

No. 135

ANNUAL REPORT
of the
ASSOCIATION OF ONTARIO LAND SURVEYORS

Organized 1886

Incorporated 1892



PROCEEDINGS OF THE ONE-HUNDRED AND TWENTY-EIGHTH
MEETING SINCE INCORPORATION
HELD AT DEERHURST RESORT,
HUNTSVILLE, ON, CANADA
FEBRUARY 26, 2020 – FEBRUARY 28, 2020

Preface

To the members of the Association of Ontario Land Surveyors:

The Minutes of the Association at its One-Hundred and Twenty-Eighth Annual Meeting are herewith presented.

Brian Maloney
Executive Director
February 2020

Association of Ontario Land Surveyors
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Copies of the Annual Report for some of the past years can be obtained by applying to the Association Offices.

Views and opinions in Addresses, Presentations and Reports are not official expressions of the Association's policies unless so stated.

RECIPIENTS OF AOLS AWARDS

PROFESSIONAL RECOGNITION AWARD

JOHN EDWIN JACKSON	1968
WILLIAM FREDERICK WEAVER	1971
EDWIN PERCY ARGALL PHILLIPS	1972
FREDERICK JOHN SIDNEY PEARCE	1973
JOHN GOURLAY PIERCE	1976
HERBERT HARVEY TODGHAM	1980
JOHN DONALD BARBER	1984
HAROLD STEWART HOWDEN	1991
NANCY LORRAINE PETZOLD	1992
MOIR NEIL SIMPSON	2000
JACK KEITH YOUNG	2004
WAYNE BRUBACHER	2005
DAVID WHITFIELD LAMBDEN	2006
MICHAEL J. O'SULLIVAN	2007
BRIAN MALONEY	2011
PAUL CHURCH	2015
IZAACK DE RIJCKE	2016

FELLOWSHIP AWARD

HARRY DOUGLAS GIBSON CURRIE	1979
MAURICE HEWITT	1979
JOHN DUNCAN BARNES	1982
RALPH ANGUS SMITH	1992
ANDREW GIBSON	1993
DARSHAN CHANDER KAPOOR	1993
ROBERT ALFRED FOWLER	1999
BOB HALLIDAY	2014
CRYSTAL CRANCH	2014
MICHAEL MARLATT	2017
BRUCE BAKER	2019
MICHAEL POWER	2019
BLAIN MARTIN	2020
MICHAEL CHAPMAN	2020

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CENTENARY AWARD

DANIEL ALPHONSE CYBULSKI	1992
BRYAN THOMAS DAVIES	1992
RONALD JAMES EMO	1992
SYDNEY GRENVILLE HANCOCK	1992
DAVID WHITFIELD LAMBDEN	1992
KENNETH HARVEY McCONNELL	1992
THOMAS EDWARD MERRIMAN	1992
WILLIAM CHARLES YATES	1992
JAMES NEIL GARDINER	1993
JAMES L. HILL	2009
JOHN GOLTZ	2010
ROBERT GUNN	2010
RON BERG	2011
JAMES FERGUSON	2013
DESMOND R. RASCH	2018
ANTHONY F. ROBERTS	2018
HENRIETTE J. VERHOEFF (posthumous)	2018

PRESIDENT'S AWARD

BOB AARON	2014
CHARLES WILKINS	2017
WILLIAM D. BUCK	2019

LIFE MEMBER AWARD

ERIC ANSELL	2019
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PAST PRESIDENTS

1886	G.B. Kirkpatrick	1931	J. van Nostrand	1976	J.D. Barber
1887	G.B. Kirkpatrick	1932	J.W. Pierce	1977	M.J.M. Maughan
1888	A. Niven	1933	J.M. Empey	1978	D.W. Endleman
1889	A. Niven	1934	R.M. Anderson	1979	T.E. Lyons
1890	V. Sankey	1935	E.G. MacKay	1980	G.J. Zubek
1891	V. Sankey	1936	H.M. Anderson	1981	D.F. Yates
1892	E. Stewart	1937	E. Cavell	1982	H.M. Graham
1893	E. Stewart	1938	R.S. Kirkup	1983	B.T. Davies
1894	M.J. Butler	1939	F.W. Beatty	1984	W.D. Brubacher
1895	M. Gaviller	1940	G.L. Berkeley	1985	R.J. Meisner
1896	W. Chipman	1941	N.A. Burwash	1986	H.R. Whale
1897	T.H. Jones	1942	E.L. Moore	1987	L.U. Maughan
1898	P.S. Gibson	1943	N.D. Wilson	1988	J.K. Young
1899	H.J. Bowman	1944	W.J. Fulton	1989	M.J. O'Sullivan
1900	G. Ross	1945	C.H. Fullerton	1990	T.E. Rody
1901	J. Dickson	1946	E.W. Neelands	1991	J.W. Nicholson
1902	W.R. Aylsworth	1947	J.K. Benner	1992	S.J. Statham
1903	W.R. Aylsworth	1948	H.G. Rose	1993	P.C. Wyman
1904	C.A. Jones	1949	W.F. Weaver	1994	D.A. Simmonds
1905	J.W. Tyrrell	1950	S.W. Archibald	1995	J.D. Annable
1906	O.J. Klotz	1951	C.G.R. Armstrong	1996	B. Maloney
1907	T. Fawcett	1952	A.L.S. Nash	1997	P.J. Stringer
1908	A.J. van Nostrand	1953	A. Gillies	1998	J.H. O'Donnell
1909	L. Bolton	1954	W.G. Ure	1999	D.S. Urso
1910	H.W. Selby	1955	J.E. Jackson	2000	C.M. Fraser
1911	J.F. Whitson	1956	W.J. Baird	2001	M.P. Allen
1912	T.B. Speight	1957	W.H. Williams	2002	R.C. Dixon
1913	J.S. Dobie	1958	R.B. Erwin	2003	D.D. Blais
1914	J.W. Fitzgerald	1959	R.F. Mucklestone	2004	T.A. Bunker
1915	E.T. Wilkie	1960	H.D.G. Currie	2005	P.L. Church
1916	C.J. Murphy	1961	M. Hewett	2006	D.E. Culham
1917	J.J. MacKay	1962	J.G. Pierce	2007	J.G. Boyd
1918	H.J. Beatty	1963	E.C. Brisco	2008	K.H. Campbell
1919	C.F. Aylsworth	1964	M.J. McAlpine	2009	A.J. Worobec
1920	T.D. leMay	1965	R.W. Brotherhood	2010	W. Kowalenko
1921	G.A. McCubbin	1966	W.J.G. Wadsworth	2011	D.M. Brubacher
1922	G. Hogarth	1967	R.R. Smith	2012	P.J. Benedict
1923	H.T. Routly	1968	F.J.S. Pearce	2013	E.L. Ansell
1924	W.G. McGeorge	1969	M.N. Simpson	2014	D. Page
1925	L.V. Rorke	1970	D.T. Humphries	2015	T. Hartwick
1926	N.B. MacRostie	1971	J.C. Kirkup	2016	T. M. Purcell
1927	H.W. Sutcliffe	1972	S.G. Hancock	2017	J. R. Hogan
1928	J.J. Newman	1973	E.W. Petzold	2018	D. Dzaldov
1929	A.T. Ward	1974	J.D. Dearden	2019	A. Jeraj
1930	R.M. Lee	1975	G.T. Rogers		

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PAST SECRETARY-TREASURERS

Col. Arthur J. Van Nostrand	1891 – 1900
Villiers Sankey	1900 – 1902
Capt. Killaly Gamble	1902 – 1912
Louis Valentine Rorke	1912 – 1923
Tracy Deavin leMay	1924 – 1936
Louis Valentine Rorke	1936 – 1943
Ralph Mackenzie Anderson	1943 – 1947
Charles Herbert Fullerton	1948 – 1954
Albert Victor Chase	1954 – 1955
Vernon Russell Davies	1955– 1956
Russell Reeves Grant	1956 – 1957
Herbert McEwen Anderson	1957 – 1958
Wilmot Johnston Baird	1958 – 1963
Dr. Alexander Campbell McEwen	1963 – 1965
John Norris Emberson Bradbury	1965 – 1969
Albert Francis Allman	1969 - 1972

PAST SECRETARIES

A. Francis Allman	1972 – 1976
N. Lorraine Settrington	1976 – 1981

PAST EXECUTIVE DIRECTOR - TREASURER

N. Lorraine Settrington	1981 – 1982
N. Lorraine Petzold	1982 – 1988

PAST SECRETARY - REGISTRAR

John Boyd	1987 – 1988
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PAST EXECUTIVE DIRECTOR – TREASURER – SECRETARY

N. Lorraine Petzold	1988 – 1989
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PAST EXECUTIVE DIRECTOR – TREASURER

N. L. Petzold	1989 – 1992
E. Peter Jacobs	1992 – 1993
Carl J. Rooth	1993 – Apr. 2000
Murray J. Legris	Apr. 2000 – 2006
S. James Statham	2006 – 2009
Blain W. Martin	2009 – 2019
Brian Maloney	2019 up to present

Officers of the Association: 2019-2020**HONORARY MEMBERS**

John D. BOGART, Q.C.	Toronto
Dr. Gordon GRACIE	Mississauga
N. Lorraine PETZOLD	Toronto
George WORTMAN	Richmond Hill
Eric J. BUNDGARD	Toronto

PRESIDENT AND CHAIRMAN OF COUNCIL

Al JERAJ	Brampton
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VICE-PRESIDENT

Andrew MANTHA	Windsor
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EXECUTIVE DIRECTOR / TREASURER

Brian J. MALONEY	North Kawartha
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REGISTRAR

Kevin WAHBA	Woodbridge
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DEPUTY REGISTRAR

Maureen V. MOUNTJOY	Brampton
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MEMBERS OF COUNCIL

Dan DZALDOV	Vaughan
Past President	

Term Ending

P. LAMB	2019
G. LAWRENCE	2020
T. MCNEIL	2020
A. AKSAN	2020
C. BOGUE	2020
D. KOVACS	2023

S. F. MACGREGOR, Surveyor General	Peterborough
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P. MEEHAN, Lay Councilor	Sudbury
K. A. GOWANLOCK, Lay Councilor	Ottawa
P. MEERVELD, Lay Councilor	Guelph
M. PAQUETTE, Lay Councilor	Ottawa
G. WORTMAN, Lay Councilor	Stouffville

Officers of the Association: 2020-2021

HONORARY MEMBERS

John D. BOGART, Q.C.	Toronto
Dr. Gordon GRACIE	Mississauga
N. Lorraine PETZOLD	Toronto
George WORTMAN	Richmond Hill
Eric J. BUNDGARD	Toronto

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Andrew MANTHA	Windsor
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VICE-PRESIDENT

Gavin LAWRENCE	Newmarket
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EXECUTIVE DIRECTOR / TREASURER

Brian J. MALONEY	North Kawartha
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REGISTRAR

Kevin WAHBA	Woodbridge
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DEPUTY REGISTRAR

Maureen V. MOUNTJOY	Brampton
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MEMBERS OF COUNCIL

Al JERAJ Past President	Brampton
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	<u>Term Ending</u>
T. MCNEIL	2020
A. AKSAN	2021
C. BOGUE	2020
D. KOVACS	2023
S. KASPRZAK	2024
A. LOAI	2024

S. F. MACGREGOR, Surveyor General	Peterborough
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P. MEEHAN, Lay Councilor	Sudbury
P. MEERVELD, Lay Councilor	Guelph
M. PAQUETTE, Lay Councilor	Ottawa
G. WORTMAN, Lay Councilor	Stouffville

ACADEMIC AND EXPERIENCE REQUIREMENTS COMMITTEE

2020 - 2021

Al Buckle, Presiding Officer

	<u>Term Ending</u>
R. G. BENNETT	2022
B. CAMPBELL	2022
V. A. SHELP	2021
A. BUCKLE	2021
J. WILBAND	2022
P. RAIKES	2022
K. R. D. SMITH	2023
S. HODGSON	2023
G. L. WORTMAN	<i>Lay Councilor</i>
M. A. CHAPMAN	<i>Ryerson Liaison</i>
J. WANG	<i>York Liaison</i>
M. V. MOUNTJOY	<i>Deputy Registrar</i>
K. WAHBA	<i>Registrar</i>

ASSISTANTS TO THE AERC

A. T. BOUNSALL, Milton	N. A. LEGROW, Newmarket
G. W. BOWDEN, Georgetown	A. S. MANTHA, Windsor
P. W. CHITTY, Gananoque	D. S. MARION, Cambridge
J. A. COLE, Sudbury	R. M. MCDERMOTT, Port Sydney
S. DALZIEL, Toronto	P. A. MILLER, Belleville
T. W. DEL BOSCO, Sudbury	R. NICULAE, Thornhill
L. G. DELORME, Rockland	S. M. PERKINS, Ottawa
R. L. FLEGUEL, Lakefield	G. W. PHILLIPS, Toronto
P. J. GREGOIRE, Richmond Hill	P. T. RAIKES, Shanty Bay
E. H. HERWEYER, Gloucester	R. J. REID, Stirling
S. HODGSON, Toronto	A. P. SANI, Scarborough
P. J. HOMER, Brampton	A. D. SANKEY, Mississauga
B. C. IRWIN, St. Catharines	S. SEDAGHAT, Stittsville
J. C. G. KEAT, Peterborough	R. A. SIMONE, Windsor
L. A. KINGSTON, St. Catharines	I. D. SMITH, Fonthill
P. B. LAMB, St. Catharines	G. B. VANDERVEEN, Whitby
D. A. LAMONT, Dundas	M. D. VERDUN, Keswick
M. J. LEGRIS, Oakville	H. J. WIMMELBACHER, Lindsay
	Y. ZHANG, Mississauga

**REGIONAL GROUP CHAIRS
2019-2020**

SOUTH WESTERN

Roy Simone

EASTERN

Hugh S. Coutts

GEORGIAN BAY

Rodney Geyer

HAMILTON & DISTRICT

Brent R. Larocque

KAWARTHA-HALIBURTON

Morgan Goadsby

NORTH EASTERN

Chris Bunker

NORTHWESTERN

Marvin McNabb

SOUTH CENTRAL

Vicky Kumar

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VETERANS' DINNER SPONSOR

Gordon McElravy

PRESIDENT'S DINNER AND DANCE

iLOOKABOUT

MEET AND GREET SPONSORS

Hamilton and District Regional Group
South Central Regional Group

COFFEE BREAK SPONSORS

South Western Regional Group
North Eastern Regional Group
(in memory of John Hiley Sr.)

AGM 2020 Exhibitors

Canadian UAV Solutions Inc.
Cansel Survey Equipment
Carlson Software
GeoShack
Geo-Solutions Inc.
Horizon Measurements Solutions Inc.
iLOOKABOUT
Leica Geosystems Ltd.
Logan Wealth Management Inc.
Measur
MicroSurvey Software Inc.
multiVIEW Locates Inc.
Northway/Photomap/Remote Sensing LTD.
Phoenix Measurement Solutions Inc.
Sokkia Corporation
T2 Utility Engineers
Teledyne Optech
TEKMET Ltd.
TERANET INC.
Tulloch Engineering
Urban X

Exhibitor Tables:

Gallagher Canada Ltd.
AOLS Public Awareness Committee
AOLS Archival and Historical Committee
Be Spatial / URISA Ontario Association
Loyalist College
York University



PROGRAMME: 2020 ANNUAL MEETING

TUESDAY, FEBRUARY 25th, 2020

Council Roast Dinner
Meet and Greet for all Members

WEDNESDAY, FEBRUARY 26th, 2020

Exhibits Open
Opening Ceremonies
Future of Education Panel
Keynote Address: Darrel I. Pink
“Re-thinking Professional Regulation”
Introduction of Exhibitors
Lunch with Exhibitors
Vendor Sessions
Plenary Session: Dr. Vern Singhroy and Carl Pucci
*“Canada’s RADARSAT Constellation Mission:
Opportunities for Monitoring”*
Plenary Session: Mark Sampson, John Breese and Graeme Holland
“Minimize your Risks— Lessons from our Insurance Program”
Exhibitor Presentations throughout the day
Open Forum Part 1
Veterans’ Reception
Veterans’ Dinner
Exhibitors’ Welcoming Party

THURSDAY, FEBRUARY 27th, 2020

Copyright Enforcement Group Meeting
Municipal Surveyors Meeting
Educational Foundation Meeting
Discipline Committee Meeting
ACLS Meeting – Ontario Chapter
Vendor Sessions
Accompanying Persons’ Program throughout the day
Convocation Lunch

Concurrent Sessions:
 Canadian Geodetic Survey— Supporting Accurate Positioning in Ontario
 Business Communications— Best Practices
 Minimize Your Risk in Boundary Evidence Research
 UESI Updates on the ASCE 38 and SUE for Municipalities Recent Release
 “Automated Deformation Monitoring” and “Hybrid Positioning – combined GNSS
 and Robotic Total Station workflow”

Hockey Night with Cansel
 President’s Reception
 President’s Dinner and Dance

FRIDAY, FEBRUARY 28th, 2020

Women Surveyors’ Breakfast
 Accompanying Persons’ Breakfast

AOLS Business Session
 Open Form Part 2
 Fees for Field Notes – Andy Mantha
 President’s Report – Al Jeraj
 2019 Financial Update – Trevor McNeil
 Surveyor General’s Report – Susan MacGregor
 Executive Director’s Report – Brian Maloney
 Registrar’s Report – Kevin Wahba
 Continuing Education Report – Tom Packowski
 Survey Review Department Report – Tom Packowski
 AGM 2020 Report – Mel Truchon
 AGM 2021 Welcome – Al Jeraj
 Closing Ceremonies

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President Al and Samra Hashim - Jeraj

Following proceedings, transcribed by A.S.A.P. Reporting Services Inc., have been edited for publication

(A full transcript of the proceedings of the Annual Meeting can be obtained through the AOLS Office)

Wednesday, February 26th, 2020 – Huntsville, Ontario

OPENING REMARKS:

Toronto, ONTARIO

--- Upon commencing on Wednesday, February 26, 2020 at 8:30 a.m.

--- The Proceedings Opened as follows

AL JERAJ: Good morning, everyone. We're going to give people a few minutes to get settled in. So, good morning, we will commence our opening ceremonies with the singing of O' Canada. We will be led by our own David Horwood to sing our National Anthem. Esteemed colleagues and guests, please stand for our National anthem and join in the singing of O' Canada.

--- *(The Canadian national anthem was sung.)*

AL JERAJ: Thank you, David. This is becoming one of our unofficial traditions, so I hope you take care of your voice for next year. I would like to now acknowledge that we are meeting on the traditional territory of the Anishinaabe.

To tell us more about the history of these lands, I would like to introduce Dan Shilling, the Chief Administrative Officer for the Chippewas of Rama First Nations. Dan is responsible for providing an interface between Chief and Council, the elected leadership, and the administration.

Esteemed colleagues and guests, please welcome Dan Shilling.

INTRODUCTION OF DAN SHILLING:

DAN SHILLING: Good Morning. Bonjour. Thank you, Al. It is my great pleasure to be here. I'd like to acknowledge my good friend Chester Stanton of Dearden and Stanton in Orillia. I've had the pleasure of working with Chester for the past 25 years, but I think Chester's father, and his company have historically worked with our First Nations for the past 50 years. So, I'd like to acknowledge my good friend Chester.

Reconciliation. In the spirit of reconciliation, many of our— many communities and businesses are using land acknowledgment to recognize the enduring relationship that exists between First Nations people and their traditional territories.

This is an expression of gratitude and appreciation for whose territory reside and is a way of honouring First Nations people who have been living and working with the land for centuries. Acknowledging land is an important part of our First Nation tradition.

Today you are—today we are in the traditional territory of the Anishinaabe, specifically, the Chippewa, the Ojibwe and the Potawatomi peoples under the Robinson-Huron No. 61 of 1850 and the Williams Treaty of 1923. Together we are honouring Indigenous people for their culture, their language, their wise teachings and the ways of being, their stewardship and protection of the lands and waters and life that we have shaped this country since the beginning— since time beginning.

Together we commit and acknowledge to learn, to educate, to create the opportunity and to honour sacred places, and to take actions towards the truth and reconciliation in support of our commitment to wellness for all. And to— and to walking the path together in respect, peace, harmony and future generations.

I would also like to acknowledge the Wasausking First Nation who have been part of this territory for many, many years. They are just on the outskirts of Parry Sound.

One of the things that I was asked to talk about, was how we as First Nation people mapped our territory. So many of the maps here are— the circles are some of the fishing territories that we would share with our different families, so different family groups would have traditional hunting and fishing territories.

And we have many, many treaties that affect every First Nation differently, and I think one of the things that mainstream society don't understand, is that there are 133 First Nations in Ontario— just a little over 600 in all of Canada— and we all have different relationships with one another. But we are not the same; we have different practices. We have different teachings and different ways of doing things. And one of the things that we historically had was a wampum belt. The wampum belts told stories as a lot of our history and our tradition was not written, but it was described and shared in a wampum belt.

So, this is a replica of a wampum belt from 1840. But what it was, it was a peace belt between the Six Nation and the Three Fires Confederacy which basically laid out territory. And one of our chiefs, Chief Yellowhead, read this script and it was recorded by a Jesuit priest in a book. And the transcript read: Chief Yellowhead rose up and made a speech that the great wampum belt of the Six Nations and explains the talk contained in it.

The wampum was about three feet long and four inches wide, and I actually have a replica of it here today if you wish to see it. It had a row of white wampum in the centre running from one end to the other to represent the wigwams every now and then, and a large round wampum tied nearly at the middle of the belt which was the

representation of the sun in the centre.

Yellowhead stated that this belt was given us by the Nottoway, which are the people of the Six Nations to the Ojibwe many years ago, about the time the French first came to this country. That the great Council took place at Lake Superior and that the Nottowas made a road or path that pointed to different Council Fires which were kept lit.

The first mark on the wampum represented the Council Fire should be kept burning at Sioux St. Marie. The second mark represented the Council Fire at the Manitoulin Island where a beautiful white fish was placed who should watch the fire as long as the world stood. A third mark represented the Council Fire on the island opposite Penetanguishene Bay on which was placed a beaver to watch the fire.

A fourth mark represented the Council Fire lit up the narrows of Lake Simcoe which placed a white reindeer. To him, the reindeer was committed to keeping of this wampum talk, and at this place our fathers hung the sun and said that the sun should be witness to all and all that had been done, and that when any of our descendants saw the light they might remember the acts of their forefathers.

At the Narrows, our fathers placed a ditch with ladles around it. The ladles for the Six Nations who said to the Ojibwe that the dish or bowl should never be emptied. But he, Yellowhead, was sorry to say that it had already been emptied, and not by the Six Nations of the Grand River, but the Ottoways residing near Montreal.

The fifth mark represented the Council Fire which was placed at the Credit River where a beautiful white eagle head was placed upon a very tall pine in order to catch the council fire and see that all ill winds blew upon the smoke of the council fires. A dish was also placed at the Credit that the right to hunting in the north side of the lake was secured to the Ojibwes, and that the Six Nations were not to hunt but only here when they come to smoke the peace pipe with their Ojibwe brethren. The path of the wampum from the Credit over the other side of lake country of the Six Nations. This ended the talk of a wampum.

So, we historically had peace belts and alliances with our neighbours which kept order and relevance in our community, but it was, you know, before mapping and before boundaries and before the Dominion Surveyors of Canada started mapping out this country.

One of the things that is important to our community is our involvement. Even before the Truth and Reconciliation movement, my community always took it upon ourselves that it was important to share our history, share our culture with our neighbours and it was important that we shared that because there's lots of misunderstandings and misinterpretations of the First Nations people in this country.

