5 President’s Message
Dirk VandenBrink, ALS

7 Councillor’s Forum
Victor Hut, ALS

9 Editor’s Notes
Brian Munday, Executive Director

12 Letters

13 Association Notes
New Members
New Face At the ALSA Office
Question Time
ALSA Professional Examination Results
Changes to the Register
ALSA Hosts Malaysian Delegation

19 David Thompson
Bicentennial Launch

21 Consensus Building With Canada’s Aquaculture Industry: a focus on policy and institutional change
Meredith Hutchison

29 SPR Director’s Message
Fred Cheng, ALS

31 SPR Corner
Case Study No. 27: Scrutinizing Survey Monuments
Fred Cheng, ALS

34 Guardpost
Paul Stoliker, ALS

37 PDC Corner
Marty Robinson, ALS

38 Public Relations
Lesley Ewoniak, ALS

42 Sustainable Resource Development
Mike Michaud, ALS

44 Education News
University of Calgary
University of New Brunswick

46 Legal Notes
CIBC Denied Compensation for Money Lost by Fraud
Earlier Certificates of Title for Crown Lands May Not Constitute Ownership
State of Oregon Court of Appeal - Dykes vs. Arnold

49 ASSMT Notes
David Allen, CST

51 History
1922—Adverse Possession
Johnson, P.N.
Edwards, G.

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

Deadline dates for submission of material to ensure printing are as follows: February 1st, May 15th, August 15th, 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
Thank you to all those who have volunteered for a committee. It is no secret that the excellent work done by volunteers through our various committees is the backbone of our Association.

Newfoundland

The 53rd annual meeting of the Association of Newfoundland Land Surveyors (ANLS) was held April 6-8, 2006 in St John’s which is earlier than their usual date. This was just before our own AGM so I attended this meeting as vice president of our Association. We really enjoyed seeing, for the first time, this part of the country even though the remains of a very high snowfall were still evident.

We also enjoyed the great hospitality courtesy of their president, Bob Leeman, and his wife Marylou which included a visit (or two) to the famous George Street where it is claimed that there are over 100 pubs. We were also officially ‘screeched in’ with the rest of the guests.

ANLS is in the process of implementing their Land Survey Registration System which will run parallel to their government system. It will be administered by a third party company and allows for the ability to attach available value-added products to each parcel of land. I, along with a few of the presidents of other associations, participated in a panel discussion on the methods of digital filing and registration of survey plans used in our jurisdictions.

ANLS is also in the process of identifying potential candidates for the paid position of executive director of their Association. The membership also approved a revised suggested tariff of fees and some wording changes to their professional development bylaw.

Their new incoming president is Terry Yates. Congratulations Terry.

Saskatchewan

The 96th meeting of the Saskatchewan Land Surveyors’ Association (SLSA) was held May 26-27, 2006 at Saskatoon at the same time as the celebration of Saskatoon’s 100th birthday. Once again, we enjoyed great hospitality, this time courtesy of President Peter Unger and his wife Louise. There were a lot of familiar faces and Saskatoon is a beautiful city. We particularly enjoyed hearing about the history of this city’s beginnings at the annual luncheon.

In 2006, the SLSA reported a decline from 69 to 64 active members. The SLSA membership approved the amount of $1,550 as an annual license fee for a Saskatchewan Land Surveyor and is moving forward on three public relations projects.

The development of a resource kit for use in schools (similar to our own ‘Surveyor in a Crate’), preparation of a new SLSA display for use at trade fairs and the concept of having paid promotion of a career in surveying was approved in principle. There was also considerable discussion on a proposed bylaw amendment with respect to the definition of what constitutes a survey office.

Their new incoming president is Bob Webster who I understand is now a two-time president. Congratulations Bob.

At our own recent AGM in Jasper it was again nice to see the continued good attendance by our membership. 245 members out of our total membership of 574 attended the annual meeting. We are already in the planning stages for the 2007 AGM in Lake Louise, so if you have any suggestions or constructive criticism for the Convention Committee please let me, or one of the ALSA staff, know as soon as possible.

You may have noticed in the recent Friday e-mails put out by the ALSA office that the Public Relations Committee could still use some additional volunteers. The work of this Committee plays a major role in enhancing our image as Alberta Land Surveyors and is crucial to attracting new members to our Association and our industry so that we can continue to provide the services that are required from us. Please consider volunteering for this Committee.

Thank you to all those who have volunteered for a committee. It is no secret that the excellent work done by volunteers through our various committees is the backbone of our Association.

See you at the golf tournament on August 18, 2006.
ike many of you, I found Justice Côte’s speech at our AGM in April, very thought-provoking and rather unsettling. His overview of what has transpired in parts of the United States with respect to professions losing elements of their self-governing status is a sober reminder that we must not assume we are immune to such possibilities within our own profession. Maintaining the public’s confidence and trust is paramount if land surveying is to remain a respected profession.

This threat, as most of us well know, is not a new one. A Critical Professions Act was theorized by the Manitoba Law Society back in the early nineties and is brought up now and again by those who feel professions have grown beyond their original purpose. The perception exists that professions are now driven by self-serving interests rather than satisfying a public need, with many being more of an occupational profession, or trade rather than a critical profession akin to doctors, lawyers, and architects. As far as I can tell, what they propose is standards that are determined virtually entirely by the marketplace in which they exist.

In a recent Calgary Herald article featuring Dr. Elizabeth Cannon, the Alberta Land Surveyor situation was quoted as being “critical.” Contrary to this sensationalized headline, our Association continues to outpace other provinces with increasing numbers of new articling students and commissions. In fact, Alberta enjoys roughly three times the number of articling students than British Columbia, Saskatchewan, and Manitoba, combined. However, even though we are doing relatively better than our counterparts, we do have a supply issue. It just isn’t as bad as that news article alluded.

Our high entrance standards can be viewed by some as being somewhat elitist and built around protecting an exclusive field of practice. Potentially qualified geomatics graduates from universities and polytechnic institutions from around the world are often afforded only a portion of the exemptions allotted as compared to Canadian geomatics program. Unfortunately for these potential candidates, the content of the foreign geomatics programs are not as well known as the Canadian programs. As well, it is very difficult to determine the equivalency of each program as they differ dramatically from country to country. Just because the course has the same name and syllabus does not necessarily mean it covers the same material as we would expect. The only option we are currently left with is to prove their equivalency is by examination.

I can tell you from my personal experience on the former Western Canadian Board of Examiners for Land Surveyors (WCBE), and now the Canadian Board of Examiners for Professional Surveyors (CBEPS), that each foreign candidate is evaluated fairly and without prejudice against the standard we have set for like graduates from Canadian programs. Fulfilling the supply need that currently exists out there is simply going to take time. To do it any other way will lower the bar and be an obvious disservice to all in Alberta who enjoy a defined and well maintained legal survey fabric. Good boundaries make good neighbors, and no one wants to see that compromised.

But what about the perceptions of elitism and entitlement that the public can have when professional rates skyrocket to the point where only the “haves” can afford the service? I am sure I am not alone in feeling that if you want a good lawyer, you need to pay top dollar, thereby reserving the best service for only those that can afford it. I think the public would say that is not serving their best interests, but rather the professional’s interests.

Personally, I feel that the better we do our job, in general, the more that everyone affected benefits from our specialized services. It’s not just the paying client who deserves accurate spatial determination and depiction of what is on the land, or in an area. It’s all who have a vested interest in how land and its surrounding area is enjoyed and used. The non-clients, if you will.

In order to maintain the public’s confidence, we must continue to strive to be deserving of their faith in us. Practice review, continuing professional development, public relations, registration, standards, discipline, all our committees exist to preserve these confidences and do our due diligence to keep our profession current, viable, and relevant. To do any less would be of mutual detriment.

I honestly believe that our right to self-governance is of paramount benefit to the public at large. However, it needs constant attention and action on our part to be ultimately sure that we are doing enough. To ignore this need and spend our days looking only at the next job or project we have to do will result in the deterioration of our profession. This requires us to maintain a high level of involvement in our Association and capitalize on opportunities to share our knowledge and expertise with the public. It ultimately requires action on all our parts.

If we are to treat Justice Côte as Odysseus did the seer Cassandra in Homer’s Odyssey, then his prophetic warnings will be proven true by virtue of our own inaction. His comments are a timely wake-up call for us and should not be taken lightly. I encourage all of you who are not already involved on committees or volunteering in some other capacity to find a way of doing so. The future may depend on it.
So there I was, waiting to see a health care professional. It was my first time seeing this particular health care provider so you can understand that I was a little nervous. I have decided not to tell you what kind of medical help I required—not out of concern for my privacy, but because of what this health care professional said to me. Read on.

The health care provider was a friendly person with a good rapport to put me at ease. She is probably the same age as me with two kids of her own. In fact, she took time away from her profession in order to raise her kids when they were younger. This naturally prompted nosey me to ask her what her profession required her to do in order to maintain her license. What continuing competency requirements would she have to meet? Did she have to practice a minimum number of hours every year to maintain her license?

She patiently answered her patient’s questions, although I suspect none of her other patients had ever thought about asking her those same questions. Knowing what I did for a living, she asked me about the requirements of the land surveying profession. This discussion eventually turned to fees and she stated that her professional organization’s fees were probably the highest in the country. I replied that our fee structure is quite similar but that ours are probably the lowest in the country. The health care professional then commented, “I pay all this money every year to my professional organization but they never do anything for her but was really there for me, the patient. The dues that she was paying were not there to help her but there to help me ensure that this person was actually capable of practicing. They must be doing a good job too since there was hardly any pain at all.

For the land surveyors that I have met, whether it is here in Alberta or anywhere in Canada, they understand that it is the role of the self-governing profession to protect the public and ensure that the land surveyor is capable of practicing. The Alberta Land Surveyors’ Association is funded by the members but our role is to serve the public. In order to keep this objective clear and distinct from other industry organizations, Council, several years ago, established a policy that meant that we would not be getting into the business of promoting discounted group benefits and perks for the members. It seems to me like land surveyors have a good grasp of the role of the profession and a self-governing professional organization. But the principle may not be as clear to others.

Earlier this year, I attended a Government of Alberta Standing Policy Committee presentation made by a group calling itself Pro-Ten. Pro-Ten is a loose coalition of ten self-governing professional organizations, including the Alberta Land Surveyors’ Association, who came together to express concern about the Alberta Society of Engineering Technologists push for their own self-governing act. APEGGA, in particular, opposed the move and recommended that their two bodies get together to work out another solution. Those discussions, as I understand it, are ongoing and I would not want to prejudge what the solution will be or put words in the mouths of either of them. However, it was clear to me that self-governing professional organizations will have to constantly and consistently justify their reason for being and prove in some tangible way that we are representing the public and protecting their interest.

At the end of April, the Saturday edition of the Edmonton Journal ran a big headline which read, “deal all about cutting barriers.” The article referred to “a landmark internal trade pack aimed at creating the dominant economic regional in Canada.” In their news conference, both the Alberta and BC premiers referred to a Conference Board of Canada Report which said that interprovincial non-tariff trade barriers—such as professional standards—cost the country tens of billions of dollars in efficiencies and lost opportunities. The government’s plan is that a professional in either Alberta or BC would have their qualifications automatically recognized in the other province. No further examination or testing would be required. While this may be practical in some other professions, any land surveyor in Alberta or BC will recognize the potential problems and dangers that may arise. The Alberta Land Surveyors’ Association has relayed these concerns to government and the Minister has agreed that the self-governing professions in Alberta should meet with their counterparts in British Columbia to work out a profession-specific side agreement. It is clear, though, that we will be getting more pressure from the
government to harmonize our registration standards with other provinces.

We must be careful to not be seen as protectionist. I believe that most member are in favour of the principles of free trade and labour mobility but, at the same time, want to ensure that the public is protected and the members practicing here are competent.

My rant here in these pages is but a poor man’s version of Justice Cote’s eloquent comments at our annual general meeting. My ideas and concerns are really not original but just some personal observations of what Justice Cote saw as threats to the professions. I feel like the threats are real—particularly if we do nothing about it. I am confident that we are protecting the public interest but it is now up to us to prove in some specific way how we are doing that and then communication that to the public and our government. If we are going to do that, then all members must be prepared to engage in some public awareness activities and the Association’s Public Relations Committee must have more members to carry out their tasks.

Instead of a professional asking what her self-governing profession does for her, the ultimate goal will be for the public to explain what the self-governing professional association does for them.

---

**net notes**

by Brian Munday, Executive Director

I went to [www.scholar.google.com](http://www.scholar.google.com) and typed in “land survey” and “Canada” to stand on the shoulders of giants (as Google likes to say). Here are some of the interesting results:

**Interactive Graphic Software for Creating Cadastral Alterations**
[www.fig.net/pub/fig_2002/Ts7-9/TS7_9_goto.pdf](http://www.fig.net/pub/fig_2002/Ts7-9/TS7_9_goto.pdf)

**Lessons Learnt From the Australian Digital Cadastral Databases**

**Framework for Discussion of Digital Spatial Data Flow within Cadastral Systems**

**Land Registration and Cadastre in the Netherlands**
[www.lsgi.polyu.edu.hk/sTAFF/zl.li/Vol_5_1/02-Holland.pdf](http://www.lsgi.polyu.edu.hk/sTAFF/zl.li/Vol_5_1/02-Holland.pdf)
Cansel Survey Equipment
(repeat - color rh - #1)
Appointment of New Executive Director

S. James Statham, OLS, CLS, OLIP has been named Executive Director of the Association of Ontario Land Surveyors (AOLS) effective May 29, 2006.

Jim brings an impressive amount of business and professional experience to the position. He was commissioned as an Ontario Land Surveyor in 1979 and a Canada Lands Surveyor in 1980. Jim started his career in 1966 with the Canadian Hydrographic Service and joined Marshall Macklin Monaghan (MMM) in 1976 as Manager of Control and Hydrographic Surveys. His project experience includes work throughout Canada and overseas. Jim completes a 30-year career at MMM as Senior Vice-President, Geomatics and Chief Administrative Officer. He has also served as a director of the firm and its geomatics affiliates.

Throughout his career, Jim has been actively involved with Association activities. He served as AOLS President in 1991-1992 and as ACLS President in 1999-2000.

Publication of Discipline Decision

In 2004, the Practice Review Board filed a complaint against a practitioner alleging unprofessional conduct and a hearing of the Discipline Committee was held in 2005.

During the hearing, sensitive personal information relating to the practitioner was divulged to the Discipline Committee as a means to explain his conduct. This personal information played a role in the Discipline Committee’s decision and their determination of an appropriate sanction but as the personal information could not be made public, the Discipline Committee did not order publication of their decision in ALS News.

