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# the Link MAGAZINE



British Columbia  
Land Surveyors





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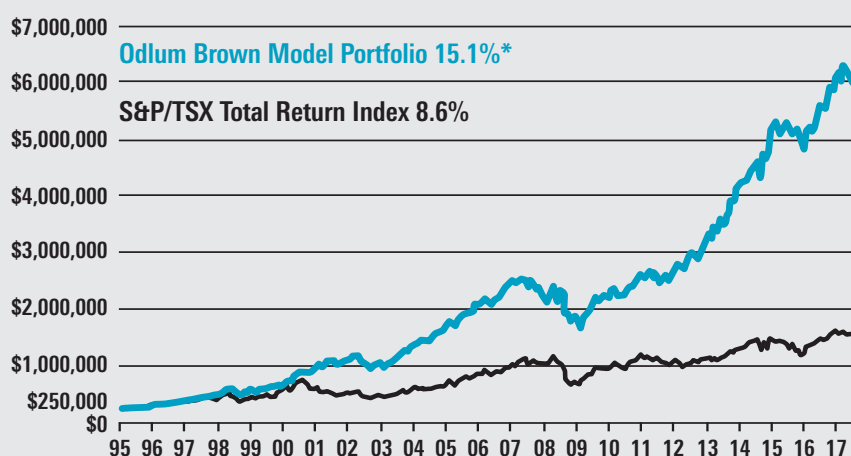
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<sup>1</sup> Except for YTD Period. <sup>2</sup> December 15, 1994. <sup>3</sup> The Odlum Brown Model Portfolio was established by the Research Department in December 1994, with a hypothetical investment of \$250,000. These are gross figures before fees. Past performance is not indicative of future performance. Trades are made using the closing price on the day a change is announced. \*Compound annual returns are from inception December 15, 1994 to October 15, 2017. Member-Canadian Investor Protection Fund



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Message from the **President**

## Following the Course

By Brian Brown  
*BCLS, President*

**T**here has been a lot happening since the last time I wrote. We had a record-breaking summer for heat, drought, and unfortunately, fires, which caused several stressful challenges for many of our colleagues through this past fire season. My most sincere thoughts go out to all of them.

During this time, your Board has had teleconferences on July 13, September 7, November 2, and by the time you read this article, we will have had our December face-to-face meeting and Professional Assessment Interviews in the Sidney ABCLS office from December 4 to 7, 2017. As of the time of this writing, we are expecting no less than ten Professional Assessment Interviews and possibly up to twelve; it will be a very full week! In the past few months your Board has dealt with two discipline cases, the results of which have been circulated to the membership.

In September, I attended the Association of Manitoba Land Surveyors (AMLS) 137th Annual General Meeting in Winnipeg. Incidentally, the AMLS is the oldest Land Surveying Association in Canada. The Manitoba AGM was held in the Hilton Suites Winnipeg Airport on September 13, 14 and 15, 2017. This is reported in a separate article.

*I only wish I could have had this opportunity much earlier in my career I feel I've learned more in the last six years on the Board than in the previous twenty years*

This was followed by the Board trip from September 25 to 29, 2017. Travelling with me were Roger Galibois, Vice President, Kelly Stofer, Secretary/Registrar, Mike Thomson, Surveyor General, and Chad Rintoul, CAO. We visited all regional groups. We met the Northern Group on Monday in Prince George; they have a new executive for their group: Mark Rossman, Chair, Albert Koehler, Secretary, and Veronica Meister, Treasurer. We met the Okanagan Mainline Group on Tuesday in Kelowna where we had a lively discussion on the subject of Professional Reference Manual accessibility. We met the Kootenay Group on Wednesday in Castlegar; they have concerns about the conversion to the new vertical datum, specifically over communication with local governments and utilities. We met the Lower Mainland Group on Thursday in Burnaby; once again we discussed Professional Reference Manual accessibility and issues with yard areas on strata plans. We met the Vancouver Island Group on Friday in Victoria, where among other things we continued the good discussion on strata yard areas. We

also had interesting conversations with all the regional groups regarding scholarships, the GSIR Project, the strategic plan for 2018-2020, and the proposed motions to be voted on at our AGM in March, 2018 (thankfully we do not have 42 of them to get through like Manitoba). This was a busy week!

Next on the agenda was the Association of Nova Scotia Land Surveyors (ANSLS) from October 12 to 14, 2017. They held their meeting in Fox Harb'r Resort, Nova Scotia, a beautiful location on the Nova Scotia north shore. This is not a misspelling or laziness on my part - that is the name! The report on this meeting is also in a separate article.

In closing, I would like to thank the members for allowing me the honour of representing our association in the other Provinces. I would also like to encourage anyone who is asked to let their name stand for election to the Board to accept the nomination. I only wish I could have had this opportunity much earlier in my career I feel I've learned more in the last six years on the Board than in the previous twenty years.❖





Message from the **Chief Administrative Officer**

## Looking Forward

By Chad Rintoul  
*Chief Administrative Officer*

**T**he draft Strategic Plan for the period 2018-2020 was presented to the members for further input and discussion during the fall Regional Group meetings. Feedback from the members was limited, and the Board adopted the Strategic Plan at the December ABCLS Board meeting.

The Strategic Plan will guide the Association for the next three years, and my appreciation goes out to all who participated in its development. It is the result of an inclusive consultation process including an online survey sent to all members, consultation interviews with key committee chairs and ABCLS stakeholders, a one-day workshop with 27 participants including members of the Board, ABCLS staff, members, students, and members of the public.

The process has identified three areas of priority:

**Goal #1:** Increase understanding of the function and value of the land surveying profession and the survey fabric to a civil society.

In prior years the ABCLS has had a strategic goal of increasing awareness of the profession across a broad set of target audiences. For the 2018-2020 period this goal will see the ABCLS

*The Strategic Plan will guide the Association for the next three years, and my appreciation goes out to all who participated in its development.*

place new emphasis on the “why” of its communication programs, through content targeted more precisely at changing key influencers’ and stakeholders’ perceptions, with an objective of measurably increasing their understanding of the value of the profession to society.

With a refreshed and more versatile website, the Association intends to direct its messaging more cost effectively using enhanced technology, database management and social media methods.

**Goal #2:** Ensure members practice competently and deliver quality services.

As a core responsibility of the ABCLS, this area may be characterized as a focus on continuous improvement. The goal for the coming years is to build on the considerable momentum from the Professional Competency Program, to see further refinements in key areas.

**Goal #3:** Enhance effectiveness of ABCLS governance

Based on member feedback at the 2017 AGM and through the member

survey, the plan identifies the need to refresh board governance strategies to enhance the effectiveness of its committee processes, provide more opportunities for board leadership and succession, and improve interaction and engagement with members. This is a new area of priority for the Association and will be a key focus early in the planning period.

I anticipate that we will share the Plan as adopted with our Stakeholders at the first opportunity in the New Year, with the Ministry of Forest Lands Natural Resource Operations and Rural Development getting an introduction in December when Kelly and I meet with our Assistant Deputy Minister.

Conclusion of the 2015-2017 Strategic Plan will culminate on completion of the General Survey Instruction Rules re-write in 2018 following further member consultation at the Annual General Meeting in Whistler this coming March. As always, I look forward to the AGM and urge you to make your reservations now if you have not already done so. All Whistler area hotels are filling up fast, and we don’t want you to miss out! ❖



Message from the **Senior Deputy Surveyor General**

# The Role of the Surveyor General of British Columbia

By Jeff Beddoes, *BCLS, CLS*  
*Senior Deputy Surveyor General*  
*Land Title and Survey Authority of British Columbia*

**H**ow many of you have perfected the 30 second elevator talk about what a land surveyor does for a living? Over the years I have tried a few different responses to the vacant stare that often results once I announce that I am a land surveyor. I have had limited success.

Similarly the role that the Surveyor General plays in our Province is not well understood.

This was a concern to us, particularly at times of leadership change in the Province and change within the leadership of the Land Title & Survey Authority, for example, as terms of LTSA Board members end and new Board members are appointed.

The health and prosperity of a society rests upon a few fundamental pillars. Like the work of land surveyors, the Surveyor General and his staff work quietly out of the public eye to ensure that one of those pillars, the cadastral fabric, remains healthy and robust.

We decided to put pen to paper and create a succinct paper that describes the modern day role of the Surveyor General. This paper is attached in its entirety.

Perhaps a little of the information contained in the paper will help you with your next elevator conversation.

## Role of the Surveyor General

The Surveyor General of British Columbia oversees the provincial land survey system and plays a vital role in the recording of spatial information in the land title register and Crown land registry by maintaining the quality and integrity of the cadastral fabric in the province.

## Background – Land Surveys

A land survey is represented by a survey plan, which is a scale-drawing identifying a parcel's location relative to surrounding parcels and provides information on the parcel's boundaries and size. The plan will show survey monuments and other evidence indicating the corners of the parcel and its boundaries.

While historically parcels of land often were established by a written description, in modern times virtually all new parcels must be defined by a survey plan. Land surveys are referred to as 'cadastral', which comes from the French word referring to the register of lands. Land surveys as represented on survey plans make up the foundation of the cadastral fabric of BC.

The land survey system and land title system work in tandem to establish secure ownership of a parcel and ownership of legal interests and

rights to land in BC. Survey plans for titled land are deposited in the land title office and provide the spatial foundation for land title. In the land title system, the ownership of a parcel of land or an interest in a parcel is guaranteed upon registration in the land title register. However, the system does not guarantee the extent of the land contained in the title or the extent of any interest registered against a titled parcel. It is the land surveyor that is charged with accurately defining the geographic extent of parcels of land and interests in land.

Land surveys also define the extent of interests granted by the Crown over provincial land. Survey plans for parcels of Crown land are deposited in the province's Crown land registry and provide the spatial foundation for granting Crown land tenures and other legal interests on Crown land.

## The Surveyor General

The Surveyor General is a statutory officer appointed by the Chief Executive Officer of the Land Title and Survey Authority (LTSA) under section 34 of the Land Title and Survey Authority Act. The Surveyor General oversees the LTSA's Surveyor General Division (SGD), which consists of Deputy Surveyors General and technical and administrative staff. The



Surveyor General is responsible for maintaining the quality and integrity of BC's legal survey system and for providing expert opinion and advice on survey matters to the provincial government, BC land surveyors and the land title office. The SGD plays a key role in maintaining public confidence in the land title system and minimizing the costs of conflict and litigation by ensuring that the actual 'on-the-ground' extent of parcels of land and interests in land are delineated in high-quality land surveys.

In order to carry out the Surveyor General's role, the Surveyor General and Deputy Surveyors General require expertise in a number of areas, including:

- Land survey law, both statute and common law, and in particular case law involving natural boundaries, accretion and riparian rights
- The nine systems of primary survey which have been historically used in the province
- Historical survey records and documents, in particular the interpretation of survey records, historical Crown grants and land title documents such as Absolute Fee Books which pre-date the modern land title register
- Historical and contemporary land survey practices and equipment
- Current and historical government policy and practice on the disposition of land and land tenures
- Cadastral mapping practices used by the province and local governments.

## Provision of Expert Advice

The SGD provides expert advice and guidance to land surveyors, other professionals, land title office staff and government. In some cases, SGD staff will go into the field to inspect natural boundaries and survey evidence in order to better interpret an historical survey.

The interpretation of historical survey records and the application of historical and current statute and case law to determine the location of boundaries can be extremely complex. Because of the nature of its work and its access to and experience with historical records, the SGD is a source of specialized knowledge and experience that is often beyond that of a land surveyor in private practice.

Through these services, the SGD contributes to improving the accuracy and consistency of land surveys and supports the maintenance of the provincial cadastral fabric.

## Maintaining Land Survey Standards

The Surveyor General sits on the Board of Management of the Association of British Columbia Land Surveyors and works to provide executive level guidance to the Association on such matters as entry to the profession and maintenance of the professional standards of its members.

Under section 75 of the Land Surveyor's Act, the Surveyor General approves survey rules that provide direction to land surveyors for all legal surveys and survey plans. The Surveyor General also issues circular letters and policy and practice standards to land surveyors in order to clarify evolving standards and practices.

## Statutory Duties and Powers

The Surveyor General and Deputy Surveyors General have statutory decision-making responsibilities regarding survey or boundary related matters in approximately 38 statutory provisions contained in nine different provincial statutes (see the Appendix for a list of provisions). The Surveyor General also exercises statutory decision-making responsibilities delegated by the minister responsible for the Land Act and Land Title Act. In exercising this authority, the Surveyor General ensures that the public interest is served and that boundaries are properly identified and delineated. Examples of these statutory decisions include the adjudication of applications related to:

- Accretions and natural boundary adjustments under section 94 of the Land Title Act
- Deferred posting of new parcels created by subdivision plans under section 69 of the Land Title Act
- Designating a person who may hold a covenant or statutory right of way under sections 218 and 219 of the Land Title Act (under delegated authority from the minister)
- Determining whether a body of water or road was included in a Crown grant or whether it is in the public interest for government to retain a body of water or road shown in a Crown grant under section 58 of the Land Act (under delegated authority from the minister)
- The manner in which portions of land granted to the Esquimalt and Nanaimo Railway Company are surveyed under section 70 of the Land Title Act

- Establishing public road on Crown land to allow access to private land under section 80 of the Land Act.

The SGD processes an approximate average of 325 statutory applications annually.

The Surveyor General is responsible for maintaining the provincial Integrated Survey Area program.

## Surveys of Crown Land

The SGD provides the legal description for all new parcels of Crown land.

As part of its quality verification responsibilities, the SGD reviews all survey plans over Crown land. This includes plans of new parcels of land, highways and roads, mineral leases, oil and gas well-sites, and pipeline and utility corridors. This review ensures that initial surveys of Crown land are conducted correctly and that re-surveys of existing parcels are conducted in accordance with appropriate survey standards and techniques. It also ensures that the plan resulting from a survey is prepared according to established standards for survey plans.

The SGD reviews an approximate average of 1900 Crown land survey plans annually.

The SGD assists the provincial government by maintaining survey and parcel records in the government's Tantalus database, the electronic representation of the Crown land registry, and working with government to correct historical inaccuracies in the Crown land registry to improve the overall cadastral fabric.

