

Ontario Professional Surveyor



on the cover ...

AOLS Strategic Planning Workshop in Kingston, ON



also in this issue ...

**Know your History
Insurance Claims and How to
Avoid Them
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ONTARIO PROFESSIONAL SURVEYOR



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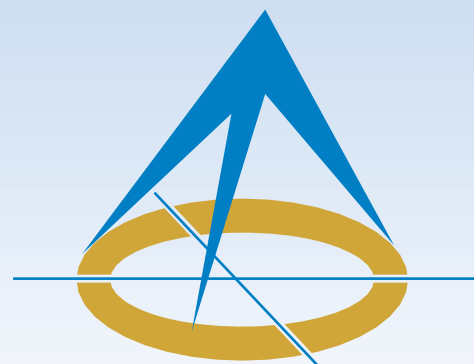
ON THE COVER ...

The AOLS Strategic Planning Workshop was held at the Donald Gordon Centre in Kingston, Ontario on May 15 and 16. The photo taken on the steps of the venue includes: Left to right, front row: Izaak de Rijcke, Gavin Lawrence, Maureen Mountjoy, Al Jeraj, Andy Shelp, Mike Power. Second row: James Ferguson, Julia Savitch, Colin Bogue, George Wortman, Brian Maloney, Susan MacGregor. Third row: James Dorland, Andrew Mantha. Fourth row: Marvin McNabb, Kevin Wahba, Anna Aksan, Mark Tulloch, Tom Packowski, Al Buckle. Fifth row: Chester Stanton, Trevor McNeil, Dave Kovacs, Murray Purcell, Joe Young, Peter Meerveld, Chris Bunker, and Paul Miller. See a copy of the Strategic Plan (2019 – 2024) on page 18.

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President's Page

By Al Jeraj, O.L.S.



I would like to start by expressing my immense gratitude to the members for allowing me to stand as your President. The past few months have been a constant learning opportunity for me as I continue to participate in various committee meetings in Ontario and in meetings across the Country.

I am very happy to have this opportunity to reflect and share with you what I have learned, what we as an Association have accomplished and what exciting projects are underway. Our Association has many means of communicating to the membership and this medium is an important one.

I see the role of being President as having two main responsibilities; first, to ensure AOLS matters are in order and second, to represent Ontario across the country and work collaboratively with our sister Associations to better the profession at a national level.

So what does 'ensuring AOLS matters are in order' mean? In my opinion, this means that the Association is fulfilling its primary mandate: To protect the public interest. There are many ways this can be accomplished, however, the key to success is to ensure a comprehensive plan is in place. On May 15th, Council and 15 other members participated in a two-day strategic planning session in Kingston. The Strategic Plan that was developed in 2013 had achieved its life cycle and it was time to develop a new 5 year plan. We are a small profession and a small organization with very limited resources but we have a large laundry list of things 'to do'. Therefore, in order to set priorities and use our resources wisely to act in the public's interest, we require a Strategic Plan.

The Plan set the vision of how our profession should be viewed by all. The first paragraph of the Vision states that we are a trusted, forward-looking, ethical and highly engaged association of licensed geographic information professionals protecting and serving the public interest, working collaboratively with other Associations across Canada. It is important to pause and reflect on this statement as it sets the tone for our future.

Our five-year objectives are clear and achievable. More importantly, our 120-day and 240-day action plans have

been set. Not only will we be monitoring them but we will be reporting on the progress of each goal back to the membership on a regular basis. The Strategic Plan progress review will be a standing item on Council's agenda and through our new transparency policy, the Council minutes will be posted for the membership to review and keep track of our progress.

Our new plan is focused on an evidence-based, risk management approach. Over the next few years, our Association will be identifying and evaluating the risks that we face based on our current way of doing business to determine if a change is required, what the change should be and how quickly we need to make the change to mitigate the risk. The risk management methodology will be applied to all functions of the Association starting with Council and filtering down through the Commissions to each Committee. Many of you tuned into the June webinar and heard Brian and I provide details of the Plan. If you missed it, I encourage you to visit the GeoEd website to watch it. Not only will the details of the plan be made clear, it is also a great way to get CPD credits.

In addition to developing the Strategic Plan, we are also making strides in the following four areas: First, the new design of the website is well underway and should be completed by the fall for Council's review; second, the PSRI is up and running in the South Central region and will be rolled out to the rest of the province soon. It is a major component of our Strategic Plan. Third, the Legislative Review Task Force has almost completed its recommended changes and will present them to Council in the summer and fourth, the AGM Committee has met and planning is underway for our AGM at Deerhurst Resort in Huntsville. We are doing much more but I wanted to highlight those items in particular.

With respect to the President's second main responsibility, I have represented Ontario at the AGMs of our sister Associations in: British Columbia, Newfoundland, Alberta and ACLS in Nova Scotia. It is at these meetings where the Presidents have an opportunity to learn how each Association conducts its business and it is also an opportunity to learn what issues we are all struggling with. At each of these meetings, we hold a Presidents' Forum to further

cont'd on page 4



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Executive Director's Notes



By Brian Maloney

It has now been three months since I have been in the position of Executive Director. I am glad that I have taken on the role and find it both challenging and rewarding. As our President, Al Jeraj, noted in his report, we have drafted a new strategic plan. I appreciate the effort that went into this from all of our members who participated. This has certainly occupied much of my time over my first couple of months. I believe that we have created a good plan that can make a significant difference for the Association and ultimately the public. Our challenge will be to implement it effectively. This will mean adoption of the plan and the key objectives by all of our committees and Council and there is no doubt it means change.


Although a lot of the lead up to the strategic plan may have seemed negative, because we did shine a light on our weaknesses, we have a lot to be proud of. Despite the small size of our Association, we have met many of the challenges that have been laid before modern regulators. We have made major strides over the last several years and are fortunate that we have a committed membership and staff at the Association office.

I have not forgotten about my commitment from my last article to try to encourage even more participation from our members and I hope to have some tools out to help with this endeavor within the next couple of months. Our volunteers continue to be a critical factor for the success of the Association and our requirement to protect the public. I am happy to report that most of our committees and regional groups are meeting regularly and making progress.

We have several challenging but achievable objectives and missions in our new strategic plan. One of the largest changes will be moving to an evidence-based, risk managed

organization. We have begun working on what this will mean to our organization, but in its simplest form, it means considering risks as a way of making decisions, with our efforts focused on those items that have the highest impact and likelihood. From an overall perspective we will have to identify the risks to the public that are based on our members' actions and internal risks to the Association. Identification of the risks, particularly from the public's perspective, will be the most significant challenge. Although we are still very early in the process, I believe our members have the best knowledge of most of these risks. As such I expect to engage in dialogue with the members in this regard. Once we have identified the risks, we will evaluate them and determine where the most urgent and important changes and investments are required. This may not be the most glorifying work, but I believe it will pay dividends once completed.

There are some easy changes that we can make without a complete implementation of our risk framework (e.g. a formal reporting mechanism from our Insurer on common claims and issues that will be directed to the Continuing Education Committee, the Survey Review Department and the Professional Standards Committee). Even if we start using the risk management approach to consider our activities and investments in an interim fashion, I believe it will give us the ability to reach better decisions.

In closing, we have a strong Association that we can make even stronger. We as a group will face some big challenges but if we approach them in a thoughtful fashion, with a focused consideration and respect for each other, I am sure we will move forward with positive results. 

President's Page (cont'd from page 2)


learn what is happening across the Country.

At the risk of sounding like a broken record, many of the issues we face in Ontario are common across the country. These include raising the profile of surveyors in government and to the general public, addressing the current demographics of the membership, ensuring potential members have access to education, and meeting the members' needs. I sense now, perhaps more than ever, that there is a greater willingness across the country to work collaboratively to solve these common issues. My next opportunity to represent Ontario will be in Saskatchewan, at which time the Presidents will discuss this endeavour in more detail.

We have much to do, as I mentioned before, and we are a

small, yet extremely dedicated Association. Our pool of volunteers and staff are nothing short of amazing and it is due to them that I am confident we can achieve our goals.

On a final parting note, I wish to encourage all members to attend their regional group meetings. At these meetings, you have an opportunity to speak to your Council representative and provide comments about what Council is doing (or should be doing). I can assure you that your comments are brought back to Council for discussion.

This article was written on the weekend after the Toronto Raptors won the Eastern Conference Finals and if my hopes and prayers are answered, when the article is published, they will have been crowned the NBA champions!! Have a great summer and remember to take time out of your busy lives to have fun and spend time with loved ones. 



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All proceeds will be donated to the AOLS Educational Foundation.



Insurance Claims and How to Avoid Them

By Tom Packowski, O.L.S., Chair of the Continuing Education Committee

Construction layout is and continues to be the largest source of claims against our Insurance Fund. It is 'our Fund' because although insurance companies settle claims, it is the premiums paid by you, the policyholder that pays for the claim. Collectively, we the Insured pay for claims by way of annual premiums and subsequent surcharges to premiums following a successful claim.

There are a number of reasons that give rise to insurance claims. These usually include tight deadlines and even tighter budgets. Tight deadlines often result in no contract or a poorly written contract that does not clearly outline the responsibilities and obligations of both the Surveyor and the Client. Often there is little time to carefully review the scope, specifications and extent of the project and required services. Clear lines of communication between the Surveyor and the Client must be established and any changes to the drawings, scope or to the work schedule must be communicated between the Surveyor and the Client in a timely manner. There must be adequate time to review and check the construction drawings for completeness, clarity and accuracy of the measurements. This is particularly important because all dimensions must be verified, and any discrepancies must be reported prior to construction.

So, the following questions need to be asked. Does your construction project include time for field crew instructions, adequate time for field verification, once the stakeout is complete, to confirm that the field layout is correct and complete? Are office resources available to verify that the field crew has performed an independent check and that the check is correct? Are the field notes complete and are the field procedures confirmed in the office? Is there sufficient time for project management including managing client expectations? Are there processes in place in the contract to handle change orders, changes to the drawings, as well as obtaining and documenting instructions received over the phone? Does the contract, signed between you and your client, contain clauses that would mitigate your liability on those things over which you have no control or input?

These tasks all require time, funding and resources on the part of the firm. Do your cost estimates to the client include these necessary project steps? Do you have sufficient resources to complete all the necessary steps required for the project and quality control, while still managing the on-going day to day responsibilities of your office and your other long-term projects? Does your estimate include all of the costs to prevent errors in the first place? Let's look at some examples based on actual claims.