So, we talked about— we're doing something in May with the Muskoka Steamship and Discovery Centre in Gravenhurst, and those discussions have been going on with our cultural partner for the last year coming up this May. So, there's also an ongoing roundtable where we have many discussions with— there are 16— I think about 20 municipalities in Muskoka that meet. And the current Commissioner of Infrastructure of Muskoka was our Director of Facilities for 15 years, he's now the Commissioner of Muskoka, so we helped train him, I think.

Community consultations through the Williams Territory where there's many impacting the lands and environment, so we also are the only First Nations that belongs to the Source Water Protection Group because we think it's so important.

And over the last 30 years, we share Lake Couchiching with Ramara Township, Severn Township, and ourselves, and the City of Orillia. So, we've participated with them in monitoring the water quality of the lake and participated in various studies that monitor that lake.

One of the things that also happened was the G7 came here, so we assisted the Town of Huntsville in putting together a celebration that was shared with the G8 groups were here that came to our country a couple years ago during the G8 Summit.

And one of the things that we were the beneficiary to was, there was three quarters of a million dollars spent on an emergency comp centre that was there in case there was a tragedy or that the emergency service were needed to be mobile. And it was a hazmat vehicle that could facilitate— if there was catastrophe— it had 40 beds, it's been used to assist with providing CO2 for some of our firefighters and it could generate oxygen right there as opposed to bringing in portable cans. So, that vehicle has participated in our neighbours in helping fight some of the fires.

And we also were the beneficiary— that truck was also used— we had a seniors' catastrophe where we lost several lives in a seniors' complex. This thing had a 40-foot camera, and part of the fire marshal when they were dismantling this catastrophe it was all recorded with that truck. So that truck has been a benefit to our region and a benefit with regards to our mutual aid agreements that we participate with our neighbours in Simcoe County.

We also, through our economic success, have an enhanced fire department. Our fire department— we have a plaque hanging in the fire department and it came from Huntsville and it says, "Rama Fire Department saves downtown Huntsville." Our fire truck, our ladder truck went to Huntsville to help fight a fire, I think about 2012. So, Huntsville was grateful, and they have a plaque and then the local paper said, "Rama Fire saves downtown Huntsville." But that's part of the mutual aid agreements that our First Nation could do with our neighbours, and not many in First Nations can say that today.

We also were acknowledged by the Municipality of Dorset, and one of the acknowledgments is, we had a hereditary Chief John Bigwin who was famous in this territory, and he— we have Bigwin Island. So, he was famous, and they say he's buried somewhere in there. But the Town of Dorset reached out and said that we want to do a plaque and acknowledge that relationship, so we were able to do that in 2017. The Municipality of Dorset reached out and said, you know, we would like you to bring up some elders, and we took our elders out on the SS Bigwin and there was somebody there from their historical society who talked about the things that John Bigwin did to a lot of the early settlers in the 1800's. So, it was an amazing historical perspective, for even our elders back home.

We also, through the Chippewa Tribe Council, assisted the City of Toronto with the War of 1812 celebration. And we, as First Nations people, feel that we contributed, that we are not part of that crazy guy in the States regime. But one of the things that we like to perceive ourselves is, one of the more successful First Nations in the country. Like, I was just telling Al, that we have a bingo hall in Mississauga, and we just opened another one in Scarborough, but it's important that we diversify and create revenues that help us run our programs back home.

And we weren't always so successful, but I think through economic development, taking control of our own education we're producing engineers, we're producing lawyers, we're producing doctors, and many of those people now are coming home to help run our community and the future looks bright for our community. And it's important that a lot of things that were lost in our community are coming back: our language, our culture, our teachings.

But it's important that not only that our people understand it, that other people understand our history, and understand our plight— and a lot of it is misrepresented. A lot of it— the Truth and Reconciliation is not First Nations asking for anything; it's saying please understand that we're not written in the history books, but yet we played a role in the history of this country.

My father, as an example, was a Korean veteran. My father wasn't even recognized as a Canadian citizen, and many people say, "How can you not even be Canadian citizens?" But it's just that we were under the regime of the Department of Indian Affairs or the Indian agents. Our language and our culture were lost because it was against the law for us to speak our language and practice our culture.

Our community in 1965, when I started kindergarten, decided that we would not speak our language and that we would try to fit into mainstream. Our community made a mistake back then. Today I'm proud to say that I have a four-year-old granddaughter that comes home on the weekend with my son, and she sings songs in our language that she learns at school, and so I'm learning from her and that's a great thing.

One of the other things— oh, sorry, how do I go back? During our negotiations in

some of our land claims, the Williams Treaty land claim, we used one of your esteemed colleagues Mr. McLambden, and he educated our Councils, and our legal team, on how Canada did mapping in the early days, which assisted us in challenging Canada over some of the things that Canada did wrong to us. And it was probably the biggest land claim ever to a First Nation. It was \$1.3 billion shared among seven First Nations, but it goes back, and it was proven in law \$28 million in legal— 42 years in the courts. But Canada took advantage of our citizens back in 1923 where they say our forefathers gave up their right to hunt and fish. I mean, that doesn't make any sense.

I grew up poor, and I didn't even know I was poor, but our fridge was full of fish. We ate fish sometimes seven days a week. But technically under the Williams Treaty, my dad was breaking the law, because it said in 1923, our forefathers gave that right up. And it was proven in a court of law that our chiefs at the time signed a treaty but there was nothing attached to it. So, it was like signing a blank cheque and giving all your rights away, and it was proven in court that our people were taken advantage of.

And one of the other big claims that we had was the Chippewa Tribe Council and initially we were in the Coldwater area. There were three communities: the Chippewas of Beausoleil, the Chippewas of Georgina, and the Chippewas of Rama, and we technically were part of the first experiment, and we were the first reserve in Canada in the Coldwater area. And it was also the same model that the United States followed, but what happened was that it became— the land was too good for us, and the settlers wanted the land, so they moved us. So, we've been where we are since 1836.

Chief Yellowhead came to Rama. Chief Aisance to Christian Island and the islands in Georgian Bay. Chief Snake went to the islands in Lake Simcoe. But we also received financial compensation for lost lands. One of the big challenges we have today are our community is growing, we have 2,100 people, we have 2,300 acres. We have no land for the future generations. We have purchased approximately 1,300 acres to our neighbours, and property adjacent to us, but we've always paid— we also were gouged big time for it, because people knew we needed land. We paid in excess of \$14 million for those lands.

And one of the challenges we have now is additions to reserves, and one of the big projects that Chester is working on for us right now. There are five roads that run through our territory, but we don't own any of them. They're owned by the neighbouring municipality of Ramara. Ramara Township is working with us and the mayor said, "I will not lose any tax space by giving you those roads." So, he's working with us to do that, but I think that one of the things that he understands is that we continue to strive and drive economic development for the region. His citizens work in our community. His citizens are benefitting from our economic successes. So, our economic success to not only the Chippewas of Rama, but to our neighbours in the area.

I wish you well, and I thank you for listening to me today. And if anybody has any questions, I'll be around. Thank you very much and enjoy the rest of the conference. And, once again, thank you very much for inviting me here this morning.

AL JERAJ: Thank you, Dan. It's customary for our meeting to support a local charity, and this year we've decided to support Erin Mills Youth Centre. So, we've donated in your name to the Erin Mills Youth Centre.

Welcome surveyors and guests. I'm Al Jeraj, President of our Association, and I'll be chairing this year's annual general meeting. Will the 128th Annual General Meeting of the Association of Ontario Land Surveyors please come to order.

Proper notice has been given. The meeting has been scheduled within the terms of our governing legislation of the Surveyors Act and a quorum of at least 15 members as defined in AOLS By-Law 2004-1 are present. I therefore declare this meeting properly constituted.

As with all AOLS meetings and seminars, and in consideration for our speakers and fellow participants, I ask that cellphones and other electronic devices be silenced. If such a device should happen to ring during our meeting, our Sergeant-at-Arms will be very pleased to collect your generous donation of \$100, which will double to \$200 should you dare answer the call.

In addition, I've provided our Sergeant-at-Arms the authority to use his discretion to impose a fine on anyone who he thinks has not been getting the most out of this meeting due to the fact that they were excessively on their phones and are simply not paying attention. The donation will immediately go to the AOLS Education Foundation. At the end of the day today, and Friday morning, our Sergeant-at-Arms will read his list of rule breakers and their corresponding fine amounts.

Welcome all to this 128th Annual General Meeting at the Deerhurst Resort in Huntsville. As a matter of safety, emergency exits are located to my left and right. And as a matter of urgency, washrooms are located in the hall.

To our out-of-province guests, I extend a special welcome to Ontario. I hope you enjoy your stay in Ontario wherever it may take you. I also hope that everyone has a chance to enjoy the amenities and the hospitality that Deerhurst and Huntsville have to offer. I encourage you to get out and enjoy the grounds, and I especially encourage the Alberta President— although I didn't realize that the Alberta Past President would be in attendance— so I encourage the Alberta Past President, Bruce Clark, would you like to stand up just to be recognized?

BRUCE CLARKE: No.

AL JERAJ: If you could just stand up. I encourage our Past President— the Alberta Past President to not be late to our business meetings. So, if everyone could just

encourage and help him out. If you see him running late, just help him out and bring him in early. There's a story behind that, so come see me after and I'll tell you all about it.

I'm wearing the Presidential Chain of Office which is the official symbol of authority of the President. This new chain was donated by the AOLS Senate and was first worn three years ago by Past President Murray Purcell at our 125th AGM in Ottawa. There are pieces the older chains that are kept in the archives of our association. We have received the historic AOLS chains of office from our archives and will have them on display throughout our meeting.

The first Chain of Office was presented on February 14th, 1967 by Bill Pocklington to the Association of Ontario Land Surveyors to be worn by the presidents. In memory of his father, Bill assembled every piece of this chain; it includes his father's compass, magnifying glass and plumb bob. Our second more elaborate Chain of Office, also on display, was first worn by President Harry Whale in 1986 and was used until 2015 and last worn by Past President Travis Hartwick.

Our current Chain of Office was donated by the Senate of the AOLS and was first worn by Past President Murray Purcell in 2016. Symbolic of our annual general meetings is the original solid brass Standard Measure used to control the accuracy of surveys in Upper Canada. The Standard Measure was deposited in 1851 by the board of examiners in Toronto. Engraved on the plaque on which the Standard Measure is kept is the following creed:

"May the presence of this ancient standard be a continuous measure of our deliberations and achievements, a perpetual symbol of truth, honesty and accuracy."

It is a treasured artifact of our association and traditionally signals the commencement of our general meeting. The Standard Measure will be set out at the call of order of each session to our meeting.

Our Sergeant-at-Arms for this meeting is Graham Bowden. Graham has taken on the persona of an early explorer guide and will help guide our members through the proceedings and deliberations. The responsibility of the Sergeant-at-Arms is to maintain the schedule and decorum of the meeting. He has been given the authority to use whatever means necessary to achieve this purpose. It is also his duty to present and guard the Standard Measure. Sergeant-at-Arms, do you have the Standard Measure to present at this meeting?

GRAHAM BOWDEN: I do.

AL JERAJ: Esteemed colleagues and guests, please stand while the Sergeant-at-Arms presents the Standard Measure.

--- (The Standard Measure was presented)

AL JERAJ: You may be seated. Thank you, Graham. Graham, would you like to address the crowd?

GRAHAM BOWDEN: It's a fine-looking crowd you have there, Al. Why did I choose an exploration guide as my Sergeant-at-Arms character? As an avid reader of history, I realized that most successful explorations were because the explorers were accompanied by skilled and faithful guides. My guide character is a composite of the famous and not so famous, many of whom gave their lives as explorers in exploration and mapping of our planet.

Here are a few names that you may know, or perhaps not: Matthew Henson, he travelled with Rear Admiral Robert Peary to the North Pole in 1909. Cancre guided Alexander MacKenzie to the Arctic and the Pacific Oceans in the 1790s. Tenzing Norgay teamed with Edmund Hillary to climb Everest in 1953.

Susi, Chuma and Jacob Wainwright— definitely names you don't know— but they supported Dr. David Livingston when he explored Africa. Upon Livingston's death in 1873, these three, and nameless others of their tribe, buried his heart under a tree in Chitambo Village, and then carried his sun-dried cadaver 1,500 miles to the west to the ocean and, thence by ship, back to England so he could be buried in Westminster Abbey.

No doubt on some days a few of your faithful employees wanted to bury your heart under a tree too, but I doubt they would have carried your sun-dried carcass from here to Halifax.

In addition to caring for the Standard Measure, President Al has asked that I assist in guiding our discussions and deliberations and that's how I selected the character to be involved in, and I'm to ensure that you stay focused on the task at hand and are not distracted by pocket-sized communication devices.

If these explorers could spend years crossing North Africa— sorry, North America, Africa, Arctic ice and climb Everest without a phone, I'm sure you can sit on your hands for 45 minutes without using yours. Those seen using a device can choose from the following penalties: donate \$100 to the Education Foundation or have your heart buried under a tree. Anyway, thank you very much.

AL JERAJ: Thanks, Graham. Just so everyone knows, I left my phone in my room. As with all official meetings, certain rules will apply. This meeting will be conducted in accordance with Sturgis Standard Code of Parliamentary Procedure. Past President Eric Ansell is our parliamentarian and we shall abide by his interpretation of the code should the need arise.

I'd like to review some of the guidelines for the meeting. The business portions of our presentations are being recorded, and in order that the minutes and proceedings of this meeting can be properly transcribed, I ask that anyone wishing to speak

during the course of this meeting please approach the floor mic and wait to be recognized by the Chair. After being recognized, please state your name and hometown or affiliation before speaking.

The Chair may find it necessary to restrict speakers to one appearance on any subject. All motions presented during this meeting must be in writing and signed legibly by the mover and seconder and forwarded to the Resolution Committee and Chair before discussion. The Resolution Committee includes the two newly-acclaimed Junior Councillors Amar Loai and Simon Kasprzak.

Our theme for this meeting is **Manage Your Risk**. This is equally appropriate to the association managing risks to the public as it is to members managing their own risks when providing services. We have a variety of topics that fit the bill for both of these perspectives.

Our business meeting will start with our keynote speaker Darrel Pink who is very familiar with the expectations of a regulator like the AOLS. This will be followed with the introduction of exhibitors.

At one o'clock after lunch, Hugh O'Donnell will moderate a panel of Dr. Vern Singhroy and Carl Pucci who will address opportunities for using Canada's new RADARSAT constellation. This will be followed by a session on Minimizing Your Risks, lessons from our insurance program. Mark Sampson, John Breese and Graeme Holland, who have seen many insurance claims over the years, will use real examples— with no names of course— to provide tips to help you to avoid becoming one of their stats. And this will be followed by our first Open Forum.

The Veterans' Dinner is tonight and open to veterans and their accompanying persons. The Exhibitors' Welcoming Party is also tonight and will be in the Exhibit Hall located across the hall. I trust all will attend.

Thursday is our Educational Day. We have five sessions arranged for: “The Canadian Geodetic Survey Supporting Accurate Positioning in Ontario”, “Business Communications— Best Practices” and “Minimize Your Risk and Boundary Evidence Research” will each be held three times, twice in the morning and once in the afternoon.

The “Automated Deformation Monitoring” session will be held at 8:30 a.m., and the session on “Underground Engineering and Surveying Institute Updates on American Society of Civil Engineers - Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data” will be offered at 10:30.

There's been a little bit of a change for those two sessions. They're moving to Ballroom 5 and the Business Communication presentation has moved to the Tom Thompson Room. Convocation Lunch to honour our new surveyors and present awards will be held in the Peninsula Room on Thursday. And then Thursday

evening we have the President's Dinner & Dance. I hope to see you all there to show support for our new President Andrew Mantha.

We have one of our own members, Bill Webb, as our musical guest performing as part of Flat Head Ford. This should prove to be a great evening and we have a sign-up sheet at the registration desk, so please sign up if you're attending.

And on Friday, we'll complete our business session and reports and the second session of Open Forum. The reports were circulated prior to the meeting and are available on our website so we will not read the reports verbatim. We will simply present the highlights, make some commentaries and add new information that has surfaced since writing of the report, and then the meeting will end at 12.

So, we've left some time for some good open discussion. I hope all of you will contribute and provide feedback. Please participate to your fullest. It's your meeting, and it's only as good as you make it. You can find all the information I just gave you in the threefold brochure that has been inserted in the back sleeve of your name badge holder.

And so now it's my pleasure to introduce your current AOLS Council. Please stand as you're introduced and remain standing.

INTRODUCTION OF AOLS COUNCIL:

Vice-President Andrew Mantha; Past President Dan Dzaldov; Senior Councillors Gavin Lawrence and Trevor McNeil; Intermediate Councillors Anna Aksan and Andy Shelp; Junior Councillors Dave Kovacs and Colin Bogue— unfortunately Colin could not attend the AGM this year. Surveyor General Susan MacGregor; Lay Councillors Patricia Meehan, Peter Meerveld, George Wortman and Miranda Paquette— who is not here I understand. Executive Director, Brian Maloney and Registrar, Kevin Wahba and myself, Al Jeraj. Ladies and gentlemen, this is your 2019 Council.

Again, this year, we have a number of sponsors who have contributed greatly to help offset the cost of running our meeting. We want to thank these sponsors for their tremendous support. I'll read the sponsors and I think we should all give them a round of applause at the end.

INTRODUCTION OF 2020 AGM SPONSORS:

Our sponsors this year:

The Event Sponsor: Arthur J. Gallagher Canada Limited

Platinum Sponsors: Protect Your Boundaries, The Connectors Insurance Group, Cansel, Sokkia, and GeoShack

Silver Sponsors: Teranet, Pimarc, PRL Info Systems

Meet and Greet Sponsor: Hamilton & District Regional Group and South Central Regional Group

Welcoming party Sponsor: Cansel, R-PE Surveying Ltd.

Veterans' Dinner Sponsor: Gordon McElravy.

Convocation Lunch Sponsor: Logan Wealth Management

President's Dinner and Dance Sponsor: iLOOKABOUT

Coffee Break Sponsors: Southwestern Regional Group and North Eastern Regional Group (*in memory of John Hiley Sr.*)

This year we have decided to give each our platinum sponsors an opportunity to address our members for a few minutes, and they will be interspersed throughout our agenda. Also, this year we have financially assisted a group of York University geomatics engineering students to be able to attend our meeting.

Their geomatics club has been active and have committed to attending several high schools to speak about geomatics as a career. I would like to have these students stand and be acknowledged. Are any of the students here? They're in the back. All right. Please seek these students out during the meeting. I'm sure they'll be interested in summer jobs.

At this time, I would like to welcome all the articling students in attendance this year. We have 42 students registered and given the large number we will not ask them to be introduced. Instead, what I would like to do, is ask that the articling surveyors and surveyors please stand and be recognized. Will the articling students and surveyors stand up? I wish to thank the articling surveyors for affording their students an opportunity to attend, and I encourage the students to participate in the discussions. Don't be shy. We want to hear from you.

Also joining us over the course of our meeting are a number of guests representing other provincial associations. I would like to now introduce our guests. I have asked one rep to speak at our closing ceremonies on Friday, but I do extend an invitation for all of them to take part in our deliberations over the course of the meeting and provide input as they wish. I'm certain that they will prove to be valuable assets during our meeting.

INTRODUCTION OF ASSOCIATE GUESTS:

From west to east, our guests are: Association of British Columbia Land Surveyors President Chris Cryderman and his partner Bea. Stand up Chris. We'll applaud at

the end. Alberta Land Surveyors Association, President Steve Yanish and his partner Tami. Association of Saskatchewan Land Surveyors, President Courtney Tripp who could not be here with us. Association of Manitoba Land Surveyors, President Daniel Gautron and his partner Viveen. Ordre des Arpenteurs-Geometres du Quebec, President Orlando Rodriguez and his partner Enngie. Association of New Brunswick Land Surveyors, President Murdock MacAllister. Association of Nova Scotia Land Surveyors, President Kevin Lombard and his partner Alice. Association of Newfoundland Land Surveyors, President Aubrey Burt and his partner Mary. Association of Canada Lands Surveyors, President Bob Halliday. Professional Surveyors Canada, Chair Michael Thompson.

Ladies and gentlemen, these are your out-of-town guests. Did I miss any of the guests from out of town? All right.

TRIBUTE TO DECEASED MEMBERS:

Unfortunately, there are Ontario Land Surveyors who could no longer attend our meetings. I will now read the names of those members who have passed away since our last annual meeting. Please rise and remain standing for a silent tribute.

Today we remember:

Frederick Robert Bearman, 773, September 19, 2008

Howard Milton Gibson, 1107, December 24, 2013

Beecher Poyser, 829, December 28, 2013

Thomas Richard Windsor, 1218, August 31, 2015

Anthony Charles Bourne, 782, January 5, 2019

Paul A. Riddell, 1236, July 30, 2019

William J. Plaxton, 1161, September 8, 2019

Albert Henry Heywood, 1177, September 24, 2019

W. Douglas Smith, 1403, September 29, 2019

William C. Carmichael, 1210, November 7, 2019

Robert Terrence Stephenson, 1113, November 20, 2019

John Webster, 1052, December 17, 2019

John Stuart Duncan, 1242, December 17, 2019

John R. Hiley, 818, December 28, 2019

John William Lawrence Monaghan, 792, January 21, 2020

Does anyone know of any other member who has passed away since our last annual meeting? Let us take a moment of silence for our deceased members. Thank you. Please be seated.

The scrutineers for this years' election are Mojtaba Tavallae, who I understand has a nickname Mojito— that's pretty cool— and Lauren Elizabeth Dawe. And 249 ballots were cast, and they were counted on February 20th. Our successful Junior Councillors were Amar Loai and Simon Kasprzak. I would like to thank Richard Emode for running for Council. Richard, are you here today? No.

Our Vice-President and President were acclaimed, and I am pleased to announce that your 2020 Vice-President is Gavin Lawrence, and your President will be Andrew Mantha. Please join me in congratulating these new members to our team of leaders.

I would like to now invite Vice-President Lawrence and our new Councillors Amar and Simon to say a few words. Gavin?

INTRODUCTION OF NEW COUNCILLORS:

GAVIN LAWRENCE: Good morning, everyone. I'd like to say a few words.

Thank you for making the effort to attend our meeting this year, and I look forward to meeting any one of you who'd like to have a chat. I'd like to also thank those new councillors who have taken the time and made the effort to run for Council as well as the fellow members on Council. So, if you have any questions or you need to get a hold of me, I'll be walking the corridors. Thank you very much.

AMAR LOAI: Good morning, everyone. It's great to see you all here today. I would like to thank you for this privilege and honour for choosing me as your Junior Councillor. I will be looking forward to working with everyone. Thank you.

AL JERAJ: Simon? Oh, Simon's not here. To be fair, I never told these guys that they'd be coming up to say any words. That's fine. We're going to hear from our President-elect Andrew Mantha at the President's Dinner & Dance on Thursday evening.

I'd like to thank the Nominating Committee chaired by Russ Hogan for putting forward a solid list of names for the 2020 Council. We haven't had an election in recent years, and I hope this is a sign that more people will run for Council.

If you're thinking about running, don't run until I'm Chair of the Nominating Committee. I'm just kidding. If you are thinking about running, please put your name forward. Ask anyone on Council or any of the Past Presidents to find out what an amazing experience it is. It really is an amazing experience.

The minutes of our last meeting. As part of our business meeting, we must address the minutes of the 127th Annual General Meeting. Executive Director Brian Maloney, please present the motion regarding the minutes of the 2019 Annual Meeting.