## Crown Grants

The provincial government conveys land owned by the Crown to individuals and companies using an

instrument called a Crown grant. A Crown grant is deposited into the land title register which results in the first certificate of title to a parcel of land being registered. The SGD prepares all Crown grants at the direction of the province.

The SGD prepares and issues an approximate average of 100 Crown grants each year. The number of Crown grants issued was much higher when the LTSA was created in 2005. Since then, the number has decreased as a result of policy related to First Nations consultation and other operational changes within government.

## Maintenance and Provision of Historical Land Survey Information

The SGD has responsibility to maintain the official survey plans for all parcels surveyed out of Crown land, copies of all Crown grants and historical field books containing the field notes compiled by land surveyors as they conducted surveys of Crown land. This material is retained in a climate controlled, fire protected vault.

The SGD provides both access to these records and research services. Land surveyors and those working in land and resource industries often need access to these historical records to obtain cadastral information required to define boundaries and complete surveys.

On average, the SGD processes 700 information requests each year.

## Support for Provincial Government Operations

The SGD acts as the provincial government's land surveyor by providing professional advice

and technical support to various government ministries. This advice and support includes:

- Survey-related advice and technical support regarding grants of Crown land and tenures
- Advice and support for the implementation of First Nation treaty settlements
- Policy advice on provincial legislation related to survey matters
- Expert opinion and evidence to support the province in litigation.

The SGD provides a significant amount of advice and support related to the management of Crown land. This includes advice on survey requirements and methodology for the disposition of Crown land and resolving issues regarding boundaries between Crown and private land, particularly the location of natural boundaries. The SGD regularly provides support to the following ministries:

- Forests, Lands, Natural Resource Operations & Rural Development
- Transportation and Infrastructure
- Attorney General
- Energy, Mines & Petroleum Resources
- Environment & Climate Change Strategy
- Indigenous Relations & Reconciliation.

The resources provided to support the Ministry of Indigenous Relations & Reconciliation in the implementation of First Nation treaty settlements is considerable and include:



- Advising on survey requirements and standards
- Creating survey instructions for surveys of treaty settlement parcels
- Advising on the selection and management of contract land surveyors
- Providing a technical review of survey-related language in treaties and related side agreements

- Reviewing all completed survey plans of treaty settlement lands and certifying approved plans.

As Boundary Commissioner, the Surveyor General represents the province on the inter-governmental AB-BC Boundary Commission (BC, Alberta, and federal government) to address Alberta-BC boundary issues. This includes providing explicit direction to land surveyors for the re-survey of portions of the boundary

and working with the provincial government to create Orders-in-Council required for boundary survey confirmation.

The Surveyor General sits on the Canadian Council on Geomatics (CCOG), a major federal-provincial-territorial consultative body for geographic information management relevant to geomatics and takes a leading role on the CCOG Cadastral Committee.

## Appendix

Statutory-decision making responsibilities of the Surveyor General

The Surveyor General has statutory decision-making responsibilities or has been delegated decision-making responsibilities by the minister responsible in the following statutes.

### 1. Land Act

- Section 7
- Section 49
- Section 41
- Section 52
- Section 53
- Section 69
- Section 73
- Section 75
- Sections 77 and 77.1
- Section 78
- Section 79
- Section 80

- Section 81
- Section 82
- Section 83
- Section 84
- Section 86 and 87
- Section 88
- Section 93.901
- Section 93.92
- Section 93.93
- Section 93.94
- Section 93.95 and 93.96
- Section 103

### 2. Land Title Act

- Section 59
- Section 69
- Section 70
- Section 84
- Section 94
- Section 118
- Section 323
- Section 363
- Section 373.73
- Schedule 1, sections 25 & 26

### 3. Land Survey Act

- Section 12
- Section 14.1

### 4. Land Surveyors Act

- Section 75

### 5. Maa-nulth First Nations Final Agreement Act

- Schedule, chapter 2, section 2.5.1

### 6. Mineral Tenure Act

- Sections 42 and 44

### 7. Ministry of Forests and Range Act

- Section 5

### 8. Nisga'a Final Agreement Act

- Chapter 3, section 87

### 9. Protected Areas of British Columbia Act

- Section 3 ❖



Delegate Reports

## Association of Manitoba Land Surveyors

*By Brian Brown  
BCLS, President*

**T**he Association of Manitoba Land Surveyors held their 137th Annual General Meeting at the Hilton Winnipeg Airport Suites September 13 – 15, 2017, with the Presidents' Forum being held on September 13, Wednesday morning, followed by a short tour of the historic site "The Forks" and bus tour of the city of Winnipeg. Thursday September 14, they held a day of Professional Development along with their annual luncheon. On Friday September 15, the business meeting was held.

At the Presidents' Forum we had Mike Fretwell, President, Alberta Land Surveyors Association (ALSA), Lee Anderson, President, Saskatchewan Land Surveyors Association (SLSA), Gary Fraser, President, and Kelly Mantik, Vice President, Association of Manitoba Land Surveyors (AMLS), Russ Hogan, President, Association of Ontario Land Surveyors (AOLS), Dave Parkhill, President, Association of New Brunswick Land Surveyors (ANBLS), Kevin Brown, President, Association of Nova Scotia Land Surveyors (ANSLS), Dominique Fecteau, representing the Association of Canada Land Surveyors (ACLS), Wilson Phillips, Chair of Professional Surveyors Canada (PSC) Board of Directors, and Chuck Rebsch, President, North Dakota Society of Professional Land Surveyors (NDSPLS).

There was discussion on the Impact of cadastral mapping on the profession – Gary Fraser (AMLS) reported that this issue originally came from Manitoba as Manitoba was trying to revive the cadastral mapping program. The program was done by the Department of Conservation, but this department no longer has the staff available to continue. Gary Fraser previously requested information from the other provinces that have a digital mapping program and will circulate the responses he has received to date from other provinces. He also asked that presidents that have not sent in their responses to please do so. Manitoba is one of the last provinces to have access to a digital mapping program so it would be beneficial for them to hear from others, so when they sit down with their government they are well prepared. Mike Fretwell (ALSA) said it's worked out very well and there are some very good products out there. Presidents are concerned about an industry push away from new field surveys toward use of existing cadastral mapping information as the basis for defining new land interests. The concern is that the public could be put at risk if this information is used in a manner beyond its intended purpose. Unfortunately, there has been no consultation with land surveyors about how this might affect the public. Lee Anderson (SLSA) reported that Saskatchewan is moving toward the

focus that plans do not have to be prepared by a land surveyor. They are using the cadastral fabric for sketch plans that they can use for their initial applications. There was discussion by all presidents on the impact of this on their provinces. They also discussed what format is being used for digital plans – PDF or vector. PDF is required at this time but could be submitted in the SHAPE format in the future. Mike Fretwell stressed that it is very important that land surveyors are involved in these developments. Chuck Rebsch (NDSPLS) reported that North Dakota has the same issues. North Dakota asked the Attorney General's opinion, and it was decided that everything needs to be signed by a land surveyor. Gary Fraser reported that the Manitoba government wants this information at no cost to government. Kevin Brown (ANSLS) has just received an email and government wants to charge land surveyors for submitting PDF copies. Alberta, Quebec and North Dakota land surveyors are charged for submitting cadastral files.

We also had discussions about CIG withdrawing from FIG and whether PSC should join FIG with funding from all the surveying associations, this discussion was tabled until the Nova Scotia President's Forum.



# Association of Nova Scotia Land Surveyors

By Brian Brown  
BCLS, President

**T**he Association of Nova Scotia Land Surveyors held their 67th Annual General Meeting at Fox Harb'r Resort & Spa, Wallace, Nova Scotia October 12 – 14, 2017. Fox Harb'r Resort is a beautiful location on the Nova Scotia north shore. Kevin Brown, President of the ANSLs, welcomed all the delegates with a dinner Wednesday October 11, with the Presidents' Forum being held on Thursday October 12. Friday October 13, was their Annual General Meeting Business Meeting and they held their day of Professional Development on Saturday October 14.

At the Presidents' Forum we had, starting from the west after me, Bruce Clark, Vice President, Alberta Land Surveyors Association (ALSA); Lee Anderson, President, Saskatchewan Land Surveyors Association (SLSA); Gary Fraser, President, Association of Manitoba Land Surveyors (AMLS); Russ Hogan, President, Association of Ontario Land Surveyors (AOLS); Dave Parkhill, President, Association of New Brunswick Land Surveyors (ANBLS); Kevin Brown, President, Ken Cormier, Vice President and Fred Hutchinson, Secretary/Treasurer, Association of Nova Scotia Land Surveyors (ANSLs); Derek French, Past President, Association of Prince Edward Island Land Surveyors (APEILS); Tania Bigstone, President, Association of Canada Land Surveyors (ACLS); and Wilson Phillips, Chair of Professional Surveyors Canada (PSC) Board of Directors.

There was continuing discussion from the Manitoba president's forum on membership in FIG, with such questions as; what are the benefits to the average cadastral land surveyor, if any; who should join, etc.? PSC will look into the matter further but at this time PSC is focused on their tasks at hand. In general, it seems to be a daunting task for a relatively small profession with no support from government. We are at this stage because CIG lost their government funding for their membership to FIG. A possible solution is for land surveyors to fund CIG and give direction on how to better represent land surveyors in the international arena. We also heard that the title P. Surv is used in Saskatchewan for non-cadastral surveyors, but they are members of the SLSA.

We also had discussion on discipline cases and unauthorized practice by non-land surveyors. Manitoba found that one problem they were encountering is when a report of unauthorized practice came in, it was often lacking enough information or facts, and so they are developing an Unauthorized Practice Submission Form. There was also discussion on the success of labour mobility for land surveyors under AIT (Agreement on Internal trade). Two unanswered questions were: "Is the examination of candidates consistent from province to province? Is the training sufficient or are there discipline issues arising from AIT candidates practicing in areas that they are unfamiliar

with?" Notable, in Ontario they have experience requirements in order to obtain a licence to practice as a sole practitioner. The ACLS is pursuing online exams for AIT candidates as well as looking into moving to three separate exams. It seems the Labour Mobility Coordinating group should be meeting to discuss these issues.

In the business meeting, there were few committee reports printed for the meeting. Nova Scotia welcomed seven new members. Their membership now totals 146 with 27 candidates working towards obtaining membership in the works, making their membership sustainable. It was interesting that it is the membership pushing the government to accept digital plan submissions. The association is currently proposing PDF as the platform of choice. The stumbling block seems to be the province's ability to provide a secure platform to input the data.

The Association hands out presidential awards for service. John McGinnis received an award for 40 years service on the Board of Examiners. Moving forward there are a number of free AutoCAD-like programs for individuals who are still drafting by hand. The association has been a leader in integrated surveys and has developed a NAD 83 manual. Nova Scotia has developed a three-year strategic plan that they post on their website. Their council meets four times a year.

The Professional Development was held on Saturday. James Boxall, FRGS, FRCGS, Governor and Fellow, Royal Canadian Geographical Society is a geography professor from Dalhousie who teaches Geography and Marine Affairs. He gave a very interesting and humorous presentation on GIS and how it affects our lives and how it will continue to affect our lives.

Dr. David Scott (Scotty), a different name for an Irish man, is a sports Psychologist from the University of New Brunswick. Dr. Scott received his Ph.D. in Sport and Exercise Psychology at the University of Victoria. He has been a consultant with a large number of teams and organizations including the Vancouver Canucks, the Philadelphia Flyers, and the Florida Panthers of the National Hockey League. He is currently a consultant with the Montreal Canadiens of the NHL, the St. John's IceCaps of the American Hockey League, and the Saint John Sea Dogs of the QMJHL. He is a very interesting speaker who pulls from his vast experience to make his point. No Bad Days: If you focus on what you can't do, chances are you won't be able to do whatever it is or focus on the bad day you are having and you will continue to have a bad day. (The Power of Suggestion.) Dr. Scott told the audience not to think about an apple – an impossible task when presented with the thought. He then went on to tell a story about the Canadian National gymnastic team who in a competition, were told not to fall. You can guess the result! This is one of many anecdotes directed toward the path of success. As you might expect from an Irish man, his presentation was done with a great deal of humour.

George Schlagintweit, CLS, Manager of the Operations Division of the Canadian Hydrographic Service gave

a talk on the discovery of the two ships of the Franklin Expedition, the HMS Erebus and HMS Terror. HMS Erebus was located in 2014 and HMS Terror was located in 2016. The use of state-of-the-art technology, Inuit knowledge and oral testimony made these historic discoveries possible. Mr. Schlagintweit also had a high precision 3D printed model of the HMS Erebus in its current state and location. The models of the HMS Erebus were created using multibeam sonar data that was collected by FOC's Canadian Hydrographic Service. Bathymetric measurements were processed in seafloor mapping software that was created by New Brunswick-based CARIS and the 3D printed models were created by Calgary-based TECTERRA. He spoke of some of the difficulties of using sonar that is normally only looking for the high spots or shallow points to get the fine detail needed for the modelling. He gave a brief overview of some of the logistics difficulties that are faced when mounting an arctic expedition such as this.

Our final speaker for the day was Kevin Toth. Kevin has B.C. connections as well – he was General Manager of The Fairmont Chateau Whistler until 2004, and he was President and Managing Partner for Rockwater Secret Cove Resort on the Sunshine Coast. Kevin gave a brief presentation on Fox Harb'r – truly a 5-star resort created by Ron Joyce, co-founder of Tim Hortons. It made me think about the benefits and drawbacks of holding an event at a luxury resort. Drawbacks: the cost, without a doubt expensive to go there and expensive to be there. Benefits: you have a captive audience generating continual and fruitful discussion. You have a showcase for the Province and a showcase for the profession. However, "Surveyors Meet in Fox Harb'r to

discuss the future of the profession" somehow doesn't have the ring to it to make it to the news. Maybe our new marketing strategy will set us on a new path.

I also want to thank Kevin and Denise Brown for their terrific hospitality, and I offer my congratulations to Ken Cormier on becoming the new President for the Association of Nova Scotia Land Surveyors. ❖

## 40 YEAR PIN



Kelly Stofer with 40 Year recipient Michael McIlvaney, BCLS

## 25 YEAR PIN



Kelly Stofer with 25 Year recipient Eugene Wong, BCLS



# The Association of British Columbia Land Surveyors and the BCLS Foundation are proud supporters of students studying Geomatics in Canada



Bill Chapman presenting Blaine Thompson (on right) the Ray Chapman Memorial Award.

## BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

### BC Land Surveyors Foundation Bursary: \$2,500

The BC Land Surveyors Foundation Bursary is awarded to a student registered in the Geomatics Engineering Technology program who demonstrates financial need.

### BC Land Surveyors Foundation Kenneth K. Wong Memorial Land Surveying Scholarship: \$2,500

This scholarship established in 2015 will be awarded in recognition of

academic achievement to a student in the Geomatics Technology Program at BCIT who is enrolled in the second year Field Surveying option. Preference will be given to a student who has an interest in cadastral studies.

### BC Land Surveyors Foundation Gerry Andrews Memorial Award: \$2,500

This endowment was established in 1996 and the annual interest provides an award for a student enrolled in the second year of the Geomatics program, based on his/her achievement in first year.

### BC Land Surveyors Foundation Ray Chapman Memorial Award: \$2,500

This endowment was established in 2007 and the annual interest funds a First Year Achievement Award for a student in the BCIT Geomatics Bachelor of Technology degree program.

### BC Land Surveyors Foundation W.N. Papove Sr. Memorial Award: \$2,500

This endowment was established in 2007 and the annual interest funds a First Year Achievement Award for a student registered in the BCIT Geomatics Engineering Technology diploma program.

### BC Land Surveyors Foundation G.M. Thomson Citizenship Award: \$2,500

This endowment was established in 2013 and is awarded to a student in the Geomatics program. The citizenship criteria mirrors Gordon Thomson's greatest personal attributes – providing leadership, contributing freely to others, and exceeding reasonable expectations.



Mike Thomson presenting Jason Sylvester (on left) the G.M. Thomson Citizenship Award





Mike Thomson presenting Wesley Brown (on left) the BC Land Surveyors Vancouver Island Regional Group and Association of BC Land Surveyors Award.



Mike Thomson presenting Suryapreet Brar (on left) the W.N. Papove Sr. Memorial Award.

## UNIVERSITY OF CALGARY

### BC Land Surveyors Foundation H.R. Goldfinch Memorial Award: \$2,500

In 1997, the BCLS Foundation entered into an agreement with the Victoria Foundation to establish a fund for the H.R. Goldfinch Memorial Award. This is awarded annually to a student entering his/her fourth year of Geomatics Engineering. Preference is given to students who completed their secondary schooling in BC.

### BC Land Surveyors Foundation Kenneth K. Wong Memorial Land Surveying Scholarship: \$2,500

This scholarship established in 2015 is awarded in recognition of academic achievement to a student enrolled in the undergraduate Geomatics Engineering Program at the University of Calgary, with a major in GIS and Land Tenure. Preference will be given to a student who has an interest in cadastral studies.

Steve Wong presenting Xiaoliang Song (on left) with the Kenneth K. Wong Memorial Land Surveying Scholarship.

## UNIVERSITY OF NEW BRUNSWICK

### BC Land Surveyors Foundation UNB Scholarship: \$2,375

This scholarship established in 2007 will be awarded annually to a Fredericton campus student who has completed at least the minimum

requirements for the first year of the Bachelor of Science in Engineering (Geodesy and Geomatics) degree program. Preference will be given to students from British Columbia or students who are registered students of the Association of BC Land Surveyors. Selection will be based on academic achievement. ❖







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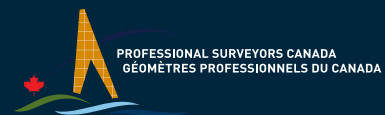
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# Hiking in Cathedral Lakes Park

Robert Allen BCLS (Life Member) CLS (Retired)



On our way to Glacier Lake and beyond

In the April 2017 issue of *The Link* I wrote about the Sunshine Coast hiking groups I belong to and some of the hikes we have been on. From July 17 to July 20, 2017, eight of us from our hiking group spent three days hiking in Cathedral Lakes Park, south west of Keremeos. We drove to Keremeos on July 16th and spent the night in a motel. The next morning we drove about 4.5 km to the west end of Keremeos and then over the 'covered

bridge' and up the Ashnola River Road about 15 km to the parking area and entrance to the Park. Private vehicles are not allowed in the Park or at the Lodge. However, there is a secured parking area just off the Ashnola River Road and the Lodge provides 4x4 vehicles to transport people up and down the narrow dirt road.

We arrived about noon and got settled into our cabin; three men

and five women. In the afternoon, we decided to do a short hike to get acclimatized and while at 10 km, it might have been short, there was a lot of up and down and a few difficult spots where we had to cross some scree slopes. We had planned our trip to coincide with the wild flower season and we weren't disappointed. We saw and identified more than 40 different flowers and flowering shrubs and we had mule deer, marmots,







Left: Our hiking group  
Centre: Looking down on  
Glacier Lake  
Bottom: The survey post  
at the south west corner.

squirrels, and chipmunks and one mountain goat wandering around right near our cabin. I also spotted 22 different types of birds including a greater yellowlegs that wasn't yet on the published Park list.

The lodge and cabins are at about 2100 metres in elevation and close to the tree line and more than half of our hiking was at the tree line or above so the views were spectacular. While we stayed in a cabin, we had the option of eating in the Lodge or taking our own food. For the most part, we ate in the Lodge although we took food for most of our lunches. The meals, the accommodation, and the staff were all excellent.

On one of our hikes we passed a survey post and it quickly caught my eye and near the Lodge I found a

survey hub with the name "Runnalls Denby" on it. When I got home, I contacted Neil Denby and he sent me a copy of the original field notes plus a site plan that he had prepared. The original survey of DL 3235 SDYD, was done in September 1944 by Robert Percy Brown, BCLS #160, and we had found the south west corner right by Quiniscoe Lake.


We spent three days wandering around the various trails and lounging around our cabin in the evenings. The scenery, the wildlife, the wild flowers, and the company made for a great trip. Anyone wishing a wilderness experience so close to civilization should consider the Cathedral Lakes Resort. Check out their website at:

<http://cathedrallakes.ca/> ❖





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# First Anniversary of Surveyor General Division's Scan on Demand Service

By: Katie Hannah, BCLS

*Deputy Survey General Land Title and Survey Authority of British Columbia*

**N**ovember 2017 marked the first anniversary of the Surveyor General Division's Scan on Demand service.

The first order was made by Gina Hidber on November 21, 2016 for the scan of field book 4437/1913 PH 059, for DL 5326 Range 5 Coast. Since that first order, Calvin Woelke and Tracy Nguyen, the keepers of the Surveyor General's Vault, have responded to over 350 Scan on Demand orders delivering in total nearly 640 documents, primarily Official Plans and copies of field books. There are three main reasons why requests can't be fulfilled: the plans are already

viewable on GATOR, our vault doesn't contain the document requested, or the request was for a Land Title Vault document.

Documents can be obtained in both PDF and TIFF formats. The system can deliver documents having a file size of up to 100 MB (that is per item, not per order), although it is limited by upload speed and a built-in timeout, to approximately 25 MB. We haven't put the 100 MB limit to the test, and we don't plan on doing so anytime soon!

There are a few Order Desk requests that come in each month (that is, requests for artifacts from the

Surveyor General Vault made outside of Scan on Demand). These are largely requests by search agents working in the vault and users without myLTSA accounts.

Calvin and Tracy are very knowledgeable about the contents of the Surveyor General Vault and excel at (and enjoy) finding obscure old documents. If an artifact exists in the vault these two will find it. The team at the Surveyor General Division Record Distribution Services would like to thank the land surveyors for participating in this great service. Don't hesitate to send in a request! ❖

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## OIP Group Luncheon

Wayne Griffith, BCLS (ret) CLS (ret)

**T**he OIP Group met on Monday, September 11 at the ABC Country Restaurant in Surrey. There was a smaller turnout this time with 14 surveyors present. They were Bill Chapman, Chris James, Clare Hobbs, Dai Yates, Dave Dyck, Dave Liddle, Dick Mak, George Robertson, John Nash, Martin Schulze, Ralph Turner, Robert Allen, Stan Nickel, and Wayne Griffith.

The only order of business was to introduce Dave Dyck, BCLS 543 as the newest member to the OIP Group. Dave was commissioned in 1976 and is now fully retired after selling his practice in March of 2016. To prepare himself for retirement Dave headed to

the Maritimes and spent July through September discovering eastern Canada. Although Dave pulled his fifth wheel he enjoyed many bed and breakfast stays especially in Newfoundland. Dave is now settled in South Langley and we hope to see him as a regular at future luncheons.

Once our business was completed we got down to renewing old acquaintances, inquiring about old friends, reminiscing about days gone by and telling jokes. There was no shortage of laughter and the two hour lunch period passed quite quickly.

Our next meeting is tentatively slated for January 8, 2018. The OIP Group



Left: Dave Liddle, Dave Dyck, Chris James

will meet at the Creekside Grill at the Eagle Quest Golf Club in Surrey for a change of venue. Dick Mak recommended this new location and we look forward to a good turnout at the next luncheon.

New members are always welcome at the luncheon and you can contact Wayne Griffith at [wmgriffith@shaw.ca](mailto:wmgriffith@shaw.ca) if you would like to get on the group email list. ❖



## 113th Annual General Meeting and Continuing Professional Development Days

On behalf of President Brian Brown, we would like to invite you to attend the ABCLS Continuing Professional Development Days (March 14 and 15) and the 113th AGM (March 15 and 16) at the Whistler Convention Centre. This is your opportunity to attend some really great CPD events, be informed, and participate in decision making at the annual general meeting and join with others in celebrating the accomplishments of land surveyors and students in the past year.



## Partner Events



Audain Art Museum



Peak to Peak Gondola

Some of the Partner Programs available during the ABCLS AGM/CPD Days include the Peak to Peak Gondola, The Scandinave Spa, the Squamish Lilwat Cultural Centre and the Audain Art Museum.



The Scandinave Spa



Squamish Lilwat Cultural Centre

## Continuing Professional Development Days

**March 15 and 16, 2018**

The CPD Committee is hard at work planning seminars/presentations which will include the keynote address delivered by Bill Hazelton, a writer, consultant and business owner with extensive experience in the geomatics

field. Other seminar topics include Natural boundaries, Data Security & Virtual Offices, Rules for Surveys & Plans, Managing Reactions in Difficult Conversations, Drone Technology, Professional Land Surveying Business and a session for Students.

*Registration information will be forwarded by email early in 2018 and will also be posted on our website: [abcls.ca](http://abcls.ca)*

**These seminars are designed for the benefit of all ABLS members, including LST's, LSA's, Survey Students, Partners/Spouses.**



### **The Future of Surveying**

Wednesday - 8:00am to 9:00am

**Bill Hazelton**

The surveying profession finds itself in a time of rapid and uncertain change. Demand for some skills in working with spatial information is growing, but more efficient technology is causing employment to shrink in traditional areas. It is reasonable to say we are in the middle of a genuine revolution in surveying, where we see major changes in technology, techniques and mindset. This revolution is actually the fourth such revolution in surveying's history. What can the past revolutions tell us about the current one? Where will the remainder of the current revolution take us? How can we prepare for the changes ahead? This talk will explore these questions.

Presenter: **Bill Hazelton** is a writer, consultant and business owner with extensive experience in the geomatics field. He has worked in the public, private and academic sectors on three continents over almost 40 years.

As a surveyor in Australia he worked on construction, geodetic, cadastral, topographic and control surveys. As a glaciologist in Antarctica, he collected extensive measurement data during almost 6,000 km of oversnow traverses. As a consultant he undertook and analyzed extensive deformation and forensic surveys. He has also worked in the GIS area.

He has taught at a number of higher-educational institutions, including: the University of Melbourne, The Ohio State University, St. Cloud State University, the University of Alaska Anchorage, and Columbus State Community College. As an ABET program evaluator, he has visited several other programs during accreditation visits.

Dr. Hazelton has been a licensed surveyor since 1985, taught over 70 different courses, developed 60 different courses, and has published over 100 articles, books, chapters, and papers. He is past-president of the Surveying and Geomatics Educators Society (SaGES) and was a Director and Executive Committee member of the American Society for Photogrammetry and Remote Sensing (ASPRS).



## Natural Boundaries

Wednesday – 9:00am to 12:00pm

**Dr. Brian Ballantyne**

This session will examine the application of water boundary principles to First Nation Reserves in BC by discussing seven BC cases:

- Access to and along watercourses: Four BC cases.
- Right to protect a riparian parcel from erosion: BC case.
- Intra fauces terrae (boundary between BC and Canada in bays): Two BC cases.
- Island's effect on ad medium filum presumption (in light of Rotter, Miller and Lawrence decisions).
- Case studies (sloughs, gulches, subsidence).

The seminar has three learning outcomes:

- Know (and know how to apply) boundary principles.
- Interpret the nuances of parcel descriptions.
- Interact in problem-based discussion.

This half day seminar will feature an in-person learning experience in a seminar format with references and a copy of the slide presentation made available for attendees.

Presenter: **Dr. Brian Ballantyne** is a surveyor/lawyer who focuses on land tenure reform and boundaries. He works with the Surveyor General Branch of NRCan; and worked with Challenger Geomatics, City of Calgary, University of Calgary, University of Otago, Grand River Conservation Authority and City of Burlington. He has advised on litigation/mediation issues; has worked in New Zealand, Brazil and Russia; and publishes/presents widely.

## Student Session (Students Only)

Wednesday – 1:00pm to 2:30pm

**Peter Goodier** BCLS

**Katie Hannah** BCLS

**Gina Hidber** BCLS

**Pat Korabek** BCLS

In this student only session, participants will be split up into small groups (5-7 per group), and be led through discussion and exercises by each BCLS on a particular topic. This format will result in four sessions of 20 minutes each- which will allow for close discussion between each BCLS and the students, and the students will be able to bring questions with them.

Topics to be covered by the BCLS's are:

- Mineral Tenure Act/rural surveys,



## Student Session Con't

- Strata Property Act/urban surveys,
- Oil & Gas / Surveyor General Division plans, and
- The hierarchy of evidence in boundary resolution.



## Data Security & Virtual Offices

Wednesday – 1:00pm to 2:30pm

**Ali Juma & Jeremy Park**

The presentation on Data Security will primarily focus on Best Practices in IT. The topics covered will include email security, protecting against viruses, malware and ransomware, system backups and cloud computing.