Example 1

Survey Firm A did a plan of survey with topographic details on a one-hectare parcel. During the survey, the crew located a Municipal benchmark and ran a level loop for a distance of about 2 km, leaving two temporary benchmarks on site. The level loop closed well. About a year later, a different crew was sent on site to lay out several condominiums. The site had been stripped and the site benchmarks were gone. The crew knew that the Firm had done the new housing on the opposite side of the road and obtained the field notes that provided the top of foundation wall elevations of the houses. They used one house and checked with a similar model house 3 doors over and found the elevation difference between observations was about 3 cm. They decided to accept their elevations as determined from the existing housing and the proposed condominiums were laid out. Shortly thereafter, the construction supervisor contacted Survey Firm A because the plumber claimed that there was no slope on his sewer connections. After checking the field notes and sending a field crew back to the site to investigate the claim, the Firm discovered that the series of homes used to re-establish elevations for the new construction had stepped foundation walls and further, when checked with the original Municipal benchmark, there was a discrepancy of 0.5 metres. This difference matched the steps in the foundation walls. As a result, all units on the lower levels of the condominiums required sewage pumps.

It is apparent that certain assumptions were made in the interests of expediency and even though there were checks made by the field crew, there was no follow up in the office to confirm the assumptions and verify the checks.

Example 2

Survey Firm B was retained to provide a 'builders package' including stake out for excavation, cuts to the underside of footings, pinning the footings and to prepare the final location surveys showing the elevation of the top of the foundation wall. All went well until the final location surveys determined that the tops of some foundation walls were too low (or for this example, too high would work just as well). A thorough review of the field notes showed that all of the calculations and field work had been done and executed properly. However, there were no checks to determine if the excavations were verified to be at the proposed grade when the field crew returned to pin the foundation.

Who is at fault? Does it matter? The Firm is now

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embroiled in a controversy because it is unable to provide documentation to support its work.

The following chart from Mark Sampson, Senior Vice President of Arthur J. Gallagher Canada Limited sets out our claims history for the time period shown.

Ontario Claim History

Year	Incurred Losses	# of Claims	Average Claim \$	Legal Fees
2010-2011	\$1,400,000	64	\$22,000	\$435,000
2011-2012	\$1,020,000	51	\$20,000	\$180,000
2012-2013	\$1,050,000	70	\$15,000	\$160,000
2013-2014	\$820,000	70	\$11,700	\$175,000
2014-2015	\$800,000	56	\$14,000	\$195,000
2015-2016	\$535,000	57	\$15,000	\$120,000
2016-2019	Undeveloped	Undeveloped	Undeveloped	Undeveloped

Example 3

Survey Firm C was asked to lay out a large commercial building. The various construction drawings were provided to the Surveyor in digital format and included grid lines, foundation wall lines and edge of footing lines. However, there were inconsistencies between the drawings such that the grid lines and foundation wall lines were switched resulting in a 20 cm. discrepancy. The contractor made it clear at the time that the contract was awarded that ‘time was of the essence’ on this project and then embarked on a murderous pace. Shortly after the construction began, additional construction equipment was brought on site for the excavation of the footings and caissons. Though the number of backhoes went from one to three units, there was only one field crew available for the project the entire time. As the construction progressed, the contractor noticed a problem and called the surveyor to re-check certain inconsistencies. During the checking, the inconsistencies in the drawings referred to above, came to light. When this was brought to the attention of the construction drawing’s authors, they pointed out that this ought to have been determined before construction was started.

So, what do you do if you think or anyone else thinks that you have made an error and may be subject to a liability claim? What is your responsibility in making sure a potentially bad situation does not get exponentially worse? Mark Sampson’s advice is as follows.

If you realize that you have made an error, OR a third party alleges that you have made an error (oral or written), here is what you should do:

- Immediately stop whatever you are working on and turn your attention to this allegation.
- Do not Admit Liability
 - This is an insurance policy condition: *“The insured will not voluntarily admit liability, will not offer to settle and, in fact will not settle any*

claim nor incur any expenses without having first obtained the consent of the insurer”.

- Many errors/claims have some contributory negligence caused by another professional (i.e., engineer, architect, or lawyer) or could have been avoided by the client or subcontractor.

- If you admit liability, this may prejudice the insurer and its rights.
- Report the Claim Immediately
 - To Gallagher Insurance Brokers and Maltman’s Adjusters (Intact Insurance, your Insurance provider’s representative).
 - Cooperate – Maltman’s are on your side, admit the truth, provide the required information.
 - Your job is surveying. The insurer’s job is adjusting the claim in everyone’s best interest.
 - The insurer can’t control what they don’t know. The information that you provide is key to understanding the claim and your potential liability.
- Do not attempt to Negotiate a Settlement
 - Request direction from the insurance company (per policy condition above).
 - Often the “claimed costs” will be inflated by the third party. The insurer will require proper evidence as to the actual cost required to fix the error.
 - The insurer’s role is to be objective and assess the facts. It may require the services of an expert to assess duty of care or damages. It is important that you be objective too. We all make mistakes. We’re human. Learn from your mistakes. And lastly,
- Report. Report. Report. Report.
 - Any error that you feel may give rise to a claim.
 - There is no cost to report a potential claim.

Example 4

Survey Firm D was in the process of preparing a large Plan of Subdivision. Regulations require that a Plan of Subdivision be an integrated survey. The survey firm used UTM grid coordinates for all calculations for the Plan of Subdivision. However, the client’s Consultants insisted on having ground coordinates. The Survey Firm applied the

appropriate scale factor to the grid coordinates to convert them to ground coordinates and supplied these to the Consultant. Certain construction drawings were prepared by the Consultant and returned to the Surveyor for layout. There was a subsequent misunderstanding as to whether the coordinates provided were ground or grid values, resulting in a delay and confusion between the Client, the Consultant and the Survey Firm.

Does your Firm employ a method that allows the office and field staff to clearly understand and distinguish between grid and ground coordinates?

Finally, what are the costs for errors, blunders and just plain misunderstandings? The costs may be divided into hard costs, that effect your firm's bank balance, and soft costs that are not measurable in dollars and cents but are real just the same. Mark has outlined the hard costs as follows.

The Hard Costs

There are direct costs to making an error.

- There is a minimum \$5,000 deductible that is payable to the insurance company (Intact Insurance).
- The deductible only applies to indemnity costs (not investigation or legal costs).
- For claims that are >\$15,000 in indemnity payment, there is a surcharge applied to your Professional Liability Insurance renewal premium = 12% of the value of the claim.
- The surcharge is payable over 3 years.
- Claim Example:
 - Total claim paid = \$105,000.
 - The firm would pay \$5,000 deductible to Intact Insurance.
 - The claim surcharge would be $(\$105,000 - \$5,000) \times 12\% = \$12,000$.
 - The premium surcharge would therefore be $\$12,000/3 = \$4,000$ per year for 3 years.
 - The effect is that those Surveyors who have claims end up paying a higher insurance premium.

The Soft Costs


Once you realize that you have made an error or a third party alleges that you have made an error, you should immediately stop whatever you are working on and turn your

attention to this new, unscheduled crisis. The existence of a potential claim will entail a number of business losses for the Surveyor and the Firm even though these losses do not show up anywhere in the cost of the claim itself. As you focus on the crisis, your soft costs start to add up. These include:

- the disruption to your office schedule, tending to these allegations of an error
- the deferred billing, while you now must deal with this new, unscheduled issue
- the disruption to the Firm's field schedule
- loss of resources while you and your team try and figure out what the heck just happened
- loss of productivity while you defend yourself against the allegations in the claim
- loss of profitability while you send a field crew out to verify the facts
- loss of resources while you turn your attention to any unpaid remedial work required
- damage to your Firm's reputation and its credibility with your Client
- the inevitable deterioration of the staff's morale, and last but not least
- many ruined nights' sleep for the individuals directly involved in the claim.

Key Messages:

The following is Mark Sampson's advice on the subject of liability claims against Surveyors. Surveyors never intend to make a mistake. Errors often occur because of poor communication with the office, architects, engineers, or contractors. Please take your time and do the proper research, office checks, and calculations. Fewer mistakes will have a positive impact on the loss performance of the insurance program and result in a lower premium and a higher potential of triggering the profit-sharing endorsement again in the future.

You have entered into a contract with Intact Insurance Company, your insurance company, at least for most of you. Your firm has paid a premium to transfer its professional liability to the insurance company. If you make an error, do not admit to liability. Do not try to negotiate a settlement. Report the matter, let the insurer investigate and adjust the claim on your behalf. The insurer will represent your interests. They will pay for the cost to investigate and settle your liability in the most cost-effective manner. 

Sites to See

Free & Open LiDAR Data Sources in Canada

<https://canadiangis.com/free-canada-lidar-data.php>

This site, hosted by *Canadian GIS and Geospatial Resources*, maintains an unofficial list of places where LiDAR data is made available to use for free. It has made the list, which has recently been updated, available to the public in the hope that more people can make use of the data and that the geospatial community might in turn help add more sources to it.

Registrar's Comments



By Kevin Wahba, B.Eng., LL.B., O.L.S., Barrister & Solicitor

Recognizing that there is an exceptional opportunity to provide commentary on the position of Registrar in the OPS magazine, I have decided to begin a recurring column which I hope will benefit the readers. At the time of writing this first article, I have been Registrar for almost five months. In my first few weeks, I had the benefit of receiving guidance and tutelage from the former Registrar, Bill Buck. I quickly realized that although Bill had made the position look easily manageable for many years, the learning curve was quite steep. Being in this position for just a short time, it is easy to identify the diligence and consistent dedication required to successfully discharge the many duties required in my new position.

During my time at the association, I have come to experience first-hand the hard work and effort that each member of our staff puts into every day to ensure that the association operates smoothly and efficiently. This year has come with some significant changes to the complexion of the association with Blain Martin, the former Executive Director, and Bill Buck being replaced with Brian Maloney and me, respectively. It goes without saying that their experience and expertise in these critical positions will surely be missed. Brian and I hope to continue steering the association in a direction that will ensure that the public interest is protected. We want to make sure that our members are provided with clear and helpful guidance as to our role as regulator, and that each member understands the individual role that they play in the function and integrity of professional surveying in Ontario.

