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I have been proud to represent our Association at the other AGMs across the country and grateful for the opportunity to work with an engaged Council, dedicated staff and all the committed volunteers who give so generously of their time to the betterment of our Association.

Oh where has the time gone?

This past year has passed by so quickly for me. It has been a great honour to serve as president to our Association. Beyond a doubt, this past year will have been a highlight of my career. I have been proud to represent our Association at the other AGMs across the country and grateful for the opportunity to work with an engaged Council, dedicated staff and all the committed volunteers who give so generously of their time for the betterment of our Association. True, being president is a big time commitment but the rewards vastly outweigh the sacrifice.

I encourage all of our members to put their name forward for office.
You too will find it to be a very rewarding experience.

Many of you may be thinking that putting your name forward for office is something you would like to do someday but perhaps it is not the “right time.” Two years ago, I also thought that it was not the “right time” for me. Turns out, with the benefit of the wisdom I’ve gained from the experience, it was the perfect time for me. I think the role and the opportunity to work with dedicated professionals tends to make it so. I encourage all of our members to put their name forward for office. You too will find it to be a very rewarding experience.

A year is a short time in the life of our organization. I like to think that this past year it was my turn at the wheel of a large ship sailing on a long journey. This large ship, our Association, doesn’t turn on a dime but I’m satisfied we’re on the right course and prepared for the challenges we face ahead. On this voyage ahead, we will face many challenges. We must be prepared to repel challenges that are not in the public interest and embrace those that help us fulfill our mandate and better serve the public. From time to time, on long voyages such as ours, it is helpful to remind ourselves of the purpose of our voyage. Our purpose is to ensure that the people of Alberta have a qualified and strong profession to service their needs in matters related to “land surveying.”

The Alberta Land Surveyors’ Association (ALSA) is a self-governing professional association legislated under the Land Surveyors Act. The ALSA regulates the practice of land surveying for the protection of the public and the administration of the profession. In turn for this responsibility to protect the public interest, members of the ALSA are granted an exclusive scope of practice in the area of “land surveying.” I think it is important to remember the purpose of our journey as we navigate the waters ahead.

Professions, on a whole, are being challenged and the need for “exclusive scopes of practice” is being questioned by the public and the governments they elect.

The availability of technologies that enable the non-professional with skills previously only mastered by those within the professions, has caused society to question the need for regulated professions.

On our ship, handheld GPS and Google Earth have put geographic positioning skills in the hands of the general public. We are being asked why others are not qualified to sail on our ship and make this journey. The need for an exclusive scope of practice is being challenged.

Our profession clearly understands that a simple geographic positioning skill is a far cry from all the skills and knowledge required by a land surveyor, but the challenge we face is educating the layman and decision-makers why we exist and why it is in the public interest to regulate the profession. To remain relevant, we must educate government and the public why we exist. We need to educate them on the purpose of our journey.

In this past year, the crew of this ship has worked at improving our visibility and influence within government and industry as a whole. Government has clearly given our Association the message that we must be aware of the direction the wind is blowing and we must adapt to these changing conditions.

We’re a relatively small association in the overall landscape of regulated professions. However, our duty to the public and the role we serve is no less important. No one understands the impor-
tance of what we do better than ourselves. So it is incumbent on our profession to educate decision-makers. It is also incumbent on us to listen to the public and adjust to society’s changing needs if it is in the best interest of the greater public to do so. Not only do we need to react to the changing needs, we must also demonstrate leadership in matters related to land surveying and work with government to provide a better way of doing things in the future.

I think there are a few narrow channels to be navigated ahead. On one side, we have the need for a healthy profession and, on the other, a need to protect the public interest.

I’m confident our Association will navigate these narrow passages as long as we remember the purpose of our voyage. If changes or lack of change can be reasonably rationalized to be in the betterment of the public interest, then these are the right decisions. Whether this means changing the licencing requirements for a permit to practice or broadening our Act to be more inclusive of technologist working in our industry, our Association must always be cognizant of the changing needs and views of the greater public.

How wide are the channels ahead or, stated another way, where is the line between building a healthy profession and being self-serving and protectionist?

The argument that a healthy profession is in the interest of the public is not hard to make. Without a healthy profession, the public will not be adequately served and our Association would have failed in achieving its mandate. It’s important that we attract talent into the profession and to do so, our profession must offer an attractive lifestyle to its members and potential new members. However, the challenge we face is to build a healthy profession without sacrificing the interest of the public. The decisions we make must work towards adapting to challenges and maintaining a healthy profession while protecting the public interest. This requires us to act cautiously. We will be sailing through the narrow channels slowly to make sure we are being prudent in the public interest and not acting to protect our own self-interest.

If our actions are clearly made in the interest of the betterment of the public, then our profession will continue to grow with society. Failure to act in the public interest and perhaps act in what may be perceived as protectionist or in our own self-interest, will cause harm to our image, our profession and ultimately limit our ability to protect the public interest. If this happens and our Association loses the public trust, it will be impossible to regain it in the future. Failure to evolve and act in the public interest will set us adrift and we will become irrelevant.

At the end of the day, I believe our members have always done the right thing. However, more so than ever, we must be aware that others who have not been on our ship view our voyage differently. These “others” can potentially influence policy makers and impose conditions which can harm the public interest and our profession. It is incumbent on us to involve all stakeholders to bring about what is best for the public.

This past year my turn at the wheel has been rewarding. I’m looking forward to going back down on deck and helping, wherever I can, our future captains who will take their turn at the wheel and steer the ship. I thank all our members for my privilege this past year.

David Thomson, ALS
The issue is not to have limited options, but to have choices in what we do, how we do it, and who we do it with.

The date that I am putting the final touches on this article is February 13th, the day before Valentine’s Day, and four days before my 22nd wedding anniversary. While I was trying to think of a witty way to craft the introduction to my article, my wife gave me the news. She was rejecting my invitation to dinner Friday night (the night of our anniversary). It is not because she doesn’t like having dinner out with me (hopefully), or that she has better plans (possibly). As she explained to me, higher-end restaurants have a fixed menu at this time of year, with limited options. When we go out, she wants to have more say in her choices, to substitute things she doesn’t like for things she does, to eliminate one course entirely in exchange for more dessert. The opening to my article is now clear. The issue is not to have limited options, but to have choices in what we do, how we do it, and who we do it with.

We are approaching our Annual General Meeting in Banff this year. Like last year, there will be a presentation from the Legislation Ad Hoc Committee on changes to the ownership requirements for surveyor’s corporations. The theme this year will not be on accepting a menu list of one or two items. Instead, it will focus on choice.

The current requirements for ownership of surveyor’s corporations within our regulations have been with us since before most of us became Alberta Land Surveyors. The meetings and discussions that took place to craft the ownership regulations are slowly slipping into the mists of time. For many of us, we have started our careers, attained some level of success, and perhaps are even close to retirement, all within the current regulations. As a self-governing profession, we need to look at how we are managing ourselves given changes in technology, regulation and the expectations that the public has of us. With respect to the ownership of surveyors corporations, there are a number of questions before us:

- Why change a system that has worked well?
- What factors are driving this change?
- Does change increase the protection of the public?
- Does it hurt the public?

Who is driving this change?
This is a question that was asked at a fall regional meeting. The answer is simple. We are! The recommendation to send this to the Committee came from our AGM in 2010. This is not to say that there aren’t other outside influences. The Association does receive inquiries from outside corporations and surveyors regarding the process of setting up in Alberta. We have discussions with the Alberta government on issues that affect the public, legislation, and standards. We let them know what our concerns are, and bring them up-to-date on what initiatives we are looking at. Part of these discussions also includes us receiving government’s feedback on what issues they are dealing with, and how government views our Association’s rules and regulations.

What happened last year?
At the AGM in 2011, the Committee made a recommendation to the membership proposing some changes to the ownership requirements. The Committee also discussed a governing document for the relationship between surveyors and surveyor’s corporations. Many questions came from the floor and it became apparent through the discussion and subsequent motion from the floor, that the membership had concerns and that they wanted to provide more feedback and direction to the Council and to the Committee. The motion to refer back to Committee came from us!

What has happened since the last AGM?
The Committee took the direction from the membership and developed an online questionnaire and made presentations to each fall regional meeting. The first questionnaire that the Committee developed approached 70 questions and dealt with demographic information about our membership, current business practices and involvement and other far-ranging issues. The Committee and Council shaved it down to a more reasonable series of 12 questions and opportunities for comments.
Where are we now?
The tremendous response we received from the members was heartening. Almost 200 members took the opportunity to respond and provide their feedback. From this, the Committee developed six recommendations or concepts for debate at this year’s AGM. They are not traditional in the sense of recommending a specific change to a regulation, but rather present a broad concept for discussion by the membership to give feedback and direction for the committee.

What are the recommendations?
The first recommendation deals with the creation of a governing document for the interaction between the surveyor and the surveyor’s corporation. No other changes to the current system are under consideration for this question. During initial Committee meetings and the online questionnaire process, the Committee referred to a governing document as a PPMP, or Professional Practice Management Plan. The current example that the Committee has been discussing has been modeled after the APEGGA guidelines. From the questionnaire, 29% of the membership felt that voting shares in the surveyor’s corporation are the best way for the ALSA to regulate surveyor’s corporations. 35% felt that a PPMP document and voting shares are the best way, and 32% felt that a PPMP is the best way. Further, 44% of the members feel that a PPMP is not required for existing corporations, 38% felt that it should be, and 19% are undecided. We are asking the membership as a whole to discuss what they feel is the best way of managing this interaction and, as part of this discussion, provide feedback on what should be contained within a governing document if that is the direction we are given. The model APEGGA uses, and that many members are familiar with, may be workable for our profession, or a model with surveyor-specific items might need to be developed. For the purposes of discussion, this question stands alone. The direction the Committee is looking for at this point only deals with the governing document, if one should be in place, and what areas it should cover if it is in place. Ownership and controlling interest would stay the same as it is now. This direction needs to come from you.

The second recommendation deals with the concept of opening up the ownership of the majority of shares in surveyor’s corporations to surveyors from other Canadian jurisdictions. This approach was supported by 75% of the survey respondents. The Committee is tying together the concept of a governing document with this to generate discussion and feedback on how the membership feels the public can be best protected in an environment where non-Alberta Land Surveyors (but registered surveyors just the same) may have controlling interest of a surveyor’s corporation. The astute reader will, of course, notice that if the membership does not support a governing document from the first question, they are being asked to rethink the concept in the context of a relationship that involves surveyors from other Canadian jurisdictions that may have a majority business interest in a surveyor’s corporation.

The other recommendations for discussion will continue in this vein. Should we open ownership to Alberta engineers with a governing document in place? How about Canadian engineers or other registered professionals? How about removing ownership requirements entirely?

What happens if we don’t change?
The status quo is always an option. The current system is one we understand, and know how to work within. If anyone outside our profession ever questions why we haven’t changed, we can point to the last two years of presentations, meetings and discussions and say, quite proudly, that the issue has been fully examined by our members with the best interests of the public in mind, and the results speak for themselves.

To be honest, I am very much looking forward to the discussion at the AGM. This issue has the potential to generate huge discussions on what is in the best interest of the public. This portion of the meeting will feel less like a formal AGM, and more like the biggest regional meeting in our history. We will have more time than normally available at a regional meeting for this item, and I think this topic needs it. And since there are not specific legislative or regulatory changes being presented, we should be able to spend more time on giving Council and the Committee feedback on what exactly the membership wants to see, and what issues are non-starters. The choice is ours to make.

Summary Unrelated
On an unrelated note, I would like to thank the outgoing committee members whose terms are expiring. I have seen the amount of work that gets done by you, and I am truly impressed by your volunteer efforts. I know that many of you will leap at the chance to add your talents to other committees in the coming year and years to come. I would like to thank returning committee members. Your efforts to improve our profession are truly inspiring. I would also like to thank the outgoing members of Council. Damian, Rob, Chris and Past-President Brian—you made me feel welcome. You also impressed me with your ability to take some of the complex issues facing our Association and convey succinct rational analyses.

To Bruce, Marty and President Dave, I look forward to another year of our working together for the benefit of our Association and our profession. And to Vice-President Connie, I would not presume to guess what is going to happen in Banff this year. But if history is any indication, I look forward to working with you in the coming year as well. Now I have to run out and buy a card—or two. ☺

Bruce Drake, ALS

Net Notes
There are a number of hidden gems within the ALSA website. We’ve mentioned them before but here’s a gentle reminder about some material you might be interested in.