MOTION TO ACCEPT THE MINUTES OF THE 2019 MEETING

BRIAN MALONEY: I've made the following motion. Be it resolved that the proceedings of the 2019 Annual Meeting as printed in the 2019 Annual Report be received. It was a seconded by our Registrar, Kevin Wahba.

AL JERAJ: Is there any discussion? Hearing none. All in favour, please raise your hand. All those opposed, please raise your hand. Thank you. The motion is carried.

As you are all aware, over the past several years there has been a lot of discussion about the aging demographic of our profession, and there has been considerable efforts to raise the awareness of the surveying profession and the career opportunities available.

Although our membership numbers are continuing to decline, I believe the efforts of recruitment are paying off. We had 50 new surveyors at the Convocation Luncheon in 2016, 14 in 2017, 17 in 2018 and 25 last year. And this year we will have 14 of the 16 new surveyors receive their certificates at the Convocation Lunch.

Despite what seems like a small decline, we currently have 102 articling students in our system. I believe the key is for surveyors and survey firms to support their articling surveyors. We have seen a great example of supporting our students earlier as those in attendance were introduced.

Another great way is to financially support students who are enrolled in a geomatics program through our Educational Foundation. Since 1975, 99 award winners have become Ontario Land Surveyors. Currently, 19 of our articling students are Educational Foundation award winners. I think that's a great success story.

I want to encourage everyone to participate fully throughout this meeting. Council is very interested in receiving input from the membership, and the agenda is designed to generate discussion about the association's strategic priorities and other issues facing our profession, and to solicit ideas for the coming years.

In my travels across the country, I have observed that, for the most part, the issues we face in Ontario are much the same as in other provinces. Discussion at all of the other President's forums I have attended focus on collaboration probably more than ever before. In fact, a great example on our part is our decision to rejoin CBEPS this year.

Surveying is a relatively small profession, and there are many issues that could be dealt with more effectively as a group nationally as opposed to individually. How do we go about collaborating with other associations and the Professional Surveyors Canada (PSC)? This year, it is my pleasure to announce that our sister associations NPSE will be signing a memorandum of understanding to formalize our commitment to work together on national issues. This historic signing ceremony will take place on Friday morning.

Supporting a local charity at our Annual General Meeting by making donations in each speaker's name has become a regular part of our meeting. This year we are supporting the Erin Mills Youth Centre. The Erin Mills Youth Centre (EMYC) is a youth-driven organization focused primarily on the Ridgeway community in

Mississauga.

The EMYC invests in developing the competencies of youth to shape and run programs and grow leadership skills needed to assume greater roles throughout the community. Their goal is to work with the youths to not only personally overcome the barriers they face, but to also work together to address the systematic nature of these barriers. They work to overcome the effects of racism, discrimination and poverty while promoting public health and youth and their community. On average, EMYC serves close to 1,500 youth annually.

This year we've offered our Platinum Sponsors an opportunity to address the membership. I would like to start with Pat Hills from Cansel. Is Pat in the audience? No, okay. We'll move to GeoShack. Is Thad King in the audience? No? We probably didn't advise them that they had to be here, so they should just be across the hall.

Bruce, would you like to sing a song while we wait? Does that work? If you are fortunate to come— if you are going to come to the President's Dinner & Dance, Bruce, I hope you're going to be there. It's quite an amazing scene to watch Bruce dance. He's got some moves that are amazing.

Okay. While we're waiting for our Platinum Sponsors, I'll keep going. So, before our break for coffee, we have a couple of announcements.

Since 1975, our Educational Foundation has awarded over \$550,000 to 479 students. Did you know that all the proceeds from the draw at the Exhibitors' Welcoming Party this evening will be directed to the Foundation? So, please buy tickets.

Now we have Pat Hills from Cansel.

INTRODUCTION OF PLATINUM SPONSORS:

PAT HILLS: Thank you. Well, in my defence, I was told ten to ten. So, thank you for coming out and finding me. I'm Pat Hills from Cansel. I'm the Director of Technical Marketing for the company.

I'd like to thank the association for giving me a few minutes here to address the membership. Sorry, I just ran from the other room there when they came and got me, and I was told to give. I had five minutes to address you here today which I really appreciate. And hopefully the five minutes start now, Al, and not four minutes ago when you went to look for me.

Okay. So, with my limited time here you're going to get an elevator pitch on a new product that Trimble has come out with, which I think is really terrific and it crosses all kinds of different industries. It's called Trimble Site Vision. As you can see, it's a

very, very small hand-held device. It's a collaborative tool that you take into the field that allows you to drape 3-D design data in a real-world environment and with centimetre accuracy.

So, in this configuration, it's just a hand-held device with a consumer Android phone. So, we've gone to just over-the-counter devices here. It's got a Google AR core which is an augmented reality technology. So, it's an expensive phone— it's about a \$1,200 phone— but it's not, you know, a device that you have to buy. As Google and Android comes out with new phones, you can just replace them. And an antenna.

So, this— I say it's inexpensive. You can decide. It's about \$5,000. But it's centimetre accuracy, and what it allows you to do is to go into the field and, with your subscription— which is either monthly or yearly— you can access your cloud account, bring in your design data which may be underground utilities, a bridge, lot fabric, you know, road widening, and view it in the field. It allows you to detect collisions and problems with construction before you start building.

So, you can geo-reference your design beforehand and have it positioned directly in the field, or you can just stand over the corner of a building where you want it, go to the next corner and position the building that way and look to see if there's going to be any data collisions in the field. It has got a built-in EDM in the back which is centimetre accuracy that allows you take measurements from design elements to real-world elements in the field, so it will put the design or the distance measurements that you have taken right over top of your drawing. And because we're working in the cloud, anyone at your office can see the work that you're doing in real time, so it allows you to collaborate across really anywhere in the world with anyone with a link.

So, that's my little elevator pitch. Gary has got a little video here that's just going to take two minutes to show and that will be it for me. I really appreciate this. Any more information, you know where to find us at Cansel.

Thanks very much.

--- (Video presented)

THAD KING: Good morning. Again, my name is Thad King. I'm the North American Positioning Manager for GeoShack. GeoShack is one of the largest Topcon dealers in North America. We have three offices here in Ontario: one in London, one in Toronto and one in Ottawa. We also have 17 other offices in the United States.

GeoShack's position on surveying has changed over the last several years. We have dedicated an entire division just to survey, so we have divisions in machine control and in agriculture and in surveying. And our management has changed so that I am

managing that division for GeoShack so that we can dedicate those resources to our survey markets.

One of the things that I want to talk to you about today is some of Topcon's new technology and it really focuses on software. So, if you've not seen many of the new tablets that are out, Topcon has several new tablets coming out. We have the FC 5000 that's out now, and the FC 6000 just got released a couple weeks ago and we'll start shipping. It will dedicate a lot more power to the software so that you can put in more maps, actually survey over those maps using Bing maps or Google maps and also, they've just announced a new Android platform.

So, as you see there, many of the software that Topcon does with Topcon magnet software will be available, you know, hopefully soon too on iOS and Apple, but you can run it on Windows 10 or an Android platform and you can use our data collection or any data collection you want.

The magnet software is really advanced in the simplicity of it. And what I mean by that is it's a simple software that your field crews can use, or you can use, but it has a lot of advanced features that are typically reserved for more complex surveys. One of the things that it does is allows you to use the cloud and take your files and transfer them back and forth from office to field controller just being connected to your phone or if you have a modem in the field controller.

So, this allows you to take information and get it back and forth from the field a lot faster. Magnet Enterprise is the cloud software that Topcon has, and what Magnet Enterprise does is basically have one platform where you can actually manage all your projects. So, you can put several different people in those projects, you can put customers, you can put consultants and they can see what you want them to see. So, if you want them just to see maps, if you want your survey crews to have all the information, you can don those different project levels and be able to take your data and share it across many different platforms.

One of the big things that Magnet Enterprise does, and what the Magnet Software does is integrate seamlessly with Autodesk software and now with Bentley. So, anyone using the Bentley software— I know it's used quite a bit for highway work and things like that— we can integrate directly with that and bring those files directly into our software.

So, those are a lot of the steps Topcon's taken. We still have the GPS and robotic total stations and everything that you guys need, and I think that if you stop by our booth and see some of the software offerings we have, it will give you a new outlook on what we're trying to do. So, thank you very much and have a great show.

AL JERAJ: Thank you, Thad. Okay. Getting right back— we're actually ahead of schedule, so that's good.

Just a couple of notes about name badges. We would like to do our part for the environment and reuse the name-tag holders, so please return them to the registration desk before you leave the meeting on Friday.

Also, you notice again this year that there are no printed event tickets. The events that you have registered for are printed on the back of your name badge, and we are using a system with a QR code printed on the name badge. So, for each event, staff will be at the door to scan that code rather than collecting tickets. This has saved a lot of time for staff. So, remember you will have to present your name badge when you enter an event.

Right after our break, we will have our keynote speaker Darrel Pink who will give us some insights into the challenges and appropriate focus for regulators. Vendor presentations will take place in the draped area in our exhibit just across the hallway. Please see the schedule posted by the presentation area for the presentation times.

Coffee is in the Exhibitors' Hall. Our next presentation will start at 10:30.

BRIAN MALONEY: I just want to give a little reminder and shout-out for the Welcoming Party tonight with the exhibitors. Since 1975, our Educational Foundation has awarded over \$550,000 to 479 students and so the proceeds tonight will go to them, so please buy lots of tickets and enjoy it.

AL JERAJ: Great. I said that when you were out of the room.

BRIAN MALONEY: Oh, did you? Sorry, Al.

AL JERAJ: It doesn't hurt to say it again, though.

BRIAN MALONEY: I thought you just missed it.

AL JERAJ: All right. So, we're ahead of schedule. We can take a quick break and be back here before 10:30. Thanks.

--- Coffee break taken from 10:00 a.m. to 10:30 a.m.

AL JERAJ: Okay. Welcome back, everyone. Just a quick reminder to turn off your phones again because many of you may have gone through some withdrawal symptoms during the break.

As noted earlier, our keynote speaker today is Darrel Pink. Mr. Pink, of the Nova Scotia Bar, recently retired as Executive Director of the Nova Scotia Barristers Society, a position he held for 28 years. Darrel carried out the Society's strategic framework and led the initiative to transform the regulation and governance of the legal profession in Nova Scotia. Esteemed colleagues and guests, please welcome

Darrel Pink.

**KEYNOTE ADDRESS: INTRODUCTION OF DARREL PINK
“Re-thinking Professional Regulation— What’s really important?”**

DARREL PINK: Good morning. I asked Al if he would make the introduction really brief because I want to say a little bit about myself and what brings me here, so it's easier for me to do it than for him to read something about it. And I want to say I'm really honoured to be here. I'm particularly honoured to be among surveyors.

I've spent my life as a lawyer, not really in practice. Most of my career was involved in the regulation of lawyers. But I come from a family of lawyers. My dad was a lawyer for 65 years in a small town in Nova Scotia, Yarmouth, and one of my earliest memories was I would go visit him, drop into the office after school. And my dad was a general practitioner, and I have this very fond memory of listening to him dictate to his stenographer metes and bounds descriptions that would be a part of a deed.

And, in those days— and in the early days— this would have been in the '50s and '60s— the role between lawyers and surveyors was probably a lot less formal than it is today. And I'm not sure that on some of those times he didn't actually walk the land himself and measure the metes and bounds or the rods, or whatever they were, and kind of, you know, went from this tree to this post and that was the description. So, I have a very fond memory of that.

As I said, I come from a family of lawyers. My wife was a lawyer, we're now into the fourth generation in my family. And, as a lawyer, I have a really strong commitment to what makes regulation effective. So, now I lost my clicker, that's— oh, here it is. So, I want to take you through today a series of issues about professional regulation, where it stands in Canada today and make it relevant to the Association of Land Surveyors recognizing some differences which will get pointed out in the course of my discussion.

And so, you can see the kind of issues that I want to deal with. When I was talking to Brian about the nature or the title for my discussion, I wanted to say something like “How can you blow up AOLS?” Brian didn't think that was a very good topic for the discussion, so this about as close as I got to that image. Because in Canada today, professional regulation is at the top of that volcano. It is under threat because of a whole variety of forces that I'm going to talk about that we need to be aware of as we continue to look at what is the nature of effective professional regulation.

So, what's the nature of the threat? Well, some of these things you've already talked about today. In almost all the professions, especially the traditional, the more historic professions like this one, we have a huge issue with demographics. We have an aging profession, we have a profession which is largely white and male, we

have real difficulties in finding effective succession for the profession and that raises significant challenges.

Across Canada, governments have taken an interest in professional regulation in the last five to six years that they've never done before. I have been in this business for close to 40 years, and we've had more interest by government in professional regulation in the last five than in the previous 35.

There was a major review here in Ontario of professional engineers, and to say that it was unflattering would be an understatement. It described the weaknesses in Ontario's regulation of engineers, particularly at the credentialing area because of inconsistency, because of difficulties in credentialing foreign-trained engineers—a whole range of issues. It was incredibly critical.

A review of the real estate regulator in Alberta described a board of directors which was dysfunctional. The Alberta government actually fired that board because they could not get along. They spent way too much time—75 to 80 percent of their meeting agendas were focused on internal issues as opposed to talking about what was good for the public. They got fired.

And there's been a series of reviews in British Columbia and the government there has just passed, two years ago, the Professional Governance Act which took away the right of self-governance from a series of professions that we refer to as the “dirt professions”—engineers, geotechnologists—and five professions all lost the right of self-governance and are now governed by the Professional Governance Act. And that legislation allows the government in BC to add any professional body under that legislation that it chooses to.

As recently as the last couple of months there have been some very critical reviews of dentists in British Columbia, there are questions about the regulation of physicians in British Columbia and many are asking “Where will this stop?” And we're seeing some things here in Ontario that I will refer to in a little while that give rise to our thinking that maybe what's happened in the west will make its way across the country.

We have a very different public in Canada today than we have historically had. Not only are our numbers changing in terms of age and things like that, the number—we have a huge immigrant population, and that continues to grow. Technology, the Internet, the nature of the millennial generation, all change quite dramatically what the public expects from their professionals and we as regulators need to be aware of that—and technology.

When I just saw the two very brief descriptions from your sponsors about, you know, leading-edge technology in your profession, that's just a very small swath of the impact that technology has had. You, as land surveyors, you fit into a world of construction, of development, and that industry has changed profoundly in terms of

both the reliance on your work and the way that it ultimately sells the product that it produces.

So, my kids who want to buy a house, they don't want to go knock on a door, they don't want to go meet a realtor to go, you know, do a listing. They want to see the house online. They want to do everything online. They buy everything online. And so that changing demand from the public, that changing nature of the public really has an impact on us as professional regulators.

And this is not just a Canadian phenomenon, this is an international phenomenon. This a quote, it's a little hard to read, but it comes from the Professional Standards Authority in England. And they have in effect said, “Regulation needs a radical overhaul.” They are particularly focused on health regulation, but it's across the board. So, we need to be thinking about as professionals is what's the nature of the regulation that we are participating in.

And so, that should cause us to look at what I describe as the existential question, and that is “What difference do we make?” So, can we as a regulator tell the world, to the profession—that's you—tell the public what difference we make by our professional regulation? I'm not going to spend much time today asking the question do we need professional regulation, we could have a whole separate discussion about that, but we need to be able to demonstrate that the impact of our work is effective and that we can demonstrate the effect that we have.

So, I asked two questions: “How do you know that what you're doing is effective?” And “How do you show what you're doing is effective?” So, I want to contextualize this with a little bit of a story that's the last part of my career and what I'm doing now.

It goes back to my own organization which was the Nova Scotia Barristers Society. So, we were the Law Society of Nova Scotia, the regulator of lawyers. And I had been in the job for 23, 24 years doing the same sort of thing, credentialing, licensing, investigations, discipline, looking at complaints, looking at claims, continuing education. I could go on and describe it in great detail.

And we began to look at some strategic thinking, some strategic planning and we asked that question, “What difference do we make?” And then as we started to look at it in more detail, we went through a process. We recognized that the model of professional regulation is outdated. Most of our models for professional regulation date to the 1960s, 1970s. This organization is 128 years old—or at least it has been having annual meetings for years. For my organization, we could find provisions in our current legislation that went back to the 1894 version of that legislation. So, we were still using very much an outdated and, in our conclusion, broken models.

Regulation was rooted in a different era—rooted in the '60s, the '50s, the '70s—and society has changed dramatically. It was based on very different models of practice.

It was based on models where all lawyers were sole practitioners. A large firm would be three or four lawyers, as opposed to the national and international firms in which lawyers practice today, that are hundreds and hundreds of people.

It was based on a notion that everyone was a solo, that they were responsible for themselves, they did everything themselves, as opposed to the corporate ties models that we have in law firms today.

The profession was really hierarchical. Seniority carried a huge amount of weight, and we concluded that that was no longer what was appropriate. It was beginning to break down for a whole bunch of reasons. Not only have we seen feminist law firms arise, and law firms that were based on a very narrow focus: labour firms, criminal law firms— we saw a whole bunch of changes that allowed us to conclude that the hierarchy, the structures that had been ever present needed to change.

And we recognized that so much of our core regulatory work, our discipline was based on the grace rule: “There, but for the grace of God, go I.” Many of our decision-makers were looking at the behaviour they were responsible to judge and said, “I can understand that. I could have done that” and let a person off— not looking at the public's perspective, very much looking internally.

So, we went through a process— I'm not going to describe it in great detail, but as a result of that, we concluded that issues regarding regulation caused— the regulatory burden, I'll call it, caused us to reflect on what we were doing. Regulation is very expensive. Thousands of dollars we charge professionals to be regulated, and the question is was there any value for the professional and for the profession and for the public in the costs.

Regulation is bureaucratic. We require people to fill out forms. We require people to provide us with information. We require people to give us all sorts of stuff. We are a pristine bureaucracy. Almost every professional regulator in Canada that I've worked with falls into that category. We make governments look like they're efficient and they are not.

And we concluded that most of the profession hates us. I don't want to say that they hate me— it wasn't personal— but lawyers don't like their law society. If any of you are following any of what's going on here in Ontario with the Law Society, that is so evident. There was a study that was released last week in Quebec that said 30 percent of the physicians in Quebec believe that the college, the regulator of physicians, should be for their benefit and, because it's not, they don't like it.

So, the notion that we are disliked by the profession was ever present. I mention this, that we had no way of demonstrating our value. Our value to the profession that we regulated, and our value to the public. We were driven way too much by volunteers.

Let me just speak about that for a brief second. We have elected— we have volunteer people that sit on our council. We have volunteers that sit on our committees. We have volunteers that do a raft of the work that we required. And it might be great work for volunteers— they might really benefit from it. But volunteers come and go. They are inconsistent. They are never trained. They don't really know much about professional regulation. They give time and energy, but they don't give quality, and we recognize that.

And we ultimately believe, based on an analysis that we could make change, that we could do it better if we made some changes. So, we began a process of looking at what I refer to as the who, what, when, where, how and why of regulation. And we said, “Why do we regulate?” Well, we regulate to protect the public. Now, that's no question, but how do we balance off self-interest as it makes its way into regulation with public protection? That is an issue that is particularly relevant for an organization like the AOLS.

And why is it relevant? Because you have a blessing and a curse. The blessing is that because you are an association, you get two-thirds of your professionals to come to a meeting like this and engage together in education, engage together in issues affecting the profession. That is a blessing.

It is a curse because you are a membership-focused association and membership focus is almost anathema to public interest. Not always, but almost always anathema to public interest.

So, the struggle that association regulators have is, “How do they actually play their proper role? How do they actually play the role of protecting the public and not put too much energy, too much time, too much focus on what is in the best interest of the members?” That's a question that this organization has to ask.

We looked at, “What do we regulate?” We said, “We don't focus on risk at all.” So, when Al was introducing the theme of this conference, he said that one of the things we're going to look at is risk— and I'm going to come back to this several times in the next while— but we recognize that we didn't look at risk at all. We did not focus on risk of harm to the public. And that, as you'll see in my remarks later on, I think is the titular thing that regulators need to be focused on.

And we also couldn't describe what impact we had— what effect we had. So, we looked at the what, and the how, and we found ourselves wanting. We asked questions about, “who should regulate?” Well, we always regulated lawyers. That was easy. But as I described a couple minutes ago, the way legal services are delivered has changed. So, lawyers are supported by paralegals. Paralegals are supported by support staff. There are others that work in law offices. There's a whole range in which legal services and law is practiced today. Should we be regulating the entity? Should we be regulating the law firm?

For land surveyors, I mean, you regulate a narrow piece of surveying, but the nature of the work of land surveyors is changing dramatically. And not only are there other people doing similar kinds of work, but the nature of the work that surveyors do is also changing. And so, what should you be regulating and who? Who should you regulate? Should you regulate the firm? Should you regulate just individuals and others? I mean, there's a question is it solely this profession or should we think of the profession quite differently.

You'll hear me use the phrase throughout the morning when I talk about lawyers, I almost never talk about the practice of law. I talk about the delivery of legal services. And so, if we thought about that for land surveyors, I'm not quite sure what the question would be, but I know that the issue is the same.

“When should we regulate?” Well, our traditional model of regulation is what I call ‘soup-to-nuts regulation’, ‘cradle-to-grave’. We regulate people from the time they— well, actually we engage with them at university in the same way that your organization supports individuals with scholarships and bursaries to assist them in coming into the profession, and then we engage with them as they article, and we take them through the profession until they leave and we stand for a moment of silence for them when they die.

So, we're involved with them through their entire professional career and we have one single model. Well, the question is, should we only have one single model? Should there be various approaches to regulation at various stages of careers? Do you need to regulate the retired person the same way you regulate the practitioner? Should there be ways of encouraging people who reach a certain point in their career to be able to continue to do work, and be regulated in less, than with the full meal deal?

There is some really interesting research being done in England today. There is a professor at the University College of London called Steve Mason, and he's actually put forward a model for legal regulation which suggests that, wow, we might actually think about a whole variety of types of regulation, and only a small percentage of the profession would actually be subject to the full meal deal.

And where do we regulate? This is a little bit repetitive, but it's the group, it's the entity, and we began to look at that entity regulation. That's a current issue in Ontario. The Government of Ontario has just introduced legislation which will allow the Law Society to regulate law firms. And when you begin to think about regulating the group as opposed to the individuals, it raises a whole series of things.

We know that the #MeToo Movement which has been so much in the news in the last number of weeks, we know that the #MeToo Movement is impactful on all the professions. There are couple studies done recently in Manitoba and the Prairie provinces where 70 percent of articling students said they had been harassed or discriminated against through their articling period, and that's because law firm

culture allows that to happen. I'm not going to analogize too much to Harvey Weinstein, but the culture that happens in a firm, in an office, has a dramatic impact on the way individuals who practice there behave.

So, we went through this process and, in the end, our goal was to transform how we undertake regulation. And then we started with articulating what we wanted to accomplish for the public, for the profession and for other stakeholders. So, I said we committed to transformative change and these were the steps that we went through; these are five of the things we did. And when I look at the theme, what's important in professional regulation today, as you will see, I articulate reasons why each of these things are important.

So, let me start with regulatory objectives. If I ask the Association of Land Surveyors of Ontario, “What does it expect to accomplish from regulation?” I would hear it regulates in the public interest. I wouldn't hear any more than that. The objectives of regulation have not been stated. That puts you in good company, because 99 percent of regulators don't articulate their objectives. There are some statutory objectives that apply to health professionals here in Ontario and in a couple other provinces. But, for the most part, regulators do not articulate what the objectives that the profession and the public should expect from their regulation.

