President
R.M. (Bob) Wallace
Past President
D.H. (Dirk) VandenBrink
Vice President
R.O. (Ron) Hall
Secretary Treasurer
D.R. (Dave) McWilliam
Registrar
R.A. (Dick) Bassil
Executive Director
B.E. (Brian) Munday
Director of Practice Review
F.S. (Fred) Cheng
Councillors
B.A. (Bruce) Beairsto
B.W. (Bruce) Gudim
T.J. (Tim) Harding
T.W. (Terry) Hudema
R. (Rob) Radovanovic
B.D. (Brian) Ross
Public Members
L. (Lawrence) Kluthe (Council)
D.R. (Russell) Barnes
(Practice Review Board)

5 President’s Message
Bob Wallace, ALS

7 Councillor’s Forum
Robert Radovanovic, ALS

9 Editor’s Notes
Brian Munday, Executive Director

13 Letters

17 Association Notes
New Members
Members on the Move

19 ALSA Golf Tournament

20 It Was Just a Site Survey
David N. Marquardt, ALS

23 Book Review
Who Owns the World - The Hidden Facts Behind Land Ownership
Ken Allred, ALS

27 SPR Message
Fred Cheng, ALS
- Electronic Linear Measuring Device Calibration

31 SPR Corner
Fred Cheng, ALS
- Case Study No. 33: Fenceline Pickets—A Series of Unfortunate Events

41 Guardpost
Doug Neufeld, ALS

43 PDC Corner
Patrick Marshall, ALS

45 Public Relations
Jarl Nome, ALS

46 Safety Sense
Distracted Driving—Phones, Tunes and Take-Out

49 Sustainable Resource Development
Mike Michaud, ALS

50 Education News
University of Calgary
University of New Brunswick

52 Legal Notes
- Decision—Council of the LSA and Greentree Technologies Ltd. and Peter Lynne
- A Commentary on Legal Issues Affecting Professional Regulation

54 ASSMT Notes
Wayne Latam, CST
ASSMT Executive Manager

56 A Moment of Silence
- William David Usher
- Peter J. Timoschuk

63 History
Brian Munday
Executive Director
- 1935—The Old Mistrust of Ottawa

Editor
Brian E. Munday: munday@alsa.ab.ca
Advertising and Production
Sharon D. Armstrong: armstrong@alsa.ab.ca

Deadline dates for submission of material to ensure printing are as follows: February 15th, June 1st, September 1st, and November 15th. Opinions expressed by the editor or individual writers are not necessarily endorsed by the Council of the Alberta Land Surveyors’ Association. Original articles may be reprinted with due credit given to the source and with permission of individual writers or where no writer is indicated, with the permission of the Editor. ALS News is published by the Alberta Land Surveyors’ Association for circulation to the Association Membership. Address all correspondence to:

Alberta Land Surveyors’ Association
Suite 1000, 10020 — 101A Avenue — Edmonton, Alberta T5J 3G2
Tel: 780-429-8805 or 1-800-665-2572
Fax: 780-429-3374 info@alsa.ab.ca www.alsa.ab.ca

CANADA POST PUBLICATION #40051474
How can we be the best we can? The simple answer is Education. This must take the form of not only the academic qualifications of our new members but also the employees that make up the strength of our profession. We must focus on the continuing education of not only our members but also the complete profession.

I believe that if we increase the emphasis on education, it would heighten the thinking of all involved. Forward-thinking people will not only make our existing profession stronger but will be motivated to explore new geomatics fields, thereby expanding our profession and keeping it efficient.

Having more personal and business skills will heighten the stature of our professionalism as well as make our businesses more profitable. The largest benefit could be how we are perceived in the eyes of the public.

As little as fifteen years ago, the ALSA was a more reactive than a proactive organization. We were blessed with the mandate of boundary surveying as defined by the Surveys Act. In the 1990s, we embarked on a significant public relations campaign to heighten the profile of our Association. This still remains an integral part of our ongoing committee work.

We have attained success in created a greater understanding of our profession by those who use or work with our products. Landmen, geologists, lawyers, realtors, planners and municipalities have a greater understanding of what a land surveyor is and how we operate. The advent of GPS has also given the average person a greater understanding of positioning.

Where do we need to go from here? I would like to see us maintain a public perception similar to other higher profile professions such as lawyers, engineers, accountants, doctors and dentists. Would you get a filling done by a person in the back of a truck who put a flier in your door?

There remains the perception that anyone with an instrument or a GPS receiver can locate your boundary, layout your building or pipeline and provide any measurement product. Our goal must be to get people to think “ALSA” when they need any spatial measurement because they know an ALSA member is highly educated, belongs to reputable organization and continues to improve through education.

How do we accomplish this daunting task? I think by moving towards an expanded profession and continuing education may be the answer. Other associations have struggled with expanded profession because there doesn’t seem to be any perceived value for non-land surveying members.

The answer to our expanded profession may be in our backyard—the technicians and technologists that make up the bulk of the staff in our companies.

If we open our doors to include these people, the ALSA will become a greater entity by the sheer number of its members. This will enable us to offer a better educational program which will not only enhance registered land surveyors but also offer the same opportunity to a greater cross-section of the people that make up our land surveying profession.

To date, the focus of the ALSA has been to concentrate on the academic qualifications of its prospective members. Why not work together with the Alberta Society of Surveying and Mapping Technologists (ASSMT) to establish a collaborative effort to enhance their present categories of technicians and technologists? If these new categories have educational prerequisites as well as tangible benefits, it will provide the needed structure for people who are not pursuing the registered land surveying route.

As well, this will allow more defined career paths for those considering a geomatics pursuit. People who have attained the status of these designations will take greater pride and ownership of their careers, keeping them within the profession, resulting in a more stable work force.

Continuing education is a must for our members. I’m not sure why this initiative hasn’t succeeded in the past. Perhaps some individuals have felt threatened by the requirement to educate themselves or that their commissions would be rescinded if they didn’t complete the necessary courses.

If we set up a system that gives credit to many facets of personal improvement, perhaps it may encourage development in all areas other than geomatics related courses. People could obtain credit for community involvement, volunteer work, participating on an ALSA or non-ALSA committee, attending regional meetings and the AGM or other areas I haven’t considered.

This may provide the impetus for a person to think and act beyond going to work and performing their designated job and expecting others to perform the tasks to make their profession a better place. Let’s get continuing education back on the table and a part of our culture, as soon as we can.

Council has started the dialogue with ASSMT which will enable discussion of many of the expanded profession ideas I have presented. It is going to be important that we work with ASSMT if this initiative is going to move ahead. Your support of this initiative will be most appreciated.

The answer to our expanded profession may be in our backyard—the technicians and technologists...
I believe that research performed by the universities supported by our Association has a key advantage in that the results are commonly shared by all members. Industrial research performed by a single company is often designed to provide a competitive advantage and, as such, does not elevate the membership as a whole. If a university develops shareware software, establishes standards of practice, or prepares a study on some issue, then everyone has access to the information. In this way, support of research is a very cost and time-effective means of continuing professional development for all. Also, it improves the image of the Association to the public, because we can demonstrate a membership-wide commitment to learning and the improvement of service. The public need not question if our Association serves a purpose in the present since it is actively involved in preparing for the future.

The question then is how to support research in a managed and responsible fashion. I believe there are three main philosophies of supporting research. The first is to take a sum of money and “support” a department or researcher in whatever they wish to study. Supporters of this view hold that the researcher is uniquely aware of interesting and novel topics of study and that truly innovative breakthroughs can occur if industry does not fetter the creative process. The disadvantage is of course that any accountability is thrown out the window since there are no specific deliverables. One simply hopes that they like what comes out the other end of the pipe.

Such a “blue-sky” approach has been the traditional approach of the Association. The cynic in me feels that the main reason for this is simple laziness. There is nothing easier than giving money out, putting no effort into drafting scope and deliverable documents, and then complaining that the research results were not practical. It would be like a client giving me money to survey “something, somewhere.” I would be frustrated, and the client would almost certainly feel cheated when I failed to live up to some ambiguous, un-communicated expectation.

On the other end of the spectrum is to establish specific topics of research and then to tender out these topics to willing researchers. One area where this model is particularly useful is in the area of the establishment of standards. As an example, imagine that the Association wishes to investigate using a new technology such as, say, LIDAR. Currently, Council throws a general term of reference to the Standards Committee to “study the use of LIDAR in surveying.” Somehow, the Standards Committee, despite being overwhelmed with other random things to look at and not having any LIDAR experts on the Committee, is expected to come up with a bullet-proof standard-of-use to which all members will be expected trust and to adhere.

A much more reasonable path would be for the Standards Committee to spend time identifying exactly what the Association wants to study—for example, to determine how accurate LIDAR is in the vertical, what the effects of ground cover are on the results, or even what the legal ramifications of certifying documents utilizing this information are. Specifications and a timeline are drafted up and then put out for tender. Researchers submit proposals and the Standards Committee selects a winner. The
Ten years ago, in 1997, Princess Diana was killed in a car crash and Mother Theresa died at age 87. Taliban leaders seized Kabul and a Paris Court convicted Carlos “The Jackal” of murder. In sports news, Tiger Woods broke multiple records at the Masters in 1997. In Canada, the Bre-X scandal was at its height.

Ten years ago, on August 5th to be exact, I became Executive Director of your Association. Ten years have gone by quickly and I have enjoyed my time immensely. Ten years means forty articles for ALS News, 72 regional meetings and ten annual meeting and golf tournaments. It also has meant lots of committee meetings in Red Deer and many hours on conference calls.

Ten years is also a good time to take stock of how far the Association has come and where we might be going in the next ten years.

I remember many things about the interview process. I remember the psychological testing I underwent. Cat is to meow as dog is to ?? I remember the then Executive Committee (with Stan Longson as President) asking me a series of questions. Although, to be honest, I don’t remember what any of the questions were ten years later. I guess I must have given them pretty good answers, however. After the interview, I was going to have dinner with John Holmlund and when I called him to arrange a time to get together, he told me that President Stan Longson wanted to speak with me. John said, “I guess you know why Stan wants to talk to you.” I thought to myself, “no, why?” But then it sunk in and Stan and I met later that night to discuss the terms of my employment. One of the items that we spent some time discussing was the length of my contract. Should it be three years or five years? Stan wanted to make sure that if they were going to help bring me out from Ontario that I was going to be committed to the Alberta Land Surveyors’ Association for the long term. It’s taken ten years but I think I’ve answered that question.

My first ALSA golf tournament was held on August 15, 1997 and it happened to be the same day we took possession of our house in Southeast Edmonton. It also happened to be an absolutely miserable day with torrential rain and the only time in the last ten years that we have had to postpone the tournament. As we gathered in the clubhouse trying to decide if the rain was going to stop or not (and it did not), Al Jamieson came up to me to introduce himself. Al said, “I asked them to point out the new Executive Director to me. I never expected someone so young.” I wasn’t sure how to react to Al’s comment at the time but I did take pride in the fact that the Association had the confidence in me to appoint me as Executive Director. I believed then and I believe now, that in many ways the Alberta Land Surveyors’ Association is one that is young in heart and in spirit even though we are almost 100 years old.

I do remember, vaguely, Stan Longson asking me a question in my interview about the use of technology in the office. It is certainly interesting to look back on the technology we used ten years ago and compare it with where we are today. In 1997, the ALSA did not have a server. If we wanted to share or transfer files, it involved a floppy disk and walking from one person’s office to the other and it was somewhat affectionately known as the sneaker net. The Association had a website but not its own domain address. There was some information on the website but it was not always updated and you certainly could not have registered for seminars or ordered posts or “found a surveyor.” The corner recordation index was but a distant dream.

The ALSA computers were mostly Windows 95 machines but I think there were still a few Windows 3.1 machines lying around. Shortly after I arrived, we invested a great deal of money in new computers but I do recall a debate over whether we really needed these souped-up Pentium 233 machines or whether the Pentium 166s would suffice.

Computers and technology are easy things to look at to see how much things have changed. Other things are not as noticeable. One of the things of which I am most proud is how we have changed our approach to communications. The format for ALS News was revamped; the cover is now in colour instead of black and white and advertisers strongly support the magazine. It’s not always possible but we try to make sure that the articles that appear in ALS News are original to ALS News. We publish very few reprints any more and those that we do generally come from sources that the membership would not ordinarily read. Members and non-members have written letters to the editor in ALS News and it has been great to see some of the debate and discussion that has gone on in these pages. The discussion hasn’t always been flattering but it has always been opinionated.

The Friday mailing is another new communications innovation on the part of the ALSA. Daniel Lachance, ALS gave me the idea for the Friday mailing as a means to get information (particularly employment information) out to the
members on a regular and timely basis. The membership knows that it can expect an e-mail every Friday from the ALSA which will not only include the latest employment notices but also announcements about seminars and upcoming events.

Our external communications strategy has also taken a big leap forward. The Public Relations Committee and its consultant, Rose Country Communications, have devised and revised many brochures and have made sure that the information is correct and that it will catch the eye of anyone who might see it. The ALSA has also developed a database of related organizations so that we can send them copies of ALS News and all of our media releases. Media releases are something relatively new to the ALSA as well. Members occasionally ask me if we know if the media release has been picked up in any of the newspapers. I generally don’t know if it has unless one of the members lets me know about it, but the release always ends up on our website and certainly makes for good information for anyone who is looking for survey and boundary information.

You might think that with all the meetings that I do attend that I enjoy attending them. Truthfully, I don’t enjoy attending meetings any more than any of you do. There are good meetings and there are bad meetings. Some meetings are productive and some are not. I believe that, over the course of the last ten years, more and more of our meetings have become more productive. This has required an attention to detail so that we are providing Council and committees with the information that it needs to make an intelligent decision but I am not bombarding Council with useless or irrelevant information. The current Council may disagree with me but the agendas are actually much more streamlined than they were in the past.

There are many other things which I could point to about how much the Association and the profession has changed in a decade. Digital plan submissions at Land Titles was controversial in its day. A coordinate-based cadastre is still controversial. We have certainly seen a changing role in the relationship between the Alberta Land Surveyor and the technologist. Even the Manual of Standard Practice has changed (at least once every year) and the approach to what goes in or gets taken out of the manual has changed too.

So what changes might we expect in the next ten years? I don’t believe the fundamentals change. We must continue to improve and evolve our approach to communications and, most likely, this will have to be achieved through the greater use of technology. Over the next ten years, the chances are that the Land Surveyors Act will be opened up and amended. Already, our Act is over 25 years old and the next iteration of the Land Surveyors Act will likely be quite different based on the models being enacted today. We will likely see more labour mobility agreements like the Mutual Recognition Agreement signed in 2001 and the TILMA agreement being discussed with our BC counterparts right now. We have made great strides as far as labour mobility goes and the move toward the Canadian Board of Examiners has been a very positive step. The recognition of foreign-trained professionals is likely to be the next big issue and it is one in which we should be prepared to take advantage.

Ten years flies by very quickly and it is easy to start dismissing ideas because they didn’t work when we tried it before. However, it was ten years ago when we last discussed the issue and maybe it is time to look at it again. Patrick Marshall, in his PDC Corner article in this issue raises the idea of mandatory continuing education—an issue that was last formally discussed in 1998.

Predictions are notoriously easy to make but equally easy to get wrong. Just look at all of those people who predicted the Edmonton Oilers to get back to the Stanley Cup Finals this year. I really don’t know what the next ten years will bring. I’m just looking forward to being a part of it. Let’s get started.

---

**Question Time**

I am about to take on an articling student. What forms/information do I need to send to the ALSA?

In order for articles to be approved by the Registration Committee, the candidate must submit:

- their certificate of completion from the Canadian Board of Examiners for Professional Surveyors;
- their articling resume; and their report outlining program of training and experience to be undertaken during the proposed period of articles. See “Eligibility for Articles” in the Pupil Handbook. There is no form for this item, please submit a written outline of how the pupil intends to complete articles).

Potential articled students should also be familiar with the pupil handbook and the syllabus.

- the fees required by the bylaws (currently $100 for the annual membership plus $50 for filing the articles of service plus GST);
- their articling resume; and their report outlining program of training and experience to be undertaken during the proposed period of articles. See “Eligibility for Articles” in the Pupil Handbook. There is no form for this item, please submit a written outline of how the pupil intends to complete articles).

Affiliate members (land surveyors licensed in another Canadian jurisdiction who want to become Alberta Land Surveyors) must complete the affiliate member application form, submit the fees required by the bylaws (currently $100 plus GST) and have the home association send, directly to the Alberta Land Surveyors’ Association, a letter confirming that the candidate is a member in good standing with the home association. All of this information is online at www.alsa.ab.ca/MemberResources/articling-affiliate.htm
Alberta’s Promise

We are pleased to enclose a photograph taken at the Red Wagon presentation held in Edmonton on Wednesday, May 16th at the Lister Centre at the University of Alberta.

We are pleased you were able to attend the ceremony to receive the little red wagon, a symbol of your commitment to Alberta’s Promise and caring for our community of kids.

Thank you once again for the valuable impact you make on the lives of Alberta’s children and youth.

TYRA HENSCHEL
EXECUTIVE DIRECTOR
ALBERTA’S PROMISE

Right of Entry

SPR Corner—March 2007

ALS News

First, I must commend our Director of Practice Review, Fred Cheng for his comprehensive article on Right of Entry in the March issue of ALS News. His six-page article addresses no less than fourteen statutory provisions and five cases dealing with this problem that has haunted our Association for as long as I can remember. I happened to drop in on Fred when he was writing this article and the floor of his office was covered with so many volumes of the Alberta statutes and other reference books that you could hardly get in the door.