History of Re-establishing from Road Plans (1942 Surveys Act)

CCR Checklist – Subdivisions

Corner Recordation Index
www.cornerrecordation.ab.ca

PRB Interpretation Bulletin—Intersections with Quarter Lines

United Nations telecom meeting recently approved the next generation of mobile technology, which experts say will make devices 500 times faster than 3G smartphones and eliminate the wait time between the tap of a finger and the appearance of a web page. The technology will be used immediately for planning changes to equipment but it could take two years to show up on consumer’s devices.

According to Gizmag.com, General Motors Windows of Opportunity project looks to advance back-seat entertainment by turning car windows into interactive displays.

According to an article on newscientists.com, an unobtrusive wristband packed with environmental sensors will help you keep comfortable indoors. The wristband will have three buttons - two of which will allow users to indicate whether they are too warm or too cold. The third will activate gestural controls, so users can interact with any devices nearby, such as televisions or computers.

I have had the opportunity to meet with a number of cabinet ministers and other government officials recently when Premier Redford took over the reins of the province. In most of these meetings, the government has put a great emphasis on taking advantage of new technology. The ALSA must take advantage of new technology. The government must take advantage of new technology. There is new technology out there and we must take advantage of it. It is clear to me that the “new technology” mantra is embedded or about to be embedded in the government mindset. Unfortunately, I have not spoken with anyone who has been able to explain what new technology we should take advantage of or how we are expected to do it. The Government of Alberta is still running a fiscal deficit and it appears that they hope to reduce or eliminate the deficit and still provide the same level of service by, you guessed it, taking advantage of new technology.

In the land surveying and geomatics world, our members have been at the forefront of developments in geographic information systems and were one of the early adopters of global positioning systems technology. Alberta Land Surveyors use LiDAR now. An Alberta Land Surveyor of fifty years ago would hardly recognize a 2012 surveyor’s vehicle with all of the computers and electronic equipment they have on board.

At the same time that Alberta Land Surveyors have been adopting new technology to solve old problems, our provincial government has been pushing us along too. It really wasn’t all that long ago that land surveyors had to make the move toward the digital submission of survey plans. Alberta Land Titles created SPIN. More recently, Alberta Land Surveyors have been required to geo-reference their plans. While the transition from the old ways to the new ways has not always been seamless or painless, Alberta Land Surveyors have always somehow managed to keep up with the times and use their technological expertise to meet the government’s new requirements.

Land surveyors are, of course, not the only ones who deal with geo-spatial data. Google Maps is a common application now that many people throughout the world use to create their own themes or just figure out what a particular part of a city looks like. Many people have GPS in their cars and you would likely have a difficult time finding a paper road map in Canadian Tire like you used to find ten years ago. Recently, Bob Wallace sent me some information about First American Title Insurance’s own version of Google Maps which shows a map along with rights-of-way layered on top in living colour. These sorts of applications take advantage of technology and our ability to capture and store

The ALSA must take advantage of new technology. The government must take advantage of new technology. There is new technology out there and we must take advantage of it.
large amounts of data. To some, they could be perceived as a threat to the future of land surveying.

But let’s look at things in a different way. We have reacted to things like Google Maps and title insurance. We have reacted to the introduction of digital plan submissions and geo-referencing. But land surveyors are the experts in boundaries and geo-spatial information. We should not be reacting to these new applications and these new technologies. We should be proactive and be the ones who decide what surveys are going to look like in the future.

We have made changes to RPR requirements in the Manual of Standard Practice in the past but the real property report itself basically has not changed in the last 25 years. Land Titles sets the standard for what must be shown on a plan of subdivision but is there a different way of providing the same basic information? The oil & gas industry is always looking at new ways of doing things so why should we not be looking at new ways of doing surveying for the oil & gas industry?

I would like to propose that we get a group of land surveyors together, perhaps in conjunction with industry stakeholders, and figure out what the land surveys of tomorrow need to look like. What sort of information does government want and require? What sort of information do clients want? What value-added services can be provided? My idea is not to create a standard so that private practice land surveyors can’t offer something unique. But, let’s ask the question, is there a better way?

I don’t have a pre-conceived notion of where this might lead. This is not a means to an end of integrated surveys or a coordinate based cadastre. I don’t know what the answer is and I’m not qualified to propose one. But let’s put everything on the table and see if we can come up with the equivalent of General Motors’ interactive displays on car windows.

Change is not easy. In fact, it is incredibly hard. Alberta Land Surveyors like to pride themselves on being on the forefront of many things. Here is another way to show that we are truly leaders.  

Brian E. Munday
Primary Graphics Database
We are struggling with our Professional Practice Regulation and a number of external forces causing the members of our Association to ponder the proposed amendments of the regulations.

Canadian land surveyors and engineering companies wish to practice in Alberta for business reasons. Many geomatics companies have clients in Alberta and, in many cases, must continue their services to their clients. Agreements have been committed to by our governments that compel our Council to fulfill obligations to the public through compliance to labour mobility or the government intends to amend our legislation.

Our Association has a very small number of members now in Alberta who will be practicing within three years. That number will be diminishing over the next three years, our membership is growing old and many of the members who obtained their membership in the 1970s and 1980s will be retiring from active duty as a front-line person serving the public. Older members generally have a large amount of knowledge to pass on to the younger members prior to retirement in order to continue serving the public.

We must look forward to serving the public professionally with an electronic cadastre supported by professionally “certified positions.” Our Association and our fellow members in Canada will be the knowledge base utilized to create the “primary graphics database.” This database would replace the parcel mapping initiative which is presently supported by Alberta government departments and the utility companies. We may be well served to work with the Alberta government and other provinces in Canada to create a common “primary graphics database” across Canada.

The primary graphics database would be utilized in future GIS systems for geographic reference of all other relational databases.

The technological advancement will create a continual evolution of need for geographic reference of physical graphic entities in all professional endeavours including surveying, plan preparation, design, physical features, earth features, building and internal features, air space and corridors, sub-surface features, aquifers and reservoirs.

This database must be prepared by and maintained by the geomatics profession (it would be continually evolving). Due to this new and changing environment, it will be necessary for our members to be more professionally independent within larger corporations and multi-discipline firms. Our members would ensure that a uniformity of “professional standards of measurements” is maintained for the protection of the public.

It is in the membership’s better interest to support legislative changes which are intended to diversify the expertise and knowledge offered by our members. Leonard R. Olson, ALS

Thank You
Thank you so very much for this chance to improve my future. It couldn’t have come at a better time.

Note: Ryan was the recipient of the Lethbridge College ALSA Scholarship.

I am writing in appreciation of your generous contribution to the scholarship awards for the Red River College Geomatics Technology. With your support, I have received the Alberta Land Surveyors’ Association award which will help me to continue my studies at the Red River College.

I am currently taking geomatics technology at Red River College. This award will contribute significantly to my out-of-state tuition and it will allow me to focus more on my studies and projects.

Thank you again for your generous contribution at the Red River College.

Wei Dong

I was thrilled to learn of my selection as the recipient of the Alberta Land Surveyors’ Association award for 2011.

I am currently majoring in Geomatics Technology and hope to become a land surveyor. Your assistance will help me to not only to cover some of my educational expenses but also allow me to concentrate more of my time on my studies. Your generosity has inspired me and has instilled in me the desire to help others to reach their goals as you have helped me reach mine.

Thank you for your generosity in bestowing his honour upon me. I am deeply grateful for the trust and confidence you have extended to me through this award. I will remember that confidence as I work toward a future that allows me to contribute to a better world for us all.

Xinwei Zhou
Geomatics Technology, Red River College

Sincere and heart-felt thanks for awarding the ALSA scholarship. Your kindness has proved to be my motivation for hard work.

Aman Sidhu
Note: Aman was the recipient of the NAIT ALSA Scholarship.

Thank you very much for the scholarship and the recognition for academic excellence. This award means very much to me and my academic career. I thoroughly enjoy geomatics and have decided that upon completion of my program, to pursue my engineering degree at UNB. Thank you again.

Elyse Robinson
Note: Elyse was the recipient of the College of the North Atlantic ALSA Scholarship.

Thank you to the donors of the J.H. Holloway award for selecting me to receive this scholarship. To stand out in the crowd and be recognized for my academic achievement is more than I hoped for.

With gratitude, I accept this award to help me further my education and my pursuits in the field of geomatics.

Aaron Kinneard
Note: Aaron was the recipient of the Lethbridge College J.H. Holloway Scholarship Foundation Scholarship.

Thank you for the generous geomatics scholarship. I have already invested it in my future.

Ryan Derkson
Note: Ryan received the NAIT J.H. Holloway Scholarship Foundation award.

50 Years
Thank you for your invitation to the April 21st ALSA meeting in Banff to recognize my 50-year ALS membership, which my wife Penny and I are honoured to accept.

I want to take this opportunity to pay tribute to the people who have made my survey career possible and allow you to
The J.H. Holloway Scholarship Foundation administers the following awards:

**University of Calgary—John Deyholos Memorial Scholarship**
$2,500 annual scholarship to a continuing undergraduate student in the Department of Geomatics Engineering

**University of Calgary Scholarship**
$2,500 annual scholarship to a fourth year student in Geomatics Engineering

**University of Calgary—Lethbridge College, NAIT and SAIT Transfer**
$1,250 annual scholarship to a NAIT, SAIT and Lethbridge College graduate in Geomatics Engineering Technology enrolled in the University of Calgary program in Geomatics Engineering

**Lethbridge College**
$1,000 annual scholarship to a Lethbridge College student entering their second year of the Geomatics Engineering Technology program.

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**ALSA Members Scholarship** - $1,000 award upon graduation to an active member of the ALSA enrolling in a program leading to the award of a related degree

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J.H. Holloway Scholarship Foundation
1000, 10020 - 101A Avenue, Edmonton, AB T5J 3G2
**New Members**

**#886 WAY, Kevin**

Kevin Way was born in Moose Jaw, Saskatchewan in 1971. He graduated from Riverview Collegiate in 1989 and went on to receive a B.Sc. degree from the University of Regina in 1995 and a Survey Engineering Diploma from SIAST in 1998.

Articles were served under Scott Brooks from March to May of 2009 and under Darren Eklund from May 2009 until he received his commission on November 24, 2011.

Surveying experience includes three years in the municipal sector and ten years in the oil & gas sector. He is presently employed with Midwest Surveys Inc. of Calgary.

Golf and softball are a couple of leisure activities that Kevin enjoys. Kevin is married to Joanne and they have two children: Seth, age 2 years, and Cohen, age 2 months.

**#887 BOURGOUIN, Rheal J.**

Rheal was born in 1980 in Dauphin, Manitoba. He graduated from high school in 1998 and went on to receive a diploma in Geomatics from SAIT in 2002.

Articles were served under William Pang, ALS (May 2006 to January 2008), Roger Leeman, ALS (January 2008 to January 2009) and Rocky Annett, ALS (February 2009 to January 2012). He received his commission as an Alberta Land Surveyor on February 1, 2012.

Surveying experience includes municipal and construction, subdivision, condominium, and strata surveys as well as real property reports. Survey projects include the Bow Building and the Stoney Trail Ring Road.

Rheal is presently employed with MMM Geomatics Alberta Limited in Calgary.

**#888 de BRUYNE, Anthonius**

Tony de Bruyne was born in the Netherlands in 1955. He immigrated to Canada in 1961 and graduated from Caledonia High School in Terrace, BC in 1973 and from NAIT in 1979.

Tony is a commissioned British Columbia Land Surveyor and Canada Lands Surveyor. He received his commission as an Alberta Land Surveyor on January 13, 2012 by passing the Alberta jurisdictional examination and is presently employed with Northcan Surveys Ltd. in Calgary.

Tony was in private practice in Smithers, BC from 1985 to 1997 and served on the BCLS ECR Committee, MSP Committee and P&NG Committee. He also served as Deputy Surveyor General with the Land Titles & Survey Authority in BC.

Tony enjoys sailing, fishing, hiking and dance.

**#889 DOBSON, Ryan**

Ryan was born in Winnipeg, Manitoba in 1982. He graduated from Sir Winston Churchill High School in 2000 and went on to receive a degree in Geomatics Engineering from the University of Calgary in 2006.

Articles were served under John Landry, ALS from October 2006 to December 2007 and with Mark Dempsey, ALS from December 2007 until he received his commission on January 30, 2012. Ryan is currently employed with McElhanney Land Surveys (Alta.) Ltd. in Calgary.

Surveying experience includes oil & gas field work in BC from 2000 to 2006, oil & gas field work in Calgary from 2008 to 2012 including project management experience from 2006 to 2009.

Ryan lives and plays in the Calgary area enjoying skiing, mountain biking and backpacking.

**Updates . . . .**

**Telephone Listing & Supplement to the Annual Register of Members 2011-2012**

**ACTIVE MEMBERS**

Robin Arthurs no longer has a fax machine. His phone number is 403-813-2405.