So, we set out to do that, and we articulated these six regulatory objectives, you can read them, but each of them is focused on the impact of the public from those who provide legal services. There is a particular one here that you will note which is, number five, which looked at issues of substantive equality, inclusion, equity and diversity in the profession— a huge issue for the legal profession and a huge issue, I suspect, for this profession as well. As I said earlier, we have traditionally been very white, and very male and that no longer reflects the society that we serve.

And the sixth professional regulatory objective relates to what I will refer to later as triple P regulation that I will describe in a little more detail. So, there's a whole philosophy around approaches to regulation that regulators now have to be mindful of. The phrase “right touch regulation” was coined in England initially for health regulators in that country, but it's spread now to be used around the world. To say that the nature of the regulation that we undertake needs to be the right, or light touch.

And the nature of “right touch” regulation really has, at its essence, that not all people who are members of the profession should be treated the same all the time. So that, for us, became PPP.

The first P was proactive. The notion of most professional regulation today is reactive. We wait. We create a series of rules. We tell people what the professional standards are, what the code is, and we sit and wait. We're like the lion who is about to pounce on its prey, and someone makes a mistake and we say, “Got you.” We jump. There's a complaint, and we go in and we deal with that practitioner as if

something terrible has happened.

In reality, we know every single reason that a professional gets in trouble. We know the causes of errors, we know the causes of misconduct, we know the circumstances in which those things happen.

It will be no surprise to anybody in this room that we know that when a professional—I'll say a male lawyer who reaches 20 to 25 years of practice, in some other circumstances they call it midlife crisis, something happens. They get bored, they get tired, their economic circumstances have reached a certain plateau, they're now having issues with their children who are now teenagers, they're off to university. There's a whole range of things that happen and we know that that creates a real risk that something is going to go off in that lawyer's practice.

We know that that's often a time when addiction takes hold. We know that mental health issues often manifest themselves when practitioners are 20 to 25 years out—so, when they're in late forties and into their fifties. We know all that. We know the factors that give rise to problems and we sit and wait for them to happen. So, the proactive piece of regulation is to create a scheme that looks at those things in advance, anticipates them and deals with them before they become crises.

The second P is principle. We move away from a structure which is purely rules-based and we focus on being agile, being consistent, but yet doing it in a principled way rather than saying you must comply with a set of fixed rules.

Principles rely on a professional to actually understand that individual's responsibilities and to act appropriately as opposed to giving the person a set of rules and say comply with the rules. Act appropriately, versus comply with the rules. Teach the person, give the person the skills to act appropriately, and most professionals will, if they're not frightened of what might come if they do something wrong.

And finally, the third P is proportionate. One shoe does not fit all. We had to create a means of saying the nature of our regulation will be proportionate to the risk that arises from the behaviour we're dealing with and not everyone should be treated the same. Again, in the legal context, we know that lawyers who work for government have a much lower risk than lawyers who work in private practice. We know that lawyers who work in large firms—which also, by the way, has a risk focus in running its business—are much lower risk than lawyers who work in small firms. With a big but—when lawyers in large firms make mistakes, they make big mistakes. When lawyers in small firms make mistakes, for the most part they're little. So, again, that was all part of rethinking what proportionate regulation should look like.

So, the second part of our transformative change was to begin to regulate looking at risk. So, there are number of ways of describing risk. Our focus was to say what is

the risk of harm to the public. The public could be the public at large or it could be an individual client or customer, but what is the risk of harm to the public that we are trying to address.

So, we know that when a lawyer takes trust money from a client in a trust account, he has to hold that money safely and the risk of harm is that that money will be used inappropriately. It's pretty easy. So, we needed to look at what the risk of harm to the public is and begin to build that into all our regulatory decision-making on both the individual case. So, on a complaint, on a credentialing issue. And as we began to develop policies at the council table, we forced council to ask this question: “When you are making this decision, what is the risk of harm you are trying to address?” And, if we concluded there was no risk of harm, we shouldn't be in that business. So, it began—it was a lens, it was a tool to get out of doing work that we had no business in doing.

And that raises a series of questions for surveyors, because look at—you know, as I mentioned already, the number of things you do as an association which are quite anathema to what a regulator would do—and I'm not saying that as an association you shouldn't give awards. Associations give awards. Regulators probably shouldn't give awards. There's no risk of harm issue. Why do we give awards? There's no risk of harm, there's no harm whatsoever that we should be focusing on that would give rise to that.

It raises some really interesting questions about education. Continuing professional education—who should be requiring it. We took the position in Nova Scotia, that the regulator should not be both mandating education and delivering education. We could mandate it because that was addressing a risk of harm. Delivering it was simply a way to grab money from the profession in a monopolistic way that we thought was inconsistent.

So, there's a variety of issues that you need to deal with, and you can't just deal with it because you create a label. It requires a huge rethinking both of processes, who sits at the table and what they know. It requires a kind of training for people that are engaged in complaints. We require now, as part of the methodology for considering a complaint, and doing an investigation, actually articulating what the risk of harm is from a breach of this particular rule. I mean, we still have rules.

So, there's a whole variety of things like that that began to change how we behaved, how we operated. And then it required and requires a different skill set for those who participate in regulation. Risk of harm is not something that most people are comfortable with. They need to learn it. They need to be trained, and that means the people sitting at the table need to be different.

So, what are risks that confront this Association? Well, I don't pretend to know them all. I've had a number of discussions with Brian. And so, things like your admission process, your articling process, very much—many of your exams. You

have oral exams. Those exams are administered by different individuals. Is there consistency? Is there a risk of bias that creeps into an exam?

You know, when they— symphony orchestras in Canada and all over the world, every rehearsal, every person who seeks a job with the symphony orchestra, now does a blind audition. Right. They do an audition behind a screen, and when the musician walks into the audition, they actually walk across a carpeted floor so that the people listening to the audition don't know whether it's a male or a female that's auditioning. And they do that because they understood bias creeps into that kind of process.

I sat as an oral examiner many, many years ago at the law society. I know exactly how I behaved, and my behaviour would not pass muster on any assessment of bias today. Because we have a number of innate biases that impact us. So that's a real issue in your exam process.

The same is true with complaints and practice reviews. Do you have the right skills? Are they consistent? Do you know that they're consistent? When you have internationally trained individuals coming into the profession, there are questions of discrimination, of bias both in terms of the organization, and the process.

And you're going to spend some time later today looking at some of your insurance questions and the question about, you know, “Is your insurance adequate?”, “Do you have adequate scope of coverage, adequate amounts of coverage?” And I could go on with a long list of risks that, as an association, the organization should be dealing with.

And then there are a series of regulatory lists. You know, what's land surveying compared to other types of surveying that you have an interest in. You have both licensed surveyors, and you have other members of the association who aren't licensed because they don't do land surveying. They do other types of surveying.

Are your practice standards current? You are in a profession where technology is changing at warp speed. How do you keep on top of that in terms of the standards that you expect of your profession? And, again, with an aging profession, with a profession which is, you know— I know that you have the issues here in Ontario of the depopulation of rural Ontario. What does that do in terms of the availability of services? Those raise significant risks, and the question for the organization is, “How do you identify, and begin to manage those risks?” and I'll come back to that.

The fourth thing, we said we had to articulate outcomes. We had to be able to say to the profession, to the public and to other stakeholders: “Here is the impact of what our regulation will do. Here are the outcomes we will seek to achieve, and we will measure and become accountable for them.” So, I put on a slide some of the articulated regulatory outcomes that we identified, and we said we need to be held accountable to them, we need to produce for the public a report that actually says

here's how we are doing it.

There's a move in Ontario in the health professions being driven by government that's going to require all health regulators in Ontario to become subject to an outcomes measurement regime.

All regulators will have to abide by a system that the government has devised. It's out in draft now. It has not been in force. It's very much mixed up in the massive changes to healthcare delivery in Ontario. But it is a model that I think all regulators should begin to look at, because it forces us to say, “Here is the difference we will make” – the existential question I raised earlier – it will begin to do that for us.

And finally, we identified that the governance piece needed some significant change. We needed to look at the governance work in a way that would cause us to question whether we had the right people at the table, and whether we had the right work being done at the Council table. So, we articulated our values as an organization; that was really important. So, we said transparency is of value that we as a regulator will aspire to and achieve.

I was doing some work with another regulator recently and I looked at their materials, and each of their discussions of their financial statements was done in-camera. And I asked them the question like, “Why are you discussing your financial statements, your monthly or your quarterly financial statements in-camera?” And they said, “Well, we just thought that because it was dealing with financial issues, we should be dealing with it in— it shouldn't be public” and I questioned them and challenged them and ultimately they agreed to change it.

We created a risk framework— we actually created two risk frameworks. We created an enterprise risk framework. So, we said that Council is responsible to make sure that management deals with the enterprise risk, the operational risk of the organization. You know, “Do you have enough insurance?” “Do you have enough savings?” A whole range of things that involve enterprise risk.

And Council adopted a regulatory risk framework. And the regulatory risk framework was about articulating, here is how we are operating as a regulator, and here is what the risk lens looks like.

And as part of creating that risk lens, we said “Here is the behaviour that is the greatest risk to us that we have to watch out for.” So, as an example, the alcoholic lawyer who steals money from his— it will always be him— his trust account and flies to the Cayman Islands, that's a huge risk. In my 30 years, it happened once. So, it's not very common that lawyers fly the coop, but you can look across Canada and every few years there will be a lawyer who steals a whole bunch of money and disappears.

So, that was part of the regulatory risk framework and it's a heat map and there are

colours and all sorts of things. But we committed to doing it, we committed to keeping it current, we committed to monitoring it and it becomes part of the work that's done. The regulatory policies and governance policies needed to be part of what we did.

Now, governance policies are really interesting. Most boards in regulatory bodies don't have policies that direct how they actually behave, how they do their work, what does an agenda look like and what's the role of the president and the vice-presidents and the other members. It's really interesting how we've just kind of done it for so long we think we know, and the reality is it needs to be addressed. We said that Council must have a better understanding of the environment in which the practice takes place.

So, the role of a Board of Directors— which is what Council is— is to be future focused. They should be dwelling on, “What's coming down the road?” “What's in the pipe?” “What's going to happen to the profession?” “What's going to happen to the industry?” “What's going to happen?” as much as we can predict.

We don't know the future. But there are lots of things that tell us what the future looks like, and part of that is understanding the environment that impacts our profession. We established performance standards for Council itself— so how it would govern, and how it would then oversee the work of the CEO and, in turn, the regulatory processes.

So, for example, could we say— let's take the issue of complaints. How long does it take a complaint to go through the system? You get a complaint in writing, how long does it take you to respond to it? We said that if we get a written complaint, there will be an acknowledgement within two business days. So, we can check that. We know, and we need a hundred— that a hundred percent of the time we acknowledge the complaint within two business days. And we created timeframes. We said that a complainant will hear from us once every 90 days. So, an investigation is ongoing, it can be complex, but no more than three months will pass between contact between us and the complainant.

So, those are the type of things we began to articulate and live by, and then report on. And if we were compliant, that was great. And if we weren't compliant, why weren't we compliant, and Council could hold us, as a regulator, accountable.

Evaluation of the Executive Director or CEO is a huge issue for organizations and one that they almost always fail at. We are so bad. We're so nice to each other. We're so polite. We fail to actually hold our senior staff accountable.

I haven't had this discussion with Brian, so I don't know what the nature of the performance review for Brian is, but I sat in the chair for a very long time. I sat in the chair for a very long time, and my performance reviews were inconsistent and almost— no, they weren't always useless. Sometimes they were useless because the

people that were doing them knew nothing about doing effective performance evaluation.

Council is responsible for articulating and approving the strategic framework for the organization and monitoring it and ensuring that there's an annual business plan that will advance that strategy. It's not sufficient to simply go from crisis to crisis, or issue to issue. You have to do it in the context of a strategic, a big-thinking picture. And, finally, we said Council is responsible for managing, for overseeing the external relations of the organization.

So, every regulator has to have relationships with a variety of entities and organizations. So, as AI was describing this morning, the commitment to collaboration among the professional regulators of surveyors in Canada is really important. You're a single profession in many ways. Across the country the same issues arise. You should be having same standards. You should be collaborating and knowing what each other is doing. You have a relationship with the Surveyor General, with the Government of Ontario. That's really important.

Do you have a relationship with the Law Society? Because many of the people with whom you work are lawyers, and you are engaged in the same— in ultimately delivering products to the public.

So, there's a variety of public engagements that Council needs to be aware of and, in my view— actually, individually, participate in. This is external relations. Government relations are not exclusively that of management, but very much are part of the role of Council.

And when I go through all this, Council is not a regulator. The regulation is done by somebody else. Council oversees the regulation but doesn't actually do it. So, this is what your value is, and we said at the end of the day a public well served by an ethical and competent survey profession. At least for the legal profession, but I think that's what your value is.

So, I'm going to just complete this part of the story. This is what we did. We went through a transformative change. It's ongoing. I've been gone for two years. The process is far from complete, because you make some mistakes along the way. You revisit it, but the commitment to actually doing it is still very much entrenched.

So, what does that mean for us? Well, there are a series of essentials— ten that I'm going to run through quickly— that I think you need to be committed to as an organization. “What difference— what's important?” Well, I'm going to suggest to you that these ten things are important.

In order to be professional, in order to be effective and in order to be independent. And independent— it's independent from the profession, and independent from government. The regulator cannot be beholden, cannot be controlled by the

profession.

So, public interest number one. A clear commitment to pursuing the public interest and not to dwell on self-interest of the profession, or regulated profession. It's in your statute right there. You do what you do, in order that the public interest may be served and protected. I don't parse these various phases— you know, promote the public interest, protect the public interest, serve the public interest in any careful way. I think ultimately there is no distinction to the language that's used. It's putting the public interest first.

It's focusing on risk. It's changing the way you do business, so that risk becomes the lens, through which, all important decisions are made.

The goal is to reduce, to transfer, to avoid. And if you accept the risk, then to manage it.

Regulators should gather, analyze and use information that they have. So, we take a student who graduates from York University. That student articled. We start to gather information about that student. We know where the student articulated. We know with whom he or she articulated. We know what firm they started their practice with. We know a huge amount about them. We know how they did in their credentialing process. We know if they failed once, or if they had to do something else. We know if there were issues that impacted them, if they had to take a leave of absence because something happened in their lives. We know that they went into practice. We know if there was a complaint. We know if there was an insurance claim. We know all sorts of things about the members of our profession.

Most regulators don't use that information at all. It just— it sits there. And my view is, and what I urge as part of being an effective and a modern regulator is that, regulators have to begin to analyze, use data that they have, or data that they can collect from a variety of sources— going back to my comment about the environment— and use that as the foundation for their regular policies, procedures and practices.

Data drives your work. In another context, we call it evidence-based decision-making. That's what regulators should be doing. And we should be measuring our outcomes. We should develop the capacity as an organization to know where we're going, and to know when we get there. We wouldn't expect that. We wouldn't. You know, that's what we expect of life. That we set out on a journey. We know what the end point of the journey is, and we know when we've gotten there. And we know we've gotten there on time, with the right expense, we know all that. That's just part of life. But, somehow with regulation, we don't do that.

Outcomes measurement should begin to drive what we do. We should be able to say to the public and to the profession “This is the difference we've made” and then report. So, the right touch, or the triple P regulation— understand the problem

before jumping to solutions, make sure that the level of regulation is proportionate to the level of risk to the public, look forward, anticipate change and be proactive, principled and proportionate.

It's a radical rethinking of how we behave as regulators. It's not easy, but it changes the nature of the work we do. It also, by the way, changes the nature of the conversation between the regulator and the profession.

I won't spend much time— I don't have time today to go into this in detail. But in Nova Scotia, once we committed to going to law firm regulation, we created a process that allowed us to actually talk to law firms in a dramatically different way than we ever had before.

We actually helped the law firms identify their risks, understand what for them, planning would be, how they would actually do their work differently and then to engage with the regulator towards those ends. The phrase that we used is, we changed the nature of the conversation between the regulator and the profession. That's what ‘right touch’ regulation will accomplish.

I use this Chinese proverb because it is about a regulator helping the members of the profession understand what their risks are, and behaving in a way that causes them to avoid harm, causes them to avoid a mistake, causes them to avoid misconduct. So, we know what causes lawyers to make mistakes. We know what causes lawyers to get into trouble. If we can help them see the signs along the road that are leading to trouble, then they too can avoid it.

Now, there's a health overlay to this that makes it much more complicated. So, if a person is ill, it's much more difficult to predict exactly how they're going to behave, particularly if it's a mental illness. And I acknowledge that. And it requires a very different set of strategies. But our profession is intelligent, and historically what we've done was, we've not given them any information, we've not allowed them to understand their situation, and we've allowed them to get in trouble. The “I got you” approach.

And what this allows— the proactive ‘right touch’ approach collectively allows us to begin to say to the profession, “These are the things that will cause difficulties, and this is what you can do to avoid them.” The clear regulatory objectives: articulate what difference you will make, by saying what your approach is to regulation, and what the public, the profession, and stakeholders can expect. And transparency— you do all this in a way that everyone can see. It's about the nature of a newsletter, it's about the nature of a website, it's about the nature of a council agenda, it's about the nature of what the business is that council undertakes and it's about whether people can actually find out.

So, having public meetings— and I don't mean that every member needs to be able to go. The Law Society of Ontario actually broadcasts its council meetings. I'm not

saying that every organization has to do that. Some do, some don't. But transparency is about the commitment to make information that's relevant to regulation available, to the profession, and to the public.

An excellence in governance— clear separation between Council, and the Chief Executive. It's an understanding that the role of the Executive Director is to run the organization, administer the act in regulations, and conduct the regulation. That's not the role of Council. It's an understanding that Council has a fiduciary role of oversight and it should focus on policy, not on operations.

Defining the expectations for Council members, what attributes, skills and competencies do you require, or do you expect. If I can just kind of divert here for a second, because one of the things that Al did earlier today was report on the results of the election process, and he made a call if you are interested in becoming a member of Council, wait 'til he's Chair of the Nominating Committee so his job becomes a lot easier. What I think he was saying is that he's committed to developing a training program for new members of Council so— this is what I heard anyway— so that if people are interested in joining Council, then we will provide them with an education so they will actually understand what the work is before they put their name forward.

There is a growing move in a number of regulators, that actually require, that you cannot run for Council, until you've actually done the training. What a strange thought, right. You actually have to be competent, before we let you carry out the work. So that's another key piece for excellence in governance and that deals with then, how do you select Council members?

There is no question, by the way, that elections are a hit-and-miss approach to getting the right people at the table, because people choose to put their hand up to volunteer as a candidate for a variety of ways.

There was an interesting study done in Manitoba a few years ago at the Law Society. They moved 25 percent of the positions— the lawyer positions on their Council from being elected to being appointed.

In the year before they did that, they didn't have enough candidates for the four positions they were supposed to elect. When they switched to an appointed process, they had 53 lawyers apply for the four positions. And when they asked those lawyers why, they said, "I don't want to run in an election." You know, it's like going back to high school when none of us wanted to run for high school student council because we didn't want the embarrassment of losing. Well, we're all the same today.

So, we have lots of people who will run if they know they're going to be acclaimed. That's easy. So— but the notion of actually going through a selection process allows you to deal with what are the skills, what are the demographics, what are the attributes that Council requires. So, the combination of the training that Al is committed to doing when he becomes Chair of the Nominating Committee and a different type of consideration, of a different type of selection process, will result in a better Council.

And, finally, a much different approach to how we choose committees. And I didn't go into this because time doesn't allow, but the whole way in which committees are chosen. One of the things I think about is, we wouldn't send a volunteer out into the field to conduct a survey, if that person knew nothing about surveying. Like, every one of you would be aghast if that was the kind of model that we had. But yet we feel quite comfortable having volunteers sit on discipline or investigative committees without any training. They have no defined competencies and they make these very important decisions that affect members of the profession. So, that whole question of how we select.

So, this is just an image of the nature of that relationship. In an effective governance model, the CEO, the Registrar kind of is at the fulcrum in the scissors between the board, management and the employees.

And, finally, future focus. I've referred to this already. Boards need to be thinking about the future, and that causes, in today's world, the thoughts about, "What is our innovation and creativity agenda?" "What's our role as a regulator in supporting innovation in the profession, especially when you've got, you know, these 30 sponsors here today with a trade-show where they're just full of innovation, and what's the impact of that on you?"

Effective liaison. I've referred to already. It is about making sure that the AOLS is effectively, strategically, purposely engaging with members of the profession.

So, this is a journey, not a destination. Regulatory reform, doing things better, doing things differently requires real commitment of an organization to change, and that doesn't happen overnight, but it's vital to maintaining relevance in 2020. It requires flexibility, it requires making mistakes, it requires being prepared to throw things out, to try things that you've never thought of before. It requires learning from others what has worked for others and doing things that are new is a lot— it is hard. Change is difficult.

It's about managing expectations. It's about demonstrating to the profession why you're going to change, what they can expect from the change, what the public can expect but doing it in a way that is reasonable.

Rome was not built in a day. And as I said because change is hard, the psychology of change, the impact of that on the people involved, the staff who work for the organization, the members of council, the members of committees, they are all going through a process because they need to do things differently tomorrow than they did them yesterday. So, rethinking regulation, you know, identifying what's really important, does require, in my view, a transformative process. It's moving from, you know, the Roman Coliseum to the Bird's Nest that we had for Beijing Olympics. Thanks very much.

BRIAN MALONEY: It's escaping on me. Well, it's too low, but it will work anyways. Thank you very much, Darrel. I certainly appreciate the advice, the challenge you've put forward to us. I had the opportunity to hear Mr. Pink speak at the Canadian Network of Regulators, the agency for regulators, and he really struck me at the time. It was a workshop on what makes a good regulator and I thought, man, we've got some work to do in this association. And given the challenges we've got, I thought we've got to get this guy up here and you didn't disappoint me. I really appreciate it.

And I think it—I hope this gives our membership an understanding of the work that we've got in front of us and that I think we're going to take on. So, I want to give you a couple tokens here. The first is a donation. We've made a donation on your behalf to the Erin Mills Youth Centre. So, I'll give you that one.

DARREL PINK: Thank you very much.

BRIAN MALONEY: And the second one is—it's for a book that we had published a few years ago, kind of the history, a celebration of surveyors of Ontario and I hope you'll take a chance to read this and get a little more insight. Thank you very much, Darrel.

DARREL PINK: Oh, it's a history book. Thanks, Brian. Thank you.

AL JERAJ: That was great, Darrel. I just want to echo what Brian said. Some of the things that you've talked about, our thinking is going that way and Brian is leading the charge. And I hope, just like I said, the membership should expect us to move in those directions. I'm pretty sure I said what you said I said.

DARREL PINK: Well, I put the words in your mouth anyway.

AL JERAJ: We'll check the transcripts just to make sure, though. So, once again, we have a very impressive list of exhibitors. As you all know, the exhibitors are a huge important piece of our meeting and we thank them for taking a few days out of their busy schedules to join us at the AGM to demonstrate what's the latest trends in technology and services to our members.

So, right now I'd ask Darren Walker from the AGM Task Force to please escort the exhibitors into the room. We'll give them each a few minutes to introduce themselves, and I encourage everyone after to visit them at the booths during lunch. Darren? Oh, we have a technical difficulty. Darren?

INTRODUCTION OF 2020 EXHIBITORS

CAMERON WALKER: Good morning. I'm Cameron from Sokkia Canada. I just want to thank you again for having us. We certainly like the environment here.

