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president's message

by Al Nelson, ALS

As I sit down to write this article, the Christmas season and festivities are in full swing. Christmas trees are up; the lights are shining from many houses and offices; stores are full of toys and shoppers. It appears that the syndrome of corporate Christmas parties has returned to the business world. For those of you who get to share in this celebration, please remember to arrange alternate transportation if you intend to have a pop or two and also ensure your staff are reminded and cognizant of the grief that an unfortunate accident or incident could bring to the Yuletide season.

In order to foster the spirit of giving at Christmas, I would also remind you that we have seen an increase in the number of delinquent accounts in the Association books. I understand that all of us are extremely busy and challenged at this time of the year and particularly this year. Please do not HO HO HOLD your remissions too much longer. Staff and Executive do not enjoy being the grinch to spoil your Christmas.

Santa Claus, ALS?

There are compelling reasons to believe that Santa was an Alberta Land Surveyor

- He had no kids because he was never home.
- He installed a GPS warning beacon on Rudolph in order to comply with his clients' safety programs.
- He pioneered navigation, coordinates and map projections.
- He maintains a large sweat shop with underpaid slaves producing toys for the clients.
- He invented geocaching of presents.

May the warmth of fellowship and family fill the holiday season with comfort along with the giving of thanks for our many blessings.

- He prototyped "Surveyor in a Reindeer crate."
- An innovative all-terrain vehicle is used to access remote sites as dictated by the many clients.
- He is able to send signals and make deliveries to all parts of the globe simultaneously.
- He never takes his wife to Christmas parties.
- For each delivery, he digs up a post at the corner of a block to which he ties his reindeer. As a matter of fact, he does not even carry the bag of seed as prescribed by the Manual.
- He has maintained the North Pole as a magnetic reference for many numbers of years, thereby serving the entire global survey community.
- He is so busy with his proprietary work that he never volunteers for committee work.
- He loves milk and cookies.
- He has been observed kissing other people's wives.

I could go on and on but I think the point is now indisputable. I will ask our Registrar to correct our records and duly enter the newest and oldest member of our profession, Santa Claus, ALS. Now that Santa is officially indoctrinated, I may now venture to resurrect an almost forgotten initiative.

Dear Santa;

You may not remember me but I was the farm kid from outside Winnipeg that you could never find. You may not recognize my handwriting as my last letter was in my dad's handwriting. I now live in St. Albert and I am now President of the Alberta Land Surveyors' Association, the organization to which you have recently been made a member.

Here is my Christmas list, in hope that you will now be able to locate me and my colleagues.

- *I would appreciate if all Alberta Land Surveyors could enjoy at least one week in the field each year*
- *I would like each ALS to make one school presentation each year*
- *I would like ALSs to meet their MLA, MP and local councilor to strengthen our connections*
- *I would like the universities, colleges and technical schools to generate twice as many graduates as they presently do. (and please send some to our friends in Manitoba)*
- *I would like you to send a lump of coal to the authors of viruses, spyware, spam mail and adware programs.*
- *I would like software and hardware to last longer than six months.*
- *I would like all Alberta Land Surveyors to come to Jasper in April, ready to participate in the debates so we can be done by lunch on Saturday.*
- *Could you help our clients understand that doing a job "yesterday" means time travel and four-dimensional physics.*
- *Please make each and every iron post go in straight and true and always miss the gas and power lines.*

.....continued on page 14



councillor's forum

by Larry Pals, ALS

In 2003, the Government of Canada revised the Criminal Code of Canada under Bill C-45. The Code now states, and I quote, "everyone who undertakes or has the authority, to direct how another person does work or performs a task is under a legal duty to take reasonable steps to prevent bodily harm to that person, or any other person, arising from that work or task." If found guilty, there can be fines as high as \$100,000 or even jail time based on the severity of the situation.

The new Alberta Occupational Health and Safety Code Part 32 defines what a ground disturbance is and what steps must be taken if you are performing a ground disturbance. Is the placing of an iron post or the digging of a hole looking for an iron post or rust hole a ground disturbance? I believe that in the eyes of the court and based on the current code that this action is indeed a ground disturbance. What action do we have to carry out prior to pounding a survey post or digging a hole looking for one?

In my opinion, first we should contact Alberta One Call to locate

"Have I taken reasonable steps to prevent bodily harm to myself, my staff or anyone else who could be injured by my work?"

any facilities in the area where we are working. We should utilize any as-built or proposed drawings that may show the location of any existing or proposed buried facilities in our immediate work area. We need to educate our field crews to look for any visible signs which may lead them to believe that there may be something buried which may conflict with their work. It is my observation that once you have taken these steps you may then be able to defend yourself under the Criminal Code should something serious happen. You may not have a leg to stand on if you do not. The law firm of Miller Thomson will make a presentation on this subject at the Edmonton and Calgary regional meetings in January.

Some further sobering thoughts for those involved in the housing and

construction industry. There is no requirement for any as-builts for service lines from the service main to any buildings. Therefore before placing your reference marks for any proposed building or structure, should you have the services for adjacent lots located? My understanding is that these services can be as shallow as a few inches under the surface.

I think the question we should ask ourselves is "have I taken reasonable steps to prevent bodily harm to myself, my staff or anyone else who could be injured by my work?" I know the Standards Committee is currently reviewing work done to date on this issue and I urge anyone who may have some comments or observations on this issue to direct them to Standards.

Thank you for considering my ramblings and I hope this gets everyone thinking. I believe it is our responsibility to ensure that each and every one of our staff returns home safely everyday. I wish everyone a safe and happy holiday season. Merry Christmas and Happy New Year.

Mark Your Calendar

**95th ALSA
Annual General Meeting
and Convention**

**April 21 to 23, 2005
Jasper Park Lodge**





editor's notes

by Brian Munday, Executive Director

I said it. I know I said it. I thought about not saying it but I said it anyway. I should never had said anything.

In my last *ALS News* article, I said that the number of phone calls from the public about land surveying questions is down. *ALS News* goes to press and is mailed to you and I immediately start getting phone calls from the public about trespass and property damage.

It must be "Murphy's Law." It must be a curse. But if the Boston Red Sox can beat a curse, then so can we.

When the magazine went to press, I immediately received one phone call from a medical doctor who was upset about a survey crew leaving a big hole at the corner of his property. According to the land owner, there was no indication of who was on the property or why someone might have been digging but they figured it was a surveyor. The land owner threatened to write a letter to the newspaper or contact a television consumer affairs reporter. This, he said, was the second time it happened. As the incident occurred in Edmonton on the Friday afternoon of a long weekend, I asked Don George of our office to go to the site and repair the damage as best he could. As it turns out, the party chief was still in the area when Don George arrived. Apparently, the party chief had to look for evidence in a number of different locations in the area and was going back to fill in all the holes that he had dug. However, in the meantime, the doctor arrived home to find a hole but no explanation. The matter got resolved but it was unfortunate that it happened in the first place.

Immediately after the long weekend, I received a phone call from a municipal employee. He was getting pressure from the local elected

...with a little bit of time spent up front, we can save time dealing with upset land owners.

councillor as a result of a land owner calling the councillor about surveyors digging a hole on her property. In this case, we were fortunate that the land owner had already contacted us and we had made arrangements to effect repairs. Still, it is unfortunate that it happened, particularly as we, as an Association, go to such great lengths to foster the support and cooperation of all elected officials.

In another situation, a land owner called me about a party chief she found in her back yard. She happened to be home sick that day. The party chief said he rang the door bell and he did leave a door knocker card in the mail box but she was still shocked to find someone in the back yard.

This is obviously not a new situation. It has probably been going on since the start of the Association. A couple of years ago, a letter from a land owner to his MLA was published in *ALS News* on this same issue. The Association's RPR Committee showed the initiative and developed the Commitment to Property Damage Mitigation Document which the membership subsequently approved putting in the Manual of Standard Practice. A couple of years have gone by and how many crews have looked at that document recently? How many new employees have you hired in the last couple of years and are they familiar with the document?

This is not just an urban issue. It applies to rural areas as well. I received a phone call not that long ago from a land owner who has a

quarter section. The land owner knew that a survey crew had been on their property or, at least, in their area. This land owner knew that a company wanted to put a pipeline in the area and that a number of land owners objected to it. The land owner who called me figured that the oil company was trying to "put one over on them" by hiring a survey firm to run a pipeline through the middle of their property. I am sure that's not what was happening but that's what this land owner's fears were. Land owners are likely much more aware of their property and their property rights than they have been before.

Just today, I had a phone call from a rural land owner upset that a survey crew had "barged past" their no trespassing sign so the crew could record the distance from the house to the proposed well. She was almost in tears.

All of us are familiar with Section 16 of the Surveys Act and what it says. We must be careful, however, to not take it for granted. It is a right given to Alberta Land Surveyors but there is also responsibility there as well.

I recently came across an article in the *Empire State Surveyor* magazine, the magazine for the New York State Land Surveyors. In the article, it notes that Governor George Pataki signed into law, legislation granting land surveyors, their agents and employees authority to enter upon land in the course of making a survey. Further, the state legislature passed additional legislation that would require a surveyor, authorized agents or employees to make reasonable efforts of notification to the land owner. The provisions further state the surveyor operate during reasonable hours and within a reasonable distance from the property line of the land being surveyed. At all times, the

surveyor and/or employee must carry and upon request show proper identification as to registration or employment.

New York State hasn't always had right of entry legislation for land surveyors and when it was enacted, it was, and is, more restrictive than what we have in Alberta today. What if we operated under the same legislation as what New York State has? Should it be good practice to do the same things that New York State land surveyors are required to do before our legislation is changed?

Neighbouring New Jersey does not have similar legislation. In the *Atlanticville Newspaper* of Longbranch, New Jersey, a front page story was headlined "homeowner objects to surveyor on property." In this case, police were called and city officials got involved. It ended up being bad publicity for the land surveyor and the profession.

Several years ago, then Registrar Jerry Rasmuson wrote an article in the December 1998 issue of *ALS News* highlighting several other pieces of legislation which a surveyor could use to gain access to property. They were Section 14 of the Surface Rights Act and Sections 63 and 65 of the Expropriation Act. I understand that a question related these particular pieces of legislation was on a past professional examination. Are you familiar with them?

My intent is not to give all land surveyors a chunk of coal for their Christmas stocking. I'd much rather play Santa Claus than the Grinch. The reality is that we really do get relatively few calls to the office given all of the work that you, the members, do. I also know that there is tremendous time pressure on everyone. However, with a little bit of time spent up front, we can save time dealing with upset land owners.

Collectively, we spend many thousands of dollars on public relations and public awareness every year. The Association's polling of the membership indicates that the ALSA should be more aggressive in marketing and public relations activities. All of our efforts can be easily undone by one article in the newspaper or one phone call to an MLA from one land owner whose lawn was not repaired by a surveyor or survey crew.

Upcoming Seminars

RPR *February 16, 2005—Calgary*

Service Best *February 23, 2005—Calgary*

Getting It Right *March 10 and 11, 2005—Edmonton*

Exam Preparation *March 12, 2005—Red Deer*
(tentative)

**Land Use in Resource
Development** *April 2005—Calgary*

Leadership *April 2005—AGM*



letters

Scholarships

I was unexpectedly nominated for the A.D. Hosford Scholarship this year, and I am writing this letter to express my utmost gratitude for your generosity. Quite honestly, I was ecstatic when I received the letter of notification for this award.

I have always given my best effort in all my scholastic studies and to be recognized for my hard work is a bonus. Currently, I am on internship for the following year and will not graduate until the year after internship has terminated. This scholarship has relieved a huge burden financially and will certainly help me to achieve my goal of becoming a geomatics engineer.

Perhaps you want to know a bit about the person you so generously helped. I have basically been a Calgarian all of my life and do not plan to change that any time soon. I chose geomatics engineering because of the career potential and its use of new technology such as the global positioning system. At this time, I am using my internship to help me to decide which branch of geomatics engineering I wish to pursue in my final year of university. I have narrowed the choices down to two branches geographic information systems and land surveying. Both areas have perked my interest and currently I am being exposed to both facets of geomatics.

Once again, I would like to say I am truly grateful to receive the A.D. Hosford Scholarship. Thank you for supporting the University of Calgary awards program.

NORMAN CHAN

I was chosen to receive the Alberta Land Surveyors' Association scholarship this year, and I am writing this letter to express my sincerest thanks to the Alberta Land Surveyors'

Association for providing this scholarship. I was thrilled to receive my award notification letter.

It is an honour to be recognized for my hard work, and receiving this scholarship motivates me to continue to strive for excellence. I am in my final year of Geomatics Engineering at the University of Calgary and this scholarship will enable me to concentrate more on my schoolwork instead of worrying about my finances. As well, this scholarship will aid me in realizing my goal to become an Alberta Land Surveyor.

Your generosity has made a profound impact on my life and I am truly grate to be the recipient of your scholarship.

DONALD MCKEE

Note: Mr. McKee also wrote a letter expressing thanks to the J.H. Holloway Scholarship Foundation as he was also the recipient of the J.H. Holloway Scholarship in Geomatics Engineering at the University of Calgary.

I was selected to receive the John Deyholos Memorial Award, and am writing to convey my appreciation and gratitude to the J.H. Holloway Scholarship Foundation. I feel privileged to have been chosen as the recipient for this award.

As part of my geomatics engineering degree, I am currently participating in a sixteen month internship program with Midwest Surveys. Starting in September 2005, I will be entering into the final year my geomatics engineering program. It is an honour to be recognized for my efforts in the cadastral surveys and land registration systems course. Your generous contribution to my education will help me to achieve my ambitions of becoming a geomatics engineer.

The J.H. Holloway Scholarship Foundation will have an immense impact on my life and I will not forget the kindness bestowed upon me. Receiving the John Deyholos Memorial Award is a great inspiration for me to continue to strive for excellence.

Your support and contribution to the geomatics engineering program is greatly appreciated.

DANA LEE

It is with pleasure that the Student Awards Office announces the recipient of the Alberta Land Surveyors' Association Scholarship as nominated by the Geomatics Engineering Technology program at NAIT.

The selected candidate for the 2004-2005 academic year is Jeremy Dawson, a second year student in the Geomatics Engineering Technology program. He completed his first year with an honours standing.

We are very pleased to advise this year's recipient with his award of \$1,250 and we wish to express our gratitude for your continued support.

