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#### **Executive Summary**

The **Association of Canada Lands Surveyors** (ACLS) is the national licensing body for professionals that practise surveying on Canada Lands, which are mainly the three Canadian Territories, the National Parks, First Nations Reserves, and including above and below the surface of Canada's oceans. The exclusive title attributed to these professionals is that of a Canada Lands Surveyor (CLS).

The Association was created through an Act of Parliament in 1998 bringing full self-regulation to the ACLS through powers of regulation over its members, a clear duty to always serve the public interest and clear governance oversight of the association through its Council.

The most important role of the ACLS is to protect the Canadian public and the survey cadastral fabric on Canada Lands. The ACLS received no complaint from the public in 2020.

The ACLS Council is concerned about provincial governments questioning the governance practices of licensing bodies so this year, Council's priority was and still is to review, improve and update all of ACLS practices and policies to be ready for any challenges in the future. During this process, Council decided to develop new vision and mission statements and draft values statements to guide Council and staff in their work to protect the public interest. Council also developed a mandate statement to clearly explain, to the public, the role of our organization.

The COVID-19 pandemic had a serious effect on the ACLS. The Association headquarters has been closed since March 17th, 2020. All staff members have been working from home with no end in sight. The planned 2020 National Surveyors Conference was cancelled. Instead, the ACLS held an on-line annual general meeting on May 22nd, 2020. The 2021 AGM will also be held on-line on April 14th, 2021.

In 2018, all Canadian land surveying associations and the six surveying/geomatics degree granting educational institutions started a project to examine the future of surveying education. This preliminary work has taken us to a point where we are all in agreement on a direction and the need for funding to move forward.

A request for funding had been submitted to Employment and Social Development Canada (ESDC) in April 2019. The initiative has three objectives:

- Update the National Educational Syllabus to meet changing societal needs and priorities, and adapting to a future driven by technological change;
- **2.** Update the university and college accreditation and exemptions process;
- **3.** Develop a clear path to an online Canadian surveying/geomatics engineering degree.

This last objective is our ultimate goal. Once the National Syllabus is up to date and the accreditation and exemption process improved, the next logical step is to move towards a Canadian online degree in surveying/geomatics engineering.

We received approval from ESDC late fall 2020 and the project entitled "Towards an On-line Degree in Surveying/Geomatics" began on December 23rd, 2020. It will end on June 9th, 2023.



#### ACLS:

The Association of Canada Lands Surveyors (ACLS) is the national licensing body for professionals that practise surveying on Canada Lands, which are mainly the three Canadian Territories, the National Parks, First Nations Reserves, and including above and below the surface of Canada's oceans. The exclusive title attributed to these professionals is that of a Canada Lands Surveyor (CLS).

#### **Vision:**

Instilling public confidence in the regulation of Canada Lands Surveyors.

#### **Mission:**

Remaining true to our mandate, we build trust and mutual respect through strong governance, effective self-regulation and individual proficiency.





### Welcome to the World of Land Surveying

Cadastral Land Surveying involves measurement or the creation of new boundaries or the retracement of existing boundaries between contiguous (or adjacent) parcels of land.

Surveyors apply mathematics, property law and the latest measurement technology to real-life situations. These professionals are enablers of industries that invest billions into the Canadian economy annually. Because of their expertise, land surveyors are required whenever there is a need to establish boundaries of new parcels of land, establish boundaries of tenure on parcels of land or to re-establish these boundaries.

As per Section 6 of the Canada Lands Surveyors Act, the objects of the Association are:

- (a) to establish and maintain standards of qualifications for Canada Lands Surveyors
- (b) to regulate Canada Lands Surveyors
- (c) to establish and maintain standards of conduct, knowledge and skill among members of the Association and permit holders
- (d) to govern the activities of members of the Association and permit holders
- (e) to cooperate with other organizations for the advancement of surveying; and
- (f) to perform the duties and exercise the powers that are imposed or conferred on the Association by this Act.