Putting things into perspective, one realizes that our membership is unique in this jurisdictional role due to our relatively small number of members, as well as having to deal with what could be perceived as a general lack of knowledge from the public as to who we are and what we do. As a membership, we know the distinctive role we play as professionals and that we provide an abundance of geospatial information that can be considered to be cornerstones of some of our economy's most foundational elements. Considering these factors, the membership and the association have been entrusted with a great deal of responsibility that should not be neglected or taken lightly.

My plan is to move towards a decision-making approach that will be driven by the association's primary mandate to protect the public interest. With that being said, going forward the various processes and procedures, such as applying to become a member, and the procedures and policies implemented by our statutory and other crucial committees, will be more clearly defined and readily available to the public as well as the membership. In addition, I hope to further enforce specific sections in the legislation and regulations governing Professional Land Surveying in Ontario. A prime example of this is section 14(5)(d) of the *Surveyors Act* which states that the Registrar may refuse to issue a Certificate of Authorization to an individual

who has not been engaged in the practice of professional surveying during the five-year period preceding the date of the refusal. Any deviation from this directive has the potential to impact the public and accordingly, we as professionals have an obligation to not only adhere to mandatory standards of practice and guidelines provided in legislation, regulations and other legal authority governing us, but to go to the greatest lengths to ensure that our most critical mandate is discharged with the utmost consideration.

Continuing on from Bill's legacy is not a simple task. This position not only requires that a great deal of consideration be given to existing precedents but also requires an understanding of the evolving nature of technology, economics and sociology and the impact they have on our profession. My primary objectives are to ensure that the public is protected, and the fairness and justification of our many processes and decisions is maintained. I will support the membership as far as it does not conflict with those objectives. I look forward to meeting many of you over the next few years and to hearing any ideas and feedback that can help me and our association evolve.



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LOGAN WEALTH MANAGEMENT

Know your History — Part 1

By Tom Bunker, O.L.S., C.L.S., P.Eng., C.P.A. (Ret)

Introduction

Chapter 2 of Rusty Russell's 2005 first edition of *Russell on Roads* is titled Know Your History. It includes a quote from Georgie Ann Geyer that says, "You can have no control without knowledge, in particular, historical knowledge. You don't know where you are or why you are, much less where or why anybody else is. You are easily taken in – and even more easily fooled." (Page 15, *Russell on Roads*, W.D. Russell, Q.C., LL.B., B.A., Thomson Carswell, 2005) This quote is continued in Rusty's third edition in Chapter 4 which is labelled: Roads: Historical Cornerstones.

The work of Professional Land Surveyors, for the most part, builds on that of our predecessors and having access to and understanding historical survey records, and other documents, form a key component to reliable boundary determination.

I had a forty-five year surveying career which covered a large portion of Ontario, from the shores of Lake Ontario to the shores of James Bay, and from New Liskeard at the Quebec border to Red Lake in the northwest. My retirement interest in family genealogy has led me to on-line resources that I have applied to my interest in cadastral surveying issues, related surveyors and their work.

The following article begins a series of articles that will be of interest to those who want to develop an understanding of where we as surveyors came from in this technological age.

An 1882 Diary by Richard Jermy Jephson (1854 – 1927)

This partial record of activities which were undertaken by Richard Jermy Jephson, P.L.S. at and near Burk's Falls, demonstrates the challenges faced by our predecessors in early Ontario. Over the period of Aug 1 to Aug 19, 1882, he carried out surveys of deviations of travelled roads outside original road allowances for the Armour Township Council and surveys of rural and village lots for private clients.

Background

Richard Jermy Jephson was born at Monewden, Suffolk, England on February 2, 1854ⁱ, the fifth of 10 surviving children of Irish clergyman John M Jephson and his English wife Ellen Preston Jermyⁱⁱ. His father died just before Richard turned eleven but the children were able to receive

an education with Richard attending St. John's College, Sussexⁱⁱⁱ. At the age of 18 he travelled alone to North America arriving at New York in April 1872 on his way to Canada^{iv}. He trained at Orillia with F.W. Armstrong, P.L.S., D.L.S. and was commissioned as a P.L.S. on 7 April 1877^v and obtained his D.L.S. license on 12 May 1880^{vi}. Richard was living in Muskoka in the spring of 1881^{vii} and was running his own surveying practice while his mentor had gone to the North West^{viii}.

The Set-Up

Richard Jephson lived in the town of Bracebridge in the southwest corner of Macaulay Township and had contracts in Armour Township, some 40 miles to the north. There was no stage coach between Bracebridge and Huntsville but he would make his way with his gear and baggage by catching a steamer at Port Sydney on Mary Lake which was about 15 miles from Bracebridge. From Huntsville a stage coach would take him to Burk's Falls. It is noted that clients and their neighbours were his survey crew.



Bracebridge in 1873^{ix}

The Diary

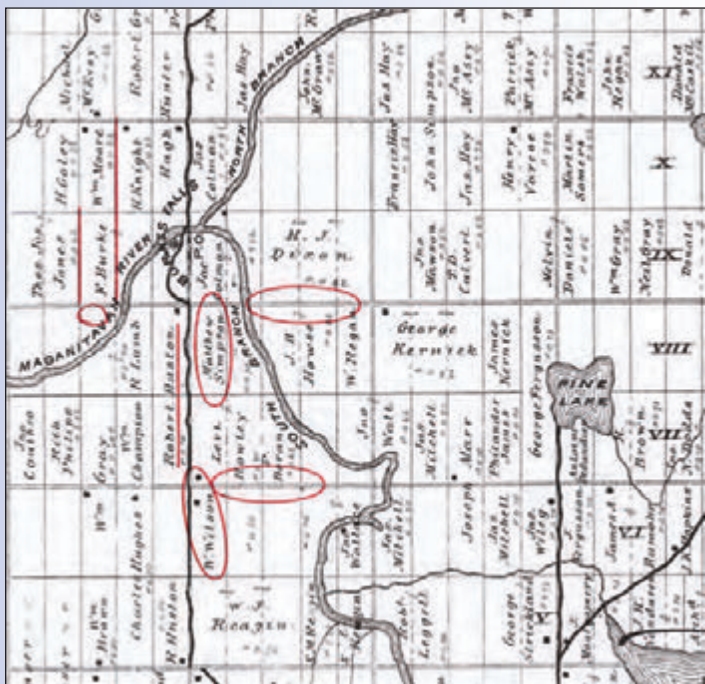
Persons' names in bold lettering herein were early settlers of Armour Township, surveyed in 1876, and are shown on the Armour Township map in the 1879 Guide Book and Atlas of Muskoka and Parry Sound Districts by John Rogers.

Notations are added in parentheses for clarification of names, places and events; dinner is at noon, tea was the evening meal.

Monday July 31 – Was out on a picnic with wife (27 year old Richard Jephson married Emily Clara Thompson (1854 – 1941) in Nov 1881 in Toronto*), Ada & Edie (Clara’s sisters Ada and Edith^{xii}) to Muskoka Lake

Tuesday Aug 1st Left Bracebridge at 6:30 am and was proceeding up Muskoka Road when W. latie took me up and drove me to the Junction (at Falkenburg - junction with Parry Sound Road). I then walked (about 10 miles) to Port Sydney had dinner paying 20cts & then took boat up to Huntsville 50cts and slept at Jacob Hotel \$1.00.

Wednesday Aug 2nd Left by Stage next morning arriving at Burk’s Falls at 6:30 pm \$1.25. Got a splendid observation of Polaris on Eastern Bdy (of Lot 3 Concession IX).



Portion of Armour Township from 1879 Guide Book and Atlas illustrating survey locations.

Thursday Aug 3rd Ran line bet Lots 3 & 4, Con IX Armour for **D.F. Burk** and began traversing clearing and chopping on same line for Burk.

Friday Aug 4th – Finished traversing clearing and chopping (area that had been cleared on Burk’s lands) & ran the line of Lot 3 Con IX and then angled along the line between Cons VIII and IX Armour to post between Lots 2 & 3 and ran to the line run in the morning (100 acres surveyed).

Saturday Aug 5th Up and out at 6:30 am walked up to **Mat Simpson’s** and walked with him to **Wm Wilson’s** and ran deviation (for Armour Council) beginning at Lot 7 Con VI and ran to Lot 8 Con VI. Had dinner at Wm Wilson’s – R. Clay was out in the afternoon and we went to his house

to tea, came back to Burk’s and slept for night (at Burk House?). Too late to Practice for Church singing.

Sunday Aug 6th – Was to Church (Anglican Church – in log schoolhouse^{xiii}) in am had a good service W. Crompton preaching and gave us a good sermon in afternoon also went to Church and had a good sermon both times had usual singing having practiced for it – Had dinner at Logan Davis’ and breakfast and tea at Burk’s & was sleeping all the time at Burk’s whilst at Burks Falls for Council.

Monday Aug 7th Went to Mat Simpson’s but finding him not ready to go out in morn was out in afternoon but only did a small deviation (for Armour Council) as it rained so much – Robt (Huston) was with us Breakfast dinner tea & bed at Burk’s. Received a letter from home.

Tuesday Aug 8th – Left Burks Falls to go home on account of letter received Monday night but meeting J.W. Dill of Bracebridge about seven miles down the Road he told me all I wanted about what it contained so walked back to Burks Falls to dinner & was out in afternoon with Mat Simpson and ran deviation across Lots 8 & 9 Cons VIII & IX.

Wednesday Aug 9th Due at Mossop deviation did not leave as it rained so hard went out for two hours in afternoon for **R. Huston** to do a little work for him but it came on to rain so quit. Had tea at Logan Davis’ & sat on Sharpe’s verandah and chatted till bed time.

Thursday Aug 10th Up at 6:30 am & posted letter to the little wife. It rained all morn so did not go out at all. Also part of the afternoon. Then went out late in the afternoon for Logan Davis and began laying out six acres part of Lot 3 Con VIII Armour. Had tea at Davis’ Slept at Burk’s.

Friday Aug 11th – Finished traversing Logan Davis’ six acres in morn, had breakfast at Burk’s Dinner at Davis’. After Dinner went and laid out English Church



Burk House before 1890ⁱⁱ

cont'd on page 14

lot and then went and boarded up the Church with Logan Davis and the sills of Church (started construction of the Anglican Church) Then tea at Burk's.