BONNIE MEGLEY

STUDENT AWARDS COORDINATOR — NAIT

Thank you very much for your generous scholarship. As an older student, without much assistance from my parents, I can assure you that this award is very much appreciated.

It's great that the ALSA supports NAIT students in this way. I've attended other educational institutions and NAIT is, by far, the best. The instructors encourage excellence in their students rather than simply passing them through the system and I feel that I can master the technical skills necessary to serve members of your Association much better than I could if I attended a different school.

From working for, and speaking with, land surveyors and in studying

the Manual of Standard Practice, I know that the ALSA shares many of these qualities with NAIT in that it sets high standards for the profession. Members can be very proud that they meet those standards every day, especially considering the unique pressures and conditions that they are under. After years of working meaningless and menial jobs, I'm attracted to a career that I can be this proud of.

JEREMY DAWSON

Editor's Note: Mr. Dawson will start employment with the ALSA as its geomatics technologist in the SPR program, effective May 2005.

Thank you for your ongoing support of advanced education at SAIT. It is my pleasure to inform you that the Alberta Land Surveyors' Association award for 2004/2005 valued at \$1,250 has been presented to Chad Williams, a student of the Geomatics Engineering Technology program.

We, at SAIT, are fortunate to see the impact your award has on students; knowing the assistance you provide to our students helps them to obtain their present and future goals. You are a vital link to the success of SAIT and we truly appreciate your involvement.

MARIE HOLDER
SAIT, STUDENT AWARDS COORDINATOR

First, I would like to thank the Alberta Land Surveyors' Association for putting up the award. This will go toward my second semester tuition and is a great help. Also, thank you very much to my teachers at SAIT for helping me to achieve what I did.

I plan to graduate from SAIT and then go to work surveying while challenging the WCBE exams. Eventually, I would like to be an Alberta Land Surveyor and a project manager.

Again, thank you very much to the SAIT staff and the Alberta Land Surveyors' Association for believing in me.

CHAD WILLIAMS

I am pleased to provide you with this annual report on the Alberta Land Surveyors' Association Academic Achievement Scholarship for the year ending April 30, 2004. This new reporting format is intended to provide donors with more details about prize and scholarship funds.

The Alberta Land Surveyors' Association Academic Achievement Scholarship is awarded to a geodesy and geomatics engineering student who has completed or has enrolled in two of the four cadastral surveying option courses: GGE5521 Survey Law; GGE5532 Land Economy and Administration; GGE5313 Urban Planning or CE5342 Site Planning. Selection will be based on academic achievement. The award is valued at \$2,500.

The 2004-05 recipient of the Alberta Land Surveyors' Association Academic Achievement Scholarship, valued at \$2,500, is Regan William Rayner of Battleford, Saskatchewan, a fifth year geodesy and geomatics engineering student on the Fredericton campus of UNB. Regan plays flag football, soccer, ball hockey, volleyball, indoor soccer, and ultimate frisbee. He works part-time and was on the Dean's List during the 2003-04 academic year.

We are striving to be the best stewards of the generous gifts provided to the University of New Brunswick. This annual report is just one of the stewardship activities we are undertaking to keep you informed of the difference your support is making.

SUSAN MONTAGUE, DIRECTOR
OFFICE OF DEVELOPMENT & DONOR RELATIONS
UNIVERSITY OF NEW BRUNSWICK

Investing in student scholarships is investing in the future. No more important task exists than preparing our students for success in an increasingly competitive and global economy. The value of a post-secondary education is immeasurable but the cost can often be prohibitive. We have been able to maintain the same level of academic achievement to

receive entrance and continuing awards even though student enrolment continues to increase.

This has been made possible by the generous contributions that you and many other friends of the University of Lethbridge have made to the awards program. On behalf of the Student Awards Committee, thank you for your support and encouragement of the students who are pursuing their university education.

The 2004 recipient of the Geographical Information Science Scholarship is Dionne Hansen. Ms. Hansen finished high school in Medicine Hat and is enrolled in the Bachelor of Science program with a major in Geography.

MAUREEN SCHWARTZ, MANAGER
DEVELOPMENT—UNIVERSITY ADVANCEMENT
UNIVERSITY OF LETHBRIDGE

Trespass

First of all I wish to apologize in advance that you are in receipt of my rant.

My problem: I have a survey pin located at the southeast corner of my city lot, next to which is an approximate three-metre wide boulevard with no sidewalk before the road is reached. So far so good. The pin is located approximately forty-centimetres below surface. How do I know you might ask. The answer is quite simple, over the past twenty years, this pin has been exposed by one of your members about a dozen times, every time digging a hole, not only on public property, but also on my property, without informing me, nor having the courtesy to cover up the pin after they have done their business.

In my opinion, this is not only extremely rude, and a case of trespass, but also an act of vandalism. I'm quite sure you and your fellow surveyors and members would object to individuals digging up holes in their yard or on their lawn and leaving them as is, and talking off without a trace (except for the offending hole) like the miscreants they are.

Well that is exactly what your members are doing.

Nobody would object to the hole, being dug, the surveying work being completed and an effort made to repair damages, if informed of the proposed action. A little “sugar” and effort goes a long way in creating goodwill, whereas the current methodology of your members creates significant ill will, so much so that if I ever happen to catch them digging up my property, I will insist upon full restitution as provided to me under the law.

Please do not try to pander me by quoting the Alberta Land Surveyors Act. Since I deal with such issues on a daily basis in the oil and gas industry, I do know what the obligations and rights of both parties (land owner and surveyors) are. My rights as a land owner are being violated by your members, and it is time they are reminded of their obligations, and modified their methodology to take current realities as well as the letter of the law into consideration.

It would be very much appreciated if you would remind your members of the need to notify landowners of their work, by at the very least leaving a calling card, and just as other members of society (dog owners come to mind) clean up their mess behind them.

NAME WITHHELD

Go Southwest, Alberta

Building diagonal road from Devon to Nordegg would open Rockies to City
by Randall Morck

Edmonton to the Rockies: Two hours! People like mountains, and cities near mountains make a lot of money off this.

Calgary attracts corporate head offices because executives and professionals like living near mountain resorts. Calgary has better airport connections than Edmonton because tourists visiting the Canadian Rockies fly in and out through Calgary’s airport, and then make the 90-minute drive to Banff. Only the most hapless tourist flies into Edmonton instead,

and makes the three-and-a-half hour journey to Jasper. Let’s fact it, we built Edmonton in the wrong place and there’s nothing to be done about it now. Or is there?

On the map, the Alberta Rockies run from the southeast to the northwest. But the surveyors who laid out Alberta’s road system liked roads to run either north-south or east-west. It’s their fault it’s so hard to get from Edmonton to the mountains. We can either drive three-and-a-half hours due west to Jasper. Or we can drive south to Red Deer and then west to Nordegg—little better at about three hours. Or we can drive due south to Calgary and then west to Banff—four hours plus.

But suppose we broke with tradition, and let just one road run at a 45-degree angle. From north-east to south-west, Edmonton would suddenly be less than two hours from the Rockies. All we need is one road built on a diagonal from Devon south-west to Nordegg, a beautiful ghost town nestled in an eastward fold of the Rockies.

I don’t need to get into the math—it all has to do with square of hypotenuses and such. The basic idea is that cutting across on a diagonal gets you from point A to point B faster than going down and then across.

Edmonton could be a genuine port of entry to the Rockies, and a new cluster of mountain resorts could be opened where the new highway from Edmonton hits the mountains, near Nordegg. The area is stunningly beautiful, with waterfalls, ski hills and Abraham Lake, a wonder every bit as gorgeous as Lake Louise, and much bigger.

Connecting this part of the Rockies to the world via Edmonton would open a new area of the province to more Albertans and international tourists, and would relieve some of the pressure on Calgary’s airport, hotels, restaurants, tour agencies and roads by shifting more of Alberta’s tourism business here.

But traditions are hard to break. Alberta roads run north-south or east-

west because the surveyors who laid out this province liked right angles. When Alberta was unpopulated a century ago, and surveyors needed to build roads across prairies and through forests, the roads’ orientation probably didn’t matter much. After all, if you don’t know where you’re going, any road will get you there. But now, this square tradition keeps a million Edmontonians unnecessarily far from the mountains.

Unfortunately, Mark Twain was probably right when he remarked “the less there is to justify a traditional custom, the harder it is to get rid of it.” Dare we build a road that runs on a diagonal?

Albertans have always been well endowed with common sense. If a tradition doesn’t make sense, we toss it. After all, lots of us once voted Liberal. Now that the province has money for highways, an artery from Edmonton straight south-west to the nearest point along the Rockies should be high on its “to do” list. This diagonal highway wouldn’t even need a new bridge across the North Saskatchewan—the existing bridge at Devon is right on the proposed route.

If Premier Ralph Klein approved this short highway from Edmonton to the Rockies, we could call it the “Kleinway.” Even the minority of Albertans who dislike our premier could buy into this since the German word for “short” is klein. What better name for a shortcut highway to the Rockies that would boost Edmonton’s status in the world so immeasurably?

Prof. Randall Morck holds the Stephen A. Jarislowsky Distinguished Chair in Finance in the University of Alberta’s School of Business. He is a visiting professor of economics at Harvard University.

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EDMONTON JOURNAL - NOVEMBER 1, 2004

Executive Director Brian Munday's letter to the editor in response to the above article was published in the November 5th edition of the Edmonton Journal as follows:

Surveyors are ready if project gets green light

Randall Morck comments, perhaps in jest, that it is the fault of land surveyor for the long drive from Edmonton to the mountains. The reality is that government officials a long way from the West decided how the land would be organized.

An excerpt from *Laying Down the Lines* by Judy Larmour, to be published spring 2005, says "On the passing of the Dominion Lands Act of 1872, the Dominion of Canada officially embarked on the enormous

task of surveying thousands of square miles west of the burgeoning settlement at Winnipeg on the Red River. "We had," Sir John A. Macdonald said a decade later in the Commons, "the advantage of having one great country before us to do as we liked and one vast system of survey, uniform over the whole of it."

"It was not, however, quite that simple. It took time, trial and error to work out a township system that included free homesteads, school land, railway land, and sections for the Hudson's Bay Company."

The goal was to establish a grid of meridians and baselines that would facilitate the settlement of the West, primarily for agricultural use.

Through it all, the land surveyor found ways to make the township

system work despite lakes, mountains and muskeg and using only basic survey equipment.

Roads were surveyed when the government decided the population warranted it or landowners yelled loudly enough. When surveying roads, land surveyors took into account the lay of the land and often followed existing colonization roads and trails.

Building a road from Devon to Nordegg may be a good idea. If it does happen, Alberta Land Surveyors will be there as they always are to determine the project's property boundaries and the relationship of facilities to property boundaries.

*B.E. MUNDAY, EXECUTIVE DIRECTOR
ALBERTA LAND SURVEYORS' ASSOCIATION*

President's Message
continued from Page 5

I trust our location is appropriately marked with a waypoint this year. We are cleaning our new chimney in anticipation.

Time Travel in another dimension: the Nova Scotia AGM provided an extremely interesting venue in a place called Oak Island Resort. The resort itself looks out onto the island which is the site of a mystery about buried treasure. A block and tackle was once found hanging from a tree by youngsters. A pit or recess below the block and tackle became the centre of attraction for hunters of the reputed treasure. Over the years, the pit was excavated to depths exceeding a hundred feet. (You should be able to convert that easily with your 11C calculators). At each ten foot increment, a layer of oak was encountered and in each intervening space were alien objects and materials, such as coconut shells and beach shells from far away lands. Side



channels were found which flooded the tunnel with sea water if the area was disturbed. No treasure has yet been found but the subsurface rights are separate and apart from the surface land uses.

Interestingly, a land surveyor is the owner of approximately half of the island's subsurface rights. This individual became involved in controversy when it was purported that survey monuments had been moved to keep road construction activity away from one of his "dig sites." A discipline case ensued and the land surveyor was convicted. A request to allow the delegates to the Nova Scotia AGM to get a tour of the treasure island was denied. While I did not bring back gold or money, the riches of the scenery and the people who Nancy and I had the

pleasure of meeting is indeed a treasure. President Jeff Fee, who many of you may know from his days of working in Alberta, did a masterful job of conducting the meeting and has undertaken to share the results of his Association's business planning exercises with Alberta. Many of the issues, perceptions and realities are parallel if not identical.

Spring is just around the corner if only we can maintain our sanity over the next few months of chaos. We look forward to our AGM and some interesting topics to be dealt with.

By the time this edition gets to publication, our Christmas reception will have passed. We hope you took the opportunity to visit the new ALSA premises and say hello to staff. If not, please make a point of it and take the time to get to know the exceptional staff that we are blessed with.

I will close by wishing all of you and your families a peaceful and joyous Christmas season. May the warmth of fellowship and family fill the holiday season with comfort along with the giving of thanks for our many blessings.



association notes

New Members

#728 POMINVILLE, Roy J.

Roy Pominville was born in Regina, Saskatchewan on May 8, 1956. He became an affiliate member on September 5, 2001 and received his commission as an Alberta Land Surveyor on October 15, 2004.



Roy is also a Saskatchewan Land Surveyor and a Canada Lands Surveyor.

He served as President of the Saskatchewan Land Surveyors' Association (1999-2000), Director of the Canadian Council of Land Surveyors (2000-2003), Chairman of the Saskatchewan Branch and Technical Director of the Canadian Institute of Surveying.

Roy has been practicing in the profession for over 31 years and is currently employed with Focus Surveys Inc. in Calgary.

Roy enjoys spending time with family and motorcycling.

Roy and Joanne Joerissen reside near Bragg Creek, Alberta and have three children, Lee (17), Kale (15), and Orr (13).

729 JAMES, Leanne E.

Leanne Elizabeth James was born on March 23, 1965 in Edmonton, Alberta. She graduated from Eastglen Composite High School in 1983, received a Survey Technologist diploma from NAIT in 1988



and went on to graduate from the University of New Brunswick with a B.Sc. Engineering in 1994.

Articles were served under Alberta Land Surveyors, John West, Stephen Fediow and Ian Emmerson. Leanne received her commission as an Alberta Land Surveyor on October 28, 2004. She also holds designation as a professional engineer.

Leanne is presently serving on the ALSA Future of the Association Ad Hoc Committee. She is also the social director for the Winston Heights Mountview Community Association and a member of the Child Development Centre Board in Calgary.

Surveying experience includes oil well, pipeline and municipal. Over the course of her career, Leanne worked for a number of private surveying firms before taking employment with her present employer, The City of Calgary.