Rheal Bourgouin received his commission as Alberta Land Surveyor #887 on February 1, 2012. Mr. Bourgouin is employed with MMM Geomatics Alberta Limited in Calgary.

Tony Brown is now registered as a sole practitioner and is not practicing in Alberta. His contact information is: 35 Gold Medal Drive St. John’s, NL A1H 0C2; Tel: 709-747-2567 or 709-770-3267; Fax: 709-747-8566; E-mail: tony.brown@shaw.ca.

Matt Chandler has updated his phone numbers. His main phone number is (403) 691-4033 and his cell phone number is 403-616-0759.

Doug Cloake has left the employment of MMM Geomatics Alberta Limited as of January 6th.

Lloyd Cridland is back at Midwest Surveys Inc. in Medicine Hat as of December 1, 2011. His e-mail address is lloydcmidwestsurveys.com.

Tony de Bruyne received his commission as Alberta Land Surveyor #888 on January 13, 2012. Mr. de Bruyne is employed with Northcan Surveys Ltd. in Calgary.

Ryan Dobson received his commission as Alberta Land Surveyor #889 on January 30, 2012. Mr. Dobson is employed by McElhanney Land Surveys (Alta.) Ltd. in Calgary.

Jerrad Gerein has indicated that he is not practicing land surveying in Alberta for the time being. He has provided new...
Gener Geomatics Ltd. will be closed once its existing projects are registered. IBI Geomatics Inc. in Edmonton has relocated to 10830 Jasper Avenue, Suite 300 Edmonton, AB T5J 2B3. The other contact information is unchanged. MMM Geomatics Alberta Limited, Edmonton main e-mail address is edmonton-geomatics@mmm.ca; Calgary is adamsk@mmm.ca.

SW Geomatics Inc. closed effective January 26, 2012. Universal Surveys Inc. Calgary office has moved to 200, 1212 - 1 Street SE Calgary T2G 2H8 effective February 1, 2012. All other contact information remains the same.

**ARTICLED PUPILS**

Jason Coates transferred articles from Arthur Tarapaski, ALS to Arthur Gill, ALS of HIW Surveys Ltd. in Grande Prairie on January 9, 2011.

Duncan Ernst signed articles with Chris Chiasson, ALS of Altus Geomatics Limited Partnership in Grande Prairie on January 9, 2012.

Leighton Greenstein transferred articles from Mark Knott, ALS to Ed Oh, ALS of Altus Geomatics Limited Partnership in Edmonton on October 17, 2011.

Mathew J.R. Hamilton signed articles with Jeff Patton, ALS of Universal Surveys Inc. in Calgary on October 4, 2011.

Greg Hebb (former associate member) signed articles with Andrew Miles, ALS of Universal Surveys Inc. in Edmonton on January 11, 2012.

Michelle Hua transferred articles from John Byrne, ALS to Barry Fleece, ALS of IBI Geomatics Inc. in Calgary on January 30, 2012.

Shawn Hubert’s articles with John Stephens, ALS were terminated as of January 15, 2012.

Constance Jangwa signed articles with Ed Salmon, ALS of Challenger Geomatics Ltd. in Fort McMurray on November 17, 2011.

Nathan D. Kroeker signed articles with Sara Spence, ALS of AMEC Geomatics Limited in Calgary on December 19, 2011.

Maurice N. Liboiron articled to Ryan Blommaert, ALS of McElhanney Land Surveys (Alta.) Ltd. in Edmonton on January 23, 2012.


Lisa Naphin signed articles with Sandra Davies, ALS of Millennium Geomatics Ltd. in Calgary on January 9, 2012.

Noah Nichols transferred articles from Lloyd Cridland, ALS to George Munro, ALS of Munro Global Surveys of Medicine Hat on January 5, 2012.

Alexander D. Penner signed articles with to Sachin Mahendru, ALS of Midwest Surveys Inc. in Calgary on September 29, 2011.

Val Petushkov transferred articles from Hal Janes, ALS to Ron Robinson, ALS of Challenger Geomatics Ltd. in Calgary on December 20, 2012.

Ramon Pina Avila transferred articles from Ralph Bode, ALS to Mark Knott, ALS of Midwest Surveys Inc. in Edmonton on February 23, 2011.
**Dorin L.F. Resek** signed articles with Ryan Blommaert, ALS of McElhanney Land Surveys (Alta.) Ltd. on October 21, 2011.

**R. Drew Stodalka** articled to Jason Deschamps, ALS of Challenger Geomatics Ltd. in Calgary on December 20, 2011.

**Darren T. Swerid** articled to Tim Steeves, ALS of Challenger Geomatics Ltd. in Calgary on January 16, 2012.

**Arthur Tsen** terminated articles with Tim Harding, ALS on December 21, 2011.

**Kevin Vennard** transferred articles from Mike Fretwell, ALS to Murray Young, ALS of Bemoco Land Surveying Ltd. in Red Deer on January 3, 2012.

**Jason Workman** transferred articles from Jeff Boutilier, ALS to Larry Pals, ALS of Pals Geomatics Corp. on June 17, 2011.

**ASSOCIATE MEMBERS**

Alejandro Caldera now works for ATCO Electric in Fort McMurray; 2-315-302 Parsons Creek Drive T9K 0G4; Tel: 780-799-8768.

Yimy Garcia has new contact information: Cathedral Energy Services, 6030 - 3 Street SE, Calgary, AB T2H 1K2.

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**FUTURE/PRESENT**

Make the Change of Tomorrow, TODAY

Join keynote speaker Max Valiquette from 9:00 a.m. to 10:00 a.m. on Thursday, April 19th and find out how to make innovation a priority in your workplace; how technology and innovation are forever, completely linked; and why it’s important to abandon some of your most-used (and most-hated!) workplace practices right now, no matter how engrained they are in your organization.

**10:45 a.m. – 11:45 a.m.**

- **Boundary Panel: Interesting Cases**
  - with Jerry Rasmussen, ALS

- **3D Laser Scanning: a short journey with a bright future**
  - with J-Angelo Beraldin, Principal Researcher, Measurement Science and Standards, National Research Council, Canada

- **Business Valuation—How Much is Your Company Really Worth?**
  - with Bob McNally, MNP, LLP

**2:00 p.m. – 3:00 p.m.**

- **Equipment Calibration: The Importance and a Quick How-To**
  - with Hugo Engler, ALS

- **Original Monuments, Coordinated Cadastres and the Hierarchy of Evidence: South African Experience**
  - with Dr. Michael Barry, University of Calgary

- **Forensic Accounting—How to Prevent Fraud in Your Company**
  - with Greg Draper, MNP, LLP

**3:45 p.m. – 4:45 p.m.**

- **Common CCR Deficiencies**
  - with Scott Westlund, ALS - Director of Practice Review

- **Alberta Land Use Framework Document**
  - with Glen Tjostheim, Government of Alberta

- **Managing Risk from a Contract Perspective**
  - with Jim Halliday, ALS & Jim Thomson, Jardine Lloyd Thompson

**REGISTER EARLY TO AVOID DISAPPOINTMENT.**
FOR PRESIDENT
C.R. (Connie) Petersen, ALS

Born in New Denmark, New Brunswick.
Received Surveying Engineering degree from University of New Brunswick in 1977.
Member of APEGGA since 1981.
Articled to J. Keith Smith, Vince Ziegler and Irwin Maltais.
Received Alberta Land Surveyor commission in 1998.
Employed in the survey industry in Nova Scotia, Alberta, British Columbia and Virginia from 1977 to present.
Documents examiner at Edmonton Land Titles Office from 1983 to 1986.
Branch Manager for Maltais Geomatics in High Level from 1997 to 2000.
Served as High Level Town Councillor in 1999-2000.
Member of the Lethbridge Home Builders Association Executive in 2002-2003.
Currently employed by Stewart Weir in Lethbridge.
Hobbies include golf and travel.

ALSA Activities:
• Legislation Committee (1997-2001); Chair (1999-2001).
• Association Finances Ad Hoc Committee (2000-2001).
• Registration Committee (2001-2008); Chair (2005-2006).
• ALSA Council (2008-2010).
• Continuing Competency Working Group Chairman (2008-2010).
• Recipient of President’s Award in 2010.
• ALSA Vice-President (2011-2012).

FOR VICE-PRESIDENT
R.W.M. (Robert) Scott
ALS, P.Eng.

• Born in Kimberly, British Columbia; raised in BC, Montana, Saskatchewan, Ontario, England, Quebec, and Alberta.
• Graduated from the University of Alberta with a B.Sc. in Geography (Survey Science) in 1980.
• Graduated from the University of Calgary with a B.Sc. in Surveying Engineering in 1987.
• Articled to Grant Cross, ALS.
• Obtained ALS commission in 1987.
• Received Professional Engineer status in 1991.
• Employment History: Walker Newby (Edmonton), Tronnes Surveys (Calgary), Martin and Co. (Lethbridge), Brown Okamura and Associates (Lethbridge) All-West Surveys (Calgary).
• Director and owner of Scott Geomatics in Lethbridge from 1996 to 2003.
• Involved with setting up the Geomatics Engineering Program at Lethbridge Community College.
• Involved in instructing surveying at the Lethbridge Community College from 1996 to 2003.
• Employed with Stantec Geomatics in Calgary since 2005. Currently a senior associate and senior practitioner providing strategic direction on transformational projects and the management of key clients.
• Served on the Standards Committee, and the Real Property Report Task Force.
FOR COUNCIL

M.S. (Mark) Kocher, ALS

- Born in Lacombe and raised in Red Deer, Alberta.
- Graduated from the University of Calgary with a B.Sc. in Surveying Engineering in 1989.
- Articles were served under Ron Robinson, ALS, Roy Wilkins, ALS and David Marquardt, ALS.
- Received ALS commission in 1998.
- A founding partner in Millennium Geomatics Ltd.
- Previously employed by All-West Surveys, Challenger Surveys, and Fugro-SESL Geomatics.

Served on the following ALSA committees:

- Professional Development Committee (1996-1997).
- Discipline Committee (2009-present).
- Boundary Panel (2005-present).
- Free time spent mountain biking, playing hockey, enjoying music, and looking for the perfect beach.

C.A. (Craig) White

ALS, CLS, P.Eng.

- Raised in Sherwood Park, Alberta.
- Graduated from Southern Alberta Institute of Technology Geomatics Engineering program in 1997.
- Graduated from University of Calgary Geomatics Engineering program in 2003.
- Received CLS Commission #1724 in 2004.
- Received ALS Commission #749 in 2005.
- President of Boundary Technical Group Inc. since 2006.
- Chair of SAIT Professional Advisory Committee from (2008-2011).
- Received P.Eng designation in 2011.
- Reside in Water Valley with wife Melissa and four children; Shea (8), Jacob (8), Bryn (8) and Drew (5).
- Interests are dependent on kids’ activities (I do my best to sneak in a round of golf occasionally).

K.T. (Kevin) Swabey, ALS

- Graduated from the University of Calgary with BSc. Geomatics Engineering in 1996.
- Employed by Midwest Surveys Inc. from 1996 to present.
- Articled to N.D. (Doug) Krempien, ALS.
- Obtained ALS commission in 2000.
- Member of the Standards Committee (2000-2007).
- Chairman of the Standards Committee (2005-2006).
- Reside in Calgary with wife Paula and two children, Megan and Nolan.
- Hobbies include golfing and hiking in the mountains.

Additional nominations may be made by two Alberta Land Surveyors, with the consent of the nominee in each case, at the floor of the Annual General Meeting being held between the dates of April 19th to 21st, 2012 at The Fairmont Banff Springs Hotel.
According to a January 30, 2012 report, a renowned shipwreck surveyor has come across a large unidentified object at the bottom of the Baltic Sea, leading to speculation it could be anything from an underwater Stonehenge to a crashed UFO.

Swedish firm, Ocean Explorer, located the mystery object in an undisclosed part of the Baltic Sea near Sweden, using sonar technology, the Daily Mail reports.

However, due to insufficient funding, the Swedes cannot launch an operation to find out what the object is.

Sonar images reveal the object is a 60m cylinder, about the same size as a jumbo jet, with about 400m of drag marks.

A similar disc shaped object was observed 200m away.

Some web-watchers have quipped that the object could be Han Solo’s spaceship due to its similarity to the Millennium Falcon from the Star Wars movies, a portal to an underwater world or perhaps a submerged Stonehenge.