Presenter: **Ali Juma** started working as a professional computer technician on Point-of-Sales systems with AM/PM Service Ltd. By the time he left 9 years later, he had evolved into a Sales Account Manager. This led to sales work for many years as the BC representative for printer manufacturer Brother International. With these 15 years of experience, Ali joined intelliNet at the beginning of 2004 in the capacity of Sales & Marketing Manager.

With his skills and experience, Ali designs programs to allow IT Solution Providers and Software Companies to use intelliNet resources to deploy their systems throughout all parts of Canada and provide them with on-site service coverage as well. Ali also designs IT Solutions for direct corporate accounts including the Network Topology, hardware, software and the infrastructure capacities required, resulting in a specified Statement of Work.

In his capacity of Sales Manager, Ali recruits and manages Business Development and Account Manager sales staff. Ali is involved in the selection of intelliNet product and service offerings as well as he leads the various marketing endeavors to build intelliNet's strategic business relationships.

Mr. Juma obtained his Engineering Diploma in Micro Electronic Technology from the British Columbia Institute of Technology (BCIT).

### The Story of a Virtual Company

In 2009, during one of the worst economic downturns in the world's history, Alberta's oil and gas companies were putting tremendous pressure on the entire energy service sector, especially the geomatics industry, to lower costs. Amidst the economic chaos emerged CORE Geomatics, a group of young entrepreneur surveyors that wanted to do things differently. This presentation is the story of an unconventional company, a team that has no brick-and-mortar office, but utilizes a fully virtual and distributed operation. In the age of the new millennial employee where mobile apps and cloud technologies are as familiar as using pen and paper, technologies have allowed us to think beyond the traditional business model. I will be discussing the evolution of CORE Geomatics from conception to implementation, the challenges we faced being virtual, as well as the many benefits that such a business model can have. Emphasis will be placed on cultural



adoption, as well as some practical tips to help those that are either starting a new business, or willing to take a step to revamp their own business models.

Presenter: **Jeremy Park**, P.Eng, BCLS, ALS, SLS was born in San Luis Obispo, California, and was raised in beautiful Calgary, Alberta. He graduated with a Geomatics Engineering degree at the University of Calgary, and went on to receive his commissions as an Alberta, British Columbia and Saskatchewan Land Surveyor. He recently went back to school to complete a Masters of Business and Administration at the University of Calgary. Jeremy co-founded CORE Geomatics in 2009, and has led the company through 2 economic recessions to now over 60 employees. Jeremy's passion in new technology and cool gadgets had a meaningful impact on developing CORE's unique business model, in an effort to bridge the gap between the tech and geomatics sectors. Jeremy is recently married and is heavily involved in his church, helping to build future leaders within the community.

**Jeremy Park** P.Eng, BCLS, ALS, SLS



This presentation will be an opportunity to review and discuss the revisions to the rules for surveys and plans. The project began in January 2017 and will culminate in a final draft of the revised rules. The revisions follow the guidelines for making the rules more results based and less prescriptive with less reference to the utilization of specific technologies. The language used in the rules has been modernized. Parts with significant changes will be highlighted and depending on the scope of the project, we may be able to utilize the database exploring the different ways to retrieve and view the rules online. This will be an opportunity for members to provide comments and input to the final version of the rules before they are adopted by the Board and forwarded to the Surveyor General for acceptance under the Land Surveyors Act.

Presenter: **Chuck Salmon** is a BC land surveyor, commissioned in 1976 and elected to Life Membership in the Association in 2012. He worked for 35 years with the Province of BC serving as BC's Surveyor General from 1996 to 2002. On retirement from the public service, Chuck was appointed Secretary of the Association of BC Land Surveyors by the Board of Management and served in that capacity from 2002 to 2016. He has worked in the land surveying profession for 52 years. In retirement he continues to have an active interest in the land surveying profession.

## **Rules for Surveys & Plans (Formerly the General Survey Instruction Rules)**

Wednesday –3:30pm to 5:00pm

**Chuck Salmon**



### 3 Secrets for Managing Reactions in Difficult Conversations

Thursday – 2:00pm to 3:30pm

**Diane Ross**

We all need to have difficult conversations from giving constructive feedback, to delivering bad news, to saying no. The bad news? They are unavoidable in business and in life. The good news? While you can't avoid these conversations, you CAN learn how to stay calm in how you react and handle yourself in a way that gives you power to influence the conversation.

Mastering the art of difficult conversations is of critical importance for every leader who wants to enhance communication with their teams, increase productivity and reduce the stress associated with delivering difficult news.

In this action-packed session, you will learn:

- The #1 myth you believe that's making your difficult conversations more challenging than necessary!
- Preparation strategies that are simple to master, easy to implement, and set you up for success
- 3 crucial tools to reduce even the strongest reactions
- Insider secrets to keep yourself calm and your own reactions in check
- Easy success tips for handling reactions with courage, poise and power so you can stay focused and keep the conversation productive

Stop struggling with reactions and implement a results-oriented approach that will transform the way you handle conflict. This is a system. You can learn how to do it.

Presenter: **Diane A. Ross** is a fearless conversation mentor who teaches people around the world how to tackle difficult conversations with confidence, poise, and power. A former litigation lawyer turned author and professional speaker; Diane brings a fun and accessible approach to tackling the conversations we're most afraid to have. She is a Certified Executive Coach and trained in Advanced Negotiation and Mediation at Harvard Law School.

### Drone Technology

Thursday – 4:00pm to 5:30pm

**Bill Hazelton**

What are the important things you need to know before you start working with UAVs or drones? What can drones do for you, and what can't they do for you? What sensors can you use on a drone, and what support systems will you need to have in place to operate drones as a successful part of your business operations? In this seminar we will discuss the foundational aspects of getting into the drone business, including how you should be thinking about drones and their use.

Presenter: **Bill Hazelton** is a writer, consultant and business owner with extensive experience in the geomatics field. He has worked in the public, private and academic sectors on three continents over almost 40 years.



## Building and Selling a Professional Land Surveying Business

Thursday – 4:00pm to 5:30pm

**Adam Brash** BCLS, CLS, P.Eng

**Neil Bennett** CLS, BCLS

**Mike Waberski** BCLS

**Jay Wronko** CPA, CMA

In this panel presentation, the building and selling of a business by professional land surveyors will be discussed. In particular the following topics will be reviewed:

- Share Structure, planning for succession and for business expansion
- Share Valuation Methods, for business growth and exit strategies
- Buy- sell Agreements, Cultivating Future Shareholders, and how to find the right partners and retain them long term
- Tax Optimization Strategies for both ongoing operations and exit or business sale
- How to perform your Due Diligence effectively before the sale or purchase of a business
- How to ensure an Efficient Transition for a sale or shareholder exit
- Ensuring an Efficient Transition after a sale, success in Integration, Cultural Alignment and use of Resources
- Infrastructure, will you be able to use all of the systems and tools required to be successful.

In this presentation you will hear firsthand experiences of Land Surveyors who have built and sold Land Surveying Practices. In addition, presenters will address the question of “what happens after you sell your company?” and the due diligence pitfalls to avoid in both the selling and purchasing of a Survey Business.

As Land Surveyors, our areas of expertise are boundary law, survey principles and technologies. These are components of not only our education and training but because it is our passion or interest. Business principles for most Land Surveyors is a “learn as you go” process. This seminar will have an emphasis on avoiding pitfalls and will provide “lessons learned” from a variety of panel experiences. The format will see 4 presentations followed by a panel discussion with questions and answers.



## 2018 AGM CPD Schedule

These seminars are designed for the benefit of all ABCLS members, including LSTs, LSAs, Survey Students and Partners/Spouses

Wednesday - March 14, 2018		Thursday - March 15, 2018	
8:00am - 9:00am Seminar 1- Keynote “The Future of Surveying” <b>Speaker: Bill Hazelton</b>		8:30am - 10:00am AGM Business Session	
9:00am - 10:00am Seminar 2 Natural Boundaries <b>Speaker: Dr. Brian Ballantyne</b>			
10:00am - 10:30am - Coffee Break		10:00am - 10:30am - Coffee Break	
10:30am - 12:00pm Seminar 2 (con’t)		10:30am - 11:30am AGM Business Session (con’t)	
12:00pm - 1:00 pm - Lunch		12:00pm - 2:00pm - Commissioning Presentations’ Lunch	
1:00pm-2:30pm Seminar 3 Student Session <b>Speakers: Peter Goodier, Katie Hannah, Gina Hidber, Mark Rossmann &amp; Pat Korabek</b>	1:00pm-2:30pm Seminar 4 Data Security and Virtual Offices <b>Speakers: Ali Juma &amp; Jeremy Park</b>	2:00pm-3:30pm Seminar 6 3 Secrets For Managing Reactions in Difficult Conversations <b>Speaker: Diane Ross</b>	
2:30pm - 3:00pm - Coffee Break		3:30pm - 4:00pm - Coffee Break	
3:00pm - 5:00pm Seminar 5 Rules for Surveys and Plans (General Survey Instruction Rules) <b>Speaker: Chuck Salmon</b>		4:00pm-5:30 pm Seminar 7 Drone Technology <b>Speaker: Bill Hazelton</b>	4:00 pm-5:30pm Seminar 8 Business Practices Committee - Building and Selling a Professional Land Surveying Business <b>Speakers: Jay Wronko, Adam Brash, Neil Bennett &amp; Mike Waberski</b>



Whistler - March 14 to 16, 2018  
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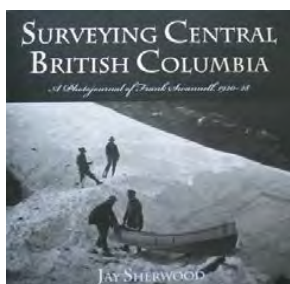


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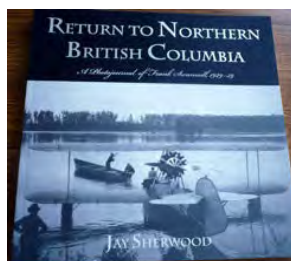
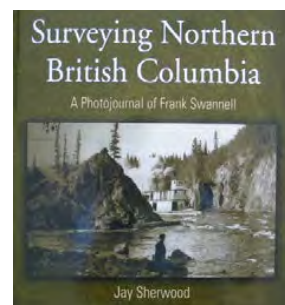
- create and maintain a library that houses historical and current reference material related to the surveying industry in British Columbia; and
- financially assist students who wish to pursue careers in surveying by providing scholarships and bursaries.

The Foundation has a number of books for sale - consider purchasing them for members of your staff, local schools, or libraries. They will make a wonderful gift and at the same time, your contributions will help support the Foundation. The following books are available from the ABCLS office:



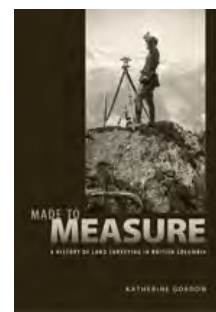
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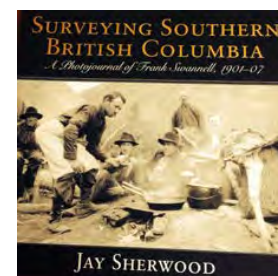
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Surveyor General's Datum

# Land Title and Survey Authority of British Columbia (LTSA) Update

By Mike Thomson,  
*Surveyor General*

**T**his article is based on information shared with those in attendance at the Regional Group Meetings as part of the annual ABCLS Traveling Board trip September 25-29, 2017. Information is updated where available or applicable to October 31, 2017.

## 1. Introduction

It was my pleasure to be part of my 11th traveling Board trip, to provide the ABCLS Membership with an update on activities of the Land Title and Survey Authority and in particular the Surveyor General Division.

I want to thank Cristin Schlossberger for taking the Okanagan-Mainline meeting on my behalf. I apologize to the group for my absence – I was required to be in Vancouver at the UBCM (Union of BC Municipalities) Meeting – making a presentation related to ParcelMap BC.

A couple recent ABCLS disciplinary matters continue to concern me – bother me actually - and I keep thinking about how we can do better. It is hard to summarize the issue into succinct words – in some cases it is as simple as land surveyors appropriately applying their training rather than applying a quick and dirty

mathematical solution. Maybe it is about too many land surveyors trying to survey from inside the office. I am not sure.

In other cases it is the land surveyors simply needing to reflect on if the situation calls for a posting plan or a reference plan, given a certain level of discrepancy in the block or area.

I am reminded that many of us entered the profession because boundary resolution is far more than a mathematical calculation.

Unlike engineering or math, a property retracement survey may not have a clear solution. We may not all agree on a single solution. The “mathematically correct” answer may be based on incomplete information that does not include the evaluation of all evidence. Since every retracement survey has the potential to be reviewed by a court, adopting an approach that uses the same principles a court would apply in determining a boundary location, increases the probability that your work will be found to be legally correct.

I will speak to some general business trends regarding the LTSA; provide some updates on both ParcelMap BC and the LTSA's on-going major

systems upgrade, Project ACE.

As a reminder - ACE stands for Advanced Customer Enhancements – so as suggested the focus is on the ‘user’ and in particular improved user experience and efficiencies for professional, business and government filers. However there are no significant changes imminent – for land surveyors - it is mid-2018 before our legal customers are noticeably impacted and the last few months of 2018 before most land surveyors are directly impacted. As such I will just speak in general terms, and provide greater detail at the 2018 AGM in Whistler.

The LTSA, in particular the land title division, as at the end of October, 2017 remains active, a little busier than predictions, however we have seen a reduction in total business activity, in the land title office, of around 10% year of year. This is a very round estimate, it says activity is steady, neither extremely slow nor extremely busy.

An exception occurred on August 31, 2017 – a day that was the busiest day since July 29, 2016 – that being the last day before the 15% foreign buyers tax kicked in. On August 31, 2017 we saw 8,400 applications, 15,500 searches and \$672,000 in gross revenue.

*The LTSA, in particular the land title division, as at the end of October, 2017 remains active, a little busier than predictions, however we have seen a reduction in total business activity, in the land title office, of around 10% year of year. This is a very round estimate, it says activity is steady, neither extremely slow nor extremely busy.*

In October 2017, 852 total plans were received in the land title office compared to 885 in October, 2016. Through the first 7 months of the fiscal year 5,910 total plans have been filed in the land title office compared to 6,427 through the first 7 months of the 2016/17 fiscal year. This is a drop of 517 or 8% less.

