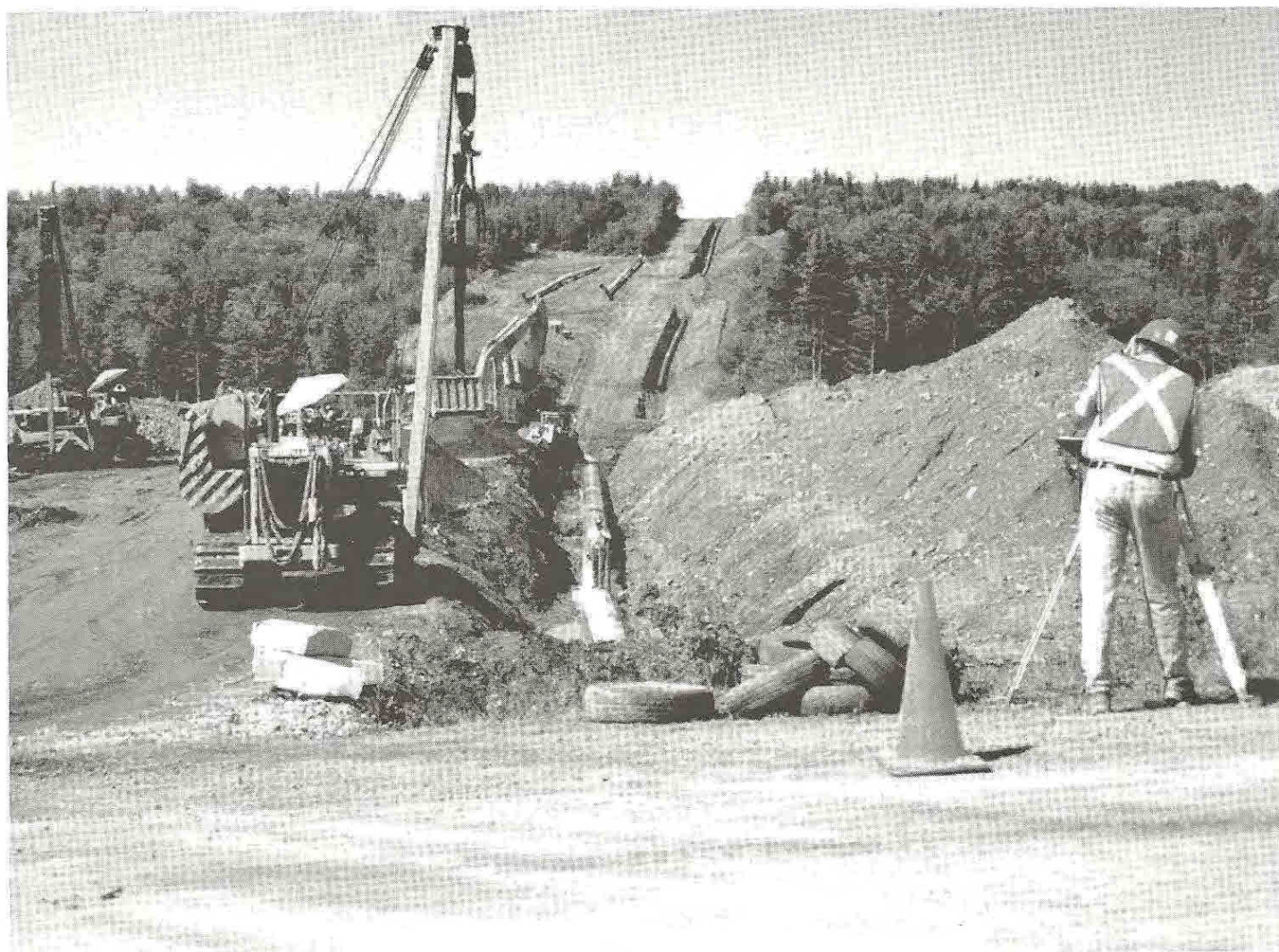


THE NOVA SCOTIAN SURVEYOR

Winter/Spring 2000

No. 161



SABLE GAS PROJECT

Surveying a Section of the 560 kilometre Pipeline

30 40 50

Robotic. Reflectorless. Remarkable!



Introducing the Leica TCRA Total Stations. Simply Brilliant.



Here's a bright idea: Imagine a total station that combines automatic targeting, reflectorless measurement, and advanced robotic operations into a single compact instrument. Leica's incredible TCRA Total Stations give you this all-in-one tool. You can decide to work with or without a reflector. Or engage the productivity of automatic target recognition. Or, go fully robotic. You've got all the options, all the time, in the smallest and lightest robotic total station ever built. Call 416-497-2460 and see the brilliance of Leica TCRA Total Stations for yourself.

You can also visit Leica Geosystems at www.leica-geosystems.com

Leica

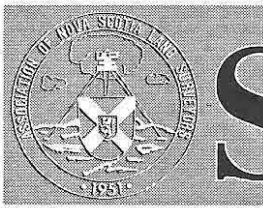
MADE TO MEASURE

Leica Geosystems Ltd.
Calgary (403) 253-6747

Halifax (902) 468-5122
Montréal (514) 422-9453

Québec (418) 527-9453
Toronto (416) 497-2460

Vancouver (604) 278-3898
Edmonton (780) 413-0791



THE NOVA SCOTIAN SURVEYOR

WINTER / SPRING 2000

No. 161

CONTENTS

PAGE

President's Report	<i>David Wedlock</i>	2
Executive Director's Report	<i>Fred Hutchinson</i>	4
SRD Manager's Report	<i>Alexander E. MacLeod</i>	5
What are Surveyors Worth???	<i>Robert A. Daniels</i>	6
Trimble Training Course at COGS		9
Registry 2000: After 250 Years, It's Time for a Change	<i>N. Vanstone & C.F. Dooley</i> .	10
The Hierarchy of Calls	<i>George F. Butts</i>	11
Things are Tough All Over		16
Book Review: Mapping a Northern Land	<i>David Wedlock</i>	17
Why Specs Live Forever		18
Minutes of the 49th Annual General Meeting (1999)		19
Photos - Convention 1999		20
2000 Calendar of Events		27

THE NOVA SCOTIAN SURVEYOR

Editor: Fred C. Hutchinson

Production: Kathy Alcorn
Wade Company Limited

Cover: Cover photo courtesy of Terratech Consultants Inc.

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 three times a year. Address all enquiries to: Association of Nova Scotia Land Surveyors, 325-A Prince Albert Road, Dartmouth, Nova Scotia, B2Y 1N5 Canada. Tel: (902) 469-7962 Fax: (902) 469-7963 E-mail: ansls@ns.sympatico.ca

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

David Wedlock, NSLS

By the time that you read this report you will have completed many firsts in our new millennium. You will have completed your first month(s) of work, figured out how you are going to number that first job and you are now reading the first president's message in the new millennium.

In the coming months your executive will be representing you at annual meetings across the country. Gerald Pottier will be attending the Quebec annual meeting in June, Lester Berrigan has attended the Maine meeting and I have attended and will be attending annual meetings in New Brunswick, Ontario, Alberta, Newfoundland and Saskatchewan. Attendance at these meetings is important and enables your association to keep abreast of issues and concerns that are taking place in other provinces and states.

The year ahead will mark an important milestone for our association. At the October meeting in Digby, we will celebrate the fiftieth annual meeting of The Association of Nova Scotia Land Surveyors. Throughout the year your convention committee will be working hard to make this meeting a memorable and eventful occasion. As this is a special meeting, the convention committee is asking for your input as to the structure and organization of the meeting. At the February zone meetings, the zone Councillors conducted a member survey regarding our upcoming 50th annual meeting. The Convention Committee will try, where possible, to implement these suggestions from the members and hopefully make this meeting a memorable event.

Within the next few months your association executive will be working on mandatory continuing education. You may recall that mandatory continuing education was passed at the

1998 annual meeting held in Halifax. The writing of the regulations governing how the association will deal with mandatory continuing education was not dealt with in 1999. We must move forward and look at how mandatory continuing education will be implemented within our association. Decisions must be made as to the structure of the point system and the method that will be used to track each member's points. Information on this subject will be coming out to you at your zone meetings and from the association office. We are at somewhat of an advantage with respect to mandatory continuing education in that we have data on what has taken place in other provinces. There are several different approaches to mandatory continuing education that have been implemented elsewhere. The first task of the executive and the committee will be to select the approach that best suits Nova Scotia.

On January 13, 2000 a discussion paper on Registry 2000 was released in Halifax. Registry 2000 follows a similar 1999 initiative by Service New Brunswick. This new land registry system is a parcel-based system as opposed to our present name-based system. This discussion paper is the result of the work of the "Legislative Review Committee" which was established in May of 1999. The members of the committee included: Nova Scotia Barristers' Society, Association of Nova Scotia Land Surveyors, Department of Housing and Municipal Affairs, Department of Justice, and Department of Natural Resources. The proposal now is to introduce this legislation in November 2000 and develop a pilot system within 6 to 12 months after enactment. As surveyors deal with the Registry office on an almost a daily basis, I would advise all members to download a copy of this document from the Registry 2000 web site at www.gov.ns.ca/homa/ or by contacting the association office. You should also look for information sessions on Regis-

try 2000 between January and April 2000. This brings me to the next topic of seminars and short courses.