# The Mandate of the Association of Canada Lands Surveyors

#### **Mandate**

The mandate of the Association of Canada Lands Surveyors (ACLS) is to regulate and govern the practice of surveying on Canada Lands and private lands in the territories, for the protection of the public interest, in accordance with the Canada Lands Surveyors Act, SC 1998, c. 14, – 1998, its Regulations and Bylaws.

The practice of the ACLS membership is monitored through a practice review process, while professional conduct and competence are held to high standards and subject to investigation and adjudication when called to question. Mandatory professional development, licencing & permitting requirements, minimum insurance requirements and strong Council oversight over the regulatory aspects and association operations, all contribute to the mandate of protecting the public interest.



#### Who We Are

The Association was created through an Act of Parliament in 1998 bringing full self-regulation to the ACLS through powers of regulation over its members, a clear duty to always serve the public interest and clear governance oversight of the association through its Council.

The current Association is the continuation of the previous Association of Canada Lands Surveyors, namely one established in 1985 to enhance the practice of professional land surveying and related spatial disciplines, through establishing standards of qualification, knowledge, skill, ethics and conduct among its members. This Association was itself the continuation of other ones that existed from time to time since the early days of surveying in Canada.

Today, under the powers delegated through The Canada Lands Surveyors Act, SC 1998, c. 14, (the Act), which is under the authority of the Minister of Natural Resources Canada, as a self-governed professional association and a regulatory body, the ACLS's mandate ensures members are competent in providing the services that society has entrusted to them and to elevate, within the public's interest, the value the profession brings to those reliant on the professional services of our members.

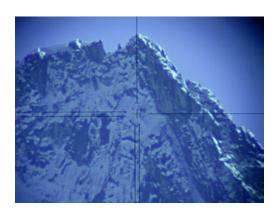
#### **How We Are Governed**

The ACLS Council is comprised of elected members and appointed members of the public. As the governance entity for the ACLS, the Council ensures that all manner of regulatory requirements are approved and monitored for Association admission, member's practice activities, conduct & competency, licensure requirements, investigation & discipline and more.

The Council has ultimate oversight of the ACLS with respect to managing the affairs of the Association, acting on behalf of the Association, regulatory oversight, setting the organization's strategy, managing risk, meeting statutory objectives and being accountable to the Minister of Natural Resources who holds ultimate oversight over the Act.

#### **How We Measure Success**

The ACLS is successful and the profession itself succeeds, if through appropriate regulatory standards, member's ethics, and strong oversight, we are able to elevate society's trust and esteem for the profession. We succeed if we meet our objectives in a fair, transparent and just manner.



#### **Values**

#### **Integrity**:

We can be trusted to protect the integrity of Canada Lands and land tenure while remaining fair and impartial.

#### **Accountability:**

We follow through on our commitments and own our actions.

#### **Competence:**

We are professional, knowledgeable and maintain ongoing competency through practice review and continuing professional development.

#### **Innovation:**

We keep pace with new and emerging technology, transforming and changing as required to bring the greatest value and efficiency to the general public and our members.

#### **Excellence:**

We are committed to quality and continuous improvement. We strive toward high performance, setting high standards for our members and ourselves.