The Discipline Committee did find the practitioner guilty of unprofessional conduct in a decision dated March 2, 2006. The member is no longer practicing.
New Members

#759 PYC, Jacek Remigjusz

Jacek Pyc was born in Wroclaw, Poland in 1972. He entered Canada in 1980 and graduated from St. Mary's High School of Antigonish, NS in 1990. Jacek went on to graduate from the Instrumentation Engineering program at SAIT in 1995 and from the Geomatics Engineering program at the University of Calgary in 2003.

Articles were served under Ron Hall, ALS from July 2003 until he received his commission on March 22, 2006 and is presently employed with Focus Surveys Limited Partnership in Calgary. Jacek is an EIT with APEGGA.


Building development, skiing, woodworking and mountain biking are a few leisure activities that Jacek enjoys.

Jacek and Cynthia Pyc reside in Calgary. They have one child, Muren, age two years.

#760 TAYLOR, Chad Lloyd

Chad was born in New Brunswick in 1970. He graduated from Dr. John Hugh Gillis High School of Antigonish, NS in 1988 and from the University of New Brunswick with a B.Sc. Eng. in 1994.

Articles were served under Robert Fulton and Jeff Gibson respectively, from February 2000 until he received his commission on March 23, 2006.

Survey experience includes rural, municipal, engineering and oil-patch work. He is currently employed with Northcan Surveys Ltd. in Calgary.

Golf and hockey are activities that Chad pursues in his leisure time.

Chad and Jean Taylor reside in Calgary with their son Aiden, age three years.

#761 GRENKIE, Kevin Todd

Kevin Grenkie was born in 1973 in Calgary. He graduated from James Fowler High School in 1991, from SAIT with a diploma (honours) in Surveying & Mapping Technology in 1994 and from the University of Calgary in 2001 with a B.Sc. in Geomatics Engineering.

Articles were served under John Matthyssen, ALS from October 2001 until he received his commission on April 7, 2006. Kevin is also an engineer-in-training with APEGGA as well as being a two-time J.H. Holloway Scholarship Foundation scholarship recipient.

Survey experience is primarily in oil and gas as follows: 1994-1996 and 1997-2000 (summer) with Cridland and Associates and The Cadastral Group (now Focus Surveys Limited Partnership) from 2001 to 2006.

Leisure activities include hunting, hiking, target shooting and golf.

Kevin is married to Richelle and they reside in Calgary with their daughter Shaylee, age 9 months.

#762 PHILLIPS, Jonathan

Jonathan was born in Fredericton, New Brunswick in 1980. He graduated from Oromocto High School in 1998 and went on to receive a B.Sc. in Engineering from the University of New Brunswick in 2003.

Articles were served under Greg Stromsmoe, ALS from October 2003 until he received his commission on April 10, 2006.

Jonathan has been mainly involved with wellsite and pipeline surveying although he has some experience with municipal and engineering surveys.

Camping, fishing, canoeing with family and friends, playing volleyball and computers are a few of his leisure pursuits.

Jonathan is married to Miranda and they reside in Grande Prairie.

#763 GROVER, Kevin

Kevin Grover was born in Calgary in 1978. He graduated From Springbank High School in 1996 and from the University of Calgary in 2002 with a B.Sc. in Geomatics Engineering.

Articles were served under Stan Longson, ALS from July 2003 until he received his commission on April 11, 2006. Kevin is also an engineer-in-training with APEGGA.

Kevin is currently on the ALSA Public Relations Committee

Major projects that Kevin has worked on include engineering surveys on the Anthony Henday...
Ring Road and the south LRT extension in Edmonton, as well as various land development projects in Edmonton.

Golf takes up his leisure time in the summer and snowboarding in the winter.

Kevin is married to Lesley Ewoniak, ALS.

**#764 ANNETT, Rocky**

Rocky Annett was born in Gaspe, Quebec in 1977. He graduated from C.E. Pouliot High School in 1994 and went on to receive a B.Sc. in Geomatics Engineering from the University of New Brunswick in 2002.

Roger Leeman, ALS served as his principal from November 2002 until he received his commission on April 12, 2006.

Rocky has been involved with bathymetric, control, deformation and legal surveys primarily for the oil and gas sector.

Swimming and golf are leisure activities that he enjoys. Fun times with family is cherished.

Rocky Annett is married to Lisa Element and resides in Calgary. Lisa and Rocky have a four year old daughter, Emma.

**Question Time**

*This is the fifth in a series of questions commonly asked of the ALSA by the membership. Please contact the ALSA at info@alsa.ab.ca if you have a question that needs answering.*

**QUESTION:** Why was the Annual Register produced so early this year? What happened to the telephone directory I use so much?

**ANSWER:** Those of you who were at the annual meeting this year will know that there was considerable debate concerning the Association’s annual register. It has been in the bylaws for quite some time that the annual register be sent to the membership by June 1st of each year. There was discussion about moving the publication date to some other time but the membership agreed to leave the June 1st date as is.

The Register of Alberta Land Surveyors, according to the bylaws, contains a record of the names of all persons accepted for registration as Alberta Land Surveyors, their date of registration, their address, and the registration number assigned to the member. The register of surveyor’s corporations and surveyor’s partnerships contains similar information.

The annual register shows that information for members registered as of April 30th. This date coincides with the date that the annual membership fees are payable.

In meeting the strict interpretation of the bylaws and Act, as requested by the membership at the annual general meeting, the register of Alberta Land Surveyors contains three sub-lists. The first (and thankfully the longest) lists all Alberta Land Surveyors who have been issued an annual certificate to practice. That is, they have paid their dues for the year. The second list contains a list of Alberta Land Surveyors who have not paid their dues by April 30th. They are still Alberta Land Surveyors but they have not been issued an annual certificate.

Therefore, they are not entitled to engage in the practice of land surveying until such time as the dues have been paid. They are subject to the late penalty fee (which the membership approved increasing dramatically) and Council may direct the Registrar to cancel the member’s registration if the fees remain unpaid. This list is much shorter than the first but approximately 9% of the members’ dues were still outstanding two days before the April 30th deadline.

The third list contains those Alberta Land Surveyors who have applied to go on the retired list. They have not paid their fees so we can’t list them in the first list and it wouldn’t be fair to list them in the second list as not having paid and we can’t list them as retired members because Council has not approved it yet.

The telephone directory of Alberta Land Surveyors, surveyor’s corporations and other important numbers will still be produced this summer. It is not the register but it will contain the supplement to the register of all members who are authorized to practice at a given point in time. This directory, as many of you have told us, is what you actually rely upon as your source for information—so the Alberta Land Surveyors’ Association will continue to publish it.

**New Face at the ALSA Office**

Lynnette Cederland joined the Alberta Land Surveyors’ Association on April 3, 2006. Lynnette comes to us by way of Yellowknife and Sherwood Park. Her experience includes working at Ticketmaster and for an accounting firm.

Lynnette will be answering your phone calls when you contact the ALSA office. She has already taken many of your post orders and has sent a rather large mailing out to the realtors across the province. She will assist the Historical & Biographical Committee and the Safety Committee in the carrying out of their terms of reference.

During her lunch hours, Lynnette is being taught how to cross-stitch by Dawn, Michelle and Cindy. We are pleased to have this bright, young, energetic individual working for us. Welcome aboard.

Cindy Chomlak moves from the front desk to her own office where she will handle the membership database, the Professional Development Committee and the Standards Committee.
ALS News • 15

ALS Professional Examination Results — Spring 2006

Statute Law
Twenty-two candidates wrote the Spring 2006 Statute Law exam and seven of those were successful in obtaining the 75% pass mark. Scores ranged from 28% to 84.5%, with an average mark of 65.6%. This exam was similar in format, content and length as previous exams and candidates did well on questions that were similar to past exams. However, there were several questions in particular that many candidates struggled with:

Surveys Act - 99 Foot Road Allowances
Many candidates were unfamiliar with the requirements for 99 foot road allowances in modern Part 2 surveys, and in particular how those allowances are determined at a correction line. These requirements are spelled out in Section 20 of the Surveys Act.

Municipal Government Act – Encroachment Agreement
All but three candidates were able to get any marks for defining an Encroachment Agreement with respect to the Municipal Government Act. This is defined specifically in Section 651.2 of the Act.

Land Surveyors Act – Duties and Responsibilities of Council
Many candidates had difficulty describing what Council must do in the context of the legislation. Section 9 of the Land Surveyors Act defines the general duties and responsibilities of Council in broad form.

The Surveying Profession
Twenty-six candidates wrote the Spring 2006 Surveying Profession exam. The exam consisted of fifteen questions on various topics related to professional affairs and current land surveying issues. Twelve of the twenty-six candidates passed the exam, with an average mark of 68%. Candidates’ scores ranged from 32% to 91%. Here are the general themes of each question, along with results for that question:

1. This question dealt with the recent attention paid to the location of the boundary between Alberta and Saskatchewan and the issues surrounding how it relates to its intended location. The average mark was 3.5/4 for this question.
2. This question asked the candidates to recall the issues surrounding giving governing status to Part 3 (Surveys Act) monuments placed at non-monumented Part 2 positions. Some students were familiar with this topic but did not know much about it. Others had no knowledge of the topic at all. The average mark was 5.5/10.
3. This question asked candidates to name several kinds of non-monumented boundaries that an ALS may encounter in Alberta. The average mark for this question was 3.4/4.
4. This question asked for the names of people serving on Council and on the ALSA staff. This question was quite well done with marks averaging 4.3/5.
5. Candidates were asked to define several acronyms related to survey practice and the profession. Marks for this question averaged 3.3/4.
6. This question asked candidates to recall information related to the Made to Measure – Science-in-a-Crate program. The average mark for this question was 2.5/3.
7. This question asked candidates to identify an ALS’s rights and obligations with respect to entering private property for conducting surveys. Marks for this question averaged 4.5/6.
8. This question dealt with several aspects of the Boundary Resolution Process, including how it works and the problems it solves. Candidates struggled with knowing under what circumstances the process could be initiated, which lead to a lower average score of 9.4/14.
9. This question asked candidates to analyze a situation where an ALS takes over an overdue and over-budget project from a retired business partner and identify the issues with the situation. Marks for this question average 7.4/9.
10. This question asked candidates to define geomatics in lay terms. This question had been asked in the past, but the results did not improve much this time. A response along the lines of “the surveying of physical objects or points on, above or below the earth and assigning 2 or 3 dimensional coordinates to the objects or points” and “this information can be used to produce maps, charts, plans, or as a planning tool” would have earned candidates good marks. The intent was to get candidates to describe the field in simple, non-technical terms. Marks averaged 3.3/5.
11. This question dealt with the issues surrounding professional impropriety as it relates to the Code of Ethics. Although this issue is discussed in detail in the Manual of Standard Practice, many candidates struggled with it. The average mark for this question was 4.9/10.
12. This question asked candidates to think about the issues around surveying pipelines with sketch plans and constructing the pipeline before the R/W is surveyed. Marks for this question averaged 4.7/9.
13. Candidates were asked in this question to discuss issues surrounding a boundary decision that could be based on oral evidence. Marks for this question averaged 4.9/7.
14. This question dealt with recalling the rules and guidelines for company signage on vehicles. The average mark for this question was 3.8/5.
15. This question asked candidates to determine under what conditions a Descriptive Plan may be used for a subdivision and how they would advise a potential client on using one. The average mark for this question was 3.5/5.
Practical Surveying
Twenty-four candidates wrote the Spring 2006 Practical Surveying exam and fourteen of those candidates achieved at least a 75% passing grade. The marks ranged from 41% to 89%, with an average mark of 74%.

The candidates were given the ability to choose to answer any nine of the ten questions on the exam. If a candidate attempted all ten questions, only the nine highest marks were counted. Each question was worth ten marks. It is interesting to note that attempting all ten questions did not necessarily improve a candidate’s chance of passing the exam.

Below is a summary of the themes for each question:

1. **Rural Subdivision**
   This question dealt with the found and placed evidence required to monument a legal subdivision and under what authority those new monuments are placed. Marks for this question were generally quite good, with a low of 2.0, a high of 10.0 and an average of 8.5. All candidates attempted this question.

2. **Real Property Report**
   This question dealt with the requirements and procedure for establishing lot boundaries for a real property report survey where block corners govern. The candidate was also asked to assess additional evidence found at the lot corner. Candidates did quite well on this question too, with a low mark of 7.0, a high mark of 10.0, and an average of 8.6. All candidates attempted this question.

3. **Condominium**
   This question dealt with condominium topics such as unit factors and re-division. Candidates were expected to be familiar with the mechanics and application of the Condominium Property Act as it relates to different ways of achieving a phased condo development. All but two candidates attempted this question, with marks ranging from 0 to 10.0. The average mark for this question was 7.8.

4. **Wellsite in Surveyed Territory**
   This question dealt with understanding target areas and EUB requirements for wellsite surveys. Candidates were also expected to know what survey evidence is required in order to correctly survey a wellsite in surveyed territory. Candidates did quite well on this question, with an average mark of 8.2. The low mark was 5.0, the high mark was 10.0, and all but one candidate attempted this question.

5. **Urban Subdivision**
   This question dealt with the requirements for submitting subdivision applications and making changes to the subdivision after tentative plan approval. Several candidates did not know the basic documents required as part of a subdivision application and how minor changes could be made after tentative plan approval. This question also tested candidates’ knowledge of the timelines required for closing roads. Marks for this question ranged from 0 to 9.0, with an average mark of 5.7. Twenty-one of the twenty-four candidates attempted this question.

6. **Field Notes and Evidence Assessment**
   This question asked candidates to analyze the way a quarter-section monument was restored and identify several ways it could have been done differently. Candidates needed to be familiar with standard procedures for restorations, especially for Part 2 survey monuments. Marks ranged from 2.0 to 10.0, and averaged at 7.2. Two candidates did not attempt this question.

7. **Plan Requirements**
   This question required candidates to examine a small pipeline R/W plan and identify various errors on the plan that would prevent it from being registered at the Land Titles Office or doesn’t comply with the Manual of Standard Practice. Some candidates identified items on the plan that may not fit with their company’s drafting style guidelines, but were still not items that would cause the plan to be rejected. Marks for this question varied from 4.0 to 10.0, with an average of 7.2. Only one candidate did not attempt this question.

8. **Natural Boundaries**
   This question dealt with the procedure and documentation required to apply for a change of natural boundary for a parcel with a riparian boundary. Candidates needed to describe what documents were required to do this and needed to correctly apply current case law to identify on a sketch where the new boundary is. Candidates achieved an average mark of 7.2, with marks ranging from 3.0 to 10.0. One candidate did not attempt this question.

