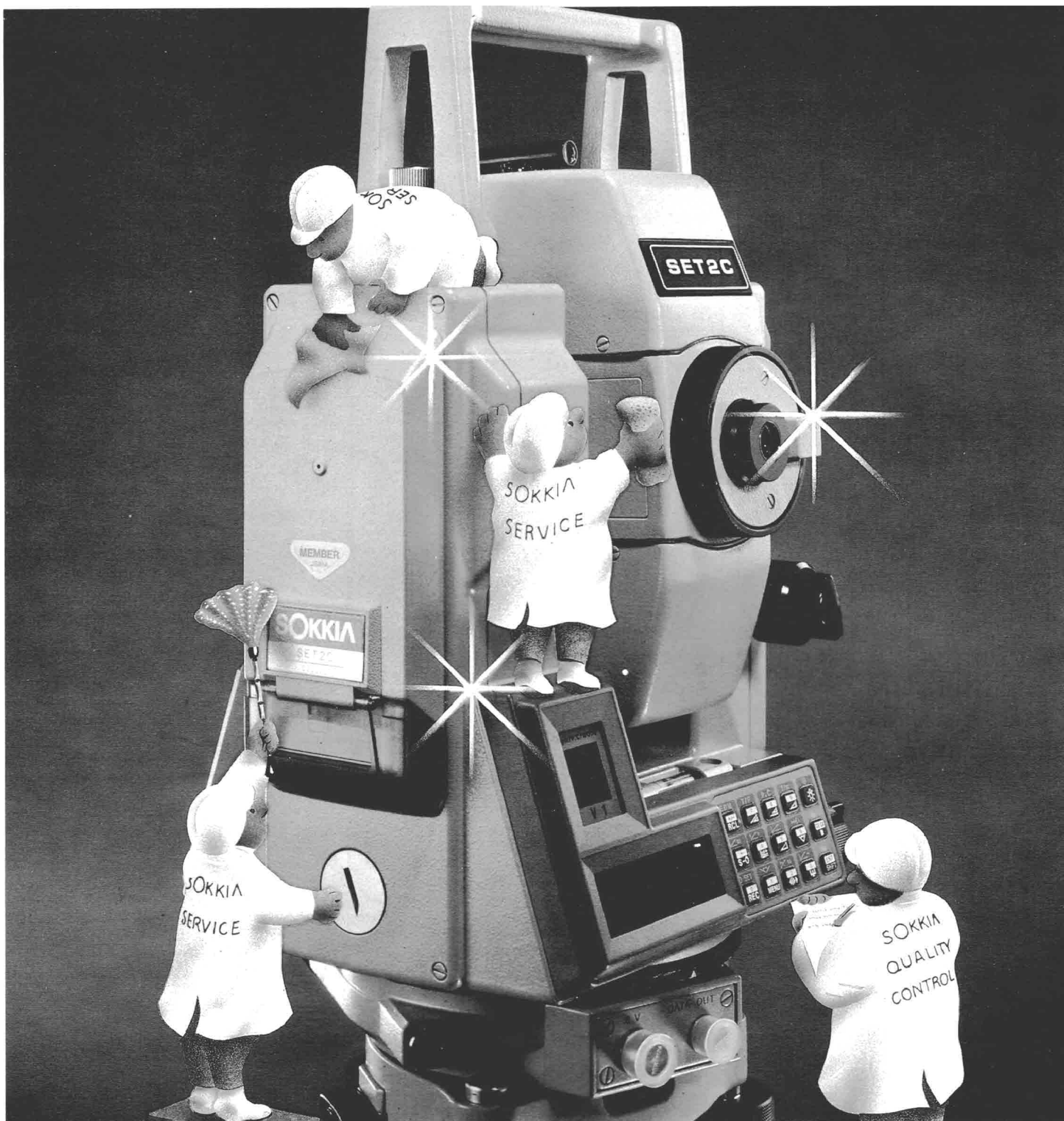
Question: How many surveyors, in Saskatchewan, does it take to support the needs of a declining population?

Answer: This is directly proportional to how much the governments of the day are willing to expand and allocate large funds for our future survey needs. The answer will also be clearer if the economy bounces back, and how much private industry is willing to gamble in order to bring our province back on its feet.

The combination and implementation of these factors will dictate "how many is enough".