“My first reaction was to tell the guys we have a UFO here on the bottom,” Veteran shipwreck scavenger Peter Lindberg told CNN when he discovered the unidentified object on sonar.

www.ufocenter.com is “the web’s most comprehensive and up-to-date UFO information source provided by America’s foremost UFO Reporting Agency in continuous operation since 1974.” On the site, you can use their online form to report a UFO sighting, review the report database or read the director’s case highlight list. For example, in Eureka Springs, Arkansas, on December 11, “three people see an estimated eight orange objects pass from south to north in the night sky, covering approximately 60 degrees of arc in an estimated five minutes. Two more lights appeared shortly after the first group had disappeared, and followed approximately the same path as the first group had followed.”

Eureka Springs, Arkansas is in the northern part of the state, south of Springfield, Missouri and east of Tulsa, Oklahoma. Eureka Springs bills itself as the “extraordinary escape” where tourists can visit the War Eagle Mill, the Keels Creek Winery & Gallery or even get married at the Circle of Light Wedding Chapel where “you can have the astounding beauty of the lake and the outdoors, the intimacy of a wooded setting, a God-centered service and the personal attention of experienced wedding planners.”

Source: www.eurekasprings.org

Perhaps one of the most famous wedding chapels of all time is the Little Church of the West in Las Vegas. It has played a major role in the evolution of the city’s image and has been the scene of more celebrity marriages than any other wedding chapel in the world. Betty Grable, Judy Garland, Mickey Rooney, Dudley Moore, Cindy Crawford & Richard Gere, Angelina Jolie & Billy Bob Thornton, and even Elvis Presley (well, sort of…he and Ann Margaret recited their vows in the movie “Viva Las Vegas,” filmed at the Little Church of the West) have all walked down their aisle to exchange vows. The Little Church is listed on the National Register of Historical Places, the only such place on the “Strip” with this honour.

Source: www.littlechurchlv.com

The National Register of Historic Places is the official list of the United States’ historic places worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the National Park Service’s National Register of Historic Places is part of a national program to co-ordinate and support public and private efforts to identify, evaluate, and protect America’s historic and archeological resources.

The National Register has 86,255 total listings, 1,616,138 total contributing resources and 1,215 properties listed in fiscal year 2010.

In Canada, National Historic Sites fulfills the same role as the National Register of Historic Places in the United States. In Canada, there are more than 950 national historic sites in Canada; of these, 167 are administered by Parks Canada. So far, over 1,500 places, persons and events have been commemorated by the Government of Canada. And the list keeps growing as Canada’s history unfolds.

Source: www.nps.gov and www.pc.gc.ca

In Alberta, Blackfoot Crossing Historical Park is a national historic site. It has been a meeting place for thousands of years and is steeped in the history of the Blackfoot people. Tourists can visit Chief Crowfoot’s last teepee site, Chief Poundmaker’s monument, the site where Treaty 7 was signed in 1877, and the Earthlodge Village site believed to have been built by Mandan people in the mid-1700s.

Source: www.pc.gc.ca/docs/r-ab/sites/blackfootcrossing.aspx

Mandan, self-name Numakiki, are North American Plains Indians who traditionally lived in semi-permanent villages along the Missouri River in what is now North Dakota. They spoke a Siouan language, and their oral traditions suggest that they once lived in eastern North America. According to 19th-century anthropologist Washington Matthews, the name Numakiki means “people.”

In the 19th century, the Mandan lived in dome-shaped earth lodges clustered in stockaded villages; their economy centered on raising corn (maize), beans, pumpkins,
sunflowers, and tobacco and on hunting buffalo, fishing, and trading with nomadic Plains tribes.

Traditional Mandan villages consisted of 12 to 100 or more earth lodges. Each village generally had three chiefs: one for war, one for peace, and one as the day-to-day village leader.

In 1750, there were nine large Mandan villages, but recurrent epidemics of smallpox, pertussis (whooping cough), and other diseases introduced through colonization reduced the tribe to two villages by 1800. In 1837 another smallpox epidemic left only 100 to 150 Mandan survivors. Some of these accompanied the Hidatsa to a new settlement near Fort Berthold in 1845; others followed later, as did members of the Arikara tribe. The Mandan, Hidatsa, and Arikara eventually became known as the Three Affiliated Tribes (also called the MHA Nation).

Source: www.britannica.com

Smallpox is an acute contagious disease caused by variola virus, a member of the orthopoxvirus family.

Smallpox, which is believed to have originated over 3,000 years ago in India or Egypt, is one of the most devastating diseases known to humanity. For centuries, repeated epidemics swept across continents, decimating populations and changing the course of history.

In some ancient cultures, smallpox was such a major killer of infants that custom forbade the naming of a newborn until the infant had caught the disease and proved it would survive.

Smallpox killed Queen Mary II of England, Emperor Joseph I of Austria, King Luis I of Spain, Tsar Peter II of Russia, Queen Ulrika Elenora of Sweden, and King Louis XV of France.

The disease, for which no effective treatment was ever developed, killed as many as 30% of those infected. Between 65–80% of survivors were marked with deep pitted scars (pockmarks), most prominent on the face.

Blindness was another complication. Source: www.who.int

During his navigational training in the winter of 1790, David Thompson became blind in his right eye, probably due to observing the sun without proper eye protection (see A Theory on the Cause of David Thompson’s Blindness, Northwest Journal Vol. II, pp. 23-26). In the spring of that year, Thompson was still too weak to accompany Ross, Turnor & Fidler on their Athabasca journey. Instead, Thompson was ordered to accompany a brigade to York Factory. They departed Cumberland House on June 9. He surveyed this route as he traveled, using a sextant and watch borrowed from Philip Turnor. After a short stay at York Factory, Thompson returned to spend the winter at Cumberland House, where he returned Turnor’s instruments. Source: www.northwestjournal.ca

Come and Share a laugh with each other and........

John Wing, a Canadian stand-up comedian for more than twelve years at the Member’s Lunch on Saturday, April 21st. John has worked in comedy clubs and colleges in thirty states and in every Canadian province. Arriving in America in the late 80s, John quickly racked up appearances on Fox’s Comic Strip Live, MTV’s Half Hour Comedy Hour, VH-1’s Stand Up Spotlight, and A&E’s An Evening At The Improv, on which he has performed five times.

Dear ALSA Members:

On behalf of the Alberta Historical and Educational Foundation for Land Surveying (AHEFLS), I would like to thank you all for your contributions on our 2011 “flash fundraiser.” Your generosity will enable us to make a contribution to the Wheeler monument in Banff in recognition of A.O. Wheeler, ALS, BCLS, DLS, who was one of the Alberta–British Columbia Boundary Commissioners in the mid-1910s. His history as a land surveyor, as well as his colourful history as the founding president of the Alpine Club of Canada, should be of interest to a broad range of tourist as well as all residents of Banff.

The AHEFLS is dedicated to the preservation and publication of the colourful history of land surveying in the development of Western Canada, and with your help, we will continue to educate the public and promote the profession to everyone we can.

Dave McWilliam, ALS (Hon. Life)  
President AHEFLS

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Field Notes
How do I ensure that field staff prepare field notes that meet my requirements?

It is rare that a professional land surveyor personally completes all aspects of a survey project. In most companies, field work, drafting and plan checking are completed by technical staff. This means that technical staff must have the training and knowledge required to successfully complete these tasks. However, even though fieldwork, drafting and plan checking may be delegated, the land surveyor is still professionally responsible for the final product. When a professional takes responsibility for work completed by others, that professional ensures that the work meets all requirements, including those outlined in the acts and regulations as well as the minimum guidelines outlined in the Manual of Standard Practice (MSP), and could be liable or subject to discipline if something goes wrong. Therefore, it is important for the surveyor to mentor, supervise, and guide technical staff in producing high quality products.

In 2011, I evaluated approximately 130 sets of field notes for compliance with the guidelines in Part C Section 6 of the Manual of Standard Practice. More than 40% of these notes had deficiencies, often in many areas. Most of the deficiencies are a result of not recording a description of the monuments found (markings, condition, proximity to fences, and so on, as per Part C Section 6.2.5) and not adequately recording the extent of search for monuments identified as being lost (Part C Section 6.2.6). Other common deficiencies include not recording the date, survey location, purpose, equipment used, and environmental conditions (Part C Section 6.2.1 to 6.2.3).

I have also seen some excellent field notes that meet and exceed the guidelines outlined in the MSP. So what is involved in making sure that the field notes meet all requirements? Establishing standards, maintaining them and ensuring that the field notes meet all requirements can be grouped into three categories:

1) the use of templates to establish a standard for the field notes;
2) personal supervision; and
3) consistent feedback to provide field staff with specific, constructive suggestions to address any deficiencies on the notes they submit.

Templates
An excellent way to ensure that field notes meet all requirements is to develop field note templates for the field staff to fill out. If the template provides space to record the details specified in the MSP as well as any other information the ALS requires, it is less likely that this information will be omitted from the notes. Additionally, a quick scan of the notes (or the blank spaces in the notes) will confirm that all information necessary to prepare the survey plan has been recorded. However, as outlined below, it is important for the ALS to regularly examine the field notes and, if necessary, remind and/or show the field crews how to completely fill out the template.

I have prepared the following sample templates based on a compilation of some of the excellent field notes I have reviewed. If completely filled out, these templates should satisfy the guidelines outlined in Part C Section 6 of the MSP and could address a large majority of the field note deficiencies. For example, the sample title page provides space to record

SAMPLE TITLE PAGE

Job No. ________________  Page __ of ___

ABC Surveys Ltd.
Original Field Notes

Client: ___________________________________

Project Description: _________________________
_________________________________________

Legal Description: __________________________
_________________________________________

Municipality: ______________________________

Party Chief: _______________________________

Assistants: ________________________________

Supervisor: _______________________________

Start Date: ____________     End:  _____________

Instrument: _______________________________

GPS:  ____________________________________

Temp: _______________      Bar: ______________

Weather:  _________________________________

Bench Marks Established      Yes: _____  No: ______

Comments:  ___________________________________
_________________________________________

The opinions expressed in this piece are solely those of the author and in no way necessarily reflect those of the Practice Review Board.

When a professional takes responsibility for work completed by others, that professional ensures that the work meets all requirements, including those outlined in the acts and regulations as well as the minimum guidelines outlined in the Manual of Standard Practice...
the items outlined in Part C Section 6.2.1 to 6.2.4, and the evidence report provides space to record all of the details for found evidence as well as to document the extent of a crew’s search for lost monuments. Use of the evidence reports should also enable more effective evidence assessment.

SAMPLE LIST OF ABBREVIATIONS AND SYMBOLS

<table>
<thead>
<tr>
<th>Field Notes</th>
<th>Page ___ of ___</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Abbreviations</strong></td>
<td></td>
</tr>
<tr>
<td>Alberta Survey Control Marker... ASCM</td>
<td></td>
</tr>
<tr>
<td>Statutory iron post.... I Mark.... Mk.</td>
<td></td>
</tr>
<tr>
<td>Countersunk... C.S. Found... Fd.</td>
<td></td>
</tr>
<tr>
<td>Marker Post.... Mp. Re-est.... Re-established</td>
<td></td>
</tr>
<tr>
<td><strong>Symbols</strong></td>
<td></td>
</tr>
<tr>
<td>Statutory iron post found.............. ● placed....... ○</td>
<td></td>
</tr>
<tr>
<td>Temporary point.......................... X</td>
<td></td>
</tr>
<tr>
<td>Spike placed............................ A</td>
<td></td>
</tr>
<tr>
<td>Additional notes:</td>
<td></td>
</tr>
</tbody>
</table>

I have also seen templates used effectively to record RTK GPS observations, base station set up details, powerline profiles, and urban RPR sketches and total station observations. However, the use of templates does not guarantee that the field notes are excellent. During the course of my reviews, I have seen many excellent field note title page templates and evidence reports that are almost completely blank and the information that is necessary to evaluate evidence is not being recorded in the field notes. In these cases, it seems likely that the field notes are not being reviewed by the ALS responsible for the product.

**Digital Field Notes**

I was recently asked about digitally recording field notes using a tablet device and whether field notes recorded in this fashion satisfy the guidelines in the MSP. This seems like an excellent initiative and I see no reason that field notes recorded in this manner wouldn’t satisfy the guidelines outlined in the MSP. Indeed, these devices could also provide an opportunity to incorporate photos, audio and even video information into the field notes. The biggest challenge might be to ensure that the field notes are not altered and to prove that they haven’t been altered if the need to do so arises.