9. **Integrated Surveys**
   This question required candidates to understand the requirements for elevations for wellsite surveys and correctly apply information contained on ASCM cards to solve an elevation survey. Some candidates did not appear to understand the role that a geoid model plays in calculating elevations derived by GPS. Marks on this question varied from 3.0 to 10.0, with an average of 7.2. Some candidates may have perceived this question to be one of the more difficult ones, since seven of the candidates did not attempt it.

10. **Wellsite in Unsurveyed Territory**
    This question dealt with calculations for well centre coordinates and converting GPS-derived bearings to astronomic bearings using the “Blue Book.” Surprisingly, several candidates performed quite complicated calculations to determine convergence values and latitudes/longitudes when all the values that were needed to answer the question were contained in the Blue Book. Future candidates may wish to better familiarize themselves with the large amount of information available in the Blue Book. Marks for this question ranged from 2.0 to 9.0, with an average of 6.1. Three candidates chose not to write this question.
Changes to the Register

ACTIVE MEMBERS
Rocky Annett, ALS of Usher Canada Limited in Calgary received his commission (#764) on April 12, 2006.
Caroline Anderson, ALS — new e-mail: caroline.anderson@focus.ca.
Real Comeau, ALS has moved to Medicine Hat to run the new branch office of All West Surveys Limited Partnership. He can be reached at real.comeau@allwest.ca.

Mike Fretwell, ALS has established Mission Geospatial Ltd. in Calgary (see corporations section). Tel: (403) 998-5713; E-mail: mfretwell@mgeo.ca.
Rick Gauthier, ALS — new e-mail: rick.gauthier@focus.ca.
Stephen Green, ALS — new e-mail: stephen.green@focus.ca.
Kevin Grover, ALS of Stantec Geomatics Ltd. in Edmonton received his commission (#763) on April 11, 2006. His new e-mail address is kevin.grenkie@focus.ca.
Kevin Grover, ALS of Stantec Geomatics Ltd. in Edmonton received his commission (#763) on April 11, 2006. His new e-mail address is kevin.grenkie@focus.ca.
Kevin Grover, ALS of Focus Surveys Limited Partnership in Edmonton received his commission (#761) on April 7, 2006. His new e-mail address is kevin.grenkie@focus.ca.
Kevin Grover, ALS of Focus Surveys Limited Partnership in Edmonton received his commission (#761) on April 7, 2006. His new e-mail address is kevin.grenkie@focus.ca.

CORPORATIONS
All West Surveys General Partnership Corporation (P233) has been approved as a surveyor’s corporation. Tony Melton, ALS and Daniel Lachance, ALS will be responsible for the supervision, direction and control of the practice.

All West Surveys Ltd. has been cancelled. All of All West Surveys Ltd. offices will now be under All West Surveys Limited Partnership which will retain the permit number P064. All West Surveys General Partner Corporation will be responsible for the supervision, direction and control of the practice. Addresses and contact information remain unchanged. Branch offices have been approved for All West Surveys Limited Partnership in Calgary (Dennis Regan, ALS), Grande Prairie (Philippe Breau, ALS), Lloydminster (Reid Egger, ALS) and Medicine Hat (Real Comeau, ALS).
Westersund Surveys Inc. has moved to 4999 - 43 Street SE, Suite 239, Calgary T2B 3N4. All other contact information remains the same.

RETIRE MEMBERS
Doug Bouch: Council accepted, with regret, the request from Mr. Bouch to resign as a retired member on May 18, 2006.
Bob Fulton, ALS (Ret.) became a retired member on May 18, 2006.
Ron Grattan, ALS (Ret.) became a retired member on May 18, 2006.
Ken Longstaff, ALS (Ret.) became a retired member on May 18, 2006.
Rob McCuaig, ALS (Ret.) has moved to a new employer. His contact information is:
Geo-3D Inc.
42 Covington Crescent
Kitchener, ON N2N 2X2
Tel: (905) 872-2642 (cell)
(519) 570-0906 (bus.)
E-mail: rmccuaig@geo-3d.com
Website: www.geo-3D.com
Ken Weimer, ALS (Ret.) became a retired member on May 18, 2006.

ARTICLED PUPILS
David Amantea signed articles with Bob Baker, ALS of Okamura & Associates Ltd. in Lethbridge.
Gabriela Badranova signed articles with Rob Scott, ALS of Stantec Geomatics Ltd. in Calgary.
Adam Barvir signed articles with David ten Broek, ALS of Focus Surveys Limited Partnership in Calgary.
Rosalind Bobbitt signed articles with Allan Pham of Focus Surveys Limited Partnership in Edmonton.
Patrick Boudreau signed articles with Geoff Hobbs, ALS of McElhanney Land Surveys (Alta.) Ltd. in Edmonton.
Ryan Blommaert signed articles with Craig McBride, ALS of McElhanney Land Surveys (Alta.) Ltd. in Edmonton.

G.K. Allred, ALS

ALSA Hosts Malaysian Delegation
The Alberta Land Surveyors’ Association was the major host of a group of seven members of the Land Surveyors Board of Peninsular Malaysia on their recent study tour of Western Canada.

The group consisted of the Honourable Azmi Khalid, Minister of Natural Resources and Environment, Hamid Ali, Chair of the Land Surveyors Board and five other board members. The Land Surveyors Board is a government board that is responsible for registration and discipline of land surveyors in Malaysia. In addition, the Board acts as an intermediary between private landowners needing cadastral surveys and the private land surveyors who execute the surveys. The Board collects a deposit for the survey and, in turn, contracts with the surveyor to execute the survey in accordance with prescribed standards.

The study tour commenced with a visit to the Pacific Regional office of the Canadian Hydrographic Service in Victoria, BC on May 12 and finished up at the offices of McElhanney Surveys in Vancouver. The majority of the visit was, however, in Edmonton where the group visited the Alberta Land Surveyors’ Association, the Land Titles Office and GeoEdmonton. The study tour was also received by the Honourable David Coutts, Alberta Minister of Sustainable Resources and Development.

The main interest of the study tour was to look at other professional associations and determine how they handle the regulation of land surveyors and deal with such issues as mutual recognition and maintenance of competency. The ALSA sponsored three presentations—Ken Allred made a presentation on the Canadian concept of professional associations whereby the entire process of registration, licensing, discipline and maintenance of competency is delegated to an organization composed of members of the profession. Brian Munday did a presentation on the process of becoming registered as an Alberta Land Surveyor including a description of the Canadian Board of Examiners for Professional Surveyors, the articling and professional examination process for registration as an Alberta Land Surveyor, mutual recognition and NAFTA. Fred Cheng elaborated on the system of practice review established in Alberta.

The tour of Land Titles conducted by Tim Gruisie and Bill Elliott went over the basic elements of the Alberta Land Titles registration process, including the electronic filing of survey plans and the SPIN system and Wendy Ritchie of GeoEdmonton demonstrated how the information from registered plans is captured and integrated into the cadastral base mapping system. She also demonstrated georeferencing of underground utilities.

The study tour of Alberta was proposed by Teo Chee Hai, a practicing surveyor in Malaysia who is a member of the Board and who is also very active in the International Federation of Surveyors. The tour was coordinated and organized by Ken Allred, FIG Vice President.
David Thompson Bicentennial Launch
March 31 to April 1, 2006 at Fort Edmonton

David Thompson will be better known by 2011 both in Canada and the USA. The launch of the celebration of his bicentennial of explorations in Canada and North Western USA started March 31 to April 1, 2006 at Fort Edmonton by the coordination and assembly of about fifty individuals from the prairie provinces and Washington, USA. This will be a lengthy celebration starting in 2006 and continuing actively until 2011 with many local celebrations across Western Canada.

The main event that will probably reach newspapers nationally and locally as the celebrations continue will be the bicentennial brigade canoe trip from Rocky Mountain House, Alberta to what was known as Fort William in the 1800s and is now known as Thunder Bay, Ontario on Lake Superior.

The launch at Fort Edmonton included speakers from the Glenbow Foundation of Calgary, Centre for Rupert’s Land Studies University of Winnipeg, the Alberta Land Surveyors’ Association/International Federation of Surveyors from Edmonton, the Friends of the Rocky Mountain House National historic site, Parks Canada representative from Edmonton and the Canadian Geographic magazine.

The bicentennial is being celebrated both in Canada and the USA and this launch was to bring together the individuals and organizations that are interested in David Thompson’s history as a surveyor, geographer and mapmaker. There has been a great deal of organization that has gone on prior to the launch by certain individuals from these organizations and there is considerable material available and web sites to research for information on this event.

The main and most obvious event will be the 2008 David Thompson Brigade canoe trip which is being organized from Edmonton by the committee chair Andy Korsos. Details of the event can be found on the website: www.2008thompsonbrigade.com.

Are there enough strong arms in ALSA to form a brigade for the 2008 canoe trip or part of it in Alberta? There is a component of the celebration that provides teaching tools to school systems and teachers, interactive games to acknowledge the contribution that David Thompson has made to the mapping of Western Canada. His name appears in both Canadian and American history books.

David Thompson’s contribution to Canadian map-making is readily available to us today as he was an exceptional surveyor in taking latitude and longitude readings to later develop maps of great accuracy for the day. His journals and his narrative provide great descriptions on all of the places that he explored and of the flora and fauna he saw in his travels.

The other amazing part about David Thompson was that throughout his career he took his family with him on nearly all the explorations that he did. This launch also included considerable information and a tribute to his wife Charlotte Small and their 13 children. A large component of this celebration will include First Nation and Metis people who were the first voyageurs of Canada.

Other representatives of the ALSA attended the David Thompson/Charlotte Small statue dedication at Invermere, BC on July 18, 2003, reported in ALS News September 2003. The Alberta Land Surveyors’ Association was a major sponsor in this bicentennial launch. This is a great opportunity to further participate and acknowledge David Thompson as a land surveyor and map-maker by our Association.

If you would like further information about the launch of this event, you can contact Monroe Kinloch or Lou Breton who represented the ALSA at the launch. Ken Allred was one of the presenters and spoke about David Thompson as the Great Surveyor. There are other sites which you can contact for further information with respect to Canadian and American David Thompson Bicentennial.

The Centre for Rupert’s Land Studies, University of Winnipeg: www.uwinnipeg.ca
Parks Canada: www.parkscanada.gc.ca
The American David Thompson Bicentennial web site: www.davidthompson.org
Northwest Museum of Arts & Culture, Spokane, WA: www.northwestmuseum.org

MONROE KINLOCH, ALS

Regional Meetings 2006-2007

Calgary
October 5, 2006
January 31, 2007
March 27, 2007

Edmonton
September 28, 2006
January 30, 2007
April 3, 2007

Grande Prairie
October 3, 2006
February 6, 2007
March 29, 2007

All the meetings will be held from 5:30 p.m. to 8:30 p.m. (cocktails at 5:30 p.m., dinner at 6:00 p.m.)
Consensus Building Within Canada’s Aquaculture Industry: a focus on policy and institutional change
by Meredith Hutchison
Meredith was the recipient of the 2005 ALSA Graduate Studies Scholarship. She has recently completed her M.Sc.E. research in the Department of Geodesy and Geomatics Engineering at the University of New Brunswick, producing a thesis entitled: “Towards consensus building within Canada’s aquaculture industry: Design of a framework for addressing conflict, information management and public consultation.” The following paper provides a snapshot of her research.

Abstract
Canada’s aquaculture industry has been the focus of considerable conflict among stakeholders, including the federal and provincial government, industry, ENGOs, First Nations, communities, other industries and academia. This research addresses two issues in relation to this conflict: the need for consensus building among stakeholders in the aquaculture industry and the need for dispute prevention in the form of information dissemination and public consultation. A consensus building and dispute prevention framework was developed to address the stakeholder conflict. The framework was comprised of three nodes: consensus building tools, technology solutions and policy and institutional change. Within this paper, particular focus is placed on the third node of the framework wherein a new regulatory body is proposed to engender trust by operating as a third party in the conflict, coordinating information management, and facilitating information dissemination. A pilot study in Nova Scotia is recommended to test the framework, and to generate political will towards implementation of consensus building strategies.

1. Introduction
According to the FAO, the aquaculture industry is the fastest growing food production sector in the world, increasing annually by over ten percent over the past twenty years [Little and Edwards, 2003]. It is increasingly acknowledged that the majority of wild stocks are being fully exploited [FAO, 2000], and aquaculture is an industry that is presently growing to meet the increasing demand for seafood. Within Canada the aquaculture industry has experienced rapid growth over the past two decades, averaging an annual growth of 19% each year, and all ten provinces, as well as the Yukon territory, have investments in the aquaculture industry [Bastien et al., 2004; OCAD, 2004].

While the industry is economically successful, environmental and social issues have been the catalysts for conflict between stakeholders in the aquaculture industry. There are two major points of contention between stakeholders that are the catalysts for the dispute resolution and prevention systems designed in this research: governance issues and conflicting sources of information.

1.1 Governance Issues
The source of conflict regarding governance is deeply seated in the property rights system on which marine rights are based. Unlike land, the marine environment is a fairly recent space in which property rights systems have been developed. Modern terrestrial property systems evolved slowly over thousands of years by molding to fit the changing needs of the societies and cultures utilizing the space. In contrast, property rights within the marine space have developed rapidly over the past 50 years as technology allows greater exploitation of marine resources. This rapid development has resulted in confusion within Canada regarding the appropriate level of government (provincial or federal) to hold jurisdictional authority over the marine space. Rather than resolving this issue, all provinces engaging in marine aquaculture, with the exception of PEI, manage the industry jointly at the provincial and federal level through Memoranda of Understanding (MOUs), with DFO operating as the lead aquaculture agency at the federal level.

There are a number of arguments in the literature that question the potential conflict of interest in DFO being responsible for both aquaculture and the protection of the wild fishery. In one argument, it is suggested that the legislation used by DFO to regulate the aquaculture industry (Fisheries Act [1985] and The Navigable Waters Protection Act [1985]) is biased toward the protection of the wild fishery and other users of the marine space [Howlett and Rayer, 2003]. In contrast, a recent report from the Standing Committee on Fisheries and Oceans [Cummins, 2003; Canada, 2001a] condemned DFO for their preferential treatment of aquaculture and neglecting their mandate to protect the wild fishery.