The province of New Brunswick is at least a year ahead of Nova Scotia with respect to NAD83. The adjustment has been completed, seminars have been given and the software has been made available to the survey community in this province. The same will take place in Nova Scotia. We will need to run a Saturday seminar(s) on NAD83 to introduce this concept to our members. Decisions must also be made regarding what units we will work in. As we move to NAD83 it would seem obvious to move all surveys to metric. I know others will have different opinions on this but now is the time to look at it and decide how we will proceed. Nova Scotia and PEI are the only two remaining provinces in Canada where the majority of plans are calculated and drafted in the imperial system.

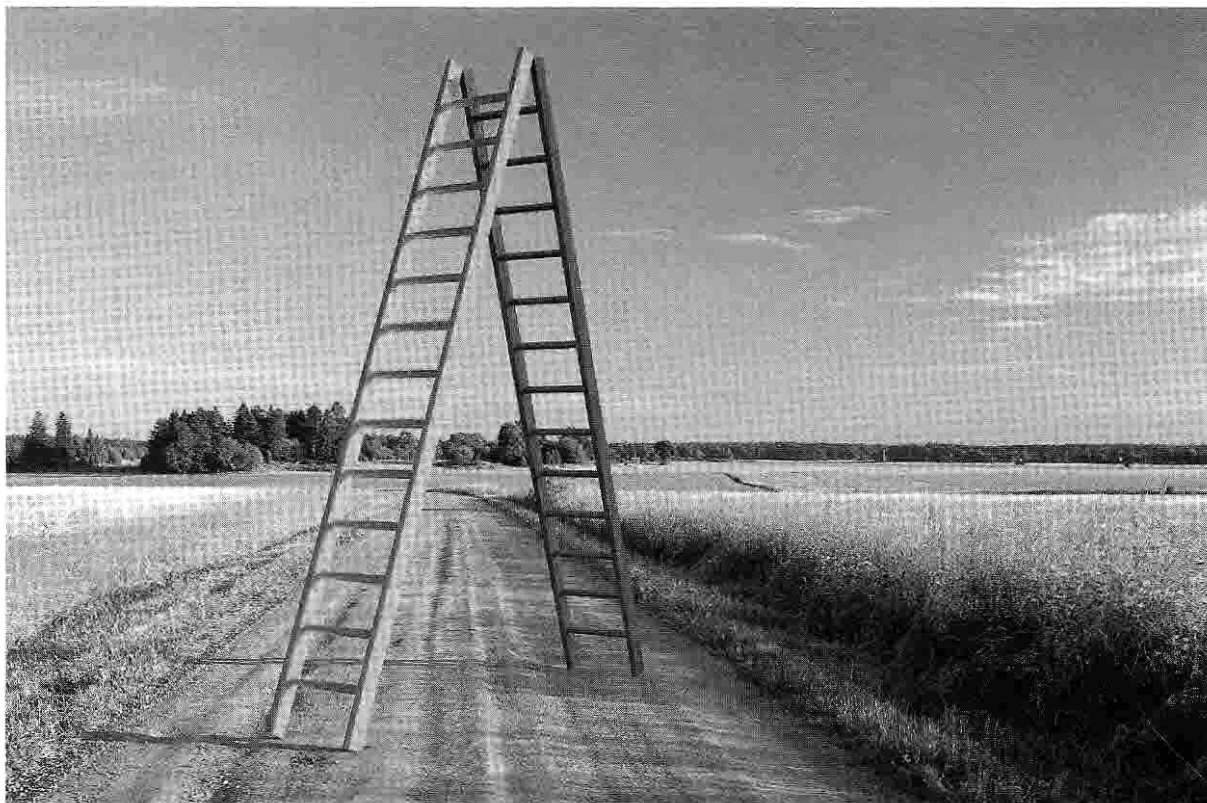
As the methods and approaches to our everyday practice of surveying change, these changes must be reflected in our "Manual of Good Practice". This manual is a good document, however it must be updated to reflect changes that have taken place within our regulations. We will need, for example, to add a GPS section to the manual now that our regulations have been updated and reflect GPS technology. At our 1999 meeting, SRD made a presentation to the members on "Plan Title Wording". The manual is the obvious place for title examples to be shown. I would like to see this manual evolve into something along the lines of the CLS manual, with foldout plan examples and references to which members can refer. If any members have an interest in working with me on this manual, please contact me personally or the association office.

I look forward to meeting you at zone meetings and at our annual meeting, which will be held on Oct 19 to 22 in Digby. ■



CARL ZEISS JENA GEODETIC SYSTEMS IS A PARTNER OF THE SPECTRA PRECISION GROUP

THE MERGER AD



To know the world of surveying, you have to see things from a different perspective. Reaching the top takes hard work, cooperation and innovative thinking.

Spectra Precision and Carl Zeiss Jena Geodetic Systems are combining knowledge and resources in the most important joint venture for our companies' future. Our vision is to utilize our combined world-wide customer knowledge for Construction, Engineering, Topographic and Cadastral Surveying to provide the innovative products of the future. Together, our extensive dealer and distribution networks bring us closer to our customers – strengthening our relationships, and providing world-class customer support services.

We want to be your partner today. Our combined product portfolio, distribution and customer communication allow us to address your application and business needs.

We want to be your partner in the future. Together we will develop the innovations of the future, providing the different solutions required for the surveying and positioning markets. We will build on our extensive world-wide distribution networks, and we will build on our customer communication systems.

We think different.

We think innovative.

We think global.



**SPECTRA™
PRECISION**

www.spectraprecision.com/zeissmerger

Spectra Precision® of Canada Ltd, 41 Horner Ave. Unit 5, Toronto, Ontario, M8Z 4X4.

Tel. 1-800-563-7184, Fax (416) 252-8635 e-mail: info@spectraprecisiontor.com

EXECUTIVE DIRECTOR'S REPORT

F.C. Hutchinson, BA, NSLS, CLS

The 49th annual meeting and convention held in Yarmouth, Nova Scotia was a success despite the labour problems at the hotel. Attendance was good and I would like to thank all our members who attended, especially the gang from Cape Breton who had an eight hour drive or more.

The Registry 2000 initiative will certainly be discussed over the next year. It proposes to bring the Registry system into the 21st century by taking advantage of modern technology. The new system will see the government guarantee title to the land owner, eliminate historical title searches and be referenced to a graphic property index. The need for reliable survey plans becomes more important in such a system since they will be the main source in creating the index map.

The Loss Prevention Seminar, scheduled for January 21, 2000, had to compete with a snow storm and the storm won. The seminar will be offered at a later date and credit for attendance will be given at that time. Speaking of seminars, mark March 31, 2000 on your calendar for a session titled "The Surveyor and the Internet". This will be a must for both the novice and the experienced surfer. Topics will range from how to get on the net to downloading and transfer of digital data. If you don't attend, only three excuses will be accepted:

- 1) You died.
- 2) You quit surveying.
- 3) You already know more than anyone else.

The Continuing Education Committee hopes to provide another seminar in June and a third prior to the annual meeting on October 19, 2000 at the Digby Pines Resort. Description writing and a survey plan review workshop is being planned for June. We are always looking for seminar topics.

On February 4, 2000 the association sponsored a bi-annual "Surveyor's Forum" at the Centre of Geographic Sciences (COGS) on the theme "The Progress of Surveying". Six surveyors made presentations to about 100 students on topics that included land registration, retrace-ment surveys, GIS projects, legal issues, history and digital data for design. The main goal of the forum was to educate the students with respect to the various topics. However, it was also made clear to the students that all the presenters were involved in different aspects of the geomatics industry while having graduated from the same course.

Complaints still keep rolling into the office and are being dealt with by the Complaints Committee or by myself with the permission of the complainant. Sometimes it is nothing more than a problem of communication or the lack thereof. Other times it is a boundary dispute involving two surveyors, two owners, two lawyers and no progress. Remember boys and girls, your boundary location is an opinion only. It only becomes a boundary with acceptance by the adjacent land owners or by the decree of the courts.

Here's hoping that both you and your computer remain virus free during the new year. ☒

REGISTERED RETIREMENT SAVINGS PLANS (RRSPs)

"The first step in successfully managing your financial resources is knowing what options are available to you."

Would you like to learn about the three basic types of RRSP's?

If you would like a complimentary consultation or if you would like to receive a free **RRSP Information Kit** please call:



Helen Gaudet

Investment Advisor

Telephone 1-902-496-1182

Toll Free 1-800-464-1273

Fax 1-902-423-7011



NESBITT BURNS

Member of the Bank of Montreal Group of Companies

Member



SRD MANAGER'S REPORT

by A.E. MacLeod, B.Sc, B.Ed, NSLS

In 1999 SRD received 3362 plans and issued 7241 SLC numbers. A quick comparison to the past five years shows that plan numbers are slightly below average but up from last year. SLC's have not been around long enough to make valid comparisons.

Barb Young, the SRD assistant, manages the number issuing, invoicing and logging of submissions. She is also encouraging members to submit plans for old SRD numbers. Currently, some members may not receive new numbers unless their submissions are up to date.

I have been looking at every plan to make selections for systematic reviews. It is my policy to review more than one submission by a surveyor to check for commonalities in their plans.

I believe most members would agree that, in general, our members have upgraded greatly the quality of their plans over the past 10 years. Site inspections continue to be the most revealing test for reviews.