Despite the completeness of Fred’s essay, I’d like to add three points. Initially I would emphasize that Section 16 of the Alberta Surveys Act states “A surveyor and his duly authorized assistants may...” Note that Section 16 states “a surveyor and...” not “a surveyor or...” In my opinion, the statutory right of entry under Section 16 is only permissive if the survey assistants are accompanied by the Alberta Land Surveyor. A survey crew may be on a slippery slope when quoting Section 16 if they are not accompanied by the surveyor. It is also significant that Section 16 is quoted on the reverse of the membership card of the Alberta Land Surveyor.

Second, I would like to emphasize the reference to the presentation by Justice Côté at last year’s seminar on professional ethics, where he emphasized how easy it is for professionals to lose their privileges of self-government. A few complaints by the public over what might appear to be trivial little problems, like leaving a hole open on a property, can become a major issue if someone is injured or a landowner makes an issue of it with his or her Member of the Legislative Assembly. And that leads me to my last point.

Back in 1987 when Don Sparrow was the Minister responsible for the Surveys Act and was shepherding the current Surveys Act through the Legislature, an amendment was proposed by a member of the opposition that would have required land surveyors to give notice before entering private property. Following are some quotations from Hansard of June 15, 1987 which summarize some of the more important points in the debate.

Mr. Younie: ... there have been problems in the past of a legal nature relating directly to a lack of notice that a survey had been done on private property by the surveyor. The point was made...that we’re legislating courtesy. I think we are doing more than that. We are legis-
has been evidence of abuse of those privileges.
Perhaps the late Don Sparrow’s words should be paraphrased as: *Alberta Land Surveyors have a professional obligation to make every reasonable effort to contact the landowner prior to entry on land and to use all reasonable care when passing over that land.*

and should be engraved on a plaque in every survey office.

In conclusion, I would suggest that Fred Cheng’s article be the subject of frequent discussions at all staff meetings and training sessions within all survey firms. It may also be good subject material for some of the professional examinations. One way or another, this has been a long-standing problem in our profession and we cannot let another incident become the proverbial straw that breaks the camel’s back!

G.K. ALLRED, ALS

First Woman Awarded Commission as Saskatchewan Land Surveyor

Saskatchewan Land Surveyors’ Association vice-president Ravi Shrivastava is pleased to announce the awarding of Saskatchewan Land Surveyor commission #293 to Jill Susanne Cheverie of Maple Creek, Saskatchewan. Jill is the first woman to be awarded a commission as a Saskatchewan Land Surveyor since the Association was established in 1910.

“We are pleased to see that the land survey profession in Saskatchewan is an attractive option for women who are as comfortable in the ultra-high-tech field of land surveying as they are outdoors in the real ‘field’ searching for evidence of the survey markers placed by surveyors as long ago as the 1870s,” said Shrivastava.

“It is a great honour for me to receive this commission and I truly appreciate all the support and encouragement that I have received through both the academic phase of my learning at the University of New Brunswick, as well as the hands-on practical phase with Midwest Surveys in Maple Creek,” said Ms. Cheverie.

Although Jill is the first woman to receive a commission in Saskatchewan, most other land survey associations in Canada have been able to attract women to the profession for a number of years. “The land survey profession has come a long way from the early days when it was so heavily dominated by men that women didn’t even attend the annual meetings,” said SLSA executive director Carl Shiels. “At a time when competition for new members in all of the professions is becoming increasingly keen, it is important that this profession recruits new members from all demographic groups” he said.

After originally considering a career in education, Ms. Cheverie is pleased that her parents encouraged her to take Geomatics Engineering at the University of New Brunswick. “The career potential in such a specialized field, particularly now in Western Canada, is virtually unlimited,” said Cheverie.

Jill received her Bachelor of Science degree in Geomatics Engineering from UNB in the spring of 2004 and was soon recruited by Midwest Surveys Inc. for their office in Maple Creek where she articulated with Roger L. Morrow, SLS, P. Surv., CLS, and is primarily involved in survey work for the oil and gas industry.

SLSA NEWS RELEASE
AUGUST 13, 2007

Scholarships

I would like to extend my thanks to the staff and members of the Alberta Land Surveyors’ Association for your continued support of the ALSA Academic Achievement Scholarship at the University of New Brunswick. I have been chosen as the recipient of this scholarship for the upcoming academic year (2007-2008). I have been fortunate enough to have been on the work term for the past sixteen months with McElhanney Land Surveys in Edmonton and as a student member of the Association. I look forward to returning to Alberta when I graduate to begin articling. This scholarship will allow me to be able to devote more time, both to my studies and to volunteering with Quest4, a faculty youth organization that encourages an interest in engineering and the sciences to female youth in the Fredericton area.

ROBERTA HOLTNER

U of C Survey Camp and Professional Lecture Series

To Professional Lecture Series Presenters:

I just wanted to pass along a big “thank you!” for donating your time and helping out with this year’s survey camp in beautiful Kananaskis Country. I know the students appreciated the glimpses into their possible futures within geomatics and land surveying. I am sure you will all agree it was time well spent in helping foster a positive image of our associations and land surveying as viable and desirable career choices.

I am also willing to guess that a few “undecideds” will be seeking a career in land surveying (and probably a couple at Novatel, too.) as a direct result of the presentations and the interest shown in the students’ future.

If you enjoyed the opportunity to present and would be interested in doing so again next year, please let me know.

VICTOR HUT, P.Eng., ALS

Dear Victor and members of the Professional Lecture Series:

On behalf of the Department, please accept our thanks and congratulations on the success of your recent professional lecture series. The time and effort you guys put in these lectures are certainly of great importance to our program and our students.

Please accept our warmest heartfelt thanks.

Naser

DR. NASER EL-SHEIMY, P.Eng, CRC
PROFESSOR AND HEAD
CANADA RESEARCH CHAIR
DEPARTMENT OF GEOMATICS ENGINEERING
THE UNIVERSITY OF CALGARY
research gets done, members get educated, and a useful standard has a chance of being born. Such “micro-projects” maximize the certainty that useful information will be gleaned for every donated dollar.

Shortcomings of this method lie mainly in the fact that researchers at universities are expected to do research of a “novel” quality. “Industrial” research, such as that required by the Standards Committee, is crucial to practitioners but has limited appeal in the broader world of academia. However, in my experience, the most successful researchers were those that could perform blue-sky research, prepare papers, and then glean useful “information widgets” to pass on to industry.

Currently, as many are aware, the Association is midway into a support arrangement with Dr. Michael Barry of the Department of Geomatics Engineering at the University of Calgary. The Association has taken a middle-of-the-road approach in this iteration of the “support cadastral research” task. Dr. Barry has indicated that the research he wishes to perform involves integrating multimedia data into land records and establishing the value of this evidence in court proceedings. This research is primarily aimed at places without established land records systems which need to be able to archive and process non-written information, such as oral histories of who has what rights in what and videos of boundary resolution processes. As such, it has international appeal and serves Dr. Barry well in his need to publish and do novel research. In turn, Council expects Dr. Barry will be able to then extract knowledge pertinent to the “Alberta experience” – such as establishing the weight of photographs of found evidence or visible encroachments in court or developing systems to properly archive this information in a practitioner’s own office. I assure the membership that Council is closely following developments in this research project and that we are actively managing your collective contribution.

Overall, I strongly believe that it benefits our Association to contribute to research and development at the university level. However, I also believe that we have an obligation to guide this research and make our expectations clear up front. We have only ourselves to blame if we dole out money out with no strings and then are disappointed to find we have caught no fish.
New Members

#780 SIU, Javier

Javier Siu was born in Hong Kong in September 1976 and entered Canada in July 1995. He graduated from the Vancouver Adult Learning Centre in 1997, the British Columbia Institute of Technology in 1999 and the University of Calgary in 2002 with a degree in Geomatics Engineering.

Articles were served under Scott Westlund and Damian Gillis from December 2003 until he received his commission on July 4, 2007. Javier is currently employed with Focus Surveys Limited Partnership in Calgary. He is also an engineer-in-training with APEGGA.

Javier served on the ALSA Public Relations Committee from 2005 to 2007.

Surveying experience is mostly in the oil and gas sector with Focus Surveys Limited Partnership and municipal and engineering surveys while working for Stantec Geomatics Ltd.

Leisure activities include hiking, camping and travelling. Javier and Eileen Siu currently reside in Calgary.

#781 KEONG, Jiun Han

Jiun Han was born in Malaysia in November 1974 and entered Canada in January 1993. He graduated from Shen Jai High School in Malaysia in 1992 and went on to graduate from the University of New Brunswick in 1997 and received an M.Sc. in 2000 from the University of Calgary.

Articles were served under Damian Gillis, ALS and commission as an Alberta Land Surveyor was received on July 4, 2007. He is also a professional engineer.

Jiun Han served on the ALSA Standards Committee in 2006.

Surveying experience includes one summer in Malaysia and three years of land surveying in Alberta, mainly in the oil and gas sector.

Jiun Han enjoys reading, skiing, hiking and camping. He travels a lot and has been to different places in the Americas, Asia and Europe.

He is presently employed with Focus Surveys Limited Partnership in Calgary.

#782 NIXON, Rich E.

Rich Nixon was born in Winnipeg, Manitoba in June 1973. He graduated from Forest Lawn High School of Calgary in 1992 and went on to receive a B.Sc. in Geomatics Engineering from the University of Calgary in 1997.

Alberta Land Surveyors Roger Ross and John Haggerty served as principals from August 2004 until he received his commission on July 10, 2007. Rich is also registered as a professional engineer with APEGGA.

Rich has been a member of the ALSA Historical & Biographical Committee since 2006.

Survey experience includes:
- 1997-1999: oil and gas related surveys with All-Can Engineering & Surveys (1976) Ltd. in Calgary;
- 1999-2002: GPS product testing and customer support (Applications Engineer) with Point Inc. in Calgary;
- 2002-2004: GPS/inertial product testing (land-based applications) and worldwide customer training and support (Support Engineer) for Applanix Corporation in Richmond Hill, Ontario.

Rich is presently employed with Can-Am Geomatics of Grande Prairie and is involved in oil and gas related surveys.

Camping, hunting, fishing and carpentry are a few of Rich’s leisure activities.

Rich is married to Patty and they reside in Grande Prairie.

#783 POWLEY, W. (Bill) T.

William (Bill) Thompson Powley was born in Shelburne, Nova Scotia in January 1970. After graduating from Barrington Municipal High School in 1988, he went on to graduate from the College of Geographic Sciences in 1990.

Articles were served under Les Frederick, ALS and Bryan Bates, ALS from May 2005 to June 2007. He received his commission on July 17, 2007. Bill also received his CLS commission in July 2006.

Bill has been employed with Can-Am Geomatics since 1990 and has lived in High Level, Fort McMurray and Edmonton. He is currently employed with Can-Am Geomatics BC in Fort St. John, BC.

Bill likes to spend his spare time fishing and with family. He is married to Kim and they have two children, Kaitlin (age 15) and Matthew (age 10).
Members on the Move
The following are changes to the Telephone Listing and Supplement to the Annual Register of Members 2007-2008

ACTIVE
Caroline Anderson has left Focus Surveys Limited Partnership effective August 21, 2007. Her contact information is:
PO Box 1, Site 5, RR1
Airdrie, AB T4B 2A3
Tel: (403) 948-3018
E-mail: dfanderson@efirehose.net.

Bruce Drake is officially at the Edmonton office of Pals Surveys and Associates Ltd. effective September 1, 2007.

Rick Gauthier has left the employ of Focus Surveys Limited Partnership effective August 23, 2007. He can be contacted at 115 West Terrace PT, Cochrane, AB T4C 1S1; E-mail: rick.anne@telus.net.

Jiun Han Keong received his commission as ALS #781 on July 4, 2007. Mr. Keong is employed with Focus Surveys Limited Partnership in Calgary.

Roger Leeman has a new e-mail address: leemanr@mmm.ca.

Jim Maidment: new e-mail address—jmaidment@maidment.ca

Patrick Marshall: new e-mail—pamrshall@maidment.ca.

Bob McDormand is employed with Interprovincial Surveys Ltd. in Lloydminster effective September 4, 2007.

Rich Nixon received his commission as ALS #782 on July 10, 2007. Mr. Nixon is employed with Can-Am Geomatics of Grande Prairie.

Bill Powley received his commission as ALS #783 on July 17, 2007. Mr. Powley is employed with Can-Am Geomatics BC in Fort St. John.

Javier Siu received his commission as ALS #780 on July 4, 2007. Mr. Siu is employed with Focus Surveys Limited Partnership in Calgary.

Jason Thistle: new e-mail address—jthistle@gosi.ca.

David Thomas left the employ of Can-Am Geomatics effective August 16, 2007. He can be reached at 2111 - 10 Avenue NW, Calgary T2N 1G6;
Tel: (403) 861-9264; E-mail: david.thomas@shaw.ca.

Brent Wilson: new e-mail address—bwilson@maidment.ca.

RETIRED
Don Molesky: mailing address has changed to Box 9, site 17, RR2. All other information, including postal code remains the same.

HONOURARY LIFE
Bill Dabbs has moved to 2061 Capistrano Dr., Kelowna, BC V1V 2N1; Tel: (250) 491-7333; E-mail: wrdabbs@shaw.ca

DECEASED


P.J. (Pete) Timoschuk passed away on August 20, 2007. An obituary appears on page 60.


ARTICLED STUDENTS
Ryan Baete transferred articles to Scott Brooks of Precision Geomatics Inc. effective August 21, 2007.


Nitin Bansal articulated to Barry Fleece of Fugro/SESL Geomatics Ltd. in Calgary on June 13, 2007.

Michal Dudek articulated to Doug Lunty of Focus Surveys Limited Partnership in Edmonton on August 9, 2007.

Jeremy Park articulated to Doug Sharp of Maltais Geomatics Inc. in Calgary on August 1, 2007.

Nathan Prins articulated to Tom Medlicott of D.A. Watt Consulting Group Ltd. of Calgary on August 13, 2007.

Robert Schrage articulated to Mark Woychuk of Stantec Geomatics Ltd. in Calgary on August 2, 2007.

Prakar Shrivastava articulated to Peter Lapainis of Fugro/SESL Geomatics Ltd. in Calgary on June 27, 2007.

Leslie Sick tied the knot with Byron Laurie. She has changed her last name to Laurie.


ASSOCIATE
Tim Grusie has taken a position at the Calgary Land Titles Office effective August 20, 2007.

CORPORATIONS
Bemoco Land Surveying Ltd. has moved to 6040 - 47 Avenue, Suite 100, Red Deer T4N 1C2.

Maltais Geomatics Inc. of High Level has moved to 10476 - 92 Street. The PO Box and postal are unchanged.

Pals Surveys and Association Ltd. branch office in Cold Lake closed on August 31, 2007. Usher Canada Limited has changed its name to MMM Geomatics Alberta Limited which has retained permit number P002, effective September 7, 2007.

Articled students Lesley Sick and Byron Laurie got married over the summer.
This year, there were 140 golfers that participated in the 43rd Annual ALSA golf tournament which was held on August 17, 2007.

Thank you to all the participants who purchased mulligans and raffle tickets. The J.H. Holloway Foundation was able to raise $1,800 through these sales. The lucky winner of the gift basket was Carol Sweeney.

Early Bird Prize
The Early Bird Prize winner was Dana Sands of Vista Geomatics. Dana had her ALSA Golf Tournament registration waived.

Hole-in-One Prizes
Butler Surveys Supplies Ltd.
7th Hole - RTK GPS Set

Land Measurement Systems Inc.
16th Hole—Hyperlight RTK System

Spatial Technologies Inc.
6th Hole—BMW Touring Bike

Trimble Canada Ltd./Cansel Survey Equipment
15th Hole—Ford Mustang

Hole Prize Winners
Hole #1: ------------------ Bob Ireland
Closest to the Target: Men

Hole #2: ------------------ Bob Wallace
Closest to Pin (second shot): Anyone

Hole #3: ------------------ Dave Douglas
Closest to the Pin: Anyone

Hole #4: ------------------ Roy Devlin
Closest to Pin (second shot): Anyone

Hole #5: ------------------ Nina Pang
Longest Drive: Men

Hole #6: --------------- Charles Godard
Closest to the Pin: Ladies

Hole #7: ------------------ Geoff Hobbs
Closest to Pin: Anyone

Hole #8: ----------- David Janssens
Closest to Water (not in): Anyone

Hole #9: ----------- Garth Hartung
Longest Drive: Men

Hole #10: ------------- Debbie Rein
Longest Drive: Ladies

Hole #11: --------- Candice Charnetski
Longest Putt: Anyone

Hole #12: ------------- Lesley Ewoniak
Longest Putt: Ladies

Hole #13: --------- Jayson Wiggins
Closest to Target from Tee: Anyone

Hole #14: ----------- Dwain MacNeil
Ball in Sand: Draw

Hole #15: ------------- Andrew Roop
Closest to the Pin: Anyone

Hole #16: ------------ Barry Clark
Closest to the Pin: Anyone

Hole #17: ----------- David Marquardt
Longest Putt: Men

Hole #18: ------------------ Tim Steeves
Longest Drive: Anyone

The winning team was #34.

Left to Right: Troy Sewter, Damian Gillis, Darin Falk and Rob Owens

From left to right: Troy Sewter, Damian Gillis, Darin Falk and Rob Owens
probably one of the most common projects any surveyor will do in his/her career is a site survey. They may be named something slightly different like as-built plan, plot plan, site plan or something else, but essentially the scope of work covers three basic tasks:

• determine and confirm the parcel boundaries,
• survey everything you see,(and when buried facilities are involved...things you don't see) to those boundaries,
• survey in enough ground and facility elevations to determine grades, cuts/fills or slab elevations, general topography as needed.