In the Surveyor General Division we have not been as busy as our land title colleagues; business activity in fiscal 2017/18 is well below historic averages, particularly when you look at the number of survey plans over Crown land being submitted for confirmation.

To the end of October, 2017, being the first 7 months of the 2017/18 fiscal year we have received 435 Crown land survey plans, a 292 plan (or 40%) decrease from the 727 in the same 7 months of 2016/17.

We issued 51 Crown grant documents through the same 7 months of the fiscal year, up 11 from the 40 in the same period last year. We also processed 265 statutory applications, 31 above the 234 from the first 7 months of fiscal 2016/17.

At the corporate level we are certainly very pleased that we completed the initial build of the province wide fabric for ParcelMap BC by the end of June, 2017. I will further address ParcelMap BC shortly.

At the LTSA we remain focused on our mission to deliver responsive and trusted expertise and reliable land title and survey systems which are

essential to BC's economic and social foundation.

## 2. Organizational Changes

In the Surveyor General Division, Katie Hannah has been with us just over a year now as a Deputy Surveyor General. I have had the absolute pleasure for a number of years now to watch how Cristin Schlossberger, Dave Swaile and Peter Haas have grown as professionals. While we are – like ParcelMap BC – far from perfect in both quality and timeliness of response I am extremely pleased with how these 4 individuals focus so very clearly on doing their best to deliver quality service to all our clients and to land surveyors in particular.

While they deserve a lot of credit we need to recognize that Jeff Beddoes has been the one who set the table for their success. On August 17, 2017 – we recognized Jeff internally when he reached 25 years of service in the public sector delivery of survey support services to the profession, the province and its people as a Deputy Surveyor General.

The 25 years consists of about 12.5 years when the Surveyor General was within government and the 12.5 years since the LTSA was created.

We note that Bert Hol and O'Brian Blackall continue as the ABCLS nominees on the LTSA Board of Director's. Chad Rintoul is the ABCLS representative to the LTSA Stakeholder Advisory Committee. Chad participated in a September 13,

2017 Stakeholder Advisory Committee meeting. Kelly Stofer represents the ABCLS on the Project ACE Advisory Committee which last met September 18, 2017.

## 3. Highlights and Achievements

Our 2016/2017 annual report, for the period ending March 31, 2017 was published in June, in advance of the LTSA AGM on June 28, 2017. The annual report can be found on the LTSA website at: <https://ltsa.ca/about-ltsa/annual-and-quarterly-reports>

The layout of the report makes it very easy to follow, it is a quick read, and you can follow various links to more detail. I would encourage all land surveyors, as stakeholders in the land title and survey systems of BC to take some time and review the LTSA's Annual Report.

The AGM was preceded on June 27, 2017 by an all-day Strategic Planning Session with the LTSA Board and the LTSA Executive Team. We are working through the Board direction from that session, but note our current focus remains Project ACE and ParcelMap BC adoption.

## 4. ParcelMap BC

As noted earlier, on June 29, 2017 we achieved a significant milestone when we were able to release into publication the final increment, Increment C, representing New Westminster, Burnaby, Vancouver and the UBC Endowment Lands.

At that point the province had its first single, complete, trusted, and sustainable map of all titled and surveyed provincial Crown land parcels.



Now that being said I am the first to admit, and I want to remind all of you, that the ParcelMap BC product is far from perfect. We will address any errors that you bring to our attention as soon as we can – and we really have not started on the critical stage of making improvements to the fabric.

If you come across an error please contact the team with as much detail as you can at [myLTSATechSupport@ltsa.ca](mailto:myLTSATechSupport@ltsa.ca)

The ParcelMap BC Operations team will focus over the next 3-6 months on getting operations tuned-up to meet turnaround targets and to clean-up a number of “housekeeping” activities required to complete the initial build. After that attention will turn to fabric improvements.

- We continue the task of integrating the existing Crown SRW fabric, and the additional scope of adding 17,000 – 18,000 PID's over Crown SRW segments into the ParcelMap BC contiguous fabric. This work will carry-on until the end of the calendar year, and potentially into January 2018.
- We will continue to meet with the Land Surveyors Advisory Task Force (LSATF). We met most recently on September 18, 2017, and will meet again in December 2017 and January 2018. This group will help guide us as we look to the future.
- The LTSA Board has asked that the LTSA become more involved in Province wide adoption of ParcelMap BC. We have kicked off what that might look like. Certainly there will be a focus on local governments and utilities.

- In July, 2017 we introduced access to Miscellaneous Notes and Plan Preview directly into our ParcelMap BC services. The LTSA has received a number of positive comments from land surveyors.
- The PMBC Ops team has spent a fair amount of time chasing missing and defected datasets. During the Board Trip the number outstanding was 550, but as of November 3rd it is down to 357, a significant improvement. We will not be able to meet the desired 2 day turnaround times if we cannot catch-up on missing and defected datasets.
- Brian Greening and I (Mike Thomson) attended the ESRI GIS Conference in San Diego July 9-13, 2017. I participated in an Executive Leadership Forum. Both Brian Greening and I made presentations at the conference, in different sessions.
- On July 12, 2017 Brian Greening and I were please to accept the Esri International Special Achievement in GIS Award for Parcel Fabric. It was a nice ceremony and a real honour for the team to receive the award. While many awards were given out – this was the only one focused on Parcel Fabric for international clients.

We have prepared a document on “Defects in Survey Plan Datasets”- and which is now posted to our website at <https://ltsa.ca/sites/default/files/Common-Survey-Plan-Dataset-Defects.pdf>. The document relates to common defects in datasets and is updated regularly.

The program is designed to have

the ParcelMap BC Fabric Ops Team update the fabric with new registrations within 2 business days of registration. We will not be able to meet this desired turnaround time if we can't solve the delays in submission of and in particular the defects with Survey Plan Datasets.

I wish to acknowledge the support of the Land Surveyors Advisory Task Force. Their input has and will continue to be very valuable.

## 5. Project ACE – Advanced Customer Enhancements

Project ACE, or Advanced Customer Enhancements is the LTSA's next major technology upgrade. We have kicked off the project and are making good progress. Many land surveyors may not see direct impacts, as described below, until late 2018. I will work to try and keep you informed.

Project ACE has three primary objectives:

- replace the ageing Electronic Filing System;
- improve services to stakeholders and customers using modern technology
- develop and implement a “people plan” for the future

The basic electronic filing system (EFS) infrastructure is now 14 years old and in need of replacement and upgrade. Additionally, stakeholder feedback has noted that some of the .PDF forms are too technical and contain non-intuitive requirements.

Project ACE looks to provide benefits to customers. As an example the creation of web forms will allow an applicant to select information,

alegal description, etc. directly from the land title register and should reduce the number of errors that occur from having to ‘copy’ or transcribe information from the land title register.

At present, we have the vision, defined in a detailed Project Charter and we have developed the release schedule and it is here that I want to provide some information for you.

The first place land surveyors will see some change, a minor change, is scheduled for FR16.1 in June, 2018. FR stands for “feature release” and it is how we track what occurs in each release. Real impacts on land surveyors will start late 2018 and really take hold in March 2019.

In June 2018 land surveyors will have an action to take to move their electronic signature onto the LTSA “web” rather than stored locally. I have asked for this to be automated, so that actions are minimized but as the build is still months away I am not sure the result. This is a foundational piece so that when you are completing a transaction in the new service – known as “NxGen Filing” - you will have access to the “authoritative” information in the land title register.

FR16.2 in October 2018 is when simple conveyances, a transfer and mortgage, for example, will be available to the legal community.

FR16.3 in December 2018 will involve submission to the Surveyor General Division. This will impact those members that regularly make

applications to the Surveyor General Division.

FR16.4 in March 2019 is the point where plans will be submitted to the land title office using the NxGen Filing system.

There will be plenty of opportunities to provide land surveyors with more details as we move closer to these releases.

I would like to acknowledge and thank Ken Schuurman, Emily Freeman, Steve Wong and Zuzana Fulkova who generously gave of their time on July 14, 2017 to participate in a focus group conducted in support of Project ACE. We greatly appreciate these folks giving up a portion of their day to support the LTSA in this endeavor and ensure the thoughts of land surveyors are heard.

Project ACE will also ‘set the table,’ so to speak, to allow and support future initiatives around capitalizing on the ParcelMap BC groundwork.

Enhancements, of a significant nature, to ParcelMap BC will follow on the heels of Project ACE.

## 6. Minor Updates Surveying the Great Divide

In early November Jay Sherwood delivered his latest book, ***Surveying the Great Divide: The Alberta/BC Boundary Survey, 1913-1917***

*In 1917, during Canada's 50th anniversary, there was little celebration in the country as it entered the fourth year of World War I. This conflict had*

*a tremendous economic and emotional impact on the various levels of government in the country and on the lives of many people in Canada.*

*In western Canada, despite the turmoil and uncertain outcome of the war, one of the country's major surveying projects continued. In 1913 the Alberta, British Columbia, and Dominion governments began surveying and marking the boundary between the two provinces along the Rocky Mountains. British Columbia's representative, A.O. Wheeler, scaled many of the peaks along the Great Divide and did the phototopographic surveying. R.W. Cautley, the representative for the Alberta and Dominion governments, mapped the boundary through the economically important mountain passes. During the years of 1913-1917, the Boundary Commission surveyors mainly covered the area from Kicking Horse Pass to the United States border.*

Jay has expressed his thanks to the ABCLS and the BC and Canada Surveyors General for their support. In skimming through it, it looks great. I would encourage all land surveyors to consider obtaining a copy. A very informative summary of the great work of those land surveyors that worked on the 1913-1917 surveys.

## CVD28 vs CGVD 2013 or GeoBC and the Move to a New Vertical Datum CGVD2013

As we have discussed for about a year now we are preparing for the move of the vertical datum to CGVD2013 from the current CVD28.

GeoBC presented a plan and a seminar at the 2017 ABCLS AGM with a target for province wide

*In June 2018 land surveyors will have an action to take to move their electronic signature onto the LTSA “web” rather than stored locally.*

implementation set for January 1, 2018. As of November 9, 2017 I am aware that the target date will not be met. Expect further correspondence, but a more likely target date is near the end of August, 2018.

This will also include a complete horizontal adjustment in Metro Vancouver.

### ISA Reclassification Surveys (and other ISA upgrades)

Over the summer we issued an RFP for some work in the Integrated Survey Areas of Elkford,

Granisle and Tumbler Ridge. The intent being to improve the quality of the known coordinates

from their current 'Class D' status. We had an opportunity near the end of August to expand that contract to include work in Mackenzie, and choose to do so.

The field work is done, and the data delivered to the LTSA and GeoBC for review. We hope to have new coordinates published in late-2018. The delay is simply a capacity issue with GeoBC, noting a strong focus on the vertical refresh discussed above.

We are pleased with how the field surveys went. We did determine that more than 50% of the monuments in Elkford have been destroyed – which is concerning, but we did learn a fair amount.

We have proceeded with additional similar work in Powell River, Cranbrook and Vernon.

In October we issued Circular Letters for small upgrades to a few Integrated Survey Areas, including Nanaimo, North Cowichan, and Duncan.

We note that there is work underway related to some new monuments in Surrey and Langford, again mid-2018 is the anticipated timing of bringing these new monuments on line.

I also note the Metro Vancouver committee that looks after the Active Control system in Metro Vancouver has had an extensive field survey done on their High Precision Network. GeoBC continues to work on the adjustment. While the target date for this publication and the appropriate SG Orders is now late summer 2018 I am seeking some further details to understand that the local governments in Metro Vancouver are all ready for the change. I wish to ensure all parties are ready, before proceeding with the orders.

### CCOG-Cadastral Committee

On September 14th and 15th I was in Winnipeg and attended meetings of what is called the CCOG (Canadian Council on Geomatics) Cadastral Sub-Committee. This group is made up of folks with similar positions to that of Surveyor General in the Provincial, Federal and Territorial governments. In the case of Saskatchewan they are represented by Alan Jensen – who is the government regulator – as opposed to the staff at ISC (Information Saskatchewan Corporation) that operate the land title and survey systems there.

In discussions it is obvious we all need an administratively simple process – a boundary tribunal perhaps (being a realistic step) to address boundary issues and need to look at moving towards seeing surveys as a public service when delivering our expertise.

The ABCLS structure as a regulator creates an inability to resolve “injustices” for complainants. A member can be disciplined, but that does not resolve the problem, particularly when the plan is registered, and this is a serious concern. It means we are not meeting the expectations of the public in this regard.

There is a belief in the public that the cadastre is public infrastructure and ought to be provided as a public service. The public can understand that the house on their lot is their responsibility but have a difficult time with the notion that the owner is responsible for the lot boundaries.

The creation of an administratively simple process, to deal with these matters, over the next year or two must be a goal of the profession.

In closing I would encourage anyone who is interested in knowing more about the LTSA to take a tour through our website at [www.ltsa.ca](http://www.ltsa.ca).

Thank you. ❖





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# Professional Liability Insurance Committee

Michael Kidston, BCLS, CLS

Over the past four months I have received several calls or inquiries about the retirement provisions of the Professional Surveyors Canada professional liability insurance coverage. I will start this article with the questions from a BC Land Surveyor and the answers by Mark Sampson, PLIP broker:

1. Is there a time limit for liability on a project that a land surveyor was involved in? For example: If a survey was conducted 8 years ago, and now is found to be incorrect, is the land surveyor still legally liable?

## BC Limitation Period

There was a new act introduced on June 1, 2013. There is a 2 year limitation from the discovery of the loss to start an action (used to be 6 years). There is a 15 year Ultimate limitation period to bring an action (used to be 30 years).

It is important to note that this newer legislation has not yet been fully tested in court, therefore there may be exceptions to this limitation period. There is a transition period between the new act and the old act that may complicate a potential claim. In the example you asked above, the answer is “yes”, if the error was recently discovered on a plan from 8 years ago, the land surveyor is still responsible.

2. If a land surveyor sells their company, does this liability pass on to the new owner? For example: If you buy an established land surveying firm which has been practicing for some time, will you be

*It is important to note that this newer legislation has not yet been fully tested in court, therefore there may be exceptions to this limitation period*

responsible for any “skeletons” that may come out of the closet?

## Selling a Practice

There are different ways of purchasing or selling a firm.