Province	Active Members	Provincial Population	Surveyors Needed?
BC	300	3,282,000	328
Alberta	278	2,545, 000	254
Saskatchewan	77	988,000	98
Manitoba	63	1,090,000	109
Ontario	691	10,084,000	1008
New Brunswick	113	723,000	72
PEI	15	129,000	13
Nova Scotia	264	899,000	90
Newfoundland	98	568,000	57
Quebec	800 (est)	6,895,000	690





# SOKKIA SERVICE SUPPORT... ALWAYS THERE WHERE YOU NEED US.

As the world's largest manufacturer of surveying instruments, we take customer care very seriously. For us, service means more than ensuring that the instrument you buy, lease or rent is in perfect working

order. For regular servicing ... for emergency repair - including the supply of back up instruments - for advice and practical help on any surveying problem ... we are always there. **Call 1-800-387 9726**

## SOKKIA

SOKKIA INC.  
WESTERN REGION  
7369 - 129TH STREET  
SURREY, B.C. V3W 7B8

SOKKIA INC.  
TORONTO HEAD OFFICE  
820 DENISON ST., UNIT 1  
MARKHAM, ONTARIO  
L3R 3Y5

SOKKIA INC.  
ATLANTIC REGION  
11 AKERLEY BLVD. SUITE 400A  
BURNSIDE INDUSTRIAL PARK  
DARTMOUTH, N.S. B3B 1V7

SOKKIA INC.  
WESTERN REGION  
315-5TH AVENUE  
STRATHMORE, ALBERTA  
T1P 1B5

## REMINISCENCES

by David C. Clark, NSLS

The note from J.R. March had only said to report to Ronald Chisholm at his survey camp at Tarbotvale, Victoria County, on May 15th. On that spring day in 1962, I had just finished exams at the "survey school" (Nova Scotia Land Survey Institute) and was now driving from Lawrencetown to my first job on a Crown Land survey crew.

This instrumentman job was just what I wanted in order to complete the remaining apprenticeship time I needed to obtain my Provincial Land Surveyor's license. All the employment details had been carried out by correspondence, so I had not yet met Rusty March, the Director of Surveys, or Ron Chisholm, the regional surveyor for Victoria County. I did not even know what to expect other than that the job was to be surveying boundary lines of Crown Land on the top of St. Ann's Mountain.

Skirting the mountain as I followed the winding Cabot Trail, I noticed that the top of the mountain was shrouded in a low hanging overcast. Ominous or what? It was not until months later that I realized how often it could rain in that area.

After stopping at a little store in Tarbot to ask directions, I was not long learning the location of the survey camp. The elderly proprietor with his rich Cape Breton accent already seemed to know more about the survey than I did!

As I pulled off the Cabot Trail and slowly climbed a winding

wooded lane, my eyes settled on the camp which was to be the base of operations for the next couple of months nestled in a grassy clearing in the lee of a steep, rocky hillside. The area was very picturesque but, well - the camp was not quite nestled yet. A half dozen guys were seen struggling to unload weathered sections of a prefabricated plywood building from a large Lands & Forests truck. Another two buildings were in various stages of construction. The camps and the truck were all the same Lands & Forests colour; well, at least I must be in the right place!

After quickly meeting the members of the crew who had arrived ahead of me, the next step was to pitch right in and get those buildings erected. There would be no place to sleep until we had a roof over our heads, and that low overcast was now ever lower - it was starting to drizzle.

The first priority was the cookhouse. Hilt Rafuse was the cook that summer. Hilt was from Parker's Cove, but had spent many su-

mmers cooking for survey camps across Nova Scotia. The cookhouse was Hilt's domain. It contained a big wood cookstove, a long wooden table with benches to seat about ten people, various shelves and boxes for supplies and Hilt's bunk off in one corner. There was no refrigerator or ice-box; all the perishable food was kept in a large wooden box outside. It sat in the shade of the cookhouse with a piece of oilcloth over it to keep out the weather.

The bunkhouses for the rest of us were of similar design. As surveyor, Ron Chisholm had one to himself. The other two held six people each. Each contained three war surplus, two-tiered steel bunk frames with mattresses and two grey wool army blankets each. Each build-

### WORKSHOP COUNCIL OF NOVA SCOTIA

THE MENTALLY & PHYSICALLY CHALLENGED SERVING THROUGH INDUSTRY

**Maurice Muise**

Provincial Marketing Representative

99 Wyse Road, Suite 920, Dartmouth, N.S., B3A 4S5  
Tel: (902) 466-2220 Fax: (902) 461-2220

**Suppliers of "Survey Stakes"  
and all your Printing Needs  
(Business Cards, Forms etc.)**

*"We offer more than the competition"*

## BALLAM INSURANCE SERVICES LTD.

### Professional Liability

## INSURANCE PACKAGES

Survey Equipment - Office Contents

**ERNEST A. NICKERSON**  
B.Comm., F.I.I.C., C.A.I.B.  
SENIOR ACCOUNT EXECUTIVE  
BUS: 864-2510 FAX: 865-1411  
RES: 462-5905