Like anything, depending on the scope of the specific project it can go from the very simple to the extremely detailed...and you usually get questions from the project engineer..."You're charging me that much for THIS??" Well maybe that happens sometimes, but don't sell yourself short...a well done site survey is a successful foundation to any engineering project. It is a shame that many surveyors don't get to see the finished product or the product as it is being finished. I recently participated in one where I know I will get that chance.

It’s about 5534 km (3459 mi) from where I call home, Latitude 18° 28' 21.4" N, Longitude 72° 16' 19.9" W for you Google Earth aficionados, in a place near Fort Jacques, Haiti...in the mountains just south of Port-au-Prince.

Maybe I should go back a little bit here... October 2006, while at a fundraising dinner here in Calgary for an orphanage in Haiti called God’s Littlest Angels, (www.glahaiti.org), I was talking to the directors of the orphanage, John and Dixie Bickel. They made it known to me that the costs, logistics, and quality of caring for 180 orphans/abandoned children in three large houses, (currently being rented), were getting to the point where they would be better off to build their own complex. The orphanage is one of the best-run in Haiti and is like a mini children’s hospital, complete with donated ICU equipment. I suggested they get in touch with a few colleagues at EMiCanada when that time came. At the time, they had their eye on a piece of land...and to make an already incredible story short, they raised the money by last December to purchase the land and made an application to EMi for charitable engineering work.

A bit about EMi (Engineering Ministries International (www.emicanada.org). Like Engineers/Doctors Without Borders, it is a non-denominational, non-profit, Christian-based organization of professional engineers, architects, and technicians from all walks and all countries, who have made a choice to use their skills and their God-given talents for the betterment of mankind all over the world. With over 700 projects to date in 75 different countries (through EMI-International, www.emiusa.org based in Colorado Springs, USA)...hospitals, churches, orphanages, and schools in places like Manila, Thailand, Uganda, India, Ukraine, and Haiti...in some of the worst areas known to man...this group of men and women have pooled their time and talents to create small miracles, and to give a bit of hope to someone, somewhere, at their own expense.

That is what a “mission” is really all about. I always thought in order to be of any “use” to mankind to do these things, you should be a doctor or a nurse or a Mother Theresa, one of incredible faith and courage...not a native Alberta boy, U of A, SAIT grad-turned-land surveyor. As I have discovered over the last few years, EMi is very well organized and the safety of their full-time staff and volunteers is of paramount importance, wherever in the world they may be.

Preparing for this trip was an exercise in team organization for our team leader Kevin Weins who looked after accommodations, flights, security details and incidentals for the orphanage we were working for. For us team members as volunteers, it was the usual passports, shots (typhoid, malaria, hepatitis A and B), and, oh yes, our equipment and personal gear. For a surveyor with the current baggage restrictions, to get all your survey equipment and personal stuff into
two bags with a maximum weight of 50 lbs each is a challenge. Suggestion?...(my surveyor colleagues will love this one!)...find an engineer who is traveling light and give him an extra bag to carry...the heavier one of course! In all seriousness that indeed is what was done, but for a different reason...approximately an extra 20 to 30 pounds of my baggage weight was in the form of vitamins, cough syrups, antibiotics and other supplies, people had donated for the orphanage. I can’t comment on the legality of this, but sometimes you try to do what your heart says is right and pray it works out...this time it did.

Saturday May, 26th was arrival day in Port-au-Prince, Haiti...42°C and 95% humidity on the tarmac. Eight years ago to the day, when I was first there, the weather was the same, but the atmosphere was a lot different. The shanty town that was within 30m of the edge of the runway was now gone...as was the stench. The decrepit airport itself was no longer that, but a rather nice place to land, complete with a Caribbean band...and the washrooms were no longer a health hazard. The mass of poverty-stricken humanity that once surrounded us in the airport parking lot asking to carry our bags for money or wanting to sell us stuff, was now on the other side of a newer fence, with security patrols and a lot fewer in numbers. The United Nations has a very visible presence since the ouster of Aristide a few years ago and these first glance changes are noticeable, but as I found out, looking a little deeper, not that much else has changed in Haiti.

Sunday was service at a local church near our guest house quarters in an area called Petionville, and our first trip to the site to scout. Monday we got down to business. As usual, the survey party was on the road to the site by 7 a.m. The site itself was at an elevation of about 1310 m about 2 km from where we were staying but 8 km by road and about 10 km from the ocean. Away from Port-au-Prince, Haiti is hilly, mountainous, but beautiful, the roads are narrow, steep, rough, congested and it is an exercise in driving skill and patience to get anywhere. Throw in a typical torrential downpour, and there are many roads you pick your times to travel on, otherwise you may end up a twisted heap of metal.

The site survey was completed in three mornings’ work...the afternoons were downpours when we processed everything from laptops or took a shower in the tropical rainstorms. Finishing up the computer work on the site survey, it was a pleasure to watch my engineer/architect teammates do their magic creating preliminary designs for several buildings, the main orphanage building (baby and toddler sections with an (ICU) Intensive Care Unit), nannies dorm,
a school, a volunteer’s residence, a director’s residence, maintenance and mechanical building, and last but not least a chapel. As well, soils and ground water testing, and designs for water, storm, and septic were created. The plans still have to be finalized and many details worked out, but the footprint is all there. I could go on about technical details that would interest many or a few, but the real story here is that someone has a vision to help children in Haiti, the poorest nation in the Western Hemisphere, and that we as a team were just a small part of that.

When the work was done, spending time in the orphanage, helping the nannies, playing with the babies and toddlers, showed us the purpose of why we were here. In the two weeks centred around our arrival and departure...three children went back to be with their maker...five more were taken in for care. That is life in Haiti and in an orphanage.

I wish I had the room here to tell you the stories of some of the kids, like little Farrah, James, Jenny, and Miranda and so many others...to play with them, to watch them, to rock them to sleep...your emotional factor gets quite a workout. The fact that many of them have made it this far in their short difficult lives and frail bodies is truly amazing. I can’t even begin to fathom what life is like for the 10 to 20,000 kids that roam the streets of Port-au-Prince daily.

We have it so good here in Alberta...our families, our homes, our jobs, our clean air and open spaces...our freedom. I hope this makes you wonder.

Yes, ...it was just a site survey, not really all that much different than the hundreds I’ve done before...but definitely one with a purpose. Feel free to check out this link; http://66.11.81.115/haiti2007.wmv...it’s a fifteen minute video where the pictures of this project speak far better than I could ever hope to write.

Thanks for taking the time to read and to view. If something like this interests you or someone you know, by all means give me a call or drop me an email...I will introduce you to some great people.

God Bless.

With thanks to my team mates; Kevin, Tom, Wes, Rose, Mike, Shane, Joy, Clay, and Lori.

Figures 9, 10, 11 and 12—Haiti is truly a land of contrasts, to say the least, where 2 to 5% of the population controls 80% of the land and money. Colourful, beautiful and green in the rugged rural areas...not so in the city and near suburbs of Port-au-Prince, an area of some three million people.

Figure 13—Five year old Miranda, the little girl pictured with me here, is one of the lucky ones. After three years in the orphanage, a week after this picture was taken, her file was approved and she will be going “home” to a very fortunate family in the USA.
Who Owns the World
The Hidden Facts Behind Land Ownership
by Kevin Cahill
Mainstream Publishing – London and Edinburgh £25.00

Income doesn’t make you wealthy – assets do.

The compilation of data in this book is almost overwhelming yet when you put it into context it spins a good case for some of the injustices of landownership over the years and around the world. Cahill sheds a light on land ownership that most of us might at first find hard to accept but when one rationalizes the author’s philosophy, it makes you think about who does really own that piece of land for which you thought you had title. It is clear that there is no such thing as absolute ownership—a concept that most of us have learned to accept but the power of the state to limit one’s ownership in land is sometimes rather alarming when it is spelled out in black and white.

Kevin Cahill obviously has a great respect for Hernando de Soto and his book The Mystery of Capital (See ALS News Vol. 30-2, p.25) but he takes a different tack as set out in chapter 1:

[This book] argues that property law in the developing world is at best internally and institutionally corrupt, having been created by thieves trying to legitimize theft and maintained by the descendants of the original thieves, for their private benefit and no one else’s, and at worst destructive to both democratic and economic progress.

This theme sets out the author’s philosophy throughout Part 1.

Part 2 of the book is a compendium of statistical information on virtually every country in the world. Statistics are reported not just on size and population but also economic details and nature of government and land ownership. Assuming the statistics are relatively accurate (the author quotes several different sources) Part 2 is a valuable reference work in itself.

The book contains a number of obvious errors although not significant to the overall theme of the book. There may be further errors but they certainly are not obvious without a ton of research to rival the research performed by the author.

The use of large numbers is somewhat confusing but the author has obviously chosen to reduce all areas to acres (even for large countries like Canada) and to refer to all figures in the millions or lesser amounts rather than expressing large number in billions or trillions. This may be confusing to some but puts everything in the same numerical framework even though some of the figures seem overwhelming.

You might get the impression from the foregoing that the author is a bit of a cynic, and no doubt he is. However he does make a very good case to back up his arguments.

Additions to the ALSA Library

The following is a list of some of the books that have been added to the ALSA library in the last couple of years. More detailed information can be found on the ALSA website at www.alsa.ab.ca/MemberResources/library.htm.

C0236 Elements of Cartography, 6th Edition
C0237 Thematic Cartography and Geographic Visualization, 2nd Edition
C2220 An Introduction to Database Systems, 8th Edition
G0567 Fun With GPS
G0568 GPS Theory and Practice, 2nd Edition
G0569 GPS Satellite Surveying, 3rd Edition

G0570 Geodesy, 3rd Edition
G0620 Statistics and Data Analysis in Geology, 3rd Edition
H0791 From Fur King to Oil King - A History of the Athabasca Oil Sands
H0792 Mopper of Mountains M.P. Bridgland in the Canadian Rockies, 1902-1930
H0793 Fidler’s Journal
H0794 Made to Measure—A History of Land Surveying in British Columbia
H0795 David Thompson—An Adventure of a Lifetime Activity Book
H0796 Thompson’s Highway - British Columbia’s Fur Trade, 1800-1850

H0797 A Hard Road to Travel
H0798 The Mapmaker’s Wife
L0916 The Law and Practice of Land Surveying in Alberta
L2049 Geographic Information Systems and Science, 2nd Edition
M1058 Calculus, 6th Edition
P1224 Elements of Photogrammetry, 3rd Edition
S1715 Surveying Theory and Practice, 7th Edition
S1716 Elementary Surveying - an Introduction to Geomatics, 11th Edition
**Electronic Linear Measuring Device Calibration — a legislative requirement and a technical skill**

**Background**

The Practice Review Board has identified that, far too often, practitioners are not calibrating their electronic distance measuring devices.

Under Section 11(2)(b) of the *Surveys Act* [RSA 2000, c. S-26], we are required to calibrate/validate our electronic measuring devices, such as Electronic Distance Measurement (EDM) or Global Positioning System (GPS) instruments against a provincial baseline or three-dimensional base net. In Phase Three of Systematic Practice Review, the practitioner is questioned on his calibration practices.

Due to the current booming Alberta economy, too many of our members are not adhering to the requirement under the *Surveys Act* of calibrating their electronic measuring devices. In fact, most of the practitioners are not aware that there are two provincial three-dimensional positioning base nets used to validate their GPS equipment and processes.

Lyall Pratt, ALS, former Director of Practice Review, wrote in his SPR Director’s message in the December 2003 issue of *ALS News* about the importance of calibrating our instruments periodically and comparing against a standard.

Dr. Mike Barry and his colleagues, Dr. Andrew Hunter and Dr. Bill Teskey, ALS (Ret) magnified this issue in the March 2007 issue of *ALS News* in that calibration of an instrument is an integral part of a training program for professional land surveyors. These learned scholars are of the opinion that professional land surveyors should have intimate knowledge of the workings of different instruments, be skilled in calibrating these instruments, and be able to diagnose errors in calibrating. They also pointed out that calibration is the first part of a training program. It ensures that the trainee understands the measurement processes and understands the instruments in use. Calibration exercises should include evaluation of the EDM on a known baseline; checking of collimation errors in levels; axis errors in theodolites; and optical plummet and laser alignment in the tribrachs. Similarly, daily field verification of GPS functionality should be part of a land surveyor’s everyday practice through comparison with known points.

A practitioner’s regular professional practice should include the periodic calibration of EDMs against provincially established standard baselines and/or validation of GPS equipment against provincially established three-dimensional positioning base nets.

**Legislative Requirement**

An Alberta Land Surveyor is governed by the Surveys Act, other related legislation and the Manual of Standard Practice. Section 11(2)(b) of the current *Surveys Act* [RSA 2000 Chapter S-26] stipulates the calibration/validation of electronic instrumentation, which states:

11(1) The measure of length used in surveys made under this Act must be the Canadian or the International System measure of length defined by the Weights and Measures Act (Canada).

11(2) A surveyor shall verify

(a) all tapes used by the surveyor by comparison with a subsidiary standard of a type approved for that purpose by the Director (Director of Surveys) or by a person authorized in writing by the Director, and

(b) all electronic linear measuring devices used by the surveyor by comparison with calibration base lines established by the Minister for that purpose.

(Emphasis added)

**Fundamental Principles**

Let us evaluate the sources of error by the electronic measuring devices only.

There are two fundamental forms of EDM errors: errors independent of the instrument and errors within the instrument system which include the reflex station.

The errors independent of the instrument may be the result of external factors such as poor atmospheric conditions along the measuring path, poor set-up and procedures, centering and pointing errors, ground swing or other signal interference. Most of the identified sources of error could be eliminated by exercising care during the taking of measurements. Accurate measurement can be achieved by minimizing instrument errors as well.

All electronic linear measuring devices require some corrections to the measurements for compensating factors such as zero errors, cyclic errors, prism constants, phase
measurement errors, as well as errors in modulation frequencies. These types of errors are subject to change over time, mainly due to aging of the electronic components, handling and usage.

The calibration of an electronic measuring instrument achieves the following two results:
— ensures that the instrument is functioning properly and is performing within the manufacturer’s stated specifications;
— provides a means of determining the corrections outlined from the sources of errors as per the preceding paragraph.

[Author’s Note: Errors with respect to GPS are multipath and other sources, such as incorrect measurement of the antenna height, and lack of redundancy in observation. I wrote an article in the September 2006 issue of ALS News dealing with GPS observation redundancy. Bernie Jess, ALS, P.Eng. also wrote extensively on this topic in the December 2005 issue of ALS News]

The Provincial Calibration Baselines

The establishment of a provincial calibration baseline can be considered as a three-fold process: the physical installation of a line/string of stable and permanent set of monuments; the accurate measurement of the distance between these monuments; and the continual maintenance of and re-measurement of the distances between these monuments.

Edmonton, Calgary, Grande Prairie, and Lethbridge are the four EDM baselines established for the purpose of calibrating in Alberta.

Geodetic Survey Division (GSD), NRCan deployed the following methodologies for determining the baseline monuments: Interferometric method; invar taping; precise measurements using an Kern Mekometer ME5000 instrument, or a Com-Rad Geomensor CR204 instrument. A total of 44 baselines were established in Canada, and the National Geodetic Base Line (NGBL) in Ottawa was established in 1971, which is used as a reference baseline for other calibration baselines.

The maintenance of these provincial baselines is a joint effort between the GSD and the Alberta Sustainable Resource Development (ASRD) which is responsible for the Surveys Act. GSD re-measures these base lines with their Kern Mekometer ME5000 and re-publishes values for the base lines periodically [Gauthier, 1999]. The Mekometer instrument is calibrated against the NGBL with its accuracy estimated to approach 1 ppm [Gillis and Nabe, 1988].

In April 2000, GSD tabled a position paper recommending the number of maintained baselines in Canada be reduced from 44 to 10. GSD would also undertake the re-measurement of non-designated base lines on a cost-sharing basis with the province. The province shares the cost of baseline re-measurements at an approximate cost of $3,000 per occasion [Banham, 2001]. GSD has since implemented this policy and the Edmonton EDM Calibration baseline is the designated baseline for Alberta. However, ASRD has committed to have the other EDM calibration baselines in the province re-observed on an approximately five-year basis [Banham, 2007].

Calibration Results Reporting

Raw EDM calibration measurements can be submitted to the Geodetic Control Unit of the Director of Surveys Office where calibration observations are compared with the manufacturer’s specifications. A least-squares adjustment evaluation is carried out and a letter detailing the results is provided to the practitioner as per their instrument’s comparison.

In general, two coefficients are identified as a result of the calibration. The first is a constant which is independent of the distance measured and will have to be applied to each subsequent measurement. The second is a scale factor by which all measurements must be multiplied.

The constant may be referred to as instrument constant, zero error, zero point error or additive constant. Conversely, the scale error is sometimes referred to as modulation frequency error, which is usually expressed in parts per million (ppm) value.

It is interesting to note that a reflector prism usually has an inherent constant error. By maintaining the same instrument-prism combination, this error can be included as a portion of the instrument constant.

The Provincial Three-Dimensional Positioning Base Nets

Similar to the EDM baselines, the Government of Alberta, in conjunction with GSD, established two three-dimensional base nets from which GPS measurements can be tested and validated. A validation is a test of the equipment (hardware/software), methodology (observations and processing procedures), and personnel (field procedure). These three components constitute the overall user GPS system.