- a) Sale of Assets and Liabilities (share sale)

Typically in this scenario, the future liabilities of past acts would be the responsibility of the purchasing firm. So this means that any claims that arise in the future from an error that occurred on a past plan would be a liability of the new owner. The “skeletons” you mentioned above would be the responsibility of the new owner

- b) Sale of Assets only:

In this scenario, the future liabilities of past acts would typically remain the responsibility of the selling firm/individual. Any claims that arise in the future from an error that occurred on a past plan (prior to the sale) would be a liability of the selling firm/LS. The “skeletons” would remain with the selling firm/LS.

This is the most common method of purchasing or selling a firm. Based on the limitation period above, a professional land surveyor will be responsible for his/her work for at least 15 years! This is why the retirement coverage option offered by Professional Surveyors Canada

Insurance program is so important/valuable. Surveyors that sell the assets of their firm, or retire from practice all together, are in real jeopardy of being dragged into an action should there be an allegation of negligence in the future. A surveyor can be named in a suit regardless of negligence or even if it is outside of the limitations period. Without a proper retirement or past acts policy the land surveyor would have to personally incur the legal costs to defend the allegation. Other professional liability policies may offer an option to purchase an “extend reporting period” however this is not the same as a true retirement policy.

If you have any specific questions about the coverage offered by the PSC Professional Liability insurance program, please contact our broker directly:

Mark Sampson, BBA, FCIP  
Arthur J. Gallagher Canada Limited  
mark\_sampson@ajg.com  
1-800-267-6670 ext. 2631

*The retirement coverage is an important feature of our PSC policy. As such our insurance broker, ENCON, and the PLIC will be publishing a detailed article on the key exposures to surveyors when they retire or sell their practice, and more importantly ways to protect themselves. ❖*



# Book Review

## Water from the Hills: The Story of Irrigation in the Vernon District

Robert Allen, BCLS (Life Member) CLS (Retired)

Every once in a while I get a phone call from a land surveyor about something of historical interest. Most recently, Russell Shortt, BCLS (Life Member), called to mention a book that had just been published called *Water from the Hills* and subtitled *The Story of Irrigation in the Vernon District*, and that he would send me a copy. This book had been written by Peter Tassie, BCLS, P.Eng. Peter was born in Vernon and lived there most of his life. His father, Gilbert Tassie, was also a BCLS and a P.Eng and was the manager of the Vernon Irrigation District (VID) from 1937 to 1948. Growing up and working in the family orchard, and being associated through his father with the VID and later in his surveying and engineering firm, and the Regional District of North Okanagan, Peter was probably the person most familiar with the entire system and the best one to write the book.

The book is about the development of the irrigation systems in the North Okanagan which includes Coldstream, Lavington, and the areas to the north, east, and west of Vernon, of which the largest in the Okanagan and the province was the Vernon Irrigation District. It is put together in chronological order starting with the development of an irrigation system by a private company, its failure through a

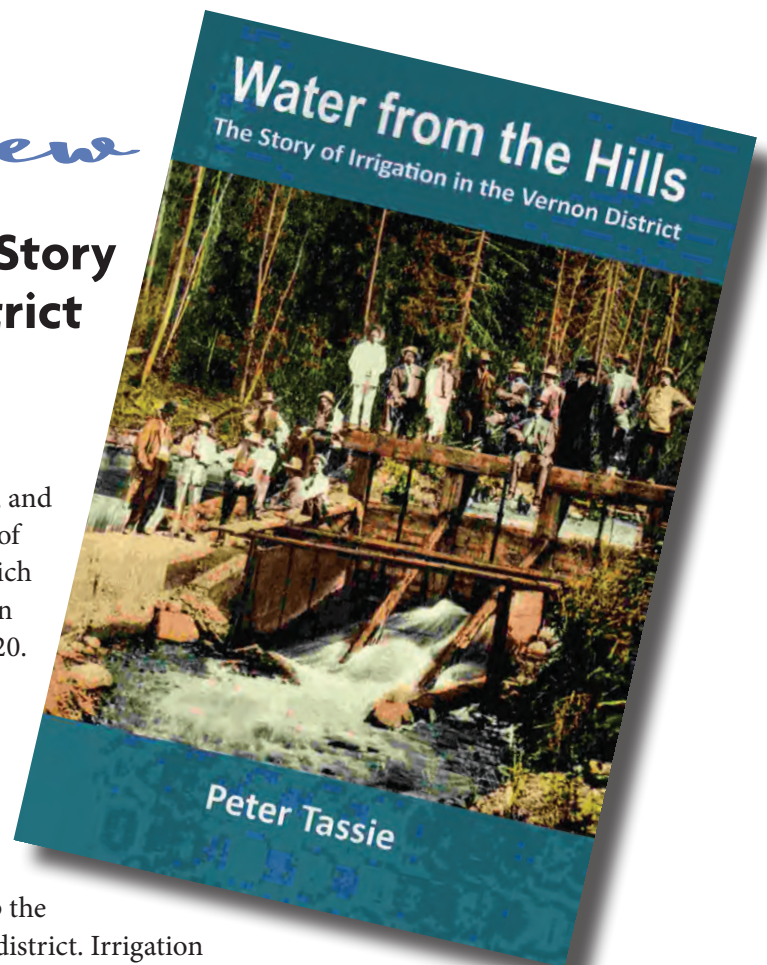
lack of financing, and the intervention of the province, which led to the creation of the VID in 1920. The book lists many facts and figures of the various storage lakes, canals, flumes, siphons, etc. that made up the entire irrigation district. Irrigation rapidly changed the Vernon area from ranching and dry land farming to more productive irrigated crops. The VID wasn't without its trials and tribulations however; lack of water,

*There are many maps, charts, and sidebars throughout the book which make it easier to understand what transpired and what the system looked like when it was first being built.*

leakages in the system, the short life span of some of the infrastructure, poor management, lack of financing, and low agricultural revenue all added to the VID's woes. With new and more efficient methods of irrigation by 1971, the system went from a seasonal above ground system of ditches, wooden flumes, and pipes to a year-round system of underground pipes under pressure thereby eliminating a number

of their previous problems. The VID no longer exists in its original form as it has since become a function of the Regional District of North Okanagan.

There are many maps, charts, and sidebars throughout the book which make it easier to understand what transpired and what the system looked like when it was first being built. There are numerous endnotes that help bring the whole story together, along with a substantial list of sources. There is a yearly list of Managers and Trustees from VID incorporation in 1920 up to 1971, as well as short biographies of the trustees of 1920/1921. Following that is a list of the nine district managers from 1920 to 1993 and their biographies and that is followed by biographies of six other important people connected with the system, including three British Columbia



*Continued on page 54*



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## Adverse Possession in British Columbia

By: Katie Hannah,  
*BCLS Deputy Survey General*  
*Land Title and Survey Authority of British Columbia*

The first thought that comes to mind when adverse possession is mentioned in B.C. is, “Oh, we don’t have that anymore.” And for the most part, this is true. The Limitations Act, S.B.C. 1975, c.37 (formerly the Quieting Titles Act, subsequently retitled the Limitation Act and currently Limitation Act, S.B.C. 2012, c.13) abolished the acquisition of title by adverse possession under s.28(1). However, it did provide a caveat for right or title to land acquired by adverse possession before July 1, 1975 under s.28(2).

The continuing potential for adverse possession claims is demonstrated by the legal dispute over ownership of an area of land located within the City of Nelson. *Nelson (City) v. Mowatt*, 2017 SCC 8, [2017] 1 S.C.R. 138 was heard in October of 2016 and a judgment was rendered in February 2017.

The original judgment in the Supreme Court of B.C. is dated June 4 2014 (*Mowatt v. British Columbia (Attorney General)*, 2014 BCSC 988). Additional information was provided to the court and a second judgment was rendered on November 27, 2014 (*Mowatt v. British Columbia (Attorney General)*, 2014 BCSC 2219). The case appeared before the B.C. Court of Appeals in June 2015, and the judgment was given on March 10, 2016 (*Mowatt v.*

British Columbia (Attorney General), 2016 BCCA 113). During the appeal, Madam Justice Saunders noted that this was the first case of adverse possession to come before the courts in B.C. in approximately 60 years.

The property was owned in absolute fee by the Nelson City Land and Improvement Company, Limited Liability (NCLIC), registered on November 17, 1891. A subdivision by NCLIC in 1920 attempted to dedicate the disputed area as “road allowance.” However, that intention was not achieved as the dedication did not comply with the requirements of the relevant statute at the time. The company was dissolved on November 13, 1930. The province has claimed both that the disputed area is a road allowance and therefore belongs to the City and that the land escheated to the Crown upon the dissolution of NCLIC. The Mowatts claimed that various families, including the Coopers, the Gouchers, and the Thorpes, occupied the disputed lands beginning no later than 1909.

According to the Cornell University Law School Legal Information Institute website, adverse possession is defined as “a doctrine under which a person in possession of land owned by someone else may acquire valid title to it.” As per various sources, including

Bruce Ziff, *Principles of Property Law*, 5th ed. (Toronto: Carswell, 2010), there are six requirements that must be met for adverse possession to occur:

1. Open and notorious – this means that the occupation of the land is not clandestine; people can point to the location and say “So-and-so lives there”;
2. Adverse – the occupier cannot have permission of the landowner to be there;
3. Exclusive – there is no confusion as to who acquires title once the time has run;
4. Peaceful – the land cannot be occupied using force;
5. Actual – the true owner has a cause of action for trespass; and,
6. Continuous – while the property does not require continuous occupation, it must have continuous possession (i.e. it cannot at any point be considered abandoned, nor can there be an unreasonable gap in the record or evidence of possession).

The instrument under which someone seeks declaration of title through adverse possession is ss.1 and 2 of the Land Title Inquiry Act, R.S.B.C. 1996,

c.251. The Act applies only to absolute fee title, and not indefeasible fee title.

The statute of limitations (i.e. the minimum amount of continued possession required) depends on the jurisdiction. In British Columbia, there are two distinct time periods: one for Crown land and another for private land. The Statute of Limitations, R.S.B.C. 1960, c.370 (which was replaced by the Limitations Act) ss.16 and 48 read:

**16. No person shall make an entry or distress or bring an action to recover any land or rent but within twenty years next after the time at which the right to make such entry or distress or to bring such action shall have first accrued to some person through whom he claims; or if such right shall not have accrued to any person through whom he claims, then within twenty years next after the time at which the right to make such entry or distress or to bring such action shall have first accrued to the person making or bringing the same.**

**48. The Queen's Majesty, her heirs and successors, shall not at any time hereafter sue, impeach, question, or implead any person or persons for or in anywise concerning any manors, lands, tenements, rents, tithes, or hereditaments whatsoever (other than liberties or franchises) which such person or persons, or his or their or any of their ancestors or predecessors, or those from, by, or under whom they do or shall claim, have or shall have held or enjoyed or taken the rents, revenues, issues, or profits thereof by the space of sixty years next before the filing, issuing, or commencing of every such action, bill, plaint, information, commission, or other**

**suit or proceeding as shall at any time or times hereafter be filed, issued, or commenced for recovering the same or in respect thereof, by reason only that the same manors, lands, tenements, rents, tithes, or hereditaments, or the rents, revenues, issues, or profits thereof, have or shall have been in charge to Her Majesty or her predecessors or successors, or stood insuper of record within the said space of sixty years, but that such having been in charge and such standing insuper of record shall be as against such person or persons, and all claiming by, from, or under them or any of them, of no force and effect.**

However, there is an argument to support the abrogation of adverse possession of Crown land by s.6 (now s.8) of the Land Act, S.B.C. 1970, c.17. This means that there are three important dates, until such time as this is addressed in court:

- Private land must be possessed for a minimum of 20 continuous years against the papered owner, prior to July 1, 1975.
- Crown land must be possessed for a minimum of 60 continuous years prior to either May 1, 1970 or July 1, 1975.

The outcome of *Mowatt v. British Columbia (AG)* was that the disputed land belonged to the City of Nelson. The trial judge's determination that there was too large of a gap in time during which ownership could not be proven (between 1917 and 1919) was upheld by the Supreme Court of Canada. The judgement by the appeal court was dismissed because the SCC felt the appeals court had overstepped its bounds in re-interpreting the information supplied by the plaintiffs.

Despite *Mowatt v. British Columbia (Attorney General)*, 2014 BCSC 988 raising the issue of the multiple cut-off dates, it was not discussed in the final judgement, due to the adverse possession claim being denied because of lack of continuity in possession, which negated the necessity of this discussion.

Also discussed in *Mowatt v. BC (AG)*, 2016 BCCA 113 is the legal fact that "occupation" and "possession" are not interchangeable terms. A property can be in a person's possession while they are not occupying it.

To compare and contrast to Alberta, which currently still allows adverse possession, the statute of limitations is only 10 years (as per s.3(1)(b) of the Limitations Act, R.S.A. 2000, c.L-12 – be aware that the requirement for acquiring Crown land requires substantially more time, although an exact period could not be ascertained) and every time the property being adversely possessed is sold the clock is reset to zero. It is interesting to note that Alberta is looking to abolish the law of adverse possession. Important case law in Alberta includes:

- *Boyczuk v. Perry* (1948) 1948 CanLII 221 (AB CA), 1 W.W.R. 495
- *Lutz v Kawa* (1980), 1980 ABCA 112 (CanLII), 23 AR 9 (ABCA)
- *Dobek v. Jennings*, 1927 CanLII 299 (ABCA)

Therefore, despite the fact that adverse possession has been abrogated in B.C., it is still possible for petitions of such to be brought before the courts. Who knows what other sort of survey history thought to be long finished with will appear once again... a Coal Act plan, perhaps? ❖

# 2017 BCLS Golf Tournament

Marissa Moore, BCLS

**T**his year's event was held at Mayfair Lakes Golf & Country Club on September 22nd. We had fabulous weather and the course was challenging, but in great condition. Although we saw many new faces, participation was down from previous years. I was hoping to see more member involvement since Richmond is so easily accessible and a lot of our members live in the Lower Mainland.

This year we had a tie between two teams; TRUE Land Surveying and "The Cart Tarts" (Vector Geomatics). After a tie-breaker putting contest, the team to bring home the trophy was TRUE Land Surveying (Marissa Moore, Peter Moore, Scott Rhodes and William Jarvis). Other various awards went to David Van Der Horst, Craig Nakamura, Minda Riley and Doug Dodge.