Saturday Aug 12th – Had breakfast at Burk's but did not start out as it rained all morning and also in the afternoon. (Last entry in field book)

Richard travelled to the western territories after a few years in Muskoka. He took up a property in Manitoba in September 1884^{xiv} and in Saskatchewan in 1886^{xv}. It is noted that his brother John Pascoe Jermy Jephson (only 14 months younger and educated at Cambridge) had come to Winnipeg

in 1880 where he articulated as a lawyer before moving in 1886 to settle at Calgary, AB^{xvi}. It seems that Clara often returned to Ontario as she was with her parents at Toronto in 1891^{xvii} while Richard was authorized to survey in British Columbia in 1890^{xviii} and he did surveying for the Calgary and Edmonton Railway in Alberta in 1892^{xix}. Richard surveyed in the Yukon from 1892 – 1898 and Clara had joined him at Dawson City by 1901^{xx} and they returned to Brandon, MB^{xxi} where he continued his survey practice. They had no children^{xxii} and are both buried in the Brandon Municipal Cemetery^{xxiii}.



ⁱ England and Wales, Civil Registration Birth Index, 1837 – 1915, database on-line, Ancestry.com
ⁱⁱ John Mounteney Jephson (1819 – 1865), ancestry.ca/family-tree/person/tree/52843398
ⁱⁱⁱ 1871 England Census, Class: RG10; Piece: 1064; Folio: 120; Page: 5; GSU roll: 827490, Ancestry.ca
^{iv} New York Passenger Lists, 1820 – 1957, Microfilm Serial: M237, 1820-1897; Roll: 356; Line: 37
^v Records of the Association of Ontario Land Surveyors (OLS # 144)
^{vi} Records of the Association of Canada Lands Surveyors (DLS # 48)
^{vii} 1881 Census of Canada, Place: Bracebridge and Macaulay, Muskoka, Ontario: Roll: C_13234; Page 74
^{viii} Biography of F. W. Armstrong, Association of Ontario Land Surveyors
^{ix} Photo courtesy Bracebridge Public Library
^x Ontario, Canada, Registration of Marriages, 1869 – 1928: AO Series: MS932; Reel: 38
^{xi} 1881 Census of Canada, Place: St James Ward, Toronto, Ontario: Roll: C_13246; Page 28
^{xii} Photo page 5, Reflection of a Century, Burk's Falls, 1890 – 1990

^{xiii} Reflection of a Century, Burk's Falls, 1890 – 1990, page 27
^{xiv} Manitoba, Saskatchewan and Alberta Homestead Grant Registers, on-line database, Ancestry.com
^{xv} Saskatchewan, Canada, Residents Index, 1800- 2012, on-line database, Ancestry.com
^{xvi} J.P.J. Jephson fonds; Archives Main Catalogue Search; Glenbow Museum; glenbow.org
^{xvii} 1901 Canada Census, Place: St. James Ward, Toronto, Ontario; Roll: T-6371; Family No.: 19
^{xviii} Records of the Association of British Columbia Land Surveyors (ABCLS)
^{xix} Laying Down the Lines: A History of Land Surveying in Alberta; Judy Larmour, page 153
^{xx} 1901 Census of Canada, Place: Dawson City (Yukon), The Territories; Page: 7; Family No.: 81
^{xxi} Biography in "The LS Group, British Columbia's First Land Surveyors", ABCLS
^{xxii} Biography, Association of Ontario Land Surveyors
^{xxiii} FindaGrave.com, Memorial No. 111149628 and 102330074; Brandon Municipal Cemetery

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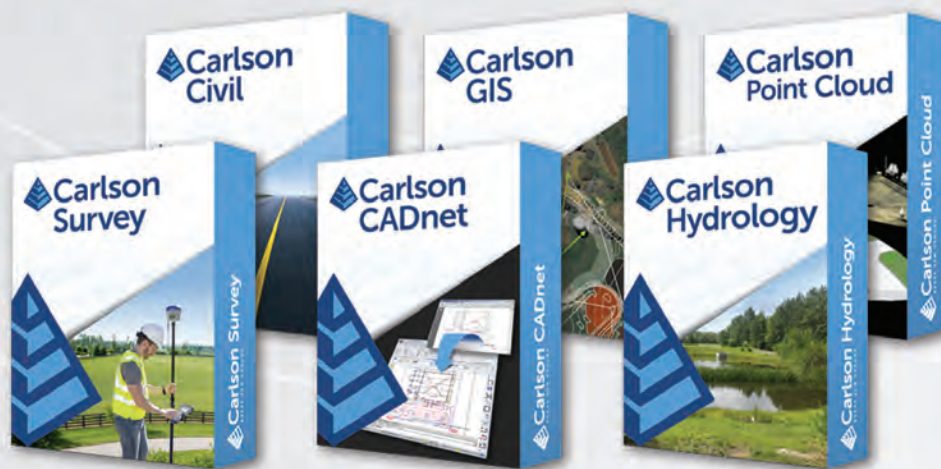
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NEWS FROM 1043

Changes to the Register

MEMBERS DECEASED

Ernie W. Kerr 1277 Jan. 21, 2019
Anthony Charles Bourne 782 June 5, 2019

COFA REVISED

Was: John H. Kennedy Ltd.
Is Now: Annis O'Sullivan Vollebekk Ltd. (Kemptville)
May 3, 2019, Kemptville, ON

Was: Donald E. Roberts Ltd.
Is Now: Donald Roberts Surveying Ltd.
May 17, 2019, Toronto, ON

Was: Verhaegen Stubberfield Hartley Brewer Bezaire Inc.
Is Now: Verhaegen Land Surveyors, a Division of J.D. Barnes Limited
June 11, 2019, Windsor, ON

COFA APPROVED

Aecon Geomatics Limited
April 12, 2019, Barrie, ON

Surveyors in Transit

Matthews, Cameron, Heywood – Kerry T. Howe Surveying Ltd. (a wholly owned Subsidiary of J.D. Barnes Limited) has moved its office location to 2 – 4318 Portage Road, Niagara Falls, ON L2E 6A4. Phone number remains the same. The company will now carry the **J.D. Barnes Limited** logo on all correspondence, including proposals, work orders and invoicing.

J.D. Barnes Limited has acquired **Verhaegen Stubberfield Hartley Brewer Bezaire Inc.**

Annie Fernandes is now with **J.D. Barnes Limited** in Whitby, ON.

Craig Leslie is now the managing OLS at **Aecon Geomatics Limited** located at 761 Bayview Drive, Unit D, Barrie, ON L4N 9A5. Phone: 416-459-3002.

Peter Aubrey is now the managing OLS at **Donald Roberts Surveying Ltd.**

Lejan Land Surveying Inc. is now located at 572 Barton Street East, Stoney Creek, ON L8E 4V2.

David Green is now the Managing OLS for **McIntosh Perry Surveying Inc.** in Perth, ON.

Jansky Lau is now with **Land Survey Group Inc.** in Toronto, ON.

James Nicol is now with **Dino Astri Surveying Ltd.** in Barrie, ON.

Michael Haines is now the Managing OLS at **Surveyors On Site Inc.** located at 1623 Bancroft Drive, Sudbury, ON P3B 1R7. Phone: 705-665-8340.

Dario Miret is now the Managing OLS at **R. Avis Surveying Inc.** in Toronto, ON.

Associate member **Loren White** has retired from the **City of Mississauga**.

THE AOLS IS PLEASED TO ANNOUNCE THAT ANOTHER ONTARIO LAND SURVEYOR WAS SWORN IN:

Yifan Zhang

2052

June 17, 2019

Calendar of Events

July 15 to 20, 2019

29th International Cartographic Conference

Tokyo, Japan
<http://icc2019.org>

August 19 to 23, 2019

URISA GIS Leadership Academy

Toronto, Ontario
<https://www.urisa.org>

September 17 to 19, 2019

INTERGEO

Stuttgart, Germany
<https://www.intergeo.de/intergeo-en/index.php>

September 28 to October 2, 2019

GIS-Pro 2019

New Orleans, Louisiana
<https://www.urisa.org/gis-pro>

October 30 to November 1, 2019

Unmanned Canada 2019

Ottawa, Ontario
<http://www.unmannedsystems.ca/>

November 13, 2019

GIS Day

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Vision 2024

We are a trusted, forward-looking, ethical and highly engaged association of licensed geographic information professionals protecting and serving the public interest, working collaboratively with other Associations across Canada to:

- Regulate the activities of our membership through an evidence-based, risk management approach
- Enable the introduction of innovative surveying products and services
- Maintain and enforce rigorous contemporary standards, including effective, transparent peer review
- Provide relevant professional education, technical and business support and services based on the needs of the public
- Work with educational institutions to attract a diverse community of new members to our profession by portraying surveying as a compelling career and lifestyle

As a result, the Association and its members are valued for their contribution to the social and economic development of our Province and Canada as a whole.

Mission 2019-2020

Further the future relevance and effectiveness of the Association for Ontario citizens, businesses, industry and our members through:

1. Developing a risk-based management framework for all activities of the Association
2. Continuing to expand our efforts to develop and train new talent for the profession
3. Identifying and securing agreement to required changes in legislation / regulations that will sustain the relevance of the Association in the future
4. Developing and implementing a strategy to increase awareness within government and among the general public of the value land surveyors create for society, and the attractiveness of the profession as a career
5. Furthering the development of a fully converted, indexed, image-based survey records system

Education

1. Collaborate with CBEPS to develop a parallel academic evaluation for domestic and international students
2. Prepare guidelines for mandatory reviews on new surveyors after one year
3. Explore monthly on-line articling workshops (with a dedicated resource)
4. Develop a granular view of the course syllabi for the current curriculum
5. Continue to support ACLS in their on-line endeavours

Key Priorities & Objectives

Increased Public & Government Awareness

1. Complete web site re-design, ensure first hit on Google
2. Post samples of different types of surveys on the web site, make it more public friendly
3. Get up to date information on professional and technical salaries
4. Support the continuation of a viable Surveyor General's office in Ontario, reinforce the importance of the survey profession in government
5. Modernize the public image of a surveyor

Plan (2019 - 2024)



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Vision Objectives 2024

1. Provincial Survey Records Index system in place and populated
2. Risk management framework providing focus for all activities of the association
3. All members of the profession licensed, and increased number of articling students
4. Strong education partnerships in place with selected universities and colleges
5. Total membership compliant with regulations and standards and engaged in Association activities
6. High member satisfaction ratings for association professional activities
7. Reduced number of substantive complaints
8. Numerous joint initiatives underway with other Associations

stitutions, and

tain the rele-

the general
career

Objectives 2019-2020

1. Draft regulations submitted for approval
2. Risk management framework developed and being introduced
3. At least 30 new qualified surveyors
4. New survey records system in use
5. A strategy for university education developed
6. Surveying courses/workshops approved / offered in 10 Ontario High Schools, NOT just GTA

& Action Plans

Risk Management

1. Build an understanding of the framework and the approach within the Association
2. Initiate a review of high risk areas within the Association's jurisdiction and use as a pilot / proof of concept
3. Build a case for adoption and present the framework and the approach to members at the 2020 AGM – have AOLS examples prepared to support making the case

Legislation and Regulations

1. Complete the writing of the proposed changes
2. Table with Council
3. Present to membership for buy-in in principle
4. Work with legislative counsel to draft black corner
5. Prepare documentation support for change description, post on regulatory registry and secure comments by other impacted ministries
6. Council ratification
7. Member approval
8. Identify medium term goals and scope of future regulation changes, and explore ways to streamline the regulation approvals process

DISCIPLINE DECISION Seyed Abdolmajid (Majid) Fathi

IN THE MATTER OF the Surveyors Act, R.S.O. 1990,
Chapter S.29, as amended

AND IN THE MATTER OF Seyed Abdolmajid (Majid) Fathi, O.L.S.