**Personal Supervision**

The verb ‘supervise’ is simply defined as ‘to oversee’ (Merriam-Webster). However, in the workplace, a supervisor may act as a coach, delegator, role model, cheerleader, policy enforcer, spokesperson to senior management, liaison between staff and organization, and/or the person directly responsible for future promotion (APEGGA, 2003). Supervising staff also involves teaching them the necessary technical skills to ensure that they have the know-how to complete successfully all assigned tasks. In the context of preparing field notes that meet all requirements, I believe an ALS needs to make time to review personally the field notes and provide staff with specific, constructive suggestions to address deficiencies. While some of the field staff may have years of experience, keep in mind that they may not know exactly what the requirements are, why the information they collect is important, or what is done with the information. As such, it is essential that an ALS set aside time to meet face-to-face with the field staff to explain what information needs to be collected in the field, why the information is important, and how it is used to prepare a survey plan. A trip to the field provides an excellent teaching opportunity. For example, while in the field an ALS can explain how survey evidence is assessed, what information is required to undertake the assessment, and show the field staff how that information should be recorded to facilitate the assessment of the evidence. Spending time with the field staff also demonstrates to them that the field work and field notes are critical components for all survey projects.

**Consistent Feedback**

Whether they specifically request it or not, field staff are most likely looking to the ALS for suggestions on how they can improve their job performance. As such, it is important to provide feedback (both positive and constructive) on a regular basis. This feedback needs to be clear, unambiguous, and not contradictory. For example, if the field crew missed recording the monument markings or monument condition, the ALS could personally let them know what information was missed, how it should be recorded, and how the monument markings and condition are used in the production of a survey plan. Providing consistent feedback becomes more difficult when field crews are working for several ALSs or different offices. In this situation, it becomes the responsibility of several ALSs to establish a standard for acceptable field notes and to maintain it. It might be worthwhile to provide the
field crews with an example set of field notes that are acceptable to all ALSs at the firm. This will provide the field crews with a benchmark and something to compare their notes to before they submit them.

There is always going to be a project where something is different or information needs to be recorded in another way. When these situations arise, it is critical for an ALS to take the time to clearly explain and provide details about the difference between the unusual circumstance and the requirements of a typical survey. This should reduce confusion about the standards, since it won’t seem to the field crews that the ALS is constantly changing his/her mind about what is needed.

**Investing the Time is Worthwhile**

It is the land surveyor’s responsibility to make sure that the field notes meet all requirements. Indeed, producing high quality products requires an investment of time and effort by the professional. The results of the product reviews completed under the CCR program suggest that more face-to-face contact between an ALS and field staff results in fewer field note deficiencies. The field notes are a critical component of the final product and, although they are not normally in the public domain, they provide an indication of a surveyor’s professional competence, skill, and credibility (ABCLS, 2012). Accordingly, time spent coaching, teaching, training, mentoring and supervising holds important benefits for the professional, the field staff, and the company.

Scott Westlund, M.Env., P.Eng., ALS
Director of Practice Review and Boundary Panel Manager

**REFERENCES**


Merriam-Webster. http://www.m-w.com
Why Do We Need Formal Written Policies?

In particular, why do we need a written policy on equipment calibration? Is this not something that we do in our day-to-day operations without actually documenting the procedure as calibration?

If it is not written down, it never happened.

Gone are the days when most everything was done without a lot of paperwork. Nowadays everything has to be documented. This requirement affects us in all walks of life. If it is not written down, it never happened.

First we need to define calibration in the context of survey equipment.

**Calibration** is a comparison between measurements—one of known magnitude or correctness made or set with one device and another measurement made in as similar a way as possible with a second device. The device with the known or assigned correctness is called the standard. The second device is the unit under test, test instrument, or any of several other names for the device being calibrated.

From the EDM Calibration Manual (Alberta Government) we have: These guidelines describe the four Electronic Distance Measurement (EDM) calibration baselines in the province of Alberta as well as how to undertake an EDM calibration baseline survey. They have been developed to assist users in verifying that their EDM equipment is working within the EDM manufacturer’s stated specification for scale error and constant error. The guidelines also include requirements for submission of EDM calibration survey data to the Geodetic Control Unit, Surveys and Technical Services Section for evaluation.

The validation process differs significantly from calibration. Validation goes beyond simple calibration. The validation process includes the following:

- The equipment:
  - Is it capable of achieving the required accuracy under project conditions?
- Are the resulting measurements within specifications, that is, is it properly calibrated?
- The procedures used in the field as well as in the office;
- In some cases even the personnel become part of the process.

From the Edmonton GPS Validation Manual (Alberta Government) we have:

The validation networks may also be used to evaluate proposals from GPS survey contractors. A “validation survey” on a GPS basenet may be required to assess the proposed GPS positioning system, and determine with confidence whether it can meet contract accuracy requirements. A positioning system in this context includes the equipment and procedures used for data collection as well as the software and procedures used for the data processing and adjustment.

I will return to the question of why do we need a formal calibration policy. There are, of course, a number of reasons why we need a formal calibration policy. I will mention only a few. What needs to be included in such a policy? There are many things that could be included, let us look at the basics for now.

Most importantly, from the Surveys Act we have:

**Standard of measure**

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

(2) A surveyor shall verify
  (a) all tapes used by the surveyor by comparison with a subsidiary standard of a type approved for that purpose by the Director or by a person authorized in writing by the Director, and
  (b) all electronic linear measuring devices used by the surveyor by comparison with calibration base lines established by the Minister for that purpose.

The Practice Review Board is of the opinion that in order to remain competent within the context of the modern geomatics environment, it is necessary to develop and implement such a policy as well as the regular checking and calibration of all surveying equipment and auxiliary equipment such as thermometers and barometers.

Then we have other considerations:

- If there is ever a question as to measurements, in particular when there is some disagreement, the mere fact that there is a policy in place may well quell any further questions regarding equipment.
- If you can also show that you are adhering to this policy, there should not be any further doubts.
- It just makes sense to have a policy that staff can refer to when the question of calibration comes up.

**What should be included in an equipment calibration policy?**

- What is your definition of calibration?
- Which equipment requires calibration versus procedures to eliminate errors?
- Should include at least:
  - All tapes;
  - Total stations/EDM (distance);
  - Total Stations/Theodolites, angles, both horizontal and vertical;
  - Levels;
  - Prism/antenna poles;
  - Tribracs;
  - Prisms;
  - GPS;
  - Barometers;
  - Thermometers.
- How often and when should equipment be calibrated?
- Where and how should the calibration be carried out?
- What is the ‘standard’ to check against?
- For distance measurements will the test be against an acknowledged baseline or against a baseline of your own?
- If the baseline is your own, how will it be established?
- How will you deal with prisms from different manufacturers or different models from one manufacturer?
- Is the calibration method capable of dealing with both scale and prism/total station combinations?
- How will the raw measurement data be dealt with?
- What sort of records will be kept?
It just makes sense to have a policy that staff can refer to when the question of calibration comes up.

The written policy can also contain forms for recording observations as well as forms for the reduction and comparison of the results. The results can easily be reduced and compared against the known values in an Excel spreadsheet. This method will then also be capable of dealing with both the scale and prism issues, and even apply the computed prism correction for a more refined comparison with the known values.

The status of the baselines in Alberta is not well known. Some of the existing baselines may not be up to standard for any number of reasons. There are four recognized baselines in Alberta. They are located in Lethbridge, Calgary, Edmonton and Grande Prairie. The province has a manual available online (PDF format).

The name is, “Electronic Distance Measurement Calibration Baseline Surveys in Alberta (2007).” This EDM Calibration manual can be found at: www.srd.alberta.ca/LandsForests/DirectorOfSurveys/documents/EDM_Calibration_BL_Manual.pdf. The manual is a compilation of baseline reports, values and guidelines. It also contains some basic forms that could be incorporated in a calibration policy.

It is policy, that we are dealing with, therefore, there is no need to go into detail concerning each individual piece of equipment nor is there a need to detail the calibration process. There are plenty of resources available on the Internet, textbooks and equipment-specific user manuals to deal with the actual calibration process.

In summary then, a calibration policy should include the following basics:

• Which equipment should be calibrated;
• When and how should this be done;
• How are the observations to be recorded;
• By what means is the raw data to be processed;
• How the results are to be stored.

It would be possible to prepare a generic calibration policy which could be adopted, with minor modifications, by all practicing land surveyors. Calibration is not a jurisdictional issue, therefore, such a policy could be used nationwide.


Hugo Engler, ALS

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Distinctive. Choice.
A Basic Truth

Many years ago and with significantly more hair on my head—more years in fact than I care to remember… I was in the field with less than a year of party chief experience engaged on a pipeline gathering system. The CEO of the survey firm who employed me, an experienced land surveyor in oil and gas work, visited the job site with the primary purpose of coaching me on evidence assessment.

He spent a week with me as we examined documents in the project file, compared legal plans with found evidence in the field, discussed Part 2 and Part 3 monuments, dug for rust holes, assessed fence lines and the condition of disturbed and obliterated corners, and restored/re-established a number of posts.

The coaching and time he committed to me in the field over that seven-day period provided me with the beginning of a solid professional foundation that would have taken much longer to build on my own while asking my inexperienced questions using the XJ truck phone.

My employer recognized that I wanted to succeed at my job and he provided a learning opportunity to help me do so.

The effort he invested in coaching was based upon a basic truth that he applied to his team and that I apply today. My employer recognized that I wanted to succeed at my job and he provided a learning opportunity to help me do so.

The basic truth is that most people want to succeed at work. If we start with that premise, then a likely reason that people do not succeed at work is that they have not been provided adequate means to do so, either with structured or informal training and support, coaching and mentoring, encouragement, or simply giving them sufficient time and experience to learn.

As professional land surveyors, our own continuing education must include the development of these soft skills to effectively help our teams succeed. Later in my career, when I moved into a larger management role, I found myself in essentially the same position I was in as a young party chief. I had the will, and some of the basic knowledge as gained through simple experience and observation of others, but in the beginning of this new role, I had little in the way of specific coaching or training in the soft skills to prepare me to manage my team or my clients. Many new professionals in our industry often find themselves in similar circumstances. Fortunately, there is a growing and positive trend in business to provide training in these areas.

While many firms are developing their own in-house management workshops and material, there are a number of web resources that offer opportunities for continuing education and professional development of soft skills online. An excellent example is provided by the Harvard Business Review (www.hbr.org). The web site links to information about the Harvard ManageMentor program which is a fee-based desktop and mobile reference and eLearning resource of practical business and management soft skills. The 44 topics include video, audio and interactive learning modules including:

• New Manager Transitions
• Coaching
• Developing Employees
• Goal Setting
• Feedback Essentials
• Team Leadership

The HBR YouTube channel also delivers a number of short management videos including many related to leadership, teamwork, and innovation.

There are many other web resources with links to useful articles and blogs about soft skills learning, among them The Training Zone (www.trainingzone.co.uk).

…it can be beneficial for both the individual and the business to help the process along by continuing education initiatives...

While it is certainly possible for land surveyors, both new and ‘seasoned,’ to develop the soft skills to effectively coach and mentor a team simply through the trials of on-the-job learning, it can be beneficial for both the individual and the business to help the process along by continuing education initiatives and investing the time to provide your staff with the tools and knowledge to succeed at work.

A struggling young party chief from years gone by would have heartily agreed.

Scott Partridge, ALS
Surveyors are professionals who are held to a high standard and work for the best interest of the public. We need the public to be aware of what surveyors do and when they should consult with us for advice.

This year, the Public Relations Committee was tasked to report to Council on how the Alberta Land Surveyors’ Association (ALSA) can create more public awareness of the profession. Council recognizes that “there is a need to create a good image of the land surveying profession and the Alberta Land Surveyors’ Association so that the land surveyor or the ALSA is contacted first whenever there is a question about land or boundaries.”

As mentioned in previous public relations articles, this issue has been a concern for Council for many years. With recent government activities, now more than ever, we need to educate the public that surveyors maintain the legal survey fabric for the public good. Another common theme in the previous years was to market our profession to people close to us, using word of mouth. This approach has worked and, as professionals, we need to continue to do this to promote our profession and to build awareness within the public. However, we also need to get more exposure. This year, the Public Relations Committee has recommended a new approach. The Committee recommended engaging the services of a new advertising company to help formulate a plan to promote our profession.

Crucial to the advertising campaign is a simple, clear message that will increase overall awareness.

Using an advertising company has many advantages. As surveyors we know how to re-establish monuments, however, we do not have the experience to plan and execute an advertising campaign. This is where an advertising company can help. They have knowledge of best practices as well as the experience of attempting different approaches. Furthermore, an advertising company has an unbiased view of surveying and will have a better understanding of how people with no knowledge of surveying can be educated. Crucial to the advertising campaign is a simple, clear message that will increase overall awareness. An example of a successful campaign using a simple message is “Call Before You Dig.” Most of the public knows what it means and when to use it.