Our generous sponsors included Spatial Technologies, Harrington Industries, Cansel, Vector Geomatics, Arthur J Gallagher Insurance, and the LTSA. We also received various donations from The Lower Mainland Group, Roger Galibois, Doug Dodge, Joe Johnson, Josh Hango, Brad Hansen, and Parallel 49 Brewing. I'd like to personally thank the sponsors who continue to show their support year after year.

We raised close to \$3,500 for the BCLS Foundation and Heart and Stroke Foundation, bringing the total donations raised to over \$17,500.



## 2017 BCLS Golf Tournament Winners

### TRUE Land Surveying:

Peter Moore, William Jarvis,  
Marissa Moore & Scott Rhodes

I really want to see the continued success of this charity event, and will continue to organize it on a yearly basis. For those who attended this year, or previous years, please

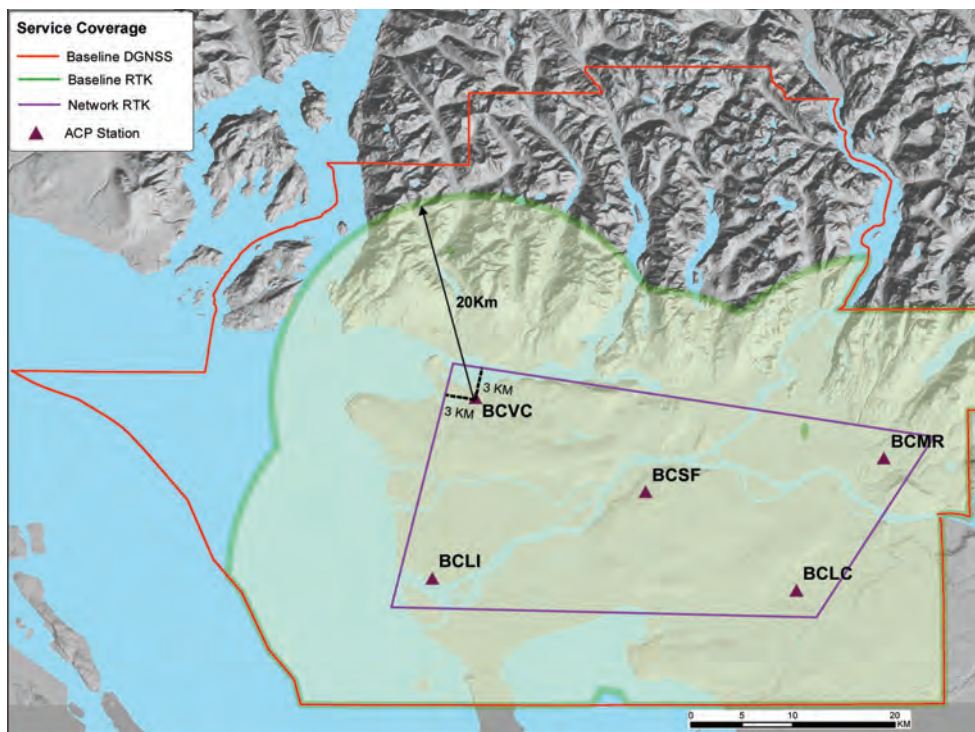
spread the word so we can ensure its success and increase support for the BCLS Foundation and other various charities. I'd also like to change the way the trophy is awarded to give all participants an opportunity to have their name on the trophy. Any suggestions would be greatly appreciated!

The 2018 Tournament will be held at the Kamloops Golf & Country Club on September 14th. I look forward to seeing you all there! ❖



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# Showing Coordinates on Legal Plans in Integrated Survey Areas

It has come to the attention of the Practice Advisory Department and the Surveyor General Division that in some Integrated Survey Areas (ISAs), an accurate GNSS survey of a Geodetic Control Monument (GCM) can result in coordinate values which substantially differ from the official published coordinate values for that GCM. This can occur where the GCM has a poor horizontal positional accuracy (HPA).

The purpose of this bulletin is to provide recommendations to land surveyors who find themselves in the situation where they are unsure whether to show official published coordinates on their plans (and to submit them in their ParcelMap BC Dataset submission), or to show their own coordinate realization as derived from an accurate GNSS survey.

## Definitions

Horizontal Positional Accuracy (HPA) is defined by the General Survey Instruction Rules (GSIR) as “the network horizontal accuracy of all the georeferenced points in the survey.”

Network Horizontal Accuracy (as defined by the GSIR) means “the absolute accuracy of the coordinates for a point with respect to the adopted British Columbia Geo-Spatial Reference to a 95% confidence level, which is dependent on the network accuracy of the known point(s) used to derive the coordinates of the legal survey and the relative accuracy of the connection(s) to the known point(s).”

Horizontal Precision as defined by the MASCOT website refers to the “statistically derived standard level confidence in the coordinates with respect to the NAD83 Datum”. Keep in mind that Standard Deviation given for MASCOT points is at 68% confidence and not the 95% required by the GSIR.

Reliability is determined by the number of connections a GCM has to other GCM's and the precision of those connections.

Monument Class is a MASCOT GCM designation which considers the Horizontal Precision, Reliability and accuracy of a GCM to determine if the GCM should or should not be used or retired.

For more information about these topics, visit the MASCOT news page: [http://a100.gov.bc.ca/pub/mascotw/public/mascot\\_news.html](http://a100.gov.bc.ca/pub/mascotw/public/mascot_news.html); scroll 2/3 of the way down the page to sub-heading 4 “Classification and retirement of Geodetic Control Markers”.

## Problematic Situations

The situation where an ISA monument might have a poor HPA can be categorized into three scenarios.

1. The following Integrated Survey Areas have been identified as being poorly integrated and therefore their monuments have poor horizontal positional accuracies. (MASCOT categorizes GCM's in these ISAs as ‘D Class’).

- Integrated Survey Area Number 5- Village of Elkford

- Integrated Survey Area Number 6- Village of Granisle
- Integrated Survey Area Number 33- District of Tumbler Ridge

MASCOT refers to the stations in these ISAs as “high standard deviation markers” and does not publish coordinates for these monuments. Coordinates for these stations can be obtained on the LTSA website- however, members must understand that the HPA requirements for georeferencing will not be met if these coordinates are used.

2. Other Integrated Survey Areas contain GCM's which have poor horizontal positional accuracies. MASCOT will generally categorize these monuments as ‘C Class’. Again, the concern is that the minimum HPA requirements for georeferencing as set out by the General Survey Instruction Rules will not be met if these coordinates are used for georeferencing.

For example, GCM 811166 (ISA Number 9- Cranbrook) is ‘C Class’, and has published standard deviations for the Northing and Easting of 0.127 m and 0.104 m respectively. The HPA is calculated as 0.33 m- well in excess of the requirements of the Rules. ISA Number 8 – Mackenzie is another example of an ISA with C class monuments.

3. Some ISAs have been identified in which the published standard deviations would seem to indicate good quality coordinates are available but when compared to a high

precision GNSS surveyed coordinate there is a discrepancy larger than expected.

Users have reported this situation in

- Integrated Survey Area Number 26 – Wildwood Heights (Powell River)
- Integrated Survey Area Number 19 – Vernon

All cases can create a situation of uncertainty for land surveyors, especially when they are establishing their coordinates using GNSS in conjunction with a real time network, active control, or the Precise Point Positioning service.

In regards to what to show on the plan and what to include in the ParcelMap BC Dataset submission, the question is; should the land surveyor show and submit the coordinates as realized by their accurate GNSS survey, or show and submit the official published coordinates?

### Recommended Practice

In the situations described above, it is recommended practice to show on the plan (and submit in the ParcelMap BC Dataset) the coordinates from the accurate GNSS survey and not show the official published values.

### Showing Coordinates at ISA Monuments

If the observed coordinates are shown at the ISA monuments, then it is recommended that the following note be placed on the plan in an appropriate location;

*Note:* The coordinates and horizontal positional accuracies shown on this plan are a result of an independent and accurate GNSS survey and do

not represent official published coordinates.

When submitting ParcelMap BC CSV file, these points should be tagged with an S for Survey instead of a G for Geodetic since the surveyed position and not the published position is being used to locate the data.

*The purpose of this bulletin is to provide recommendations to land surveyors who find themselves in the situation where they are unsure whether to show official published coordinates on their plans (and to submit them in their ParcelMap BC Dataset submission), or to show their own coordinate realization as derived from an accurate GNSS survey.*

Showing coordinates at Traverse Hubs in an ISA

In some cases, practitioners will choose to georeference their project using accurate GNSS, in conjunction with a Real-time network, PPP, or Active Control. In these cases they will show coordinates on traverse hubs closer to their project area, and show ties to the Geodetic Control Monuments, but not show coordinates at the GCM's.

While this is good practice, this approach can create uncertainty for the ParcelMap BC team, in that the ParcelMap BC Dataset submitted in support of the plan will contain coordinate values for the Geodetic Control Monuments which may differ substantially from the published GCM coordinate values. In these instances, it is recommended practice to add the following note to the face of the plan in an appropriate location:

*Note:* The coordinates and horizontal

positional accuracies shown on this plan are a result of an independent and accurate GNSS survey. Positions for Geodetic Control Monuments which are calculated from information on this plan may not agree with official published coordinates.

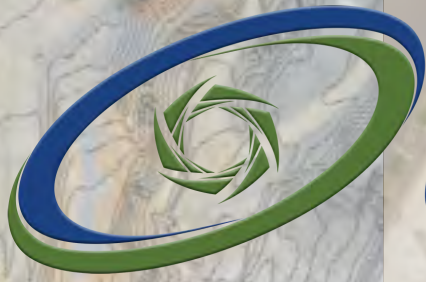
### Tips on How to Avoid Coordinate Discrepancies

In some instances, coordinate discrepancies can be avoided by selecting the GCM's which are best suited to a GNSS survey. This may be achieved by a review of the MASCOT long form. The following tips may contribute to better agreement between your GNSS survey and the published coordinates.

- The 'Survey Connections' link on the MASCOT long form will provide indicators of a monument's reliability (monument reliability contributes to monument accuracy). In particular;
- Monuments with several "GPS" ties in the "Surv. Meth." Column will result in the best agreement with GNSS surveys
- A higher number of survey connections (terrestrial or GPS connections) will generally indicate higher reliability (and therefore result in higher accuracy)
- Monuments of classes A and B are most suitable for georeferencing. Monuments of class C may not meet the HPA requirements prescribed by the GSI Rules. D Class monuments should not be used for georeferencing. For visualization purposes the MASCOT layer on Google Earth provides a quick at a glance

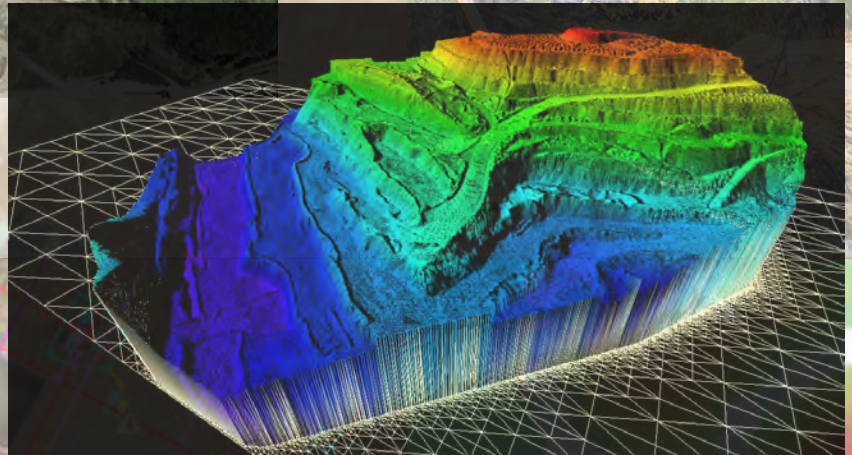
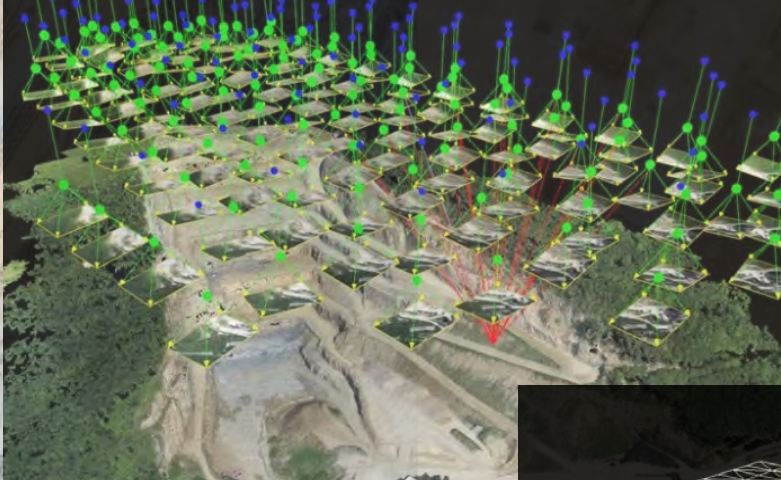
*Continued on page 54*





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# BIOGRAPHY

Ivan James Royan,  
BCLS #581, CLS #1569

Robert Allen, BCLS  
(Life Member), CLS  
(Retired)

Ivan was born on October 14, 1949 in Bundaberg, Queensland, Australia to parents Donald and Isabella Royan and he passed away on June 2, 2017 with his family at his side after a 4-½ year battle with cancer. Ivan's parents owned a sugar cane farm that had been in the family for one hundred years and Ivan grew up on that farm and learned a strong work ethic from his parents and older siblings. That work ethic carried over into his chosen profession of land surveying. He was the youngest of five children, having three brothers Ken, Rob and Bruce, and a sister Adonna. While in school, one teacher suggested that Ivan might only succeed at a ditch-digging job. Fortunately, his counsellor recognized his mathematics skills and suggested he go into land surveying and, after Ivan graduated from Bundaberg State High School in 1968, he did!

After graduating from the University of Queensland in Brisbane in 1972 with a Bachelor of Surveying, Ivan was hired as a project surveyor with the Australian Survey Office where he obtained his commission as a Professional Land Surveyor in the State of Queensland in 1974. He performed boundary surveys for the federal government, geodetic control surveys for aerial mapping, and hydrographic surveys in the shipping channels along the Great Barrier Reef.