Skiing, biking, hiking, golfing, camping, guitar and oil painting are a few of Leanne's passions.

Leanne and her daughter, Stephanie, reside in Calgary.

730 CHIDDY, T.J. (Terry)

Terence J. Chiddy was born in Cape Town, South Africa on February 6, 1950. He entered Canada on January 28, 2002.

Terry graduated from Rondebosch Boys High School in 1968 and went on to receive a B.Sc. from the University of Cape Town.

Articles were served under Alberta Land Surveyors Peter Walker and Wayne Hucik from October 4, 2002 to July 7, 2004 when Terry became an affiliate member. He also hold designation as a Professional Land Sur-



veyor in South Africa and as as a Canada Lands Surveyor.

Terry served as a Council member for six years and as secretary for two years of the Institute of Land Surveyors of the Western Cape in South Africa. He also served on committee of the Piscatorial (fishing) Society in Cape Town and on committee of the UCT Flying Club at the University of Cape Town.

Terry has practiced as a professional land surveyor and as a partner in a survey firm in Cape Town for 27 years. He joined Northcan Surveys in Calgary in February 2002. Terry obtained his commission as an Alberta Land Surveyor on November 26, 2004.

Terry enjoys fly fishing and travelling. He is married to Gail and they have three children—James (21), Michael (18) and Emily (6).

731 NOME, J.A. (Jarl)



Jarl Anders Nome was born in Atherton, Queensland, Australia on September 30, 1978. He entered Canada in June 1987, graduated from Caroline High School in 1996 and went on to receive a B.Sc. in Geomatics Engineer-

ing from the University of Calgary in 2001. In addition, Jarl received the ALSA scholarship in recognition of academic achievement in the geomatics engineering program at the University of Calgary.

Articles were served under Alberta Land Surveyors D.M. Haub and J.C. Sharpe. December 6, 2004 is the date that Jarl became an Alberta Land Surveyor. He is also an Engineer in Training with APEGGA.

Jarl has been a member of the Public Relations Committee since 2003 and participated in the Made to Measure/Surveyor in a Crate project.

All of Jarl's surveying experience is with Midwest Surveys Inc. in Calgary. He worked for the firm on a part-time basis during the summer months from 1998 to 2000 and then full-time since May 2001. He has been the Calgary field operations manager for Midwest since May 2003.

Weight lifting, scrambling/mountaineering, camping and hiking are a few of Jarl's leisure activities.

Jarl is married to Rebecca Victoria. They have one son, Spencer James (23 months).

732 KEIR, C.D. (Colin)

Colin Duane Keir was born in Calgary, Alberta on March 28, 1970. He graduated from Crescent Heights High School in 1988 and went on to receive a diploma in Science Technology from SAIT. He then graduated with a B.Sc. in Engineering from the University of Calgary in 1995.



Articles were served under John Lovse, ALS (1997-2001) and Bill Lovse, ALS (2001-2004) until receiving his commission on December 9, 2004.

Colin served on the ALSA Public Relations Committee from 2000 to 2004.

Colin is experienced in construction surveys, GPS, subdivision surveys, real property reports, control survey and building settlement surveys.

Bowling, softball and golf are a few of his leisure activities.

Colin and his wife Melissa reside in Calgary.

Changes to the Register

Steven Card, ALS has left the employment of McElhanney Land Surveys (Alta.) Ltd. and has accepted a position with Midwest Surveys Inc. in Calgary. E-mail: scard@midwestsurveys.com.

Land Titles Office in Calgary: address is incorrect in the Register. The correct address is: PO Box 7575 T2P 2R4 or 710 - 4 Avenue SW, 2nd Floor T2P 0K3

Andrew Miles, ALS has taken employment with All West Surveys Ltd. in Edmonton effective October 4, 2004. His direct phone number is (780) 481-7843 and e-mail address is andrew.miles@allwest.ca.

Cameron Foran, ALS new e-mail address: cwforan@mcelhanney.net.

Leanne James, ALS new direct phone number (403) 268-5002.

Colin Jeschke, ALS has left Usher Canada and is now with Maltais Geomatics Inc. in Calgary. His e-mail address is colin_j@maltaisgeomatics.com.

Jason Paziuk, ALS is no longer employed with Precision Geomatics Inc. He can be reached at: 131 Rockywood Circle NW, Calgary T3G 5W1; Tel: (403) 375-0690.

Connie Petersen, ALS has left Stantec Geomatics Ltd. as of November 25th. On November 29th, Connie started working with Midwest Surveys Inc. in Medicine Hat. Connie's new direct e-mail is cpetersen@midwestsurveys.com.

Francis Prefontaine, ALS is experiencing difficulty with his keyn@noraltal.com e-mail address. Please use f.prefontaine@swg.ca.

Andrew Roop, ALS is now employed by Raymac Surveys Ltd. in Calgary. His new direct e-mail is andrew.raymac@shaw.ca.

SARPI Ltd. has relocated to: 12207 Jasper Avenue, Suite 705 Edmonton T5N 3K2
Tel: (780) 453-6228
Fax: (780) 453-6604

E-mail and website addresses remain the same.

Michael Stewart, ALS: new e-mail address—mstewart@crape.com.

Stoncrop Surveys Ltd. (Barrie Smith, ALS) has moved to 2404 - 22 Avenue SW, Calgary T1T 0S9.

Mark Sutter, ALS: joined Stewart, Weir & Co. Ltd. in Calgary on November 4, 2004. Mark's direct e-mail address is m.sutter@swg.ca.

Jason Thistle, ALS is now employed with Fugro/SESL Geomatics Ltd. in Calgary. His direct e-mail address is jthistle@sesl.com.

Jason Whale, Affiliate Member: new address is PO Box 841, Charlie Lake, BC V0C 1H0
E-mail: j.whale@swg.ca

Note: *Former member Carl Norman Hanson passed away on October 27, 2004 at the age of 88 years. A full obituary will be published in the March edition of ALS News.*

Analysis of Fall 2004 ALSA Professional Examinations

The Surveying Profession

The October 2004 Surveying Profession Examination consisted of nine questions covering knowledge and understanding of areas such as the ALSA Code of Ethics, Manual of Standard Practice, business practice, current affairs of the ALSA, the Land Surveyors Act and other related legislation pertaining to the surveying profession in Alberta.

Eleven candidates wrote the exam with eight candidates receiving a mark of 75% or better. The average mark was 76%.

The overall result for the Surveying Profession Exam was satisfactory. For those candidates who did not receive a 75% passing grade, it is suggested that attention be focussed on areas such as current affairs of the ALSA and business practice. In addition, candidates are reminded to

read the questions carefully prior to answering as well as time your answer for each question accordingly.

Statute Law

The Statute Law exam followed the same format as presented in past years. All questions except for one were directly related to the acts and regulations that an Alberta Land Surveyor may have to deal with on a daily basis. In the review of the exam answers the following was noted:

1. The dividing line between the North and South Registration districts was a simple question that 60% of the candidates did not know. For everyone's information, it is the top of Township 34.
2. The other questions that the majority of candidates had trouble with were on condominiums. It's not known whether the candidates writing have not studied the act and regulations thoroughly or whether the candidates have not been exposed to the actual process of creating a condominium plan.

Overall, the exam results were again lower than the spring sitting with ten candidates attempting the exam. The average score was 68.8 percent.

Again for those who are attempting the Spring 2005 sitting, it only can be reiterated that the pupils be aware of the following:

- Understand what each broad "part" of the act covers. Then examine each section thoroughly.
- Discuss the sections (even those that you think you understand) with as many land surveyors as possible and with other articulated pupils.
- Be concise with your answers. Understand exactly what the question asks and answer only that.
- Save time with your answers. Do not re-write the question as part of your answer.
- And, if you are the type of candidate that likes to answer the questions in a disorderly fashion.

Make sure you place each question on a separate page and place the questions in order at the end of the sitting as a few that have failed in the past, may have had a chance at passing if all the questions were answered.

Practical Surveying

Ten candidates attempted the exam with one obtaining a passing mark. The following is a breakdown of the exam by question:

1. *Natural Boundaries*

This question dealt with the process by which a land owner can have their title updated to reflect a change in natural boundary. Seven of ten candidates passed this question with the average mark being 6/10.

2. *Field Notes and Evidence Assessment*

This question dealt with the re-establishment of a section corner. The candidate was expected to be familiar with Bulletin 38 in order to do the re-establishment properly as well as to sketch the monumentation one would expect to find. Four of ten candidates passed this question with the average mark being 4.8/10.

3. *Rural Subdivision*

This question dealt with the subdivision of a quarter section. The candidate was expected to be familiar with how to quarter a section as well as the evidence required to be placed. A knowledge of time frames for plan registration was also required. Eight of ten candidates passed this question with the average mark being 6.6/10.

4. *Urban Subdivision*

This question dealt with information required for a subdivision application. The candidate was expected to be familiar with this process as well as the requirements for changes to applications. Four of ten candidates passed this question with the average mark being 4.5/10.

5. *Integrated Surveys*

This question dealt with the derivation of elevations on a well site from observations to ASCMs. Eight of ten candidates passed this question with the average mark being 5.9/10.

6. *Well Site in Unsurveyed Territory*

This question dealt with calculations of coordinates for a well site as well as miscellaneous information peculiar to well sites and dispositions on Public Lands. Nine of ten candidates passed this question with the average mark being 7.8/10.

7. *Field Notes and Evidence Assessment*

This question dealt with information found on three editions of a township plan. The candidate was expected to be familiar with Bulletin 38 as well as the process required to quarter a section. Five of ten candidates passed this question with the average mark being 3.9/10.

8. *Real Property Report*

This question dealt with the process of re-establishing of a block in a subdivision plan as well as the requirements for information shown on the RPR. Nine of ten candidates passed this question with the average mark being 8.3/10.

9. *Condominium*

This question dealt with different types of condominium plans. The candidate was expected to be familiar with the plan headings for the different types. Five of ten candidates passed this question with the average mark being 4.4/10.

10. *Pipeline Right-of-Way in Surveyed Territory*

This question dealt with the monumentation and preparation of the right-of-way plan. Nine of ten candidates passed this question with the average mark being 7.3/10.

Editor's Note: Please see Lyall Pratt's SPR Corner on page 30.

Registered Plan Deficiencies Related to Grid Bearings

In July 2003, Bill Lovse, ALS contacted me and raised a concern related to the manner in which a number of registered plans were referenced to the Alberta Survey Control System within the Town of Vulcan. In particular, Bill noticed that some plans referenced astronomic bearings, rather than the intended standard of grid bearings. I advised Bill to use a grid bearing for integration purposes and that my office would review the alleged deficient registered plans.

Based on the somewhat disappointing findings from our initial review of the registered integrated plans within Vulcan, it was decided

to expand the review to include nine other similarly sized "parcel mapping towns" randomly chosen from across Alberta. This recently completed review clearly pointed out that grid bearing deficiencies repeatedly occur in other municipalities. Of 103 plans reviewed, 63 (61%) were found to be deficient in complying with the requirements of the Manual of Standard Practice in-force at the time of survey. Another 33 plans did not have any serious errors with respect to grid bearing information, but they still contained marginal deficiencies that should be addressed. Only 7 of the 103 registered plans reviewed were found to fully comply with the standards related to the use and presentation of grid bearings.

Our review pointed out some possible causes for this high deficiency rate, including misinterpretation of the information indicated on the Alberta Survey Control Marker

ID cards, lack of understanding of the intended standards and deficient information within the Manual of Standard Practice.

As a result of our investigation, we met with Lyall Pratt and Don George of the ALSA Practice Review team on March 16, 2004. There was general agreement that the identified deficiencies are serious in nature and required resolution. It was suggested the Standards Committee review and develop changes to the Manual of Standard Practice as required.

At our March 16th meeting, Lyall and Don also brought forward a separate concern regarding the alleged improper use of ground coordinates for Section 47 surveys. After some discussion, it was suggested that the Standards Committee also investigate this issue and look towards an effective resolution.

*P.M. (MIKE) MICHAUD, ALS,CLS
DIRECTOR OF SURVEYS*

Changes to the LTO Manual

This letter is to advise the ALSA, through the Standards Committee, of amendments that the Land Titles Office, Surveys Section, will be making to the Land Titles Office Procedures Manual (LTOPM). It should be noted that the amendment is not changing the plan preparation requirements, but rather is being brought to your members' attention to assist in avoiding a rejection for lack of proper documentation that must accompany a road plan when it is submitted for registration.

SUR-5 of the LTOPM deals with the examination and registration of road plans and other public work plans. An amendment to this section is required to ensure compliance with the provisions of the Condominium Property Act when registering a road, which is being taken from the com-

mon property within a condominium plan.

Section 52 of the Municipal Government Act provides an efficient mechanism for municipalities to acquire land for roads. Under this legislation, there is a duty on the municipality to comply with various requirements, which is evidenced by a certificate from a designated office indicating that these obligations have been met. The Registrar is entitled to rely on the certificate and register the road plan. The land acquisition could be from individuals or a corporation, including a condo corporation. Section 49 of the Condominium Property Act deals with the procedure to be followed where common property is disposed of and imposes certain obligations on the condominium corporation which are satisfied by a certificate sealed by the corporation. Section 49(4) is an express direction that the Registrar is

not to register a transfer or lease (road acquisition falls under the transfer category of this prohibition) of common property without the certificate. The purpose of this section appears to make sure that the proper steps are followed when disposing of common property and is established to protect the unit owners.

Land Titles has been advised that these two sections serve different purposes and there is nothing to indicate that one certificate obviates the need for the other when a condo corporation is disposing of common property and a municipality is acquiring it under Section 62. Therefore, the following amendment is being made to SUR-5 to reflect the requirement for an additional certificate to be submitted with the registration of a road plan that is creating a road within common property on a condominium plan:

8. Plans affecting common property— In addition to the plan being accompanied by the appropriate certificate or affidavit noted in paragraphs five or six above, road plans affecting common property as shown on a condominium plan must be accompanied by a certificate in the prescribed form (Form 4). The certificate is to be registered concurrently with the plan of survey by attaching it to the road plan instrument.

TIM GRUSIE
DIRECTOR, SURVEY REGISTRATIONS
EDMONTON AND CALGARY LAND TITLES OFFICE

Edmonton Chosen as Site for 2010 Bid

In late July and early August Markku Villikka, Executive Director of FIG and Ken Allred toured the convention facilities in Edmonton, Calgary and Vancouver examining potential sites for a Canadian Institute of Geomatics bid to host the 2010 Congress of the International Federation of Surveyors—FIG.