**Jim Christie**President *Vancouver, BC* 



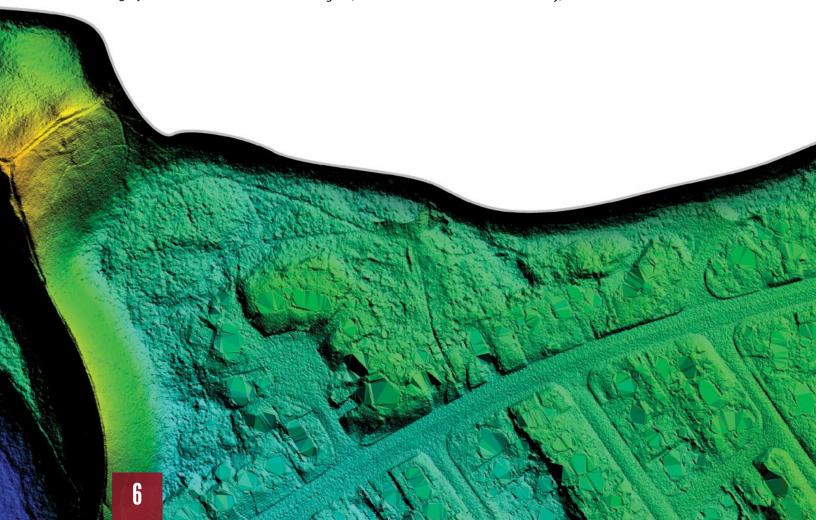
Robert Pinkerton Past President Calgary, AB



**Philippe J. Breau** Vice President *Néguac, NB* 



**Bob Halliday** 3rd Year Councillor *Massey, ON* 





Max Putnam 2nd Year Councillor Corman Park, SK



**David Rochette** 1st Year Councillor *Quebec, QC* 



**Geoffrey Connolly** Appointed by the Minister *Cornwall, PEI* 



**Leona Irons**Appointed by the Minister *Curve Lake, ON* 



**Jean Gagnon** Surveyor General *Ottawa, ON* 



**Jean-Claude Tétreault**Executive Director
Ottawa, ON







For over 14 years, the David Thompson National Geomatics Award has been awarded to surveyors in an effort to nationally acknowledge their achievements and excellence in the filed of geomatics in Canada. The program was developed to recognize projects that exemplify the innovation and contribution to society that surveyors make every day to bring successful projects about for the betterment of all Canadians.



**Rob Riecken** 

#### **Challenging Non-cadastral Survey Project**

#### Multi-Instrument Automated Monitor of Vital Highway Bridge in Vancouver

McElhanney designed, installed, and maintained a four-month automated monitoring program for a BC Ministry of Transportation & Infrastructure Highway 1 bridge in Vancouver. FortisBC planned to construct a natural gas pipeline beside the bridge pier foundations, and a trench was needed to contain the pipeline – but the bridge had not been seismically upgraded, making it vulnerable to failure should the nearby ground be disturbed.

McElhanney installed a series of instrumentation, which included two continuously operating total stations, tilt meters, accelerometers, inclinometers, vibrating wire piezometers, and vibrating wire strain gauges. The unique combination of position difference data with tilt, inclination, and vibration data was critical to the geotechnical assessment of the site. All stakeholders could access the real-time data 24/7 via web-based dashboards, and the data was highly functional for MOTI and FortisBC's engineering teams.

The David Thompson National Geomatics Awards Program is open to all commissioned surveyors who are members of a Canadian surveying association, submitting projects that have been completed within the last three years. The deadline for submissions is March 1st, 2021.

## National Surveyors Conferences

The COVID-19 pandemic forced us to cancel both the 2020 and 2021 editions. We held a virtual annual general meeting on May 22nd, 2020 and are scheduled to hold another one on April 14th, 2021. We hope to hold a face-to-face conference in Vancouver in March of 2022.



## Modernization of the Canada Lands Surveyors Act

Work on proposed amendments to the Canada Lands Surveyors Act and the Regulations were initiated in 2012.

The main topics addressed in the proposed amendments are:

- Improving the complaints and discipline processes through greater transparency;
- 2. Transferring administrative responsibilities from Regulations to By-laws;
- 3. Aligning with Labour mobility provisions with the Canadian Free Trade Agreement;
- 4. Amend incompatibilities between the English and French versions of the Act.

All through the years 2018, 2019 and 2020, the ACLS By-laws and Legislations Committee and some members of the NRCan Surveyor General Branch staff worked on preparing a working document explaining the modifications that the Committee feels are necessary to address the topics listed above.

The project is now in the hands of the Federal Government for next steps.