209 COBEQUID RD, UNIT 1  
SACKVILLE INDUSTRIAL PARK  
LOWER SACKVILLE, NS  
B4C 3P3

ding had a small wood stove in the centre with the stovepipe going up through the peak of the roof. Each bunk was positioned to avoid leaks in the roof during heavy rains. The only other furniture were a couple of rickety wooden chairs and a Coleman gas lantern hanging from the roof by a length of baling wire.

The wash facilities consisted of a white enamel basin hanging on the side of the cookhouse, with water supplied by galvanized pail individually dipped from the little brook running behind the cookhouse. Toilet facilities were in a thick clump of spruce trees. A three inch diameter pole was nailed horizontally between two trees (at an appropriate sitting distance from the ground) and a narrow trench was dug in the ground under and parallel with the pole.

Setting up camp and putting everything in order occupied most of that first day. An initial supply of groceries had been brought by the cook, so by the time all the camps were erected, we had a hot meal waiting for us in the cookhouse. The evening was an opportunity for all of us to sit around in the bunkhouse and listen as Ron outlined what we would be doing over the next several weeks.

It turned out that we would be divided into two

work crews. I would be instrumentman for one crew and Abe Burkey would be instrumentman for the other. The two crews would be working independently, but in the same general area. The top of St. Ann's Mountain was all Crown Land, so the job would be the reestablishing of the back lines of all the original land grants located around the base of the mountain.

As most of these old grants ran back part way to the top of the steep slope of the mountain, the rear lines had not been kept up and evidence was, for the most part, non-existent. These rear lines, the dividing lines between the Crown and private owners, had not been surveyed since the time of the original grants, and in some cases, perhaps not even then. In order to reestablish these lines, it would be necessary to retrace the occasional grant sideline back from the highway and use the

actual deed distances as the best evidence of where the Crown Land should begin.

The second day dawned rainy with the trees dripping. Ron decided that it was not fit to survey under those conditions, so we would keep busy in other ways. As it happened, the wood supply was minimal so it was decided that the first project would be to remedy that situation.

We had an early 50's vintage Lands & Forests ½-ton, so after breakfast half of us piled into the truck and drove down the highway a mile or so to a hardwood area that Ron knew as being Crown Land. We then set about with our axes to cut down a couple of big old maple trees. These were then cut into six to eight foot lengths, manhandled onto the truck and taken back to the camp to be cut up with a bucksaw and split by the other crew.

The third day finally dawned clear, so we set off for our first day of actual surveying. I was the novice instrumentman so Ron proceeded to introduce me to the art of running woods lines. (Abe Burkey already knew the routine as he had worked with Roddy MacDonald before being assigned to Ron for the summer). Our starting point that day happened to be on the top of the mountain. To reach it, we had to follow a previously surveyed grant line about a mile and a half up the side of the mountain. Ron decided he was going to break us young greenhorns in right the first day. After loading us down with all the survey equipment, axes, lunches, etc., he gave orders to move out and he set off up the hill at a good pace. Well, even though we had been in school for the last few months, we were not in as bad shape as he had guessed. At the end of the first mile I noticed that Ron was puffing quite a bit and looked a bit

surprised when he turned around and found that we were all lined out right behind him. We politely did not say anything when he announced that we had to stop for a few minutes while he checked his field notes.

Eventually we did reach the top, the first of what was to become a daily climb. The line cutting was easy once we got in shape with a few of those long climbs. But this activity was a whole new experience after the past few months with the Major, learning to do resections and spherical trigonometry. Our survey instrument for this job was a Wild T-0 compass/theodolite. This was a perfect instrument for running woods lines; a compass with telescope which measured angles to minutes. Distances were measured with 66-foot steel chains. There were no reels of course, so one of the first things we had to learn was how to "throw" the chain. All the line cutting was with axes, and having to file our own, we soon learned not to hit too many rocks.

Progress was slow. As I remember, cutting 25 chains of line was a good day in some areas. The terrain was extremely rough with steep slopes up and down the many ravines. The lines were cut a couple of feet wide for a good line of sight and it always seemed that the biggest yellow birches were always right on the centreline. These all fell prey to our little axes (the environment was not so sensitive in those days). Speaking of environment, however, there was one area we traversed through which I hope may still have been left untouched. It was a small valley on the east side of the mountain and several miles north of the Englishtown ferry. The flat floor of this deep valley was covered with acres of virgin forest. I can still remember an almost reverent feeling as we passed through this area with

its huge trees perhaps three to four feet in diameter. It was a mixture of big old hardwoods and evergreens which showed no sign of ever having been disturbed. I hope then are still hidden.