The two official base nets in Alberta cover regions surrounding the cities of Edmonton and Calgary. Both base nets provide a variety of baseline lengths. For the Edmonton base net, baselines vary from 120 metres to 150 kilometres in length [Barnes and Bassil, 1990]. Refer to Figure One for a configuration of the Edmonton base net.

The Edmonton base net was constructed in the Spring of 1989 and is centred on the Edmonton EDM calibration baseline. Similarly, the Calgary base net was developed in 1994 and it is centred around the Calgary EDM calibration baseline.

The design of these three-dimensional positioning base nets allows users to evaluate their positioning systems as they relate to their specific requirements for any of their GPS projects.

The availability of the provincial base nets provides necessary validation tools, plays an important role in achieving accurate GPS results, and is an excellent training tool for field personnel to become more comfortable and effective in achieving good GPS observations.
Validation Results Reporting

As for practitioners, validation of GPS equipment against the three-dimensional positioning base nets, the Geodetic Control Unit within ASRD provides the following test and result reporting for the users system.

Observations, methodology and personnel are tested from the resulting data against a standard derived from multiple high precision occupations of the GPS validation base net.

In general, the following are two criteria that ASRD is looking for, in terms of achieving validation results:

1. The quality of the GPS validation survey in terms of absolute and relative confidence regions (3-D and 1-D/2-D combinations). The observation results from the user’s system are tested to see if there were blunders, errors, or other inherent problems with the data.

2. The derived GPS data from the user’s system is compared against the known standard for the GPS validation base net. Within this criterion, ASRD looks for coordinate discrepancies and compares those to the maximum allowed, in-context/out-of-context Chi Square test of the station coordinate discrepancies, and in-context/out-of-context Chi Square testing of the co-ordinate discrepancy sets.

Based on the above criteria, ASRD will then report their validation results to the practitioner. [Banham, 2007].

Products Available from the Geodetic Control Unit, ASRD

Practitioners are encouraged to regularly calibrate their EDM against the calibration baselines and validate their GPS system and process against the three-dimensional positioning base nets.

Upon request to the Geodetic Control Unit, Director of Surveys Office, users can submit their EDM calibration or GPS validation survey data to have it evaluated. The Director of Surveys web site (http://www.srd.gov.ab.ca/lands/directorsurveys/default.aspx) contains a wealth of information on procedures, data format requirements, and forms (for EDM calibration surveys only) to submit data to the Unit towards evaluation.

The Geodetic Control Unit provides/offers the following current products, which are useful for your EDM calibration and GPS validation surveys:

- Guidelines for Electronic Distance Measurement Calibration Baseline Surveys in Alberta;
- Electronic Distance Measurement (EDM) Calibration Baseline Lengths;
- Standards, Specifications and Guidelines for Alberta Survey Control 1993-09-01 edition;
- Edmonton GPS validation Network Manual; and
- Calgary GPS Validation Network Manual.

For further information regarding Alberta's calibration baselines and GPS Validation base nets, please contact Geoff Banham at telephone number (780) 422-1291 or Terry Simmonds at (780) 422-1026. Or, visit the Director of Surveys website as mentioned above.

Concerns Observed by the Director of Practice Review

The stability of the Calgary baseline has been questioned regarding whether or not it is suitable to be used for calibration purposes.

Geoff Banham published a paper in the June 2001 issue of ALS News outlining the issues and solutions surrounding the use of the Calgary EDM calibration baseline.

Banham’s paper details the movement of some of the monuments along the Calgary EDM calibration base line. Movements ranging from +0.5mm (Pier 3) to a maximum of -7.3mm (Pier 6) with comparison of measurements from
previous epochs [Banham, 2001]. It is suggested that the Calgary calibration baseline is still usable for the calibration of instrument for the purpose of cadastral surveying.

Given the level of movement of the Calgary EDM baseline, practitioners cannot use the instability of the Calgary baseline as an excuse for not fulfilling their legislative requirement to calibrate their instruments for cadastral works. At the current level of 1:7 500 closure requirement for cadastral surveys, this baseline should serve the practitioners more than adequately in meeting the practitioner’s need.

Other concerns that have been observed are: some practitioners have been ‘calibrating’ their electronic measuring devices against some benchmarks (nails) that they have set up adjacent to their office building, or simply indicated that their calibration is none other than comparing distance measurements from published ASCM distances. These are reasonable approaches as an informal method for day-to-day checking where one would have a good idea of the accuracy of the points that one is checking against. It is better than no calibration and simply blindly assuming that everything is fine from the “black box.” I am of the opinion that practitioners should do a calibration/validation survey at least once a year on a proper EDM calibration base line and a GPS three-dimensional positioning base net, and properly document the results report received from the issuing government official.

Food For Thought
I agree with Mike Barry and the learned professionals that understanding EDM calibration and GPS validation is the first step of sound technical training.

Accurate results may be achieved with well-maintained equipment, proper software, thorough observation and processing procedures and trained personnel who understand the functionality and limitations of their equipment.

As discussed in the April 2007 AGM at Lake Louise, LiDAR is now being applied to disposition surveys in Alberta. It is our responsibility as a professional group to proactively think about this emerging technology as it is at our door step.

As you are aware, aerial photography camera equipment has to be sent to Natural Resources Canada in Ottawa to be calibrated regularly. Perhaps the ALSA should outline calibration standards within our Manual of Standard Practice for LiDAR surveys.

References


Land surveyors in the province are no doubt aware of the elastic band method currently used by Russel Metals to bundle iron posts for shipment. An enterprising technologist employed in beautiful downtown Lethbridge, sunny southern Alberta, undertook on his own time, to collect these elastic bands and form them into a ball. The collection was done over the course of a year but no records were kept on the number of bands used for the various types of surveys. This will be brought forward as a future initiative.

The pictures of President Bob and Executive Director Brian are given as evidence that we do our part in supporting the operations of SPR ( by the way, the ball bounces).

The Lethbridge members of ALSA wish extend their appreciation to President Bob and his entourage for taking the time out of their busy schedules stop in this fair city. Even though the number of members in this area are not great in number, we are certain the lively discussion and camaraderie that is shared is equal to other areas of the province.
Case Study No. 33: Fenceline Pickets—A Series of Unfortunate Events

Acknowledgement: The author wishes to acknowledge the practitioner for encouraging him to write this educational article regarding his experience with the subject subdivision.

The author also wishes to acknowledge Land Titles Office for permitting the author to use the registered plans contained in this article.

The title of this article is borrowed from the movie, “Lemony Snicket — a Series of Unfortunate Events.”

Background
This article makes reference to an actual registered plan which was audited during a part of a Systematic Practice Review (SPR); the review process revealed a series of unfortunate events prior to registration of the subdivision plan being brought under question.

This review was initiated prior to my commencement as the Director of Practice Review. The subject subdivision survey was randomly selected for an external audit during the internal review.

The practitioner was retained to subdivide a rectangular parcel of land into two lots. A purported original monument shown on the prior registered plan was not accepted; instead the dimensions on the original registered plan were held to determine the position of the southeast (SE) corner of the subdivision. A chain of events occurred respecting the SE corner, which subsequently led the practitioner to change his opinion.

While external factors may come to bear on a practitioner and influence his or her decision, it is the practitioner who is responsible for his registered plan.

Fundamental Principle
When a land surveyor is performing a subdivision survey, it is the surveyor’s responsibility to ascertain the relationship of his subdivision with the existing parcel by retracing the existing surveyed boundary lines of his subject parcel. The position of the original evidence governs the boundary even if the dimensions or areas expressed on the plan are found to be different. Section 45 of the current Surveys Act [RSA 2000 Chapter S-26] stipulates the definition of boundary, which states:

45(1) If a surveyor does a survey for a plan that is required to be registered at the Land Titles Office or filed at the Metis Settlements Land Registry, the surveyor shall (a) mark the position of the boundary lines to be established by placing monuments

(i) at every change of the direction and the beginning and end of every curve, and,

(ii) at every intersection of the boundary lines with every surveyed boundary of the parcels affected by the new survey,

and

(b) make all measurements necessary to show the positions of the monuments placed and the boundary lines to be established, relative to existing surveyed boundary lines of the parcels affected.

[..…..]

(4) All the boundary lines surveyed and established in accordance with subsection (1) shall be defined by the monuments placed for that purpose as shown on the plan of the survey registered at the Land Titles Office or filed at the Metis Settlements Land Registry, whether or not the dimensions or areas expressed on the plan are found by re-measurement to be different. [emphasis added]

The Project
During the course of a Systematic Practice Review, a practitioner’s registered subdivision was randomly selected for an external audit.

The practitioner was asked to subdivide a 6.19 acre parcel into two parcels/ lots. The title of the original Parcel A reads as follows:

Legal Description

Plan ____JK

Parcel A

Containing 2.507 (6.19 Acres)

Hectares more or less

Excepting thereout all mines and minerals

Parcel A was created by a subdivision surveyed by Land Surveyor “B,” which was registered at the Land Titles Office as Plan ____JK in 1965. Please refer to Figure One for a sanitized copy of the original subdivision plan. The bearings and distances shown on the plan for Parcel A describe a mathematically closed figure.

The practitioner was requested by the landowner, in 2004, to provide a real property report (RPR) for Parcel A prior to the subdivision.

The practitioner’s real property report revealed that a monument found at the SE corner of Parcel A was 18.4 metres south of the plan’s dimensioned position for the SE corner.

A barb wire fence was erected along the southern boundary of the parcel some time after 1965. The barb wire fence was subsequently replaced by a steel fence. Traces of the original barb wire fence remain along the same alignment as the existing steel fence, both of which align with the position of the “18.4m” iron post. It appears the “18.4m” post was placed about the time of the original subdivision, and
was relied upon by the landowner of Parcel A.

Once the practitioner discovered a significant dimensional difference between the monuments and the plan, he contacted Land Surveyor B and requested him to review the original field notes. The practitioner wanted to determine if the field notes could prove if the “18.4m” post was misplaced through a field blunder, or alternatively, if the field notes could help prove if the survey evidence had been tampered with by a third party.

(Author’s note: Concise field notes complete with redundant observations and good closures would be excellent supporting documentary evidence in determining if a monument has been tampered with.)

Land Surveyor B advised the practitioner of an unfortunate circumstance—the original field notes had been lost. Without the original field notes, the practitioner could not determine on paper if a blunder in the field was made during the original survey of Parcel A. Land Surveyor B was adamant in stating he always double checks his work, and, as a result, there could not have been a field blunder.

The practitioner looked for traces of other evidence 18.4m north of the “18.4m” iron post found at the SE corner, but could not find any traces of original evidence at the plan dimensioned position.

For the RPR, the practitioner accepted the found iron post as governing evidence of the SE corner of the parcel in accordance with section 45 of the Surveys Act. The “18.4m” monument was shown to define the SE corner of Parcel A on the RPR. Figure Two is a “sanitized” copy of the RPR issued by the practitioner in 2004 to the owner of Parcel A.

The practitioner stated the following opinion on his RPR:

*The position of the survey post at the S.E. Corner of Parcel ‘A’ is approximately 18.4 metres south of its theoretical position. The post appears to be undisturbed and original and therefore is acceptable.*

Further to the requirements of his client, the practitioner proceeded with an application to the municipality to subdivide Parcel A. The practitioner outlined Parcel A on the subdivision application in the same manner as shown on the RPR. The SE corner of Parcel A was depicted at the location of the found
“18.4m” iron post (monument and traces of fences dating back to the original survey), and since the practitioner lacked contrary documentary (field notes) evidence from Land Surveyor B, the practitioner proceeded with the subdivision application to the municipality with a dimensional difference of 18.4m on one of the boundaries of Parcel A, the area differs from what is shown on the registered plan. See Figure Three for a sanitized copy of the proposed subdivision plan application.

The practitioner proceeded with the field survey after receiving the conditional subdivision approval from the municipality. Parcel A was subdivided into two lots, and a subdivision plan was submitted to the Land Titles Office depicting the SE corner of Parcel A in the same position as the “18.4m” iron post – the same as shown on the RPR. See Figure Four.

Upon submission for registration, Land Titles Office rejected the practitioner’s plan because the practitioner’s subdivision plan showed the SE corner of the original Parcel A 18.4m south of the original plan’s dimensioned position. Land Titles Office advised the practitioner to deal with the boundary uncertainty by liaising with the neighbouring owners and the originating surveyor for Parcel A, which of course is Land Surveyor B. The sanitized Land Titles Office rejection notice states:

(Practitioner), There appears to be a significant difference between Plan ___JK and your plan, submitted for registration, as to the location of the south east corner of Parcel ‘A’. Please resolve the boundary uncertainty between the registered owners of Parcel ‘A’ ___JK, Legal Subdivision 12, and the previous Alberta Land Surveyor. If you have any questions feel free to contact Mr. ABC at (telephone number) or myself (XYZ) at (telephone number). Thank you for your attention to this matter.

XYZ (Plan Examiner) [emphasis added]

The Land Titles Act stipulates a requirement for Land Titles plan examiners to check with the practitioner respecting significant area and dimension differences with Land Titles’ records prior to subdivision registration. Section 79(1) of the Land Titles Act [RSA 2000 chapter L-4] allows the Land Titles Office to reject a plan for registration based on the above mentioned reason, wherein it states:

79(1) Before a plan is registered, amended, altered or corrected the Registrar may do one or more of the following:

(a) require a written explanation of (i) any apparent discrepancy between the plan and the description of the land in the register or any former plan, or
(ii) any other matter shown on or affecting the plan, that in the Registrar’s opinion requires an explanation.
(b) require the plan of survey to be submitted to the Director of Surveys for confirmation that the survey as represented by the plan complies with the requirements of the Surveys Act;

The supervisor of the plan examination section for the Land Titles Office outlined the following options verbally to the practitioner for resolution of the boundary uncertainty:
1. A judge’s (court) order;
2. A plan correction by the original land surveyor; or
3. A transfer of land in question from the adjacent landowner.

The practitioner was left to contemplate the options.

The Questions
In consultation with Land Surveyor B and the landowner of Parcel A, the practitioner considered each of the options as follows:

Option One: A Court Order
Could the practitioner rectify the boundary situation by exercising an application of a court order as per provisions of section 91 and/or section 191 of the Land Titles Act (RSA 2000 Chapter L-4)?

Within the current Land Titles legislation two provisions make reference to court order applications in connection with plan corrections and/or boundary adjustments, as follows:
91(1) A court may, on application and on hearing the persons to whom notice of the application was given, (a) order a plan to be cancelled, in whole or in part, amended, altered or corrected, and (b) make any order with respect to the vesting or revesting of any land included in the plan, on any terms or conditions as to costs and otherwise as the court considers proper.

(2) An application for an order under subsection (1) may be made by
(a) a person who caused a plan to be registered,
(b) a person deriving title to or some other interest in any land shown on a plan,
(c) an Alberta land surveyor who signed a plan, or
(d) the Registrar.

91(3) Notice of the application referred to in subsection (2) shall be served on those persons and in any manner that the court directs.

191(1) Subject to subsection (3), the Registrar shall not register a judgment, order or certificate made in any proceedings of a court that operates to cancel a certificate of title, terminate an interest in land or discharge an instrument or a caveat unless the judgment, order or certificate
(a) is consented to by all the parties to the proceedings or their solicitors,
(b) was granted ex parte and states that it does not have to be served on any person,
(c) is accompanied with a written undertaking from those persons having a right to appeal from the judgment, order or certificate, or their solicitors, that no appeal from the judgment, order or certificate will be commenced,

(3) This section does not apply to
(….)
(b) a judgment, order or certificate that expressly states that it shall be registered notwithstanding the requirements of subsection (1).

The practitioner considered sections 91, and 191 of the Land Titles Act and was of the opinion that these provisions would not apply. The practitioner was of the opinion that if the evidence found at the SE corner were original, section 45(4) of the Surveys Act would apply as such there would be no boundary uncertainty; however, if the evidence found at the SE corner was disturbed, the boundary has not moved. One method of boundary re-establishment would be determined by the dimensions of the original subdivision plan for Parcel A.

Option Two: A Plan Correction by the Original Land Surveyor
If Land Surveyor B would agree to amend his plan, would the amendment be considered a clerical error revision as in Section 92 of the Land Titles Act, or would it be considered a boundary adjustment as per the provisions of section 91 of the Land Titles Act?

Since original field notes of Parcel A cannot be located, Land Surveyor B is of the opinion there was no blunder in his initial survey, and as such, a plan correction of the original _____JK plan is not necessary.

Option Three: A Transfer of Land in Question From the Adjacent Landowner
Was the landowner of Parcel A of the original _____JK plan entitled to the extra land in question?

The practitioner explained to his client, the landowner of Parcel A, that the land enclosed by the fence may not be a true representation of the boundary of his land ownership, and that the correct area may actually be as shown on registered plan _____JK.

The practitioner advised his client of other legislated processes (i.e. adverse possession; subdivision of a triangular parcel from the adjacent land and further consolidation with his existing title etc.) that could transfer the land in question – to quiet the titles – so that ownership would coincide with the encompassing fences (re: section 74, Land Titles Act [RSA 2000 Chapter L-4]). The landowner considered the practitioner’s recommendation, but was of the opinion that these processes would take an excessive amount of time, and that the lengthy process would jeopardize the sale of the north half of Parcel A.

The practitioner’s client acknowledged that there may be a boundary uncertainty, and acknowledged he may not own the extra fenced area beyond what was indicated on Parcel A, Plan _____JK.