These conflicting arguments, though alike in their criticism of DFO, demonstrate that stakeholder bias on the issue of aquaculture affects the way in which the activities of the federal department are perceived. Although DFO may argue that it is following its mandates clearly, there is either an actual conflict of interest or else a lack of transparency present, which causes the opposing groups to view DFO’s activities so suspiciously. This credibility gap is affecting the way government-produced information is perceived, which leads into the second issue of conflict addressed through this research.

1.2 Different Information
There are many stakeholders with concerns regarding the aquaculture industry, including environmental non-governmental organizations (ENGOs), the traditional fishery,
tourism industry and community groups including First Nations. A number of ENGO groups conduct their own research to illustrate the problems that they perceive DFO is not addressing. These problems include, principally, the issues of sea lice transference between farmed fish and wild fish in British Columbia, the impact of escaped farmed Atlantic salmon on the wild Pacific salmon stocks, and the PCB (polychlorinated biphenyl) content of farmed fish. However, the information provided by these ENGO groups is in direct opposition to that provided by DFO and the aquaculture industry. Rather than aiding in dispute resolution, information alone is polarizing stakeholders due to a lack of trust in the sources that are providing the information.

The disputes regarding aquaculture are costly on many fronts. Economic losses are felt by industry, who must endure a slow regulatory process due to community concerns, as well as lower sales due to poor perception of the industry through the media. ENGOs and groups opposed to aquaculture, such as some First Nations groups and communities, are also impacted, as they must constantly put resources into research and their own campaigns to prevent or limit aquaculture operations. Environmental costs may also occur while the dispute is ongoing and the issues under debate are causing environmental degradation. Social tensions between stakeholders who are in conflict are also a real concern.

There is a need for constructive dialogue between informed stakeholders to build consensus over existing issues and to prevent new issues arising. The objective of this research was to design a framework to:

a. facilitate the consensus building process between stakeholders in current aquaculture disputes,

b. provide stakeholders with information and a forum for public consultation to assist in preventing further conflict.

2. Designing the Consensus Building and Dispute Prevention Framework

Moore [1996] notes that “conflict is not necessarily bad, abnormal, or dysfunctional; it is a fact of life.” The fact is that individuals involved in a dispute may hold opposing views, but each disputant generally believes that their viewpoint is valid and based on sound reason. As such, the problem lies not in resolving the conflict, but in managing the outcomes. Figure 1 shows how two individuals with apparently opposing core beliefs can still share values on which consensus can be built.

![Figure 1: This diagram indicates that there is potential for consensus building between stakeholders with different deep core beliefs.](image)

Three nodes form the basis for the consensus building and dispute prevention framework, as shown in figure 2. The first two nodes, consensus building tools and technology solutions, are implemented through the third node, policy and institutional change. It is this third node that is the most difficult to implement as it addresses the lack of trust that exists between stakeholders. This paper will focus on implementation of this third node.

2.1 Node 1: Consensus building tools

Tools and methods for consensus building were identified under this node, including improved stakeholder identification and notification, training needs for coastal decision-makers, additional public consultation strategies and the need for identifying collaborative partnerships. These tools were essential for establishing the core requirements of improved information availability and dissemination, on which the conflict management systems would be based.

2.2 Node 2: Technology solutions

Due to the broad geographic distribution of stakeholders, technology solutions were required to facilitate information dissemination and the collection of local knowledge. The existing British Columbia Coastal Resources Information System [British Columbia, 2005a] is currently setting the standard for coastal information provision in Canada. However, there are many areas in which the system can be improved. A number of recommendations were made, principally concerning enhanced participatory capabilities and the incorporation of local knowledge. A full Public Participation Geographic Information System (PPGIS) was recommended.

2.3 Node 3: Policy and institutional change

The third node addressed the policy and institutional changes necessary to utilize consensus building tools and address the lack of trust that exists between stakeholders. The present perceived conflict of interest that surrounds DFO in managing both wild and farmed fish is similar to that faced...
by the oil and gas industry in Nova Scotia. There was a perception that the Canada-Nova Scotia Offshore Petroleum Board had a conflict of interest in its mandate to both conduct the environmental assessment for oil and gas applications, and to issue the licenses for successful applicants [Strong et al., 2002]. As a response to this issue, legislation was introduced which separated the Board’s responsibilities for industrial promotion and environmental assessment.

This research recommended that a similar process should be employed either within DFO, or alternatively the responsibilities for the aquaculture industry should be transferred to a different authority. In line with the Canada-Nova Scotia and Canada-Newfoundland Offshore Petroleum boards, a board could be created to manage aquaculture dually at a federal and provincial level. While this method would involve the creation of an additional authority and thus additional regulations, it would also facilitate greater communication between provincial and federal levels of government. Responsibility for environment and fish habitat protection would still rest with the Canadian Environmental Assessment Agency (CEAA) and DFO. However, the promotion of aquaculture and provision of leases and licenses would be facilitated by a board within each province.

A province-based board system would be necessary as an overarching Canada-wide board would not be able to take into account the differences that are present in different regions. British Columbia’s regulatory environment and stakeholder conflict is very different to the Newfoundland experience, for example. Also, each province’s aquaculture strategy is set up through a different memorandum of understanding (MOU) with the federal government, meaning that to have an Atlantic Board, for example, would require a greater amount of regulatory change. Boards would require a committee of representatives nominated by a combination of industry, provincial government, federal government and relevant stakeholders.

The concept diagram for a proposed Aquaculture Information and Mediation Board (AIMB) is outlined in figure 3. Essentially the Board acts as a contact point and third party for aquaculture information exchange (two-way communication) and dispute resolution.

The Board would act as an impartial third party responsible for maintaining and updating the PPGIS. The Board would also be responsible for disseminating this information through the PPGIS and in other forms, such as providing pamphlets at points of sale, and developing innovative ways of engaging the public in other forums. The Board would also form a fact-checking role for the purposes of media releases by stakeholders (ENGOs and government), as well as providing quality assurance for local knowledge provided by stakeholders. Issues of scientific uncertainty and conflicting information could also be addressed through annual forums convened by the Board. Finally, the Board would act as a one-window point of contact for interested stakeholders to gain information or learn about other sources of information.

The Board would work towards maintaining an ethic of impartiality by having a member from each stakeholder group nominated to the Board. The Board members would be responsible for hiring relevant personnel and services to meet the responsibilities as described above. Due to the scientific nature of some of the Board’s responsibilities, such as fact-checking and information system maintenance, it would be necessary to employ professionals to meet these needs.

3. Barriers and Limitations to Policy and Institutional Change

A number of potential barriers to institutional change were identified in this research. First, there may be a lack of trust in the AIMB initiative. The selection of AIMB board members from each of the key stakeholder groups should work to combat this issue, as interest groups should feel a sense of ownership in the Board and its decisions. The initiation of communication between board members should plant seeds for further communication and trust building exercises between stakeholder groups.

Second, the upfront and ongoing costs of the AIMB must be met. The majority of the costs should be borne by the federal and provincial governments, as requiring substantial industry investment will likely detract from industry buy-in. The government will experience some cost reductions through this initiative as the AIMB will be fulfilling some roles already undertaken by government, such as web-GIS maintenance and public consultation facilitation for new aquaculture sites. Furthermore, the federal government has committed to consensus building under their Aquaculture Framework [Canada, 2002a], and should be willing to invest in this process.

The third major barrier may be a lack of political will. As with any new initiative and restructure, there are risks that must be overcome to prove the validity of a strategy. To this end, and to encourage government and industry buy-in to this process, a pilot project is recommended to test the framework, and in particular the AIMB structure, described in this research. This pilot study is discussed further in the next section.

---

www.alsa.ab.ca
4. Testing the Framework
In order to test the viability of this concept, a pilot study is recommended in the province of Nova Scotia. This province is selected for two reasons:
1) Nova Scotia has a good record of public consultation [Nova Scotia, 2005b; Nova Scotia Aquaculture Stakeholders, 2005] and thus likely has the political will to invest the necessary time and funding into the project. Nova Scotia has already implemented a community-based organization to assist in reviewing aquaculture lease and licence applications, which has been successful in overcoming public distrust of the industry in many regions [Nova Scotia, 2005c].
2) The aquaculture industry is much smaller in Nova Scotia than in other provinces, and there is a good representation of stakeholder groups with important concerns, including First Nations, community groups and ENGOs. Based on the literature and feedback from stakeholders at the Nova Scotia ‘Growing Our Future’ stakeholder meeting [Nova Scotia Aquaculture Stakeholders, 2005], the level of conflict between these groups is lower than in British Columbia or New Brunswick, meaning there is more room to make errors and adjustments to this system than in other provinces.

Further dialogue is required with the Nova Scotia provincial government to assess the potential for adopting the framework (in whole or in part) as described in this research.

5. Conclusions
This research identified information management as a key issue behind the conflict surrounding aquaculture. Two fundamental problems are, firstly, the different sources of information that have been produced and, secondly, a lack of discussion and consensus regarding this information. These deficiencies need to be addressed in order to resolve the ongoing debates and address the environmental, social and economic concerns of the stakeholders. This research addressed these issues through a framework for consensus building and dispute prevention. The framework was comprised of three nodes, including consensus building tools, technology solutions and policy and institutional change.

It is recommended that a pilot study be undertaken in Nova Scotia to test the validity of this framework approach and to encourage political will towards some of the options presented here. Further research is required, including an investigation into the privacy concerns for information provision by the AIMB, and a review of what specific information stakeholder groups would like to obtain to feel informed about the aquaculture industry.

Acknowledgements
There are many individuals who assisted me with my thesis, including my supervisor, Dr Sue Nichols, my research group at UNB and representatives from government, industry and community groups. I am also very grateful to the Alberta Land Surveyors’ Association for their generosity in awarding me the 2005 Graduate Studies Scholarship. This award enabled me to invest in a much needed laptop computer with which I could complete my thesis.

References


Canada, Fisheries and Oceans (2002a). DFO’s Aquaculture Policy Framework, Communications Branch, Ottawa, Ont.


...continued on page 30
Phase 3

SPR Ratings Report

Traditionally, we have been reporting on the weighted practice ratings of all systematic practice reviews to the membership in June of each year. The first Phase 3 practice ratings report was presented in the June 2005 issue of ALS News and this is the second report.

As mentioned in the June 2005 issue, the basic requirement for presenting this report is established by the following item within the SPR Phase 3 Framework Document, wherein Item 1.6 states: “Statistical data from practice reviews will be collected and reported in a format similar to the product and practice ratings developed in Phase 2.”

Table 1 demonstrates the weighted practice ratings since the inception of Phase 3. So far, 46 internal audits have been conducted. The numbers therein are the result of 36 reviews completed at June 1, 2006. To date, there are ten reviews in progress within the system which are either waiting for an external audit to be completed or we are waiting to receive practitioners’ responses to our findings. The typical products we would select to review are representative products of the day-to-day practice of a firm within the current year. The goal is to provide a final average for all products reviewed that would be recent and representative of the typical practice of the overall profession. A total of 196 products were included in the 46 reviews in Phase 3, with an average of four products reviewed from each firm.

Observations

Here are my general observations:

Average Phase 3 weighted practice rating to date is at 82.53%, this is lower than last June’s reporting average by 0.52%.

### Table 1: Phase 3 Weighted Practice Ratings as Reported June 1, 2006

<table>
<thead>
<tr>
<th>Categories</th>
<th>Plans</th>
<th>Field Notes</th>
<th>Field Inspections</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average (%)</td>
<td>High (%)</td>
<td>Low (%)</td>
</tr>
<tr>
<td>Subdivisions</td>
<td>84.01</td>
<td>97.92</td>
<td>69.54</td>
</tr>
<tr>
<td>Rights-of-Way</td>
<td>90.58</td>
<td>96.65</td>
<td>83.56</td>
</tr>
<tr>
<td>Wellsites</td>
<td>86.11</td>
<td>92.94</td>
<td>77.69</td>
</tr>
<tr>
<td>RPRs</td>
<td>87.31</td>
<td>98.25</td>
<td>75.56</td>
</tr>
<tr>
<td>Road Surveys</td>
<td>88.87</td>
<td>94.88</td>
<td>81.26</td>
</tr>
<tr>
<td>Other</td>
<td>88.62</td>
<td>99.63</td>
<td>82.06</td>
</tr>
<tr>
<td>All Categories</td>
<td>86.72</td>
<td>99.63</td>
<td>82.06</td>
</tr>
</tbody>
</table>

Practice Ratings

<table>
<thead>
<tr>
<th></th>
<th>Average (%)</th>
<th>High (%)</th>
<th>Low (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>82.53</td>
<td>99.74</td>
<td>70.19</td>
</tr>
</tbody>
</table>

**All averages** for plans, field notes, and field inspections are lower than last year’s reporting by 0.25%, 1.03%, and 2.23% respectively.

**Plan product score** is higher than last year with an overall high of 99.63% which is 1.71% higher than last year’s high of 97.92%. It is nearly the same for the average; last year was at 86.97%, this year is 86.72%.

**Field notes score** this year is identical with last year’s overall high at 98.91% as in last year’s reporting (the average for field notes score is lower than previous year’s reporting—last year was 97.22% and this year is 76.19%). This may have been attributed to a low score of 41.71% thus bringing the average down by 1.03%.

**Field inspection score** is higher than last year with an overall high of 100% which is 1.0% higher than last year’s high of 99.0%. The average score for field notes is lower than previous year’s reporting; last year was at 87.34%, this year is at 85.11%. This may have been attributed to a low score of 41.00% thus bringing the average down by 2.23%.

With reference to Table 2, it is interesting to note that the number of follow-up reviews has decreased in Phase 3 when compared with the number of follow-up reviews required in year two for Phase 2. Note that the three Phase 2 follow-ups straddling into Phase 3 in 2005 could be attributed to second follow-up reviews of some practices.

### Table 2: Comparison of Follow-up Reviews Between Phase 2 and Phase 3

<table>
<thead>
<tr>
<th>Year</th>
<th>Phase 2 Follow-up Reviews</th>
<th>Phase 3 Follow-up Reviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>2001</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>2002</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>2003</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>2004</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>6*</td>
</tr>
</tbody>
</table>

*Note: Six follow-up reviews identified in Phase 3 as of June 1, 2006.

**Conclusion**

All in all, the SPR review summary scores for this year look favourable. I am especially delighted to see an improvement in the overall high for the plan product score.

The slight decrease of 0.52% for overall average scores, compared with last year’s results, may be...
attributed to a couple of anomalies (low scores) for field notes and field inspection scores.

It is particularly delightful to observe that there is a trend toward a decreasing number of required follow-up reviews. Perhaps, it might be a little early to tell. However, if this trend continues there is a strong indication that the SPR program is working and it is doing what it meant to be—which is an effective educational process.