## The Canadian Hydrographer Certification Program

The ACLS has developed a certification model for hydrographers and offshore surveyors, which, has been officially recognized by the IHO/FIG/ICA International Board of Standards and Competence for Hydrographic Surveyors and Nautical Cartographers (IBSC) in April of 2016. Currently, six people have been awarded Certified Hydrographer Level 1 status. The ACLS program is the second internationally recognized scheme in the world.

#### Certification by a hydrographic or offshore surveyor is desirable because:

- Certification provides a formally recognized and structured career path for the hydrographic or offshore surveyor.
- Establishes the hydrographic or offshore surveyor's level of expertise and competency.
- Ensures the hydrographic or offshore surveyor is aware of the changing technologies in these sectors.
- Provides the certificate holder with an enhanced profile within their industry.
- Prepares the hydrographic or offshore surveyor for the next global expansion in these sectors.







## **GeoEd Distance Learning Portal**

Recognizing the geographically diverse nature of surveyors across Canada, the ACLS is enhancing the delivery of continuing professional development through distance learning initiatives. This includes courses offered through partnership with sister associations, academic institutions, government, and private companies and all available through the GeoEd portal.

The GeoEd portal is currently being filled by on-line courses on a variety of topics that are available at a click of the mouse. At this time there are over 200 courses available on GeoEd. These courses include live, interactive webinars but most courses are on a self-study format with recorded video and other digital materials. Surveyors are able to sign up for any course and complete it at their leisure.



#### **Scholarship Winners**

Every year the ACLS Foundation awards four scholarships of \$2,000 to students enrolled in a post-secondary institution in the field of Geomatics. This year, the committee chose the following recipients from many promising applications. Congratulations to the winners and thanks to all applicants!

2020 Winners of the ACLS Foundation Scholarship in alphabetical order:

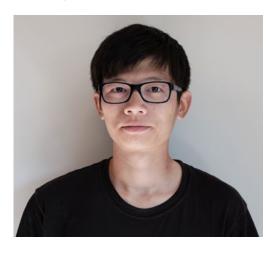
**lan Anderson**4th Year
University of New Brunswick



Maria Le 4th Year University of Calgary



**Hang Hong**4th Year *University of New Brunswick* 



**Esha Minchen**2nd Year *British Columbia School of Technology* 



Visit our website at https://www.acls-aatc.ca/students-home/scholarships/ for additional information about the Geomatics Scholarship Program and eligibility requirements.

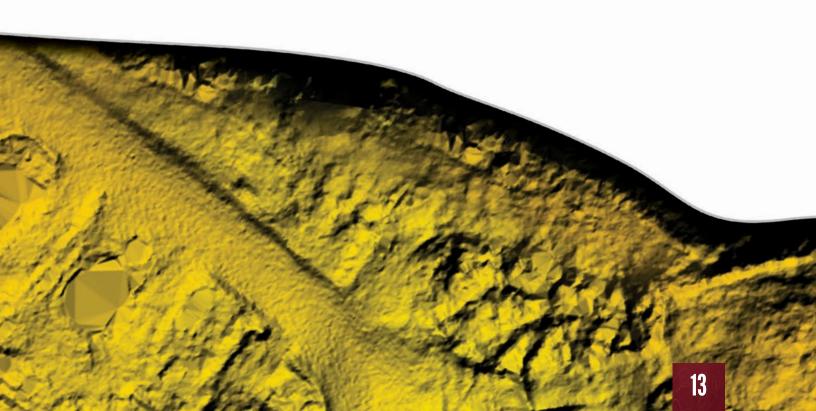
#### **Complaints and Discipline**

The most important role of the ACLS is to protect the Canadian public and the survey cadastral fabric.

The Association received no complaint in 2020.

## Canadian Board of Examiners for Professional Surveyors (CBEPS)

The ACLS continues to provide the administration and registrar services for the Canadian Board of Examiners for Professional Surveyors. The ACLS has a strong core competency in the fields of candidate management and examinations and wants to continue to make these resources available to the whole surveying community.