The practitioner was requested to expedite the subdivision survey, and register the plan at Land Titles Office as soon as practical as time was of the essence.
The Practitioner’s Resolution and Final Decision

The practitioner spoke with the landowner of Parcel A and the neighbour within the remainder of north-west quarter-section 7 again prior to registering the subdivision plan. The practitioner discussed property issues with both of them including adverse possession. The option of applying for a court order was being re-considered once again. The practitioner finally abandoned this avenue based upon the following arguments:

- both landowners (owner of Parcel A and the adjacent neighbour) would have been opposed to the process for various reasons;
- Land Surveyor B would have opposed to the process; and
- the practitioner had absolutely no certainty that the post was original without further reassessment of the evidence.

The practitioner re-excavated the “18.4m” post and, as a result, the practitioner did not accept the position of the “18.4m” post at the SE corner of Parcel A. A new statutory iron post was then placed at the intended theoretic position at the SE corner. The plan was amended and was deemed acceptable to Land Titles Office and thereafter registered at Land Titles Office. Figure Five is a “sanitized” version of the final subdivision plan registered in 2005.
The Position of the Practice Review Board

The boundary issue was brought to light when the Systematic Practice Review process found differences between the practitioner’s boundary of Parcel A depicted on the RPR, and the practitioner’s boundary depicted on his final 2005 registered plan of subdivision survey.

Due to the complexity of the situation, the practitioner voluntarily appeared in front of the Practice Review Board...

Due to the complexity of the situation, the practitioner voluntarily appeared in front of the Practice Review Board (PRB) to explain the situation and circumstances relating to his final decision.

The PRB queried the practitioner as to why his opinion changed from accepting the “18.4m” iron post evidence and occupational physical evidence to arriving at his final decision.

The practitioner indicated that he re-evaluated the evidence, and he could not prove or disprove if the evidence found at the fence corner was original; nor could he prove or disprove that this evidence had not been tempered with by a third party after the Parcel A, JK plan had been registered.

The practitioner explained that upon re-assessing the evidence at the SE corner, he opined that the evidence found at the SE corner of the fence has been disturbed. He arrived at his final decision by excavating the SE fence corner and the “18.4m” iron post and discovering that the statutory iron post appeared to have been broken and badly bent. This post, in the opinion of the practitioner, appeared to have “experienced some trauma in its history.”

Based on the practitioner’s revisit and re-assessment of the “18.4m” iron post, the Board has not requested the practitioner to take further action.

Conclusion

The relationship between the existing fences and the boundary remains an issue, since the fence is not on the property line as it was originally intended to do.

At one time, the practitioner contemplated adverse possession and other processes as a mechanism to resolving the landownership issue; however significant external pressure pushed for expeditious registration of the subdivision plan.

Section 79 of the Land Titles Act [RSA 2000 Chapter L-4] states:
79(2) The registration of a plan under this Act does not relieve the Alberta land surveyor who conducted the survey and prepared the plan from any liability for damages suffered by any person as a consequence of the survey of the registration of the plan. [emphasis added]

We must be mindful that allowing clients to rush our projects may result in liability claims when mistakes occur. In the case of Brean v Throne ([1982] 52 NSR (2d) 241, 106 APR 241), the presiding judge ruled that the client who rushed the surveyor, and a third party (the realtor) were all liable when a mistake was made by the surveyor.

Evidence assessment, evaluation, and decisions whether to accept or not accept evidence are some of many challenges that a land surveyor faces daily. Sound understanding of basic evidence principles can be achieved by conferring with other seasoned professionals prior to formulating a final opinion.

Had Land Surveyor B’s field notes not been lost, the practitioner would be at ease in depicting the origin of the “18.4m” evidence, and might not have mistakenly accepted it as undisturbed governing evidence at the first instance.

As in Mr. Stephen Black’s article in the June 2007 issue of the ALS News, “Surveyors, Records and Limitation Acts,” Mr. Black’s emphasis of the importance of safekeeping of field notes for future reference is worth repeating:

Records of completed surveys are valuable resource and could be important in resolving a dispute that could arise as a result of the survey.

Could the Land Titles Office have benefited from consulting with the Director of Surveys Office in this particular instance? As mentioned above, there are provisions within the Land Titles Act that empower the Land Titles Office to make consulting requests of the Director of Surveys Office when unique situations like this arise.

Practitioners are reminded that the Land Titles Office should not be used as their document and plan checker. When a professional land surveyor is charged to register a plan with its appending document, Land Titles Office expects a full and comprehensive package be submitted and the Land Titles Office should not be relied upon to resolve any of the land surveyor’s potential boundary issues.

If a land surveyor is not careful in executing his survey, a series of events as illustrated above could lead to unexpected consequences in the future.
To Note or Not to Note

Systematic Practice Review has three major categories: 1) plan product, 2) field notes, and 3) field inspection.

During a systematic practice review, the process will review one or more products which may or may not involve field notes. The field note component of the review contributes approximately 33% toward the practitioner’s overall review rating. It is therefore obvious that the field note component is an extremely important part of one’s practice.

The Manual of Standard Practice is about sixty pages in length and yet, within the General Standards and Procedures Section, only about ¾ of a page is dedicated to field notes.

Of the three categories of the Systematic Practice Review and within phases 1, 2 and 3, the lowest category score has always been field notes. Why is that the case?

Is it because field notes are usually made by technical staff? Is it because the land surveyor is generally not in the field? Is it because the land surveyor is in the field and thinks he will remember what he saw in the field? Or is it because of the lack of more detailed, more stringent standards?

The practitioner should know that if his survey, and the evidence gathered during the course of his survey, is called into question before the courts or the Discipline Committee, the field notes will most likely be examined. That one item of evidence assessment not recorded in the notes, or the one item of what was found or not found haphazardly noted could ultimately change your survey opinion and the course of your survey.

Field notes are a very difficult item to standardize. Changing technologies, different levels of staff experience and, of course, staff with different levels of artistic flair can all contribute to the quality of field notes. Accurate and comprehensive field notes and the guidance to their completeness should be one of the primary features of any project.

The instructions given to the field staff are therefore of utmost importance for proper field notes. The description of the survey monument found and its condition is vital to the project. The field notes must be clear in this area. If the practitioner questions the evidence in his review of his particular project then it is most likely due to lack of documentation in the field notes. What is expected to be found and what it looks like if found should also be discussed. What if the crew

All field notes should have common elements depending on the nature of the survey rather than a strict standard.

does not find the evidence that is expected? Do the project instructions include what to do if the field staff do not find the expected evidence?

All field notes should have common elements depending on the nature of the survey rather than a strict standard. If the elements depict unambiguous evidence assessment, are clear, readable and concise, then the standard is most likely to be met.

If field notes are a problem item in your practice you and your field staff may wish to attend the upcoming Field Note Seminar as provided by the Professional Development Committee. Make note of the date of the seminar!
This story begins as I was sitting in a conference room in Red Deer at the first Professional Development Committee (PDC) meeting of the 2007-2008 year. The meeting was going along without any hitches. Then it happened. We came to the infamous topic of who would like to write the articles for the ALS News. Once the chairperson asked the question, “who would like to write the September article,” it was like I was in high school again and the English teacher had just asked for a volunteer to read to the class. Almost everybody’s head went down trying their best not to make eye contact. Now normally, if one of the dates was vacant, we would just select one of the absent members. However, on this day, almost everybody had made the meeting. After a very long minute, I guess you could say I volunteered.

The volunteering for the article was easy, thinking of a topic proved a little more challenging. However, there was one topic which kept coming to mind, mandatory continuing education (MCE). This topic fits very well with the PDC. If the Association ever did decide to go to an MCE program, the PDC would play a major role.

The topic of revisiting MCE was briefly mentioned by our current president during his address at this year’s annual general meeting. I would have to agree with President Wallace and I think it is time again to ask the question, “should the ALSA have a mandatory continuing education program?”

One of the direct results of any MCE program would be increased attendance at regional meetings and seminars. It would also result in more members volunteering for the various committees within the Association. With more members participating within the Associations’ activities, the more constructive the debates will become. In addition, an MCE program could also work as a public relations tool. It could help maintain the public’s confidence and trust in our profession, which could become vital to the Association maintaining its self-governing status.

The MCE program will also become important in the future of the Systematic Practice Review (SPR) process. The 2007-2008 budget for the SPR is over $400,000. Even more surprising, it does not seem as though many people are alarmed with this figure. Do not get me wrong. I believe the SPR process is doing a great job helping members produce a superior product and help protect the public’s interest. However, can the Association actually maintain this program if there is a slowdown in the current Alberta economy? I believe the Association needs to start thinking seriously towards an alternative to SPR in case this program no longer becomes feasible. An MCE program would not be a stand-alone alternative to SPR, but rather act as just one piece of the puzzle necessary to formulate a contingency plan for the SPR program.

The idea of an MCE program within the surveying profession in Canada is not a new one. The Association of Nova Scotia Land Surveyors had adopted an MCE program in 2004 and have now finished their first three-year term under the new program. For more information on Nova Scotia’s MCE program please visit their web site at www.anssl.ca/mce.htm. As well, the Saskatchewan Land Surveyors’ Association has an MCE program which you can read more about on their website www.slsa.sk.ca/(Continuing Education).

I hope you can take the time to visit these websites and see exactly how these associations have implemented their MCE programs. Hopefully, this article will help get our Association thinking towards new ideas for the overall continuing education of our membership and the protection of the public’s interest.

What course are you taking?

Safety
October 16, 2007
Calgary

Field Notes
November 20, 2007
Edmonton

Risk Management
April 24, 2008
Lake Louise

For more seminar information, visit www.alsa.ab.ca/events.htm.
Creating AWARENESS of the Profession of Land Surveying.................How can YOU Help?

The Province of Alberta:
- over 3 MILLION people...
- over 163 MILLION acres...
- less than 0.0005 MILLION active Alberta Land Surveyors.

It is AMAZING when you think about what a SMALL group of people we are as ALBERTA LAND SURVEYORS. No wonder there is a lack of understanding of our profession. No wonder we are met with strange expressions when trying to explain what we do for a living.

So... what can a concerned Alberta Land Surveyor and his/her associates do to better the understanding of our profession?

Practice PUBLIC RELATIONS.
Public Relations is program of actions, executed to earn public understanding and acceptance.

For the organization of our efforts, the ALSA Public Relations Committee has developed a detailed plan (i.e. program of actions) in conjunction with Rose Country Communications, our PR consultant.

You too, may refer to this plan when contemplating how you can help. For quick reference, I have summarized the plan herein, or for more detailed information, please refer to the ALSA Policy Manual.

Career Related Activities:
- attend career days;
- sponsor the Made to Measure Crate;
- meet directly with students at schools; High School, University and so on;
- U of C First Year Engineering BBQ;
- U of C Beef and Bun;
- provide scholarships;
- Kananaskis Survey Camp;
- TRIG-ALTA Math Contest;
- send out brochures;
- update career websites;
- municipalities;
- realtors.

Ongoing Activities:
- ALS News articles;
- general news articles;
- send out brochures;
- trade shows;
- geocaching;
- produce a video.

Developers:
- use developers as ambassadors.

General Communications
- quarterly electronic newsletter (Boundaries)

Government:
- meetings with MLAs/government
- Premier’s dinner
- invite MLAs/government to ALSA AGM
- MLA Night.

Lawyers:
- advertise in publications aimed at the legal profession;
- presentations at Canadian Bar Association luncheons;
- use lawyers as ambassadors.

Municipalities:
- paid advertising directed at municipalities;
- use municipalities as ambassadors.

Realtors:
- meet with real estate boards;
- use realtors as ambassadors.

Lets face it. We are limited by our numbers and our own individual time, so we must work carefully to make our efforts worthwhile.

One such way is to use third parties as “AMBASSADORS” to carry our message. Within the public relations plan, we have identified several key ambassadors:
- developers;
- government;
- lawyers;
- engineers;
- planners;
- oil and gas industry;
- students.

Work with YOUR own ambassadors to spread our message.

Work with YOUR own ambassadors to spread our message.

Maybe you’re interested in some more ideas not outlined in our plan?

Of course, this NOT an all-inclusive list. Consider also:
- engineers;
- planners;
- oil and gas industry;
- students.

Of course, this NOT an all-inclusive list. Consider also:
- engineers;
- planners;
- oil and gas industry;
- students.

Maybe you’re interested in some more ideas not outlined in our plan?

Here are a few:
- Designate a “FREE RPR DAY”, select a random property, complete the survey and prepare the plan. Deliver the plan to the owner. Take a picture/audio/video and get in the local newspaper or on the local radio/TV.
- Donate your EXPERTISE to a good cause. Take a picture/audio/video and get in the local newspaper or on the local radio/TV.
- Write a CHEQUE to a charity. Take a picture/audio/video and get in the local newspaper or on the local radio/TV.
- Take your RTK GPS system to a local golf tournament, set-up and measure the LONG-DRIVE instantaneously after each shot. Take a picture/audio/video and get in the local newspaper or on the local radio/TV.
- Educate your own personal NETWORK of family/friends/acquaintances etc.

Quite simply, it is the micro-actions of each individual that combine to create the Alberta Land Surveyors' unified and overall message and I encourage each one of you to do what you can to help us out.
Distracted Driving

Driving is a complex task at the best of times. A driver speeds up and slows down, steers, turns, changes lanes, scans the road for hazards, checks mirrors, merges, brakes. When in traffic, drivers must process a great deal of information in very little time. They must detect objects in the traffic environment, assess their speed, direction and intention, consider appropriate responses, judge their own ability to respond and finally respond appropriately and in a timely fashion. At 50 km/h, a vehicle travels 14 metres in one second; at the same speed it takes 37 metres to come to a complete stop under normal road conditions. At 50 km/h, if a driver is inattentive for just one second and needs to stop, the vehicle will have travelled a distance of over 50 metres or about eleven vehicle lengths.

Using a hands-free phone while driving is no safer than using a hand-held phone.

Despite the need to stay focused on the road, it is not unusual to see drivers doing many other activities that take away their attention. There are four different types of distraction:

- Visual distraction (e.g. looking at route navigation systems);
- Auditory distraction (e.g. holding a conversation with a passenger or when using a cell phone);
- Physical distraction (e.g. eating or drinking) and
- Cognitive distraction (e.g. lost in thought).

These different types of distraction can also occur together. For example, using a cell phone may involve all four forms of distraction: physical distraction caused by dialling a phone number or pressing buttons to receive a call; visual distraction caused by looking at the phone to dial a number or receive a call; auditory distraction caused by holding a conversation with a person; and cognitive distraction caused by focusing on the topic of conversation rather than paying attention to any hazards or changes in the road environment.

You’ll survive a missed phone call; you might not survive a collision!

Although driving distraction is not a new issue, only recently has it generated significant public attention. According to the Traffic Injury Research Foundation’s 2002 Road Safety Monitor, 40% of Canadians believe distracted driving is a serious problem. In a 2004 survey by Safer Calgary, 89% of Calgarians expressed concern with drivers using cell phones.

Much of the public attention has focused on the use of cell phones. These small devices are among the fastest growing consumer products in history. Today, Canadians use more than 17 million wireless devices on a daily basis, including wireless phones, pagers, mobile radios and mobile satellite phones. Cell phones can be a valuable tool for traffic safety. They enable the driver to rapidly report collisions, bad driving and other problem situations. However, the value lies in having the phone available in the vehicle, not in having the phone turned on.

Research in this area suggests that drivers engaged in cell phone conversations are four times more likely to crash than other drivers and take risks and have reaction times comparable to driving with a blood alcohol content (BAC) of 0.08, which is above the legal limit in Canada. The distraction caused by cell phones can significantly impair a driver’s visual search patterns, reaction times, decision-making processes and ability to maintain speed, throttle control and lane position.

Current research also shows:

- Using a hands-free phone while driving is no safer than using a hand-held phone because of the cognitive and auditory distraction.
- Cell phone use also often leads to tasks that may further distract the driver, for example writing down dates or notes in diaries while driving.
- Talking on a cell phone is more distracting than talking with a passenger.
Ensure drivers and all passengers are properly buckled up before you start your journey.

In 2003, Newfoundland and Labrador banned the use of handheld cell phones while driving, currently the only place in Canada with such legislation. However, all provinces and territories have a general offence to address 'driving without due care and attention', a common cause of vehicle collisions. In the United States, the National Highway Traffic Safety Administration estimates that driver inattention in its various forms contributes to approximately 25 percent of injury and property damage crashes.

According to a study using in-car video cameras, driving distraction is very common. Researchers found that almost all drivers adjusted climate and audio controls and the majority of drivers talked with passengers. Current knowledge suggests that the more complex a system or activity is, and the longer it takes to complete, the more it distracts the driver. Therefore, using complex devices, such as cell phones, impairs driving more than relatively simple tasks such as tuning the radio.

Driving tips to minimize distractions:
- Always keep your eyes on the road and your hands on the wheel.
- Ensure drivers and all passengers are properly buckled up before you start your journey. And remember, pets need to be restrained too.
- Turn the phone off before you start driving. Let callers leave a message. If you have to make or receive a call, look for a safe opportunity to pull over and stop.
- Consume food and beverages when the vehicle is safely stopped.
- Pull over an stop to change clothes, shave, apply makeup, read or for any other activity.
- Review driving directions before you start. Enter destination information into route navigation systems only when the vehicle is not in motion.
- Secure loose objects in the vehicle before you start your journey.
- Emotions can interfere with safe driving. Whether it is joy, grief or anger, if you can't put it aside temporarily, it’s best to stay out of the driver’s seat.
- Avoid involved conversations with passengers.
- If you are a parent, consider a no-passenger rule for at least the first year of your teen’s unsupervised driving.

It is also known that young drivers are more likely involved in distraction-related crashes than other drivers. Researchers have suggested that this is because young drivers use cell phones and adjust audio controls more often than other drivers. In addition, studies have shown that the presence of passengers increases the crash risk for younger drivers, believed to result largely from distraction and increased risk-taking. Because of the relative inexperience of the young driver, collisions are often the outcome.