Anyway, I would welcome you to join us at our booth, drop a business card in. We are offering 50 percent off a calibration. Well, maybe not a Sokkia instrument—they don't need it that often. But, in any event, we welcome you to come and see what's the latest and greatest and meet my colleagues. Thank you very much.

PAT HILLS: Hello again. Look at me! On time! Pat Hills from Cansel. I think I've known all of you a long time.

Cansel has over 600 people now across Canada. We like to keep our relationship with our customers, personal, on a local level, and hopefully we do that. I've been with Cansel for nine years now. I've been at this convention for about 27 or 28 years. You've known John Currie for a long time, and you've known Bruce Davies for a long time, but I encourage you to come by and meet our new, young talent at Cansel: Mo, Adam, Said and Colin.

And we like to think that they're trusted advisors to your companies, and more than just salesmen. And I don't know what Leica has planned here today, but I just wanted to acknowledge that Don Edgar has retired, and acknowledge his contribution to our industry over the last probably—he'd correct me—but probably 32, 33 years. I know he's had a close relationship with a lot of you, and he's been a very respectful competitor, as we call them, to all of us. So, thank you very much. Hope to see more of you this week.

CLIFF SHEEHAN: Hello, everyone. My name is Cliff Sheehan with Phoenix Measurement Solutions. It's good to be here, good to see everybody. So, I guess we're promoting mainly the Geomax Positioning Systems: from robots, GPS, the

complete line. Something exciting for our company this year is, we just signed a deal for Canada for U.S. radar, which is a ground-penetrating radar, triple frequency. That's really exciting. So, come by and see that. It's the big buzz. And—yeah, so I look forward to seeing everybody. Have a great meeting.

GORDON DeVILLERS: Hi, everybody. My name is Gord DeVillers and I'm the new face of Leica Geosystems in southern Ontario. I've worked with Don for many years— six years. I know many of you. I'm doing technical support for Don during those years. So, look forward to getting to know more of you. I'm joined here today at the show by— with Derek DeBlois who is the HDS reality capture rep, so he has an RTC 360 here that he'd love to show you.

On the surveying and engineering side, we're pleased to show you the new MS 60 scanning multi-station. So, please do come by and have a look at the new speeds that this instrument can operate at, as well as our GS 18 tilt sensor as well. We're very pleased to show that to you, so please do come by. Thanks.

JULIE BROUGH: Good morning, everyone. I'm Julie Brough from Logan Wealth Management. This is, I think, the fifth year that Kimberley and I have been here at your AGM and, once again, it's been great fun so far and we're very happy to be back. We are a boutique investment management firm that provides discretionary asset management to associations, not-for-profit groups, as well as to individuals.

I want to point out, some of you that have listened to our webinars, you may already be aware of this, but one of the things that we really try to encourage people is to take part in a financial planning process, because it helps on the investment management side. If you've got clear goals, then it's far more effective— you get far more effective investment management. So, this year, as our draw this evening, we're actually going to give away two opportunities to have a financial plan done. So, come by and drop off your tickets for that this evening.

We also have the updates for our educational webinar series that everyone here is welcome to participate in. The next one is on March 25th and it will discuss whether you should contribute to your RRSP or your TFSAs. And probably on a final note, we also have chocolate if anybody just needs a little sugar buzz to get through the afternoon. So, hopefully we'll chat later and thank you for having us back.

SCOTT PATERSON: Good morning, everyone. My name is Scott Paterson with Tulloch Mapping. I have been working the last eight or nine years out of the Ottawa office with James Ferguson who is likely well known here. Our office in Ottawa— our Tulloch office in Ottawa is focused on engineering-grade mobile LiDAR mapping service. If you do have interest and want to learn a little bit more about the

technology that we provide, please drop by our booth, it's just inside the door. I'll be there for the next two days and up until probably 11 or 12 tonight.

We primarily provide surveys for larger municipal roads, highways and rail tunnels. So, I hope you have a good meeting and hope to have a chat later. Thank you.

MIKE McMILLAN: Hello, everybody. Mike McMillan, Horizon Measurements. First off, I'd like to thank everybody in this room for your continued support over the years. Eighty percent of our business comes from you guys, so we truly appreciate what you guys have done for us and it's— you guys have helped us become who we are today, so thank you very much.

Along with me today is Matt Hewko. Matt joined the Horizon team about a year ago. Matt was a former Hamilton police officer, and he's been a huge asset to our business and a big help to me. One thing Matt keeps reminding me is, we take for granted, I think, every day, what we do, and it's the first responders out there— so, the police officers, fire, and people like that that put their lives on the line for us. If you have a first responder in your family or you're married to one or friends or whatever, maybe shoot them a text sometime and thank them for what they do because I think they could use it right now.

Tonight, we are giving away a Lamborghini. Well, we were going to, but the Association said we had to limit our prize value, so we can't give away the Lamborghini anymore. So, if you have a problem with that, talk to the Association. I'm sure they'll figure it out. But we are going to let you drive one. We're actually going to let you drive five super cars. So, come to the booth, check it out, we'll explain how it works. But if you're not a car person, you will be after this, so come on and check it out. Thanks, guys.

DENON WILGOSH: Hey, everyone. My name is Denon from Measur. We sell, rent, and service a variety of geomatics, drone and locating equipment out of our Burnaby and Calgary offices. This is our first year here, so we're a little newer, so we'd appreciate if you guys came, and stopped by, and talked to us. We have some exciting products to offer. We primarily carry the Stonex line of geomatics equipment, it's a made-in-Italy line of products, cost-effective receivers with up to 50 percent cost savings with all the newest features like IMU tilt functions without calibration and non-magnetic interference. So, yeah, stop by, we'd like to talk to you guys and that's it. Thank you.

MURRAY HUNT: Hello, everybody. My name is Murray Hunt. I'm with Canadian UAV Solutions. We're a drone UAV data service provider. What I believe differentiates our company from a lot of others is, we do all of our own processing

in-house with our own certified photogrammetrist, and we focus— our main focus is it's not about the drone, it's about the data.

Anybody that engages us, they don't really care how we do it, what we fly or anything like that. They want to know that the data is true and accurate and that's our sole focus. So, drop by the booth and I'd be happy to get into a more detailed discussion at any time. Thank you.

THAD KING: Good morning again. My name is Thad King with GeoShack. We're your Ontario Topcon dealer. I'd like you to stop by the booth and say hello, see new technology. I talked a little bit before about our magnet software, but we also have our hybrid positioning technology with GPS and robotics in one system and a one-button push to go back and forth between those systems.

So, stop by, take a look at it, see what you think. I'd love to see you and good luck with the rest of the show.

GORDON CAMPBELL: Hello. Gord Campbell from Multiview Locates. We're a geomatics firm that processes and collects data with different methods. We also specialize in locates both private and public and do a lot of ticket management for a lot of large utilities. We're in booth 14, so come by and say hello. Thank you.

SANDRA CRUTCHER: Hello. I'm Sandra Crutcher, Executive Director for BeSpatial in Ontario. We're a partner association with AOLS representing the geospatial and information community in Ontario. A number of AOLS members are also members of our association. We have our 33rd Annual Conference coming up on May 5th and 6th at the Americana Niagara Falls. We'll certainly extend an invitation for you to drop by; we have an excellent two-day event planned. Come by our booth, we're in the centre close to AOLS, and talk to us about that.

MARIKKA WILLIAMS: Hi, I'm Marikka Williams and I'm a professor at Fleming College in the GIS post-diploma program, and I also teach the environmental technicians, geomatics and surveying. So, they're inspired by what you do, and some of them may turn into surveyors in the future. I'm also on the BeSpatial board and Eastern Section Director and will be hosting an event on March 26th in Kingston, which we have several good speakers gathered for. So, thank you.

BLAINE HUNT: Good morning. My name is Blaine Hunt. I'm here with T2 Utility Engineers. So, I'm the Senior Project Manager and Technical Advisor for our Canada operations. We're excited, if anyone hasn't heard, that T2 has been able to re-brand all of our American operations under the T2 banner, so that's a big one for us this year.

We're up in the booth— myself and Wayne are here for this week for the conference. We've been here a number of years. We've enjoyed working with a lot of the surveyors that are clients of ours. We've worked very closely with you. Our specialty is utility engineering. We're a sub-consultant to a lot of the large municipal projects to help you with any utility engineering that's required. Most importantly, we can talk to you about the risk associated with the phrase “all utilities” that you'll always see in your RFP.

So, come by and stop and see us. I'm also in tomorrow to have a chat about some utility engineering and some of the standards associated with the UESI, which is the Utility Engineering and Surveying Institute. I'm a co-Chair of that chapter here in Ontario. Thank you very much.

GARY ROSEN: Hello, everybody. My name is Gary Rosen. I'm the Regional Sales Director for Canada for Carlson Software. I cover the entire country coast to coast as the representative for Carlson. So, this is my seventh Ontario AGM, and I'm really glad to be back, thanks for inviting me, and it's my 41st AGM coast to coast. I've enjoyed meeting so many people everywhere.

I live in New Hampshire, so I drove up yesterday and I got to the border, and they asked me if I was bringing any weapons and— so, I said, “No.” It made sense. And they asked me if I was bringing any marijuana, and I— that was confusing to me because I was, like, why would I bring marijuana into Canada? I didn't understand that. I was kind of like, “No, I think— I think they're all set.”

So, and then he said, “Well, what are you doing?” And I said, “Well, I'm going to this Ontario survey show as a vendor.” And he said, “Oh, are you bringing in any product?” So, I said, you know, I wanted to be truthful, I said, “I have two data collectors.” So, he said, “Oh. You know, how much are those worth?” And I said, “Canadian or U.S.? Because it's a little different.”

So, I told him, and he was, like “Oh, boy, you know, I'm not sure we can let you in with those.” And I said, “Well, I'm not selling them.” And he goes, “Are you sure?” I go, “No, I just have them at the booth,” so I had to promise that I wouldn't sell them. So, he let me through and I'm, like, okay, so I'm driving 12 hours to be a vendor at a trade show, I paid about a thousand bucks for the table and I can't sell anything. So, it's a safe booth to visit because I can't sell you anything.

But I will be there, so if you want to learn about Carlson, or say hello, please do. At 4 o'clock I will be doing a little session in that side room if you want to learn about Carlson, and I appreciate being here, and have a great conference.

PAUL FRANCIS: Good morning, welcome. My name is Paul Francis. I'm with Northway Photomap Remote Sensing. We provide LiDAR services, aerial photography, GIS and topographic mapping. If you need those services, by all means, come and see us. We'd be glad to help you out. We'd invite you to stop by our booth, and for your convenience we have placed it at the back of the room in the far corner very close to the bar. I'll see you all there.

MIKE POWER: Hi, my name is Mike Power. I'm with iLookabout. If you've been wondering why the booth has been completely swarmed all morning, of course it's all about the Provincial Survey Record Index. People are very, very excited about it. We're closing in on the three-millionth record being loaded into the application, and to celebrate this very momentous occasion what we're prepared to do is provide free training to all of your staff that you didn't bring with you out here to Huntsville. And if you've got any unwashed, unscrubbed, unorganized records that you're desperate to get into the application today and today only, we're prepared to load those in completely free.

Make sure you come by the booth. Get your name on the list. Fight your way through the crowd to get to see me, because I know that it's difficult, but right inside the front door. Looking forward to seeing you.

CURTIS BOECHLER: Hi, my name is Curtis with MicroSurvey. This is my first show here in Ontario. I look forward to meeting everybody. Please stop by the booth and introduce yourself and have a great show. Thank you.

ALBERT IAVARONE: Hello, everyone. My name is Al, I'm with Teledyne Optech. And this is our first time since— it's been ten years since we've been here. Most of you know us as Optech. We've been acquired by Teledyne Technologies, the massive multi-billion company in the U.S. We're here showcasing several of our products that are in the mobile and terrestrial LiDAR products. You might know Optech is a leading research and development and production of LiDAR equipment from airborne to mobile to terrestrial.

So, we have, we're featuring some of our newest products. Please stop by and have a look at them and we look forward to seeing you all. Thank you very much.

ERIC TIMOSHENKO: Good morning, everyone. Eric Timoshenko with Urban-X. We do utility mapping work and other types of survey work for surveyors and other clients such as confined space entry and sub work. I'm here with John Scaife today. We're not far from the bar either, so come over and see us. Thanks.

MARK SAMPSON: Hi, everyone. It's Mark Sampson, I'm from Gallagher Insurance. Most of you guys know me as the insurance guy. I've brought with me Laura Stuart. She's actually the better insurance woman, she basically manages the program. We're just outside the exhibit hall.

I really just came up here to remind you that we're doing a fantastic insurance presentation at 3 o'clock. I promise the presentation won't suck. You'll actually get something out of it. And for the visiting presidents who have seen me speak across Canada, it is all new material and new jokes. I'm not promising the jokes are funny, but they're all new anyway. So, I look forward to seeing everyone at 3 o'clock. Thank you.

MAUDE PELLETIER: Hi, everyone. My name is Maude. I'm the founder of a company called MVT Geosolutions. We are located in Quebec City. We specialize really in geospatial position using different platform such as helicopter and UAV. We use LiDAR, different specialized camera, RVB, RGB, spectral camera.

We really are a turnkey services company. We are geomatics specialists and we offer really— from the acquisition processing and analyzing, it comes with a complete report. So, please come see us at our booth. Thanks.

AL JERAJ: Once again, I'd like to thank the exhibitors for joining our AGM. So, just a couple of announcements before lunch. Refreshments are available in the Exhibitors' Hall throughout the course of the meeting. Lunch today will be available in the Exhibit Hall and there is also an eating area in the Exhibit Hall. Please take the time out to visit each exhibitor during lunch.

Our keynote session will begin immediately after lunch at 1 o'clock, so please be in this room prior to one. The vendor sessions will be held inside a draped area just outside the Exhibit Hall just down from the registration desk, so drop by for the 45-minute presentation from the exhibitors and learn about the new technologies and talk to experts about implementing efficiencies that will give you that competitive edge. The presentation schedule is by the presentation area. That's it for now. Enjoy your lunch and we'll see you back here just before one.

--- Lunch break taken from 11:55 a.m. to 1:00 p.m.

AL JERAJ: Good afternoon. Okay. Welcome back, everyone. We're going to get started. Okay. Just a quick reminder about cellphones again; please turn them off. Before I introduce our speakers for the afternoon, I'd like to invite one of our other Platinum sponsors, Saša Krčmar, from Protect Your Boundaries to give you a brief address.

SASA KRCMAR: Hi, everyone. So, Pat came up and he did a video and I thought that's a cool way to do this so I don't have to talk too much, and you can just enjoy. So, Gary, why don't you do the first one, please?

--- (Technical difficulties)

SASA KRCMAR: Okay. So, the two things I wanted to introduce while Gary is working through this.

Protect Your Boundaries has been creating some new types of things that we've been working on. One is our Land Pro Conference that a couple of you may have received some e-mails about over the last little while. It is our fifth year of doing it, and it really is getting outstanding. The video he's going to show you has a little bit about that.

This time we have nine top-notch speakers, two expert panels, and the content really is tuned to surveyors that want a broader outlook on what's happening in the industry in terms of land development. So, there's six and a half hours of CPD points, so I would suggest you do that, but it is an exciting conference and it's going to be something that's great. Are you guys able to do that, Gary? No.

GARY: They're not on the screen anymore. I'm so sorry.

SASA KRCMAR: Okay. Let's do it later. Honestly, the videos themselves are just worth seeing, so I'm going to come back and do this later. I'll do it after the next one.

**PLENARY SESSION 1:
"Canada's RADARSAT Constellation Mission: Opportunities for Monitoring"**

AL JERAJ: So, at this time, I'm very pleased to introduce Hugh O'Donnell who will moderate our session on Canada's RADARSAT Constellation Mission and opportunities for moderation.

Hugh is a QLS and retired OLS. In 1998 to 1999, Hugh was President of our Association. He previously served on Council while he was Surveyor General and was very much involved in the revision to the Surveyors Act which included the expansion of the profession to include photogrammetry, geodesy and hydrography. Upon leaving MNR in 1985, he returned to Marshall Macklin Monaghan and rejoined Council. He later was appointed Assistant Deputy Minister at EMR/NRCAN in 1987 and was responsible for Geomatics Canada where he worked until 1995.

He then returned to the private sector and was Managing Director of Geomatics at System House in Ottawa. In 2000, he was appointed Executive Vice-President of the Canadian Commercial Corporation and served as Interim President in

2004/2005.

In 2006, he was back at MMM as Chairman and CEO of International Operations until 2014. Since then, Hugh continues as an independent consultant in the name of J. Hugh O'Donnell & Associates and, hence, his involvement today with us in this session addressing satellite technology.

Hugh has led or co-led a number of trade missions with federal and provincial international trade ministers. He is well known for his efforts to bring industry and government together in the pursuit of export opportunities for Canadian firms and organizations.

And because of his distinguished career in both industry and government he's frequently consulted by the principal Canadian government departments and agencies focusing on international investment and trade. His passion for things international is shared, with his strong, active community focus. Hugh continues to volunteer and support many causes on a volunteer basis in the Ottawa area.

Esteemed colleagues and guests, please welcome Hugh O'Donnell.

HUGH O'DONNELL: Well, good afternoon to all of you colleagues, and welcome to this session. And it's great to be back here on AOLS business. The last time was in Toronto, as Al mentioned when I was President in 1999.

They say you often meet old friends and colleagues at weddings and funerals. And so, it was when I met Brian Maloney at Paul Riddell's funeral last summer in Ottawa. And after exchanging updates, I mentioned that I was involved with another colleague of mine, another ex-MMM'er, Bob Mason over here, and looking at the interesting applications for InSAR. Now, InSAR stands for Interferometric Synthetic Aperture Radar and we just say I-N-S-A-R.

Brian responded that he, at MNR, he had looked into this, he had one of his staff members looking at it, but to no major significance. So, not easily being swayed, I was telling Brian about all the interesting applications for this, and how advanced the Europeans were, doing in this type of work, and that Canada had been obviously a pioneer in satellite imaging and that many exciting things were now happening and they were happening very, very quickly.

A month later I got a call from Brian and he asked me if I would assist in setting up a panel, so I accepted that very quickly, so here we are today. We have two interesting speakers to address this subject. Both enjoy global reputations on this subject. I'd now like to introduce Dr. Vern Singhroy and Mr. Carl Pucci. Each one will speak for 30 minutes. We'll open it up to questions and then I'll have some closing remarks.

Professor Dr. Vern Singhroy is an internationally renowned expert on remote

sensing applications. He's the Chief Scientist for the Canadian Space Agency, led the government of Canada on the RADARSAT Constellation Mission launched in June 2019, and he was there in California representing the scientists from Canada.

His research focuses on the use of radar applications related to geotechnical engineering. Dr. Singhroy received his Ph.D. in Environmental and Resource Engineering from State University in New York, Syracuse. He's a professional engineer. He has published over 300 papers and scientific journals, proceedings and books.

He was the Editor in Chief of the Canadian Journal of Remote Sensing and is a co-editor of four books including the Encyclopedia of Remote Sensing. Since 1998, Dr. Singhroy has been professor of earth observation at the International Space University in Strasbourg, France. He is also an adjunct professor on space sciences at the University of New Brunswick.

Dr. Singhroy received the prestigious gold medal award from the Canadian Remote Sensing Society and Queen Elizabeth Diamond Jubilee medal for his contributions to Canadian International Remote Sensing.

And now on to Carl. Carl Pucci grew up across the lake, and that's Rochester. a grandson of NASA engineers and is a true fan of everything to do with Ontario, particularly maple leaf candies. Heading to Estonia shortly after his education in political science, he joined the first information technology company in that country to launch the American operations of Ovela59.com in Virginia. Carl is passionate about all things space: space food, spaceships, particularly 1960 space clothing styles.

He's had a fantastic journey from deploying the first Estonian e-Government system on smart cities, and he addressed the White House on this particular application. And of course, he's very much involved in revolutionizing orbital radar InSAR, as a way to deal with flooding, infrastructure failure: such as dams, bridges and landslides.

Carl believes that traditional surveying is enhanced in remote sensing platforms, and he is eager to explore the boundaries of these technologies. As a crazy dad, Carl is impact driven to make sure the little ones everywhere see space as something achievable, something that changes the world in everyday moments. So, now I'll turn it over to Dr. Vern Singhroy.

VERN SINGHROY: Thank you, Hugh. Am I on? Okay. Hugh talked to me about six months ago on radar, he came to my office. By the way, Hugh was my boss-boss in the early '90s as Deputy Minister and Chief Surveyor, I think, for the government, so it's a long time. And he came to our office and asked me about radar and RADARSAT and so forth, and then I'm here now to talk to you about the potential of more satellites.

What I plan to do is, as Hugh mentioned and others --- so, Brian, thanks for having me here and the executive branch for me to give this talk. Incidentally, this is my last keynote. In two months, I'll retire. So, thanks. I've been doing this for a long time, 30 years, and so thanks for the last keynote. Okay. Can we have the videos and then I'll give some Power Points after, please?

--- (Video presented)

VERN SINGHROY: Thank you. And then video number two.

--- (Video presented)

VERN SINGHROY: Thank you. I was happy to represent Canada on that mission as the chief scientist. It's clearly a highlight of my career. This is why I'm retiring.

Okay. The PowerPoint slides. Okay, here we are. What I plan to do, as Hugh mentioned, I also teach at the International Space University in France, so I teach a lot of students, as well as the Canadian government scientists.

And Hugh mentioned that you don't know, this crowd doesn't know a lot about radar and InSAR, which is Interferometry. So, I'm going to give you a 101, then I'll give you some examples and hopefully Carl will back up what I say and some other things.

Okay. I've got to move it ahead. Okay. I'll talk to you about the RADARSAT program, which I've spent my life on, and Hugh was part of that decision earlier on.

I'll give you what InSAR, assuming you know nothing, the Grade 9 version. I'll put some application, what I think you may be interested in. There's lots of things, but particularly this community of surveyors and I'll wrap up with some things I think you can move on further.

Okay. What's Synthetic Aperture Radar? Here I'm teaching you as a Grade 9 student. SAR stands for Synthetic Aperture Radar. it's an active system. It's like a flashlight from space, basically with wavelengths and so forth. It has pulses in a microwave. It sends out a signal and a wavelength. It therefore has an amplitude and it has a phase, and as the geotechnical engineers you are, this is the critical part. We use the phase. So, if there's a change in the phase of the radar wavelength, it sends it back to the eye of the satellite, so to speak, and that can measure millimetre change. So, we can now measure through the phase millimetre change from space.

So, I just want to give you that. And it's an echo, which is the back scanner. Unlike an optical satellite, which is the Google Earth type thing, you can see through clouds, fog, or the night.

Now, when I was a young scientist in the '90s, we had an aircraft and we used to fly

in the Arctic, and then we decided on RADARSAT 1. That's because the Arctic is very cloudy, foggy, and we were the pioneers in this technology globally. Because when you're flying aircraft from one coast to the other, the DEW line, as you know, we decided to put satellites and we save about— well, Hugh knows this story— you know, about \$60 million by putting satellites.

Okay. What is important to the survey is the angle. The view, in geometry of the satellite. The way it looks down to the earth, and the phase measurement. And a plug for us, Canadians, because you have an American here and an Estonian here, I think— we are very well in this. We're probably top in the world in this technology. We have experience since the '90s and this is the third satellite.

Okay. Radar 101: It sends a signal and it has a back scanner. The energy, you have the wavelengths, the amplitude of the energy can be linear, it could be polarized. But this new satellite is sending the signal in a circular way. So basically, we're kicking ass on this technology; we're the first.