In the office I verify mathematical closures, compare the information with LIS data (making no assumption that LIS data is superior to the surveyor's research), use a check list based on our regulations, Manual of Good Practice and regulations under various acts, including the Municipal Government Act.

My typical field inspection (85 to date) includes using the key plan to find the site, looking for all the found and set evidence, walking the lines and checking to see if all the pertinent physical and cultural information in the vicinity has been shown. I then report my findings in writing to the individual surveyor.

Currently, I am trying to time my field inspection trips so I can make appointments to visit surveyors at their office to introduce myself, seek their opinions and to consult personally about my findings. I am also interested in what members feel about the purpose and direction of SRD. My belief is that our first priority is to be an educational arm of the Association.

The most frequent comments made about surveys are;

- title block clarity including land owner, not client names; purpose of plan (retracement, subdivision/consolidation, certain boundaries survey); which lots are being created, if any; street or road names.
- dates of field work to be noted in proper form (see regulation 57 (e)).
- the owner's name and relevant PIDs on the diagram of the plan.
- supporting comments on the plan to explain why boundaries are being defined in current location.
- monumentation on all corners,

stones and/or stakes.

- identity of the source of found evidence.
- total distances shown along straight lines.
- curve geometry on roads.
- lines cut and blazed.
- all buildings within minimum distance of lines shown (reg 60d and MGA 39 & 49).
- civic numbers.

Since winter is the time of year when we may have a little more free time, I encourage all the members to review our act and its revised regulations with their field and office staff and to also consider the Provincial Subdivision Regulations under the Municipal Government Act. For instance, it is now required to show the bearing and distance to one or more coordinate monument (Reg 19.5) and also on any Tentative or Final plan of subdivision, the location of existing buildings within 10 metres of a property boundary must be shown. (MGA Reg 39 & 49)

We have all worked with plans on public record whose creators have long since surveyed their last line. We form impressions about how these people worked, the pride and care they took in their projects and their knowledge of the land. Their plans have become their legacy. Our plans are also entered into public records and will survive us. What will be your legacy? ■

What are Surveyors Worth???

by Robert A. Daniels, NSLS, CLS

This is an age-old question. At least it has been around since I can remember and that's getting up there. What surveyors charge for their services can be looked at from two different perspectives. The client often thinks they are paying twice as much as the surveyor is worth, while the surveyor believes they are charging only half of what they are worth. But then, this can be said of many things.

There is little doubt that most surveyors would like to receive higher remuneration for their services. They would also like to "knock some sense into the heads of those who are believed to be charging too little". However, any discussion about fees or charge out rates is avoided like the plague at any survey meetings I have attended. This is undoubtedly due to a certain level of intimidation by the Federal Competition Bureau. There are still vivid memories of the Feds swooping down on other survey associations and survey companies trying to prove price fixing.

Surveyors must recognize that the services they provide are not usually eagerly sought after by the public. People do not save their money to have a survey done in the same way they save to buy a new car or go on a trip. It is doubtful if a land owner will brag with pride to the neighbours about the fine survey they just had completed or proudly show pictures of the cut-

line and survey markers as they would with their vacation photos. Surveyors must recognize that their services are a necessity, not a luxury. Statutes at all levels of government have requirements for surveys. Many other professional groups, such as architects, engineers, lawyers and lending institutions also have a need for surveys. Without proper survey information, these groups would have difficulty approving, designing, building or financing projects related to land.

Many surveyors blame their financial misfortune on their competitors or their client's unwillingness to pay. In too many instances surveyors are told how to do their job by the client which often results in clear violations of the regulations. Other professions have professional practice standards just like surveyors. They adhere to their professional standards and they tell their clients how it will be done. Can you imagine the response if you tell your accountant how to do your year end audit, your lawyer how to handle a legal issue or your doctor how to diagnose or treat an ailment? Each profession offers a specialty service and has a level of expertise only they can provide, land surveyors are no exception. True professionals do not let others dictate how they will provide services for which they are ultimately liable.

Do not listen to your clients when

they tell you they cannot afford the cost of a survey. Anyone who is seeking the services of a land surveyor either owns land that is worth money, is buying land that means they have money or developing land which means they expect to make money. Virtually every survey results in a financial benefit for the client and is needed for one reason or another. If the client owns land and wants the boundaries surveyed it is probably because they are selling it for financial gain, planning to increase its value by adding improvements or are trying to avoid an expensive or unpleasant confrontation with their neighbour. If the client is buying land, the survey is necessary to confirm the size, shape and location of the property. The survey will be used to justify the purchase price or to allow mortgage funds to be released to the client. If development is the plan, the client expects to use the survey information to enable the development to proceed, resulting in substantial financial gain. Surveyors are much too sympathetic when listening to the financial problems of land owners or developers.

Consider what would happen if all surveyors offering services to the public took the last two or three weeks of July as vacation. There would be no location certificates issued, no building references set, no lot stakings to allow improvements to be added to lots, no subdi-

DEADLINE MAKER

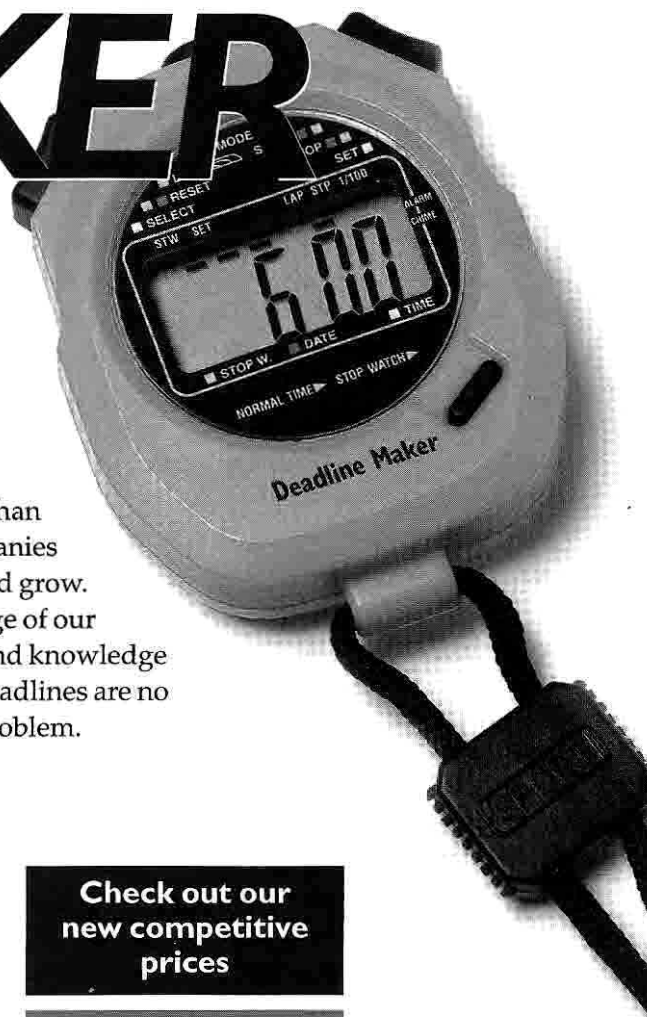


Having trouble meeting your deadlines?
Go ROBOTIC with Geodimeter® and
you'll easily double your surveying capacity.
Making the transition to Robotic Surveying
isn't a question of whether your existing equipment is
working or not. It's a question of staying successful.

Spectra Precision developed Robotic Surveying more than
10 years ago. Since then we've helped thousands of companies

to stay ahead and grow.

Take advantage of our
experience and knowledge
and your deadlines are no
longer a problem.



**Check out our
new competitive
prices**

*Get more info about the dramatic increase in
productivity a ROBOTIC Geodimeter will give you at
www.roboticsurveying.com/deadlinemaker
and have a chance to win an exclusive stop-watch while
you're at it.*

**or phone: 902-463-5411
or e-mail: info@spectraprecisiontor.com**

vision plans submitted and no topographic plans prepared. This would have a serious impact on land development. Much of the business of lawyers, engineers, architects, realtors, construction companies, lending institutions would be delayed. Millions of dollars in financing would not be released causing financial losses for many. The services provided by surveyors have more impact on the economy than many realize.

If you are not making money it is

not because your competitors are charging low fees, it is because you are not charging enough. Your income is a direct result of what you charge, not what your competitor charges. If your company is not making a profit, spend your time and energy improving how you do business, not fretting over what the competition is doing. You have control over what you do, you do not have control over what your competition does. There is no law that says you must take every survey job that comes your

way. Be selective, spend your time on projects and with clients that will result in a reasonable profit. Leave the headache clients and the unprofitable jobs to those who wish to work for nothing. Clearly the financial constipation endured by many surveyors is a result of the actions of our own members and cannot be blamed on others.

In the words of Walt Kelly, creator of the Pogo comic strip, "We have met the enemy and he is us." ■

GEODESY AND GEOMATICS ENGINEERING at the **University of New Brunswick**

The department of Geodesy and Geomatics Engineering offers a variety of diploma, certificate, undergraduate and postgraduate programmes leading to a wide range of exciting high technology careers in the global marketplace. Interesting and challenging professions in land or cadastral surveying, metrology, deformation monitoring, mining surveying, mapping, photogrammetry, geodesy, hydrography and ocean mapping are open to our graduates.