Graduated licensing legislation addresses this issue in some places by placing special restrictions on young drivers, for example, prohibiting cell phone use while driving and limiting the number of passengers. In Alberta, young drivers are not permitted more passengers than there are seatbelts in the vehicle. However, parents have the opportunity to set rules for their teenage children and strengthen the existing legislation. For example, a no-cell phone rule and a no-passenger rule for at least the first year of unsupervised driving will allow young drivers to practise their driving skills without the distraction of other people.

RESOURCE
The L.E.A.R.N. brochure gives information on safety measures for young drivers that parents need to know. www.calgaryhealthregion.ca/injury_prevention

Driving is a complex task that requires the driver's full attention. Wise drivers therefore keep their hands on the wheel, their eyes on the road and their attention focused on their driving.
The Surveys and Technical Services Section of Alberta Sustainable Resource Development is working on several initiatives designed to improve and update our services to you and all Albertans.

**Director of Surveys Approves and Confirms Official Surveys**
Since January 1, 2007, the Director of Surveys has approved and confirmed two official plans in accordance with Section 33 of the *Surveys Act*. The first plan is registered at the Land Titles Office as Plan Number 072-5374 and is an addition to Chipewyan Indian Reserve No. 201A. The second plan is registered at the Land Titles Office as Plan Number 072-5376 and is an addition to Chipewyan Indian Reserve No. 201E.

**Department Enhances Website**
In May 2007, the Department of Sustainable Resource Development rolled out its new website that includes new web addresses for the Director of Surveys office and the Lands Division.

**Director of Surveys**
www.srd.alberta.ca/lands/directorsurveys/default.aspx

**Lands Division**
www.srd.alberta.ca/lands/default.aspx
By scrolling down the tabs on the left hand side, users can access a multitude of useful information related to Land Surveys, Geodetic Control, and Public Lands in Alberta.

**Disposition Plans Rejected**
Using coloured data on disposition plan standards is not acceptable. Coloured data is problematic when a plan is faxed or photocopied, because it is impossible to interpret data that blends in with other black and white data. In the last several months, staff at Technical Services have noticed some plans still contain coloured data and they have been calling surveyors to remind them that colour is not acceptable.

Please note effective October 1, 2007 all plans that contain coloured data will be rejected.

**Disposition Survey Monuments Upgraded**
On October 1, 2007, new monumentation standards for several disposition types will be upgraded from 30 cm iron bars or spikes and replaced with statutory iron posts and marker posts. The changes include the following disposition types:
1) Recreation Leases (REC),
2) Surface Material Leases (SML), and
3) Miscellaneous Leases (MLL).
Surveyors are encouraged to continuously review the Disposition Plan Types/Formats document, which outlines the Department’s sketch, survey and monumentation requirements. The Disposition Plan Types/Formats document can be found at the web site www.srd.gov.ab.ca/ by clicking the Lands tab across the top, the Managing Public Lands tab on the side bar, the Land Information tab on the side bar, the Plan Information bullet, and the May 7th Disposition Plan Types/Formats document.

**Disposition Digital Plan Submission (DDiPS) Application Moving to Web**
In an effort to improve the efficiency of digital plan submissions, work is underway to move the DDiPS application to the department’s website. This will be implemented in the Fall of 2007. As details of this enhancement are finalized, they will be shared with the membership.

**Plan Management System Development**
Work is progressing on automation of several disposition plan management processes and on October 22, 2007 the Plan Management System will be implemented. This development will reduce the time a technologist spends on reviewing and approving plans.
Some key processes that will be developed include:
— automatic submission of data into the Land Status Automated System;
— automatic submission of plans to IHS Energy (Canada) Ltd. for external distribution; and
— automatic submission of plans to Martin Newby Consulting Ltd. for mapping.
The system will also automatically place the Technical Services stamp on the plan. This eliminates the requirement for surveyors to place the stamp and frees up more space. The following is an example of the new stamp and its placement.
University of Calgary

Department Receives Donation

Ed Scovill, retired SAIT surveying instructor, has generously donated a Troughton& Simms transit to the Department of Geomatics Engineering. In addition, the Department also received a number of valuable historical surveying texts and a copy of a township plan for the Town of Calgary dated 1895. The Department wishes to thank Ed for this kind donation.

Mohammed Dabboor Wins CGU GS Student Paper Award

PhD student Mohammed Dabboor won the CGU Geodesy Section Best Student Paper Award for his presentation “Digital elevations from SRTM and ICESat: Effects of Terrain Slope and Dynamic Terrain” given at the CMOS-CGU-AMS Congress in St. John’s.

Professor Yang Gao Awarded Changjiang Chair Professorship at Wuhan University

The Department of Geomatics Engineering is pleased to announce that Professor Yang Gao has been awarded the Changjiang Chair Professorship at Wuhan University by Chinese Ministry of Education and Li Ka-Shing’s Foundation. The award was presented at a formal ceremony in Beijing.

Wouter van der Wal Wins Best Student Paper Award

The Department of Geomatics Engineering is pleased to announce that PhD candidate Wouter van der Wal won the 2007 Canadian Geophysical Union (CGU) Best Student Paper Award. The prize, with a monetary value of $500 CAD, was awarded for his oral presentation entitled “Secular geoid rate in North America from GRACE: methodology, accuracy and interpretation.” The paper, which was co-authored by PhD candidate E. Rangelova and Wouter’s co-supervisors, Drs. M.G. Sideris and P. Wu, was presented at the CGU-CMOS-AMS Conference that was held in St. Johns, Newfoundland, from May 28th to June 1, 2007.

University of New Brunswick

Dr. Anna Chrzanowski Receives the Doctor Habilitatus Degree

On May 29, 2007, Dr. Anna Chrzanowski received the highest university degree of doctor habilitatus at the University of Warmia and Mazury in Olsztyn, Poland. Doctor habilitatus is the highest academic qualification that a person, who already holds a PhD degree, can achieve by his/her own pursuit in certain European countries in which the habilitation qualifies the holder to become a university professor and supervise doctoral candidates. The process of habilitation, derived from the Latin habilire which means “to enable”, was introduced in the 18th century. Candidates for the degree doctor habilitatus must submit a dissertation in their field of expertise, present a colloquium summarizing their achievements, and give a lecture on a topic selected by the degree-granting committee.

UNB’s Prof. Richard Langley Named Fellow of The Royal Institute of Navigation

The Royal Institute of Navigation has elected UNB’s well-known GPS expert, Prof. Richard Langley, as one of its new fellows for 2007. The award was made at the RIN’s 60th anniversary annual general meeting in London on June 29th. This was the first meeting under the RIN’s new royal charter, awarded by the Queen last November.

The RIN elects fellows for recognition of a particular achievement in the field of navigation or to those who have made a continuing contribution to the development of navigation.

During the presentation, RIN president Prof. David Last, remarked that Prof. Langley was elected a fellow “for his outstanding contribution to research and education in satellite navigation and geodesy over a sustained period, and as a coordinating editor of GPS World magazine since its inception.”

UNB Students in Malawi

UNB students Erin Riley (LL.B. III) and Robert Kingdon (MSc in Geodesy and Geomatics) along with Professor John McEvoy (Law) travelled to Malawi in June 2007 to finalize a cooperation and exchange agreement between UNB and Mzuzu University in northern Malawi.

Robert Kingdon is to focus on geodesy and geomatics matters in his work with the Department of Land Management with a specific focus on curriculum development. After reviewing land surveying policies, legislation and practices, Robert is to meet with various stakeholders including the Surveyors’ Institute of Malawi, individual rural and urban surveyors, local communities and officials from all levels of government. He is assisting with the teaching of current courses and is to make recommendations for the upgrading of course content and the establishment of new courses. In these efforts, Robert is morally and materially supported by the UNB Department of Geodesy and Geomatics Engineering through its chair, Associate Professor Peter Dare and others including Professor Sue Nichols and Associate Professor Marcelo Santos.
In the Court of Queen’s Bench of Alberta
Judicial District of Edmonton

In the Matter of the Land Surveyors Act, RSA 2000, C.1-3 Between the Council of the Alberta Land Surveyors’ Association (applicant) and Greentree Technologies Ltd. and Peter R. Lynne (respondents)

Before Justice D.R.C. Thomas in special chambers, Law Courts Building, Edmonton, Alberta on Thursday the 28th day of J une, 2007

PROCEEDINGS (excerpt)

Reasons for Decision

The Court: I have now heard the full argument presented by Mr. Jardine on behalf of the applicant Association. Neither of the respondents have appeared in person or by agent, and I note for the record that it is now 10:42 a.m. on Thursday, June 28, 2007, which was the date set on a peremptory basis by Justice Hillier for the hearing of this application.

The evidence has been presented, and I am advised by counsel for the Association that the order of Justice Hillier was brought to the attention of the respondent Peter Lynne, and he was further notified when he failed to file any materials in early May. I am convinced that the application should be granted. As counsel for the Association has stated, this case is truly on all fours with the decision of Mr. Justice McDonald in what I will call the Hunka case found under tab 2 of the applicant’s brief.

Based on the materials presented to the Court, including the extensive applications, I find that Mr. Lynne and his company, Greentree Technologies Ltd., have been engaging and apparently continue to engage in the practice of land surveying and that they are making an ongoing set of representations to members of the public that the two entities, one an individual and one a corporation, that they are practitioners and are entitled to engage in the practice of land surveying.

So what I am saying is that I am answering both of the questions posed in the applicant’s brief. I am answering both of those questions in the affirmative and am prepared and will grant the relief requested in the originating notice of motion.

Namely, and I will just put it on the record, I grant an order that Greentree Technologies Ltd. is hereby permanently enjoined from engaging in the practice of land surveying or from representing expressly or by implication that it is a surveyor’s corporation and that it is entitled to engage in the practice of land surveying.

Second, Peter R. Lynne is hereby permanently enjoined from engaging in the practice of land surveying or from representing expressly or by implication that he is an Alberta Land Surveyor or that he is associated with the surveyor’s corporation and is entitled to engage in the practice of land surveying.

Thirdly, that Peter R. Lynne and Greentree Technologies Ltd. are hereby permanently enjoined from producing any form of plan or document that certifies the location of improvements on a property relative to the legal boundaries of that property.

...clearly when you read the legislation, there are real risks to the public from this sort of unqualified person carrying on business in this fashion...

The Court: Okay. And just as a supplementary reason, although I have already given the order, the reason I am making this order is clearly it is in the public interest to protect the public from this sort of activity because clearly when you read the legislation, there are real risks to the public from this sort of unqualified person carrying on business in this fashion and in total non-compliance with the applicable legislation. So it is an appropriate case for a permanent injunction to be granted given the long history of Mr. Lynne in continuing to hold himself out and to actually carry on the businesses of a land surveyor.
So with that, I will grant you the specific order. And the reason for doing that is in terms of enforcement of this order, which is in the form of an injunction, it is appropriate to have a very specific prohibition.

Mr. Jardine: Thank you, My Lord. Might I ask, My Lord, that it be confirmed that at this point our contacts with Mr. Lynne as was set out in the first instance, we have an address, but it is a rural route site. We also have a fax number that has gotten to him. I’m going to ask that in the first instance we send it by both fax and by registered mail to those addresses and to the corporate address that is there to bring the matter to his attention.

The Court: No. That will be appropriate, and I so order. If you need to document that order in any way, I would be pleased to sign an order to that effect.

Mr. Jardine: Thank you, My Lord.

The Court: So there is your order. And, again, thank you, Mr. Jardine, for the very good presentation and the very balanced and fair presentation which is appropriate, especially given you are seeking an injunction.

ORDER
UPON this matter coming before the Court of hearing; AND UPON reviewing the Affidavits and Written Brief filed by the Applicant; AND UPON hearing counsel for the Applicant and Mr. Peter Lynne;

IT IS HEREBY ORDERED THAT:
1. Greentree Technologies Ltd. is hereby permanently enjoined from engaging in the practice of land surveying or from representing expressly or by implication that it is a surveyor’s corporation and that it is entitled to engage in the practice of land surveying.

2. Peter R. Lynne is hereby permanently enjoined from engaging in the practice of land surveying or from representing expressly or by implication that he is an Alberta Land Surveyor or that he is associated with a surveyor’s corporation and is entitled to engage in the practice of land surveying.

3. Peter R. Lynne and Greentree Technologies Ltd. are hereby permanently enjoined from producing any form of plan or document that certifies the location of improvements on a property relative to the legal boundaries of that property.

4. The Applicant is awarded the costs of this application and the application on April 12, 2007.

JUSTICE D.R.C. THOMAS
29TH DAY OF JUNE 2007
A Commentary on Legal Issues Affecting Professional Regulation

Informed Consent
Informed consent might be one of those principles that is honoured more in its breach than in its practice. A fundamental concept for all professions, client consent is essential to the professional relationship. Without it, the trust necessary for the professional relationship to work is missing.

Applies to All Professions
While perhaps originating in health care, the principle of informed consent applies to all professional relationships. Often other terms are used to describe the concept such as: informed choice, acting on client instructions, the “know-your-client” rule and receiving a project mandate. Regulators can foster consent by practitioners through educational initiatives.

Spheres of Consent
In fact, the need for consent generally arises in three distinct areas:
1. consent to provide professional services,
2. consent to collect, use and disclose personal information, and
3. consent for the billing arrangements with the client.

Often practitioners need to be reminded to obtain consent in all three spheres.

Need for Consent
Failure to obtain consent can result in professional, civil and even criminal liability (e.g., assault, theft, fraud). Some professionals ignore the need to obtain consent in the hope that they will not be held civilly liable for damages because the client would have agreed to the professional service if the client had been informed of all of the fact. However, in a recent Ontario Court of Appeal case, a physician was sued successfully for failing to obtain informed consent even though there was no negligence: Huisman vs. MacDonald, 2007 ONCA 391. The court concluded that this particular patient might not have voluntarily assumed the risks that the physician assumed she would take.

The values of our society reject, with increasing frequency, the arrogance of the proposition that the professional knows what is best for the client. Such an approach to clients is now viewed almost universally as unacceptable paternalism. Certainly such conduct is becoming an increasingly significant source of complaints for regulators. It is no longer sufficient to say “leave it with me.” As in personal relationships, professional relationships should not operate on the principle that “it is better to ask for forgiveness afterwards than to ask for permission first.

Obtaining Consent
To be genuine, consent must be based on a discussion of the relevant considerations in making the decision. Clients have to understand the nature of what is proposed to be done on their behalf. They need to know why it should be done. They have to be acquainted with what could go awry and the chances or odds of that happening. It is equally as important that clients must appreciate their options, including the alternative of doing nothing. Clients must have the ability to raise any individualized issues that may separate them from the “usual” client. Only then is the practitioner safe in accepting that they have authority to act.

It is not adequate to say that the matter is too complicated to explain. Even though clients come to you for your expertise in an area that they do not understand, it is still possible to give clients the “big picture” of what is involved and a sense of what the risks and benefits are.

Many practitioners assume that obtaining written instructions is sufficient to protect them. This assumption is incorrect. A written document that has not been explained and understood by the client is of no value. In many hearings, clients assert that they were rushed to sign a paper they did not read and did not appreciate that they had a choice. This type of assertion is often credible because it resonates with the experiences we all have every day at the bank, the dry cleaner, renting a car or surfing the internet.

Real consent is obtained by the meeting of the minds between the client and the practitioner. A broad spectrum of strategies is necessary to achieve these goals including:
1. using handouts,
2. verbal explanations,
3. employing visual aids where feasible,
4. seeking client feedback as to what they understand,
5. asking clients if they have any questions,
6. proper use of a consent form,
7. documentation in the file of the consent obtained, and
8. frequent updates and reports while providing the service.

Of course, the ability to communicate clearly in non-technical language is a huge asset.

Obtaining consent should be viewed as a process, not an event.

Application to Regulators
In some respects, regulators are frequently ahead of practitioners in the consent realm. While practitioners rarely have the right to proceed without consent (basically only where there is an emergency or an express legal duty to disregard the client’s wishes), professional regulators have the legal ability to act unilaterally in much of what they do. However, many regulators go out of their way to circulate proposals, consult with stakeholders, poll leaders of the profession, place website postings and give formal notice before establishing policies or taking regulatory action. Even after making a decision on a matter, regulators frequently develop a communications plan as part of implementation.

Both to benefit their members and to proactively reduce complaints, regulators should strive to communicate with members about how to obtain informed consent for all professional services.
Assmt Notes

by Wayne Latam, CST – Executive Manager, ASSMT

Recently I had an opportunity to take part in a presentation to the students of a Geomatics Technology program at one of our fine post-secondary institutions here in Alberta.

During the presentation, the students were asked how many plan to pursue their commission as an Alberta Land Surveyor. A surprising majority in the group raised their hands. I was shocked by the response and it led me to a couple of quick conclusions. One, they are an ambitious bunch. Second and more pertinent to this article, they don’t see Geomatics or Survey Technologist as a career. You don’t see one enroll in a school program designed for a Dental Hygienist in the hopes of becoming a Dentist. The time has come to raise the level of recognition for the technologist in this profession.

The fact is a career as a survey technologist is a rewarding career. However, they go through their careers in anonymity. Raising awareness of the survey technician or technologist as a career is a challenge ASSMT faces on a regular basis. To assist in these challenges ASSMT has always maintained an alliance with the ALSA.

Recently the Council of ASSMT was invited to meet with the Council of the ALSA. There were a number of issues that are common to the two organizations and professional recognition of qualified personnel in the field of surveying and mapping technology was one of those issues. The meeting was very positive. Representatives of both organizations see the advantages to recognizing qualifications or certification of the technician or technologist. Both groups also recognize the challenges to implementing a voluntary recognition or certification process to all those involved in surveying and mapping.