AND IN THE MATTER OF a Disciplinary Hearing
of the Discipline Committee of the Association of
Ontario Land Surveyors held in accordance with
Sections 26 and 27 of the said Act

Decision and Order

This Panel of the Discipline Committee convened on March 13th, 2019. The Member was represented by Ceili Andrew, Counsel; both were present at the hearing. The Association was represented by Mr. Izaak de Rijcke, Counsel; both Mr. de Rijcke and the Association Registrar, Mr. Kevin Wahba, were also present. The Panel was assisted by Independent Legal Counsel, Carol Street, who was present.

On convening, the Panel was advised that the parties proposed to proceed by way of a guilty plea by Mr. Fathi, O.L.S. to the allegations of professional misconduct (but not incompetence) set out in Schedule “A” to the Notice of Hearing (Exhibit 4). An Agreed Statement of Facts was provided to the Panel and marked as Exhibit 7. Mr. de Rijcke summarized the facts for the Panel, and Ms. Andrew confirmed that the facts as summarized were accurate.

On the basis of those agreed facts, and after due consideration, the Panel accepted Mr. Fathi’s guilty plea to the allegations of professional misconduct as set out in Schedule “A”, a copy of which is attached to this Decision and Order.

Counsel then put forward for the Panel’s consideration the Joint Submission setting out the penalty the parties proposed should be accepted by the Panel (Exhibit 8). After some discussion, and agreement by Counsel, an amended version of the Joint Submission was made Exhibit 9. A copy of the Amended Joint Submission, Exhibit 9, is also attached.

The Panel heard submissions from both Counsel as to why the penalty set out in the Joint Submission should be accepted. The Panel was reminded by Independent Legal Counsel that pursuant to the Supreme Court of Canada, (in *R. v. Anthony-Cook*, 2016 SCC 43) it should only depart from a joint submission in very limited circumstances, where the sentence proposed would bring the administration of justice into disrepute or is otherwise not in the public interest.

The Panel considered the amended penalty jointly proposed by the parties and after a thorough *in camera* discussion accepted the amended Joint Submission.

Accordingly, the penalty imposed by the Panel is, in summary, as follows:

1. Mr. Fathi’s licence is revoked, but that revocation is suspended for a period of one year and will never take effect if the Member complies with the terms and requirements set out in the amended Joint Submission for one year from March 13, 2019.
2. The Member undertakes to no longer prepare and issue SRPR products under the title, “Topographic Survey” and to fully comply with legislation, regulations and Standards of Survey as these may prevail and apply to SRPR’s from time to time and to permit access to surveyor project files under his supervision and control to be inspected by an Inspector on a random basis for the 12 months following March 13, 2019.
3. The Member agrees to the appointment of an OLS chosen by the Registrar to act as a Mentor to assist with implementing a higher quality of survey practice by the Member and by the firm, Barich Grenkie Surveying Ltd. (the “Firm”). The Mentor will also have the delegated power of the Registrar to conduct investigations of the Member’s survey work, including all work produced by the Firm, on a random basis, and on a physical attendance at offices of the Firm over the coming 12 months of not less than 4 inspections. All expenses shall be at the expense of the Member.
4. In addition to this Decision and Order, the allegations as set out in Schedule “A” will be published, as well as the Joint Submission, as amended, in the Ontario Professional Surveyor Magazine and posted on the Association website.
5. With respect to the allegations of incompetence, all such allegations are stayed for one year from March 13, 2019. If the Member complies with the Panel’s Decision and the terms of the Joint Submission, the allegations of incompetence will be withdrawn. The stayed allegations of incompetence may be brought back and returnable before the Discipline Committee if the Member fails to comply with the Decision and Order of this Panel and the terms of the Joint Submission.

6. The Member will pay \$15,000 to the Association on account of costs, inclusive of HST, which can be paid in instalments of \$3,000, every 3 months, but in any event the total amount must be paid in full no later than one year from the date of this hearing, March 13, 2019. Should full payment not be received within that time, the suspension of the cancellation of the Member's licence will be lifted.

This Order may be signed electronically and in counterparts.

Robert Fligg, Chair, O.L.S.
Nancy Grozelle, O.L.S.
Richard Miller, O.L.S.
Gary Auer, O.L.S.
Patricia Meehan, Lieutenant-Governor Appointee

IN THE MATTER OF the *Surveyors Act*, R.S.O. 1990,
Chapter S.29, as amended

AND IN THE MATTER OF Majid Fathi, O.L.S.

AND IN THE MATTER OF a Hearing of the Discipline
Committee of the Association of Ontario Land Surveyors
held in accordance with sections 26 and 27 of the said Act

**JOINT SUBMISSION TO DISCIPLINE COMMITTEE
ON CONSENT OF ALL PARTIES**

cont'd on page 22

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1. The Member represents to the Association of Ontario Land Surveyors and the Discipline Panel that, before entering into this agreement, he has been advised to obtain independent legal advice as to the consequences of signing same, that the Member has either obtained independent legal advice or he has voluntarily waived his right to obtain independent legal advice knowing the consequences of signing same and that the Member is doing so voluntarily and without undue influence or pressure from anyone.
 2. The Member pleads guilty to the charge and allegations of professional misconduct against the Member (the “Charge”) as alleged by the Registrar.
 3. The Member’s licence is hereby revoked, but this provision is suspended for one year, providing that the terms and requirements of the Member in this joint submission and the Order of the Discipline Committee have been complied with. After one year, the revocation is withdrawn. If the Member complies with an order based on these Joint Submissions, the said term of the Order of the Discipline Committee regarding the revocation of his licence will never take effect.
 4. The Member undertakes to the Association to no longer prepare and issue SRPR products under the title, “Topographic Survey” and to fully comply with legislation, regulations and Standards of Surveys as these may prevail and apply to SRPRs from time to time and to permit access to surveyor project files under his supervision and control to be inspected by an Inspector on a random basis for the next 12 months from the date of this hearing.
 5. The Member shall agree to the appointment of an Ontario Land Surveyor by the Registrar, of the Registrar’s choosing, to act and function as a mentor (herein referred to as the “Mentor”) to assist with implementing a higher quality of survey practice in the Member’s practice and Barich Grenkie Surveying Ltd. (herein referred to as the “Firm”), and who shall also have the delegated power of the Registrar to conduct investigations of the Member’s survey work, including all survey work produced by the Firm, on a random basis, and on a physical attendance at offices of the Firm over the next year of not less than 4 inspections, and all at the expense of the Member.
- 5A. The Member and the AOLS further agree that the charge of incompetence in the Notice of Allegations be stayed for one year. If the Member has complied with the Committee’s decision and the Joint Submission, then the charge

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of incompetence shall be withdrawn. The stayed charge may be brought back and returnable before the Discipline Committee if the Member has not complied with the decision of this panel and the Joint Submission.

6. The publication of the allegations leading to this proceeding, as well as the contents of the Joint Submission, shall be published in the Ontario Professional Surveyor Magazine and posted on the Association website.
7. The Member shall pay to the Association the sum of \$15,000.00 for costs, inclusive of HST. This amount may be paid in installments of \$3,000.00 each and every 3 months for 5 separate instalments, but in any case, will be fully due and payable no later than one year from the date of this agreement. Should the member's licence be terminated for any reason full payment of these costs will be required as a condition of the reinstatement of the member's licence. Should full payment not be received within the above one year period, the suspension of the cancellation of the Member's licence will be lifted.
8. The Member and the Association acknowledge and agree that this Joint Submission document has been prepared by both parties and reflects a fair disposition of this matter, under all of the circumstances. In the event the Discipline Panel does not adopt this Joint Submission document as a basis for making its determination, finding, and disposition, the parties agree that this matter will then continue on the basis of a full hearing before a Discipline Panel on a date to be fixed by the Discipline Committee and that same shall proceed on the basis of all of the allegations set out in the Notice dated 30 November 2018.

Dated this 13th day of March, 2019

SCHEDULE "A"

ALLEGATIONS OF PROFESSIONAL MISCONDUCT AND INCOMPETENCE

CANADA)	IN THE MATTER OF the <i>Surveyors Act</i>
)	R.S.O. 1990, Chapter S.29
)	
PROVINCE OF)	AND IN THE MATTER OF Majid Fathi, O.L.S.
)	
)	
ONTARIO)	AND IN THE MATTER OF a Disciplinary Hearing of the
)	Discipline Committee of the Association of Ontario Land
)	Surveyors held in accordance with sections 26 and 27 of
)	the said Act.

I, **WILLIAM D. BUCK, O.L.S., C.L.S., P. ENG.**, of the City of Markham, in the Region of York, am the Registrar of the Association of Ontario Land Surveyors.