After reviewing five advertising company proposals, the Public Relations Committee unanimously decided to engage the services of Free Advertising Inc. They were selected because they recognized that the ALSA is a self-governing professional regulatory organization and not a private sector client.

The proposal provided by Free Advertising Inc. includes the following three phases:

- research and strategic plan,
- creative development, and
- campaign measurement.

The research aspect of the plan will include polling the general public and members of the ALSA. Research results will be used to develop a strategic plan. Once the research and strategic plan are completed, Free Advertising Inc. will develop a brand platform to present to ALSA. Upon approval of the brand platform, materials for an awareness campaign can be developed (i.e. posters, brochures, radio, social networking, logo, and so on). After the development and implementation stage, the last step is to perform an evaluation of the campaign. Was it successful? Knowing how successful the campaign was will help ALSA structure future public relations endeavors.

Free Advertising Inc. recognizes that the Association may not be able to implement all the phases of the plan in the immediate future. That is why, each phase is structured so that it can be implemented over a longer time frame. Currently, Council has approved the research and strategic plan phase to aid the Association in determining how it should market itself. The information acquired during this phase will be beneficial regardless of whether the Association plans to complete the last two phases of the project.

Each member has a role to play in promoting our profession.

Each member has a role to play in promoting our profession. And, I believe the Association is moving in the right direction by launching an awareness campaign to augment member efforts. Collectively, with continued work, we can make the public aware of the professional services an Alberta Land Surveyor provides.

Irwin S. Natt, ALS, P.Eng.
The ProMark™ Series

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- Very lightweight and compact
- Extended built-in communications
Travel is a major part of any surveyor’s job, be it driving to the office or mobilizing to camp for a 21-day shift. We walk, ATV, snowmobile, and drive to get to where the work needs to be done. Working smarter and with smaller crew sizes, we look to mechanical assistance in carrying equipment such as chainsaws, statutory posts, marker posts, survey gear, and ourselves long distances from truck accessible roads.

Undoubtedly everyone is aware of the dangers that are created when anything mechanical is introduced into our daily activities. We try to eliminate and minimize these dangers, designing them out of the work, training and ensuring competence, and providing PPE as the last line of defense in ensuring safety. Off-Highway Vehicles (OHVs) have many dangers associated with them—securing equipment, steep slopes, speed, fires and collision. There are also hazards transporting and unloading OHVs.

As OHVs are not designed to be driven on the highway, we transport them to a staging or unloading area. The survey community has been addressing this for years and many different solutions exist including trailers, truck decks and truck beds, each with their own benefits and safety concerns.

There are many things to consider when choosing how to haul the OHVs you need for work.

- How many will you be transporting?
- What are their size, both dimensions and weight?
- Where will you be travelling? Can you turn a trailer around if you need to?
- What can your current and future fleet handle for towing capacity and gross vehicle weight?
- Has the client requested a specific transportation method be used or not used?
- What is the budget?

Whatever choice is made on how to haul OHVs, you need to examine closely the work process and identify the hazards each has. Trailers introduce towing and extended vehicle length, pinch points when hitching up and potential for the hitch to jump out if improperly secured. A truck deck is at a raised elevation and falling could be more hazardous; sliding leaves could cause pinch points; and the centre of gravity of the truck is raised causing rollovers to be a greater risk. Even transporting your OHV in your truck bed introduces hazards as there may not be ramps designed specifically for the truck model being used and processes, such as securing them to the frame, need to be in place. A step-by-step plan for loading your OHV should be developed, and each step evaluated for hazards. Once the hazards are identified, the root cause can be removed or mitigated through a procedure. Winching your OHV onto the truck deck avoids possible injury due to the OHV rolling off the ramps while driving it onto the deck.

Regardless of what method is used for transporting OHVs, there is still the need for securing them both physically from movement and from theft. OHVs should be properly secured and the method of securing should be checked regularly on long journeys to ensure that vehicle movement has not loosened them. Ratchet straps are the most common method used to secure cargo such as an OHV. The working load limit, noted on the strap tag, should be sufficient for the OHV’s weight. Ratchet straps should be inspected prior to each use and if there is any damage they should be replaced. Damage to these straps can occur from prolonged exposure to UV rays if not specifically designed to resist it, mud and dirt can get inside the fibres of the webbing and abrade the fibers weakening their strength and sharp edges the strap passes over can also cut the strap if contact is made.

The survey industry is ever evolving. EDMs and GNSS have become the survey instruments of choice, increasing public awareness, environmental stewardship, and focus on health and safety. Through all of this the work must still get done, let’s do it safely.

If I was selecting a title for this book, I certainly would not have chosen the caption—The Mapmaker’s Wife. This book is not really about a mapmaker and only a small (although the most adventurous) part of the book is about his wife.

It is sometimes sad to note that surveyors are seldom recognized as surveyors but rather given more romantic names such as mapmaker or geographer. David Thompson is usually referred to as a cartographer or mapmaker but really he was a surveyor and astronomer; the second printing of James MacGregor’s book Peter Fidler: Canada’s Forgotten Surveyor was renamed Canada’s Forgotten Geographer. Such is life—perhaps in future, books will be written about famous geomaticists—who knows?

This story takes place in the 1700s and is really about a French expedition to survey a baseline at the equator in what is now Peru in order to determine the circumference of the earth and resolve the question of whether the earth was flattened at the poles or around the equator. The backdrop to the title focuses on an upper class Peruvian woman, Isabel Gramesón, who marries a signalman, Jean Godin, on the survey crew measuring this very precise baseline in the Peruvian Andes. The story of the survey and the trials and tribulations they had operating in very rugged terrain high in the Andes is certainly of interest to surveyors and anyone with a scientific bent.

The book, however, is anything but an historic, technical, novel about precision surveying in the 18th century but rather is an intriguing tale about the social interactions of the Charles-Marie de La Condamine expedition from France in adapting to an eight-year stint in the Andes. Nine Frenchmen and two Spaniards conducted more than just a technical baseline and triangulation survey but, as was tradition amongst early survey-explorers, they wandered far and wide across the northern part of the continent gathering valuable botanical and geological information, climbing high in the Andes and mapping the reaches of the Amazon River.

A bonus for the survey historian is a chapter on the early theories on the size of the earth from the 6th century B.C. to the heated debates between the French and English in the 18th century, as well as an enlightened description of the history of triangulation. Early scientists such as Sir Isaac Newton, Descartes, Cassini, Bernoulli and Voltaire played parts in the early debate over the shape of the earth.

Not confined to a lot of technical jargon, this is a great story about adventure, geography, scientific discovery, and social interaction between several different races and nations in the eighteenth century. A fascinating tale about Isabel Gramesón’s struggle and near-death experiences as the sole survivor of her party in their quest to cross the South American continent at its widest and probably most topographically challenging point, to meet up with her husband Jean Godin, after an absence of twenty years.

I don’t know how long this intriguing book has gathered dust on the shelves of the ALSA library but the cover does not appear to even have been cracked open. I happened upon a tattered copy over Christmas while on vacation in Costa Rica, and found it to be a fascinating read. Hence, a paperback copy remains in the ALSA library eagerly awaiting an eager reader to crack the spine.

G.K. Allred, ALS (Hon. Life)
I only hope that as the technology advances and information becomes easier and easier to obtain, the users don’t forget where the data came from and who created it.

A mapping technologist combines the data creation aspects including photogrammetry and data collection, and surveying techniques. I related a typical workflow. As an oil & gas company develops a field, maps and spatial information are invaluable tools. Mapping technologists are called upon to create the maps and conduct analyses used to make critical decisions. But along the way, the services of professional land surveyors and surveying technologists become an integral part of the process. A mapping technologist might be requested to create a map for an initial review of the field area. Data layers such as topo vectors, cadastral base, crown land dispositions (DIDs), ortho imagery, pipelines and well locations would all normally be used. Of course, many of those datasets exist only because of the work done in the field and office by surveying technologists. The mapping technologist combines the data in CAD or GIS systems to help the company determine the most suitable applications, 3D animations or complex statistical analyses.

To illustrate the relationship between mapping technologists and our surveying technologist counterparts, I related a typical workflow. As an oil & gas company develops a field, maps and spatial information are invaluable tools. Mapping technologists are called upon to create the maps and conduct analyses used to make critical decisions. But along the way, the services of professional land surveyors and surveying technologists become an integral part of the process. A mapping technologist might be requested to create a map for an initial review of the field area. Data layers such as topo vectors, cadastral base, crown land dispositions (DIDs), ortho imagery, pipelines and well locations would all normally be used. Of course, many of those datasets exist only because of the work done in the field and office by surveying technologists. The mapping technologist combines the data in CAD or GIS systems to help the company determine the most suitable

locations for wells, facilities, roads and pipelines.

GIS has certainly become an important technology in the industry and changed the way we make decisions. The mapping technologist can run an almost unlimited number of geoprocessing functions using several datasets at once to conduct geospatial analyses. For example, slope calculations from LiDAR, or setback creation (buffers) from hydrography, existing infrastructure and environmentally sensitive areas. They may be asked to run viewshed analyses, use various spectral band combinations to run land cover classifications from satellite imagery, or determine proximity and least cost paths to existing pipelines. These types of functions have become a vital part of many oil & gas company activities and have made GIS competent mapping technologists highly sought after professionals. Once suitable locations are determined, the duties fall back on the land surveyors to actually locate the well pad or right-of-way in the field. Thus, the process begins again as that new survey data becomes part of the base fabric that we started with.

It’s that relationship between the data creators and the end users that makes our industry so appealing to me. After graduating with a geography degree at a time when hardly anyone even knew how to spell GIS, to learning the basics of photogrammetry and data collection, and then CAD drafting/mapping on the job at a survey firm, I now find myself enjoying the role of a GIS specialist at a major oil & gas company. It was a pleasure to see the students get interested in our little life stories. It made me, once again, realize the passion I have for this career. As Ray put it, he’s never once woken up in the morning and regretted having to go to work. I only hope that as the technology advances and information becomes easier and easier to obtain, the users don’t forget where the data came from and who created it. I wonder how many Google Earth and in-car GPS users understand the work of the geomatics professionals that went into creating those now commonly used services?

Roland Schiwetz, BSc, B.App.GIS, CST
The Canadian Legal Information Institute database (www.canlii.org) contains a number of recent court decisions involving land surveyors and land surveying. The cases below are excerpts from the judges’ decisions. Readers should read the entire decision in order to learn the details of the circumstances of the case and the rationale for the decision.

MacI Issac v. Salo
2012 ONSC 337 (CanLII)—2012-01-20 Superior Court of Justice—Ontario
rock outcrop right-of-way—rectification—register—bona fide purchaser for value

[1] This is an application for a declaration that a mistake was made in the description of a right-of-way and for rectification of a reference plan to have such plan amended to accord with the actual location of a right-of-way which has existed for many years. The existence of a rock outcrop prevents the right-of-way from being easily established within the confines of Part 4, Plan 53R-10717, the area designated for the right-of-way. This rock outcrop is a suitable metaphor for the hardness of the positions which have been taken by the parties to this action. It is also a suitable metaphor for the legislation which governs the request for rectification. Given the unyielding nature of the Land Titles Act, R.S.O. 1990, c. L.5, there is but one possible result. The application for rectification is dismissed for the reasons which follow.

[20] There is nothing to suggest that Peggy Salo was anything other than a bona fide purchaser for value. To now, permit rectification of a mistake which did not even involve the parties to this action would seriously undermine the very foundation upon which the Ontario land titles system is based and be contrary to the governing legislation and established legal principles. In view of this, the motion seeking rectification of the reference plan and title abstract is dismissed.

The Corporation of the Municipality of Meaford v. Grist
2012 ONSC 108 (CanLII)—2012-01-10 Superior Court of Justice—Ontario
partial indemnity costs—bill of costs—summary judgment motions—disbursements—behalf

[1] The plaintiff brought this action seeking a declaration that a public road existed along the shoreline of several properties on the edge of Georgian Bay.

[2] When this action was originally instituted, it was brought against ten property owners, whose collective shoreline along Georgian Bay was approximately 600 feet long. Subsequently, it was ordered that all parties who would be affected by a determination of the court and who owned property abutting the shoreline of Georgian Bay, within the terms of the by-law under which the plaintiff brought this action, should be added as defendants. As a result, the property owners of approximate 6,000 feet of shoreline were added as defendants.

[12] The defendant Grist claims it is entitled to costs on a substantial indemnity basis as a result of the conduct of the plaintiff and puts forward several grounds which largely relate to the plaintiff’s conduct in carrying out its responsibilities as a municipal corporation, and to a lesser degree due to its conduct as a litigant in this action.

[14] These defendants [Seaman et al] also seek costs payable on a substantial indemnity basis as a result of alleged misconduct on the part of the plaintiff both in respect of this action, and in its role as a municipality.