This isn’t the first time ASSMT and the ALSA have discussed these issues. In the March 1994 issue of ALS News, then ASSMT President Ed Titanich reprinted a discussion paper on the Registered Survey Technologist or RST. The paper talks of the history of ASSMT and how it was originally formed. It goes on to mention the impact of educational requirements to the role of the professional surveyor and the increased need for qualified support personnel. The RST was an avenue to meet that need.

The goal of the Registered Survey Technologist was to allow career individuals in the surveying and mapping industry an avenue for formal recognition by a profession and accountability to that profession. Through the RST designation, a profession is involved in defining the standards and roles in which only a Registered Survey Technologist could participate. This will enhance public welfare and raise awareness of the technologist. Furthermore, this would attract and retain the necessary qualified support personnel required by the professional.

ASSMT made revisions to their bylaws to incorporate a Registered Survey Technologist by way of the RST designation. A professional alliance is required to form joint committees for registration, standards and disciplinary processes to implement the RST. The first and most difficult step was to define the scope of practice for this type of technologist. Development of the RST has stalled.

At present, ASSMT is monitoring the APEGGA/ASET discussions. In early 2006, APEGGA and ASET held separate discussions with the Government of Alberta about how engineering and technology should be regulated. The Minister of Alberta Human Resources and Employment, Hon. Mike Cardinal directed the two organizations to discuss a regulatory model based on “one act, two associations” that protects and serves the interests of all Albertans. Discussions between APEGGA and ASET have developed the concept of bringing ASET and its members under the regulatory umbrella of a new act. Although the recent APEGGA/ASET relationship is not what we support, perhaps the resulting legislation is a model for ALSA and ASSMT.

ASSMT has always tried to remain independent of ASET. ASSMT objectives are to promote the knowledge, skill and proficiency of technicians and technologists involved in the field of surveying and mapping. ASSMT continues to certify technicians and technologists through their Panel of Examiners and Certification Committee. These committees consist of representatives from the ALSA and ASSMT. Upon certification, individuals are certified at different levels of technician or technologist in their fields of expertise based on level of education and work experience. They are encouraged to use the CST designation after their name as a means of identification.

Although ALSA is involved and acknowledges certification through ASSMT, many practitioners do not recognize CST in the hiring or recognition process of their practice.

Clarifying the role of the technologist is the first step to recognition. When you look at the overall process of becoming an Alberta Land Surveyor, the role of the technologist is blurred by the road a student takes to become an Alberta
Land Surveyor. The profession is evolving and it is time roles within that profession correspond to those changes. There was a time when the typical land surveyor did his own field survey and plan preparation. Times have changed. Now with CAD and GPS technology, the technologist is a highly-trained member of a team. A physician will rely on the results of an X-ray however he doesn’t spend his residency taking X-rays. That responsibility lies with a trained technologist. A young graduate with a degree in geomatics engineering starts their articling period and as part of that process the profession requires him to spend time in the field and trains him to be a technologist. The profession has evolved where the land surveyor is not in the field running a crew; just like the physician no longer makes house calls. The physician’s role evolved and he gave up the little black bag; perhaps the professional land surveyor should recognize some of their tasks as those of a qualified technologist. Some roles should be filled by those specifically trained to use today’s hi-tech tools along with the essentials of land surveying. Furthermore, it is time to make the technologist accountable for their role on the team. While training is necessary to become a land surveyor, the role of a party chief, for example, is typically filled by a technologist. Why not formally recognize this as the role of a technologist rather than a stepping stone to becoming a land surveyor? In turn, the technologist can experience more responsibility in this role and not feel their only option for responsibility and recognition lies in becoming a professional. There was a time when a technologist working to be a professional was appropriate. Becoming a professional today should start with a degree in geomatics engineering. Distinction between technologist and professional is imperative to retaining qualified technical recruits in this profession.

Now more than ever, our two associations, one representing the professional and one representing the technologist should work together to manage this evolution. Left alone ASSMT recognition can only go so far in attracting and retaining qualified personnel. We need an alliance to develop standards, responsibilities and recognition for the technologist so that one day when I return to that post secondary institution, the question will be more like “how many plan to pursue a designation as a professional geomatics technologist.”
William David Usher
1921 – 2007

Mr. Usher was both a professional engineer and land surveyor. However, the greater portion of his career was devoted to land surveying. The following is an attempt to highlight some of his many achievements and contributions to the land surveying community.

First, we will need a bit of background. Dave first became acquainted with surveying during his time with the First Canadian Survey Regiment, Royal Artillery while serving in Europe from 1941 to 1945. One story he used to tell was about the time they were busy reading an angle when they heard the familiar sound of an incoming artillery round. All those present ducked for cover, when they looked up again one of the tripod legs had been taken off by the shell. It would be interesting to see how a person would write up that ‘near miss’ in today’s world of reporting all incidents and near misses.

From that background, he attended the University of Alberta and was granted his civil engineering degree in 1949. His determination to excel in his work resulted in him graduating ‘with distinction.’ After several summers with Ducks Unlimited and the PFRA and a brief tour with the City of Edmonton in the Water Works department, it appeared that there was some sort of affinity for water in his work. It was after this that he joined C.B. Atkins in Edmonton.

Dave earned his Alberta Land Surveyor commission in 1951. He, along with other notables such as Charlie Weir, Buck Olsen, Don Dawson, George Walker and D. Rae Sutherland, were part of a new generation of land surveyors.

He did not stop there. He went on to obtain his DLS (now CLS) and BCLS within the next several years. Upon Mr. Atkins’ retirement in 1957, C.B. Atkins Land Surveyor, became W.D. Usher and Associates, then Usher Canada Limited [currently operating under the MMM Group], Dave served as president of W.D. Usher and Associates until 1979, at which time he retired from active surveying.

Dave Usher served as president and on Council of the ALSA, as well as on many committees with the ALSA. He did not limit his ‘after five’ work to his profession, as his service to a number of community organizations illustrates. His name is on a relatively short list of honorary life members of the Association.

Perhaps the most significant and lasting influence Dave had on the surveying community was the time and effort he, along the others, spent to bring the geomatics program to Alberta at the University of Calgary. It took a lot of persuasion, cajoling, innumerable committee meetings, phone calls and letters. In fact this long slow process took Dave over a long, somewhat, bumpy road from 1967 to 1979 at which time the course was finally established. This effort is further testimony to Dave’s determination in the tasks he undertook.

His goal to improve the level of education available to surveyors was finally realized. It did not end with that as he always encouraged employees to take extra courses whenever these were available.

Mr. Usher was not one to shy away from new technology. He conducted an extensive TELLUROMETER survey in the City of Edmonton to establish a control network for the City. This network was used until the Alberta Government established the now familiar Alberta Control System. Those of you who grew up with total stations would be horrified at the amount of dial twisting, recording and reduction that was required to obtain a distance. To go along with this new technology was a computer that could handle only one program at a time. To load a new program or to enter data, one had to feed it a paper punch tape. The keyboard was a typewriter type of machine, old and antiquated even then. The noise and heat generated by this device caused it to be in its own room. However, some of the software was very effective. Certainly no ‘Windows’ type of overhead here. This was only the beginning.

Mr. Usher earned the respect of his employees, his many articled pupils, his fellow land surveyors, and members of the community through his determination to get things done properly. Of course the fact that he was a gentleman, thought before he spoke and was true to his word also did wonders to earn that respect.

It was an honour to have known and worked with William David Usher.

HUGO ENGLER, ALS

Conversation With Dave Usher
The following is a recorded conversation undertaken with Mr. Usher as one of the Historical & Biographical Committee’s initiatives.
Les Frederick, ALS interviewed him at his home on June 7, 2000.

I’d like to start the interview with a few questions about your background. I understand you were born near Stettler. Tell me about growing up.

Actually our ranch was about thirty miles south of Stettler. I was born on the ranch.

What was it like growing up there? Just went to school there and walked a couple of miles to school every day. We had a good life.
Tell me about your parents or your brothers or sisters.
My father emigrated from Scotland in 1902 and started that ranch in 1903. Then my mother came over from England in 1913. There were five in our family – my oldest brother, Tom, ran the ranch most of the time. My older sister Margaret took nursing and she lived for a long time at Sylvan Lake. Now she’s out in Victoria. My younger brother Les is here in the city. He kind of runs the ranch now. My older brother is not that well. He was with the Department of Agriculture for a long time and then with Culture, Youth and Recreation under Horst Schmidt. My young sister Jean took nursing here. She graduated the same time that Les and I did in 1949. She passed away about the same year. She had leukemia.

You went to school in just a local school house?
Until grade eight. Then I went to a boys private school in Victoria which is called University School now for grades nine, ten, eleven and twelve. Then when I got back to Alberta, the BC grade twelve was not university entrance so I went to Stettler for a year and took grade twelve all over again in the Alberta curriculum which was a lot of repeat. Then I worked for a year on the ranch and then joined the army on April 4, 1941.

When you joined the army, what got you into the survey regiment? Why did you join that regiment?
When you join the army, you pretty well go where you are told. You don’t have that much choice. I joined up in Calgary, took two months of basic training in Huntington, Quebec. Then I took a signal course for two months in Kingston. Then there was this opportunity to take a surveying course at Petawawa for two months. Then I went overseas after that.

What did they teach you in survey school?
Just the basics of how to chain, triangulation, traverse, how to turn angles, that sort of thing. I don’t think we did much with levels because we didn’t require that in army surveying.

So then you went overseas. Where did you go first?
Well, I spent two years in England basically doing exercises and that sort of thing. I sailed from Canada on my birthday, the thirteenth of November. Two years later exactly, I sailed from Bristol going over to North Africa although we didn’t really know where we were going – just that we were going somewhere. So I spent maybe a couple of weeks just outside of Algiers at a staging camp. Then we took another boat over to Sicily; spent Christmas and New Years there. Then we went across the Straits of Messina on a tank landing craft, then got on a battalion train which was an interesting experience. It got stalled in a tunnel going downhill. The engineer and fireman would get off at every station and refill their wine bottles. That was quite an interesting trip. We finally ended up at a little place called Altamira and stayed there for a while. Then we moved up to the front which was up the east coast.

Getting back to England from Canada. Where did you leave from – Montreal?
No, from Halifax. As a matter of fact, I was marching on the boat on November 11th and halfway up the gang plank they halted us and I had to stand at attention for two minutes to observe the November 11th two-minute silence. We went to Manchester on a Polish boat called the Batory. Not a very big boat. The North Atlantic was very rough at that time of the year.

Any experiences on the boat?
I was away down on F deck in a hammock. There were people sleeping in hammocks, people sleeping on the tables where we ate and people sleeping on the floor. I made sure I had a hammock because everybody was kind of seasick. I can’t remember the name of the boat we took from England. I’ll think of it after a while.

When you left England, when you finally got up to Altamira, how long did that take?
Whoa, about two months I guess.

Gee, that’s a long time.
When the boat was going from England, first of all we went up to Glasgow to pick up a convoy there. Then we went a long way west. With a bunch of surveyors, we had a pretty good idea of where we were. We must have got half-way back to Canada and then turned south through Gilbraltar and over to Algiers.

Were you all in the same regiment? Were you all surveyors?
No, there were others as well.

Once you got up to the Front, what were your duties?
We didn’t actually see that much action there. Did a little bit. Then we moved, I guess it would have been in March or April or something, back south down to Naples and then got into action at the Hitler line sort of in that area there. Our regiment had about three different functions. There was the survey troop which surveyed in gun positions for the gun regiments. We had to give them both coordinates and bearings. Then we had flash spotters who had posts up at the Front right up at the infantry, more or less. They would observe using a director which is like a transom only with a quick release. They watched for a gun flash; there were all connected by telephone; they took a bearing on that. Then, by telephone, they sent the results back to the computing centre and within a matter of a minute or two, they would have the position of the enemy gun. They would relay that to our gun positions.

There would be a series of these spotters so that you could triangulate?
Three of them; three at flash spotting posts.

How far were they apart?
To tell you the truth, I don’t really know. I think about probably half a mile. They would do a resection or an intersection, I guess you’d call it. Then that coordinate would be
given to our gun regiments. An artillery gun can fire fairly accurately. They would bring down fire on the enemy guns. Then we'd have sound rangers doing the same thing but with microphones which picked up the sound and the difference in time it took to get from the gun to each microphone. Those positions were surveyed in of course. That could also get a gun position.

So they were all working in unison so you could compare results?
Pretty well.

What kind of coordinate system did you use?
UTM. All of Europe was UTM. Actually the surveying in Europe was pretty good because there were a lot of trig points, on the tops of all the mountains there were cairns. Those would have a coordinate and all the prominent features like church steeples and flag poles. If you could see at least three of those things then you could do a resection. If you could only see one, what we would do is lay out a base, four or five hundred feet or something, turn angles from each end of it, measure the base accurately and then take a sun shot or a star shot for bearing. Then you could calculate your position from that.

What kind of equipment were you using?
The equipment was good for that time. The old Cooke, Troughton and Simms optical theodolites. We didn't have any old Vernier ones.

When people think of the army, they never think of the surveying aspect of it.
Yeah – well of course it’s now GPS. But at that time, it was the state of the art.

Is there any recollection or memory that sticks in your mind about your whole experience or many experiences over there?
Most of my time in action was spent in Italy. At times you would come under enemy shell fire and it was scary.

I don’t think the younger generation can ever fathom the horror.

No, but we didn’t have a lot of casualties in our regiment. There is a memorial thing in the museum of the regiments in Calgary. Army MacCrimmon could tell you all about it because he was active in putting it all together.

Are any colleagues from your troop professional surveyors?
Yeah. Some from our regiment did all right. From our troop – I’m not so sure.

How many were in your troop?
Probably thirty people – something like that.

They were all surveyors?
No, there was the motor transport section to look after all the vehicles. There were cooks and drivers for the officers.

How many surveyors in each troop?
I never even thought about that – probably about fifteen or something like that.

After the war ended and you came home, what were the prospects for work?
I went to university right away. I didn’t get home until October so it was too late to go to university that fall but the university put on a January class. I don’t know if they did it in all the faculties, but they did it in engineering. I started in January with my first year of engineering and graduated in 1949.

You knew you were going to be a surveyor or an engineer?
I was going to be an engineer. It turned out I got into surveying.

What got you into surveying?
The jobs weren’t that terribly plentiful when you graduated in 1949. I worked for the City of Edmonton for a year as a junior engineer. That was kind of boring so the Dean of Engineering, at that time, got me into surveying. He said he got his start in surveying in Manitoba. Dean Hardy was a MLS, ALS and DLS. So he got me in with this old time surveyor, C.B. Atkins, and I eventually got into a partnership with him. He quit right away and retired out to the coast.

What was he like to work for?
These guys came through the Depression. There were three of them: C.B. Atkins, Alec Stewart and Joe Doze. They were used to doing things in a pretty economical sort of a way. They didn’t believe in everybody having a vehicle or anything like that. It was totally different.

How so?
When I first went with Atkins, he had one old party chief who couldn’t drive, so he went out on the streetcar every morning, packed his chain with him and his transit and away he went to do lot surveys or something like that. It was pretty primitive.

What were some of your duties?
I got to be a party chief fairly quickly because that’s what I was hired for. Mr. Atkins, lived in town on 114 Street just south of Jasper, he used to go out for the summer. This one year he went up the Smoky River to survey coal plains up there, where I guess Grande Cache is now probably. He had a deal – CJCA broadcast every Saturday night messages to the people in the north. His wife would go down to CJCA and talk to her husband and say – Ben, this is what’s happening; all this is going on. He had a radio, but when he was fording the Smoky River with his pack train, the horse with the radio on it went down and he had no way of telling her. So she was broadcasting all summer faithfully – he never heard a thing. It was different in those days. Communication was poor, transportation was poor. I don’t know what year that was but it was before I came around.

When you became a party chief, what kind of surveys did you do?
Legal surveys like you do now and lot surveys and municipal road surveys. Then we got into quite a bit of oil surveying later on.

What was that like when it first started?
At the start, it was pretty well all in surveyed territory so it was just a matter of measuring off from the
section corners and turning angles and putting in pins.

**You were on the committee of northern oil – something like that?**

Oh, was I? That could be. When you got off into the bush where there was no township system, other than the baselines, you often had to do quite long traverses, you had to check them somehow, take star shots or sun shots or something to check your bearings, run twenty miles of levels and close it. It was straight hardship.

**Not like two day wellsites now?**

**How long did it take?**

It varied. It depended on what help you got, whether you got a bulldozer to work with or not. One thing I could mention – do we have to stick in Alberta? After I had been there for a year or two, I guess it must have been about 1951, we did some work up in the Territories. They had a sort of a petroleum and natural gas lease staking rush – like a gold rush. All the companies were staking out these claims and you could stake from one setup – just like mining claims – you can put four stakes there and then you had to cut 1,500 feet of line along the boundaries of the claim (east/west, north/south). We did a lot of that. It extended all the way from Hay River over to Fort Liard, from Fort Simpson, from the Mackenzie River down to the Northwest Territories. That was interesting. I had a lot of interesting experiences there. Landing on lakes – it was all in the middle of winter – cold.

**Name some experiences.**

The only way we could get our position was just to map spot. Of course the maps are no good anyway, so you’d take the mouth of a river or something where it came into a lake. Then you only had to cut half as much line because one line went out in the lake and one up the river or something like that. But from that one setup, you could stake four squares, each ten miles (100 square miles). So you could stake 400 square miles from one setup.