Graduates can find positions with federal, provincial and municipal government agencies; with the oil, gas and mining industries; and with numerous private organizations, such as photogrammetric mapping firms, geological and geophysical exploration companies and consulting engineers. Our graduates also can be self-employed as professional engineers or as registered land surveyors. There is an ever increasing demand for graduates of our programmes to fill key positions in industrial and scientific projects in Canada and around the world.

Advanced credits are given to certified technicians or technologists in surveying and mapping.

Please contact: Chair, Department of Geodesy and Geomatics Engineering
University of New Brunswick, PO Box 4400, Fredericton, NB E3B 5A3
Telephone: (506) 453-4698 Fax: (506) 453-4943 E-mail: ggchair@unb.ca

More information is on the World Wide Web.

Our home page is: <http://www.unb.ca/GGE/>

Trimble GPS Training Course at COGS

The Centre of Geographic Sciences (COGS) will be conducting three days of hands-on training on Trimble Global Positioning Systems (GPS) at the Nova Scotia Community College, Annapolis Valley Campus on **April 11, 12 & 13, 2000.**

The training will utilize Pathfinder ProXR Trimble products. You will utilize your hand-held GPS unit in the field to collect data, and spend time on a computer processing the collected data all under the direction of Dennis Kingston.

Upon completion of the three days, you will receive a certificate from Trimble Navigation of Sunnyvale, California as a 'certified user' and you will also receive a certificate of accomplishment from the Centre of Geographic Sciences of the Nova Scotia Community College, Annapolis Valley Campus.

Cost: \$750.00 (Price includes three days of training, instructional materials and three lunches)

SCHEDULE

Day 1

Morning

Introduction

- Welcome
- Overview of Training Schedule
- Introduction to Mapping Products

Global Positioning Systems

- Before GPS
- Why We use Satellites for Positioning

Geographic Information Systems

- What is GIS?
- GPS Data Capture for a GIS
- Using GPS (morning and afternoon)
- Accuracy Issues
- Differential Correction
- Elevation Angle Mask
- Satellite Visibility and Missing Planning
- DOP - Dilution of Precision
- 2D vs. 3D

Afternoon

Data Collection and Field Procedures

- System Orientation
- Configuring the System
- Data Collection Orientation
- Waypoints and Navigation

Mission Planning

- Data Dictionary Creation
- Checking Satellite Visibility

Day 2

Morning

Review

- Differential GPS Concepts
- Questions

Community Base Station

- System Orientation
- Configuring the System

Field Operations and Data Collection with GPS Equipment

- Preparing for the Field
- Real-time Setup (optional)
- Field Session Two with Navigation Techniques

Afternoon

Post Processing

- Project from Start-to-Finish
- Setting Parameters in Pathfinder Office
- Data Transfer
- Differential Correction Techniques
- Display/Edit/Plot GPS Data
- Using the Text Editor
- Additional Pathfinder Office Functions
- GIS Conversions
- Batch Processing

Day 3

Morning

Review

- Pathfinder Office Post Processing Techniques
- Questions

Day 3 - Morning (cont'd)**Date Collection & Review**

- Pathfinder Office Post Processing
- Discuss Field Session Strategies

Afternoon**Waypoints & Navigation**

- Create Waypoints
- Navigate to and from Waypoints
- Import Waypoints

Open Forum

- To allow participants to address specific issues covered during the training

Conclusions

- Final Questions
- Course Evaluation

Pre-payment is required to secure your placement in the course. If COGS cancels the course, your registration fee will be reimbursed in full. Cancellations are accepted 10 days prior to commencement of the course less a \$50.00 administration fee. Course costs will not be reimbursed after that time.

Deadline for application is March 28th, 2000. To apply contact us at:

Centre of Geographic Sciences
Nova Scotia Community College
Annapolis Valley Campus
50 Elliott Road
Lawrencetown, NS B0S 1M0

Phone: (902) 584-2228

Fax: (902) 584-7211

dennisjl@nscc.ns.ca

Registry 2000: After 250 Years, It's Time for a Change

NS Department of Housing & Municipal Affairs - N. Vanstone & C.F. Dooley

Purchasing property could become a lot faster and easier in Nova Scotia if changes that are being recommended to the land registration system are implemented. The provincial government and several private sector groups—including the Association of Nova Scotia Land Surveyors and the Barristers' Society—are recommending a sweeping overhaul to the system.

It's about time: Nova Scotia's land title system has remained virtually unchanged since 1750. In this age of e-commerce, it's an antiquated obstacle to all who use it: cumbersome, inefficient, imprecise.


"This change is long overdue," says Fred Hutchinson, Executive Director of the Association of Nova Scotia Land Surveyors. "These changes will be a positive step for those of us in the surveying profession. Since the new system will be parcel-driven, the need for an accurate plan of survey may increase. But the largest beneficiary will be Nova Scotia land owners."

The recommended changes were released with draft legislation in a discussion paper titled "Registry 2000 - Land Records Reform" in mid-January. It recommends that the current paper-based system be made available

through electronic means. It also recommends that people buying properties be guaranteed ownership to their land, something the existing system doesn't do.

"Registry 2000 has the potential to benefit all Nova Scotians by providing a system that's less repetitive and easier to access," said Angus MacIsaac, Minister of Housing and Municipal Affairs. "Nova Scotians could eventually be able to use the system from anywhere in the province."

Province-wide consultation sessions with key stakeholder groups who frequently use the land registration system are currently underway. The province is encouraging comments by April 30, 2000. The discussion paper is available on the Department of Housing and Municipal Affairs web site at www.gov.ns.ca/homa/ or by contacting the Department at 424-5619. The feedback will be used by the government to assess the opportunities to develop a long-term strategy including new legislation to deal with the registration of land in Nova Scotia.

For further information on the Registry 2000 initiative the Land Records Reform Office at 424-5619. 

THE HIERARCHY OF CALLS

© Copyright 2000 by George Butts, LS



Author's Note: Readers should note that this essay was prepared for the following two classes of lay persons: (1) lawyers and landowners, and (2) second year survey students. Nevertheless, it provides an excellent guide for the practicing land surveyor when conflicts occur. This short essay is a simple synopsis of one of the most basic set of rules for the land surveyor. There are many, many exceptions and variations to these rules. One should always remember the wise words of William C. Wattles, **The contrary may be shown.**

Property being conveyed may be defined by various descriptive elements known as "calls". The descriptive elements mainly and generally used are monuments, courses and distances, adjacent lands and area or quantity. Property may also be located by reference to another deed, or to a map or plat. However, property need not be described by any particular descriptive element, but may be described by metes and bounds as well as by reference to a lot number. Any method which will clearly identify the property is sufficient. (Rasch)

Rasch's last sentence represents the lawyer's concern with title — identification of the property for title purposes. Meeting this objective does not always meet the needs of the land surveyor. A prudent description, survey wise, contains:

Enough instructions so that the boundaries of the parcel can be located with reasonable certainty in the future by a competent surveyor.

It follows that, if a parcel is locatable by a surveyor, it has to be unique for title purposes.

The boundaries described must not subtract from rights of others.

Conflicts appear for the surveyor when:

1. *Two parties are given title to the same land, or when*
2. *One party has title and another has possession, or when*

3. *Title descriptions are ambiguous or contain conflicting elements.*
(Butts 1990)

The most frequent, but not all, of the conflicts are:

1. Conflicts between calls as written in the deed. For example, the deed calls for 10 acres; the metes (bearings and distances) stated in the deed result in an area of 14.7 acres.
2. Conflicts between a call as written in the deed and the corresponding element on the ground. For example, the deed calls for a hemlock tree, the actual tree on the ground is a white pine.
3. Conflicts between a call as written in the deed and the call in the abutting landowner's deed. For example, the client's deed reads Southerly, 200 feet; the abutting owner's deed reads N7°- 31' W, 208.2 feet.

When conflicting evidence (information) appears during a retracement survey, there exists an ancient and well established hierarchy (a body of rules) that provides for the determination of what evidence is best and therefore is to be used instead of the subordinate evidence. In a simple explanation, the following items of that hierarchy are listed in the order of their importance. There are a great many exceptions.

A retracement survey is the resurvey of a parcel that was surveyed earlier, including the perpetuation of corners, lines, boundaries and monuments, according to one of the following conditions:

Dependent Resurvey. A restoration of the original conditions according to the record.

Independent Resurvey. When a restoration cannot be made, the corners, lines, boundaries and monuments must be located in accordance to what would be afforded by the courts.

Senior Rights

When a land owner subdivides and conveys to others a part of his or her lands, a new parcel of land is created. It is often the case that the new parcel is adjacent to a parcel of land that was subdivided and conveyed at an earlier time. The new parcel is called the junior parcel and the earlier one, the senior parcel. It may be found that the new parcel of land includes all or part of the earlier parcel. That part of the junior parcel which includes part of the senior parcel is often termed a **lap** because it lays over the senior parcel.

When this happens there is, in fact, no conflict in ownership to the lap — the owner of the senior parcel is the owner of the lap. The doctrine (rule) of law that applies is the old one that a person cannot convey what they do not own.

The owner who first subdivided the lands had already conveyed the lap to the senior owner. Therefore, the new subdivider could not convey the lap to the junior owner.