[19] The plaintiff disputes the defendants’ request for the payment of costs on a substantial indemnity basis and submits that the partial indemnity costs that may be payable should be paid on a formula whereby the defendants should each receive a proportionate share of their proper partial indemnity costs amount measured against the total sum of the partial indemnity costs of the three defendants claiming costs.

Shea v. Bowser
2012 NSSC 10 (CanLII)—2012-01-09 Supreme Court of Nova Scotia—Nova Scotia
multiplier—right-of-way—disbursements—solicitor client costs—expenses of litigation

[1] The Bowsers were successful as respondents in a Chambers application which was heard for a full day on October 18, and a half day on October 20, 2011 [see 2011 NSSC 450 (CanLII), 2011 NSSC 450]. They claim solicitor client costs, or in the alternative costs under Tariff “C” of $3,000 to which they say a multiplier of four should be applied for a
total of $12,000 costs plus disbursements of $302.75. The Sheas in response argue this is not an exceptional case warranting solicitor client costs, yet agree that Tariff “C” should apply to an amount of $2,750 to which a multiplier of two should be applied for a total of $5,500 plus disbursements.

[7] In their Notice of Application in Chambers, the Sheas requested a declaration that there were entitled to a right-of-way across the land of the Bowsers and were seeking a mandatory injunction and a permanent injunction as well as damages for the loss of use and enjoyment of their properties and were seeking costs on a solicitor client basis.

[8] In their Notice of Contest, the Bowsers argued that the application should be dismissed because, while the Sheas may have an express grant of a right-of-way, “its location is not defined in such deeds or subdivision plan of [Nova Scotia Land Surveyor] Wedlock.” They contested that the right-of-way was never located on their property. They suggested that the Sheas express right-of-way may actually be located over an adjacent property.

[23] I conclude that the matter was sufficiently complex and important to the parties that it required a significant amount of effort to prepare for, conduct the hearing and to review the evidence to be able to provide briefs to the court post hearing. Without attaching undue weight to the statement of account dated December 7, 2011 of Ms. Jerome, it does seem to be a reasonable reflection of the effort involved.

Thompson v. Bauld
2012 NSSC 72 (CanLII)—2012-02-15
Supreme Court of Nova Scotia—
Nova Scotia
paved driveway—grass area—land—possessory title—pavier

[1] The parties in this Application in Court are next door neighbours in a long established Halifax neighbourhood. The applicants are the owners of 14 Fairmont Road. They moved into their residence in August, 2009. The respondents are the owners of 16 Fairmont Road. They moved into their residence in 2000. The respondent’s property is land locked from access to Fairmont Road.

[2] In a deed dated November 10, 1942 the applicant’s predecessors in title gave the respondent’s predecessors in title a right-of-way over a portion of the applicant’s land. That right-of-way provides as follows: Together with free ingress, egress and regress to and for the said Grantee, his Heirs and Assigns, his and their tenants, underrantants, occupiers or possessors of the said Grantee’s dwelling and grounds contiguous to the said road or right-of-way in common with the said Grantees, their Heirs and Assigns, tenants and occupiers of the said Grantees dwelling and grounds adjacent to the said road of right-of-way at all time and seasons forever hereafter ... Obviously, this is an ill defined right-of-way in that it does not proscribe any metes and bounds. I suspect that it was sufficient in the 1940s and 1950s. It has become a source of neighbourly conflict in the present era.

[3] The respondents use a paved driveway to access their property from Fairmount Road. This driveway extends across the applicant’s property, the respondent’s property, as well as 18 Fairmount. The owners of 18 Fairmount are not involved in this litigation. This driveway has been in existence for years and represented number 16’s only access to Fairmount Road. The question in this case is whether the right-of-way extends beyond the paved driveway.

[4] The evidence indicates that historically the right-of-way was not problematic for the occupiers of 14, 16 and 18 Fairmount Road. It only became a dispute when the applicants moved into number 14 in August, 2009. It should be noted that the applicants have a separate driveway to their home. Their issue is with the respondent’s use of a grass area abutting the paved driveway.

[5] The most significant concern for the applicants was that Ms. Song often drove off the paved driveway when exiting her property. These actions resulted in the grass area being disturbed. Ms. Song found it very difficult to keep her vehicle on the paved driveway. This activity, and the resulting disturbed lawn, was a source of annoyance to the applicants.

[11] John Conn prepared a survey of the applicant’s property at 14 Fairmont Road. He filed an expert report dated August 31, 2011. In that report, he indicated that his survey “agreed with the boundaries as established by and shown on the plan of record prepared by Roy A. Dunbrack, NSLS dated December 20, 1976.” Mr. Conn’s report further stated that the Dunbrack plan showed a ‘proposed right-of-way’ along the southern boundary of the applicant’s property. Mr. Conn found that this proposed right-of-way encompassed an area shown as “paved driveway” leading to a garage on Mr. Dunbrack’s plan.

[18] The respondents did not retain a land surveyor to refute the conclusions and opinions of Mr. Conn. Cross examination did not cause Mr. Conn to question his report. I accept the evidence of Mr. Conn, and conclude that the respondent’s right-of-way does not extend beyond the paved driveway.

[20] Mr. Conn testified that a location certificate is not factually accurate and is not meant to be such. The principle purpose of a location certificate is to establish that the dwellings are located entirely within the boundaries of the subject land. The other purpose is to alert the purchasers of the existence of a right-of-way. It is noteworthy that on the face of the respondent’s location certificate appears the following hi-lited words: No further certification or assurance is implied by or is to be inferred from this document. This surveyor’s location certificate is not to be used for boundary definition, or as a reference document for the preparation of legal descriptions.

I acknowledge that the respondents location certificate suggest the right-of-way extends onto the grass area. However such observation does not displace Mr. Conn’s opinion which I have accepted as accurate.

[30] I order the following relief: 1. A declaration shall issue that the respondent’s right-of-way over the applicant’s property is limited to the paved portion of the driveway leading to the respondents garage, as shown in a plan of survey by John D. Conn dated August 26, 2011.

[31] I will hear the parties on costs should they be unable to agree.
Alberta Land Surveyors’ Association

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Seven ENGO PhD Candidates Receive Their Degrees at Fall Convocation

Congratulations to the following doctoral students who have received their degree at fall convocation. Their thesis topics are shown in brackets; their theses are available on the ENGO website (www.geomatics.ucalgary.ca/graduatetheses).

**Haris Afzal**, supervised by Professor G. Lachapelle (Use of Earth’s Magnetic Field for Pedestrian Navigation).

**Pratibha Ananatharamu**, supervised by Professor G. Lachapelle (Space—Time Equalization Techniques for New GNSS Signals).

**Yong Bian**, supervised by Professor B. Mercer (Polarimetric and Interferometric SAR Statistical Analysis and Signal Processing).

**Hassan Elhifnawy Eid**, supervised by Professor N. El Sheimy (Automated Urban Features Classification and Recognition from Combined RGB/Lidar Data).

**Ahmed Kamel**, supervised by Professor G. Lachapelle (Context Aware High Dynamics GNSS--INS for Interference Mitigation).

**Shashank Satyanarayana**, supervised by Professor G. Lachapelle (GNSS Signal Characterization and Enhanced Weak Signal Processing).

**Wesley Teskey**, supervised by Professor N. El Sheimy (Assessment and Attenuation of Movement Disorder Motion using Inertial Sensors).

Nine MSc and two MEng students also received their degrees at this convocation.

**Dr. Naser El-Sheimy Recipient of 2011 ASTech Award**

The Department is pleased to announce that Dr. Naser El-Sheimy is the 2011 recipient of the prestigious ASTech (Alberta Science and Technology) Award for Outstanding Leadership in Alberta Technology. The ASTech Awards are the premiere acknowledgement of scientific and technological achievement in Alberta. The Outstanding Leadership in Alberta Technology award is presented to an individual or team of individuals who have played a leadership role in and made a contribution to a technological innovation or breakthrough in Alberta. The award was presented to Naser at a gala function on Friday, October 28th.

Naser’s recognition through this award is just one of his many achievements in geomatics. The Department is proud to have him on our team.

**Three-Year Bachelor of Geomatics Degree at UNB**

The Department of Geodesy and Geomatics Engineering at the University of New Brunswick now offers a non-engineering three-year Bachelor of Geomatics degree along with its current engineering degree. Students in this new program will be able to:

- advance credits from other post-secondary academic institutions as currently recognized by UNB;
- transfer easily to the 4 year B.Sc.E. in Geomatics Engineering if desired; and
- participate in work experience programs in Canada and abroad; and
- potentially meet the academic preparation to become a land surveyor.

The Department is a world-class centre for land administration, spatial information management and GIS, remote sensing, hydrography and ocean mapping, GPS, geodesy and navigation, and precision engineering surveys.

**UNB to Help Train Europeans in Understanding Space Weather Effects on Satellite Navigation**

The University of New Brunswick has become an official partner of a major European program to train the next generation of scientists and engineers to counter solar threats to satellite positioning and navigation systems.

One of the major threats to our ever-increasing dependence on GPS and other global navigation satellite systems (GNSSs) comes from the sun. Solar-related phenomena and their effect on the Earth’s ionosphere, such as ionospheric scintillation, can be very disruptive, with serious consequences.

As we approach the next solar maximum in 2013, when ionospheric effects will be at their greatest, a network of internationally renowned experts, led by the Institute of Engineering Surveying and Space Geodesy (IESSG) at The University of Nottingham, are joining forces to help protect society from the effects of solar-related phenomena on GNSS signals. These experts will be training a new generation of young researchers as well as developing new research programs in the field of ionospheric perturbations and their mitigation. At worst, solar outbursts can black out satellite signals altogether. They can also create positioning errors and rapid signal fading. These intermittent problems can impact all GNSS users including mission-critical and high-precision applications for air, rail, and marine transport, and even autonomous machinery in areas such as agriculture.

Testimony to the damaging effects of ionospheric interference were the serious service interruption and degradation caused by the so-called “Halloween storm” event that took place in October/November 2003, when one of the most intense solar flares ever was recorded: companies delayed high-precision land surveying, postponed airborne and marine surveys, cancelled drilling operations, and resorted to backup systems and commercial aircraft were unable to use GNSS-based systems for precision approaches.

**TRANSMIT**

Training Research and Applications Network to Support the Mitigation of Ionospheric Threats—is the first project of its kind in Europe. It is made up of a consortium of leading universities, research centres, and industry across Europe and as far afield as Brazil and Canada.

This €4m initiative is being funded by the European Commission (EC) through a Marie Curie Initial Training Network (ITN). ITNs are part of the FP7 People Programme and aim to improve the career perspectives of researchers who are in the first five years of their research career in both public and private sectors.

Marcio Aquino, coordinator and senior researcher in IESSG, said: “Europe lacks robust counter-measures to deal with these ionospheric threats. TRANSMIT will succeed in its aims because of the strong expertise and resources from its
exceptional set of partners, encompassing both academic excellence and top-end users — including the aerospace and satellite communications sectors, GNSS system designers, service providers, major user operators and receiver manufacturers. The EC investment in projects like this confirms the importance Europe is giving to this new and exciting research area."

The project will place Europe in a position to compete with state-of-the-art technology already being developed in North America.

A number of TRANSMIT fellows, the students selected to participate in the training program, will visit UNB for short periods to learn about the space weather data analysis tools and techniques developed by researchers in the Department of Geodesy and Geomatics Engineering and the Department of Physics on the Fredericton campus.

**GGE Researchers Among First to Track New Galileo SatNav Signals**

An advanced satellite-tracking receiver operated by the Department of Geodesy and Geomatics Engineering on the University of New Brunswick Fredericton campus was one of the first in the world to acquire and track the signals from a recently-launched Galileo navigation satellite. Galileo is Europe’s global navigation satellite system (GNSS) now under development and scheduled for initial operation by 2015 or so. The first two Galileo In-Orbit Validation (IOV) satellites were launched on 21 October 2011 from the European Space Agency’s Spaceport in Kourou, French Guiana.

On Saturday, December 10th, at about 06:00 UTC, one of the IOV satellites (PFM or ProtoFlight Model) started transmitting navigation signals on the L1/E1 frequency using the E11 ranging code. These signals were acquired by UNB’s receiver in the Cooperative Network for GIOVE Observation (CONGO) that was established in 2008 by the German Space Operations Center and the German Federal Agency for Cartography and Geodesy as an early test bed for experimentation with new GNSS signals. Data from the receiver is streamed in real time from UNB to the CONGO data processing centre in Munich over the Internet.