**How big were the survey parties doing that?**

Survey parties? Me and one guy and the pilot.

**How did you get up there? Fly from Edmonton?**

Oh yeah. Fly to Yellowknife (I went to the first time) and then over to Hay River. We worked out of Hay River mostly and also out of Fort Liard.

**How did you get to there? With trucks?**

Beaver on skis. Some of the airplanes we had were older. One was a Belanka – pretty underpowered. You always had your fingers crossed so it would clear the trees at the end of the lake. My initiation into that was we flew to Yellowknife to pick up the pilot and the aircraft – that was New Year’s Eve. The pilot decided we could go over to Hay River the next day. I don’t know whether it was New Year’s Day or maybe the day after. It was in a Beaver. He had flown that so often he didn’t have any maps or anything. So we flew southwest towards Hay River. It was cloudy so he said we’d go above the clouds, which was fine. Then, after we’d gone for quite a while he said we’d better come down. We came down and we were crossing from land onto water or ice which he assumed to be the west end of Great Slave Lake. Well, he was off course a little. By this time, it was starting to get dark. When he hit the south shore, he turned east hoping to hit Hay River. Hay River never showed up and in fact we came to the end of the lake. He knew he was lost. So I said, “look for a cabin.” He was hollering mayday into the thing and of course somebody was on the radio at the other end so he didn’t get through on that. Anyway, he said we’d better come down, so we landed rough – bounced 50 feet – hard drifts on the lake. So we just sat there, built a fire and stayed overnight. The next morning, he got his radio going. They couldn’t send from the ground – those aircraft. So he got his airplane heated up, got his radio going. On his radio, he could receive so he got a barometric direction so he knew what elevation we were at. He looked on this old outdated map and there was only one lake with that elevation on it and that was Buffalo Lake south of Great Slave Lake. So we took off and headed into Hay River. They were just getting a search party ready to look for us. It was all cloak and dagger. The companies were competing for this land. They had stakers out all over the place. Some of them stayed up at Fort Simpson. We stayed in Hay River. The only person that knew where we were was the pilot’s wife.

**How long were you up there?**

I don’t know. Probably three weeks or something like that.

**Any animal problems?**

Oh no.

**Too cold.**

That’s not exactly Alberta surveying but we just took whatever came along. Same as we do now I guess.

**The same equipment – using transits and chains?**

Yeah. Actually, we just used a compass to orient these lines north and south and I guess we chained out the 1,500 feet. Although, it many not have been exactly 1,500 feet.

**When you became an ALS, what was the education requirements?**

Well I had my engineering degree by then so I had quite a few exemptions. I had to write Spherical Trig. I had written my DLS exams as well. I honestly don’t remember all the stuff we had to do. I guess we had the Acts, Spherical Trig, Astronomy and then we had an oral exam which wasn’t very tough. I think they were getting desperate for surveyors then.

**What was the public’s view of a surveyor then? Is there a difference between then and now?**

Y’know I haven’t been surveying for quite a few years so I don’t even know what it’s like now. Is the publicity fairly favourable now? I don’t know. Do they still feel you are charging far too much? That’s where I was then.
I think the public’s view now is that somebody goes around, sets up something and charges you money. What was it like starting your own survey company when C.B. Atkins retired and you were on your own. What was that like?
What was it like? I don’t know, we worked a lot longer than you work now. I think we worked Saturdays when I was first there. Then we had it back to only Saturday morning so that was easier. It was a case of taking work home all the time. The computations were more difficult then. We didn’t even have a little Curta or anything, we used log tables initially. Afterwards we got some traverse tables. The first computers – I think Charlie (Weir) and I got one about the same time. It was called a GP30 – it was sort of about the size of your deepfreeze. The memory was a magnetic drum so when you turned it on it made a racket. All the input and output was by way of a printed output. That was a wonderful innovation for us. I forget what year – about 1957 or something like that. About the same time that we got our first Tellurometer which was an MRA1. That was magic also.

How much was that computer? I don’t remember – have to ask Charlie – probably $7,000 or something. The Tellurometer was $10,000, which was a lot of money in those days.

That’s quite an advancement when you don’t have to chain through bush. Yeah – but you still have to have line of sight.

In 1955-56, you were president of the ALSA. What was the Association like in those years? Jack Holloway was the secretary. He kept all the records. There was no office. He was a public service commissioner for the province of Alberta and he kept all the records in his office. There wasn’t much in the way of committees or anything. There was no ALS News. I think in my term, we started that. I’ve still got the first issue – there was a friend of mine did a cartoon for the front page of it – Doug Stevenson his name was. I just figured that it was time. The annual meetings were only men. We never invited the wives in those days. I think during my term, we starting inviting the wives – big innovation. The old guys didn’t like that. But talking about the old timers. Joe Doze, I mentioned him. He spoke to an old-timers luncheon at one time and to me his was a good speech. It was very interesting and he told a lot about the early days. He graduated in Civil Engineering from the University of Alberta in the first graduating class.

Getting back to C.B. Atkins, where did he graduate from?
I think he came originally from Ireland. I’m not sure where he came from. He was a pretty keen skier and outdoors person. He had a weekend cabin just down on the river – just down by Laurier Park there. I think he articulated to Mitchell or somebody like that, wrote his exams – did it the hard way.

Who else did he article besides yourself? I don’t know.

You articulated a lot of people including Dennis and Don Tomkinson. It’s hard to remember all of them.

You got any stories about those two? Don and Dennis? I don’t know, they were good workers – really good. I remember doing one of those wellsites up at Fort Rigley in the Territories with Don. He and I went up and did that. I don’t know how far we traversed, it must have been ten miles from Fort Rigley east. Some we had to go both ways and chain it and double chain it and run levels there and back.

How did you try to recruit new pupils?
I guess we advertised. I had a preference for farm boys because they knew what to do in the bush. If they got stuck, they didn’t phone a tow truck or something, they just figured out how to get out. They knew how to cut bush. We didn’t have power saws then. Where did you come from Les?

Toronto – but I spent my summers on a farm. What are your recollections of your year as president – the highs and lows?
Well I know that the reason I became president was that Jack Webb was vice-president and he had to go back to Saskatoon or somewhere so somebody had to fill in. So, at the annual meeting and dance and everything, Geoff Hamilton got me and Charlie together and said one of you guys has to be the president. He flipped a coin and I was the lucky one or unlucky – whatever you want to call it – that’s how I got to be president. It was pretty low key in those days. The old-timers like Carl Lester, Jack Holloway and those, they had pretty fixed ideas on how everything should be run. It was difficult to make very many changes. We didn’t really have much of a committee system either.

You were instrumental in the establishment of the surveying engineering program at the University of Calgary. What are your thoughts on the beginning of that program?
I was all in favour of it. We actually tried to start one here at the University of Alberta first in Edmonton. I guess Krakijwsky came and was interviewed for that. Somehow it just never materialized here. It didn’t get enough support from the university so then Calgary took it over. The fellows down there pushed it. Alex Hitteid a lot of work on it. It think it’s a good program. I don’t know what you think of it. I don’t know what it’s like now.

Do you think the University of Calgary program needs to be oriented more to surveying or engineering?
To tell you the truth, I don’t know. As I say, I haven’t been surveying for quite a long time so I’m not really very well up on what’s happening. I’m not sure what’s happening in the industry nationally. I kind of think that all those old disciplines like mapping and
hydrography and land surveying – the old Canadian Institute of Surveying of which both Charlie and I were president of at one time, it was made up of all those different disciplines. Probably the basic one was geodetic surveying. All those have gone by the board now and so I don’t know, on a national scale, where surveying is going. You would know better than I do. Well, Gordy Olsson – but there’s not the same need for all that – when you think of the geodetic surveying, huge triangulation schemes and finally came along SHORAN and LORAN. That changes and it has been changing ever since. Now we’ve got GPS so you don’t need that horizontal and vertical control that was a lot of work in those days. People worked for years doing triangulation in the north and in the mountains. All that’s gone by the board. I don’t even know what they learn in school anymore. I guess they learn geodesy but they learn it from the point of view of using a GPS – same with vertical control – it would be the same.

You received the Alberta Land Surveyors’ Association Professional Achievement Award at the 70th Annual General Meeting. What were your feelings on that?
I was flattered to receive that.

It’s quite a distinction.
Sure.

Just in your surveying life in general, do think it’s been a good life?
Do you think it’s been rewarding? Would you have done anything different?
I don’t think so. It was a good life. I was involved with APEGGA quite a large amount. Served as a vice-president one year and did a lot of committee work for them. Our office was in Thornton Court and the APEGGA office was also there. The Registrar/Secretary of the engineers – he and I used to go and have coffee quite often. So, if he had some job come up that he wanted done on a committee or something like that, well, he always asked me. Ivan Findley knows. And, through him, I got the job of being the engineering representative on the University of Alberta Alumni Council. I did a lot of work for the alumni and through that, got involved in a lot of other things. I was on the Senate of the University and on the Board of Governors for a while. I’m still working for them with the Botanic Gardens.

In your surveying career, what is a memory that sticks out, either a field job you went on or.....?
One of the ones that sticks out quite a bit is after we got the Tellurometer which at that time was a pretty innovative thing, we did a lot of work in North-Eastern BC for an oil company doing control from the tops of the mountains, which you would land on the top of a mountain where there was a trig point and shoot points down into the valley so that the seismic crews could tie into to those. We had a lot of experiences on that. It was interesting. Beautiful scenery up there.

Flying in with a helicopter?
Fly up the mountain top. The pilot would help – he’d usually do the recording.

That’s interesting, OK. Thank you very much, Dave. We’ll close the interview off now.

Peter J. Timoschuk
1924 — 2007

Peter John Timoschuk passed away at home peacefully in his sleep in the early morning hours of August 20, 2007 at the age of 82. Peter was born on August 28, 1924 in what was then Poland, which is now Belarus, near the city of Brest. Peter and his mother Tatiana made the voyage to Canada on a Swedish passenger ship when he was one-and-a-half years old. They landed in Halifax, travelling by train to Lintlaw, Saskatchewan (near Kelvington) to meet with his father John who had purchased a homestead near Lintlaw. His father later bought land from the CPR and Hudson’s Bay Company.

Peter grew up on the farm, excelled in math and science and joined the army in the last two years of World War II. He was stationed in Regina, then Kingston and Victoria, operating signal command. He had wanted to join the air force a year or two earlier. His father talked him out of this saying war was not “romantic” and that many who do go do not return! Peter attended the University of Saskatchewan at Saskatoon, graduating with a B.Sc. in Electrical Engineering in 1950.

He was a member of APEGGA, the Alberta Land Surveyors’ Association, and the Association of Dominion Land Surveyors. Peter was commissioned as Alberta Land Surveyor #217 on August 17, 1955 and was an active member until his retirement in 2003.

He worked for the federal government as a summer student in the North on mapping expeditions and, on graduation, received job offers from Ottawa. He was a party chief in the Department of Energy, Mines and Resources (mapping branch) for seventeen years. He met his wife Sylvia at Pincher Creek, Alberta while surveying native land at Brocket. Peter surveyed Arctic baselines, northern boundaries, including the B.C./Yukon Boundary and national parks and much native land. He was later called as a witness on native land claims (for the federal government and Indian band).

Peter and family settled into Calgary in 1965-1966 loving the West. Peter taught survey technology at SAIT in the 1970s and 1980s. He also surveyed gas pipelines all over the province and Calgary and area. Peter had earned a private pilot’s license after university and was an avid ham radio operator (VE6AAK). He was a great amateur photographer and loved the back country and Arctic. Loved his “khakis,” hated suits and ties.
Loved his Saskatchewan farmland. When asked his profession, would often reply “farmer.” “You can take the boy out of the country, but you can’t take the country out of the boy!”

He leaves behind wife Sylvia (Blackburn); daughter Carol Timoschuk of Calgary; niece Brenda Kulyk and family of Calgary; brother Alex of Lintlaw Saskatchewan; nephews George, Teddy, Ron and Eugene and families of Wadena, Saskatchewan. Peter was predeceased by mother Tatiana in 1973, father John in 1985 and sister Ann in 1994.

---

**J.H. Holloway Scholarship Foundation**

The Alberta Land Surveyors’ Association makes a $100 donation to the J.H. Holloway Scholarship Foundation in memory of every Alberta Land Surveyor who passes away.

Since its inception in 1975, the J.H. Holloway Scholarship Foundation has raised $137,934.46 and has $11,500 available each year for scholarships to geomatics students.

The scholarships offered by the Foundation include:

- University of Calgary Scholarship ----- $2,500
- University of Calgary—John Deyholos Memorial Scholarship --------------------- $2,500
- University of Calgary—NAIT Transfer Student Scholarship ---------------------- $1,250
- University of Calgary—SAIT Transfer Student Scholarship ---------------------- $1,250
- Lethbridge Community College Scholarship ----------------------------- $1,000
- NAIT Academic Achievement Scholarship ----------------------------- $1,000
- SAIT Academic Achievement Scholarship ----------------------------- $1,000
- ALSA Members’ Scholarship ----------------------------- $1,000

*Further details regarding the J.H. Holloway Scholarship Foundation and its scholarships can be found on the ALSA website at www.alsa.ab.ca/Careers/Financial_Assistance.htm.*
...the 1935 Annual Meeting resolved to ask the Deputy Minister of the department that the words “competent surveyor” be struck out of the regulations and that the words “Alberta Land Surveyor” be substituted...the regulations were never changed...

The Association and its members, like almost everyone else, could do little but wait for the clouds to lift. At the beginning of 1935, there was still no reason for optimism as far as the surveying profession was concerned but Association affairs began to show a little more liveliness than during the previous four years.

Although there is little reference to it in the official records, the old mistrust of the Ottawa surveying fraternity that had lain dormant for several years flared up again. This was occasioned by the formation of the Canadian Institute of Surveying, which had taken place in 1934, mainly on the initiative of the Dominion Land Surveyors employed by the federal government. One of their aims was to broaden the sphere of interest of the old Dominion Land Surveyors' Association so as to embrace the new techniques of photogrammetry and aerial mapping which were then being pioneered in Canada largely by the Surveyor General’s staff. The provincial associations had not been consulted about the formation of this new organization, and the older Alberta Land Surveyors, remembering that they had first mooted the idea of a national association back in 1921, took particular offence at this slight. On the day before the 1935 Annual Meeting, the Council held its usual annual meeting and agreed to recommend to the Annual Meeting that the Association's group subscription to The Canadian Surveyor be discontinued. The Annual Meeting toned this down a bit by resolving that the Secretary-Treasurer be instructed “to write to the Secretary of the newly organized Institute of Surveying, advising him that as The Canadian Surveyor is now the organ of this new organization and as this Association has no official information as to the constitution of that body, we would appreciate being informed as to its objects, constitution and bylaws before deciding whether this Association shall continue to contribute to this publication and that further contributions to this periodical be left in the hands of the incoming Council, subject to some satisfactory reply being received.”

Apparently some satisfactory reply was later received and the Council decided to recommend continuance of the Association's group subscription to the magazine. However, the Annual Meeting rejected this recommendation and the feeling of disaffection for the Institute remained for several years afterwards. Although fraternal greetings continued to be formally exchanged, the Institute’s efforts to sell itself and recruit members in Alberta fell on stony ground, and during the thirties, only two or three Alberta Land Surveyors took out individual Institute memberships.

In 1934, the provincial Department of Lands and Mines had issued some new regulations concerning wellsite location surveys, then almost entirely confined to the Turner Valley oil field which had become extended by new discoveries dating from 1931. These regulations provided that such surveys were to be made by “a competent surveyor or engineer,” and the few Alberta Land Surveyors who had engaged in this wellsite work had found to their sorrow that some of these surveys were being performed by men whose competence was doubtful.

The Association felt, in any case, that this terminology was altogether too vague and did not adequately protect the oil companies from the costly hazards of inaccurate work, and the 1935 Annual Meeting resolved to ask the Deputy Minister of the department that the words “competent surveyor” be struck out of the regulations and that the words “Alberta Land Surveyor” be substituted. This issue remained on the agenda for the next four years, and despite continued representations to the Department, the regulations were never changed.

This was but one instance of the generally indifferent attitude exhibited towards the land surveying profession by the Department of Lands and Mines during its earlier years of existence. In other matters, such as the survey of Metis settlement lands, the definition of water boundaries and the survey and registration of townsite subdivisions on Crown lands, the Association from time to time made various representations suggesting that the Department should avail itself of the services of properly qualified professional surveyors, all without effect. Later on, after some changes in departmental officialdom had taken place and the Department found itself in difficulties over some of these matters, it began to recognize that the knowledge and training possessed by the qualified land surveyor deserved some respect, and its relationship with the land surveying profession subsequently improved. But, regardless of the Depression, it became evident during the thirties that because of the Department’s peculiar policies, any hopes that the Alberta Land Surveyors might have had of gaining employment as a result of the
transfer of the natural resources were not to be realized and that the members of the profession could expect little help from that source in trying to keep their heads above water through those trying years.

At the 1935 meeting, the role of the Public Utilities Board in connection with the approval of subdivision plans was also discussed and found redundant, and a motion was passed proposing that since the provincial Town Planning Commission was now in existence, there was no longer any need for the Board to approve plans. This incontestable thought was duly transmitted to the proper authorities, who considered and acted upon it with all deliberate speed, and eventually about three years later, the Board ceased to stamp its approval on subdivision plans, so that only the signature of the Director of Surveys, who by that time had also become the Director of Town Planning, was needed to permit the registration of a plan.

Join us for the 99th Alberta Land Surveyors’ Association Annual General Meeting at the Fairmont Chateau Lake Louise on April 24th to 26, 2008