Original Monuments

A monument called for in the original document creating the land subdivision is an original monument. The fine points of the law concerning original monuments is lengthy and complicated. Monuments are the **bounds** in the term *metes and bounds*.

1. Bounds, or monuments, set forth the boundaries or limits of a tract of land by distinctive calls independent of measurements.

2. ... *the metes being a function of the bounds, may be omitted, but never the 'bounds' which when set forth with certainty fix the former.* (Skelton).

It is a long established and fundamental doctrine of boundary line law that original monuments in their original positions will control the boundaries. A part of this doctrine states that those corners are where the original surveyor placed the monuments and **not** where he was supposed to place them.

Natural Bounds v Artificial Bounds. It is also a well established rule that natural bounds are to be held over artificial ones. Natural monuments are objects which

are the works of nature such as streams, ponds, trees, ledges and rock outcrops. Man-made objects such as fences, abutments, mere stones, concrete markers and iron pipes used to identify the location of corners and lines are termed artificial monuments or bounds.

Accessories

— are physical objects adjacent to corners to which the corners are referred for future identification or restoration. Accessories include bearing trees, rocks, nails in trees and other features to which distances or directions or both, from the corner are known. Such accessories are actually a part of the monument. They are also called witnesses, references, ties or pointers.

Reliable Witness

The fine points of the law concerning what is a reliable witness are also lengthy and complicated. A local person of good repute, having special knowledge of the bounds and having no interest in the outcome of the dispute, may be a reliable witness.

Bearings and Distances

These are the measurements, also called the **metes** and are the most often given in the form of bearings and distances. The fine points of the law concerning which will control when there is a conflict between bearing and distance are also lengthy and complicated.

Some maintain that bearings are to be used over distances. Others claim the reverse. My understanding is that the courts will use that which is considered to be the most reliable for the particular situation at hand.

In determining a boundary line, distance is not necessarily required to yield to a course where one or the other must be disregarded, but one or the other is to be preferred according to the manifest intent of the parties and the circumstances of the case. Green v. Pennington 54 SE 877 (Virginia - 1906).

When there is conflict between the measurements on the ground and the values in the deed (measurements and values being bearings, distances or areas) monuments may determine which value to use.

By metes in strictness may be understood the exact length of each line and the exact quantity of land in square feet, rods or acres ... Metes result from bounds, and where the later are definitely fixed, there can be no question about the former. Buck v. Hardy, 6 Maine 162.

However:

Monument cannot prevail on question of boundary, where it is so manifestly wrong as to lead to an absurd result and embrace land of a third party. Post v. Wilkes-Barre, 286 PA 273 (1926).

Compare the above with the following.

When there is a conflict between a land description by metes and bounds and one by monuments, the latter generally prevails, except if existence of monuments is not proved, then courses and distances will govern. Thomas v. Olds, 150 VT 634 (1988).

(The legal profession, who originated the phrase metes and bounds, sometimes uses the phrase poorly. Such a use appears in line one of the above cited rule. A better rule would have omitted the words and bounds from the first line.)

It is also to be noted that:

The existence of a fence for 16 years marking the dividing line between platted lots; and probably located before the platter's stakes were destroyed, is better evidence of the true division line than the computation of surveyors, on the supposition that all the lots were of like proportion. Kennedy v. Niles, 96 NW 772, (Iowa - 1903).

Area

Area is also a form of measurement. It is the least important element of those that describe a land parcel. At times, however, area can be the element in a land parcel description that serves to describe where one or more lines of the parcel are to be located.

In *Parrow v. Proulx*, 111 VT 274, the court said

... the quantity described may be essential or even determinative when other parts of the description are not sufficiently certain.

and

Quality of land conveyed by a deed becomes the controlling influence in determining the identity of premises conveyed where other parts of the description of the land are not sufficiently certain. Downer v. Colling, 133 VT 544.

Summary

The superior type of evidence is listed above that which is of lesser value.

1. Senior Rights
2. Natural Monuments
3. Artificial Monuments
4. Accessories
5. Reliable Witnesses
6. Bearings and Distances
7. Area

Original Monuments

From the above it can be seen that the location of the original monuments is of foremost concern when retracing old surveys. (Senior rights, because they are of infrequent occurrence, are of secondary importance. When they do occur, however, they must be considered.)

First, the surveyor must determine what the original monument was. She must know what a *staddle* is. He must know what the *hop house* was. If they don't know, they must find out or they must refer the survey to those who do.

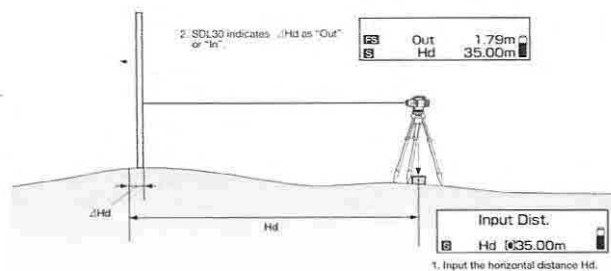
Second, the surveyor must determine the present-day, undisturbed location of that monument. If any physical remains exist, they must be uncovered. No monument is permanent, though I have personally seen marked boundary stones over 5,000 years old. As the monuments age and disappear from view, the corners they identify are considered to be existing, obliterated or lost.

1. An existent corner is one whose position can be

SOKKIA

Real Solutions

Real Time



Full Service on a



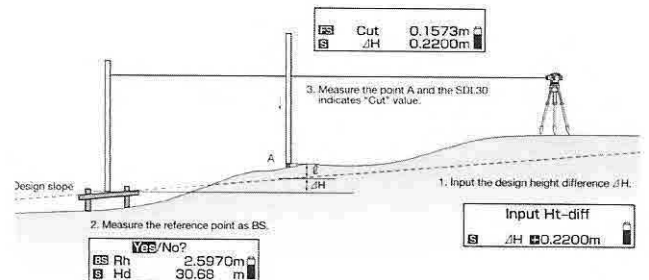
Sales • Service • Technical Support • Training



wade
company
limited



your Survey Instruments



Nova Scotia
902.429.5002

New Brunswick
506.634.1820

Newfoundland
709.722.8772

of said corner in the land records, or located by an acceptable supplemental description of record or by some physical evidence or reliable testimony.

2. An **obliterated corner** is one at which there are no remaining traces of the monument or its accessories, but whose location has been perpetuated, or may be recovered beyond reasonable doubt by the acts and testimony of the interested landowners, competent surveyors, other qualified local authorities or witnesses or by some acceptable record evidence.

3. A **lost corner** is a point whose position cannot be determined beyond a reasonable doubt, either from traces of the original marks or from acceptable evidence or testimony that bears upon the original position and whose location must be restored in accordance to what would be afforded by the courts.

This does not mean that the record bearings and distances are to be automatically used, nor does it mean that proportional distances are to be automatically used. Every possible shred of evidence must be recovered and analyzed before using measurements. The courts will rely on the best available evidence before declaring the corner lost. Very weak evidence will be used by the

courts to locate boundaries if it is the best available.

References

Bigelow, Paul W., 1987 "Some Critical Comments on Vermont Land Surveyors", (1967), *The Bigelow Papers*, Springfield, Vermont: Vermont Society of Land Surveyors.

Butts, George F., 1991, "Retracement Surveys and History", (1974), *The Impact of Surveying on Vermont Land Parcels*, Springfield, Vermont: Vermont Society of Land Surveyors.

Butts, George F., 1990, "Ethics and Standards", second edition, *Handbook for Vermont Land Surveyors, Volume One*, Springfield, Vermont: Vermont Society of Land Surveyors.

Rasch, Joseph, 1991, *New York Law and Practice of Real Property*, Rochester, New York: Lawyers Cooperative Publishing.

Skelton, Ray Hamilton, 1930, *The Legal Elements of Boundaries and Adjacent Properties*, Indianapolis: The Bobbs-Merrill Company. ■

Things Are Tough All Over

reprinted from *The Nova Scotian Surveyor*, March 1962, Volume 12, Number 30

In reply to your request to send a cheque for my dues, I wish to inform you that the present condition of my bank account makes it almost impossible. My shattered financial condition is due to Federal laws, State Laws, county laws, city laws, corporation laws, liquor laws, mother-in-laws, brother-in-laws, sister-in-laws and outlaws.

Through these laws I am expected to pay a business tax, amusement tax, head tax, school tax, gas tax, food tax, furniture tax and excise tax and even my brains are taxed. I am required to get a business license, hunting and fishing license, car license and truck license, not to mention a marriage license and a dog license.

I am also required to contribute to every society and organization which the genius of man is capable of bringing to life: to Women's Relief, the Unemployment Relief and the Gold Diggers' Relief. Also to every hospital and charitable organization in the city.

For my own safety, I am required to carry life insurance, property insurance, liability insurance, burglary insurance, accident insurance, business insurance, earthquake insurance, unemployment insurance, old age and fire insurance.

My business is so governed that it is no easy matter for me to find out who owns it. I am inspected, expected, disrespected, rejected, dejected, examined, reexamined, informed, required, summoned, commanded and compelled until I provide an inexhaustible supply of money for every known need of the human race.

Simply because I refuse to donate to something or other, I am boycotted, talked about, lied about, held up, held down and robbed until I am almost ruined. The only reason I am clinging to life at all is to see what the hell is coming next!