**Consensus Building... references continued**


**Legislation Cited**

*Fisheries Act*, R.S. [1985].

*The Navigable Waters Protection Act*, R.S. [1985].
Case Study No. 27:
Scrutinizing Survey Monuments

The purpose of this article is purely educational. No names or identifying legal descriptions are included. Opinions expressed herein are those of the author.

I have, on occasion, received telephone calls from practitioners inquiring what recourse an Alberta Land Surveyor could have when encountering a situation where a landowner has moved or removed a statutory iron post. At other times, I have been asked to comment on the status of bent iron posts, and disturbed monuments.

Fundamental Principles

Once statutory iron posts, or any other statutory survey monuments as specified under section 1(p) of the Surveys Act, are placed by an Alberta Land Surveyor and are shown on registered plans of survey at a Land Titles Office, for the purposes of defining property corners and property boundaries, nobody has the legislative right to move or remove them without the application of the current legislation with respect to boundary adjustments, plan corrections, or resolution of survey errors.

Without the proper application of the legislation that deals with the above-mentioned situations, one would not have knowledge of whether or not other landowners have relied upon the monuments to construct physical structures, such as fence lines on their homesteads. Other Alberta Land Surveyors might have related their surveys to the original monuments or other stakeholders might have relied upon the statutory monuments to create other physical improvements or documents relating to the location of the monuments.

These statutory monuments govern the position of the boundaries created, even when found and compared to have mathematical anomalies against their registered plans. This is supported by provisions of the current surveying legislation in Alberta. Wherein sections 36 and 37 (Part Two) of the Surveys Act states:

36 All boundary lines of a survey in accordance with section 29 or 32 are determined by monuments placed for that purpose as shown on the official plan, whether or not the dimensions between them or the areas expressed on the official plan are found by re-measurement to be different.

37 Every parcel surveyed in accordance with section 29 or 32 shall consist of all the land included between the several monuments placed to determine the boundary lines, and no more and no less, notwithstanding any quantity or measure expressed on the official plan, certificate of title, grant or other instrument.

In addition, Section 45(4) of the Surveys Act also provides that statutory monuments govern the position of property corners once placed and plans of survey reflecting their positions thereon are registered at a Land Titles Office or filed at the Metis Settlements Land Registry.

Section 45(4) (Part Three) of the Survey Act states:

45(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 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.

With reference to the above provisions, once the statutory monuments are placed in the ground and upon registration of the plan showing the monuments placed, they govern the position of the property corners and property boundaries that are created for that purpose. It is important that they be protected and not be removed.

Current Provisions Within the Surveys Act Dealing With Moving/Removal of Monuments

At present, the following provisions within the current Surveys Act [RSA 2000 Chapter S-26] deal with inspection surveys, resolution of alleged survey errors, and boundary adjustments, in terms of re-surveys, could all relate to the moving (or removal) of statutory survey monuments.

Section 6(5) (Part Two) of the Survey Act deals with inspection of surveys wherein it states:

6(5) The Director (Director of Surveys) may take steps that the Director considers advisable to correct any errors and omissions in a plan of survey before it is registered at a Land Titles Office or filed at the Metis Settlements Land Registry.

The above Surveys Act provision suggests that a land surveyor may, during the course of their operation, move or remove survey monuments that were placed prior to the plan of survey being registered at Land Titles. However, caution must be taken to record which monuments have been removed, and ensure that these monuments were not used by other stakeholders such as land surveyors, landowners or other third parties for the purpose of their surveys and construction of physical improvements respectively.

Section 9 (Part Two) of the Surveys Act provides the Minister responsible for the Surveys Act to appoint a board to investigate alleged survey errors. Section 9(11) confers the board with the powers and duties to make necessary changes to the surveys and plans...
which would, by implication, include moving monuments and boundaries associated thereto upon completing their investigation. Section 9(11) herein states:

**9(11)** The Board, on completing the investigation, may

(a) order that surveys and survey plans be varied, altered or amended in the manner that it directs;

(b) order that any descriptions, registers, certificates of title or plans of survey deposited, filed, or registered in a Land Titles Office or in the Metis Settlements Land Registry be varied, amended or altered as may be necessary to reflect the true position of monuments or boundaries, or the accuracy of dimensions or areas;

Sections 34 and 35 of the Surveys Act deal with re-survey of Part Two surveys. In addition, sections 39(6), 40, 41, 42, 43 and 48 of the Survey Act deal with re-survey of Part Three surveys.

It is interesting to note the provisions of Section 41, wherein it states:

**41** The order of the Minister confirming the re-survey is final and conclusive and shall not be questioned in any court, whether or not the monuments marking the original survey are subsequently found or their positions proved by other evidence.

Section 50(3) (Part Three) of the Surveys Act prohibits any individual to remove statutory survey monuments and survey control markers, wherein it states:

**50(3)** A person who, without the written permission of the Director, pulls down, alters, defaces or removes any monument or survey control marker placed by a surveyor in carrying out the surveyor's duties under this Act is guilty of an offence and liable to a fine up to $10,000.

As such, it is important that Alberta Land Surveyors, who have concerns about any persons moving or removing survey monuments, explain this to these persons and make them understand that statutory iron posts or any other survey monuments, including Alberta Survey Control Markers, are not to be tampered with.

### Other Legislation With Respect to Moving/Removal of Monuments

Sections 91 and 92 of the current Land Titles Act [RSA 2000 Chapter L-4] provide the following legislative process towards amending errors or making changes to plans of survey registered at Land Titles caused by clerical errors, omissions, or other defects.

Section 91 of the Land Titles Act states:

**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.

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

Section 92 of the Land Titles Act states:

**92** When there is an omission, clerical error or other defect in a registered plan, the Registrar may correct the plan if

(a) the Registrar is satisfied that the correction will not adversely affect any person, or

(b) where the correction may adversely affect a person, that person has consented to the correction, and the Alberta Land Surveyor who signed the plan or, if the Alberta Land Surveyor is not available, the Director of Surveys has consented to the correction.

When carrying out sections 91 and 92 of the Land Titles Act, it is strongly recommended that the Land Titles Office personnel be consulted and procedures governing these provisions within the Land Titles Procedures Manual be adhered to. In particular, the court may direct the removal of statutory monuments or provide boundary adjustments upon application of the above mentioned Section 91 of the Land Titles Act. It is imperative that all stakeholder consents be obtained and the prescribed legislative procedures are carried out accordingly.

### A Message to Property Owners Who Moved/Removed Survey Monuments

The physical movement of a survey monument or boundary marker does not necessarily mean that a boundary is moved without the application of the above-mentioned legislative process towards boundary adjustments. An Alberta Land Surveyor is trained to detect these movements and be able to re-establish the property corners and boundary positions at their correct locations with confidence.

Alberta Land Surveyors are the only persons permitted by law to survey land, and determine or establish property boundaries. This is supported by Section 3 of the Land Surveyors Act [RSA 2000 Chapter L-3] wherein Section 3(1) states:

**3(1)** No person except an Alberta land surveyor, surveyor's corporation or surveyor's partnership shall engage in the practice of land surveying.

As stated in the Land Surveyors Act, no persons other than Alberta Land Surveyors are allowed to render opinions on property corners and boundary issues in accordance with surveying and related legislation in Alberta. Even Alberta Land
Surveyors are not allowed to adjust boundaries and move or remove survey monuments without application to the legislative processes as specified by the Surveys Act and Land Titles Act as mentioned in the preceding sections.

While removal of survey monuments is an offense subject to monetary punishment, as stated in Section 50 of the Surveys Act, it is also costly to have the monuments replaced at the correct positions.

In addition to the above Section 50 of the Surveys Act, sections 428, 430(1)(b), 430(1)(c), 430(1)(d), 430(3), and 430(4) of the current Criminal Code of Canada [RS 1985, Chapter C-46] also suggest that one who willfully alters or removes a boundary marker lawfully placed by a land surveyor to mark a boundary of a parcel of land is considered to be an act of mischief. This act, if found guilty of an indictable offence, is liable to imprisonment for a specific term or punishable on summary conviction (additional reference: Sections 398, 399 of the Criminal Code of Canada [RSC 1970, Chapter C-34]).

Landowners having knowledge and/or witnessed a third party other than an Alberta Land Surveyor moving or removing survey monuments should report this activity to the law enforcement authority with proper supporting information.

**Is the Moved/Removed Monument Considered “Disturbed” or “Destroyed?”**

The current Manual of Standard Practice provides the following definitions for disturbed, obliterated, and lost monuments.

**Disturbed monument**—A disturbed monument is one that has been moved by someone other than an Alberta Land Surveyor in the course of his duty and that can be proved beyond reasonable doubt to have been moved from its original position.

**Obliterated monument**—An obliterated monument is one that can be restored with confidence from traces remaining on the ground of the original monument or from other physical evidence of the position of the original monument.

**Lost Monument**—A lost monument is one whose position can be re-established only by its bearing and distance from some other monument or monuments to which it had previously been connected by survey.

It seems we are becoming hung up on mathematics (precision) rather than exercising our professional discretion as to the original position of found evidence prescribed by law.

Land surveyors are required to exercise their professional judgement in determining the true original position of a found monument. When an Alberta Land Surveyor concludes that a survey monument has been moved, while in the process of conducting a survey, it is suggested that the original monument should be placed back in its original position, giving due weight and consideration to the best available evidence and circumstances of the situation provided.

In the event that an Alberta Land Surveyor concludes that a survey monument has been removed, while in the process of conducting a survey and the original monument cannot be found, it is suggested that the land surveyor should place a new monument in its original position giving due weight and consideration to all best available evidence and circumstances of the situation provided.

In either of the above situations, additional information should be noted on the plan of survey providing future plan readers with sufficient documentary information such that the position of the monument and its original position could be discerned with confidence.

Sections 44(3) and 46(3) of the Surveys Act and the provisions within Part C Section 3.8 of the Manual of Standard Practice should also be adhered to in terms of the timeframe required to register a plan of survey for these purposes.

**Food for thought**

I have been informed that some practitioners suggest that bent iron posts were “disturbed” and a new iron post was placed at a supposedly better-fit mathematical position according to the numerical bearings and distances as shown on the registered plan. This practice is not supported by sections 36, 37 and 45(4) of the Surveys Act. In one instance, a practitioner had to make a plan correction, within the confines of the legislative process, due to our SPR finding of a restorable (bent) post adjacent to the re-established post placed by the practitioner.

It seems we are becoming hung up on mathematics (precision) rather than exercising our professional discretion as to the original position of found evidence prescribed by law. Let us be mindful of the two fundamental conditions when it comes to scrutinizing survey monuments and assessing of evidence:

1. The monument is the original monument placed by the original land surveyor for the specific purpose; and
2. The monument is where the original land surveyor placed it.

If both conditions are met, the monument governs the boundary at its original position. The monument can still govern the corner, even if it may appear that a blunder has been made in placing a monument for an original survey. No amount of discrepancy between measurements and the physical location of the monument changes the fact that the monument governs, provided that the two mentioned conditions are met.

A bent statutory iron post does not necessarily mean it is disturbed, destroyed, or lost when traces or remnants of the original monument are still there, perhaps hidden away. Look thoroughly, research deeply and ask questions, for the evidence you are overlooking today will still be there tomorrow. Today is the time to think about how you want to be remembered tomorrow!
In 2004, 388 plans were prepared under Section 47 of the Surveys Act (see the Director of Surveys message on page 42). In 2005, 483 condominium plans were prepared; 60 of which (12%) were done under Section 47.

Delayed posting provisions for surveys were introduced to the Surveys Act in 1980 under Section 37 and the associated regulations. In 1987, the Act was changed and delayed posting provisions were found under Section 43 and the associated regulations. The regulations were eventually repealed with the understanding that similar provisions would be found in our Manual of Standard Practice (MSP). In 2000, the Surveys Act was consolidated and the delayed posting provisions are now found under Section 47. Part C, Section 5.7, Part D, Section 1.2.2, Section 2 and the MSP definitions explain requirements for delayed posting (otherwise known as non-monumented surveys) not covered by the Act. The Land Titles Procedures Manual also has provisions related to the preparation of Section 47 plans.

Delayed posting provisions have not changed significantly since 1980. The basic concept has always provided for the Alberta Land Surveyor to (1) establish an accurate, stable, and convenient reference control system, (2) tie this system and the boundary positions to Alberta Survey Control, (3) prepare a plan showing the survey, positions of all reference points, ASCMs and boundary points, and coordinates of same, (4) eventually post all boundary points for which posting was delayed, and (5) file a certification as proof that posting was completed.

There appears to be a wide range of interpretation of the various provisions for Section 47 surveys and our professional responsibility related to them. In the following, I have provided my view on some of the major issues.

What type of surveys can be done under Section 47?

Section 45 of the Surveys Act sets out the posting requirements when “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.” Section 47 is an alternative to Section 45 posting requirements. However, as sections 39, 42, 44, 46, and 48 all require that a plan be registered, Section 47 should also apply to these Part 3 sections. In short, Section 47 can be applied to any Part 3 survey. New Part 2 surveys (done under Sections 29 and 32) are not covered by Section 47. These surveys must be carried out in accordance with instructions from the Director of Surveys. Note that provisions for Section 47 plans are found within the examination of subdivision plans section of the Land Titles Procedures Manual. Nothing in the LTO Manual prevents extending these provisions to other types of plans.

What are some reasons for using Section 47?

Traditionally, Section 47 has been used for subdivisions in which large numbers of posts are to be placed. Delaying the posting usually allows the subdivision to be registered much sooner than a subdivision done conventionally. This has the advantage of enabling the developer to sell lots sooner and homeowners to start construction sooner. The Alberta Land Surveyor might find it advantageous to delay posting until weather conditions are favourable (the ground is frost-free) or staff is available. Unfortunately, the greatest advantage of Section 47 is often disregarded. Section 47 allows posting to be delayed until it can be expected that the majority of posts placed will remain undisturbed for many years. For this reason alone, all practitioners should view Section 47 as a viable option that serves the public interest and give its use strong consideration in every survey that they perform.

Requirements for ASCM ties and reference monuments

These provisions are explained in the MSP. The MSP defines a reference monument for the purposes of Section 47 as “a mark, other than a monument ....” Unfortunately, this definition is somewhat confusing unless you have just read the MSP definition of a monument. For clarity, the phrase “other than a monument” should probably read “other than a monument placed at a boundary.” Part D, Section 2 of the Manual of Standard Practice says “stable reference monuments shall be strategically placed to ensure their maintenance until completion of posting.” Part C, Section 5.7 says “… no property corner … [shall be] more than 200 metres from the nearest reference monument or survey control marker.”