So, the linear amplitude and the polarized amplitude it sends out, now we are sending a circular signal on the back scanner. Why is this important for Canada? As we watch ships coming in, the back scanner gives us the architecture of the ships and its functionality. So, these are military types, information where the back scanner can tell us the corrector of our target. That's the 101. We'll get to your field in a minute.

So, we have the polarization, the horizontal, the vertical. Next. All this tells you is that we have RADARSAT 1, RADARSAT 2 and now we launch RADARSAT 3— the video you've seen.

We have gone from very heavy satellites, and now the satellite is smaller, but it has more functionality. So, that's all it tells you. We now have three— it's called a Constellation Satellite 1, Satellite 2 and they tend to move in the same orbit, like on a train track you have one, two, three, and it's taking signals all the time on a particular target.

We'll get into millimetre of motion in a minute. This just shows that the satellite is working very well. I'm so sorry, how do you go back? Oh, the red button. Okay. The satellite is working well. This is downtown Ottawa, and these bridges are moving quite a bit— it's a function of climatic reasons, foundation reasons, and all these things. So, we can monitor from InSAR in centimetre motion. A lot of work is going on in our seas, on most of the bridges in Montreal, Vancouver, PEI and so forth, on bridge motion, that's happening.

Okay. The next slide. This tells you the new improved RADARSAT 1 and RADARSAT 2, and the new things we are doing on RADARSAT 3. RADARSAT Constellation Mission. It shows that you will have a four-day revisit. This is important here. You have Interferometry in here, which we'll talk about. It sees a

target every four days, so you can monitor motion every four days. But you can have imagery every day, and I will show examples of that, of flooding and so forth, but at different angles.

Okay. The important one for military reasons. I'm so sorry. I got this. For military reasons, the satellite has what is called an AIS. It's an automatic identifier of ships, and so forth for NATO purposes and DND purposes and so forth. So, we have— as a matter of fact, 50 percent of these satellites is for DND, and our commitment to NATO and stuff like that. The other about 50— or 40 percent is for civilian purposes.

Okay. Scroll forward. It's a Government of Canada payload, but it has commercial implications. We'll get to that in a minute. So, just to show you all the departments from Environment Canada to DND, to you know, Natural Resources and so forth, and it shows all the applications the Federal Government works on.

I will focus for this community on InSAR because I think that's relevant particularly to this audience. So, that just shows the functionality of this satellite for Federal Government purposes and many, many examples.

Okay. Let's go 101 here. The first satellite RADARSAT 1 launched in the mid-90s— that's RADARSAT 1. This shows the view in geometry, the swath width of the satellite.

RADARSAT 2 is a satellite that was half owned by a company called MDA in Vancouver and half owned by the Government of Canada, so you can have commercial data sold by the company MDA.

RCM is actually— I'm so sorry gentlemen— RCM is actually just one satellite, and notice it has a resolution, a spatial resolution of one metre, and it has a swath width, I can't see that, but about five kilometres. What I want to draw your attention to here is for the oceans we have a swath width of 500 kilometres along our coastline for ship detection, and all those kinds of things.

The next slide. Here I'm doing this. Okay. Let's go to the policy. This is the first year of RCM. As a matter of fact, RADARSAT 1 does not exist. It was in orbit for 14 years— normally you bill a satellite for five or six years — so at least our Canadian technology is very good. RADARSAT 2 is still working out there. You can still buy the imagery from MDA. And RADARSAT Constellation, it's a government-owned mission both for NATO and for our civilian purposes and for commercial purposes in some cases.

Okay. I'll turn it over because I can read the slide. No commercial tasking. Government owned. You cannot task the satellite. We task it for you if you need imagery. At least, for the policy now. It may change later on. Acquisition is over large areas. The data cannot be distributed commercially. You

need to— if you're a company, you need to register, and we vet it and so forth before you start to use it. However, the intellectual property, they value add you on that, and adds additional government vetting, you need an end-user licence.

Europeans had a similar agreement, but after two years they make it free. So, we expect that after year two, this would be open. Incidentally, you don't have to pay for this. It's all free data. This will give you an idea of the area the satellite is covering in Canada. All three satellites. We didn't put a ten-day commitment to NATO and so forth and ship detection globally. Most of these areas are covered in Canada. It's called a standard coverage all the time.

The next slide. It gives you the users the kind of— and here, I'm talking about the big picture. The people who can use the satellite are: Canadian industries, the federal government, and academic users. We have standard coverage, and you need to be registered before you get the data --- no cost --- and there's a portal where you can get the data from and the website you have all this kind of information.

I'll just show you the coverage infrastructure that produces the data. We have a receiving station up in Inuvik, one in Saskatchewan, Prince Albert, and one in Gatineau covers most of the country except a bit in the north. Daily coverage. That's how the one in Gatineau outside Ottawa looks like, and the others are the same.

Okay. Let's give you the professor version of radar InSAR 101. This is what it means. You need two or more satellites because you're looking at repeat cycle. When you take an image, it sends a signal out. I need to send another signal, and you look at the difference between these two signals to monitor motion. So, you can have every four days, repeat pass of a particular image. Over a month, you have lots and lots of data and you can monitor that motion. So, that's basically what the InSAR shows you.

Two or more satellites in particular with the same viewing geometry. This is very critical. If I'm watching a target at 30-degree angle, I need to watch it again at 30-degree angle, again and again. I cannot watch it at 40-degree angle, so all the phases are the same, and the orbital tube of the satellite looks at that particular angle. So, that's the version.

And then there's the information, two parameters you can get from InSAR. You get height: X, Y, Z, and you get the motion. So, these are the two parameters that are critical for your, in my opinion, your profession, the height and the motion.

Then, again, there's other things. It's a time series. And this whole question in our profession, time series science is very, very critical for climate change. If you're watching things, you watch it all the time and you build up a time series science for monitoring, in our case, from space. In your case, from it is very site specific, that you have in the data and very localized. Ours, we look at a very large area like a

whole pipeline or permafrost or that kind of thing.

Okay. Now, this is a quick— just to give you a repeat cycle. As we speak of time series, you've got to think of what's out there. And there's a lot of people who are looking at time series science. We have COSMOS-SkyMED— that's the Italians.

We have the Germans, now eight days, 11 days, and you can go along here. I can't read that from here. Sentinel, so that's Europeans. And this is us, RADARSAT 1 and RCM, every four days. So, we're better than the other guys internationally and so forth. So, this is new, this is all for us now; every four days monitoring from space.

Okay. Now let's get to the examples, how has this been used and what are the methodologies we use to get centimetre motion. We have something they call a corner reflector. If you're in a vegetated area, and the vegetation is obviously moving, we can install something like a square trihedral corner reflector. It's like a mirror— and you can turn this mirror based on the orbit tube of the satellite. We can calculate that easily. And therefore, if this mirror moves in centimetres because of the phase, you can monitor that motion.

Okay. So, that's the 101 of it. And this is a particular landslide along a railway track in Quebec. And here we have— this is LiDAR imagery, and here you have another landslide, and the railway is being monitored every day because you have a lot of trains. And this is showing the motion of 20 millimetres per year— millimetres per year, over the period of a year. And it shows that this portion of the land is moving. An important thing about that, if one part of that landslide moves because of whatever triggers it— moisture, or even the vibration from the train --- all it follows. So, the landslide is very multifaceted. It does not move. The whole thing does not move, but parts of it can trigger motion.

So, we install these corner reflectors to look at the area where it's actually moving in here. Now, this is one example. Remember, there's an industry out there that provides InSAR, not only globally, and our Canadian industry is very strong in this. But just to get an example of the kinds of things you see on motion science.

Now, you can watch this thing every four days, all year: winter, summer, fall, and therefore you can use these corner reflectors. Or here is where you don't need it, in some cases— like, in some pipeline areas you don't have.

These things --- I think we buy them for about \$2,000 a piece. But the Chinese and Indians, they have their own satellites. They make them for \$500 or \$200 or something. So, it depends, it's a labour cost. The equipment --- the material is fairly cheap.

Okay. Next one. This is outside Cornerbrook. Just to give you— these are just examples. It's a vegetated area, the land is moving as a result of soaking of the soils, due to Hurricane Irene. And when you soak these soils, after a while, with a lot of

moisture, it moves the vegetation, affecting infrastructure. And you can do this time series science, notice you can look at it in these time series graphs. Just an example again of motion along slopes.

Okay. We'll get to subsidence and X, Y, Z motion in a minute. Okay. Let's look at the swelling. These are just examples. When you inject steam in the ground, in the case of the oil sands --- that's an example--- there's two things that happen when you inject steam. And the result is you have a change in temperature and pressure. The ground heaves, and the ground settles, resulting--- and you have to be very, very careful, because the amount of steam versus the amount of extraction you get, to have that equilibrium.

So, the science of the oil sands is huge, very advanced, and InSAR is used in the oil sands quite a bit, to look at the change of pressure and temperature affecting the swelling to the soils as a result of steam injection. Globally, Saudi Arabia, Canada and so forth and so on.

Okay. Next, I guess. Here's an example in one of our--- here in red is the oil sands. All the area of red shows where the ground swells in millimetres. And along the tail end points where they fill it up, the ground settles because, like a bathtub, and the tailing points behave like a Jell-O, so to speak. It goes up and down, and you can monitor that from space. So that's a good example here on deformation in these--- and it's done routinely by companies, like I said, the oil sands, because it's very advanced extraction.

Okay. This is a particular pipeline. We're not— this is not TMX. There's lots going on in TMX, but this is the Northern Gateway just to show an example here. And all it shows is you have frost heave, the swelling and contraction of the ice in the Rockies, and there's the pipeline route. And because of freeze/thaw, the rocks roll down, or parts of the rock slides happen and therefore you have the deposition down-slope in here, and you can monitor where they--- this slope is moving that would affect the pipeline. Most of the cases I'm showing here, we have both--- if you like, not swelling, but subsidence and the rising along the pipeline.

So, just an example of route planning. I know most of you work in a very localized area, but this gives a regional— therefore you can use, this is the big picture, and then move in as to your localized whatever techniques you're using. Oh, by the way, just to give you an example here— sorry, gentlemen— to give you the area of minus five and plus five, you can get it from the InSAR. And here you have your time series over time, millimetres and so forth.

Next. Okay. We have a lot of oil spills going on today. The technical— these are areas where you have muskeg, which is very soft ground, organic, and so forth, in the oil sands and that area and they have a lot of spills without going into all of this. It is thermally— the triggers are the heat of the line itself, the pipeline, and the soft soils that cause these things to break and you have oil spills. The important thing

about this is we were able to see it prior to the spill. All that's telling you, the InSAR was able to pick that out. We actually weren't looking for it, we found we were doing something in another area, but it covered that area and we checked it later on.

Okay. Permafrost is a big deal for us, you know, one third of the country. So, the country is in permafrost and as a result of, you know, lines and communication, you know, ring of fire, and all these things that are going on up in the north. We need to look at these areas and this— all this is telling you is that, all the areas in red is where the soil is going up in millimetres, centimetres, and the areas in blue, is where it goes down. So, this thermal variability of the swelling and shrinking of the soils can be measured from InSAR, and these are shown a lot, in some cases.

HUGH O'DONNELL: Four minutes.

VERN SINGHROY: Four minutes? I'm good. And here's an example of flooding where you can actually— this just tells you the latency here. At 6:30 we got the imagery, at 6:35 we receive it, it's been processed, and it gets to the mayors and the public by 10:30. Looking at flood and flood mapping in New Brunswick in this particular case.

Oil spills. This is some of the functions where the satellite --- the things it is normally used for. Not in the surveying industry. We can pick oil spills, just to give you an example, these are the platforms and we can see ships and stuff of that nature. That's easy to map on water day and night. These are the platforms. So, just think of it if you have a vessel, we can track it all the time for a variety of security purposes.

The ice surface in the north. It's a big deal for us. We watch it from space. Not we, not myself— but the federal government. We classify the stronger ice, the weaker ice, and we can tell how they behave, from a climate change point of view. And why we need that from a security point of view. We need to watch, you know, the Northwest Passage if we're going to have a highway in the north, so to speak, and we need to monitor and watch these things in a very detailed way.

And this is a big one for us, agriculture in Canada. You know, not only for, you know, crop yields. I can't read it from here, but basically what this is telling you is there's about, I don't know, about 40 or 50— in the legends here, about 40 different types of crops and so forth. They use this to map all of Canada routinely, the crops types. Not from radar only, but a combination, or fusion of radar and optical data.

Okay. I think I'm finished. The last one tells you the message I want to leave with you.

RADARSAT 1, 2 and 3 are there to provide global data. Particularly, in our case in

Canada— to watch everything we do from a geophysical standpoint, from a safety standpoint and, in our case, from a motion standpoint.

This technology is providing X, Y, Z motion --- X, Y, Z values. I don't think it's an application mainly for the north or --- or to some areas in the south as we may see fit.

And because I don't know this field very much, the survey engineers, who you all are, I talked to the people in the federal government and I said, "I'm giving a talk to some colleagues who I don't know" and they would ask me "Well, so what?" And the question I put to Calvin Klatt, who is a Director and Chief Geodesist at NRCAN, the chief surveyor that works for us, and he sent me an e-mail.

He said, "Vern, the main link between InSAR and the daily work for the surveyors, and the future possibilities of InSAR, is to understand changes in the earth environment" well, that's a big umbrella statement, that doesn't do me any good— "which are used by the surveyors to measure the velocity model". I don't know what that means, I'm sure you do know. You should know.

"The National Geodetic Survey in the U.S. is looking at this, and we in Canada, are closely watching how these progresses." So, that's a big statement that comes from one of our surveyors in the government of Canada. Ladies and gentlemen, that's my story. I do have a last slide. Gary?

GARY: No, you don't anymore.

VERN SINGHROY: That was me seeing the satellite going up. That would be cool, yeah.

CARL PUCCI: All right. So, as you said earlier, Hugh, it was a weird childhood for me with Rochester, and NASA, and Kodak in my life, and I kind of have this, like, weird global experience. But when I was little, I had kind of a different experience with the Apollo project than most people have. I had a model of a Saturn-5 on my desk, but next to it I had a model of the inertial navigation system because my grandfather was one of the guys that invented inertial navigation for space exploration in the '50s and then installed it into Apollo, and so I was always staring at stars with a different meaning.

And my education was in physics and political science, and I switched from physics to political science because I felt like there weren't enough physicists that knew how to talk to people, and I was kind of good at talking to people. You can judge that. So, I thought that it would be helpful to go into that field.

And you mentioned Estonia. Estonia is really the reason why I'm here today, because I met Hugh at Global Affairs Canada, where I was, on behalf of the Government of Estonia talking about all the things Estonia is doing together with

Canada. And Estonia is a really special country. Where exactly is it? It's just there south of Finland and next to Sweden, 59 degrees north— so it's in the North Pole pretty much, and unfortunately right next door to Russia.

It was also Estonia's Independence Day this Monday, and this picture here is a picture of 300,000 people getting together and singing, because Estonia is famous for the singing revolution. They sang the Soviets away.

And they have a really special claim to fame, which is, that they're the most digital government in the world. So, Estonians can vote on their iPhones, do their taxes in ten seconds, they can get married online. The only thing you can't get online is divorced. So, fortunately, there's still something you can't do.

That's all because when Estonia became free in 1991, they had a special caveat in their constitution, that the country can have no debt. So, Estonia cannot issue bonds. They can't do anything to go into debt. So, when they started doing quantitative easing to ease the recession, Estonia was, like, "What? We don't have any debt. There's nothing to buy." And this is definitely worth seeing a cool break from folks talking, so let's take a minute to hear— we'll get to hear a message from the President of Estonia. Go ahead.

--- (Video presented)

CARL PUCCI: All right. Yeah, so it's been a very interesting place to go to from Rochester. Right. I mean, it's like a whole other universe. And when I started to work with the company that I work with now, you know, I— all right, look, I'm kind of a young guy. Right. So, start-ups for me. This is, like, where can I get my cappuccino at Starbucks and where is my co-working space? And, you know, I want a ball pen at my office.

But these guys had a totally different set of problems. When they traded the company in 1991, their problem was the Soviet coups. So, the Soviet Union dissolved, and then suddenly the military was, like, "No, just kidding" and then they invaded Estonia, and Latvia, and Lithuania, and they went after the communications tower, the TV tower for Tallinn. And they heard about it over the radio while they were painting their first office, and they ran out to the streets and they thought "Oh, god. Well, if we pick up a weapon, they're going to kill us." So, they just stood there.

So, there were thousands and thousands of Estonians just standing there in a circle around this tower. But the other smart thing they did was they sent Estonian women to the Russian border with vodka, and half the Russian force never made it to town.

So, the other thing that's really important— and it was extremely important to the role of surveyors in the beginning of Estonia— is also why most former Soviet countries did not succeed that well, and that is land reform. Because the largest theft

of public resources in the history of the planet was when the Soviet Union ended, and people inherited free factories. So, suddenly it's like, "Oh, well, I had this factory that produced nuclear weapons. It's yours now for free. Congratulations."

Of course, that was a very violent and disturbing process but, when they showed up, they took everybody's land. Right. And if you were lucky enough to still be alive when the thing went away, you had to get the land back and that process was really un-transparent in many places.

But our company wanted to do that in a transparent way, so we invented our own geospatial information system. See, back then there wasn't the monopoly of Esri. And, you know, I'm sure all of you have won a prize from Esri and maybe shaken Jack's hand and go, "Oh, Jack, I'm so glad. You're the man." But we don't use Esri for anything at all. And we use less than 300,000 Euros a year to run the entire country's spatial programs, which is probably less than some pay for Esri licences in the City of Toronto's departments.

So, land reform was critical, and the country still runs on those systems. And this is a little bit of what that system looks like today. Now, these areas are showing the different survey methods that were used in the town where I live. Pink is the latest survey cadastral lines, and green— these are cadastral lines in other areas that were created with other systems. And that was just because we had different coordinate systems. Right? We had the Soviet coordinate system, and you had, like, the first independent Estonian Republic's coordinate system and then you have the European Union standard coordinate system. And so today we've had to get all those under one roof.

But the coolest part of all of this is that the same platform connects to InSAR data. So, if you own one of these pieces of land and your surveyor has figured out where your cadastral lines are, you can also click another tab and see how much that land has moved. And that was the final frontier for Estonia, was space.

So, Estonia has no money. Right. It has no people. It has a million people. It has no natural resources. So, how was it going to figure out how to monitor its infrastructure? Right? We have one bridge inspector, and that one bridge inspector is also the dam inspector and he's also --- you know, he probably also cooks, you know, for the kindergarten. So, how do we get that guy to every bridge and dam in the country? Well, we joined the European Space Agency, so Estonia is the youngest member of the European Space Agency.

And then they joined this thing called Copernicus, and you get access to this. So, this is the big heavy satellite that Vern was talking about; this is Sentinel 1. There's twins, Sentinel 1 A and B, and they have two different angles, you know, because one is ascending, the other one is descending. And they are every six days, but they only release their data outside Europe every 12 days. But six days they do actually over-fly you.

And this enabled the country to target all of its assets in that same spatial system where the surveyors were surveying to see this velocity model, to see how much something is moving. So, we were able to survey from space. So, we took these little radar reflectors that Vern was talking about, we made them a little bit smaller and we attached them to survey monuments. This way you could track the motion from space from the same survey monument that some dude looked at with a tripod. Right. So, you take tripod dude, and then you take a spaceship and you put them together and voila.

But all this wouldn't be possible without Copernicus, which is the largest investment in European history. It cost the European Union \$18 billion a year.

--- (Video presented)

CARL PUCCI: Now, that's critical, because the amount of data coming off these spacecrafts are unbelievable, right. We're talking about terabytes a day. So, 118 terabytes a day. You know, you had petabytes of data. Now, if a private company had to pay to store that, or a government had to pay to store that and to use it, it would be impossible. Which would mean the cost I would pass on to an end-user would be too high.

The reason why many of you may not be using MDA or RADARSAT is because it's just too expensive. It's crushingly expensive to use. And that's something that we have addressed in Estonia. This is Julie Payette, the Governor General of Canada. She came to Tallinn just a short while ago, maybe a month ago, and I was fortunate enough to meet her and her entourage, and we talked a little bit about RADARSAT.

But Estonia and Canada have a lot in common, particularly in Canada's history. Because back when Canada got into space, no one thought Canada could do it. Right. It was, like, "Oh, well, it's Canada." But Canada was actually the third country to get into space.

--- (Video presented)

CARL PUCCI: So, you never underestimate really determined and stubborn people that live in cold places, and I think that's the key to both of these stories.

Okay. InSAR, oh, my God, it's like an acronym soup from hell. Okay. Well, there's DinSAR, Differential Interferometry, persistent scatter. This is the thing that Vern was talking about that we have a natural reflection that you can identify and then track it through time over a time series.

It originally looked like this weird soup of oily gunk down here. That's DinSAR. But that soup of oily gunk is really critical, because if you count those bands, you can determine huge amounts of motion very quickly. So, when there's an earthquake, or a volcano, then you can see how much it has moved at metres of

scale.

This thing on the right side are the way different radar satellites see a target, and this was just comparing the way they look. And then the back end is a time series now that we have developed. Persistent scatter, you can kind of see it like this. It's like looking for a reflection, a back scatter every time the satellite over-flies many, many times and then you can identify a point.

So, this is the American Naval Academy in Annapolis, Maryland and I met the Director of the Naval Academy. I was working with the Defense Department, and he said, you know, "We had a crack in our building, and we have no idea why." I said, "Well, I have a historic archive. I've seen every inch of the planet every six days since 2014, so I can see why." So, a week later I said, "On September 15th the year 2016 your building cracked open. I have no idea why, but that's exactly when it happened."

These are the corner reflectors. They're really important, and they're really important for you guys. Because if you install them through one your clients, they survey them in, you know exactly where they are, and then you can give that data to an InSAR provider, and we can help locate it on the map a little more precisely. They look differently in different environments.

This is in the north pole of Sweden, to keep the snow out of the inside of it. So, as the snow falls, it goes around that Plexiglass. But this allows you to see a specific spot. Like, I know the reflector is here and it's right there. Right. That's the spot that is moving.

Now this is Toronto. this is the actual motion of Toronto. Toronto has kind of a general substance trend with some areas which are a lot worse than others. And we went to Toronto for a watermain bursting prediction system, so we could take their GIS system and see where all their watermains broke, and then we could see where there was deformation over time and you could predict 20 percent of watermain failures with InSAR. And that's important because Toronto Water has all the money and they have \$20,000 costs every single time a watermain breaks. So, if anyone knows Bill Shea and all his crazy people at Toronto Water, then that is go -- go forth and talk to them.

The system now works on a Smartphone. So, you can take out your iPhones, you can go to Ovela59.com and you could see InSAR data right there. So, you don't have to open some clunky GIS, or you don't have to use ArcGIS Online. You don't have to pay for a licence. It's just there. It's highly affordable. Historic data now is for any ten square kilometre square on the earth, right, which— for a target like Toronto is pretty dense. It's \$5,000. So, that's not much compared to what it used to be. And you can monitor a target for a year twice a month for about \$12,000 or \$15,000 depending on the target.

So, now you have pricing. Oh, god, scary information to give you. But it is important for you to know that it's not ridiculously costly, right. Drone people are here. I saw your drones out there, great. Expensive. Now, if you want to have the ultimate product; fuse it together, use InSAR to watch the wide area to observe a trend. And then you go, "Oh, my gosh, there's something really wrong here." Have the drone guy go out there.

If you want to do a flood model; take a LiDAR, a digital elevation model, use InSAR points as weights, and move the DEM up and down, and you can create near real-time flood modelling.