I can tell you honestly that, except for a miracle that happened, I could not enclose this cheque. The wolf that comes to many doors nowadays just had pups in my kitchen. I sold them and here is the money. ■

Book Review

by David Wedlock

Mapping a Northern Land. Edited by Gerald McGrath and Louis Sebert. Published by McGill-Queen's University Press, 3430 McTavish Street, Montreal, PQ, H3A 1X9. \$75

This mammoth text (659 pages) covers the history of surveying and mapping in Canada between the years 1947 to 1994. If you enjoyed the three volumes of "Men and Meridians", then you will certainly enjoy this text. If you have not read "Men and Meridians" then this text is a must to read.

"Mapping a Northern Land" is divided into nineteen chapters and concludes with six well-documented appendices. The efforts of twenty-three authors have been compiled and edited by Gerald McGrath and Louis Sebert.

The window covered by the text, (1947 – 1994), is one that has seen many new developments and methodologies in our surveying and mapping history. The text looks at changes and developments in the fields of Geodesy, Survey Education, Cadastral Surveying, GIS, Topographic Mapping and Charting. In short, anyone involved in Geomatics will find chapters of interest. For those interested in Photogrammetry, there are excellent chapters that deal with the developments in this field. There is an interesting comment on how SPAR Aerospace evolved into the successful organization it is today, noting that this is one of the many success stories originating with Canada's air survey industry.

For the surveyor, there are chapters that cover the developments in geodesy, cadastral surveying and engineering surveying. These chapters are full of accounts on survey projects that dealt with everything from the surveying of Canada's borders to precise levelling projects carried out in Northern Quebec in the middle of winter. All readers should find the section on Engineering and Mining Surveys interesting. Here the reader will find an excellent documentation of mega-projects such as the James

Bay project, construction of the Olympic Stadium, the Rogers Pass Tunnel and various types of Deformation Surveys. This chapter concludes with a description of Canada's involvement in the Superconducting Super Collider project, which some call the world's largest scientific experiment. For those interested in maps themselves, there are chapters that cover Federal topographic and Provincial topographic mapping, aeronautical charts and thematic mapping.

In his chapter, Angus Hamilton has documented the history of Survey Education in Canada. He describes how the 1959 Colloquium was the turning point in establishing Survey Engineering Degree programs in Canada leading to the establishment of the programs at UNB, Erindale and the University of Calgary. The chapter concludes with a description of the establishment of technician and technologist programs throughout Canada in the following provinces: Nova Scotia - "The Nova Scotia Land Survey Institute" (now Centre of Geographic Sciences), Newfoundland - "Cabot Institute", Alberta - "Southern Alberta Institute of Technology" and British Columbia at "The British Columbia Institute of Technology".

All readers should find the section on GIS and LIS interesting. This section documents Canada's innovation in GIS in the 1960's to the spread of the technology in the 1970's and the commercial development of GIS in Canada to present day. The chapter on Marketing Spatial Information provides an interesting coverage of marketing at both the federal and provincial level. The chapter on Remote Sensing places Canada's activities and successes in remote sensing and recounts the evolution of remote sensing. The chapter concludes with a discussion on the contributions of remote sensing to automated mapping and GIS.

The text concludes with a chapter entitled "Retrospect and Prospects" where an interesting view of the future of Geomatics in Canada is discussed.



Why Specs Live Forever

as seen in "CELSOC Update" Volume 5 No 4 January 1997



The standard railroad gauge (distance between the rails) is 4 feet, 8.5 inches. That's an exceedingly odd number. Why was that gauge used? Because that's the way they built them in England, and railroads were built by English expatriates. Why did the English people build them like that? Because the first rail lines were built by the same people who built the pre-railroad tramways, and that's the gauge they used.

Why did "they" use that gauge then? Because the people who built the tramways used the same jugs and tools that they used for building wagons, which used that wheel spacing. Okay! Why did the wagons use that odd wheel spacing? Well, if they tried to use any other spacing, the wagons would bread on some of the old, long distance roads, because that's the spacing of old wheel ruts.

So who built these old rutted roads? The first long distance roads in Europe were built by Imperial Rome for the benefit of their legions. The roads have been used ever since. And the ruts? The initial ruts, which everyone else had to match for fear of destroying their wagons, were first made by Roman war chariots. Since the chariots were made for or by Imperial Rome, they were all alike in the matter of wheel spacing.

Thus, we have the answer to the original questions. The standard railroad gauge of 4' 8½" derives from the original specification for an Imperial Roman army war chariot. Specs and bureaucracies live forever. So, the next time you are handed a specification and wonder what horse's ass came up with it, you may be exactly right. Because the Imperial Roman chariots were made to be just wide enough to accommodate the back-ends of two war horses. ☒

WE'VE GOT THE SOLUTION

GEODESY

MAGNETIC MARKERS

- ~ for soil
- ~ for rock or concrete
- ~ GPS marker

PROTECTIVE COVERS

- ~ aluminium
- ~ mix
- ~ lifts

POST

- ~ witness post
- ~ raised characters

LEGAL SURVEY

MARKERS

- ~ aluminium
- ~ plastic
- ~ steel
- ~ boundary
- ~ terminus type
- ~ CLS-77
- ~ CLS-69

STATIONS

- ~ PK nails
- ~ identified washers
- ~ MAG nails

MORASSE

"ASK FOR OUR BROCHURE"

SERVICES

- ~ installation on the site for geodesic markers
- ~ design of special markers on request
- ~ markers to fit federal and provincial standards
- ~ shipping all around the world

J. P. MORASSE INC. 1321, Marie-Victorin, St-Nicolas, Quebec, Canada G7A 4G4
 Tel.: (418) 831-3811 ~ 1 800 463-6866 • Fax: (418) 831-7827 ~ 1 800 463-8138
 WEB SITE: www.morasse.com • E-mail: morasse@total.net

MINUTES OF THE 49th ANNUAL MEETING
Held at the Rodd Grand Hotel
Yarmouth, Nova Scotia
October 22 & 23, 1999

Friday, October 22, 1999

1. President Gerald Pottier read a letter of welcome from the Mayor of the Town of Yarmouth. He introduced Karen MacKay, manager of the Rodd Grand Hotel, who welcomed members and delegates to the Rodd Grand Hotel and to Yarmouth.

2. Gerald 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 O'Brian Blackall.

Alberta Land Surveyors' Association - President Don Jaques.

Saskatchewan Land Surveyors' Association - President Roy Pominville.

Association of Manitoba Land Surveyors - President Doug Pratt.

Association of Ontario Land Surveyors - Executive Director Carl Rooth.

L'Ordre des arpenteurs-géomètres du Québec - President Yvon Sanfaçon.

Association of NB Land Surveyors - President Murdock MacAllister.

Association of PEI Land Surveyors - President Serge Bernard.

Association of Newfoundland Land Surveyors - President Dave Vallis.

Maine Society of Land Surveyors - President Ken Muir.
 CCLS - President Phil Milo.

ACLS - Vice-president Jim Banks.

CIG - Vice-president Dave Coleman.

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

- AM Laser & Survey Ltd. - David Page, Lee Ogden, Harry Otani (Pentax).
- Cansel Survey Equipment - Len Kincaid, Dina Desjardins, Steve Doucet (Topcon), Tom Hogan (Topcon), Perry DesRosiers (Trimble).
- Gemini Positioning Systems Ltd. - Cameron Baird.
- Leica Geosystems Ltd. - Paul Lyon, Anna Collier.

- J.P. Morasse Inc. - Richard Morasse.
- NS Geomatics Centre - David Purdy, David Smith.
- Spectra Precision of Canada Ltd. - Bob Martin (Geodimeter).
- Wade Company Ltd. - Gary Wright, Dave Crighton, Ken Totten, Keven Roche, Jeff Ogden, Bill Phillips, Pat Hills (Sokkia).

4. President Pottier called the meeting to order at 9:45 am. The meeting will be governed by Robert's Rules of Order and common sense. Keith AuCoin was appointed Parliamentarian.

5. Mr. Pottier introduced the past year's Council and Executive. Zone 1 - Ray Pottier; Zone 2 - Michael MacNeil; Zone 3 - David Roberts; Zone 4 - Allan Chisholm; Zone 5 - John Pope, Athol Grant; Zone 6 - Carl Hartlen, Brian MacIntyre, Rod MacInnis, Forbes Thompson. Vice-president - David Wedlock; past president - Joe Alcorn.

6. Gerald asked that everyone stand and observe a moment's silence in memory of former member # 255, Allison Grant and retired member # 45, Ian MacInnis, who passed away in the last year.

7. Secretary's Report on Attendance: Fred Hutchinson reported that about 80 members had registered to date. A recent head count showed 38± members present at the meeting, fulfilling the requirement of 35 for a quorum.

8. Approval of Minutes of 48th Annual Meeting: It was moved by Harold Lively, seconded by Phil Milo, that the minutes of the 48th annual meeting, held on October 29 and 30, 1998 at the Prince George Hotel, Halifax Nova Scotia be approved as published in the Winter / Spring 1999 issue of *The Nova Scotian Surveyor*. Motion carried.

9. Business Arising from the minutes: There was none.

10. Report of Council Activities:

- Council met three times this year - January 29, May

PHOTOS - CONVENTION 1999 RODD GRAND HOTEL, YARMOUTH



PHOTOS - CONVENTION 1999
RODD GRAND HOTEL, YARMOUTH



21 and October 1, 1999.