The Council of the Canadian Institute of Geomatics, which is the Canadian member association of FIG, has now selected Edmonton as the Canadian venue for a bid for the 2010 Congress. Edmonton was chosen primarily because of the cost factor. Based on convention centre and hotel costs, a congress in Edmonton would be considerably less expensive than either Calgary or Vancouver. CIG also considered the fact that several organizations such as the Alberta Land Surveyors' Association, Natural Resources Canada and the Alberta Director of Surveys are headquartered here.

Once the bid has been officially submitted, it will go to the FIG Council which is expected to shortlist the bids received and put the short list together with a report before the General Assembly in Cairo in April for a final decision. It is not known at this time how many countries will be

submitting bids but it is expected that there will be at least four bids submitted.

A Canadian contingent will be required to attend in Cairo to promote the Edmonton bid to members of the FIG General Assembly. Anyone who is interested in attending the Cairo Working Week of FIG from April 17-21 should contact the CIG in Ottawa or Ken Allred at gkallred@telusplanet.net. Full information is available on the FIG website at www.fig.net/cairo.

Under the new FIG structure, the Congress will be organized by the FIG office in Copenhagen, assisted by a local organizing committee of CIG members. A congress director will be appointed by FIG. This person may or may not be a local person. All financial contracts will be the responsibility of FIG.

G.K. ALLRED, ALS

Indonesia—A Challenge for the Survey Profession

A regional conference of the International Federation of Surveyors was held in Jakarta, Indonesia from October 3-8, 2004. My attendance at FIG was in the capacity of a vice president elect of FIG. I also presented a paper on Buried Facilities - The Need for Accurate Records in an Expanding Society, which was essentially a rework of the paper presented at the GeoAlberta conference in May, 2003. I also participated in a panel discussion on mutual recognition as well as moderating and/or assisting with several technical sessions.

The conference was well attended considering there were a number of last minute cancellations due to the bombing of the Australian Embassy in Jakarta three weeks prior. In addition, the conference hotel was the target of a bombing a year ago. Needless to say, security was very tight. Apparently, Indonesia has the

Indonesia is a huge country spread over thousands of islands spanning 55 degrees of longitude.

largest concentration of Muslims in the world.

That said, however, there were absolutely no problems and no concerns of a safety or security nature. In fact, I found the Indonesian people to be very gentle, friendly and helpful. Unfortunately, two other Canadians who were listed as presenters withdrew because of security concerns. John Blair, BCLS, ALS (ret.) from McElhanney in Vancouver was scheduled to present a paper on Land Titling in Cambodia. A member of McElhanney's Jakarta office presented in his stead. A paper by Andrew Hunter, NZLS on the use of GPS for monitoring Grizzly Bear Habitat was intended to be delivered by Professor Nasser El-Sheimy from the University of Calgary. Unfortunately neither was able to attend. Andrew is a graduate student at University of Calgary. He has developed a unique application of positioning technology that combines GPS, digital photography and laptop technology to data collection.

Jennifer Whittal, a Professor of Geomatics at the University of Capetown presented a paper on Fiscal Cadastral Reform and Mass Land Appraisal in South Africa. Jenny is currently doing her Ph.D. under Professor Michael Barry from the U of C.

Buried Facilities—The Need for Accurate Records in an Expanding Society

The paper on buried facilities was well received. I had some apprehension that maybe there were greater problems than the need for accurate location of buried facilities in South East Asia even though one of the drivers behind our original approach was a 1999 newspaper article on

the need for underground mapping from Malaysia.

In an Indonesian paper we heard that Jakarta has proposed a new monorail system and either at the start of construction or in doing some bore holes for their initial design, they hit an old wooden water line that had been constructed in the Dutch colonial era which they did not even know existed. They also have similar problems as us in Alberta (only worse) with buried cables and pipes. The Indonesian speaker talked about "ground penetrating radar" which apparently will give an accurate location of buried facilities. I am not familiar with GPR but I suspect it is just an exaggeration of the Metrotech technology that is used here. I note that Metrotech gives an accuracy of 5% for depth in their specifications.

Mutual Recognition

I participated in a panel discussion on mutual recognition (giving the North American perspective) along with Stig Enemark from Denmark and Teo Chee Hai from Malaysia. Their professional associations do not have a licensing mandate and hence they argue that mutual recognition is not about licensing. I suggested that, in the North American context, it is very much about licensing. I obtained a considerable package of material from Wayne Brubacher the CCLS pointman on NAFTA to assist in my presentation. The Europeans and Southeast Asian survey organizations appear to be experiencing essentially the same delays in getting to an agreement in those regions as we are within NAFTA. I was able to relate the Canadian situation which seems to have worked much more expeditiously than international negotiations.

Technical Tour

The only technical tour available was a one-day trip to Bogor and the Tea Plantations. The only technical part of it was a stop at BAKOSURTANAL,

the national coordinating agency for surveying and mapping. It is a non-departmental agency responsible directly to the President of Indonesia. The mandate of BAKOSURTANAL is to:

- study and formulate national policies in surveys and mapping;
- develop national spatial data infrastructure;
- coordinate functional activities in conducting BAKOSURTANAL tasks;
- monitor, guide and develop activities of government institutions in the field of national surveys and mapping;
- organize, develop and serve general administration in the field of general planning, organizational management, personnel, finance, archives, code and internal affairs.

Indonesia is a huge country spread over thousands of islands spanning 55 degrees of longitude. Consequently, it has one of the longest coastlines of any country in the world which poses some monumental surveying and charting challenges for the membership of the Indonesian survey profession.

General Comments

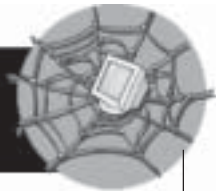
I was pleased to renew my acquaintance with two friends of the ALSA - John Brock from Australia and Johann Lun from Italy. Both send their regards.

On a sidenote, I must say I continue to be amazed at the continuing growth and apparent prosperity in all of the major cities I've visited in Southeast Asia. They are all booming with major new developments going up everywhere. Jakarta is a city of eight million at night and ten million in the day time, so you can imagine the traffic congestion. They have some impressive freeways but they just can't handle all the vehicles despite a three person per vehicle rule in rush hour.

G.K. ALLRED, ALS

Note: Mr. Allred received funding from the ALSA, through the Ambassadors Reserve Fund, to attend this conference in Jakarta. The Ambassadors Reserve Fund shall be used to reimburse members of the Alberta Land Surveyors' Association who are either (1) acknowledged delegates of international organizations or (2) invited speakers or participants at conferences or meetings outside of Alberta. The fund shall be used to reimburse (in whole or in part) the delegate's reasonable travel, lodging and meal costs and registration fees. The fund shall not be used to reimburse expenses of the delegate's spouse. Applications to use the fund should be addressed to Council, in care of the ALSA and submitted well in advance of the conference date.

net notes



This time around, instead of listing a series of links, I thought I would tell you about a change to the ALSA website. You could tell from the last issue that I was running out of ideas for links anyways.

The ALSA website, www.alsa.ab.ca, has now updated its search feature that allows you to look for specific words on the pdf, doc and htm pages on the site.

Ever since the revamping of the website a couple of years ago, we have had search capabilities but it didn't search the numerous PDF files we have uploaded. Now it does.

Type in "natural boundary" and click on "exact phrase" from the dropdown list and you get 19 hits. The hits include the current version of the Manual of Standard Practice to the March 2003 issue of ALS News where natural boundary is mentioned (page 43).

It's a great research tool and will only improve as we add more archival material to the website.



Cumulative Effects, ILM and the Role of Surveyors

by Bob Demulder, ILM Program Manager
Reviewed by Ron Hall, ALS Focus Corporation and
Dave Kmet, Weldwood Hinton Division

Background

In late August of 2004, the Alberta Chamber of Resources made a presentation to the ALSA Council encouraging the Association and its members to get involved in the Integrated Landscape Management Program (ILM) and its effort to address cumulative effects of industrial development on the forestland base. In October, the ALSA agreed that they should increase the awareness of their members on this issue. What follows is a brief overview of ILM and the role the Alberta Land Surveyors might play in being part of the solution.

Introduction to Integrated Landscape Management and Cumulative Effects

The cumulative effect of human activity on the environment and accountability for stewardship of all resource values is a growing concern among Albertans. Resource industries recognize this concern and the need to proactively manage their impacts on the environment. Therefore, the Alberta Chamber of Resources established the Integrated Landscape Management (ILM) program to promote management of project-specific impacts and cumulative effects resulting from resource industries.

Although the issue of cumulative effects has its origins in provincial governance and land policies, ILM represents an opportunity for industry and related contractors to lead the cumulative effects issue and demon-

strate sustainable resource management. The risk to industry in not proactively addressing this issue is almost certainly increased restrictions to resource access. This would negatively affect all resource related businesses, including surveyors.

A cornerstone of the ILM program is the integration of infrastructure planning to accomplish reductions in the total size, duration and intensity of industrial land uses. An example of this planning is coordinating road access to accommodate both forest and energy sector requirements for access to resources. Co-ordinated access development has been identified as one of the top ways cumulative environmental impacts can be minimized. By maximizing double-duty road access, industry is able to minimize cumulative impacts on a range of environmental resource values. The ILM program also recognizes that considerable cost and approval time-savings as well as other values can accrue to both sectors through the use of coordinated development and operations planning.

Cross Sector Coordination—tools

The coordination of two sectors that until recently had operated quite separately on the same land base is not easy, but there are current policies and practices which enable the required interaction.

The first and foremost is the forest industries tenure system or Forest Management Agreement (FMA). In Alberta these large, long-term,

landscape based tenures require the FMA holder to maintain inventories of landbase information and to plan well into the future. This provides the FMA with the information to consider and plan strategic resource access or infrastructure corridor requirements for a region in consultation with other resource users. The forest sector also plans harvesting at least 3-5 years into the future, therefore they generally have access and harvest blocks identified and approved well in advance of construction. These plans have some flexibility, providing for possible changes and compromises to accommodate overlapping interests. This information in combination with the requirement to obtain FMA consent creates opportunities to integrate activities and minimize cumulative impacts.

By contrast, the energy sector tenure system provides for little of these advantages. The tenure is short term and generally site specific thus affording little in the way of capacity to plan into the future. Secondly, the hydrocarbon resource is not easily detected, thus drilling is never a sure thing.

The cooperative access and infrastructure-planning concept of ILM can have tremendous advantages for both the energy and forest sector. It facilitates better route selection, enabling safer multi-sector and public use. It facilitates quicker regulatory approvals by demonstrating cooperation and provides an opportunity to share in development or reclamation costs. Ultimately, it also reduces the cumulative effect of industrial development on the forest environment and other values in the forest like wildlife and water.

Building Cross Sector Relationships

The ACR's ILM program has been actively working to build cross-sectoral business relationships between the energy and forest industry in an effort to adopt and implement ILM. To date, the ACR has facilitated

one-on-one meetings with the larger energy and forest companies so that they can establish direct ILM business relations and contacts. It is anticipated that these relations will ensure ILM occurs with the majority of industrial activity in Alberta. However, due to the number of players and their diverse nature, the ACR process will be unable to capture all the players involved in resource management. This is where the ALSA members can have an active role in ILM, and provide a value added service to their client.

ILM Role

In coordination with their client, the Alberta Land Surveyor could simply contact the forest company prior to any actual on the ground survey and easily assess what other plans are involved in the area of interest and determine if opportunities exist for coordination. This discussion provides several value added aspects to the client.

- The client has assurance that the access route or corridor surveyed has been integrated and is satisfactory to the forest company.
- The client can demonstrate to government regulators that resource integration did occur.
- Prior contact should prevent any need to re-survey a route, reducing potential costs and delays for the client.
- The forest company benefits in that it is much easier to integrate before significant costs are made such as a complete survey.
- Finally, and most importantly, the survey profession benefits by getting involved in ILM that helps to protect the public's interest and values that are negatively impacted by cumulative effects of uncoordinated resource development.

One-stop contacts within the forest industry that deal with access coordination, consent and so on are usually managed by the Forest Management Agreement holder through their Land Use Managers. A list of these are

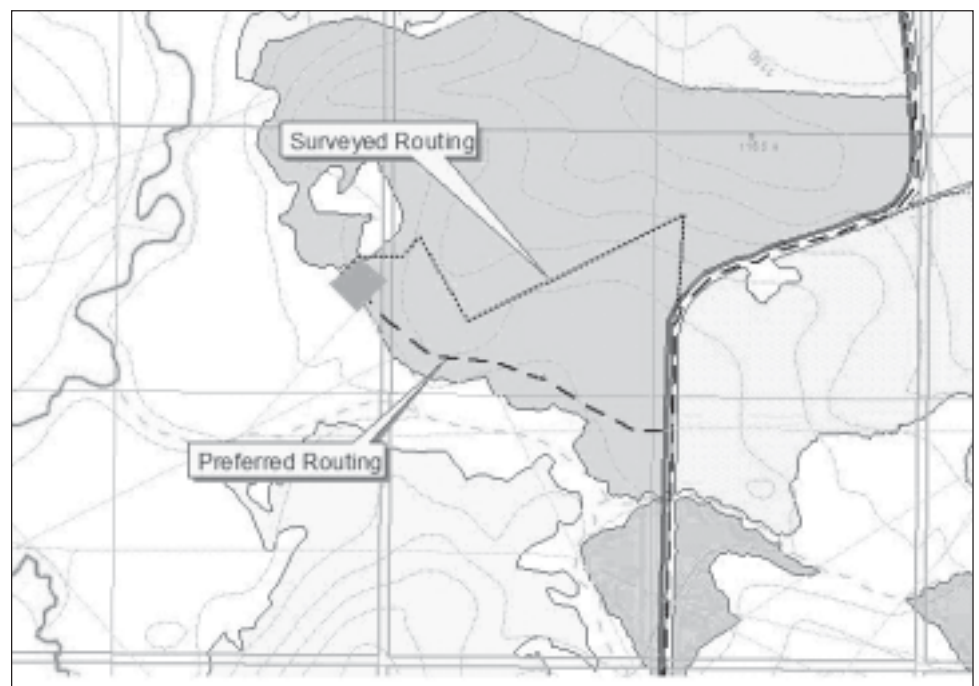
...the Alberta Land Surveyor could simply contact the forest company prior to any actual on the ground survey and easily assess what other plans are involved in the area of interest and determine if opportunities exist for coordination

posted and kept current on the Alberta Forest Products Association. Go to www.albertaforestproducts.ca and follow the links to Land Use Contacts. For more information on Integrated Resource Management please contact Bob Demulder, ILM program manager with the Alberta Chamber of Resources (403) 233-3050 or by e-mail at bob.demulder@conocophillips.com.