The backbone of a Section 47 survey is based on permanent, stable, reference monuments and ASCMs. The practitioner that prepared the plan, as well as other practitioners, and possibly other members of the public, working within the survey area must rely on coordinate positions until the posting is completed and certified. Unfortunately, some practitioners may ignore the MSP and use less reliable points such as boundary monuments as reference monuments. Boundary monuments are not as stable as properly selected reference monuments and are not strategically placed. The practice contradicts the requirements of the MSP and makes use of coordinate positions by other practitioners difficult.

The 200 metre spacing requirement is most likely related to
accuracy considerations as delayed posting was introduced in 1980 - prior to GPS technology. In fact, in 1980, even total stations were still a technology of the future. Most practitioners still used plumb bobs and chains as standard instrumentation. However, while GPS and other technology has allowed accurate measurement repeatability at distances far greater than 200 metres, the MSP spacing rule is still valid. It provides considerable logistical advantages to all users of the control network and those users without sophisticated equipment are still able to carry out their surveys with sufficient accuracy.

Posting the perimeter
All the evidence required to determine the parcel boundary must be shown as found in good condition, restored, or re-established on the Section 47 plan. Part D Section 2.2.2 of the MSP discusses posting of new monuments on the plan boundary. The practitioner can choose to place these posts prior to the registration of the plan, or he may delay posting them. In my opinion, new posts on the plan boundary should always be posted prior to plan registration if there is any reasonable chance that a second practitioner will retrace part of the plan boundary prior to registration of the Section 47 certification. If the new monument positions are not posted prior to plan registration, the second practitioner is bound to accept the coordinate positions for them as published on the Section 47 plan. This can raise two problems. First, if the second practitioner integrates his survey, his boundary coordinates might conflict with coordinates shown on the first practitioner’s plan. Second, we are able to prepare a Section 47 plan outside of an integrated survey area (see MSP Part C Section 5.1) so the second practitioner might not even have been planning to tie to survey control. Is he then forced to do a control tie so that he can accept the first practitioners coordinate positions? Posting the perimeter eliminates both of these problems.

When to complete the delayed posting
It is clear from Section 47(4) of the Surveys Act that delay posted boundaries are governed by coordinates shown on the plan until the Section 47 certification is registered at Land Titles. As other practitioners and the public often find it more convenient to have boundaries governed by monuments instead of coordinates, the practitioner must balance the need to satisfy requests for placing monuments early in the project against the goal of placing them later in the project in an attempt to better serve the long-term maintenance of the survey fabric. It is not unusual for posting to be partially completed and used by other practitioners (for example, house staking) but if the Section 47 certification is not registered, those practitioners choosing to use the monuments instead of the governing coordinates are practicing in contravention of the Surveys Act and assuming additional risk. In my opinion, if there is significant risk that posted monuments will likely be destroyed, posting should be delayed until all the major construction and landscaping is complete. If the practitioner who prepared the Section 47 plan has placed sufficient and stable reference monuments, using the coordinates should be a convenient and cost effective choice for other practitioners, and one that does not contravene the Surveys Act.

Extension requests
Section 47(3) requires the practitioner to register the Section 47 certification within one year of the plan registration date unless the Director of Surveys allows a longer period. The Director accepts requests for extensions if a reasonable explanation is given.

Coordinates
Part D, Section 1.2.2 and Part D Section 2.4 of the MSP are the only reference to the type of coordinates that must accompany a Section 47 plan. In short, NAD83 3TM or UTM grid coordinates are required. See SPR Director’s message in the December 2004 issue of ALS News for a discussion on whether to use 3TM or UTM coordinates. Ground coordinates are not permitted. Coordinates can be shown on the plan or on a separate document submitted with the plan. The coordinates list (if it is a separate document) can be ordered from Land Titles by a simple service request.

The Section 47 certification
Form 11.1 of the Land Titles Act is the certification to be completed and registered once delayed posting is completed. The Land Titles Procedures Manual requires a summary of the certification form to be shown on the original Section 47 plan. Land Titles amends the plan to add the information provided by the practitioner once Form 11.1 is registered. The certification says that monuments have been positioned in accordance with coordinates shown on the plan “except for the following.” Does “except for the following” mean (A) that a monument has been placed in a position other than in accordance with the coordinates, or (B) that the practitioner was not able to place a monument or not able to place it in the usual form. Interpretation A implies that a boundary has moved. This would require a subdivision or some other form of amending the boundary and is obviously not the intention. In my opinion, interpretation B is the correct one. Any case in which a statutory iron post has been left in some unusual fashion (such as leaning or cut off, another type of monument has been placed, no monument has been placed, or other situation) should be reported in detail on the certification. Remember that this is the only public record of the final posting, and is the record most often used by all future practitioners retracing the boundaries you have created.

In summary, Section 47 surveys are a viable method of establishing boundaries that, when carefully conducted with professional integrity by the practitioner and in accordance with the various provisions, serves both the survey profession and the best interests of the public.
My first year on the Professional Development Committee was a rewarding one. I had the opportunity to see just how much work goes into being a committee member and how gratifying it can be.

In March, I was fortunate enough to moderate a Getting It Right Seminar in Red Deer. I would like to take this opportunity to thank the presenters, Ross Woolgar, ALS, Mark Selander ALS and Merlyn Cajindos from the Land Titles Office. Each Getting It Right Seminar instructor is a volunteer who takes time out of their busy schedules to prepare and then to present at these seminars. A significant amount of work is required to plan for such a seminar and their efforts are greatly appreciated. The Professional Development Committee is always looking for new presenters to take on the challenge of the Getting It Right Seminar. If you are interested, please feel free to contact the PDC in care of the ALSA office.

The seminar was very well attended and filled up quickly, but the breakdown of who attended surprised and concerned me. There were three Alberta Land Surveyors and a hand full of support staff, but the majority of those attending were articling students. Articling students are eager to learn and attend many of the PDC-run seminars. This is a reassuring trend, but the lack of participation by support staff is something that is unsettling. In preparation for each professional development seminar, the PDC attempts to format the seminars to accommodate Alberta Land Surveyors, articling students, interested members of the public and surveyors’ support staff. The lack of support staff at these training sessions is concerning.

The Alberta Land Surveyors Code of Ethics clearly states the duty of a land surveyor to train his or her staff.

The number of seminars that can be presented in a year is controlled by the number and availability of volunteers trained as presenters.

An Alberta Land Surveyor has a duty to assist his pupils and employees to achieve their optimum level of contribution to society through their contribution to the profession.

An excellent method to ensure support staff are performing at optimum levels is to have them attend the Professional Development seminars, including the Getting It Right Seminar. Each seminar is designed to train staff in select areas of land surveying. With the amount of survey work being done in Alberta, the work being delegated to support staff is increasing, while the level of supervision by an ALS, in most cases, is decreasing. It is just a matter of numbers; the amount of work is increasing at a rate higher than the number of pupils finishing the articling process. With all the work being completed employees, proper staff training is becoming a very important aspect of land surveying.

Currently, the PDC is putting on two Getting It Right seminars a year. The number of seminars that can be presented in a year is controlled by the number and availability of volunteers trained as presenters. Fewer volunteers means fewer seminars. Fewer seminars means fewer people can attend the seminars. Currently, the Getting It Right seminars are filling up in less than two days. The Red Deer session contained no Central Alberta participants; they were all placed on the waiting list. Perhaps we need to think about allocating more resources and perhaps funds to professional development. The interest in training is there. The Professional Development Committee currently contains 16 members and is allocated a very modest budget. Other committees utilize professional consultants and some require full-time staff, hired by the Association. With our strong economy, work loads are extreme and the demands to train employees are at an all-time high. Training needs to keep pace with demand or problems will start to be noticed in all survey work.

The Getting It Right seminars are not the only seminars being presented by the Professional Development Committee. Coming up are seminars on Field Notes in October 2006, GPS in November 2006 and Data Management in January 2007.

If you have any seminar ideas or are interested in seeing specific seminars put on by the PDC, please contact the Professional Development Committee through the Association office.

Seminars 2006-2007

Data Management
Calgary - January 2007

Exam Preparation
Red Deer - March 2007

Field Notes
Calgary - March 2007

GPS
Edmonton - October 25, 2006

Getting It Right
Calgary - March 2007

Grande Prairie - March 2007

Land Titles

Documents/Procedures
Edmonton - February 2007

Natural Boundaries
Lake Louise - April 2007

NOTE:
This list is subject to change.
The number of women encountered in the field is continually increasing, reducing the shock to consultants when a female crew arrives to survey a pipeline.

Hiding the fact that land surveying is physically demanding will not make the industry more attractive to females, instead it will give them a false sense of what it is like. However, there are many ways to work around the tasks to decrease the amount of intensity that a job appears to have. Here are some examples:

- **Use the buddy system.**
  Having a female chainperson for most of my party chiefing time, we had to use the strength of two people rather than one.

- **Be smart.**
  Look for alternatives to the “brute force” method.

- **Use equipment that makes tasks easier.**
  Instead of lifting a quad out of the mud, use a winch.

- **Maintain your equipment.**
  Chopping down a tree with a sharp axe is much easier than with an axe that is dull.

Women in the land surveying profession do not have to be amongst the strongest women in the world, they just need to be smart about how the tasks can be accomplished. Having the knowledge and physical capabilities are important, but attitude is a huge success factor.

Sugar coating things is not really my strong suit so I’m not going to tell the women out there that this profession is fully accepting of women. However, I will say that it is getting much better. The number of women encountered in the field is continually increasing, reducing the shock to consultants when a female crew arrives to survey a pipeline. I found that in the majority of cases, the female presence is welcomed. If it isn’t, it doesn’t take a long time for them to discover that the job can get done regardless of who is completing it.

Safety has changed the way we conduct ourselves in the field. When I speak to females wanting to enter the profession, they are not only concerned with safe work procedures, they are more concerned about the possible harassment that they may encounter in the field. Your personality and the way you conduct yourself will have the most impact on what you will have to deal with. I found that the majority of the time the situations that you encounter are under your control.

Work/life balance is a very important consideration when selecting a career. Land surveying is similar to other professions and one cannot always expect to enjoy regular hours. The hours that a land surveyor works can range from 40 to 80 hours a week. This will depend on the chosen region and sector serviced.

In the current job force, more employers are being flexible with work schedules, hours, and vacations where family commitments are concerned. Many land surveyors find that their own clients dictate their workload. They have the freedom and flexibility to manage their projects and the number of hours they work.

Unfortunately, there is a lack of manpower and a large volume of work and finding the “work-life balance” can be a challenge. Having said that, employers are willing to accommodate professionals and other employees, to ensure that the career they have chosen is a satisfying one. As a professional, your value to your employer will be
substantial, and thus finding a routine which meets your needs is a priority.

I strongly encourage women to enter into land surveying. I find that every day presents itself with a new challenge, and with the rate of change in technology the amount that one can learn is unlimited.

Do you ever remember reading this riddle and being stumped?

A young boy and his father were out playing football when they were caught at the bottom of a giant pileup. Both were injured and rushed to the hospital. They were wheeled into separate operating rooms and two doctors prepped up to work on them, one doctor for each patient. The doctor operating on the father got started right away, but the doctor assigned to the young boy stared at him in surprise. “I can’t operate on him!” the doctor exclaimed to the staff. “That child is my son!”

How can that be? Until more women got into medicine, the answer was not as easily thought of as it is today.

The image of what a surveyor looks like is changing.
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, 2006, the Director of Surveys has approved and confirmed three official township plans and one settlement plan in accordance with Section 33 of the Surveys Act. The three township plans involved, 79-12-5, 78-13-5 and 79-13-5, were prepared as a result of a major township subdivision survey within the Gift Lake Metis Settlement. These new township plans are available from Alberta Government Services, Alberta Registries online Spatial Information (SPIN) System website at www.spin.gov.ab.ca. The settlement survey is located near Fort McMurray and the plan is registered at the Land Titles Office as number 0621177.

**New address for Land Surveys Unit and Geodetic Control Unit**

The Land Surveys Unit and the Geodetic Control Unit have moved floors, from the 14th Floor to the 15th Floor. All staff telephone numbers and email addresses remain the same. The new address is:

Surveys & Technical Services Section
Lands Division - Land Dispositions Branch
Alberta Sustainable Resource Development
15th Floor - Oxbridge Place
9820 - 106 Street
Edmonton, AB T5K 2J6
Fax: (780) 427-1493

**Non-Monumented Survey Plans (Section 47, Surveys Act) 2004 Review**

The Director of Surveys office continues to monitor plans registered under Section 47 of the Surveys Act. The review of registrations for 2004 has been completed and the following statistics are available:

- Total number of Section 47 plans = 388 (242 North and 146 South)
- Section 47 Subdivision Plans = 350 (221 North and 129 South)
- Number of Section 47 plans, as of May 1, 2006, with Form 11.1 incomplete = 35 (19 North and 16 South)
- Total number of Section 47 plans that did not comply with the Surveys Act (registration of Form 11.1 within 12 months) = 155 or 39.9%.

Surveyors’ cooperation is requested to ensure that the requirements of Section 47(3) are fully compliant.

**New Online Services**

Sustainable Resource Development is pleased to announce the implementation of two new online service websites. Both sites are related to the online submission of public land surface dispositions and amendments. For further information, links, and FAQs about each service, please visit the websites.

**EDS (Electronic Disposition System)**

The EDS will allow clients to submit applications/amendments and associated documents, such as consents, EFR, code of practice, and plan packages for specified surface dispositions electronically.

**PCS (Plan Confirmation Service)**

The PCS allows clients to virus check, level check, zip and encrypt plan packages prior to submitting to the department through EDS. Plan packages that are approved by the system will be processed, encrypted and sent back to the submitter with a confirmation number.

**Electronic Disposition System**

The Division has taken a phased approach to automating the business processes. The opportunity provided by this automated system will ensure that industry clients are provided with efficient and consistent service from government departments providing access to Alberta’s resources.

EDS provides a web-based solution that includes the following features:

- Ability to submit applications and amendments including required attachments. Specified purpose codes for LOC, MSL, PLA and PIL disposition types are included at this time.
- Ability to upload an encrypted compressed file containing disposition plans and meta-data file.
- Ability for industry clients to associate two related surface dispositions through the web page and attach a single plan for the applications.
- Ability to perform real-time validation through the web interface. Business rule violations will be displayed back to
the industry client at the time of data entry to the database.
· Ability to notify client of unsuccessful submission and errors.
· Ability to automatically notify the industry client of the surface disposition number.

Further details regarding the Electronic Disposition System will be posted on the Division’s website in the near future.