The signals transmitted by the Galileo satellites will offer improved performance compared to the conventional signals transmitted by the GPS satellites.

**New Entrance Scholarship for GGE Students**

The Department of Geodesy and Geomatics Engineering is pleased to announce the creation of the Simon Newby Geomatics Scholarship. It will be awarded to a student beginning the Bachelor of Science in Engineering (Geodesy and Geomatics) degree program directly from high school. Selection will be based primarily upon the demonstration of leadership/entrepreneurial qualities, and/or demonstrable special needs, and/or demonstrable financial need. In all instances, excellent academic performance is a requirement. Further information is available here: www.unb.ca/scholarships/highschool.html. The scholarship was approved by the Fredericton Senate at its meeting on November 29, 2011.

This scholarship has been donated by UNB alumnus, Simon Newby, who obtained his M.Sc.E. degree in the department in 1992 and who has had a very successful career in the geomatics world. 

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Paul Sanson White  
P.Eng, ALS, CLS  
November 19, 1929 - October 8, 2011  

Date of Birth:  
- November 19, 1929 in Toronto Ontario.  

Primary Education:  
- Mount Royal High School, Montreal, Quebec;  
- Bishop's College School, Lennoxville, Quebec;  
- West Hill High School, Montreal, Quebec;  
- University of British Columbia: B.A. Sc. Mining Engineering;  
- Commissioned as Lieutenant in Royal Canadian Engineers;  
- Registered as Professional Mining Engineer (Alberta);  
- Commissioned as Alberta Land Surveyor;  
- Commissioned as Dominion Land Surveyor;  
- Registered as Professional Mining Engineer in Yukon Territory.  

Surveying and mapping career:  
- Articled to D. Rae Sutherland 1960-1962;  
- Active ALS member 1960-1969 and 1984-1987;  
- Retired member 1969-1984;  
- Former member 1987-2011;  
- Articled Fred Welter, ALS.  
- 1963—Commissioned private survey practice in Grande Prairie, Alberta as White and Hosford Ltd. (subsequently renamed White, Hosford and Impey Ltd.)  
- 1964—Opened branch office for White and Hosford Ltd. in Whitehorse, Yukon Territory;  
- 1967—Opened branch office for White and Hosford Ltd. in Yellowknife, NWT;  
- 1967—Created North West Survey Corporation (Yukon) Ltd. (aerial survey and photogrammetric mapping);  
- 1968—Opened North West Survey Corporation (Yukon) Ltd. office in Edmonton;  
- 1972—Sold interests in surveying and mapping operations to focus on mineral prospecting in Yukon and NWT.;  
- 1973/74—Special Assistant to Hon. J. Chretien Minister of Indian and Northern Affairs.  

Paul was involved in various mineral exploration and mining ventures before and after Paul's surveying and mapping career (1963 to 1972). He founded the Classic Jazz Guild of Calgary and, as an avid jazz enthusiast, organized and promoted numerous jazz events in Calgary and Southern BC, including on Saturna Island where he lived. Paul was also in the process of writing a book about survey and mapping history of the Yukon.  

Submitted by Fred Welter, ALS (Ret.)

Dr. Klaus-Peter Schwarz  

Dr. Klaus-Peter Schwarz, a world-renown inertial geodesist and professor emeritus, Geomatics Engineering, University of Calgary, passed away in Calgary January 20, 2012 at age 73.  

He dedicated his life fully to his family, his beliefs and his profession. He will be remembered for his faith lived out in generosity, kindness, hospitality, leadership, innovation, music, art, books and the great outdoors.  

Klaus-Peter Schwarz joined the Faculty of Engineering in January of 1980, into the newly-formed Division of Surveying Engineering, after completing degrees at universities in Germany, Canada and Austria. He was a leading researcher worldwide in the area of inertial navigation and gravimetry, and Head of the Department of Geomatics Engineering from 1990 to 1995. He retired in 2001.  

Schwarz worked to establish the University of Calgary as an international centre of excellence in geodesy. He contributed enormously to the research and high graduate educational standards of the department and University. His former graduate students are now internationally-recognized scientists throughout the world. He developed numerous new methods related to integrated navigation and airborne gravimetry, and served as president of the International Association of Geodesy from 1995 to 1999. He published more than 200 major scientific publications in the area of geodesy and navigation.  

Dr. Schwarz was conferred the eminent and rarely given title “Doctor Engineer Honoris Causa” by the University of Hannover, Germany, on the occasion of its 175th anniversary celebrations in 2006. In addition, he received an honorary degree from Wuhan University, PR China in 1994, and was a Full Member of the Russian Academy of Navigation and Motion Control, in addition to numerous international awards and recognitions. He was recognized as a Killam Fellow in 1986 by the University of Calgary.  

Dr. George C. Walker  

ALS (Hon. Life)  

George Charles Walker passed away on Friday February 10 at age 88. He died in his sleep at the Cowichan District Hospital with his wife Carole at his side, of advanced pneumonia and diabetes problems.  

George Walker received his commission as Alberta Land Surveyor #172 on June 18, 1952. He served as president of the Association in 1962. Mr. Walker received the Association’s Outstanding Service Award in 1982-1983 and became an honorary life member in 1989.  

The community of Walker in south Edmonton is named after him.  

The Alberta Land Surveyors’ Association will make a donation to the JH Holloway Scholarship Foundation in his memory.  

Look for a tribute to George Walker in an upcoming issue of ALS News.
While in Ottawa last February attending the Canadian Institute of Surveying meeting, my wife and I were guests at a luncheon where Pierre Berton was the guest speaker. His address was directed to the land surveyors in the group and his topic was William Ogilvie, a Dominion Land Surveyor in the days of the Klondike Gold Rush. You can read an account of this man in Mr. Berton’s book Klondike—the Life and Death of the Last Gold Rush. If you have not read it, I strongly recommend it as a factual account of a period in Canadian history. William Ogilvie was not particularly remembered because he obtained his commission in 1869 and surveyed in the Canadian West from 1875-1898 and was on the boundary survey between Canada and Alaska or because he was Commissioner of the Yukon for the Canadian government from 1898-1901. The main points remembered about William Ogilvie are: he was a land surveyor and he was incorruptible and he was scrupulous. He had many opportunities to make a fortune while staking claims but he felt that no man should enrich himself by virtue of his position.

How then, can we today measure up to men such as Ogilvie and some of the few previously mentioned, especially when we do not have the same frontiers to survey and the same maps to make? The best way is to make better surveys, better plans and to exemplify ourselves to the public only in a dignified and proper manner. How does one do this? In the case of our surveys, I would suggest working toward an order of 1/10,000 rather than 1/5,000 and with the advent of mechanical reproductions being acceptable to the Land Titles Office and Director of Surveys, more time could be spent preparing the original plan. We are all too aware of those bad surveys that have a nasty habit of coming back to haunt us. A quick, cheap survey may satisfy the client or at least so long as the plan becomes registered, and in many cases, the quality of accuracy of the survey is of no consequence to him. It might be considered, however, that you will not be remembered in the course of time for how much the survey cost. All your surveys, and you as a surveyor, will be remembered for whether they or you made good or bad surveys. There seems to be very little room for anything in between. In acting in a dignified and proper manner with the public, your training should help you. You’ve been given and taught responsibility; you’ve shown leadership and perhaps resourcefulness in the conduct of your surveys. Therefore, take an active part in community affairs, answer your correspondence as quickly as possible, keep your client informed of the progress or even, in certain cases, setback of the survey you are performing for him. People like to think their particular job is the most important and your personal

In January 1962, President Jim Clark addressed the membership at the Association’s 53rd annual general meeting. Here is an excerpt from his comments.

...I have only made one other speech in my life. Halfway through it I developed serious throat trouble and the audience wanted to cut it. Precedent has generally established that the president, in his address, expound a little to the new members on the do’s and don’ts in professional conduct. Not wanting to break with tradition, I will do the same. I’m now referring to men such as Palliser, Thompson, Mackenzie, Fraser and a host of other explorers and surveyors. Of more recent time there are Deville, Peters and closer to home, Cautley, Walker and McCusker, to mention a few. Men such as these were not judged on their ability to make money (not that there is any particular stigma to this point) nor in impressing the public as to who or what they were. They were judged on their ability to cope—to cope with their natural surroundings, deal with what we may consider the rugged way of life, and to cope with technical problems. Their knowledge and skill as surveyors will be remembered and recorded forever in the annals of Canadian history.

It is not too likely that any of us or our actions will be recorded in the annals of history for our contributions; but the thing to strive for is to act as though there were.
...not only should we be aware of changes and know them, our Association should lead the way where changes and amendments are necessary.

Interest, besides being necessary, will be most appreciated. Keep your accounts up to date and, above all, keep your debts paid. These things seem obvious to a businessman and even obvious to us sitting here but it is surprising how many of us let these simple little gestures of goodwill with the public slide. You are, of course, expected to live up to the code of ethics as laid down by this Association in dealing with the public and your brother surveyors. We have a good name in the eyes of the general public and the Association's name has never been marred by bad publicity. Therefore, it is up to all of us to keep its name and the name of land surveyors above reproach.

1961 has seen great strides forward in the sciences and in space exploration in particular. You will recall the Russians and the Americans have each launched a man into space and retrieved him successfully. Moon probes are next and after that, perhaps a manned flight around the moon or even a landing of a man on the moon or, as it has been suggested, a landing on Venus or Mars or a right-of-way survey for the suspected canals on Mars. ...we, as a profession must keep abreast of the times, not become complacent with our lot but be disturbed. Think, needle, legislate and plan! We must keep on top of scientific advancement, at least within our own fields. I refer now to some of the electronic instruments: tellurometer, geodometer, substense bar and electronic computer. Keep an open mind to new or improved methods for the solution to our survey problems. Dealing with legislation, it is our duty to keep up to date with any statutes or amendments in any of the acts that affect us and, if not us, at least our clients. Carrying that thought a little further, not only should we be aware of changes and know them, our Association should lead the way where changes and amendments are necessary.

The year 1961 was perhaps not the most outstanding so far as land surveyors were concerned. In fact, the overall industry has had to endure some periods of recession similar to the whole country. This is certainly not news to any of us, particularly those with a private practice ...

The Dominion Bureau of Statistics in a preliminary report states that for the first time in many years—I believe 1954—our exports have exceeded our imports. This augurs well for the future of our country and indirectly to us a citizens and land surveyors. It, however, does not solve the dilemma that we, as land surveyors in Alberta, find ourselves in today. Too many surveyors to do too little work. I draw my conclusions from talking to surveyors throughout the province. What then, is the solution? The solution, as I see it, is not the hiring of an agent to do your canvassing or even price-cutting, but the confining of survey work to surveyors. By which I mean, the time has come when we can dispense with first, second and third class instrument men and not have party chiefs who are not commissioned surveyors or articled students. I make this suggestion for the new Council to consider.

Another problem in our midst that I believe warrants attention by Council is the firm of John Doe and Associates or survey firms under a company name. Who are these associates and who are the partners in these companies? Who controls the organization? It is agreed that the professional person must be responsible for his survey and cannot share this responsibility with people who are not members of our profession. Is it possible that our Association should regulate with whom a surveyor should have a partnership? Lawyers can only be partners with lawyers and the same may be said for the medical profession. Why not surveyors? Above all, surveying must remain in the hands of the land surveyors.

Let us resolve to show continued cooperation with each other, dedicate ourselves to our work, and enjoy fellowship whenever and wherever we should meet.

Now that I have spoken more than I should, I would like to close with this thought. Let us resolve to show continued cooperation with each other (even planners), dedicate ourselves to our work, and enjoy fellowship whenever and wherever we should meet.

Signed prints of the 1994 painting “Vision of an Ordered Land” by E.J. Clark, ALS (Hon. Life) are available from the Alberta Land Surveyors’ Association.
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ANNOUNCEMENT

We are pleased to announce that Joe Chisholm has assumed the role of Division Manager, Positioning Technology. Joe most recently served as National Key Account Manager with a leading Survey Supply company in Canada. Prior to this leadership role, Joe’s experience includes Survey Sales Manager and business owner, distributing Geodimeter products in Western Canada. Joe’s vast knowledge and experience within the positioning technology industry is a tremendous asset that we are excited to have as a part of our organization and pass on to our valuable clients.

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ANNOUNCEMENT

Joe Chisholm has assumed the role of Division Manager, Positioning Technology. Joe most recently served as National Key Account Manager with a leading Survey Supply company in Canada. Prior to this leadership role, Joe’s experience includes Survey Sales Manager and business owner, distributing Geodimeter products in Western Canada. Joe’s vast knowledge and experience within the positioning technology industry is a tremendous asset that we are excited to have as a part of our organization and pass on to our valuable clients.
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