Example: well site vs. forest industry access

The following map provides an example of a surveyed access route to a well pad that was completed before discussions with the forest operator had taken place. The result was a 1.6 km access route that had dangerous approaches to the main road (80 km design speed), a steep initial climb and two greater than 90-degree corners. The proposed route would not be suitable for multi-sector traffic or long-term use by either sector.

The preferred routing follows the contour at the bottom of the hill, has better line of sight, and is 1 km long. This route was already planned by the forest company and approved by the regulator. Prior consultation by the survey company with the forest company would have eliminated the initial and unnecessary access survey and delivered a better access route that was already approved. There is a possibility, in this instance, for the well pad boundaries to be included in the harvest block (shaded area) and the pad harvested by the forest company prior to the energy companies' activities.





spr director's message

by Lyall Pratt, ALS

Over the past few years, I have been asked several questions about fractional sections, often by articling pupils who have run across an exam question dealing with the issue. The intent of this article is to provide a bit of information on the Alberta system of survey and discuss what a fractional township, fractional section, fractional quarter section or fractional legal subdivision is.

The Dominion Land Survey in Alberta

Most of Alberta was surveyed under the third system of survey in the Dominion Land Survey. The first baseline in the third system of survey is the international boundary (Canada/United States border). The Alberta portion of this boundary was monumented in 1873 and 1874. Also in 1874, a "special survey" was created to project the basic framework of meridians and baselines westward from the initial or primary meridian. The first point on the fourth meridian (the Alberta-Saskatchewan border since 1905) was established in 1878 by the "special survey." Part of the fourth meridian and the fourteenth baseline in what is now Alberta was then surveyed in 1879.

The Third System of Survey

The third system of survey was introduced in 1881 and a new Manual of Survey was issued. The ALSA library has a copy of this 1881 Manual. The portions of Alberta surveyed before then were re-surveyed to conform to the third system of survey. All future township subdivision surveys in the province were based on the third system of survey. In 1881, blocks of 16 townships were surveyed adjacent to the preceding block of townships. Starting in 1882, the method of surveying baselines

...I think it is much easier to only think of fractional units (townships, sections, quarter sections or legal subdivisions) as being created when they abut on previously surveyed parcels.

from one meridian through to the next meridian was implemented. Townships were then surveyed from the baselines and by surveying connections between the baselines. The baselines first method was used from then on in township subdivision surveys.

In the third system of survey, townships are 486 chains in an east-west direction along the baseline and 483 chains in a north-south direction. Spelled out in the Manual and even today in Section 21 of the Surveys Act, "*The lines bounding townships on the east and west sides are meridians and on the north and south sides are chords to parallels of latitude.*" Due to convergence, ranges north of a base line are slightly less than 486 chains and ranges south of a baseline are slightly larger than 486 chains. It follows then that the length of any baseline north of the first baseline is shorter between the same reference meridians. For example, the distance between the fourth and fifth meridians along the first baseline (international boundary) is approximately 182 miles while the distance between the same two meridians at the 60th parallel (north boundary of Alberta) is only about 139 miles. While correction lines allow the basic layout of townships to remain a similar size, the jog along the correction line

increases the further west of the initial meridian a range is. This results in the last range east of a primary meridian being less than full width. This fractional range creates fractional townships along the east side of each reference meridian.

Fractional Townships in Alberta

The eighth edition of the Manual of Instructions for the Survey of Dominion Lands printed in 1913 defined a fractional quarter section as follows: "*A quarter section is fractional when it is broken by lakes or streams which have been traversed or by parcels of land previously laid out.*" Township surveys abutting previously surveyed Indian Reserves and other official surveys would create fractional quarter sections where the surveys met. While this makes many quarter sections fractional in the Survey of Dominion Lands, it is the fractional ranges created by the system of survey itself that we most often think of when discussing fractional townships. These fractional townships are created when closing onto a reference meridian and where survey systems change such as junctions of the third system with the first and second systems of survey. Since Alberta has no such junctions, this article will primarily discuss the fractional townships that occur when closing onto a reference meridian. These fractional townships occur immediately east of a meridian, so in Alberta we have fractional townships to the east of the fifth meridian, and the sixth meridian. Of course fractional townships east of the fourth meridian all lie within Saskatchewan. We also have less than full townships in Alberta on the east side of the Alberta-British Columbia border and on the south side of the Alberta-Northwest Territories border. These less

than full townships occur only because a full township would not fall fully within provincial boundaries, and have more to do with the location of the boundaries than the actual survey system. Theoretically extending the township fabric west of the Alberta-British Columbia border to the seventh meridian would create fractional townships abutting and east of the seventh meridian which lies wholly within British Columbia. In reality, with a few exceptions, the western limit of the third system of survey follows the boundary between the provinces of Alberta and British Columbia. There are no fractional ranges or townships created at the junction of the third and fourth systems of survey because the township outlines have the same dimensions. While part of the Peace River block of British Columbia was surveyed under the third system, the fourth system is also used in British Columbia. The survey of part of the 120th meridian portion of the Alberta-British Columbia boundary between 1918 and 1924 had intersected nine previously surveyed baselines (16th to 24th inclusive). The survey of the remainder of the Alberta-British Columbia boundary was completed in the 1950 to 1953 survey.

So there are also fractional townships along the western and northern boundaries of the province. For the most part, the fractional townships along the north boundary would be theoretical fractional townships as the fourth, fifth, and sixth meridians and the Alberta-British Columbia border are the only surveyed section lines extending to the north boundary of the province. An examination of the plan of survey for the sixth meridian shows 15.2059 chains between the NE corner of Section 36, Twp. 126-1-W6th and monument number 313 on the Alberta-Northwest Territories boundary based on the 1951 survey of the boundary.

In the tenth edition of the Manual of Instructions for the Survey of Dominion Lands printed in 1946, several possible correction line

...in a fractional quarter section...you would have two complete legal subdivisions and two fractional legal subdivisions.

scenarios are covered in detail under the field work sections in clause 122 to clause 126 inclusive. This tenth edition was excerpted into the Manual of Instructions for the Survey of Canada Lands published in 1962 as an appendix.

Within a fractional township, the sections abutting the meridian are fractional, the quarter sections abutting the meridian are fractional, and the legal subdivisions abutting the meridian are fractional. The principle is that as long as a whole unit (section, quarter section, or legal subdivision) fits the unit remains whole and any remainder becomes the fractional part of the next adjacent unit. This would mean that in a fractional quarter section containing say 100 acres, you would have two complete legal subdivisions and two fractional legal subdivisions.

In Unsurveyed Territory

The most common situation run across in unsurveyed territory is the requirement to survey a wellsite within a fractional township, fractional section, fractional quarter section or even within a fractional legal subdivision. As in any other unsurveyed territory computations, the framework used is the baseline survey and the theoretic section framework based on the Supplement to the Manual of Instructions for the Survey of Canada Lands (blue book). The baseline is of course tied to the reference meridian and it then becomes a computation exercise to determine the size of the theoretic fractional units east of the reference meridian and the location of the well relative to these theoretic section limits.

Total coordinates for the well are referred to the NE 33 on the baseline even though the theoretical NE of 33 may in some instances actually fall west of the reference meridian. From a computational perspective, you simply project the baseline west of the reference meridian to the theoretical NE 33 and then mathematically construct the required section framework.

In Surveyed Territory

The only real issue in surveyed fractional sections abutting a reference meridian is how to establish the N ¼ on a blind line, or how to establish a legal subdivision corner within a fractional quarter section. Obviously you can not split the blind line to establish the N ¼, so you must lay out the theoretic quarter section width along the blind line taken from the blue book. If the corner of a legal subdivision in a fractional quarter section is required, then Section 26 of the Surveys Act and the blue book are both used to establish the required corners.

Misconceptions

Townships are not considered fractional just because, by survey, they are smaller than their theoretic values. So for instance a quarter section adjacent to a correction line that measures north-south less than theoretic is not fractional unless it abuts a reference meridian. Similarly, a quarter section that measures shorter than plan distance would also not be fractional just because it contains less than 160 acres.

While the definition from the eighth edition of the Manual of Instructions for the Survey of Dominion Lands says that quarter sections broken by lakes or streams are fractional, I think it is much easier to only think of fractional units (townships, sections, quarter sections or legal subdivisions) as being created when they abut on previously surveyed parcels.

Case Study No. 22: Survey Control, Integration, Map Projec- tions and Grid Bearings

This is the twenty-second in a series of articles featuring problems or issues commonly encountered in Systematic Practice Review. The purpose of these articles is purely educational, so no names or identifying legal descriptions are included. Opinions expressed are those of the author.

In March 2004 at a meeting with the Director of Surveys, Systematic Practice Review (SPR) was made aware of a review of registered plans and deficiencies discovered relating to grid bearings in “parcel mapping towns.” The Director of Surveys wrote a letter to the President of the Alberta Land Surveyors’ Association outlining the high deficiency rates uncovered by his review. The matter was referred to the Standards Committee and, at their September meeting, it was agreed that the letter from the Director of Surveys to the ALSA president be published in *ALS News*. At the October Standards Committee meeting, it was further agreed that an article be prepared discussing the issues and reminding land surveyors of the requirements. That is the purpose of this article.

As can be seen from the letter published in Association Notes in this issue, 61% of the plans reviewed by the Director of Surveys office were found to have deficiencies related to integration with Alberta Survey Control. It is obvious that there is a lot of misunderstanding on survey control issues.

Since March 2004, SPR has looked for and found similar deficiencies on several plans examined in the course

of reviews. In general, the deficiencies fall in the following areas:

1. Failing to integrate a survey with survey control when required.
2. Using a 3TM map projection where a UTM projection was required or vice versa.
3. Using astronomic bearings between markers rather than grid bearings.

Survey Control

Within Alberta, there are approximately 29,500 ASCMs. ASCM ID cards are available in NAD’83, and in 3TM or UTM coordinates. For land survey purposes, all spatially referenced data now uses the NAD’83 datum. There are two UTM zones within the province, one with a central meridian of 111 degrees west longitude and the other with a central meridian of 117 degrees west longitude. The scale factor along the central meridian in a UTM zone is 0.9996. There are four 3TM zones at least partially within Alberta with central meridians of 111, 114, 117, and 120 degrees west longitude. The scale factor along the central meridian in a 3TM zone is 0.9999.

All of us can order our ASCM ID cards through SPIN. It is very important that surveyors be aware that the default map projection of SPIN is 3TM. Unless you specify otherwise, the marker ID cards obtained through SPIN will be NAD’83 3TM. So surveyors must be aware of which map projection they need their coordinates in before they place their order from SPIN.

For further information on ASCM ID cards please visit ww3.gov.ab.ca/srd/land/dos/ASCproducts.html

Integration

Integration is the means by which the land survey system is related to the survey control system. It provides the

basis for a province-wide cadastral mapping system to which any user can relate other information.

Part D, Section 1.2 of the Manual of Standard Practice says:

The recognized datum for spatially-referenced data in Alberta is the North American Datum 1983 (NAD’83), using the GRS 80/WGS 84 ellipsoid. This datum and related ellipsoid therefore shall be used on all plans of survey registered in the Land Titles Office, if plan information relates to grid bearings or grid coordinates. The choice of map projections must be consistent with the requirements of the provincial mapping system. The recommended vertical datum for spatially referenced data in Alberta is CVD28.”
The plan of survey shall clearly show the datum of origin used for bearings and coordinates on the plan of survey as outlined below:

- .1 *Unless circumstances require greater accuracy, bearings should be shown to the nearest 5 seconds of arc. Ties to survey control markers shall reflect the actual angle determined.*
- .2 *All plans of survey pursuant to Section 47 of the Surveys Act; and Part C, Section 5 of the Manual of Standard Practice, using grid bearings or grid coordinates, shall base grid bearings or grid coordinates on NAD’83 and show, in addition, to other requirements for plans, the following:*

A note in the legend of the plan and header for grid coordinate listings indicating:

- *The datum used,*
- *The projection used*
- *The reference meridian,*
- *The combined factor (scale/elevation).*

For some reason some members seem to think that the requirements of this section (Part D, Section 1.2) only applies to Section 47 plans. Of course all surveys done under Section 47 of the Surveys Act must be integrated. But the section also *applies to all integrated surveys*, which are surveys meeting the requirements of Part C, Section 5 of the Manual. The wording in Part D, Section 1.2 however raises the question, what is the provincial mapping system?

Provincial Mapping System.

In general, ASCMs can be classified as urban or rural depending on the location of the marker. This can be a bit confusing since many ASCMs within smaller urban areas are actually considered rural ASCMs. Map projections are mathematical functions of latitude and longitude into mapping coordinates. In Alberta, two mapping planes (map projections) are used; a 3-Degree Transverse Mercator projection (3TM) in the urban areas, and a Universal Transverse Mercator projection (UTM) in the rural areas. These are the mapping planes of choice for the municipalities within Alberta.

The next question would be how are urban and rural limits defined? In other words, how do I know if I am in an urban mapping area where 3TM is required or a rural mapping area where UTM is required?

Urban Mapping Areas

The urban mapping area includes the 73 former Municipal Integrated Survey & Mapping (MISAM) municipalities. Since the amalgamation of the towns of Cold Lake and Grand Center into the City of Cold Lake and the amalgamation of the town of Drumheller and the MD of Badlands (ID 17) into the new town of Drumheller there are two fewer MISAM municipalities. The following municipalities require 3TM grid bearings and/or coordinates:

Sixteen cities: Airdrie, Calgary, Camrose, Cold Lake, Edmonton, Fort McMurray, Fort Saskatch-

ewan, Grande Prairie, Leduc, Lethbridge, Lloydminster, Medicine Hat, Red Deer, Spruce Grove, St. Albert, and Wetaskiwin.