In 2018 all land surveying associations and the 6 surveying/geomatics degree granting educational institutions through the Canadian Board of Examiners for Professional Surveyors (CBEPS) started a project to examine the future of surveying education. This preliminary work has taken us to this point where we are all in agreement on direction and need funding to move forward.

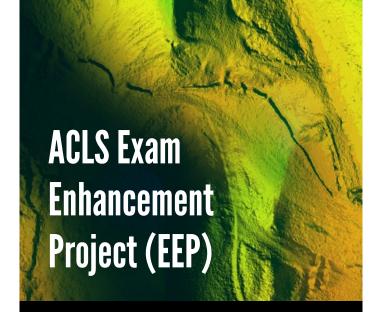
To continue to make the surveying profession more responsive, open and welcoming, it has become clear throughout the work on the Pathways to Credential Recognition of Foreign Trained Land Surveyors project that ended in the spring of 2019 (see 2019 report), that the National Syllabus of study subjects to become a land surveyor must be updated. Several components are now discordant with the real world of surveying using the technologies available today.

Updating the national syllabus will then take the surveying profession closer to its avowed goal of setting-up an online degree in surveying/geomatics. We also need to develop a new and improved accreditation process for current and future learning insti-

tution programs leading to a degree in surveying/ geomatics that would be more efficient and in line with national and international trends. An online degree in surveying/geomatics is an innovative way to access specialized knowledge that will benefit many groups. For example, mature Canadian students find it nearly impossible to quit work and move to where a degree is being taught at university – they have many obligations and often times they also have a family. It would also assist foreign trained land surveyors interested in immigrating to Canada as they could undertake to fill in the gaps in their knowledge from their country of origin reducing the time required to attain their goal of being licensed land surveyors in Canada.

A request for funding had been submitted to Employment and Social Development Canada (ESDC) in April 2019. ESDC confirmed in February 2020 that our concept was accepted, so we sent a detailed submission with proposed budget in April 2020. After a lot of back and forth with ESDC staff last summer for clarification on details of the project and adjustments to the budget, we received approval late fall and the project began on December 23er, 2020. It will end on June 9th, 2023.





In January of 2018 the ACLS started a project dedicated to improving the quality and efficiency of its current examination system. There are three objectives in achieving a more efficient examination system through the ACLS Examination Enhancement Project (EEP). These objectives are as follows:

- To provide a mechanism to allow candidates to prepare and succeed in writing the necessary examinations
- To update study material and fill in the gaps in the French material
- To eliminate the biannual face-to-face sitting of the examinations for candidates who do not hold a provincial surveying commission and provide greater flexibility to this entire candidate stream.

This project has been completed March of 2020.

Labour Mobility candidates had access to an on-line exam separated into 4 modules since the Spring of 2018 and now those candidates who do not have provincial licence to practice have access to 3 three hour on-line on demand exams eliminating the 2 face-to-face exam sittings that we had in place for many years.



## New Book on the CLS Profession

In November 2018, the Association of Canada Lands Surveyors Council decided to move forward with the production of its first book on the CLS profession to be written by acclaimed author, Charlie Wilkins.

"A Sense of Where You Are" will be a story, both in the individual and collective sense. It's either the stories the surveyors tell about themselves, or the stories that Charlie tells about his observations of them ... the book is based on his interviews and travels with the various surveyors, will be built around their stories, and the "story" of Charlie's time with them, plus of course some well-researched history. All of this accompanied by spectacular images from the lands and waters where Canada Lands Surveyors do their work.

The overall objective of this publication is to provide a captivating and varied experience for its readers and provide a non-typical and more encompassing view of the role of the professional land surveyor in Canada. A broad story will be narrated describing Canada Lands Surveyors' varied experiences across Canada with anecdotes on how the profession has contributed to and continues to contribute to the historical development and contemporary challenges facing an evolving nation.