Right. So, the real strength of remote sensing is infusing the parts that you have to offer together. It's not that "I must have a drone, I must have Esri, I must have a spaceship." What you really must have is the insight to know when to use what and to use the browser, because that's where the strength really is.

There's a slew of examples of these things. I'm going to try to go through these very quickly, so you have some time to ask questions, but please feel free to ask questions later.

The Americans had this crazy idea in West Virginia to cut the tops off of four mountains and build a runway on top of it, and one of the mountains fell off and crushed a bunch of people underneath it. And then they picked up the mountain and stuck it back on the side and glued it together and built the retention wall. And they're like, "Okay. Well, we don't want that to happen again," so they used InSAR.

This is Brumadinho, Brazil which has the largest dam failure recently, 300 people died. InSAR predicted the failure six months in advance of the failure, and the subsequent deaths that followed in Brazil.

So, sometimes when you use these techniques, you know things in advance, then you can say, like we did, "Hey. Oh, my gosh, your dam is going to fail, man. It's really bad." And then they don't respond to your e-mail because you're just some other sales guy. Right?

That's one of the major problems I see in Canada, because every time. So, if I want to talk to a government official here, I have to be a registered lobbyist. I mean, no, not going to do that. I don't even live here. I'm not going to register as a lobbyist. I'm not going to do anything. So, I'm going to have this date and you're not going to be able to talk to me. That's crazy. So, there's a lot of problems that exist in the world of just trying to get information out there to people. Because sometimes it's not just about making a buck, it's "I really need to tell you this."

This is open pit mining in Norway. It's a huge titanium mine called Titania A/S, and they had a collapse of their spoils pile into the inside of the mine, which is really

bad. And this is oil and natural gas extraction in Kazakhstan where they have basically made a giant impact crater in the planet in return for oil, and sometimes buildings are falling over.

So, this is Millennium Tower in San Francisco which is leaning to its side five centimetres. It wouldn't be very fun if you lived in there.

Anyone fly out of Toronto Pearson Airport ever? Do you know that Pearson Airport is built on top of a bunch of creeks? And stuff moves. Right. So, what the hell is going on with these runways? I don't know.

Anybody drink water out of an aquifer? If you drink water out of an aquifer, aquifers move, and they move a lot. In California, they move feet a year. This is the only way to monitor that.

This is the largest dam in North America. It's in California at Oroville. It failed three years ago, and this is what it looked like before it failed. So, we were able to predict that dam failure.

I did go to Quebec City just recently where I tried, kind of like a lunatic, to get a hold of Hydro Quebec. I finally got a hold of Hydro Quebec, and I was like, "Talk to me." And they were like that. That was their reaction. And I was like, "I have data on your dams." And the reaction was, "You know, we looked at InSAR seven years ago and it just..." And I was, like, "Really?" That's like I used a computer in 1985 and I thought it was terrible and so I never used one again.

I mean, that's one of the major hurdles that we have with these types of technology. We're talking about something that seems like it's brand-new, right. This isn't. This is the oldest dam remote sensing technologies there is in the face of the earth. This technology was invented at the same time that we went to Apollo, because we had to have a way to image the moon's surface.

Right. We had to have a way to see nuclear weapons underneath trees and through clouds and at night. Right? Because the Soviets weren't going to just park their missiles outside when you can see an optical image of them.

So, InSAR and RADARSAT and all these other things have long stories. And the reason why it's not in use is, because we don't do a good job of explaining it. We don't do a good job of saying, "Look, it's a spaceship. Okay, whatever. We can see how much this structure has moved and you need to know that information."

Because if you have a bridge, sometimes the failures are at the abutments, and you don't see them all the time because you've instrumented the span but not the abutments. Or you've instrumented the causeway, which you probably didn't do, and the seawall next to the causeway fails. Or you have rocks that fall on top of people's cars --- and that's not fun --- so, what do you do with rockslides. Right?

You hire the drone guy and they go and shoot the rockslide. They do photogrammetry.

Okay. Who has an infinite budget to do photogrammetry everyday? No one. So, what you need to do is, when you order the drone guy to go do photogrammetry of a rockslide, make a more informed decision, have those costs better understood and then it will help drone operators make more money. Because if you are a drone operator and then someone knows there's a rockslide that they didn't understand previously, then you can sell your services on top of it. Like, "Hey, there's a rockslide. You should buy photogrammetry."

And sometimes governments need to be aware of things that the private sector don't inform them of. This is a mine in Washington State that went bankrupt and no one cared to say anything about it anymore, and no one noticed until the spoils pile cracked open and was going to fall on top of their cars as they were driving home from work.

So, when I talk about giving out data without necessarily having to go make a buck as a lobbyist, we participated in a project with the White House to handle why Americans don't prepare for disasters. Because no one apparently wants to prepare for a disaster.

A hurricane comes, like "Yeah, whatever. I'm just going to sit here," and then they have to rescue you, right, which is expensive and terrible, and you might die. So, we thought that if we could show people how their houses were structurally unstable before a hurricane came and said, "Hey look, your house may collapse regularly, and it's definitely going to collapse if a hurricane comes. Oh, and by the way, we know that your roof sucks, so you can't blame it on the hurricane."

So, we developed data on four different American cities for free for the White House back in the day when it was Obama. And this is San Juan, Puerto Rico before Hurricane Maria hit. Hurricane Maria hit an island that was already whacked out because Puerto Rico is highly seismic, right, as we have learned recently. But we aggregated that data on every single household to the census block. We counted every building in a neighbourhood, and then we said what percentage of buildings in that neighbourhood may fail. Well, lots of them if you're in Puerto Rico, but not lots of them in other places.

And this is our latest project in New York City. So, New York City has contracted to us to determine every single structure in New York's structural integrity and we allocate that to the building shape. And we're modelling what if New York City gets hit by an earthquake, right, what structures will fail? How will we actually respond? What liquefaction events will occur?

InSAR is nuanced. It's not like a magic pill that you swallow, and suddenly you know everything about everything. You have to figure it out. You know, it's one of

those techniques where you wake up and you're like, "I love InSAR." And then you're like, "I hate this. No, I love this so much." It's like a really bad high school relationship.

It's very good for historic deformation monitoring, right, for seeing back in time. Because you could tell me, "Hey, Carl, I want to see my house in the middle of nowhere Canada and I want to see what happened to it in 2016." I can do that. That's easy; trend monitoring. I can tell you the trend, I can tell you if your house is falling into a hole, I can do wide area monitoring. You can put reflectors on top of survey monuments, you can see areas with reflective radar surfaces on their own. You can't see grass.

Okay. So, if you want to see a grass field. It's grass. It needs radar. There's nothing to see. Right. That's not good. No bueno. So, what do you do? You do what the Norwegians did, and you put a little concrete pad in the grass, and you stick a reflector on it and then you can monitor the deformation of the reflector over time. Right. This is a lot cheaper than trying to run survey lines through the grass constantly which you could never afford to do over wide areas.

It's not good for real-time monitoring because you need to know data, you know, like by the second. The satellite is not going to do that. And it's not good for active construction. Because if you're currently under construction, and the rate the truck driving through the construction site destroys radar coherence.

You know, this is a new tool for management. How do you know what's going to happen before you bid an RFP? How do you know what's going to happen before you respond? You could use InSAR, right, because we know the historic trend of something. Before you go survey a building, you might want to know if the thing is falling over before you show up. You might want to provide clients data that they didn't know existed. That makes you more competitive, and you can get more work through verifying the motion as seen in InSAR.

So, you get the results --- it's inexpensive --- and then you say, "Well, it's moving." Okay. Well, I'm going to go look at it with a tripod, and I'm going to tell you if it's really moving, and where it's moving. You give people that sense of confidence, and you can also earn money through reflector placement.

HUGH O'DONNELL: Carl...

CARL PUCCI: Got you. Yeah, so the last 30 seconds.

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CARL PUCCI: And that's our spaceship. Multiple spaceships. Great. So, I hope, Hugh, you'll lead us in engaging in wonderfully thoughtful discussion.

HUGH O'DONNELL: All right. Let's open it to questions now.

CARL PUCCI: Like Estonians. This is the greatest thing you do in Estonia. Does anybody have any questions? No. Okay.

HUGH O'DONNELL: We'll open it for discussion to Vern and Carl. All of this in your dealings, let's say in your case in Europe, and in California, and New York State, and elsewhere, who are you interacting with, Carl? Are you interacting with surveyors, with engineers, with GIS types— or what?

CARL PUCCI: Yeah. We're interacting with the whole spectrum. Right. So, it can be an operator, an owner/operator like the owner of a dam or a city, a water system. Eventually you are going to interact with the geo-techs who understand what's going on there, and you're going to give them that insight. And also, with surveyors and GIS folks because you want to do— you want to create like a data fusion product. The end user doesn't just want just InSAR data. Right. Okay. Well, what else is going on there?

HUGH O'DONNELL: Yeah, good.

CARL PUCCI: You give them insight.

HUGH O'DONNELL: Vern, I hear you're starting to spend money on flood plain mapping. A little bit about that quickly.

VERN SINGHROY: Yeah. In my case like Carl, we talk to a lot of engineering geologists, geotechs, you know, mine folks, oil sands folks. On the flood plain side, there's a few consultant companies that are working there and that's because of the compaction. These are flood plains. There are soft soils, you wet them, they behave different, geophysically, if you wet them all the time. But it's mainly the flood boundary within a flood plain, with LiDAR imaging, and exactly where the water boundary is. So, there's a couple of things that are being done in flood plains, compaction, and some cases, swelling.

HUGH O'DONNELL: Yeah. Any questions out there?

DAVE WYLIE: I've got one, Hugh.

HUGH O'DONNELL: Dave Wylie, Public Works Canada.

DAVE WYLIE: Dave Wylie, Ottawa. I've heard two different scenarios here. One is the historical monitoring and the other is using active targets. Do you get to— with historical monitoring, what sort of accuracy can you obtain on physical features like dams, for instance, or bridges?

VERN SINGHROY: You can take that.

CARL PUCCI: On a natural reflector, you're going to get the millimetre of the point that we can confirm. It depends on the filters that you set up. We're chasing down the millimetre, right, so we're going to ignore a lot of noise. That means there's going to be less points on target for natural reflectors, but we're always going to hold to the millimetre of accuracy.

DAVE WYLIE: And without the reflector in place, if you're just reviewing historical data of a structure, what sort of accuracies do you think you could maintain or obtain?

CARL PUCCI: You're going after that millimetre of accuracy through the whole stack. So, what you do to find that is you look for coherence. You have to have a highly coherent signal over the whole period of time. And you don't always want to start from the furthest point back in time. You may want to look for a different point depending on the story of the target that you're looking at. Right. You have to know something about what it is that you're going after. And I think that's— yes.

VERN SINGHROY: Yeah. Let's be careful here now.

CARL PUCCI: Okay. About the size of the pixel. That's another thing we have to be careful.

VERN SINGHROY: Yeah. Historical monitoring: that means the satellite has to look historically at that angle on InSAR a year or six months ago. That's not likely. Nobody's going to look at your structure because you're a nice guy.

DAVE WYLIE: Well, that's a given, but—

VERN SINGHROY: You have to program that satellite, the space agency, European space, whatever, and say, “I want to watch, you know, a bridge at that angle” and therefore, you have a historical record. You would not have InSAR for any target which a satellite did not take time series measurement that fits the InSAR processing. So, be very careful.

DAVE WYLIE: Okay. So, historical from a point in time where it's programmed?

VERN SINGHROY: Yes. We have historical data of the oil sands, in our case, very strategic target for us back in 2007 to 2020 watching it every week.

DAVE WYLIE: But that was because—

VERN SINGHROY: That's correct.

SPEAKER AT MIC: --- of public ---

VERN SINGHROY: It's a strategic target for us.

DAVE WYLIE: Right.

VERN SINGHROY: A pipeline route. Certain things. But for industry, you have to program that satellite and go to the operators and say, “I want to watch that target with InSAR” or else you're out of luck. Nobody watches a target just because you're a nice guy.

HUGH O'DONNELL: All right. The central mic.

CARL PUCCI: Well, yeah. I mean, I wanted to say that actually, the Sentinel program has the global coverage.

VERN SINGHROY: Yes, that's correct. The Europeans have this coverage.

CARL PUCCI: Right. So, the program that we're linked up to primarily has coverage of everything. So, yeah, we would— wherever you're from, we have data on it.

VERN SINGHROY: But that's for—

CARL PUCCI: That goes back to 2014 December.

HUGH O'DONNELL: Okay.

HUGH COUTTS: A different subject. Quite interesting when you started there, you're saying in Estonia— Hugh Coutts, by the way, of Renfrew. You said in Estonia when a child is born, they get an identification number and the government then follows them. And the question— or the statement was made whether or not they would accept that kind of “overseeing” --- shall I use that word --- in the United States.

But you said that when the— the woman said in the film that if someone was looking at your data, that you were notified automatically. I was just curious as to whether or not I— I can only assume that Estonians are so used to being under the Soviet umbrella and Big Brother watching them all the time, that this just doesn't bother them.

CARL PUCCI: Actually, in America or in Canada or in any of the west, the government security services already know everything about you anyway. So, the only---

HUGH COUTTS: No. But—

CARL PUCCI: So, the only additional benefit that you have in Estonia is that you're able to benefit from that in some way. Estonia is not really a—I think that is a great question and we can talk about a lot offline. I think we could continue that

later. But it's a good thought train that, you know, you had the Soviet Union. How is it that people trust their government? How is it that an 80-year-old grandmother is willing to vote online, right, instead of in person?

And that's part of the social cohesion part of the equation for Estonia. And trust is like a currency. You build it up by notifying people that, hey, the police looked at your records. In the eight years I've lived in Estonia, I've never gotten a single notification. No Estonian government person has ever viewed my data for anything.

HUGH COUTTS: I did notice that when the little robot vehicles were going by, people totally ignored them.

CARL PUCCI: Oh, yeah. No, they're kind of ubiquitous now.

HUGH COUTTS: Yeah.

CARL PUCCI: They're just delivering food to people. It's like a— you could steal it, I guess. They'll yell at you.

HUGH COUTTS: I did think it was kind of a neat thing, though, you know, everything being electronic.

CARL PUCCI: Yeah.

HUGH COUTTS: Yeah. Like, you were saying that the government has no debt. It won't go into debt.

CARL PUCCI: Right.

HUGH PUCCI: So, how did they pay you for these things?

CARL PUCCI: They just wait 'til they have the money in the budget. It's a crazy concept.

HUGH COUTTS: So, it was a— who would have thought it? So, I take it that it was rolled out incrementally, then? Like, so there were things happening in the larger cities where there was more demand for it and then it spread and spread. Is it country wide?

CARL PUCCI: No, it's nationally deployed. Yeah, all these systems are nationally deployed. So, in Estonia, there's no such thing as, like, Toronto system for whatever. There's just the Estonian system. And there's one website that provides all of it, so you don't have to go from department to department. You just go to cesti.ee and everything is there. Including the surveyors' portals.

HUGH COUTTS: And did you say Estonia has only got one million people?

CARL PUCCI: Yeah. And that's not part of the reason why they're doing so well at this. Another part of the reason is they have a law; they can't have any legal act that's longer than one page long. So, the whole country is hyper-simplistic.

HUGH O'DONNELL: Okay. Last question.

HUGH COUTTS: I think we could learn a lot from that.

HUGH O'DONNELL: Helmut? Helmut Piller.

CARL PUCCI: My other European friend.

HELMUT PILLER: Helmut Piller, Toronto. As I was listening, it just occurred to me Toronto, is building a kind of subway/streetcar system—

CARL PUCCI: Yeah.

HELMUT PILLER: across the main street. Now, that was started a long time ago, and just about every building along that line has three to four monitoring targets on there and also several control monuments that are kind of iffy from time to time. Would this be an application—

CARL PUCCI: Absolutely.

HELMUT PILLER: If you take this from the very beginning and monitor, install the monuments there? Because we're also turning to sections which are very heavy in infrastructure, sub-service, utilities, cables... Nobody knew what they're doing until they dug it up. So, this would be an application if TTC would have had the foresight or Metrolinx would have had the foresight to say "Hey, this thing is coming on."

Just because we spend, I don't know— I don't know the dollar value. But we see people all the time monitoring with levels and taking readings. Does the building move? Does the utility move? So, that would solve that kind of an issue, wouldn't it?

CARL PUCCI: Yes.

VERN SINGHROY: Yeah. It's clearly an application. In Ottawa, you know, we just built the subway— and we don't want to talk about the Ottawa scenario. And when they were drilling by the Parliament Building in the city of Ottawa, that whole subsidence and all that work was done by— I'm not sure the name of the company— using InSAR to look potential areas of subsidence and potential areas of failure. because there was, as you know, reported that there was some failure, and it delayed the subway lines. So, yes, that's probably easier because you're looking at surface evidence rather than sub-surface evidence.

HELMUT PILLER: Well, with respect to the—

VERN SINGHROY: The short answer is yes.

HELMUT PILLER: This particular project of course has many delays, and most of them are caused by infrastructure that was there, but wasn't known, of movement that happened, that wasn't anticipated. So, this is why it piqued my interest.

CARL PUCCI: And to be clear, you know the data that Sentinel has does go back in time. So, even if they didn't think to ask for it, the data is there. So, it could be—I mean, I just showed it to you. So, we could look at that picture on my phone after this and I can show you Toronto and show you how much a building has moved anywhere in the city.

HELMUT PILLER: Thank you.

CARL PUCCI: Yeah.

HUGH O'DONNELL: I just want to make some quick comments. Space-X; they have 200 satellites up there. That's the one we used for the launch in California where Vern was, and you saw in the video the plan is 10,000 and very quickly. We're dealing with very sophisticated clients that want— we're in the world of real time now.

You know, in the past, we used to take projects on, and we had weeks, months to prepare the big documents and all the appendices. They want the data. They want it now. So, I think the areas that we could be involved in is actually the development of the software, the applications, all these various types of applications.

We've got a lot of smarts in GIS. We're pioneers in GIS. There's still need for ground-truthing. Sure, the cost of going to the field would be less and less, but that is still an involvement there. Some of you are from the public sector. Some of you work for multi-disciplinary firms with all the verticals. I know those well: transportation, municipal, civil, environmental. Whatever.

And you have a tremendous opportunity here because we're dealing with the measurement, the movement of land, water and structures and that's our business.

So, for you, I challenge you in the large, big companies to be the catalyst to see how you can cut across the various, call them, silos sometimes.

The other opportunity, of course, is some of you are very specialized. You're in very niche opportunities in geomatics and maybe you can form a consortium. Maybe you can form joint ventures, because this is moving very quickly.

You are aware that CETA was signed— Canadian European Trade Agreement, a

few years back. Europeans are coming in here. With due respect to Carl, which we like very much, they're coming in here. We have Italian firms doing this type of work now in Canada.

So, enough said from me. Maybe in the association as you're doing your strategic planning and looking out to expand the profession, the area of InSAR technology is out there. It longs to have a home.

And when you look— and I talked to Vern and all his publications in the past. You've got the Canadian Society of Remote Sensing, that's a technical group. But, you know, there is possibilities to do something. You could do a Pan-Canadian as well with the professional survey associations. The Canadian Space Agency is going ahead with big projects, big funds in research and applications on the applications side, the scientific application side.

Their contracts, they talk in terms of a quarter of a million dollars, and Vern can—he's been on the review of some of these that are coming in and some of them have gone to these Italian companies.

So, I leave that with you, and thank you very much, Vern and Carl, for being with us this afternoon. And I hope this leaves some thoughts with all of you on how we can move ahead.

Very quickly. I'm from the province of Quebec. My home province. After the Second World War, surveyors were very busy doing retracements, mining claims, construction surveys, opening up town sites, and that was a cash cow. That went on for many years. And while I was going through Laval in the '60s, they were starting to give courses at McGill and École Polytechnique in the whole area of planning, urban planning, environmental planning and eventually, obviously, these graduates were looking for a home, so government associations and all of that.

So, in Quebec, you have the Order of Quebec Urbanists— Ordres des Urbanistes du Québec, and across Canada now there's about 7,000 planners in various associations. I think that's an opportunity that we lost because we were preoccupied with the cash cow, and what we were doing. Some of our mentors that we had at the time took the courses and became also certified planners.

So, again, this is, I think, an opportunity. It's moving very, very quickly and I hate to see us lose it and this is ours in the measurement business. Thank you very much for your attendance.

CARL PUCCI: I want to give a shout-out to Tulloch Mapping which is one of the first companies in Canada that we've worked with. So, they're in this room, somewhere there's Scott and James and a big high-five to you guys for using InSAR.

And also new in the quarterly for AOLS, there's going to be a story about the Soviet InSAR program from the '60s which included a manned space station with a canyon on it. So, a spaceship with guns and Cosmonauts in there with slide rules and that's how they did the radar processing. So, I highly encourage you to read the quarterly because that's going to be interesting. Thank you.

AL JERAJ: All right. That was pretty cool. I know you said that this technology has been around for a while, but for a lot of us, or for me at least, this is my first introduction to it. And maybe it was because all the other people before were not as engaging as both of you were, and I'm glad you went into political science and learned how to speak.

CARL PUCCI: Yay, something good for political science.

AL JERAJ: Hugh, thanks for moderating; you did a great job.

HUGH O'DONNELL: Thank you.

AL JERAJ: Vern, congratulations on your retirement and, Carl, keep doing what you're doing. And we've made a donation in each of your names to the Erin Mills Youth Centre.

CARL PUCCI: Oh, nice. Thank you.

AL JERAJ: Thank you.

CARL PUCCI: Yeah, thanks.

HUGH O'DONNELL: It's four minutes past 2:30. Not bad.

AL JERAJ: All right. So, you guys get a 26-minute coffee break now. Before we break for coffee, I'm going to invite Saša back up here. We'll do Dilip first and then we'll do Saša. So, Dilip, if you want to come up here, please, to address the crowd. Dilip is our Platinum sponsor from Sokkia.

DILIP LAL: Good afternoon. As you already know, my name is Dilip and this is my 100th AGM— 20th. Twenty; quite a bit, feels like a hundred, though. Yeah. I've been coming here a long time and it's fun every year.

We have been allowed the privilege of coming here and addressing all of you based on our being a Platinum sponsor. I just want to say that we are here because of you. The Platinum sponsorship was paid for by you. You guys are just getting the payback now and we are happy to be here. Yeah, this is true, we get the money from you guys, right, and we give it back.

Anyhow, I just want to quickly talk a little bit about what's going on at Sokkia. A

couple of— more than a couple of exciting things. I think one of the big things that happened in the last couple of years is the corporate partnerships with two large software companies. One being Autodesk, the other being Bentley. And what that allows us to do is to take Sokkia field files and not have to create any kind of fancy exports to go into a Bentley user or an Autodesk user.

So, you can virtually take a job file from the field, load it in without having to modify it or export it or do anything else. Also, it creates compatibility with Bentley's point cloud. So, we can actually upload a field file from a Sokkia data collector into Bentley's Project Wise, and then they can bring it into their software to process. "They," meaning you guys. Whoever uses Bentley, right. So, that's pretty exciting.

We do also have our own cloud-based data management services system, and it's more than just a point cloud where you can upload data, field data. You can send files from the office to the field and vice-versa, of course, but it's also data management. So, you can, as an administrator that administers the enterprise software, you can actually create permissions, and put information up there that is accessible for say your client, say the consultant, say the architect, say the engineer or whatever.