One rural municipality: Strathcona County (including the Hamlet of Sherwood Park)

54 towns: Barrhead, Beaumont, Black Diamond, Bonnyville, Bow Island, Brooks, Canmore, Cardston, Carstairs, Claresholm, Coaldale, Cochrane, Crowsnest Pass, Drayton Valley, Drumheller, Edson, Fairview, Fort Macleod, Gibbons, Grande Cache, Grimshaw, Hanna, High Level, High Prairie, High River, Hinton, Innisfail, Lac La Biche, Lacombe, Magrath, Morinville, Okotoks, Olds, Oyen, Peace River, Picture Butte, Pincher Creek, Ponoka, Raymond, Redcliff, Rocky Mountain House, Slave Lake, St. Paul, Stettler, Stony Plain, Strathmore, Swan Hills, Taber, Three Hills, Turner Valley, Vegreville, Vermilion, Wainwright, Westlock, and Whitecourt. The smallest town in this list is Oyen with a population of about 1,100 people.

There are map sheets showing the areas covered and the markers within the areas available at www3.gov.ab.ca/srd/land/dos/urbanmap.html

Rural Mapping Areas

All other parts of the province use a UTM map projection. This would include all the parcel mapping towns. During the years between 1990 and 1994, the parcel mapping towns project was undertaken to increase the density of ASCMs within a number of smaller communities that were not part of the MISAM project. There were two or more (up to four) ASCMs installed in each community approximately one kilometre apart and intervisible. The intent was to allow surveyors to integrate their plans of survey with the provincial survey control system. There are 112 parcel mapping towns with the largest being Sylvan Lake with a population of approximately 7,500 people. While they are called parcel mapping towns, the 112 communities includes towns, villages and hamlets. They are:

Acme, Alberta Beach, Alix, Andrew, Athabasca, Barnwell, Bashaw, Bassano, Beaverlodge, Beiseker, Bentley, Berwyn, Blackfalds, Bon Accord, Bowden, Boyle, Bragg Creek, Breton, Bruderheim, Calmar, Carbon, Caroline, Carseland, Castor, Chauvin, Chestermere Lake, Clairmont, Clyde, Coalhurst, Consort, Coronation, Crossfield, Daysland, Delburne, Desmarais, Devon, Didsbury, Donnelly, Duchess, Eckville, Edgerton, Elk Point, Entwistle, Evansburg, Falher, Foremost, Forestburg, Fort Vermilion, Fox Creek, Girouxville, Gleichen, Glendon, Granum, Hardisty, Hines Creek, Holden, Hythe, Irvine, Irma, Irricana, Killam, Kitscoty, La Crete, Lamont, Legal, Linden, Manning, Mannville, Marwayne, Mayerthorpe, McLennan, Milk River, Millet, Mirror, Monarch, Mundare, Myrnam, Nampa, Nanton, Nobleford, Onoway, Penhold, Provost, Rainbow Lake, Redwater, Rimbey, Rycroft, Ryley, Sedgewick, Sexsmith, Smoky Lake, Spirit River, Stavely, Stirling, Sundre, Sylvan Lake, Thorhild, Thorsby, Tilley, Tofield, Trochu, Two Hills, Valleyview, Vauxhall, Viking, Vulcan, Wabamum, Wabasca, Warburg, Warner, and Wembley.

All other areas of the province not falling within a former MISAM municipality (3TM) or within a parcel mapping town (UTM) are mapped in UTM. So if integration outside these areas is required, the grid bearings to be used are NAD'83 UTM.

Part C, Section 5 of the Manual of Standard Practice deals with integrated surveys. This section was added to the MSP when the former Survey Control Regulations were rescinded in 1999 as part of the government's de-regulation initiative.

So When is Integration Required?

Section 5.1 says: "Every survey a plan of which is to be registered under the Land Titles Act shall be integrated with survey control if two or more monuments found or placed

by the survey are each within one kilometre of any two survey control markers.” There is, however, a case where the conditions in 5.1 are met but integration is not necessary as Section 5.4 says: “If a surveyor performs a survey within the bounds of a survey that has been integrated in accordance with Sections 5.1 to 5.3 then the requirements of Section 5.1 are optional.”

The most obvious case where this section (5.4) may be used is where an urban subdivision plan has been integrated and the various right of way plans within the bounds of the subdivision do not require integration. Another situation might be where a lot or several lots of a subdivision are either further subdivided or have had some lot lines adjusted. The key here is that the new survey must be “fully within the bounds” of a previously integrated survey. It can not be abutting or surrounded by previously integrated surveys, it must be fully contained within a previously integrated survey.

What Does Integration Mean?

Part C, Section 5.2 of the Manual defines integration as follows: “For the purposes of Section 5.1, integration with survey control means obtaining sufficient measurements from survey control markers into the survey to permit the derivation of grid bearings and the computation of a closure starting at a survey control marker and proceeding along the shortest path through the survey to another survey control marker.” Part C, Section 5.3 defines the allowable error of closures for integrated surveys as: “when computing a closure under Section 5.2, the error of closure when compared to the coordinates of the survey control markers, as confirmed and published by the Director of Surveys, shall not exceed the greater of:

- .1 the product of 0.00014 and the direct distance between the 2 survey control markers used for the closure, or
- .2 25 millimetres.”

The key points to integration here are:

- to derive the correct grid bearing for the area of the survey either 3TM or UTM and of course NAD’83.
- to use the survey control marker coordinates published to check closures with survey control, which requires the use of a combined factor to scale the measured ground distances to the correct mapping plane in either 3TM or UTM.

Normally the combined scale factors of two or more markers are averaged to determine the combined factor for the project area. This would be the number placed in the legend of the plan as required by Part D, Section 1.2.2 of the Manual of Standard Practice.

Ties to Survey Control

The only situation where land surveyors make ties to survey control is when only one survey control marker is within one kilometre of any monument found or placed by the new survey as outlined in Part C, Section 5.6. There is a big difference between making *ties* to survey control (Section 5.6) and *integration* with survey control, (Section 5.1) and, unfortunately, it appears that many members do not see or understand the difference.

Obviously if one is only required to tie to survey control, grid bearings are not required, and closures to other markers are not possible. Lately, we have seen in SPR several members who are using GPS to actually determine grid bearings and integrate their survey when not actually required to do so by Section 5.6. This is going beyond the minimum requirements spelled out in the MSP, but with today’s technology it is not difficult to do. The Land Titles Procedures Manual under SUR-1.21 requires that the reference line of the survey must be clearly identified. If the bearings are grid and derived from integration with survey control, the markers used

as the reference line should be noted on the plan.

So remember the differences between *tying to survey control* and *integrating with survey control*.

Grid Bearings and Astronomic Bearings

We have just discussed when integration is required and the differences between 3TM and UTM mapping areas in the provincial mapping system. For all integrated surveys, grid bearings are required. However, not all ASCM ID cards show grid bearings, particularly in the parcel mapping towns and the rural areas. Most, if not all, of the ID cards show astronomic bearings from one marker to the next, rather than the required grid bearings. Inverse the coordinates of the two markers used to get the grid bearing if your ID cards show astronomic bearings.

The Director of Surveys has found recently that many land surveyors have mistakenly shown an astronomic bearing from an ID card and either called it a grid bearing on their plan of survey, or even called it an astronomic bearing. Naturally, it is impossible to obtain a satisfactory closure (Part C, Section 5.3) between markers without using grid bearings.

Upon further investigation, the Director of Surveys Office found numerous other errors on plans of survey registered in the parcel mapping towns. In many cases, members used a 3TM projection rather than the required UTM projection. In other cases, members have shown their bearings as being 3TM grid or even correctly as UTM grid but in fact they have used an astronomic bearing from the ID card. In other situations, members have shown the astronomic bearing from one marker to another as the assumed bearing for their plan, of course without complying with Part D, Section 1.2 of the MSP. It was also discovered that some land surveyors neglected to integrate their survey as required. It seems that often

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guardpost

by Doug Neufeld, ALS

I volunteered to write an article for this month's *ALS News* 'GuardPost.' The Guardpost is for members of the Practice Review Board (PRB) to voice matters of concern or to offer various opinions on just about any reasonable topic.

It took me a while to think of a topic, but then I thought I could write "What is The Most Impressive thing about being a member of the PRB?"

The lunches served during the PRB meetings are impressive. They seem to be free of charge and are hot too! That's impressive, but to me not The Most Impressive.

It's especially not the coffee that has impressed me the most, yet it is readily available and brown too. Not quite as impressive as Timmy's though.

At the Board meetings, the members pour over many enlightening

facts and figures. The facts are plentiful and the figures are notable. Impressive, yes, but not The Most Impressive.

The dedication and professionalism of the Board members are convincing and inspiring. Not to forget the commitment and spirit of the ALSA staff. All are impressive but still not The Most Impressive thing for me.

So here it is—The Most Impressive thing for me about being on the PRB—(all kidding aside!)—are the thoughts and processes of the public member. The PRB meets to discuss the items of concern and the land surveyors all make valid statements and provide professional thought-out opinions. The opinion of the single public member has impressed me the most.

It is difficult at times when professionals gather for them to 'see the bigger picture' of what they profess to do. The public member opinion does just that. The public member opinion is not wrapped and packaged into a "how" a land surveyor does his job. But "why" he does his job and "why" the profession is so important.

It is a refreshing viewpoint, one that a land surveyor should ask many times during their professional career. If you ask yourself "why" you do your job and remember the Code of Ethics Part that says "an ALS shall serve society, his client and his profession...", then you may actually have a different perspective in "how" you do your job.

Merry Christmas!

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when a surveyor made a mistake, future surveyors in the parcel mapping town would duplicate the same mistake.

Obviously the severity of these errors varies, on a case-by-case basis, but it is clear that many land surveyors do not integrate their surveys as required, or understand what the provincial mapping system is. Conversions between 3TM and UTM can be easily made, but only if the bearings shown are actually grid bearings.

When land surveyors find errors in the work of other surveyors such as incorrect bearings discussed in this article, we have an ethical duty to notify the other member of our findings. That member then, in turn, has an ethical duty to cooperate with us in resolving errors or discrepancies in their work. The intention is to notify the member so that member

can make any required corrections to their plans. Over time, maybe we can correct the alarming number of errors or discrepancies discovered by the Director of Surveys Office in these "parcel mapping towns."

A check list for ASCM

- Are there any ASCMs within one kilometre of any monument found or placed by my survey?
- Are there two or more ASCMs within one kilometre of any two monuments found or placed by my survey?
- Do I have to integrate my survey with ASCM or is just a tie required?
- Do I need to order my ASCM ID cards in NAD'83 UTM or NAD'83 3TM coordinates? (The default map projection when ordering ASCM ID cards through SPIN is 3TM so if UTM is required, you *must* change the default.)

- Do the ID cards show grid bearings or are astronomic bearings shown?
- If integration is required, what combined factor will I use?
- If integration is required, have I shown all the requirements of Part D Section 1.2.2 on my plan?
- Have I shown the reference line in the legend of the plan?
- Does my survey meet the closure requirements of Part C, Section 5.3?
- Is an updated marker condition report required?
- Have I shown the tablet markings as well as the unique identifier number on the plan as required by Part C, Section 5.5?
- If my survey is done under Section 47 of the Surveys Act, have I shown grid coordinates in my coordinate listing as required by Part D, Section 1.2.2 of the Manual?



pdc corner

by Mele Rakai, Associate Member and John Baldwin, University of Otago, New Zealand

Continuing Professional Development in New Zealand

As Ken Allred noted in the June 2004 issue of *ALS News*, land surveyors in Canada are a part of an aging profession in an active, competitive marketplace, where it is becoming increasingly difficult to obtain and retain good qualified staff. It is, therefore, important that we ensure that current members as well as incoming members—including graduates of our learning institutions—are continuously encouraged and given opportunities to keep abreast of the various changes (e.g. technological, social, legal, legislative) that affect the surveying profession.

In many professional surveying organizations, a committee such as the Professional Development Committee (PDC) in Alberta, or the Continuing Professional Development (CPD) committee in New Zealand, has been established to facilitate the process of keeping members continuously educated in order to be kept up to date with the winds of change affecting their profession. This article provides a quick overview of the development of the CPD program in New Zealand, by the New Zealand Institute of Surveyors (NZIS).

The CPD Program in New Zealand

Since introducing its voluntary CPD program about a decade ago, the NZIS has been encouraging members to be actively involved with CPD. As expected, questions have been raised over its definition: is it 'continuing personal development' or 'continuing professional development' or even 'compulsory professional development'? The NZIS responded by taking the approach that CPD embraces both personal and professional development.

Initially, CPD activities were classified into 3 categories that included extra-curricular activities such as community service and even survey practice. This was aimed at recognizing that continuing proven competence in surveying activities was relevant. Generally, members were (and are still) required to log 20 hours or points per year. In 2003, the NZIS recommended that points or hours be scored in only one category—a category that emphasizes participating in professional surveying activities such as branch meetings, seminar and conferences. To this effect, the CPD Committee developed a points system for participating in events such as meetings, workshops, seminars and conferences. These events generally have a maximum value of six points. However, the points do not necessarily equate to the number of hours used—for instance, higher points may be awarded for a particularly valuable seminar. Furthermore, since some of the smaller branches meet infrequently, the percentage of a meeting attended, out of the overall number of meetings held may be used. Members are also encouraged to undertake additional studies, with a limit being placed on the points that may be claimed—such as ten points for a university course.

The active encouragement of members to attend CPD sessions places a responsibility on the NZIS to organize appropriate educational sessions, such as those dealing with new software, cadastral procedures or subdivision engineering. Consequently, a conference (three to five days), a local government seminar (two days) and a consultants workshop (two days) are organized annually by the NZIS. Local branches of the NZIS are also encouraged to

include relevant topics and speakers in their regular meetings. There have also been many briefings, seminars and training sessions over the decade, with the development of New Zealand's national LIS program, including over the past few years, its *eSurveys* and *Landoline* initiatives. [*eSurveys* may be seen as the equivalent to Alberta's digital plan lodgement process, while *Landoline* may be seen as the equivalent to Alberta's *SPIN* system.]

Issues and Recent Innovations

A contentious issue has been the need for compulsory or mandatory CPD. Some members, particularly older members and/or those residing in remote areas, have objected to the introduction of compulsory CPD, due to the difficulty of travelling to seminars and workshops in order to obtain their CPD points. They argued that while attending seminars and workshops was not a problem for members residing near or in the main centres, it was difficult for those residing in remote locations. They also pointed out that some consideration needed to be given to allowing such members to keep abreast of new developments and issues by reading surveying-related material.