Plan Confirmation Service

The Plan Confirmation Service (PCS) is a secure site available to clients involved in the business of creating plans for application or amendment of surface dispositions on public land. All surface disposition plans identified for digital submission must be submitted to the PCS website.

The PCS performs a number of functions on files submitted for validation.

- **Virus Checking** – checks all submitted files for viruses.
- **Level Checking** – checks CAD file to ensure data is present on specified levels.
- **Content** – checks to ensure required files are included in submission.
- **Zip** – zips files to minimize file size.
- **Error Notification** – notifies submitter if errors exist.
- **Confirmation Number** - issues confirmation number if submission is validated successfully.
- **Encrypts** – encrypts the zipped files following validation.

Information regarding which surface dispositions must be submitted electronically using the PCS can be found by going to application/amendment/plan formats document.

You can find details on how to acquire an account to access PCS and the submission procedure on the Division’s website at www.srd.gov.ab.ca/land/index.html, under the heading ‘Online Services.’

Contacts

**Mike Michaud**
Section Head,
Surveys and Technical Services
Dispositions and Technical Services Branch
Phone: (780) 422 0020
Email: Mike.Michaud@gov.ab.ca

**EDS Support**
Surveys and Technical Services
Dispositions and Technical Services Branch
Phone: (780) 427 3570
Email: ADEPT.Support@gov.ab.ca

---

**AGM 2006 — Exhibits**
University of Calgary
Elizabeth Cannon Named Dean

One of Canada’s most accomplished scholars and respected teachers has been named Dean of the University of Calgary’s Schulich School of Engineering. Dr. Elizabeth Cannon, a world leader in global positioning systems research and the recipient of numerous teaching, research and leadership awards, takes over July 1, 2006.

“It is a real coup for the University of Calgary to be able to appoint her as dean.”

“Dr. Cannon’s appointment underscores the depth and international reputation of the Schulich School of Engineering,” said Dr. Harvey Weingarten, President of the University of Calgary. “She is a recognized leader in her field, she is valued and appreciated by a generation of students, and now Dr. Cannon has chosen to take on this responsibility at a turning point in the School’s history. It is a real coup for the University of Calgary to be able to appoint her as dean.”

Dr. Cannon’s work is in research and teaching in the area of satellite-based navigation and location systems for land, air and marine applications. Currently professor and head of the Department of Geomatics Engineering, Dr. Cannon was the NSERC/Petro-Canada Chair for Women in Science and Engineering (Prairie Region) from 1997-2002 and was inducted into the Canadian Academy of Engineering in 2000.

“We’ve really emerged as a strong engineering program in Canada, but our goal is to be in the top handful internationally. I personally place a lot of value in excellence, and I thought it was a good match in terms of what I believe in and where the Schulich School of Engineering wants to go,” said Cannon.

“One of the things that’s particularly exciting is that Calgary is considered to be Canada’s engineering capital. We have an excellent platform from which to reach our goals, especially given the Schulich donation,” said Cannon. The School’s connection to Calgary is critical, said Cannon, particularly the strong support it receives from industry and the community as a whole.

Dr. Cannon received a BASc in Mathematics from Acadia University in 1982. She then moved to Calgary and received her B.Sc. (1984), MSc (1987), and PhD (1991) all from the Department of Geomatics Engineering.

Dr. Cannon has recently been named to sit on the Board for the Alberta Information and Communication Technology Institute and the Board of Directors for the Canada Foundation for Innovation. Dr. Cannon is also on the Boards for the Alberta Ingenuity Fund, the Alberta Science and Research Authority as well as the Enbridge Income Fund. Dr. Cannon is a Fellow of the Royal Society of Canada and completed an NSERC Steacie Fellowship in 2004.

Dr. Cannon has received many awards in the local, national and international arenas, including being named one of Canada’s Top 40 Under 40.

MAY 15, 2006

Leaders Chosen to Help Chart Alberta’s Future in Information and Communications Technology

Leading scientists and entrepreneurs, including the University of Calgary’s Dr. Elizabeth Cannon, have been named to the board of the new Alberta Information and Communications Technology Institute, to provide leadership and guidance in expanding Alberta’s information and communications technology sector (ICT).

The Alberta government has identified ICT as a priority sector to build on Alberta’s existing strengths and develop a more globally competitive, knowledge-based economy. Establishing an ICT institute is the next step in implementing the Alberta Science and Research Authority’s ICT strategy “Information and Communications Technology: A Strategy for Alberta.” This strategy has led to many successful projects and the creation of substantial infrastructure. Some important outcomes from this strategy include: the Alberta SuperNet, the Alberta Informatics Circle of Research Excellence (iCORE), Alberta Ingenuity’s Centre for Machine Learning, investments in WestGrid and Netera, and the establishment of the National Institute for Nanotechnology in Edmonton.

“Information and communications technology is the fastest growing economic sector in the world, with a wide range of applications in just about every area of our lives,” said Victor Doerksen, Minister of Innovation and Science. “The ICT Institute will play a vital role in guiding industry growth and positioning Alberta for success in the global knowledge based economy.”

The Institute’s board will provide strategic advice and policy recommendations and set priorities for research. It will expand and update the province’s existing ICT research and innovation strategy and provide direction for public investment in research and development activities throughout the province.

The Alberta Information and Communications Technology Institute was created under legislation during the Spring 2005 Session of the Legislature.
Qiaoping Zhang Wins Two Awards

The Department of Geomatics Engineering is pleased to announce that PhD student Qiaoping Zhang has won two awards. The first is the 2006 ASPRS Space Imaging Award, which carries with it a grant of data valued at up to $2,000, and a certificate inscribed with the recipient’s name and his/her institution. This award is presented by ASPRS, with funding provided by Space Imaging.

The second is the 2006 ASPRS Leica Geosystems Internship, which provides an eight-week internship for graduate students in photogrammetry. The selected intern will work with Leica Geosystems personnel at facilities in San Diego, Denver, Heerbrugg, or elsewhere. The internship consists of a stipend of $2,500 plus an allowance for travel and living expenses for the period of the internship. This internship is presented by ASPRS, with funding provided by Leica Geosystems GIS & Mapping, LLC.

Presentation of the awards took place during the ASPRS 2006 Annual Conference in Reno, Nevada, on May 3rd, 2006. Qiaoping would like to take this opportunity to thank his supervisors, Drs. Isabelle Couloigner and Ayman Habib, for their constant support and guidance throughout the course of his research.

Congratulations Qiaoping! MARCH 27, 2006

University of New Brunswick
Former UNB Engineering Professor to Receive Honorary Degree at Encaenia

Dean of Engineering, Dr. David Coleman has announced that former UNB Engineering professor Salem (Sam) Masry will receive an honorary doctor of science degree at this year’s Encaenia ceremony.

Dr. Masry is founder, president and CEO of CARIS, a Fredericton-based company with offices in the Netherlands and the USA. A professor at in the Department of Surveying Engineering (now GGE) for twenty years, Dr. Masry achieved international recognition in the fields of computerized mapping and geographic information systems (GIS). He developed, or co-developed several new ideas in the field of geomatics, co-invented and patented a technique for laser plumbing in mining, and developed a series of digital mapping courses that became the basis for UNB’s GIS program.

Dr. Masry also initiated several digital mapping research projects, including a project to investigate mapping of Canadian coastal waters using photogrammetry. This project led him to found CARIS in 1979. Dr. Masry left UNB in 1986 to devote himself to the management of the company. Today, CARIS has over 150 employees and CARIS software is used in over fifty countries. The company has employed hundreds of UNB graduates since its inception over 25 years ago.

Dr. Masry has received several awards, including the Talbert Abrams Grant Award from the American Society of Photogrammetry and Atlantic Canada’s Innovator of the year in 1989.

Sue Nichols Receives Merit Award

Congratulations to Dr. Sue Nichols who has been selected to receive a UNB Merit Award for the academic year 2005-2006. This recognition is awarded annually to faculty who have been assessed as particularly meritorious. Its purpose is to recognize and encourage faculty and librarians who have made an outstanding contribution to the University. “It is a singular honour which is bestowed upon you in recognition of outstanding performance, commitment and service to the University.” John McLaughlin, President.

MARCH 27, 2006

AGM 2006 — Sports Pub Night
When is a bank not a bank?

The following is a synopsis of the written reasons for judgment of Andriet v. County of Strathcona No. 20, 2005 ABQB 848.

The case should be of interest and concern to land surveyors. Not only were there several issues dealing with riparian rights, but the various decisions were not what one would expect. Most of the issues dealt with rights to accretion in Grandview Bay, a bay in Cooking Lake, Alberta.

The plaintiffs included Douglas B. Andriet and Jacqueline M. Andriet. The defendants included the County of Strathcona No. 20, Peter Brian Todd, Lynn Francis Forsythe, Gary Alexander McGowan, Kenneth Schley, Patricia Schley, Brian Allan Dawson, Judy Loraine Dawson, William Johansson, Frances Johansson, Donald Mills, Sheila Mills and Her Majesty the Queen in the Right of the Province of Alberta. It was held before the Honourable Mr. Justice D.W. Perras.

In order to determine the extent of the accretion in Grandview Bay all the parties engaged Alberta Land Surveyor Wayne Wesolowsky to conduct a survey of the location of the current bank. As well, Alberta Land Surveyor Ken Allred gave evidence on behalf of the defendants and Alberta Land Surveyor Duncan Gillmore (Sr.) gave evidence on behalf of the plaintiffs.

Accretion in NW¼ of Section 13-51-22-W4M

There were several claims for accretion in Grandview Bay in the NW¼ of Section 13-51-22-W4M.

1. The Andriet Claim

The plaintiffs, the Andriets, claimed, as riparian owners of land certain lands that they alleged have accreted to their land as a result of the water of Cooking Lake receding over a number of years. Their land is the remaining portion of the NW¼ of Section 13-51-22-W4M. The description contains the words "not covered by any of the waters of Cooking Lake, . . . , which lies north of the north boundary of the land subdivided under plan 2611ET, and east of the easterly limit of the road as shown on road plan 5255CL..." There are also several exceptions.

The boundary relevant to the accretion is the bank of Cooking Lake located by R.W. Lendrum in 1902, which is shown on a 1903 township plan referred to in Andriet’s certificate of title. With regard to Andriet’s claim, the Justice states:

[14] In my view the Andriets are entitled to the land as set out in their Certificate of Title which, when read carefully, fixes the easterly boundary as set out in plan 2611ET, which adopts the easterly boundary as found by R.W. Lendrum in 1902. The description on the title to the property has been consistent throughout its history since plan 2611ET, which in my view must be given substantial weight when addressing a boundary issue since the title gives a clear picture of the properties within the boundaries. I therefore find that the Andriets are limited by the boundaries set out in their title and are therefore not entitled to any accreted land as they are not riparian owners.

2. County of Strathcona #20

One of the exceptions in Andriet’s certificate of title was a parcel sold to the County of Strathcona for road widening purposes. The parcel is shown on the 1980 Plan 802-1713 and was purchased from the Lerbeekmos in 1979 out of the land that they subsequently sold to the Andriets. The boundary relevant to the accretion was adopted from a 1967 plan, Plan 5231 NY, and is shown on Plan 802-1713 as “Bank according to C.H. Weir in 1967.” Justice Perras states that this boundary is in keeping with what the Lerbeekmos intended to sell to Strathcona in 1979. With regard to this issue, the Justice states:

[15] I find that Strathcona is limited to the boundaries set out
in the two plans and is therefore not entitled to any accreted land related to the parcel delineated in plan 5231NY and plan 802-1713, both of which, in my view, must be given substantial weight in determining the disputed boundaries as the plans are quite precise so that proper dimensions can easily be ascertained.

The County also owned lots 1 and 13 shown on Subdivision Plan 2611ET surveyed in 1936. The boundary relevant to the accretion is shown on this plan as “Bank of Lake according to traverse notes of R.W. Lendrum DLS in 1902.” With regard to this issue, the Justice states:

[16] The easterly boundary was fixed by subdivision survey where the survey adopted the easterly boundary that coincided at the time with what had been the bank of Cooking Lake as found in 1936.

3. Other Lot Owners in Subdivision Plan 2611 ET

The other defendants (except for McGowan) also owned various lots shown on Subdivision Plan 2611ET. The boundary relevant to the accretion is also shown as “Bank of Lake according to traverse notes of R.W. Lendrum DLS in 1902.” With regard to this issue, the Justice states:

[20] In my view then the lot owners have no riparian claim to accreted land as their easterly boundary is fixed and not subject to movement and they are therefore not riparian owners.

The Justice provides some context for his decisions by, in his introduction of the reasons for judgment, stating:

[4] The various claims of all the parties overlap extensively, such that none of the usual survey techniques can offer up a rational solution to the competing claims.

And in the very last sentence of the reasons for judgment stating:

[39] Invariably the context in the reported decisions involved several parties claiming the same land, however, either the common law rights of riparian land owners offered up an answer, or resorting to the integrity of the survey system coupled with the Torrens system of registering title offered up an answer, and occasionally disputes could be settled by having regard to various survey techniques. However, in the peculiar circumstances of this case none of the usual methods for determining disputed boundaries brought about a fair and equitable conclusion, hence my resort to giving significant weight to the various plans to establish boundaries.

McGowan Claim

1. Accretion in Section 24-51-22-W4M

The defendant McGowan claimed as a riparian owner accreted land to Lot 2, Block 3, Plan 862-2863 which is located in Section 24 adjacent to the NW¼ Section 13-51-22-W4M. Accreted lands had previously been added to the title of that lot by Plan 867-2863. With regard to McGowan’s claim, the Justice states:

[23] There is no contention to the McGowan claim for accretion to Lot 2, Block 3 and accordingly there will be a finding that Gary McGowan is entitled as riparian owner to title to all accreted lands to the east of his property; even though the potential accretion from 1986 to present does not appear to be great, nevertheless, it is conceded that such has slowly and imperceptibly increased over the last 19 years.

2. Decision Regarding Adverse Possession

The second claim by McGowan, for land that is south of his lot and that lies in the NW¼ 13-51-22-W4M, is based on the concept of adverse possession.

The Justice adopted the test for adverse possession as used by Justice Dea in Edwards v. Edmonton Beach Resorts Ltd. (1992), 130 A.R. 375. He found the element of exclusive possession required for adverse possession, on a balance of probabilities, was not proven and denied that aspect of the McGowan’s claim.