Other than the persistent rain and drizzle that summer, the only other real aggravation was the black flies. Starting work in mid-May, we were just in time for the peak season. We used to slather ourselves with fly dope, but sometimes wondered if it did not just attract them from a greater distance. After the first week of itchy, black marks from the bites, we seemed to develop some immunity and after that the critters were more of a nuisance than anything else.

The other prolific type of wildlife on the plateau was the deer. We used to see them all the time. They were tame too, I suppose having had no experience with humans, they had nothing to fear.

Lunchtime in the woods was always a break from the hard work of the morning and an opportunity to find a comfortable spot just to relax for a while. Hilt made up bags of sandwiches for us to carry with us each day. There would always be cookies included and sometimes a piece of cake or an orange. We also carried a large tin lard pail to make tea. Each day just before noon, we would keep an eye

open for a dry dead stud which could be cut for firewood. Someone would be sent in search of water (usually not far away) and soon there would be a small fire going with the tea pail hanging over it from a forked stick.

Breakfast and supper, of course, were always eaten back at the camp with everyone together in the cookhouse. Breakfast was early, so Hilt used to fry the eggs and bacon the night before. Leather eggs warmed up in the morning. Lucky that we were all young and hungry!

Hilt used to do all his cooking from scratch; bread, cake, cookies, etc. Hilt also continually chewed tobacco. Abe's favourite lunchtime prank was to pick little brown flecks from his sandwich and inform one of the younger crew members that the brown bread used for the sandwiches was really supposed to be white.

WOOD PRODUCTS DIVISION  
**WEBBER ENTERPRISES LTD.**

LAKE CHARLOTTE, N.S. B0J 1Y0

MANUFACTURERS OF

**SURVEY STAKES & HUBS  
- HARDWOOD WEDGES**

*"MILLING WOOD TO CUSTOMER NEEDS"*

FORD WEBBER - SALES  
1(902) 845-2211



## **VALUE SALES LIMITED**

**MANUFACTURER OF ALUMINUM  
CAPS & BARS**

**TOOL SHARPENING**

**STEEL PIPE & FITTINGS**

**PIPE THREADING TO ORDER**

**723 Windmill Road  
Burnside  
Dartmouth, Nova Scotia  
Phone: 468-1220  
Fax: 468-8198**

Then there was the time that Hilt baked a special birthday cake for one of the group, all done up fancy with white icing and decorations. As I mentioned earlier, all the food was kept in a wooden box in the shade of the cookhouse. Well, this particular day, when dessert time came around, Hilt went outside and brought in the cake container and set it in the middle of the table. He whipped off the cover with a flourish and oh, the cake was bright red and it looked like the frosting was flowing - it was totally covered with little red ants!

Evenings at the camp were usually quiet times when everyone took it easy; writing letters, playing cards or chatting. Sitting around the bunkhouse with the fire crackling in the stove was a cosy atmosphere which sometimes led to the telling of some pretty tall stories. Ron could usually be persuaded to come up with several tales to keep everyone

entertained. Especially ghost stories. One in particular was about a haunted house somewhere near Antigonish, which he managed to convince every one of us was absolutely true.

On weekends, Ron and most of the crew went home. That left Abe, Hilt and me to hold down the camp. Things were even quieter on weekends in that area, but that was not to stop Abe. He had lost his driver's license, but one weekend he somehow managed

to acquire a dozen quarts of beer, which he then proceeded to hide in the brook. I was given one quart to buy my silence and probably Hilt was also. Thereafter, on hot days, Abe would mysteriously disappear for an hour or so after work, eventually reappearing in a good mood from the direction of the brook.

The area where the camp was situated was on the valley floor almost enclosed by the surrounding hills. Hence the name Tarbotvale, I suppose. It was a sparsely settled area, but there was one noticeable dwelling located part way up one of the hills opposite the camp. It could be seen clearly from the camp and the old gentleman who lived there certainly had a commanding view of the whole valley. On quiet evenings, this old Scot would sit on his front porch and play the bagpipes. His music seemed to fill the whole valley.