To date, achieving adequate CPD points has not affected a member's right to gain and retain a license to practice as a cadastral surveyor. However, it should be noted that in keeping with recent professional and legislative reforms in New Zealand, the legal title of *Registered Surveyor*, has been replaced with that of *Licensed Cadastral Surveyor*. In addition, the past practice of Registered Surveyors renewing their Annual Practicing Certificate yearly, has now been replaced with the need for

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public relations

by Lew Rodney, ALS

The winter season is upon us. A time now to assess the past year and prepare for the next one. The Public Relations Committee has been busy with some of the following items.

As you know, the intent of previous PR committees has been, among other things, to raise the public's awareness of Alberta Land Surveyors; clearly defining our purpose, and enhancing the image we present in today's society. While it is not the purpose of this article to evaluate the public's concept of surveyors, a quick review of some of our programs will show we have had at least moderate success in reaching out to people.

At first, committee work seems to be a great deal of driving combined with endless amounts of discussion and more driving. Often, the extent of results gained is not completely obvious.

However, the feedback from a poll organized and conducted this summer for the PR Committee, while still in the 'raw data' phase, indicates that the work done by this Committee has made an impact. Even a quick examination of that information shows we do reach our desired target markets. From municipal governments, to real estate agents, to solicitors, to legislators, to housewives, homeowners and many more, our message does get through. We, the members on the PR Committee, look forward to the detailed analysis of the market research information painstakingly gathered by Brian Stecyk of Rose Country Communications Ltd., our consultant firm. With that data we hope to prepare a new five-year plan to define the direction the Association must take to maintain the success we seem to have made, further enhance our public image and bring our message to Alberta's population.

The opportunity to make an impact upon the future of the survey industry is here and now.

Many of the schemes decided upon by the Committee are organized and carried out by the diligent efforts of individual members. Often no one hears about these efforts or even the programs, but, without them, nothing happens. I take this opportunity to mention briefly a few of my favorite programs and thank those responsible for their success.

I call it "Surveyor in a Crate," but the program's real name is Science in a Crate. Our contribution as a sponsor of the Science Alberta Foundation carries the name "Made to Measure." This program, outlined in detail in the last *ALS News*, brings a new view of math and science to young Alberta students. By joining our efforts with other groups with a vision for the future, we found a way to make an impact. In my view, a very fun idea.

At the recent AUMA Trade Fair that brought together representatives of municipal governments, mayors and councillors from the far corners of the province we enjoyed the opportunity to speak to delegates from many cities, towns, and villages. The resounding message from them: "we LIKE what you do as surveyors!" and "keep up the good work!" They recognize the contribution we make to Alberta society: the order and organization our work permits within their constituencies. Many indicated that they supply the public with brochures and pamphlets that the Alberta Land Surveyors' Association has developed over the years. They further indicated that the information we present has relevance

to the public and assist many people with issues involving land. Also, the nature of the information makes it clear that Alberta Land Surveyors are available to supply professional help in many aspects. From pamphlets about the need for real property reports to details on the subdivision process, our information matters to them and their clients and is being made available at their offices all across the province. To reinforce the point: in the course of making our presence known, we held a little contest. The object was to identify an air photo of an Alberta community. More than 350 people entered! We spoke directly to each of those delegates. Many took away information: pamphlets, posters, and brochures. All were interested in what we had to offer their community. A positive attentive attitude, considered opinions, and sensible reasoned answers to their questions, all go a long way on the road to developing a good working relationship with these officials.

The University of Calgary's Engineering Students have benefited from programs we have had for several years... for example, the annual BBQ was held just a few days ago. According to all reports, it was a smokin' success. We make the effort to reach students at the university and college level. By our presence at these events and conversations with them about our work, students develop an interest in the land survey industry in Alberta.

Other PR enterprises that reach out to Albertans: the Geocache program and the Scouts Alberta program make use of GPS in a manner that appeals to many amateur users. Without going into the minutiae of these programs, suffice it to say that these programs have developed innovative ways to

enhance awareness of ALSA and some of the technology surveyors incorporate.

In conversations with Brian Munday, the ALSA Executive Director, he indicated to me that the frequency of calls to the ALSA office and the intensity of complaints about field survey crews working around the province diminished to some extent over the past summer but became a big issue again this fall. By placing business cards in mailboxes, or supplying the special survey card that details the intent of the survey, we inform property owners of our purpose. By explaining that purpose in a reasonable straight-forward way to home owners, answering their questions, and generally being 'up front,' the profession can eliminate much of the negative impact that residential surveying can create. People in today's world are aware of their rights. They need to know about things that affect them and their property. By following the simple rules, the Association suggests many problems can be, and have been, avoided. Although one cannot relate these facts to purely Public Relations Committee work, they do fall within the more general 'good public relations.'

But I digress. Mr. Munday further indicated one area that needs some amount of 'extra curricular' effort to round out the extent of the message we seek to deliver to the public.

As many of us realize, soon the effect of the "boomers" demographic will have another impact upon our lives. In the survey world, over the next several years, practitioners will begin to retire in large numbers. To replace these retirees, in an environment that always requires MORE, we will need to find people with an interest in the survey industry and suitable aptitudes and qualifications. To this end, we address some of the above programs. "Surveyor in aCrate" and the U of C BBQ, for example, attempt to reach students from junior high and university.

However, it would seem prudent to include high school students as a focus for our attention. To ensure that our influence upon suitable candidates, students who enjoy the unique combination of mathematics, law and the outdoors, we need to find ways to reach out to high school students. Currently, we on the PR committee are discussing the option of a math scholarship program.

Another option that could have a desirable result would be meeting with these students. Through the means of hiring them for part-time employment if possible, direct one-on-one discussion, making information available to student councillors for their use, and so on, we can get their attention. Mr. Munday suggested that information available through the ALSA can and should be used by members to facilitate these ends. If it happens that you as a surveyor receive a request to speak to students at this level, the ALSA office would be able to provide material, overhead projector systems, and advice on how to provide a successful presentation. Probably most of what would be required would be a couple of good survey stories, an interesting slide show, a down to earth view of life, and straight-forward answers to questions.

The importance of even limited contact with students cannot be stressed enough. We need student replacements to ensure the continuance of the survey profession and we need the best ones. Further, even those who do not choose to become professional surveyors but would rather become technicians or support staff must be encouraged to explore the possibilities of this profession.

We need your input and we need it now. Technology and gadgetry will not function without people to run it. The opportunity to make an impact upon the future of the survey industry is here and now.

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.

1) New Executive Director Named For Resource Information Management Branch (RIMB)

On Friday October 22, 2004, Mr. Stew Churlish, Assistant Deputy Minister, Strategic Corporate Services, announced that Dr. Stephen Moran will be joining Alberta Sustainable Resource Development (ASRD) as the Executive Director, Resource Information Management Branch on November 1, 2004. Dr. Moran fills the position previously held by Mike Toomey (formerly the Resource Data Branch) who retired in June 2002.

Dr. Moran comes from CRESTech, an Ontario Centre of Excellence, where he was the president and CEO. He has 25 years of experience in government including 20 years in a variety of positions with the Alberta Research Council.

2) May 31, 2004 ATS File Becomes the Standard

In an effort to standardize geographical submissions to government, ASRD recently recommended that a current version of the Alberta Township System (ATS) file become the standard for geo-referencing those submissions. After receiving general support from the Geomatics Committee of the Canadian Association of Petroleum Producers (CAPP), the Canadian Association of Geophysical Contractors (CAGC) and the Alberta Energy and Utilities Board (AEUB), the May 31, 2004 ATS file was chosen.

Work has recently been completed on the May 31, 2004 ATS file and it is now available from AltaLIS Ltd. More details can be found at their web site, www.altalis.com/productsandsamples/index.html.

As digital submission standards are developed, the intent is for surveyors to geo-reference their computer aided design (CAD) drawings, when making digital submissions to the Public Lands and Forests Division or the Alberta Energy and Utilities Board. See item three below for details on digital submissions.

3) Standards and Procedures for Digital Plan Submissions In Development

Discussions continue with the Public Lands Dispositions Subcommittee to develop standards and procedures for digital plan submissions for disposition sketch and survey plans on Public Land. At their monthly meetings, the subcommittee is reviewing submission formats (CAD versus shape), submission files (drawing file, meta data file, raster image, and PDF), and plan content. Several tests are also underway to determine the issues with geo-referencing plan drawings, and file format conversions for acceptance into the Application Disposition Processing and Tracking (ADEPT) system used by ASRD.

The scope of the project has also been widened to include discussions with the AEUB, who have also established a committee to discuss digital submission for pipeline plans. Both AEUB and ASRD acknowledge the importance of common submissions standards and will be working jointly with representatives of the Alberta Land Surveyors' Association and other industry partners to minimize the impact on the land surveying profession.

4) Geodetic Control Unit Develops Fact Sheet On Grid Bearings

Further to the Director of Surveys office review of registered plans and deficiencies discovered relating to grid bearings, the Geodetic Control Unit has prepared a fact sheet on the topic. You can read it on the Director of Surveys' web site at www3.gov.ab.ca/srd/land/dos/facts09.html.

5) Public Lands Reject Plans That Do Not Comply With the Manual of Standard Practice

As required in Part D, Section 5.9.2 of the Manual of Standard Practice, License of Occupation (LOC) road plans are being rejected if they do not have both the beginning and end points tied to existing surveys.

6) Topics Announced For Next Water Boundary Issues Workshop

Further to the Water Boundary Issues – Accretion and Natural Boundary Adjustments presentation by Mr. Gerry Haekel at the April 2004 Annual General Meeting of the Association, the document 'Principles of Water Boundaries' is being updated and a future workshop for land surveyors will be suggested for 2005. Topics for discussion include the following:

- More explicit instructions for Accretion and Natural Boundary Adjustments
- Requirement of sufficient evidence to substantiate location or changes in location of a natural boundary, accretion, or extinguishment (non-existence) of a natural boundary —Summary description of application area, physical and documentary evidence —One set of colour ground photographs —Most recent aerial photographs
- Integration of instructions into the Manual of Standard Practice.



education news

Geomatics Engineering Liaison Committee

Report on the Professional Surveyor Lecture Series at University of Calgary Geomatics Engineering Survey Camp Kananaskis, Alberta

September 1st-2nd, 2004—

The cold, rainy weather didn't dampen the spirits of the 36 geomatics students who attended survey camp this year. After ten days of field exercises, the students began Wednesday morning with the traditional Lost Peg competition—a game to re-establish a “lost peg” using theodolites and chains. Several of our guest lecturers helped out by providing some training on good chaining techniques and reading the verniers on the instruments.



After the winners of the Lost Peg game were decided, the Professional Surveyor Lecture Series began. The nine professional land surveyors who participated in the lecture series this year gave a diverse set of relevant and interesting presentations on land surveying topics. Here are those presenters and topics:

- **Ashley Robertson, ALS**—*Who Wants to be a Land Surveyor?*
- **Bill Shepherd, MLS, CLS**—*Water Boundaries and Special Surveys at the Village of Dunottar*
- **Robert King, ALS**—*GIS Applications in Surveying*
- **Dave Thomson, ALS**—*Developing Geomatics Opportunities Abroad*

- **Paul Dixon, ALS, CLS**—*First Nations Land Claim Surveys*
- **Ian Lloyd, BCLS, CLS**—*Land Administration in Landmine Affected Areas*
- **Roy Pominville, ALS, SLS, CLS**—*Project Management Case Studies*
- **Robert Allen, BCLS, CLS**—*Running a Land Surveying Business*
- **Bryan Bates, BCLS, ALS, CLS**—*Ethics Group Case Studies*

The lectures were well-received by the class and many of the students asked additional questions at the end of each presentation. It is also worth



noting that slightly more than half of the students indicated they would be seeking careers in the land surveying field upon graduation. This is an encouraging statistic given the demographic shifts that the land surveying community is going through. These students represent a large contribution to the future talent pool of our associations.

Thank you to both the guest lecturers and the land surveying associations for their support of this event. The lectures are an excellent way of putting the students in contact with our associations directly through our own members, and are an excellent forum for sharing information about the industry.

BRYAN BATES, ALS
ORGANIZER

Geomatics Engineering at the University of Calgary Celebrates 25 Years!

The Department of Geomatics Engineering celebrated its 25th Anniversary on October 28 and 29, 2004 with great success. A celebration banquet was held on October 28 with 275 faculty, staff, alumni, donors and supporters in attendance. There was representation from all graduating classes, 1981-2004 and over 20% of the undergraduate alumni were in attendance.

Numerous displays showing graduating class photos and other memorabilia provided an opportunity for alumni to connect with each other and share memories from their student days. Undergraduate and graduate award winners for 2004-2005 were also recognized.

On October 29, there was an open house which showcased the Department's facilities and research programs. A lost peg game was held in which teams used GPS geocaching and conventional surveying to locate a 'lost peg' on campus. The game was won by the “Class of '97” which included Rob Tupper, BCLS, Mark Budgen, PEng, Rob Isaac, PEng, and Lee Andersen, SLS, ALS. Richard Redfern, BCLS, and a member of the



Lost Peg Winners (left to right): Rob Isaac, Rob Tupper; Mark Budgen, Lee Andersen, Rich Redfern



From left to right: Dave Thomas, B.Sc. 1994, Chris Tucker B.Sc. 1996; Shaun Ewen, B.Sc. 1995; Gary Penno, B.Sc. 1995.

Geomatics Engineering Liaison Committee, rounded out the team. By locating the 'peg' to within 5 mm, the names of the team members will be engraved on the Department's Lost Peg trophy which is traditionally awarded each year at Survey Camp.



From left to right: Susan Ross, Stephen Green, B.Sc. 1982, Brian Ross, B.Sc. 1983

A legacy of this special event was the establishment of three 25th anniversary bursaries for each of our second, third and fourth year programs. The original goal of \$60,000 was far exceeded by raising \$120,000 for these bursaries which are valued at



From left to right: Jenny Kwan, B.Sc. 1990; Sandy Davies, B.Sc. 1991; Elizabeth Natola, B.Sc. 1990

\$3,000 each. Thanks to our many supporters and congratulations to the inaugural winners of the award: David Chiu, Angela Jeffray and Sidney Kwakkel.

*DR. ELIZABETH CANNON, PROFESSOR AND HEAD
DEPARTMENT OF GEOMATICS ENGINEERING
UNIVERSITY OF CALGARY*

Professional Development Corner *continued from page 35*

Licensed Cadastral Surveyors to renew their license every three years. As yet, there is no mandatory requirement for New Zealand surveyors to have a CPD portfolio. However, given the many changes in laws and procedures affecting cadastral surveying, surveyors are doing many hours of CPD (which may or not be logged), in order to be able to practice effectively as a cadastral surveyor. The renewal of a cadastral license will have a requirement to have recently completed a number of official cadastral surveys. Thus, CPD may be compulsory for licensed cadastral surveyors, but will remain voluntary for other categories of surveyors.