Through the delivery of a variety of independent inviting elements that are relevant to the interests of the Association, each reader can expect to immerse themselves into a book that provides a sense of curiosity and indulgence from start to finish.

It is with great excitement that we provide the following glimpse into the ACLS Book, which we are hoping to launch in fall 2021.



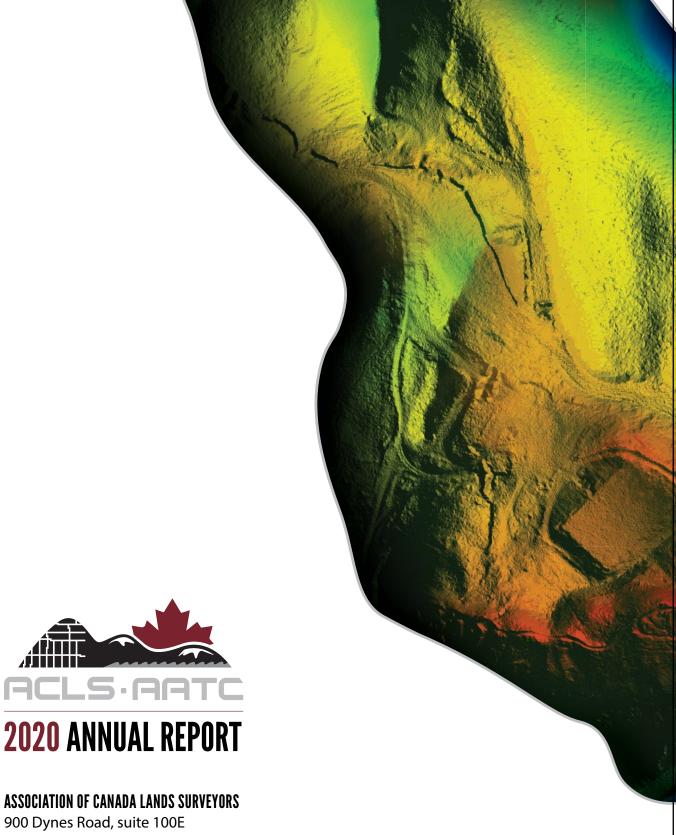


Joe Johnson – He's simply a guy with something to say. Tyrell D'Aoust, a very brightly creative and outspoken young Cree surveyor from northern Alberta, who has all sorts of interesting ideas for the future of the Surveyor General Branch, for management of Indigenous Lands, and so on. Dominique Fecteau, an ex-president of the Association, he says the old patriarchal structures around surveying are worn out and need rebuilding. Marie Robidoux or Anne Cole, who have both done so much, because they're keen to tell the story of their fight for recognition as a woman in surveying. Veronica Meister is another thoughtful, progressive voice for women and for social advocacy among surveyors.

We have members or retired members who many people would probably never think of as advocates for social justice as it pertains to the profession. Some of the things Rick Beaumont told Charlie, for example, were extraordinary. Julian Goodyear and other prominent land surveyors – believe CLSs have a big role to play in the righting of the country. And Chris Cryderman – very outspoken on land claims, the courts, and the surveyors.

The government itself has acknowledged systemic racism, the need for reconciling with the First Nations... to say nothing of the ominous realities of climate change and the need for gender equality. We're a country in which, as Mike O'Sullivan said, "the surveyor has been a witness to many of the harsh realities and injustices of the past, and as such has a significant role to play in the healing of the wounds". It just seems so important to let the members talk about these things in the context of the book – it's so clearly on many of their minds! We can name probably 40 or more members (at least half of those interviewed) who spoke openly about their hope that this book would touch meaningfully on their work with First Nations, climate change, the struggle for women to gain a place in the profession.





900 Dynes Road, suite 100E Ottawa, Ontario, Canada K2C 3L6 1-613-723-9200

www.acls-aatc.ca