Apart from the usual complaints about the wet weather, the summer was a great experience. Being young in those days, we did not mind the rough living conditions and the strenuous exercise. I have not seen most of the guys on the crew since then, and now I even forget most of their names. I think my salary was about \$170 per month, but the job was fun and I still believe that area is one of the most beautiful parts of Nova Scotia. ■

\*\*\*\*\*

### **GOVERNMENT CONTRACTS**

A copy of the following bulletin is available at the Association office. The bulletin has been prepared by the Surveys, Mapping and Remote Sensing Sector of Natural Resources Canada and contains estimates of budget allocations and anticipated projects in the 1994-95 fiscal year.

**Contracting Out Bulletin  
for  
The Private Sector  
Plans for 1994-95**

\*\*\*\*\*

### **BULLETIN**

In mid-June, a truck and an amount of survey equipment was stolen from David Thorne, NSLS, in Shelburne, NS. The truck has been recovered by police in the Cole Harbour-Preston area. The equipment that was in the truck is still missing. If you become aware of or have any information about the equipment, please contact the police or the Association office. ■

\*\*\*\*\*

Nothing great was ever achieved without enthusiasm.

- Ralph Waldo Emerson

# 26,000 Hours and Counting



**The System 4000 gives you 3 years of field-proven experience you can stake your reputation on.**

**N**othing beats field experience. The System 4000 introduced *fully robotic surveying* to the world in 1990, more than 26,000 hours ago. Thousands of surveying professionals around the world have staked their jobs with it. And their reputations on it.

3 years of faster, more efficient surveying – proven in the field. 3 years of improved productivity and profits. With full crews. 2-man crews. Even 1-man crews. All with the surveyor at the rod – where the important decisions are made.

The System 4000 made you the point man 3 years ago. And now, to *keep* you out front, the next generation is even more powerful and reliable.

Introducing the RPU 4002. Our new Remote Positioning Unit adds more flexibility at the rod. Hang the compact telemetry and control modules on your belt. Carry only the rod and prism. Or combine them any way you want.

Both the original RPU 4000 (now with 3 times the range) and the new RPU 4002 give you precise control of rod placement. Remote control of the measuring unit. Total control of the job, *all from the rod*. And all for better control of time and profits.

So stake *your* reputation on the System 4000. Call your Geodimeter representative today. You'll see the difference real quality makes.

And accept no imitations.



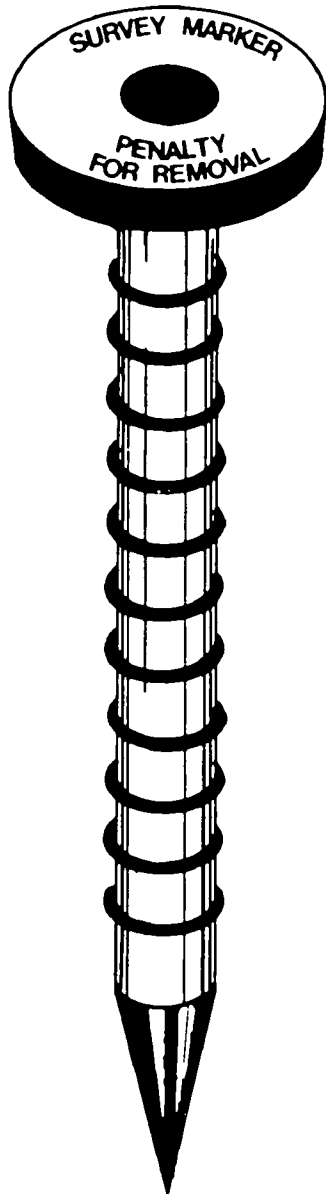
Productivity is the *only* measure

Nova Scotia Agents: Cornerstone Surveying Systems • 70 Neptune Crescent • Business Technology Centre • Dartmouth, Nova Scotia B2Y 4M9  
Phone: (902) 463-5411 • Fax: (902) 466-6889

Geodimeter of Canada, Ltd. • 41 Horner Ave., Unit 5 • Toronto, Ontario, Canada M8Z 4X4 • Phone: (416) 252-4691 • Fax: (416) 252-8635

# 'LIBERTY' LAND SURVEYORS' MARKERS

---



*A tried and proven survey marker consisting of a corrosion resistant aluminum head, threaded to a sharpened carbon steel rod, ribbed for better holding characteristics.*

*This marker has won approval from professional Land Surveyors in all the Atlantic Provinces and is now in common use in many areas.*

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

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

*A Quality Product from:*

MANUFACTURED BY:

***Liberty Enterprises Ltd.***

R.R. 3  
AMHERST, N.S. B4H 3Y1  
(902) 667-5002