Creating compulsory CPD brings with it the need to police members' CPD returns. With around 1,000 members to submit returns, careful monitoring of paper records can be a major logistical undertaking for a small voluntary organization. For instance, a few reams of inadequately completed forms may require validation. In response to these issues, the NZIS CPD website was revamped in early 2002, to make it easier to access

professional information, relevant reading materials and make site searches that could facilitate professional learning. Also included within the site was a facility for members to log their CPD performances. This part of the site lets members select their CPD activity, claim their CPD points and, if they wish, provide a brief explanation of the activity. The record cannot be lost like a paper record, and is available on any internet connected computer. The paperwork for CPD administrators is also substantially reduced. A CPD administrator is able to download every CPD record and save it as an excel or similar spreadsheet file. It is envisaged that the CPD record can be used by a member as defense against any accusations of not being up to date. Alternatively in a disciplinary action, the NZIS is able to refer to the last three years of a member's activities.

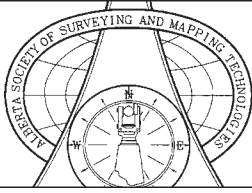
CPD Benefits Realized To Date

CPD has been introduced gradually by the NZIS over the last decade. Members who have embraced it have expressed the opinion that it is not a major chore, but simply one of remembering to record one's CPD activities. Their experience has

helped convince more of their colleagues that it is not a burdensome program. One benefit of the newly created online CPD recording system is that it allows members to keep a record and/or even a diary, of every relevant activity as desired. Although members are required to record only 20 to 25 hours per year, some conscientious members have been logging well over 100 hours each year and seem to delight in adding to their score sheet. They are persuading and instructing their colleagues about how easy and quickly a creditable record can be built up.

For more information on the NZIS CPD program, you can check out www.surveyors.org.nz. You are also welcome to try out New Zealand's online CPD recording program, by becoming temporary NZIS website members – contact John Baldwin (john.baldwin@otago.ac.nz) if interested.

Note: The Professional Development Committee had the pleasure of meeting with John Baldwin, long time member of the New Zealand Institute of Surveyors (NZIS), and senior lecturer at the University of Otago's School of Surveying in Dunedin, New Zealand, in September 2003.



assmt notes

by Ken Revoy, CST – President

In 1966, the ALSA received a request from a group of interested technicians to help them form a society that would promote and increase the knowledge of non-professionals in the survey and mapping fields. The group sent out questionnaires through their employers. Although the initial response was not very encouraging, with a lot of hard work and follow up, a meeting took place in Red Deer on March 11, 1967. The ALSA was represented by President Ted Rippon and Jack Holloway who together worked on a draft and bylaws. After a few changes, Mr. Dave Usher prepared the final documents.

Then at the 1968 ALSA Annual meeting, the Alberta Society of Technicians and Technologists (ASTT) was born. I thought a little background on how and why the Society was formed would be a good place to start.

Over the years, there have been a number of dedicated people who have advanced the Society to where we are today. For us to get to the next level, we need to grow and attract other dedicated people, so with the help of ALSA, we hope to achieve this. First we would ask that all employers stress to their employees the benefits of becoming members of ASSMT. This not only benefits the employee but the employer as well. Just think of how impressive this would look to your present and future clients if they were to see the CST initials behind just about everyone's name.

I encourage all employers to visit our web site www.assmt.ab.ca, (currently being updated) to see the benefits of having your employees certified through ASSMT. It's time for ASSMT and ALSA to work more closely together. One idea that was suggested at one of our Council Meetings was to have the ASSMT

Council and the ALSA Council get together for a "meet and greet." For some reason, our two organizations seem to have grown apart over the years, or at least this is what some believe. ASSMT appreciates that ALSA has supported us in what ever way they have been asked, but we need to come up with more ways to support each other.

One way we are gaining more exposure is through our regional meetings. Turnouts have been fantastic and I applaud all involved. ASSMT is also receiving membership rates at all Alberta Geomatics Group (AGG) events, where ASSMT literature is also being handed out. I believe this is just what the Society needs - more exposure, something we hope the ALSA will be able to help us with. Today, ASSMT is more diversified in the fields in which we certify

our members, this is good. I believe that some past presidents may have felt that getting too close to the ALSA meant we were favoring the surveying field more than the other fields we certified members in. That is simply not true; of course we have a stronger association with the ALSA that's obvious, they are our roots.

ASSMT exists and will continue to exist because of its dedicated, hard working volunteer base. These people believe in the Society and see the need that it fills. I for one am proud to be part of ASSMT and to be associated with the ALSA.

I would like to thank all ALSA members and their associated companies for allowing their employees the time off to attend council meetings and the AGM.

Best wishes for a festive holiday season and the new year.



a moment of silence

Peter K. Muirhead, ALS **December 31, 1928 to** **October 9, 2004**



Peter Muirhead was born in Saskatoon, Saskatchewan on December 31, 1928. He was raised in Saskatoon where he

attended school and high school, going on to attend the University of Saskatchewan. He moved to Edmonton in 1952. That same year, he married Norma Johnson.

He joined the survey firm of Hamilton and Olsen and took out his articles under Buck Olsen, obtaining

his ALS commission #252 on May 29, 1959. He received his DLS commission #913 on March 24, 1970. Peter also worked with the firm of Dozzi & Smith and with Con Duemler, ALS. He practiced on his own for a short while during which time he tutored several students in mathematics and survey practice.

Peter joined the Canadian National Railway on January 1, 1967 and retired from there on December 31, 1988. While with the CNR, he assisted with the re-establishment of the Jasper Park Lodge boundary survey and the survey of the Great Slave Lake Railway from Peace River to Hay River and the spur line to Pine Point in the Northwest Territories. He surveyed the railway line from Hinton to Grand Cache. He also carried out numerous microwave

station surveys in the Northwest Territories and the Yukon. Those surveys required the use of helicopters. Peter enjoyed his time with the railway turning out accurate surveys.

While he was an ALS, Peter served the Association well. He was elected to Council in 1975 and served a two-year term. During his term, he headed up a special committee on Land Titles Office procedures and a standing committee on education. He spent many years on the Examining Committee. He also served as auditor in 1973-74. Peter was a member of the Canadian Institute of Surveying and a member of the Canadian Legion.

He passed away on October 9, 2004 at the age of 75.

R.A.F. TATE, ALS (HON. LIFE)



Lest We Forget

history

This is the fifth in a series of articles on the history of the ALSA and its members. The ALSA will be publishing a book on the history of surveying in Alberta in time for the 2005 AGM.

1916 – Town Planning

The 1916 Annual Meeting held at Calgary was a comparatively subdued affair, but the annual dinner seems to have been a bang-up show, notwithstanding the influence of the war. At the meeting, it was decided to maintain on the register without payment of fees, the names of those members who joined the armed services during the course of the war, and nothing else of much consequence appears on the records of that meeting.

Eventually, before the war ended, twenty-five members of the Association enlisted for active service, and five of those men died in action. They were Lieut. W. M. Carthew of Edmonton, Lieut.-Col. A. J. Latornell of Edmonton, Capt. D. D. MacLeod of Edmonton, Sgt. W. A. Scott, M. M., of Medicine Hat and Lieut. A. J. Tremblay of Edmonton. There were not many other professional organizations in Canada that could show a record of military service to equal this.

At the 1916 meeting, Mr. Seymour read a paper on "Town Planning and the Surveyor" in which he discussed the provisions and effectiveness of the primitive and now forgotten Town Planning Act that the provincial legislature had passed in 1913. Mr. P. N. Johnson followed Mr. Seymour with a paper on the establishment of lines for which no instructions are provided in the Dominion Land Surveys Act. The contents of that paper are as applicable to survey practice today as they were then, and they deserve to be regarded as part of the necessary education of every surveyor.

The annual dinner, the first to be officially recorded in an annual report, took place under the chairmanship of Mr. J.L. Cote, who had been elected as the new president. After the dinner, no less than seven formal toasts were proposed, hon-

This exhilarating wingding lasted for almost four hours and the report says that everybody greatly enjoyed it which, if true, only goes to show that Alberta Land Surveyors in those days had much more fortitude than they have now.

oured, and responded to, interspersed with music supplied by the Hotel Palliser Orchestra and songs delivered by a Mr. Morgan and Mr. L.W. Brockington, who later became better known as an after-dinner speaker than a singer. This exhilarating wingding lasted for almost four hours and the report says that everybody greatly enjoyed it which, if true, only goes to show that Alberta Land Surveyors in those days had much more fortitude than they have now.

It would seem that the enjoyment of the members of the Entertainment Committee must have been thoroughly extinguished later on, for in the minutes of the next Council meeting, held on December 8th, 1916, the adoption of the following motion is recorded: "That the Council feels it would be a bad precedent to reimburse the Committee of Entertainment for the amount spent by them in excess of the sum previously set by the Council; but the Council desires to place on record its keen appreciation of the excellent provision made for the entertainment of the Association and the generous and efficient action of the Committee." The Council then appointed a Committee for Entertainment for the 1917 Annual Meeting at Edmonton, and

cut their allotment of funds down to \$60.00. It was also resolved that that meeting should be limited to one day only. From all this, it would appear that frugality, if not niggardliness, was going to be restored for the duration of the war.

*J.H. HOLLOWAY, ALSA
A HISTORY OF THE ALSA, 1960*

Arthur Joseph Latornell



Lieutenant-Colonel Arthur Joseph Latornell was born at Meaford, Ontario, in 1878, and was educated at the public schools there and at Toronto University.

He graduated with honours in Applied Science in 1903 and took a post-graduate course in civil engineering. After graduating he worked for a short time with the Canadian Pacific Railway, and later with the Public Works Department of the Northwest Territories.

In 1906, he was appointed Assistant City Engineer of the City of Edmonton, shortly afterwards becoming City Engineer, which position he held until going overseas.

He obtained his commission as a Dominion Land Surveyor in 1906, and as an Alberta Land Surveyor in 1911. He was a member of the Council of this Association for two years, and took a very active interest in its affairs.

He qualified for a commission in the artillery in March 1916, and went overseas early in 1917 with the 75th Battery C.E.F; there he earned promotion very quickly, being advanced to the rank of Lieutenant-Colonel.

He died of wounds received in action, after having served at the front for almost a year.

Walter Alexander Scott

Sergeant Walter Alexander Scott, M.M. was born at Galt, in the Province of Ontario, on August 8th, 1885, and was educated in the public schools there and at the School of Practical Science, University of Toronto, where he obtained his degree of B.A. Sc.



He obtained his commission as a Dominion Land Surveyor in 1909, and as an Alberta Land Surveyor in 1911; he also held a commission as a Saskatchewan Land Surveyor. He worked on Dominion land surveys for several years and practiced as an Alberta Land Surveyor in the cities of Calgary and Medicine Hat from 1912 to 1914.

He enlisted in February, 1917, in the 256th Railway Construction Battalion, which later became the 10th Canadian Railway Troops. He was awarded the Military Medal at Passchendaele for repairing tracks through a shell dump under heavy shell-fire.

He was taken ill with tubercular peritonitis in October 1918, and invalided home. He died suddenly in Calgary on August 12th, 1919, from a recurrence of this disease.

William Morden Carthew

Lieutenant William Morden Carthew was born at The Rectory, Hopton Wafers, in the County of Shropshire, England, on October 19th, 1886, and was educated at St. Edmunds School, Canterbury.



He came to Canada in January, 1905, and settled in Edmonton,

Alberta, where he took up land surveying as a profession.

He obtained his commission as a Dominion Land Surveyor in 1910 and as an Alberta Land Surveyor in 1911, and practiced his profession as a member of the firm of Cautley and Carthew in Edmonton.

He enlisted in January 1915, and was given a commission as lieutenant in the 49th Battalion, with which he went overseas.

He was killed in action at Ypres on June 2nd, 1916.

The late Lieutenant Carthew had a brother, Mr. J. T. Carthew, who saw a great deal of active service with the Coldstream Guards, and who was also a member of the Association.

Mount Carthew (13-1-1-W5), approximately 8 km west of Waterton Park, is named after him.

Albert Jacques Tremblay

Lieutenant Albert Jacques Tremblay was born at Les Eboulements, in the Province of Quebec, on July 25th, 1887, and was educated at the Commercial Academy, Quebec, and at Ottawa, and McGill universities.



He obtained his commission as a Dominion Land Surveyor in 1912, and as an Alberta Land Surveyor the same year.

He made several important surveys for the Dominion Government near Mirror Landing and Fort McMurray, and practiced his profession in Edmonton as a member of the firm of Cote, Tremblay and Pearson.

He enlisted at Quebec on February 1st, 1916, and became a lieutenant in the 58th Battalion, from which he was transferred to the 2nd Pioneers, and from which in July, 1918, he transferred to the Royal Flying Corps, with the rank of Lieutenant Observer.

He was wounded in the winter of 1917, and was killed on August 31st, 1918, in an aeroplane accident at Winchester, England. The late Lieutenant Tremblay was survived by a mother living in Les Eboulements, in Quebec, also a sister and a brother, Capt. S. Tremblay, and his uncle, Jean Leon Cote, ALS.

David Douglas MacLeod



Captain David Douglas MacLeod was born at Parkhill, Ontario, on February 12th, 1890, and was educated in the public schools there and at Toronto Univer-

sity. He graduated in Applied Science in 1911, obtained his commission as a Dominion Land Surveyor in 1914, and qualified as an Alberta Land Surveyor in January, 1915 (but was never commissioned as an Alberta Land Surveyor).

He was a Lieutenant in the 101st Regiment, Edmonton Fusiliers, in 1914, and in January 1915, he was appointed a Lieutenant in the 49th Battalion, C.E.F., with which he went overseas and in which he later was promoted to be captain.

He went through very severe fighting with his battalion in the winter of 1915 and spring of 1916 in the area south of Ypres and on June 3rd, 1916, he was severely wounded when in command of his company in the counter attack on Sanctuary Wood, and died in the hospital at La Toquet five days later.

The late Captain MacLeod's brother, Lt.-Col. G. W. MacLeod, D.S.O., who went overseas with him was a well-known member of the Association.