1. The Council of the Association of Ontario Land Surveyors (AOLS) pursuant to Section 25(7)(a) of the *Surveyors Act*, by a Motion dated October 23, 2018, directed that Mr. Seyed Abdolmajid Fathi, O.L.S. be referred to the Discipline Committee.
2. It is alleged that Seyed Abdolmajid Fathi, O.L.S. (herein referred to as "the member"), in his personal capacity, and as an employee of the firm Barich Grenkie Surveying Ltd. (A Division of Geomaple Canada Inc.), is guilty of professional misconduct within the meaning of Section 35 of Regulation 1026, R.R.O. 1990, as amended, and incompetence within the meaning of Section 26(3) of the *Surveyors Act*, R.S.O. 1990, c.S.29, as amended.
3. The particulars of the allegations in paragraph 2 above are as follows:
 - (a) On or about January 18, 2018 [an error in the date in the original document was corrected] the Registrar of the AOLS received a formal written complaint in the form of a Complaints Help Form signed by Mr. Seyed Yadollahi, O.L.S., which alleged that the member, who is the managing Ontario Land Surveyor for the firm Barich Grenkie Surveying Ltd. (herein referred to as "BGS"), had prepared and issued "Site Plans" that were not in compliance with the standards, regulations and other applicable rules for surveys in Ontario.
 - (b) Mr. Yadollahi's written complaint included copies of several Site Plans signed by the member that Mr. Yadollahi claimed were not in compliance with the AOLS Standards of Practice.

cont'd on page 24

- (c) In his initial response to the Complaints Committee, on or about January 31, 2018 the member explained that his Site Plans were part of a “Builder’s Package” and he claimed that these Site Plans were not a Surveyor’s Real Property Report or a Plan of Survey and did not therefore illustrate all survey evidence and methodology.
 - (d) In his subsequent submission to the Complaints Committee on or about March 14, 2018 the member stated that he had changed his procedures and that his future plans would comply with the AOLS Standards of Practice.
 - (e) On or about May 18, 2018 the Complaints Committee of the AOLS issued an Interim Decision that directed the Registrar to randomly select three of the member’s current Builder Package files for examination by the committee.
 - (f) On or about August 21, 2018 the Complaints Committee issued a final decision that referred the matter to AOLS Council with a recommendation that the member be referred to the Discipline Committee.
 - (g) In the reasons section of the decision the Complaints Committee noted that the member’s files did not contain evidence to confirm that adequate research for documentary evidence had been undertaken and also that the plans were not consistent with AOLS performance standards or with AOLS Council Bulletins 2013-01 and 1990-036 regarding sketches.
4. It is alleged that the member failed to comply with the Code of Ethics of the AOLS in that he has repeatedly failed to abide by the standards of practice, which is contrary to Section 33(2)(b) of Regulation 1026, R.R.O. 1990, as amended. Failure to comply with the Code of Ethics constitutes Professional Misconduct within the meaning of Section 35(3) of Regulation 1026, R.R.O. 1990, as amended.
 5. It is alleged that the member failed to comply with the Code of Ethics of the AOLS in that he signed survey plans which did not comply with all relevant legislative requirements and all standards of the AOLS, which is contrary to Section 33(2)(f) of Regulation 1026, R.R.O. 1990, as amended. Failure to comply with the Code of Ethics constitutes Professional Misconduct within the meaning of Section 35(3) of Regulation 1026, R.R.O. 1990, as amended.
 6. All of which are breaches of sections 35(1), (2), (3) and (21) of Regulation 1026, R.R.O. 1990, as amended; and the Code of Ethics at sections 33(2)(a) of said Regulation 1026 and, collectively constitute incompetence within the meaning of Section 26(3)(a) of the *Surveyors Act*, R.S.O. 1990, c.S.29.

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Students at Port Colborne High School get the job done!

How partnering with the professional community enhanced student learning at Port Colborne High School to create professional level maps for the DSBN Adventure Campus Outdoor Education Centre

By Jonathan Fletcher, OCT Port Colborne High School

Jonathan Fletcher is the Program Leader for Canadian and World Studies at Port Colborne High School, Geography teacher and the Vice President Spatial Technologies of the Ontario Association for Geographic and Environmental Education (OAGEE).

For many of us, memories of our high school geography class bring back memories of Crayola pencil crayons and trying to master perfectly shaded oceans. When students enter my geography classroom, they hear something that shocks them. They are told on the first day of class that they will not be required to have pencil crayons and that as their teacher, I will never require them



"Using the Trimble Catalyst was a lot of fun and definitely added to the experience at the adventure campus. Seeing all of the data come in and even learning to use it was a great experience. I enjoyed collecting my own data that I would use to create my own map. It really made the project feel like it was my own." Geoff

to shade in a map for marks. If education is to prepare students for life outside of high school, and my subject area is to teach them geography, then students should be doing or learning about what professional geographers do and as well, they should be using the same tools.

At Port Colborne High School where I teach, I manage a fully dedicated Geographic Information Systems computer lab running ArcGIS 10.6. This lab consists of 27 desktops, a laser printer and a colour laser printer, all donated from Renewed Computer Technologies, Niagara. I do the IT for the lab, sometimes recruiting students to help with the process. I use this lab almost every day, teaching geography with technology. In my role as the Vice President Spatial

Technologies of OAGEE, I get very excited about using technology in my classroom.

In 2015, I was asked by Colleen Fast, the Coordinator of Outdoor Recreation with the District School Board of Niagara (DSBN), if I would be able to create a map of DSBN's Walker Living Campus at Woodend Conservation Area. The task was to map the location of the trails, trail signs, and assets of the outdoor education centre. I contacted the GIS department at Niagara College to see if I could partner with them to work with my students. After a field day with my students and the Niagara College students, I realized that this partnership would not have the direct participation of my students that I was hoping for. Without having access to equipment, I ended up supervising two of the post-grad GIS students in order to complete the project. It was a good experience, but it did not meet my aspirations for my students actively completing the project.

While exploring the trade floor of the Esri User Conference in San Diego in 2017, I decided to check out



"I enjoyed getting to learn how to use the equipment. Seeing that I could use the data collected with the catalyst in my maps was exciting. I realized how the data our class had been using in other projects would have been collected, and I had not understood that before." Anandi

cont'd on page 28



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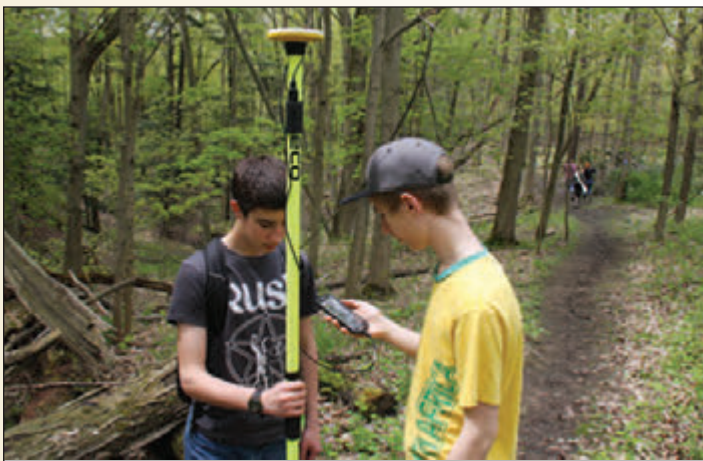
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the Trimble booth and discovered the Trimble Catalyst; an affordable high precision digital antenna that worked by attaching it to an Android device. I saw some real applications that I could use with this receiver in my classroom. I took a picture of me holding one and sent it to my principal Ann Kennerly with, “Can you buy me one?”



“The ability to do both the on-site surveying, and the in-class cartography was interesting since it gave us real world experience as if we were contracted to complete a project for a client.” Ashton

In August of 2018, I was contacted again by Colleen Fast who asked if I could create maps for the renovated DSBN Adventure Campus Outdoor Education Centre similar to the maps that were created for the Walker Living Campus. Again, there was no hesitation to accept the project but I wanted my students to do it. I deferred the project until the



“Seeing first-hand the practical uses of GIS software. Getting out of the class and in nature was also a good change of pace from the rest of the course. Taking points ourselves also made the data more meaningful and allowed me to draw additional conclusions based on the experience on-site.” Joel

spring of 2019 when I would be teaching my grade 11 CGT30 Introduction to Spatial Technologies class. The Centre had no maps other than the topographic map and the trail system was either not marked or highly inaccurate. Along the trail, there are numbered signs that needed to be accurately mapped. As well, all assets were to be identified on the maps.

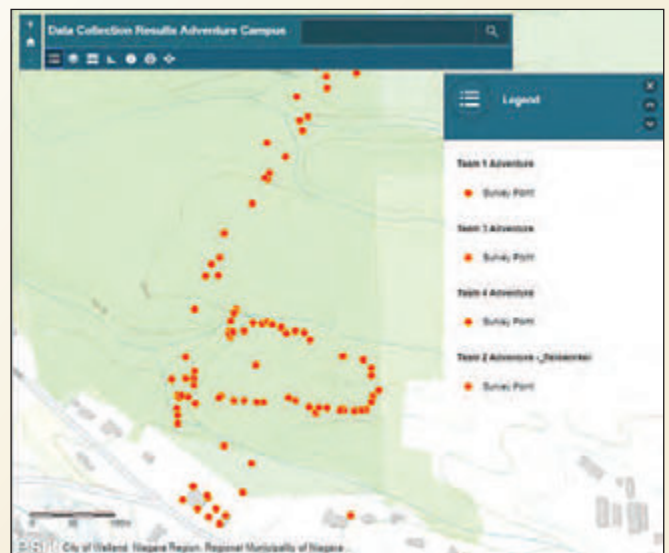
In order to attack this problem, I knew I needed the equipment to gather accurate points, so in October, I asked

(begged) my principal to purchase a Trimble Catalyst. After presenting my case, Ann agreed to purchase one unit. Being in public education, spending the \$500 depleted my budget.

We move to February 2019 and I am trying to figure out how to get a survey pole. I thought “if only I knew a land surveyor with an old pole that wasn’t needed anymore”. That’s where Maureen Mountjoy came in. I had just finished running the OAGEE Fall Conference in November when I realized that I had been working with Maureen to book the table for the AOLS. I wrote Maureen an email and she put the call out to the members of the AOLS with great success. Within one week, I was blown away by the generosity of AOLS members. A big thank you to Bruce Pettit, OLS Retired and Matthew Shelley – Mohawk College Technologist who donated 2 used survey poles with only 1 Trimble Catalyst. Then, thanks to Harold Hyde, OLS of Rasch & Hyde Ltd., I was able to purchase 3 additional Trimble Catalysts and 2 poles to have a total of 4 Trimble Catalysts with 4 poles. Amazing!