- The annual committee workshop was held in Truro on January 30, 1999. Attendance was not very good.
- The DOT & PW / ANSLs committee met several times. There is no agreement yet on a set of regulations for the survey of highways by the government.
- Fred Hutchinson accepted the position of Executive Director as of June 7, 1999.
- Air conditioning was installed in the office in July.
- Sandy MacLeod accepted the position of SRD Manager as of July 20, 1999.
- Public relations - there was a page regarding land surveying in the Daily News on August 22, 1999. The "Land Surveying" license plate included in the registration packages is also from the Public Relations Committee. Additional plates can be purchased for \$3, including HST.
- The association office keeps members informed by e-mail of upcoming courses necessary to become a Qualified Person II.
- Gerald travelled to all other provinces' annual meetings with the exception of New Brunswick, which was attended by David Wedlock.

11. Report from the Secretary of the NS Board of Examiners: Fred Hutchinson presented the report. The Board meets twice yearly. The board made changes to the handbook, including more detail for the categories of article time and an economic component to the student project.

No new members qualified since the last annual meeting.

There are 18 active student files. Two students have submitted projects which are now under review. A new student has submitted an application for approval.

The board is designing a new exam with emphasis on boundary determination. This was approved by Council on May 21, 1999.

Members of the Board are: John MacInnis (Chairman), Kevin Fogarty, Forbes Thompson, Chris Masland, Lee Johnston (Gov. Appointee), David Cushing (APENS Appointee) and Bruce Gillis (Barrister Appointee).

A special thank you is extended to Jim Chisholm who retired from the committee after many years of

dedicated service. Thanks also to Robert Daniels for serving as secretary for the past 5 years.

12. The order of business was changed to cover the Committee Reports at this time. President Pottier asked for additions or comments regarding the committee reports published in the Fall 1999 issue of *The Nova Scotian Surveyor*. The reports published in the "Surveyor" are as follows: ANSLs / APENS; ANSLs / DOT & PW; Atlantic Provinces Board of Examiners for Land Surveyors; Building; By-laws; CCLS; Complaints; Discipline; GANS Liaison; Insurance; Manual of Good Practice; NS Board of Examiners; NS Board of Examiners Special Examining Committee; The Nova Scotian Surveyor; Public Relations; QP-2; Regulations; SRD Advisory. He also asked for reports that were available from committees that weren't published in the "Surveyor".

By-laws Committee: Glenn Crews is looking forward to helping the Mandatory Continuing Education (MCE) Committee to update and integrate the by-laws required to put MCE into effect.

CCLS: President Phil Milo provided an update on CCLS activities. The first meeting of the amalgamation committee (re: combining CCLS, CIG and GIAC) was held on August 20, 1999 in Ottawa. The 3 CCLS representatives at these meetings are John Holmlund, Doug Simmonds and Bob Daniels. The co-chairs of the committee are John Holmlund (CCLS), Rick Beaumont (CIG) and Hugh O'Donnell (GIAC). Other national organizations are being invited to join the meetings so that as many representatives of the geomatics sector as possible participate in a national geomatics organization.

Last week Phil attended a Qualification Recognition conference on behalf of CCLS. The conference dealt primarily with immigration to Canada and recognizing foreign credentials at the professional level. He will receive information from the central licensing agency in Mexico regarding the licensing of state surveyors at the federal level.

CCLS will join the Association of Ontario Land Surveyors in Ottawa in February 2000 in hosting a US and Mexican delegation for further discussions on NAFTA. The Mexican federal government and survey association as well as both US bodies recognize CCLS as the official Canadian representative body in cadastral

survey matters.

Discipline Committee: Harold Lively advised members that the Complaints Committee will be forwarding 5 files to the Discipline Committee for action. The Complaints and Discipline Committees met in conjunction with the association solicitor to review the complaints / discipline process. At that time it was thought that a new procedure manual could be put together. We are awaiting that manual.

Special Examining Committee: John MacInnis reported that 2 students have completed their retracement surveys. The survey projects are currently in the review process.

Insurance Committee: No report.

Public Relations Committee: Fred Hutchinson said there are a few CCLS Contract Manuals available at the ANSLs office. These can be an excellent resource for members.

Regulations Committee: Lee Johnston reported on the current status of the GPS regulations. In February 1999, the regulations were sent to the Minister of Natural Resources for review. The minister changed with the election. The regulations are now in final form and will be presented at the Spring or Fall 2000 session of the Legislature.

QP-2 Committee: Lester Berrigan said any members who encounter problems should report to a member of the committee. The committee members are Lester Berrigan, Jim Gunn, Paul Harvey, Allen Hunter and Mark Whynot.

Geomatics Sector Study: Andy DeCoste prepared a report of the Geomatics Steering Committee (not part of the regular committee structure). A copy of the report is available at the association office.

Committees whose reports have not been published or presented here are:

Administration / SRD Review; Continuing Education (will be addressed later in meeting); Statutes.

13. Secretary's Report on Membership: Fred Hutchinson reported on membership statistics from 1993 to 1999 as follows:

	1999	1998	1997	1996	1995	1994	1993
Regular	221	225	227	239	246	254	261
Life	15	15	14	14	14	13	14
Retired	35	34	33	31	36	31	27
Student	18	14	15	15	16	14	12
Honorary	3	3	3	3	3	4	4
Associate	0	1	3	3	6	7	10
Non-Prac	3	3	3	3	3	3	4
TOTAL	295	295	298	308	324	326	332

There was a request for a breakdown showing individuals in private practice, if possible.

14. Report from the Manager of the Survey Review Department: Sandy MacLeod reported as follows:

"Since arriving at 325-A Prince Albert Road on July 20 I have given all of the plans and certificates received from July to September at least a cursory review and chose over 100 plans and about 10 certificates for systematic review.

I have started 6 comprehensive reviews where I have asked members to submit additional data (field notes, title documents). I have also requested that members explain why the information on their plans was presented (or not presented) in the manner they chose.

One comprehensive review has resulted in a complaint to the Complaints Committee.

I have continued those comprehensive reviews started by my predecessor and closed one of them.

I have conducted about 40 field inspections including every zone but Zone 3 and plan to continue them until the weather gets too bad. I have been visiting registry offices, LIS offices and development offices and letting them know that the association has a Survey Review Department and that we can be contacted if there are problems."

Sandy presented statistics regarding the sales of SLC numbers for 1997 - 1999 and plans received from 1995 to 1999. A copy of the statistics is attached to these minutes as Appendix A.

Sandy indicated that he has not placed SRD stakes at the site of field inspections since concerns were raised by council. He asked for comments from members.

15. The afternoon session consisted of two presentations: one by the Nova Scotia Geomatics Centre on the NS High Precision Network and one by Nova Scotia Power Inc. on easements.

Saturday, October 23, 1999

President Gerald called the meeting to order at 9:30 am.

16. Secretary / Treasurer's Report: Fred Hutchinson reported on and reviewed the audited 1998 year-end financial statement as published in the Fall 1999 issue of *The Nova Scotian Surveyor*. Mr. Hutchinson reviewed both administration and SRD revenue and expenses for the year showing an accumulated operating surplus of \$18,918.

Mr. Hutchinson recommended that the maximum allowable amount be paid on the mortgage on an annual basis and showed a comparison between investment interest and mortgage interest.

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

17. Update on Geomatics 2000 Amalgamation: Bob Daniels is a member of the committee which is reviewing the proposed geomatics alliance and reported on the ongoing amalgamation discussions between CCLS, CIG and GIAC. At a meeting held in Ottawa in June 1998, two directions emerged - (1) a sector study funded by Human Resources Development Canada (HRDC) which looked at the geomatics sector across Canada. Andy DeCoste is a member of that committee; (2) the actual process of amalgamation.

A consultant was hired to review the process and prepared a draft report in February 1999 about the proposed amalgamation. A CCLS committee of three members reviewed the report and issued a report on that. The basic conclusion was that the consultant's report on the amalgamation process was not detailed enough and did not contain enough information about the specifics of amalgamating.

The decision was made to create an Amalgamation Steering Committee to be comprised of nine people, three members from each of the three groups. The CCLS representatives on the committee are John

Holmlund, Doug Simmonds and Bob Daniels. The CIG representatives are Dave Colman, Jean-Claude Croteau and Rick Beaumont. The GIAC representatives are Brian Monaghan, Hugh O'Donnell and Kevin MacNeil. The committee met in Ottawa in August 1999 to discuss the details which were missing from the consultant's report in order to properly report to the members of the three groups. The issues discussed were: the budget; the benefits which would be available to members; membership categories (ie. association, corporate, government, academic, individual, and others); membership privileges. Another issue is the potential competition between this group and already existing groups in promoting international business opportunities for members. A revised model was issued in October 1999, but many of the issues discussed, including budget, membership categories and benefits, were not addressed.

At the meeting in Ottawa, the committee also discussed a time line for the completion of various items. Included in the items was that the decision to co-locate would be made by March 31, 2000. The final decision as to whether to form a new national geomatics association is to be made by June 30, 2001.

18. Fred Hutchinson and Bob Daniels made a presentation to members regarding the preparation of plans of subdivision.

19. Ray Pottier and Fred Hutchinson showed members the ANSLs website and how it is being updated.

20. Motions for Consideration: There were none published prior to the annual meeting. New ones will be dealt with under New Business.