Miscellaneous Matters

1. Lease between Her Majesty the Queen and County of Strathcona

There was a 21-year lease issued in 1980 between Her Majesty the Queen and the County of Strathcona that covered all those portions of legal subdivisions 13 and 14 of Section 13-51-22-W4M which comprised the exposed bed and shore of Cooking Lake, 18.67 acres more or less.

With regard to this lease the Justice states the following:

If indeed the Crown claims to be able to lease Section 13 which comprises the exposed bed and shore of Cooking Lake, then perhaps the land sought as accreted land by the land owners in and around Grandview Bay is indeed Crown land. In my view it is Crown land to deal with as the Crown sees fit.

2. A Claim for Trespass

A claim by the Plaintiff Andriets in trespass as against the defendants Peter Brian Todd and Lynn Francis Forsythe was dismissed.

Tenants in Common

The Justice discussed a proposal made by counsel for McGowan that would recognize everyone’s claim to some extent. He stated that it is too early to invoke such a process and that the parties themselves could arrive at a solution similar to the tenants in common proposal, but it would have to be voluntary and ultimately registrable. He stated:

[35] Lastly all counsel agreed that whatever decision was reached by the Court with respect to the various claims that consultation would be undertaken with counsel for the Crown, who took no part in the trial, with a view to working out a plan for registration with all parties agreeing to use the Wesolowsky report and his 2005 survey as a springboard to a registerable plan.
Comments on the Case

1. The contention amongst the parties on how the accretion should be apportioned and the Justice’s difficulty in determining a fair and equitable solution to dividing up the accretion appear to be significant factors in the decisions.

2. It is agreed that methods of dividing accreted land such as projecting side lines (normally only used for small amounts of accretion) or using lines laid out perpendicular to the shore line may produce overlap where there is a large amount of accretion. However, there are other methods that would result in a more equitable division of the accreted land. Apportionment of the accreted lands made by proportioning the frontage along the new bank in the same ratio as the frontage along the old bank is a well-accepted method that would appear to offer a fair and equitable solution in this case and is a solution based on the law regarding accretion and apportionment of accreted lands.

3. It is acknowledged that entitlement to accreted lands where a boundary of a parcel is described as a bank cannot always be assumed. There can be situations in which a bank having been adopted as boundary may not, in fact, be a riparian boundary. For example, this could occur in situations where there are a number of banks (by the popular definition of the word) and the bank shown on the plan as the boundary is one of these and not the legal “riparian” bank. In such a situation, it would also make sense that the landowner’s right to the accretion may be further weakened if, in fact, over the years, the owner had not used or occupied the accreted lands. However, if these were factors in the Justice’s decision they were not mentioned.

4. Would the decision have been different if, instead of adopting the position of the banks as previously surveyed, the surveyors for plans 5611 ET and for 802-1713 had surveyed the natural boundary as it existed on the ground at the time of survey? The Justice’s decision with regard to McGowan claim to accreted land in the adjoining Section 24 indicates that the answer is probably yes. The only apparent difference between McGowan’s claim for accretion and the claims of the other parties in Section 13-51-22-W4M is that accreted lands had previously been added to McGowan’s land and there was no contention.

5. Should the fact that the surveyors adopted the location of previously surveyed banks instead of surveying the natural boundary as it existed on the ground at the time of survey result in the banks not being riparian boundaries? While the answer no doubt would depend on a number of factors I believe most surveyors would say that it still should be a riparian boundary. On the other hand, not surveying the natural boundary as it existed on the ground at the time of survey certainly weakens the case.

6. The decision with regard to the 1980 lease between Her Majesty the Queen and the County of Strathcona is perplexing. It appears to not make a distinction between the bed and shore (the lands dealt within the lease) and the accreted lands. One would be hard pressed to see how being able lease the bed and shore would result in the accreted lands being determined to be Crown Lands.

7. McGowan’s claim for adverse possession is interesting. As a result of Johnson v. Alberta (Minister of Public Works Supply and Services), it is well established in Alberta that accretion is not allowed to be added to one’s title where it expands beyond the boundaries of a section, quarter section, or legal subdivision of a plan referred to in a certificate of title. However, the fact that the Justice considered a claim for adverse possession in such a situation is noteworthy. It will be interesting to see if an adverse possession approach is successful in future case law.

8. The Justice’s comments with regard to the tenants in common proposal is revealing. By giving his view that all the accreted land is Crown land, the Justice is leaving the door at least partly open to a solution where the accreted lands could be used for common purposes. Such a solution could very well be an acceptable solution to the defendants. However, it is less likely to be acceptable to the plaintiffs, the Andriets, as the area of the accreted land in front of the Andriet’s land is substantial and much more useful than that of the defendants who would only gain long narrow strips of land.

While the Justice’s decision may satisfy some of the parties, it is a challenge to see how it could have been based on the law regarding accretion and apportionment of accreted lands. Nevertheless, there are lessons to be learned. For the land surveyor, it does indicate the pitfalls of adopting the surveyed location of banks from previous surveys. For landowners with land that has accreted to their property, it’s probably a good idea to periodically update the title description to include the accreted land.

The full text of the decision is on line at: www.albertacourts.ab.ca/go.aspx?tabid=13

Footnotes
Long Ago and Far Away
by Patrick Vaville

The year is 1897. Seth Brown’s son, Zeke, is getting married. As a wedding gift, Seth wants to give ten acres of his 320-acre farm to Zeke and his new bride.

It’s a warm, muggy day; the locusts are droning loudly and the corn is already chest high when Seth and Zeke head out through the fields to the southwest corner of the farm.

A large patch of briars has overgrown a fence post that marks the southwest corner of the farm. Seth stands next to the briar patch and, looking north, paces off 220 steps. He doesn’t need a compass because he knows, as does everybody in Perry County, that Floyd’s Knob lies directly north of the Brown’s homestead. At that spot, Seth and Zeke bury a large limestone in the ground, leaving the top one-foot of the stone above the soil. Seth then turns due east from Floyd’s Knob and paces off 220 steps. Zeke has to help his father cross Miller’s Creek on this pacing and, looking north, paces off 220 steps. Zeke has to help his father cross Miller’s Creek on this pacing and, looking north, paces off 220 steps. Zeke has to help his father cross Miller’s Creek on this pacing and, looking north, paces off 220 steps. Zeke has to help his father cross Miller’s Creek on this pacing and, looking north, paces off 220 steps. Zeke has to help his father cross Miller’s Creek on this pacing and, looking north, paces off 220 steps. Zeke has to help his father cross Miller’s Creek on this pacing and, looking north, paces off 220 steps. Zeke has to help his father cross Miller’s Creek on this pacing and, looking north, paces off 220 steps. Zeke has to help his father cross Miller’s Creek on this pacing and, looking north, paces off 220 steps.

A few weeks later, Seth takes his wagon into town for supplies. While there, he stops at the Recorder’s Office and presents a signed deed for recording that grants the ten acres to his son and daughter-in-law. The legal description on the deed reads, “A ten acre square parcel at the southwest corner of my farm as measured by me and my son and marked by stones.”

Fast Forward

It’s now 2005. The Brown family farm was sold many years ago and has gone through a series of different owners, the current one being Big Tiny Little. The ten-acre parcel has also gone through a series of different owners, but stayed in the family—the current owner being the old librarian, Maude Brown. Big Tiny, tired of farming and wanting to be a mover and shaker, enters into a deal with a developer to turn his farm into a commercial center complete with a “Super-Center-Where-We-Sell-For-Less-Always.”

Surveyors from the big city are brought in to mark the boundaries. In reading the current deed, it says that Big Tiny owns, “The south half of section 10, excepting a ten-acre tract at the southwest corner being 660’ x 660’.”

One day Maude sees a man wearing a backpack with an antenna sticking out of it walking around her property. Curious, she moseys out and asks him, “Are you a surveyor?”

The man answers, “No ma’am. I’m a geometrician.”

Concerned, because he doesn’t appear to be following the lines that Maude remembers as defining her property, she questions the man further. “How can you tell if you’re on the right line? You don’t have a measuring tape and I don’t see a transit anywhere.”
ment has encroached over Maude's north and east lines by a considerable amount.

**What Went Wrong?**

In a visit to the courthouse, Pete Mitchell traced a chain of title on Maude's property back from the present to when Seth Brown originally recorded the deed to the ten acres. In one transaction some thirty years earlier, it appears that someone "sanitized" the legal descriptions for the overall parcel and the ten-acre tract in order to eliminate extraneous calls.

Based on the appraised value per square foot of the commercial property and the amount of encroachment onto her property, Maude retires with a very sizeable settlement in her bank account.

**Reality Check**

This is obviously a fictional story, but the gist of it hits home for all of us. In an effort to keep up with the ever-changing technology of GPS and computer programs, have we lost focus of what our job really is? Today, there is more pressure than ever on getting the job done in the shortest amount of time. Clients want instant results. The new breed of surveyors are certainly technological wizards, but from what I'm seeing, many of them know more about which buttons to push than the nuts and bolts of surveying. This is not to say that there aren't many fine young surveyors out there—there are. The technology we have today has made certain tasks much easier, but it has also created a more stressful and "quick fix" environment than we've ever seen. In the old days, you told the client it would take ten days to two weeks to complete a section breakdown, perform the computations, and then get their parcel staked out. Add another three to four days to produce a survey plat with a Leroy lettering set and this was accepted. Try giving that time frame to a client today.

This is not to say we should abandon all the nice toys we have. I'd hate to go back to using a transit, chain, machete, and dip needle to perform my surveys. (Does anyone even remember what these things were?) But, in the days when that gear was used, there seemed to be a lot fewer boundary disputes and multiple monuments being set. I wonder why that was?

At 52-years-old, I'm considered by some up-and-comers to be an "old timer." I accept that moniker with a certain degree of pride. Not long ago I was looking at some new survey equipment and expressed my amazement at how far the technology has come since I started surveying thirty years ago. A young man standing nearby laughed and said, "I can survey circles around you."

My response was, "No, you might be able to measure circles around me and push buttons faster than I can, but I wonder how you would do if the batteries in your equipment died or your computer crashed on you." He gave me a deer-in-the-headlights look. I said, "I could still keep the job running—could you?" You can push buttons all day; get amazing numbers on your GPS units and total stations, and massage those numbers in a least squares program, but if you don't have enough savvy to know when an old stone or pipe you found is the property corner, and the tolerances it was set under, or if you miss it completely; it's not a question of if you will end up in court one day, but when.

Stay focused, ladies and gentlemen.

**Patrick Vaville** is a registered land surveyor and vice-president of SEC, Inc. in Sedona.

---

**AGM 2006 — Members’ Lunch**

---

---

---
The law of adverse possession received a further castigation at the 1925 Annual Meeting when Mr. James McCaig, Solicitor for the Canadian Pacific Railway Company, read a paper on “The Status of Certificates of Title in Alberta.” Although Mr. McCaig had a Corporation axe to grind in presenting this paper, it was of value in presenting a clear exposition of the general state of the law respecting the ownership of land under the Land Titles Act and it contains much material that deserves the attention of the practicing land surveyor today.

During the preceding year, the Council had received a complaint apparently concerning the employment of one of the members of an unqualified person who had performed certain surveys without proper supervision. The file on this case cannot now be found and there are only scanty references to it in the recorded proceedings of the Council, but it was serious enough to lead to a considerable expenditure on legal advice and to cause the Council to propose several changes in the existing provisions of both the Alberta Surveys Act and the Alberta Land Surveyors Act relating to the personal supervision of field work and unauthorized practice as a surveyor. The intention was evidently to make these provisions more stringent and the amendments that the Council had drafted were endorsed by the annual meeting. Later records indicate, however, that the Association did not succeed in getting these changes accepted by the government until 1931 when they were incorporated, at least in part, in a completely revised Alberta Surveys Act that was passed in that year.

Apart from this matter, only routine items of business were transacted at the 1925 meeting, and it would seem that the better times had petered out. Neither of the Cautley brothers, who had formerly been dependable initiators of some lively argument, was present on this occasion, and although Mr. Pearce, Mr. Doupe and other formidable debaters were on hand, there was apparently nothing in the discussions to excite their participation. One gains the impression that this was the first of a succession of annual meetings that can only be characterized as dull, and that the stirring times of the preceding few years had petered out.

Percy Johnson
A native of Nottingham, England, Percy Johnson came to Canada in 1898 and, in 1899, entered the service of the NWT government. He worked on irrigation projects in the Calgary district for a short time and was, afterwards, employed by the Canadian Pacific Railway and the City of Edmonton.

After serving articles under Lionel Charlesworth, Mr. Johnson obtained his DLS commission in 1909. In 1912, he was appointed district surveyor and engineer at Edmonton and later at Calgary. In 1922, he returned to Edmonton as Assistant Director of Surveys and, in 1923, was appointed Director, a position he held until his retirement fifteen years later.

Mr. Johnson remained a steadfast advocate of the virtues of all things British. He enjoyed debate and argument and always listened with respect to the views of others. His outstanding characteristic was his fair-mindedness and this, together with his genuine personality and native common sense, earned him the high esteem of his fellow surveyors.

He was an enthusiastic lawn bowler and pianist of considerable accomplishment. He had little patience with modern frivolities and would often express himself forcefully on such subjects as motion pictures and radio.

Johnson Lake (SE-14-124-1-W4) is named after him.

Mr. Johnson died on October 11, 1942 in Victoria, British Columbia at the age of 67.

- Charter member of ALSA, 1911
- Director of Surveys, 1922-1937
- ALSA President, 1919, 1925, 1935
- ALSA Registrar, 1927-1931
- Honorary Life Member, 1939

George Edwards
George Edwards was born at Clarence, Ontario, on June 13, 1842, and died at Cold Lake, Alberta, on January 21st, 1922.

The late George Edwards graduated from McGill University in 1863, and prior to his death was the oldest living science graduate of McGill.

He obtained his commission as an Ontario Land Surveyor in 1866, as a Dominion Land Surveyor in 1872, and as an Alberta Land Surveyor in 1911.

In the spring of 1898 he went into the Yukon Territory over the Stikine Trail, and practiced his profession there for nearly four years.

From 1903 to 1910, he was engaged in miscellaneous surveys in Alberta, and during this period he completed several large contracts with the Dominion Government.

From 1911, he practiced in Ponoka as an Alberta Land Surveyor, but of late years devoted his whole time to the development of extensive lumber interests owned by him in Northern Alberta.

The late George Edwards was the oldest member of the Alberta Land Surveyors’ Association when
he died and always took a keen interest in its affairs. He had a quiet dignity which commanded the respect of all who came in contact with him, and his kindly nature and fine character won him many friends.

Mark Your Calendar

2007 AGM —April 26-28
Chateau Lake Louise

AGM 2006 — President’s Ball