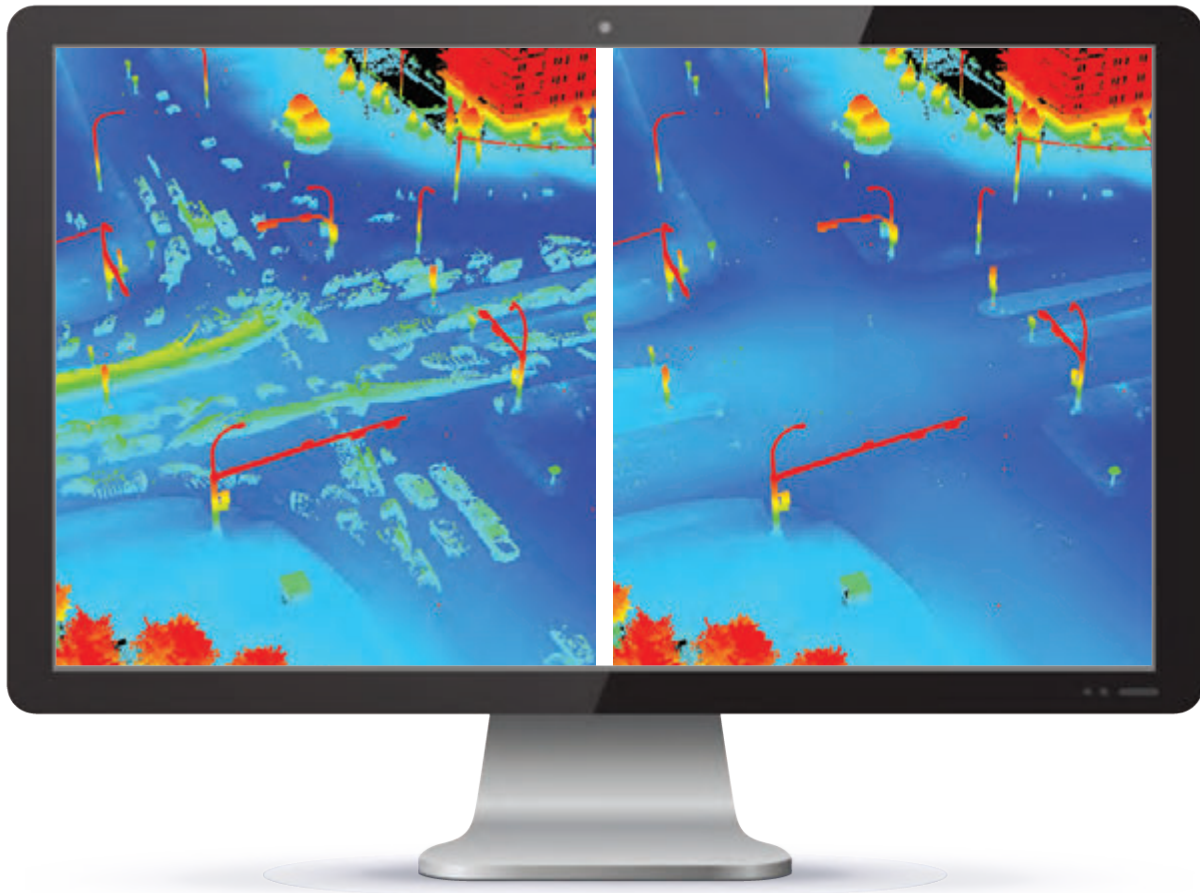
On its own, a Trimble Catalyst can get 1-m accuracy. In April, Brock Kingston from Cansel was able to convince Trimble to donate 4 x 3-month Catalyst Precision subscriptions to my class for free! One thing I didn’t consider is that my students preferred Apple phones over Android. Trimble Catalysts only work with Android. The phone doesn’t need to have a SIM card and will work if it is fairly new and can connect to Wi-Fi. I put out a request to parents at my school for old phones that weren’t being used for anything, and again, people came through and I got everything we needed to complete the project.

Armed with rubber boots and sheer determination, I took 20 of my students out to the DSBN Adventure Campus to collect data. To map the trails, I created a series of empty feature services using Esri Survey123, added it to a map in ArcGIS online, and then used Collector for ArcGIS with the Trimble Catalyst Service. Now since I had only received



Raw April Collection

cont'd on page 30



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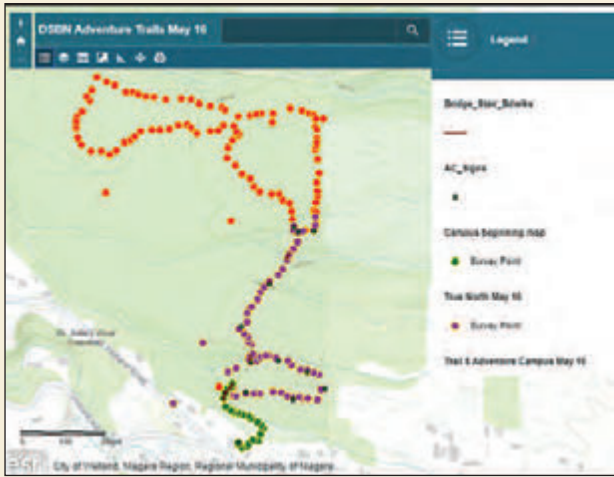
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The results of May 16 were used to create the trail map and aligned with the SWOOP 2018 imagery.

with a smaller group, as many students could not take a day from their other classes. With a much more refined and efficient method, we were able to collect waypoints for the trails, correct some of the sign and asset data, as well as collect the points for another trail that the Centre uses in Short Hills Provincial Park.

Back in class using ArcMap 10.6, the students were tasked to connect the dots of the waypoints and draw in the trails, assets and signs. I was able to get the SWOOP 2018 tiles for the area, which was incredibly useful. The students were given the logo of the Adventure Campus, DSBN and Port Colborne High School. For marks, students created a map of the overall site as well 3 maps of the different trails in detail.

In June I brought the completed maps to Colleen and we selected the maps that best communicated what was needed for the site, which included the work of my students, Aidan, Hannah, Ashton, Cory, Joel



Jonathan Fletcher with some of his GIS students from Port Colborne High School on May 16th.

the subscriptions a few days earlier, the data collection did not start as smoothly as planned and I had to do some quick problem solving in the Centre to get everything working while an instructor at the centre gave my students a tour of the facility and told them what needed to be mapped. That gave me the time I needed. We collected our points and headed back to school.

Now we come to this May. Our results demonstrated that there was room for improvement. Some of the points were not accurate. I scheduled another visit for May 16

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and Anandi. I assigned Aidan the role of project manager. He is my co-op student and 3-time provincial GIS gold medalist in Ontario (Hannah was his partner). His job was to take all of the great work from the other students and tweak it just a little to make everything consistent, such as colour, symbology and overall appearance. The six maps included poster sized maps of the entire site and of the buildings; and letter sized maps of the entire site and each of the three trails. Julie Wiersma, the media arts teacher at my school, designed a logo for us as well that had to be added.

We finished on June 21st. These maps will be used by the DSBN Adventure Campus staff and visitors for years to come.

On October 7-8, 2019, these students will be presenting their work at the Esri Canada Toronto User Conference, likely on the main stage during the plenary session.

What's next? My principal, who was thoroughly impressed with our project found some money in her budget to buy a drone for my program, as I look to bring photogrammetry, aerial surveys, and remote sensing into my classroom. I am taking the Advanced RPAS

(Remotely Piloted Aircraft Systems) course this summer.

How can you help? I am looking at getting software such as DroneDeploy for planning missions and stitching together imagery. As well, I am hoping to get more drones that students can be trained on and use them in the field. It's a little expensive, but I am not above asking for help... If you didn't notice. If this interests you, and if you would like to help, please email me: jonathan.fletcher@dsbn.org



"I enjoyed the hands-on out of class time, I also enjoyed the ability to learn skills that are not commonly taught in high school. Doing a project that would also be used at the Adventure Campus made it more enjoyable and encouraged me to work harder." Anonymous

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What is Right and What is Wrong?

By David Coombs

This is David Coombs' third article for the Ontario Professional Surveyor. His first article "Where in Blazes Am I?" appeared in the Summer 2018 issue and his second article "I Attempt to Walk the Straight and Narrow" appeared in the Winter 2019 issue.

As you know, I live in the bush and thanks to W. J. Simpson (OLS 1518) I recognize my limits. The boundaries are clear. There is no excuse for stepping over the line. If only life was so clearly defined. Most of us try to understand right from wrong. I attempt to adhere to the former and avoid the latter as I journey through time. It is an ongoing, difficult path to follow. My perception of what is right depends on several variables including my reason, my experiences and my emotional makeup. It is not surprising that sometimes these forces conflict.

Last week I set out to trek our surveyed lines, hoping to find the peace of mind which so often eludes us all. At the very least, I wanted to encounter something that was right in the world, something to make me smile. I knew I would not get lost. W. J.'s lines run straight, are well marked and neatly tied together. Nothing could be simpler than walking the rectangle that bounds Lots 8, 9 and 10, Concession 13.

I left at 7a.m., promising my dear wife Sarah that I would be home for lunch. She suggested I take a sandwich, some water, a compass and a watch. I knew better. I was not hungry or thirsty. Compasses have always confused me and I do not own a watch. Nor do I own a cell phone, a fact that Sarah had given up mentioning years ago. I do own a GPS. In fact I own three. Two are in their original boxes and the one jammed into a cubby hole by the work bench bears the imprint of a hammer. I never did get the darn thing to work for me.

The western boundary of Lot 8 traverses an open, wild flower carpeted hill before abruptly plunging into a cedar grove. The riotous colours opened my eyes and caused me to consider how so many different flowers could thrive and coexist on one hill, all subject to the varying winds, sun and moisture throughout the year. I smiled. I smelled the cedars before I saw them. The southerly breeze enveloped me. I breathed deeply and sighed as I descended into the ravine and walked amongst nature's stalwarts. Protected by hills on either side, the cedars had weathered more than a century of seasons. They had nestled, intermingled and learned to live with their surroundings. Some had fallen prey to disease but the rot appeared controlled. Bark had grown around a scar, a shortened limb had produced new branches and twigs. I smiled as I touched and smelled new leaves.