21. Installation of Officers / Report of Scrutineers: President Gerald thanked the outgoing councillors for their service to ANSLs during the past two years. He presented plaques to those who were present. The outgoing councillors are: Zone 2 - Michael MacNeil; Zone 3 - Dave Roberts; Zone 5 - John Pope; Zone 6 - Rod MacInnis and Forbes Thompson.

Councillors who are returning for another year are: Zone 1 - Ray Pottier; Zone 4 - Allan Chisholm; Zone 5 - Athol Grant; Zone 6 - Brian MacIntyre and Carl Hartlen; representing the Minister of the Department of Natural Resources - Lee Johnston.

All open positions were filled by acclamation. The newly elected members of the executive and council are: President elect - David Wedlock; vice-president - Lester Berrigan; Councillors for Zone 2 - Jack Kaulback; Zone 3 - Emerson Keen; Zone 5 - Wayne Hardy; Zone 6 - Nick Dearman and Ken Robb.

President Gerald called president elect David Wedlock forward and presented the President's pen to him.

President elect Wedlock thanked Gerald for his efforts and service on behalf of ANSLs and presented a plaque and Past President's pin to him.

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

It was moved by Fred Hutchinson, seconded by Alexander MacLeod that the 2000 budget, as published in the Fall 1999 issue of *The Nova Scotian Surveyor*, be approved.

Fred Hutchinson presented the 2000 budget for consideration and discussion. Administration revenue is projected at \$190,446, expenses at \$192,410 for a deficit of \$1,964. This can be offset by the projected surplus of approximately \$5,800 for 1999. SRD revenue and expenses are both projected at \$84,216 for a balanced budget.

The question was called. Motion carried unanimously.

23. Life Membership: It was moved by Bob Feetham, seconded by Joe Alcorn as follows: Be it resolved that William S. Crooker be granted Life Membership in the Association of Nova Scotia Land Surveyors.

Bob Feetham spoke to the motion. Bill Crooker is a retired member of ANSLs and qualifies for life membership. Council approved the nomination at the October 1, 1999 meeting.

The question was called. Motion carried.

24. Ray Pottier addressed the membership regarding Mandatory Continuing Education. A motion regarding regulations concerning Mandatory Continuing Education for ANSLs was approved at the 48th annual meeting in Halifax in October 1998. Ray has reviewed continuing education programs of associations across

Canada and some in the US. He has firm ideas about the type of system that should be used, but asked for direction from the members and Council on how to implement it.

He recommends a committee that is structured in a way that is similar to the Complaints and Discipline Committees. The committee should be made up of 5 members, at least 3 of whom are in private practice. The committee should meet at least once a month. He has considered a point system which has a certain number of points that must be accumulated over a 2-year period. It must be determined how the points can be accumulated, how to apply value to various activities / courses and what can be done if a members does not get the required number of points within the prescribed period. How will the various courses be determined? The committee must be very proactive in order to keep up to date on educational opportunities. Venues must be kept fair so that opportunities are made available to surveyors across the province, without undue financial hardship placed on any particular area. How would the committee members be selected in order to make it relatively easy for the committee to effectively meet on a regular basis? Is the decision to strike the committee made by Council or must by-laws be put in place? There are many details that must be looked at and decided upon before Mandatory Continuing Education can be put in place. He suggested that the SRD should also be involved in giving direction to the committee in the area of courses that should be given or sought.

Ray asked for input from anyone who has ideas. He recommended that Council strike a committee to investigate and address the issue of Mandatory Continuing Education.

Fred Hutchinson noted that the motion was approved last year, but there must now be a by-law written in order to put Mandatory Continuing Education in place. There will be more man-hours required to keep track of and properly chart the continuing education information on 200± members. Other requirements must also be considered. A working model and formal tracking process are needed.

25. Sandy MacLeod announced the winners of the SRD "find the errors" plan contest. First place was John MacInnis, who found 14 out of 21 items. Second and third place went to Lee Johnston and Bill Crooker, who found 13 out of 21 items.

26. The following motion regarding Mandatory Continuing Education (MCE) was moved by Jack Kaulback, seconded by Ray Pottier: Be it resolved that Council strike a committee of five, three of which are in private practice, to come up with a model for Mandatory Continuing Education to be voted on at next year's annual meeting.

Jack Kaulback spoke to the motion. The intent is not to have a final committee in place but to create a working model to begin work on MCE.

Ray Pottier spoke to the motion. We now have proposed regulations which have not yet been sent to government for approval. In those regulations is the requirement for the model under discussion. The committee alone, or in conjunction with the By-Laws Committee, should come up with a set of by-laws that will serve as a model for MCE.

After discussion, Jack Kaulback, with permission of the seconder, agreed to withdraw the motion from the floor if Council will agree to strike a committee as per previous discussion.

President Dave said Council will strike a committee to investigate a point system and how it will be implemented. The findings will be taken to zone meetings for feedback. The results of the zone meetings will be taken to next year's annual meeting.

27. Alternate Dispute Resolution (ADR) - On a point of order, Fred Hutchinson said that a motion concerning ADR was withdrawn from the floor at the 1998 annual meeting, but the withdrawal was followed by an approved motion to table it. The proposal is considered withdrawn.

Bob Daniels updated members regarding the current status of ADR. At the 1998 annual meeting, a motion regarding ADR was withdrawn from the floor for reassessment. There were several points that needed review. After last year's meeting, changes were made based on those points and the revised proposal was sent to the people who requested the changes. There was no negative feedback from those individuals. The items are:

1. There should be an opportunity for the arbitrating surveyor to provide a third opinion, rather than choosing one of the two lines already under

arbitration. (Summary section, item 1).

The proposed change to this item is that the arbitrating surveyor can, if unable to choose one of the two lines in question, mediate a line with the agreement of the two applicants. This would be similar in approach to a boundary line agreement. Anyone offering their services as an arbitrating surveyor must have taken a mediation course.

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.

This requirement has been removed.

3. Investigate the limit of liability of all surveyors involved, including the arbitrating surveyor.

This has not been fully investigated. The question must be asked of the CCLS Professional Liability Insurance Committee. What kind of liability would the arbitrating surveyor be exposed to and what coverage would the policy give them?

4. The association will not choose the arbitrator.

In the original proposal, the association would choose the arbitrating surveyor. This has been changed to avoid the chance of possible or perceived liability on the part of ANSLs. It has been changed so that the arbitrating surveyor will be chosen by mutual agreement of the participants.

5. The original proposal contained the requirement that there must be a survey of each property done since the regulations came into effect in 1979. It was pointed out that many good surveys were done prior to this time. The requirement was removed.

The change to the original proposal is: There must be a survey and plan of each property in question. The survey and plan must meet the closure and precision requirements of current regulations and there must be monumentation on the ground that relates to the survey.

Mr. Daniels recommended that if the revised proposal is accepted by the members, this should remain as a proposal, not a by-law. It should be taken to several

government departments (eg. Department of Natural Resources, Department of Municipal Affairs, Department of Justice) and ask for review, comments and/or revisions from them.

President Wedlock suggested that the proposal be reviewed by members at zone meetings and taken back to next year's annual meeting.

Carl Hartlen indicated that he would move that the ADR proposal be accepted as revised, and requested a seconder, if not out of order.

No quorum present, the motion would be out of order.

President Dave suggested that this could be handled by a mail-out vote.

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

29. At 4:55 pm it was moved by Phil Milo, seconded by Keith AuCoin that the meeting be adjourned.

F.C. Hutchinson, BA, NSLS, CLS
Executive Director

2000 Calendar of Events



<u>Org.</u>	<u>Event</u>	<u>Date</u>	<u>Location</u>
ACLS	agm	March 11	Wyndham Hotel, Montreal, PQ
ANSLs	seminar	March 31	Dartmouth
AB	agm	April 13-15	Jasper Park Lodge
SK	agm	May 31 - Jun 2	Wakesiu, Prince Albert Nat'l Park
Que	agm	June 1-4	St. Georges de Beauce
PEI	—	next mtg in 2001	—
NF	agm	June 9-11	Stephenville
MB	agm	Sept. 20-22	Canada Inn Fort Garry, Winnipeg
NS	agm	Oct 19 - 21	Digby Pines Resort, Digby

Appendix A

SRD STATISTICAL REPORT OCTOBER 1999

SALES OF SLC NUMBERS TO SEP 30/99

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Tot end Sep	ACTUAL	LAST 3 MTHS
1997	-	-	-	-	2167	1183	823	802	605	425	637	292	5580	6934	1354
1998	306	322	447	467	526	1541	835	805	667	590	665	460	5916	7631	1715
1999	323	280	620	525	860	870	715	810	546				5549	Est 7400	

PLANS RECEIVED TO SEP 30/99

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Tot end Sep	TOTAL	% Stickers	% ACAD
1995	324	253	248	318	308	360	439	334	381	355	399	362	2965	4081	92.5	7.5
1996	189	346	214	321	366	277	385	440	303	353	400	291	2841	3885	90.8	9.2
1997	280	355	225	311	290	276	391	358	307	305	206	327	2793	3631	77.0	23.0
1998	323	141	203	207	206	233	316	379	255	331	348	266	2263	3208	52.5	47.5
1999	282	258	329	258	143	231	298	273	285				2357	est 3212	44.6	55.4