Ivan met Val Tetzlaff in Inglis, Manitoba when he had come over to



attend a wedding for his university friend, Richard Shoesmith (now BCLS #584) and his wife, Carol. Val was a bridesmaid for Carol and she and Ivan met at the wedding. A short time later, on October 1, 1977, Ivan immigrated to Canada and married Val in Inglis, Manitoba on October 22, 1977. On November 1, 1977 they moved to Vancouver where Ivan started working for Underhill & Underhill on November 17, 1977. In 1979, Ivan became British Columbia Land Surveyor #581 and on June 29, 1979 Ivan and Val made their home in Tsawwassen where they raised their two sons, Stephen and Anthony. On April 23, 1996, Ivan became Canada Lands Surveyor #1569 and he served on the Council of the Association of Canada Lands Surveyors from 2009 through 2014 and served as its President in 2012/2013.

Ivan pioneered the use of GPS satellite positioning for photo control on a provincial flood plain mapping project in the Kootenays in 1986 and

it became the first GPS survey to be delivered to the province. This in turn would lead to more GPS photo control surveys for the TRIM Digital Mapping Program in 1987 and 1991.

First Nations Land Claims surveys in the Arctic started in 1986 and Ivan worked throughout the Arctic for nearly two decades, from the Yukon, to NWT, and through to Nunavut; producing hundreds of plans for the Inuvialuit, NWT Gwichen, Nunavut, Sahtu, and Council for Yukon First Nations Agreements.

In 2002, Ivan negotiated the purchase of the Bartell and Fiedrich Land Surveying business in Kamloops and Ivan and Val moved to Kamloops as Ivan was to run their new office. The company was renamed Bartell, Fiedrich, and Underhill and shortly after it changed to Underhill & Underhill.

In all his work Ivan was fair, honest, loyal, hardworking, determined, and a "bull" – an unstoppable force. He never cut corners. There was only one way with Ivan – the right way – and failure was never an option. It was hard for him to let go of things he was passionate about, and sometimes his pride could get the better of him, but what's life without a little emotion?

Like many other land surveyors, Ivan loved his work and where it took him. He worked over much of British Columbia as well as in Flin



Flon, Manitoba, and throughout the northern Canadian Territories. He was very passionate about his work and loved to talk about it. He was always at the front of the line to help newcomers to the profession and he was very highly regarded by his peers for his hard work, ethics, precision, and especially his leadership. During his 39 years of practice in British Columbia, Ivan had five article pupils: Chris Cryderman, BCLS #687, Dave Parkin, BCLS #748, Jason Whale, BCLS #764, Emily Freeman, BCLS #868, and Mark Mason, BCLS #929.

In every surveyor's career there's a project that stands out. For Ivan, that project was the BC Rail Tumbler Ridge Branch Line which included the survey of the Table Tunnel and the Wolverine Tunnel. "I don't know what Dave Underhill saw in me to trust me to do those tunnels", Ivan later said,

"but he did." Dave knew what kind of person was needed for the job and for Dave, Ivan was the only one, even though Ivan had never surveyed a tunnel before. The project lasted from 1980 to 1983 and Ivan managed seven survey crews running some 30km of rail grade, the placement of 16 bridges, the setting of survey control networks over two mountain ranges, and of course, the two tunnels surveyed and driven from both ends to meet in the middle.

Doing tunnels this way can be a surveyor's worst nightmare as tunnels that don't meet in the middle can end careers. With two tunnels, Ivan had two chances for this career-ending outcome. But, to prevent that, Ivan surveyed those tunnels and their accompanying control network over and over again to ensure there were no errors. In the end, both tunnels

met in the middle; they were almost perfect and Ivan still had a job. Dave Underhill had chosen the right man! When the 9.6km Table Tunnel was completed, it was the longest tunnel in the Canadian Rockies.

These tunnels were the highlight of Ivan's career and his reward was partnership in Underhill & Underhill. Railway tunnels in British Columbia are now a near-thing of the past and Ivan should be listed as one of the best of the railway tunnel surveyors along with James Hislop who laid out the Canadian Pacific Railway spiral tunnels near Field and Andrew McCullough who laid out the Othello (Quintette) tunnels on the Kettle Valley Railway near Hope.

In his personal life, Ivan was a sports fanatic and while growing up in Bundaberg, he excelled at cricket, so



much so that he played on teams with much older players. He had a love of sports, all sports, especially the ones from Australia such as cricket, rugby, Aussie Rules football, and then later his adopted Canadian sports such as baseball, football, curling, and hockey. These followed through to his family life with his sons playing soccer, baseball, football, and basketball. Whenever possible, Ivan was there on the sidelines cheering them and their team on. Not only did his love of sports transfer to his sons but his work ethic did as well.

A funeral service and a celebration of life were held on June 17th in Kamloops and no fewer than 40 land surveyors were in attendance showing the great respect they all had for Ivan. The church service and the celebration of life afterwards were recorded and can be found at this link: [vimeo.com/223336302/f00909dabd](https://vimeo.com/223336302/f00909dabd)

Ivan's son, Stephen, gave one of the



eulogies and he said, in part: "Dad was a caring, loving, hardworking man. He had an amazing amount of commitment to both family and his trade. He was stern though, and pushed you to be at your best because he cared and loved you. He was a provider and a giver. If you ever needed advice or help, whether you were family, friend, or just merely one of the kids who came to our house, he was there. He would volunteer his time

whenever he could, whether it was the curling club, football, church council or the provincial and federal surveyor associations. He attended meetings of the Kamloops Blazers Hockey Booster Club and was a great supporter of the team. He was part of the community, and he got out of it

what he put in. I know he was extremely proud of Anthony and me. He was our protector, our leader, and an excellent role model."

One of Ivan's partners, Chris Cryderman, also gave a eulogy and he said, in part: "A few days before he passed away Ivan said, "Surveyors have taught me a lot." For all of the surveyors here today please know that Ivan appreciated your counsel, and comradery, as much as you did his. He learned from you, as you learned from him. He was always excited about

meeting new surveyors, and would talk about how impressed he was with their knowledge, maturity and professionalism. He loved surveying like no one I've ever known, and he loved and respected all those surveyors who shared even a tiny part of his passion for the craft."

Another of Ivan's partners, Carl Friesen, spoke eloquently about Ivan's love for surveying, the love for his family, and the love for Underhill Company and what a great custodian Ivan was of that company. Carl wrote of the ups and downs of the company, including the black roses; the work that he, Ivan, and other Underhill members did; about Ivan conducting the GPS orchestra of pennies; and also of the sacrifices that their families gave to make things happen. Carl went on to write: "I am not sure the company would have made it without the incredible ability of Ivan to 'just do it'. He always got it done, and we always knew he would".



*Continued on page 54*



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# Complaint Inquiry Committee

## The Cost of a Hearing

Section 60(5) of the Land Surveyors Act provides that the board may order payment by a member whom it has found guilty of an offence, of the costs of any hearing relating to the offence, including the expenses of witnesses. In its submissions to the Board, the Complaint Inquiry Committee will normally request the payment of costs, and if a member is found guilty, the Board may decide that it is appropriate for the member to pay all or some portion of the costs. Members are sometimes surprised by the costs they have been ordered to pay.

When costs have been ordered, they must be ascertained and certified by the Secretary following a review of the actual costs incurred by the Association. These costs must be reasonable and they typically include accommodation, travel, and subsistence for Board members, Board remuneration under Bylaw 4.2(c), meeting room costs where a hearing is held away from the Association office, gazetting costs, and legal fees. But the costs seldom end there.

Members found guilty of an offence may also be fined to the maximum amounts identified in the Land Surveyors Act, be ordered to attend educational programs such as Getting it Right BC at their own cost, or submit to additional plan or practice reviews – again at their own cost. The cost for a member to respond to the Complaint Inquiry Committee during the course of its investigation and to prepare for and attend a hearing is not insignificant. One can review

recent disciplinary decisions on the Association website for a rough indication of the dollar values involved.

During the fall regional group meetings, members discussed a draft motion for the 2018 annual general meeting, which would create an expedited complaints process. The intent of the expedited process is to provide a more efficient and cost effective method for the Association to deal with simple transgressions such as posting plans not filed within the statutory time limit and straightforward survey rules infractions, which the member does not dispute. The process is intended to be brief and would allow for hearings by telephone or by a consent email discussion. For certain types of complaints, the expedited process would support the Association in exercising its responsibilities under the Land Surveyors Act in a more timely and cost effective manner than at present, and it would help to minimize at least some of the costs incurred in the ordinary complaint process.

Of course, the real cost of a hearing cannot be measured solely in dollars. The Complaint Inquiry Committee volunteers significant time to investigate complaints and prepare reports for the Board in advance of a hearing. The members of the Board also volunteer significant time reviewing evidence in advance of a hearing and in deliberations following a hearing. For hearings that originate as complaints from the Practice Advisory Panel, the members of the



Panel also devote significant volunteer time to review material and determine a course of action for the file. And let's not forget that transgressions leading to a hearing may affect the reputation of the profession as a whole, and may have impacted a member of the public in both financial and nonfinancial terms. And for a land surveyor, the time and anguish of a hearing can be significant. ❖



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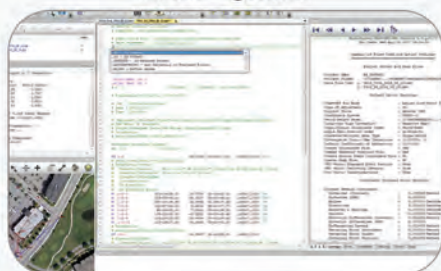
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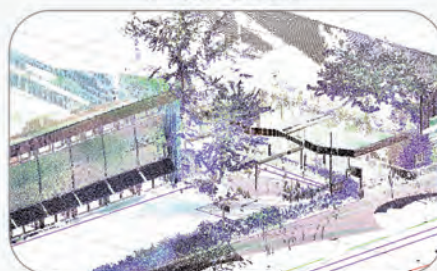
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### *Biography : Continued from page 50*

There is no doubt that Ivan was a brilliant man and just the type of person to make sure that their families survived and that the company survived!

Ivan James Royan left us far too early in life and he will be sorely missed

not only by all of his colleagues but especially his wife, Valerie, his two sons, Stephen (Jacqueline) and Anthony (Candice) and his grandchildren Carter, Oscar, Molly, Sloane, and Edgar. Ivan is also survived by his brother, Ken

(Cynthia), and sister, Adonna (Terry), and extended family in Australia as well as his brothers-in-law, Clifford (Eva), and Walter and extended family in Manitoba and Saskatchewan. ❖

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### *Coordinates on Legal Plans... Continued from page 46*

classification by using different symbols for the different classes

- The MASCOT published standard deviations for a monument are a good indicator of a monument's HPA- but this information needs to be considered in concert with the previous points in this section.

#### **Proposed Future State**

The Surveyor General Division is working with GeoBC and has commissioned new control surveys using GNSS in a number of lower quality ISAs in order that the quality class of some of the monuments in question can be improved. This is

a project that is currently underway with data processing and integration into MASCOT by GeoBC to follow in 2018. As such, we will still have to deal with the current situation for some time and hence the need for this bulletin to provide guidance in the interim. ❖

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### *Book Review : Continued from page 38*

land surveyors. There were no fewer than a dozen British Columbia land surveyors involved directly or indirectly in the project; some with the initial construction and upgrades as well as subdividing of the irrigated lands, to those that helped with various parts of the production of the book.

The only negative about the book that I mention is that the listings in the index are all out by one page; they are all one page number too high.

For anyone interested in some of the early history of the Vernon area or irrigation systems in general, I would highly recommend reading this book.

It may be purchased from the Vernon Branch of the Okanagan Historical Society, c/o Herb Thorburn 298 Scenic Drive, Coldstream, B.C. V1B 2X4 for \$20.00, including postage. Thank you Russell Shortt for sending me a copy and a special thank you to Peter Tassie for putting it all together. ❖





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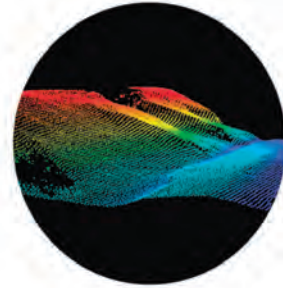
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# STUDENTS! DID YOU KNOW?

The Regional Groups of the ABCLS offer scholarships for students pursuing post-secondary education in survey related fields.

## Regional Group Scholarship Awards

**BC Land Surveyors – Vancouver Island Group and Association of BC Land Surveyors – \$1,500 each**

These awards are awarded to BCIT Geomatics Engineering Technology students based on a combination of high academic standing, leadership, service and all-round performance in the first year. Additionally, first preference is given to students from Vancouver Island.

**BC Land Surveyors – Lower Mainland Group – \$750 each**

One award is presented to a graduate of the Geomatics diploma program at BCIT.

Additionally, the recipient must be employed by a member of the Lower Mainland group.

**BC Land Surveyors – Okanagan-Mainline Group and Association of BC Land Surveyors – \$1,500**

This award is awarded to a student entering a full time geomatics program at a Canadian College, Technical Institute or University. Additionally, the student must plan to work within the land surveying profession, preferably in BC.

**BC Land Surveyors – Kootenay Group and Association of BC Land Surveyors – \$1,000**

This award is presented to a student entering a full time geomatics program at a Canadian College, Technical Institute or University. Additionally, the

student must plan to work within the land surveying profession, preferably in BC and the student must be from the Kootenay region of BC.

Contact the chair of the regional group nearest you for details regarding eligibility requirements, deadlines, and scholarship amounts. Stay tuned, a new northern regional group award is coming!

## REGIONAL GROUPS! DID YOU KNOW?

The Career and Public Awareness Committee has a program to help fund Regional Group Scholarships! We will provide up to \$1,000 matching funds to pre-approved scholarships!

**Questions?** Contact Bev in the ABCLS office for more information. ❖



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## British Columbia Land Surveyors

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*BC Land Surveyors are asked to  
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Where:  
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**Burnaby Main Campus**  
**3700 Willingdon Ave. -**  
**Town Square A & B,**  
(SE 2 Building)

No Charge Menu:  
**Beef on a Bun**  
by Chartwell's  
Catering  
No host bar



Latitude: **N49° 15' 4.9478"** | Longitude: **W123° 0' 4.3478"**