Leaving the ravine behind, I marched through a stand of beech and headed straight for a gigantic erratic deposited 10,000 years ago by the retreating glacier. I knew the SIB,

marking the corner, protruded from the earth 25 centimeters in front of the massive boulder. I pondered Wally's course if the glacier had placed the erratic a metre further east. Faced with such an obstacle, I would have abandoned accuracy and plunked the bar beside the boulder figuring it was close enough. I smiled. A surveyor would know the right path to take.

Leaving the bar, I turned east and began to move quickly along the southern boundary of Lots 8, 9 and 10. I sensed that I had lingered too long, caught in my musings. A promise is a promise and Sarah expected me home by noon. I did not want her to worry and perhaps my pride accelerated my gait. Who needs water, a compass etc. when one knows the bush so well? I have previously written about the southern boundary. A massive windfall had created havoc but Wally had cut a way through. The narrow trail ran straight and true. But it was narrow. I decided to leave the line, cut into the bush and walk parallel to the boundary line as the windfall appeared to peter out just north of the line.

About half way along, some 2000 feet from the aforementioned SIB and a lot length south of my house, I fell. I admit I swore. When I stood I admit I screamed. My left ankle was wrenched and tender. I stared at the moss covered culprit. I had slipped off a green domed rock. I hobbled to a fallen trunk, sat and collected my thoughts. No point cursing the rock. I was the one who had strayed. I had made the wrong decision. I did not smile. I had to make a second choice. I needed to retreat before the ankle ballooned. Faced with retracing my steps along the cleared boundary lines or heading due north toward home, I chose the more direct route. It was not the easiest. Thankfully there was no more windfall. Unfortunately there were no straight cut lines. In fact there were no lines at all. I saw a hill rising before me and hoped it was the same hill I could see from our house when looking south. I headed straight for a large red pine on the crest. It took much effort, some cursing and a few groans but I eventually reached the summit only to look down into a ravine that I had never seen. I thought I could see across the dip to a second hill. Its ridge appeared covered in white pine. I recalled white pine on the hill south of our house.

By the time I reached the next ridge my ankle had swollen badly. The pain had two benefits. It took my mind off my empty stomach and parched mouth. It also focused my mind. I could not afford to seek solace in self-pity. The right decision was to head straight down the hill and pray my

house would come into view before my ankle burst my boot.

Sarah was on the porch accompanied by a plate of sandwiches and a pitcher of ice tea, both of which she abandoned as she raced toward me. I hugged her and smiled. The morning adventures had taught me several things that are right in the world and several things about myself that in anybody's book are wrong.



David Coombs has a Ph.D. in Canadian history. After his retirement as a stockbroker in 2004, he began to write. His articles have appeared in The Country Connection, the Toronto Star and the Globe and Mail. He is also the author of "The Beckoning Land" which is an historical novel set in his home town of Barry's Bay during the Depression and WWII. A copy of his book is available for purchase at www.lulu.com (<https://bit.ly/2IpjDkl>)

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EDUCATIONAL FOUNDATION NEWS

Congratulations to our Spring 2019 Award Winners

York University – Lassonde School of Engineering – Geomatics Engineering Students **Victoria Donko** and **David Rechhia** were presented with awards for obtaining the highest grades in **LE/ESSE 4670 Survey Law** and demonstrating a strong interest in cadastral surveys during the course.

Loyalist College – This year **Jurgen Ismaili** received the **Eastern Regional Group Leadership Award**, which is presented to a graduating student in the Survey Engineering Technician program for achievement in field surveying as demonstrated in courses Geomatics 1, Field Safety, Field Techniques and Geomatics 2 and overall leadership. He is also the recipient of the **Eastern Regional Group Achievement Award**, which is presented to a graduating student in the Survey Engineering Technician program, for achievement in computer assisted drafting as demonstrated in the course

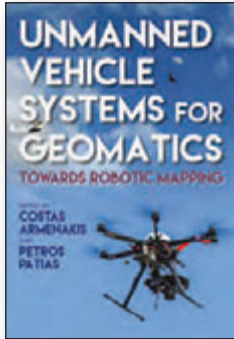
Survey Drafting. Last November, Jurgen received the **Eastern Regional Group Undergraduate Award** for his achievement in the first year of the two-year program. All three of the awards are co-sponsored by the Eastern Regional Group.

Fleming College – On June 7th, **Carson Smulders** received the **GIS Award**, which is presented to the student in the GIS Applications Specialist Program who exemplifies leadership in project management. **Charmaine Holloway** received the **Kawartha-Haliburton Surveyors Scholastic Award**, which is co-sponsored by the Kawartha-Haliburton Regional Group and is presented to a student in the GIS Applications Specialist program who attended Survey Camp and exemplifies leadership in the participation of assignments, and prepared exemplary field notes.

The Educational Foundation would like to recognize with thanks another donation made in the memory of Henriette Verhoef.

BOOK REVIEWS

Unmanned Vehicle Systems for Geomatics Towards Robotic Mapping



Published by
Whittles Publishing
ISBN 978-1-84995-127-2

Edited by Costas Armenakis and Petros Patias

This book contributes to the transformative and revolutionary use of small, unmanned vehicle systems for three-dimensional geospatial data acquisition and mapping, which is considered to be a paradigm shift in the science and technology of geomatics.

It presents a systematic and comprehensive approach for the use of small mobile unmanned systems for robotic geomatics research and applications. Emphasis is placed on aerial unmanned mapping systems as aerial data collection provides better perspective and coverage of an area, and offers the ability for targeted coverage.

After considering background information on current

systems and technologies, the book presents photogrammetric fundamentals and advanced methodologies, addresses both platform and control segments, discusses sensors, communication, and payload aspects, emphasizes automatic aspects of sensor localization and exploration and mapping of the environment. It offers several application cases, from monitoring changes in arctic regions to precision agriculture and archaeology, presents challenges and emerging technologies and discusses the market trends and the roadmap ahead.

Information taken from the back cover.

Bush Runner The Adventures of Pierre-Esprit Radisson

By Mark Bourrie

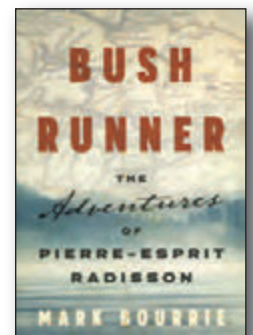
Known to some as the first European to explore the upper Mississippi, and widely as the namesake of ships and hotel chains, Pierre-Esprit Radisson is perhaps best described, writes Mark Bourrie, as “an eager hustler with no scruples.” Kidnapped by Mohawk warriors at the age of fifteen, Radisson assimilated and was adopted by a powerful family, only to escape to early New York City after less than a year. After being recaptured, he defected from a raiding party to the Dutch and crossed the Atlantic to Holland – thus beginning a lifetime of seized opportunities and frustrated ambitions.

A guest among First Nations communities, French fur traders, and royal courts; witness to London’s Great Plague and Great Fire; and unwitting agent of the

Jesuits’ corporate espionage, Radisson double-crossed the English, French, Dutch, and his adoptive Mohawk family alike, found himself marooned by pirates in Spain, and lived through a shipwreck on the reefs of Venezuela. His most lasting venture as an Arctic fur trader led to the founding of the Hudson’s Bay Company, which operates today, 350 years later, as North America’s oldest corporation.

Sourced from his journals, which are the best first-hand accounts of 17th century Canada, *Bush Runner* is a true-life adventure story like no other – and will engross and fascinate readers everywhere.

Information taken from inside the front cover.



Published by
Biblioasis
ISBN 978-1-77196-237-7

The Spinning Magnet The Force that Created the Modern World and Could Destroy It

By Alanna Mitchell

Award-winning journalist Alanna Mitchell’s globetrotting history of the science of electromagnetism and the Earth’s magnetic field – right up to the latest indications that the North and South poles may soon reverse with apocalyptic results – will change the way you think about our planet.

Mitchell’s delightful storytelling introduces enchanting characters, from investigations into magnetism in thirteenth-century France to the discovery in the Victorian era that electricity and magnetism emerge from the same force – one of only four in the universe. No one has ever told so eloquently how the Earth itself came to be seen as a magnet, spinning in space with two poles, and that those poles have dramatically reversed many times, often coin-

ciding with mass extinctions. The most recent was 780,000 years ago.

Mitchell investigates indications that Earth’s magnetic force field is decaying faster than previously thought. When the poles switch, a process that takes many years, Earth is unprotected from solar radiation storms that would, among other disturbances, wipe out much and possibly all of our electromagnetic technology. Navigation for all kinds of animals is disrupted without a stable magnetic North pole. But can you imagine no satellites, no Internet, no smartphones – maybe no power grids at all?

Information taken from inside the front cover.



Published by Viking, an
imprint of Penguin Canada
ISBN 978-0-670-07019-0

The Last Word

Project '44 – Mapping the Battle of Normandy

Launched for the 75th Anniversary of the D-Day landings, **Project'44** is an online database project (<https://www.project44.ca>) which contains hundreds of rare historical documents and maps that will let viewers explore the Battle of Normandy. It is being led by The Canadian Research and Mapping Association (CRMA), which is a non-profit and Veteran-led organization which specializes in digital preservation, collection management systems, and mapping military history. A dedicated team of volunteers has spent over a year in digitally preserving the documents and mapping out the Allied advance. With the war diaries of the First Canadian Army on hand you will be able to follow along and discover a new perspective into the Canadians' contribution to the invasion and the sacrifice that was made in summer of 1944. Canadians will be able to follow the First Canadian Army (FCA) and its allies from Juno Beach to the River Seine covering 87 days of combat from June 6th to August 31st, 2019.

One of the topics under the *Intel* section of the website is

Canadian Overseas Surveying and Mapping, 1939-1945
<https://www.project44.ca/intelblog/mapping-second-world-war>

During the Second World War overseas surveying and mapping included topographic surveys, map reproduction and production of maps from aerial photography. The 1st Canadian Corps Field Survey Company, Royal Canadian Engineers was activated on September 3, 1939. Once in the United Kingdom, the Canadian surveyors were active in producing defense overprint maps and artillery fire plans, both of which were in heavy demand. The corps was disbanded in May 1943 to form other specialized field survey companies, namely, Topographic, Reproduction, Air Survey and one Army Depot to coordinate training and provide a map depot.



Throughout the war, over 700 Canadian mappers saw active service during the Northwest Europe campaign. Field surveyors made significant contributions by conducting various survey tasks, and providing both map production and distribution to the Canadian Army.



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Colour profile included in the file should be GRaCol_2006_Coated with Relative Colorimetric Intent.

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