So, it's more than just— I'm going to put some points on the point cloud so my surveyor can get his control. It's a data-management cloud-based system. And everybody is on the cloud these days. So, it's not expensive, it's a subscription-based thing. Five gigs for the base. Quite exciting; especially for people that work on multiple sites with multiple clients with multiple consultants. Don't we all? Yeah, for sure.

We're still supporting Network RTK, and we're determined to densify this network to the extent we can. We add stations every year. We want to get to a point where— I think we're almost at the point where at least in the metropolitan areas and the bigger cities, smaller cities, you're always within ten to 15 kilometres of a physical base station now. We do offer VRS, but geometry of the location of the base station is kind of important.

So, we want to keep densifying, adding it, and make this service as precise as we possibly can, right? And I guess as an offshoot from Network RTK's what we call "hybrid positioning" which allows a GPS and a total station— a robot— to run simultaneously and within the software, to be able to switch from one to the other. And there is a little talk tomorrow first thing in the morning, if you guys are here, explaining a little bit about how this hybrid works. It's quite nice.

And of course, we have the smallest, the littlest, and if you come to our both you'll see it— the littlest Network RTK GNSS Unit that now supports Galileo, it supports BeiDou. It's kind of crazy. I mean, I remember when I first learned about GPS and started using it, there was about half an hour in the day that you got seven satellites

and you went running out, took a reading, made sure you got it. And, if you didn't, you had to wait for the next day to go back and read it again, right.

Whereas now, I've seen on a good day, 22 satellites up in the sky. I mean, just imagine the geometry, just imagine the precision, and just imagine the quality of the data that you're able to produce with all these constellations. And we're not done yet. There's L5 still to come, there's all kinds of other constellations that will keep getting added. And many of the newer receivers that some of you own, it's just your firmware update. So, we zap in it and now your GPS starts to track BeiDou and Galileo for now anyway, yeah. So, that's good fun.

Also, our total station, our robot is probably the smallest in the industry. A three-year warranty on an instrument. I don't know what equipment you can buy these days that gives you a three-year warranty. A five-year warranty on the motors, the robotic motors. We like the instrument, and I know we think it's reliable, right. So, that's a pretty fancy warranty.

We've also got in our booth a scanner total station. It's becoming fairly popular. I think scanning, LiDAR, point clouds, is what GPS was 20 years ago, is what scanner is today. And I think, you know, ten years from now, everybody will own a scanner of some sort, right. Tomorrow we're doing a talk— again, you've got to be here early, on what's called automated deformation monitoring, so structural monitoring. Most of you sort of understand what's involved, and we'll do a talk on that in a little more detail than I'm going to present today.

I just want to introduce our team. There's me. There's Cameron; he's our regional sales manager for the north and the west. And we have David Jansen who is our support expert. We don't have a 1-800 number. Back 20 years ago, it was considered a disqualification if you didn't have a toll-free number that I didn't have to pay to call. Today it's become a bit of a liability because this 1-800 number, as we know, I don't want to mention any brands— but you call those telephone guys, right, and you just sit on the line and wait and they'll tell you, “Your wait time is 30 minutes.” Yeah, okay. Thanks so much, right.

No, we don't have a 1-800 number just because we think you should be able to call an individual to get help, to get equipment, especially to buy equipment. We love those calls. Anyway, that's our team. Paul Conrad was our LiDAR guy— he's supposed to be here today, but he got his jaw wired up, so he's had to back out. But there's three of us here, please come by and talk to us and we'll be happy to show you everything I'm talking about. And thank you once again for letting us be here. Thank you.

AL JERAJ: Thanks, Dilip. We certainly appreciate Sokkia's support for our event. Okay. We'll take a quick coffee break. Refreshments are available next door, and when you guys return, we'll have an exciting session on insurance.

--Break taken at 2:43 P.M.

--Upon resuming at 3:00 PM.

AL JERAJ: Okay. We're back. So, our business session continues with lessons learned from our insurance company. Today we're fortunate to have Mark Sampson, Senior Vice-President of Commercial Insurance for A.J. Gallagher Canada. Please welcome, Mark.

PLENARY SESSION 2: “Minimize Your Risks— Lessons from our Insurance Program”

MARK SAMPSON: All right, let's go. Come on, we're talking insurance. All right. Let's go baby. All right. The session you've been waiting for; the insurance session. This has been in the making for quite some time. Thanks very much, very happy to be here of course. I really want to talk to fit within the parameters of managing your risk. And one of the things that we want to talk about today is managing your risk really by preventing errors, by utilizing best practices so you can enjoy retirement. That's really our theme today.

And I will just go through the agenda, we have lots to cover. I am going to introduce the panel of guests here. We're really going to talk about common claims and suggestions on how to avoid them. So, the five of us here are part of the Insurance Advisory Committee of the AOLS, and we review every single claim. And there's common themes that we are seeing, including some of these five areas: office checking, change management, on-site discrepancies when you're in the field, as well as additions to existing structures.

One of the things that I get so many questions about, not just here in Ontario, but across Canada, is retirement insurance. And last year I did a presentation on retirement insurance, but I want to give you some claims examples. In this past year we've had three retirement insurance claims against retired members, and I thought I'd bring that up to you. And then of course my favourite slide; everyone here— the five of them— all want to talk about why you love insurance. I could talk about an hour on that subject, but I won't, but we're going to save that 'til the end.

So, at the start, let me introduce the presenters right here. That's right, right? All right. So, of course we're going to have a little theme, right. So, keep it going, keep the music going. We're going to have a theme; we're going to have Queen. Queen is the theme today, right, and I'm going to be Freddie. I'm going to be the band member. Right. You can see by my face is now the band member, and of course this insurance seminar would not be successful without my fellow band members. So, I'm going to have Joseph Young right there. When Joe has the hair— as you can see, he still has the hair. You can keep the music going. Keep it going. Yeah, that's all right. So, Joe's got the hair.

Of course, we have Dan, which he used to have that hair as well. These are actually

real pictures of them. Right. And then we have Graeme right there, and that— Graeme when he doesn't gel his hair, his hair is like that. And of course, John Breese is the— who has no hair, he's the adjuster. So, as you guys know, I like to have fun. Insurance is boring, right, so we've got to have some fun with it, and so this is what we're going to present today.

Really, the focus is going to be talk about some claims. The names have been hidden to protect the guilty. We're going to talk about what actually happened, the situation. We're going to talk about, you know, the situation, why it happened. We're going to talk about the outcome, what was the result, and that's when John and Graham are going to talk a little bit about that. And then Joe and Dan are going to really focus on best practices and lessons learned. And it's not just from Joe and Dan, it's from the entire Insurance Advisory Committee, because our goal is to have less claims.

Okay. So, let's talk about the first example: office checking. And, oh, My Lord, I don't know how many times that we see claims because the errors that could have been caught if it was just checked in the office properly, number one, and in a timely fashion. So, let's talk about this claims example that we had.

The Land Surveyor (LS) was retained to provide construction layout services and an SRPR. The lot was an irregular pie-shaped lot which had restrictions from the municipality and was subject to a number of setbacks from the street line. The site plan called for a setback from the front corner of the house of the lot of about 7.3 metres. Unfortunately, the LS laid the house out at 7.14 metres. The issue was discovered by the town inspector one week later.

So, John, tell us a little bit about what happened in this situation.

JOHN BREESE: Yeah. In this case, what happened was, the foundation was somewhat rotated at the time it was laid out. The calculations went out into the field. They weren't checked with the office afterwards. The town inspector stopped work right away. At that point, the contractor sends us a letter saying, "This is going to be a \$300,000 claim." That immediately gets your attention.

So, ultimately, we obtained a minor variance, but the project was shut down for two to three months. Fortunately, they got the minor variance. The claim came in around \$45,000. We were able to settle it through negotiation for around \$23,000. So, that's a win-win in a sense, because there's the lesser surcharge on the policy as a result. And that's it.

MARK SAMPSON: Yeah, really— I mean, like I said, we see these claims all the time. And you remember – you guys all or many of you know John Breese. We're very fortunate. He's been the single adjuster on the program for 35 years, so he's got tons of experience and he really represents you, the surveyor.

So, when we have claims, sometimes, you know—it's not all the time, but sometimes people are hesitant to give John or Graham all the information. And really, they're both there, I'm there, to represent you. And if we don't have all the information. If you've made an error, tell us. If you've made a mistake, show us where you made it. Because, really, the more information we have, the better we can defend you.

And this situation is a perfect example, and you'll see a theme here. What the claimed amount is, and what was reasonable. If we have all the information, then we're able to negotiate, hopefully, a lower settlement and, in this situation, it was a \$45,000 claim that John got down, and got a statement of final release for \$23,000. So, it's a win for the insurance company, it's a win for the program. But it's also a win for the surveyor. Because, don't forget, on this program, if you have a claim over \$15,000, you pay your \$5,000 deductible and you pay 12 percent of the value of the claim over a three-year period.

Right. So, when we have all the information, you win as well, and we can just move on and close a file as quickly as possible. Let's talk about lessons learned, Dan.

DAN DZALDOV: Okay. So, as Mark mentioned, we're here, Joe and I are here, to present some lessons learned and best practices, and really, we've reviewed these with the committee, so we're speaking on behalf of the full committee. So, one of the first lessons learned here is if there's any office calculations done, get a second set of eyes to take a look at the work.

And I realize that often your call is going to be at 4:30 in the afternoon and they want the crew out there the next morning and you're going to rush to get this ready. If that happens, and you can't get a second set of eyes, at least put some information aside, and the next morning, even after the field crew leaves— take a look at it one more time after you've slept on that work that you rushed through.

Certainly, it seems like in this case, that would have been caught. Any work that's done by a field crew, I would imagine in most offices is going to get checked. Construction checks should be done the next morning. And we see this kind of claim regularly; two, three, four times every meeting. I think we typically review 15 to 25 cases every three, four months, and so this one's a big issue. And as I think was noted, you can't always get a minor variance. Not all municipalities will allow one. So, don't just assume I can make the mistake, they'll get a variance, and everything will be okay. It doesn't always work that way.

So, this particular example has to do with an office calculation, where they sighted the building wrong, and they didn't catch their mistake. The exact same scenario could have happened where, in the office, they would have calculated it at 7.3, but in the field, they lay it out at 7.14. And, again, the same rule applies. If you're checking the field work, you hopefully will catch that mistake the next morning before any action takes place.

So, again, from the committee, best practices, hopefully when you're checking your field crew's work or your office work, you're never finding any errors. But I don't think we live in a perfect world, and there are going to be errors.

So, don't get lazy by the fact that you're not finding mistakes. It's going to be that one time that you don't check a file that something's going to go wrong. We see that all the time. We talk to the surveyor, or the broker will talk to the surveyor, and they'll say, "We always check." But it was just that one. It was that particular circumstance." You can't get complacent and let that happen.

I think the next sentence is quite good. It enables you to detect or minimize the exposure to mistakes and errors that can result in a costly financial burden or tarnish your reputation. So, a sound checking process will maintain, or enhance the quality of your service and your reputation.

Moving on to the next slide. You want to come up with a proper checking process. It's not just, oh, today I'll check files. So, you want to identify what other potential risks you're typically going to look for. You want a quality assurance and improvement of your system, and by doing all of this, you're also demonstrating your commitment to protect the public confidence. And actually, the Professional Standards Committee recently posted a cadastral checklist on the AOLS website, and they're also working on a construction checklist. So, if you don't have something of your own, you can look for that as a resource.

So, how can you effectively check field work? Redundant checks have to be made in the field. So, if you get a field file, and you're looking at it the next morning, if there's no redundant checks you may not be able to find that error. So, part of you checking the work that was completed by your field crew is making sure they produce the right record of what they've done. And if that means pulling out an old tape measure to measure between points, whatever the case may be, there has to be redundant checks, and they have to record them in their field notes so when someone's reviewing it the next morning they can actually catch everything.

I'm repeating myself; completing the office checks as soon as possible. So, that really— in my opinion, the committee's opinion— should be the next morning when it comes to construction.

MARK SAMPSON: So, say that again. Completing office checks after work and reduce errors. Is that what you said, something like that?

DAN DZALDOV: Something like that.

MARK SAMPSON: Yeah, okay. Did everyone hear that? I don't know— yes, yes. Okay. I just wanted to make sure.

DAN DZALDOV: They hear you. They hear you.

MARK SAMPSON: Okay, good.

DAN DZALDOV: It's up to you how you communicate with your client, but you should advise your client—or it's suggested that you advise your client that you do review files. It makes you look good for checking your own work, but it also gives you the opportunity to tell them, "The field crew is laying out this information today; we'll let you know tomorrow once we've reviewed it that you can use the information." Again, in the real world, that may not be practical because they're right behind you drilling the hole the second you put it in before you've even had the chance to check your work. So that's, again, communication by the crew, but you can at least try to tell them that.

And the last item on best practices; if the field crew is leaving information --- a cut sheet, a layout sheet, whatever it is on-site— again, for the office to check that, you need a duplicate copy. So, if they don't mark up for you what they gave the client— you don't know if they told them it was a two-metre offset or if they didn't, make sure there's a duplicate copy in the file that can be reviewed the next day.

MARK SAMPSON: Okay, perfect. Thanks, Dan. Okay. Let's go to claims example number two: change management.

Once again, another common claim that we see that you guys face every day. The LS was retained to provide layout services with respect to a number of townhouse blocks. The original site plan was prepared in March 2017. On October 26, 2018, I guess we just should have said October 2018 --- the LS attended the site to do the excavation layout. On the 30th, the LS received a new site plan from a contractor which revised the setback from 5.11 metres to six metres. This change— actually, the reason why it was the change, was because there was a minimum required. It was minimum required under applicable zoning was six metres, and the original design required a minor variance application. So, basically the contractor and the client wanted to avoid pissing off the municipality and going that route, so they changed it at the last minute. And what happened, Don? John?

JOHN BREESE: Well, unfortunately—

MARK SAMPSON: Unfortunately.

JOHN BREESE: Whoever took the information, simply put it into the job directory and it never— and it was not used to amend the calculations. The project manager just saved the e-mail, took no action. As a result, three days later, the footings were pinned as per the original site plan rather than the revised site plan. Nobody noticed. The land surveyor became aware of the problem in December when it was contacted by the client who suddenly recognized that there was a problem. This was a three-unit townhouse block. By the time it was discovered, they were at the framing stage.

So, construction was immediately put on hold. An application for a minor variance was submitted, and the fears of the builder were realized when they— the reason that they wanted to change the original setbacks was they didn't want any issues with the municipality had been very difficult to deal with. And, sure enough, they now have to apply for a minor variance. Guess what? The minor variance was refused.

So, as a result, the construction in place had to be demolished and rebuilt. Ultimately, we got presented with a nice claim for \$150,000, which we negotiated quite a bit off that. But, still, it was one of those situations that we find today where developers and contractors are throwing everything at us; admin costs, delay costs, costs to accelerate construction, costs for managers, costs for this, costs for that, insurance costs. Ultimately, we were able to settle the case but, still, a hundred-thousand-dollar claim is a significant amount of money.

MARK SAMPSON: And a hundred thousand dollar claim— once again, the impact to the surveyor is \$5,000 deductible, 12 percent of the value of the claim— so, it's 12 grand— so, it's 17 grand impact to the surveyor over the next three years. Right. So, there is a cost. And, once again, you're going to see a running theme; a lot of these claim examples can be avoided. And we sit around at the AOLS office, you know, banging our heads going “Oh, here's another one. Here's another one that could have been avoided. Could have been avoided. Could have been avoided.” It's that a surveyor actually makes a technical mistake. It happens— don't get me wrong, but a lot of these examples are just not following the procedures. Lessons learned, Dan.

DAN DZALDOV: So, lessons learned. Have a regimented workflow to receive documents and notify key personnel of revisions. Clearly, that would have helped in this case. Highlight the house type and data the site plan as it comes in and what was used for calculations. If a site super has given you something different on-site, or a client has given you, make sure you sign off on what's been given to you and make sure it's documented.

The same thing for pinning footings. And, as we all know, you might stake out a house and before the— before you go to do the pinning of the footing, they've changed something. They've decided to raise the underside of the footing by a foot or something, something has changed in the meantime. That information came to you, but it didn't get into the right spot in the file.

So, best practices, have a documented process for any change orders and acknowledge change orders with clients. It's a good practice to let your client know that you received the change. And, perhaps flipping that around, is telling your client that they need to— they need to expect you to acknowledge it. If you haven't acknowledged it, maybe you didn't get it. So, it kind of puts a little bit more onus on them. The same thing with the site super.

It's recommended that when you get new information, that you put the onus on the client, the architect, the engineer, whoever is providing that information to spoon-feed you. Highlight exactly what's changed. Don't let them get away with sending you a site plan and assume that you're going to know what changed.

Personally, I'll usually go back to them and say, “I need you to mark up a .pdf with the change because I'm not guessing between the two of them.” And if you don't want to do that— like, no issue. We're going to scrap our calculations and start from scratch, and you're going to have to pay us to do everything again. I don't want to be responsible for missing a change that they've made.

So, if they have made a change, you need a process on how to deal with it, you need to notify your field and your office crew of the change. Don't forget you have data. Today everything's on your computer and you've got project directories. Take the old information and move— you probably don't want to delete it, but you want to put it into an archive directory, change the file name to old file, whatever the case may be, but make sure you can differentiate between the two files. I know that a lot of us are really good at taking field notes when we rotate the date or something like that and putting a red line through all the data sheets behind it to make sure you don't use the wrong coordinates.

The same thing with your data on the computer. Very much relate it to what happened here. If that was done, then maybe they wouldn't have used the wrong site plan and they would have known to change it. The next point has to do with field computers and data.

So, I just thought I'd throw this in. This actually happened to me a couple weeks ago. I would imagine a lot of people here get CAD files from clients when you're laying out a building, and sometimes they tend to send a little bit more than they need to. They may also forget to clean the file a little bit. So, this is actually a picture I took of a CAD file that I got a couple of weeks ago. And I took the picture after two or three e-mails back and forth with the engineer, because the engineer— really, they just wanted me to lay out two manholes on a small commercial site. And they sent me the CAD file, and they had no idea why I had a problem working with the CAD file. And I said, “Well, because I'm really not sure which points I'm supposed to use. It's a little convoluted with the CAD file.” And I get the e-mail back, “No, it's not” and whatever. So, I took a picture. I sent it to him, “This is what you sent me. I'm not comfortable using this. I don't want to clean your file because I might clean the wrong thing out of it.”

And eventually what I did is, I said— he said, “Well, I don't know what you want from me.” So, I actually managed to just click one layer and freeze it, and I got a beautiful CAD file with had the boundary and the building and, you know, the manholes are right there, the information I needed was there. It was a block on our implant, so it was easy for me to relate it. But I wasn't comfortable using it. Because what happens if he had two different versions of the site in that CAD file?

What happens if he had the boundary layer in an old location and I froze the wrong thing? The building might have been shifted. Actually, in this case, I think the building was shifted because we found out that the architect screwed up on the minor application for the setback and had to—

MARK SAMPSON: Sorry, can you repeat that again? The Architect screwed up? That is the first I've ever—what? Architects are never incorrect, Dan.

DAN DZALDOV: It's just hearsay.

MARK SAMPSON: Dan, this is breaking news, folks. Breaking news. Architects are not always correct.

DAN DZALDOV: So, I ended up insisting that they either resend the file clean or “Here's my CAD file. You check the file.” And I got an e-mail back saying, “I've now verified that the file is correct, and you can use it.”

Don't put the responsibility on you. It's their file. Make them clean it. You all get site plans. You get the site plan and they've got— you turn it on, and you've got the zoom in the middle of the building and the correct layout, and you've got two other layouts on either side. Well, how do you know you're using the right one?

You've got to send it back and tell them to send you the file with only the correct information. Yes, they'll get irritated, but I think you're also going to get irritated when you get that \$5,000 surcharge and \$12,000— the 5,000 deductible and 12 percent surcharge later on, not to mention your reputation when it's the considered your fault.

MARK SAMPSON: Okay. Let's move on. This one's kind of interesting, which you'll find out. Here's the situation: on-site discrepancies. So, the LS was retained to provide survey services including provision of topo information and benchmarks for a commercial building. The LS was provided with project drawings that included a grading drawing which alluded to a site benchmark. The LS was unable to locate this benchmark, so the LS decided to use another two elevations, which was a manhole and a catch basin, shown on the grading design plan.

The crew verbally briefed the site superintendent of this issue that they couldn't find the benchmark, and there was an alleged consensus to use features on the site that were shown on the issued-for-construction drawings.

What's interesting about this one— before I turn it over to Graeme— this LS doesn't often lay out commercial buildings, so that probably led to some of the problem. What happened?

GRAEME HOLLAND: So, in this case, the LS proceeded to lay out the building as per the usual practice. However, several months after the fact, they were

contacted by their client who advised them that the foundations were poured, however they were found to be approximately 40 centimetres too tall. The result of this were issues with respect to access to the building, the HVAC system and as well as the utility connections going in.

It was confirmed that the error was related to the manhole and catch basin elevations that were relied upon by the LS. And, as a result of this, the foundation needs to be cut down, the headroom of the basement needs to be shrunk, and there has to be a full redesign of the HVAC system and everything occupying the basement and this will result in a significant delay to the project.

The outcome of this matter; it's currently in litigation, and the alleged damages are well in excess of \$2 million. Any potential settlement will likely be several hundred thousand dollars and there's a long timeframe that the LS is looking forward to— unfortunately given the slow process of litigation— which means there will be significant unpaid time that he has to spend and deal with this matter for the court process, including examinations for discovery, mediations, pre-trials and potential a trial down the road.

Besides that, there's the obvious deductible and what could be a very significant surcharge assessed after the fact.

MARK SAMPSON: Right. So, we've been talking all this time about surcharge and deductible. You know, what we haven't talked about is, if anyone's had a claim, that this is a big claim. Right. It's a big mistake. What's going to happen is that the LS is going to be dealing with this file for the next five years. And that's not paid, right, so that's not paid work.

He's going to be going to Discovery, he's going to be investigated, he's going to be— you know, we're going to try to defend him, but that type of expense— the soft costs and the stuff that you don't actually see— you know, don't— I mean, the surcharge can be massive.

But the claim, the mistake was massive. And, you know, that's the result of making these mistakes, or taking on projects that maybe are out of your comfort zone. And I'm not saying it is or wasn't, in this situation. Just as a general statement, sometimes if there's a project— and I know everyone wants revenue and, you know, you might have a client. If it's work that you're not used to doing or it's not something that's commonly a part of your practice, regardless of what the fee would be, don't take it on because something like this can happen, it could come back and bite you. So, Dan?

DAN DZALDOV: Yeah. And, I guess, in addition to that, it's your representation as well. It's not about the money. So, always communicate with the client any discrepancies or variations on the project with the scope of the project, anything that you see on-site that looks different, make sure the client knows. So, if there

isn't a benchmark in the area and you want to use as-built conditions, make sure that's what the client wants to do.

If you're bringing in a benchmark and you're checking into the conditions on-site and you know they've designed their building based on those conditions and you notice a discrepancy—it doesn't mean your— your benchmark might be incorrect, but their design information could be correct.

You're still the professional. It's not necessarily whether you're going to be liable or not. You want to communicate to your client what's going on and let them make the decision. Get written instructions from the client. Verbal—I'm not a lawyer, but I don't think it's going to hold up in court. So, make sure you get written instructions, and make sure that they're the ones that make the decisions. They're going to ask you for your opinion on how to deal with it, and there's nothing wrong with sharing your opinion, but ultimately, they have to make the decision.

So, the lesson learned here also has to do with checking in the office, and I would have hoped that on this file, had it been checked the next day, they would have realized there's something going on here. They would have realized what was done and, caught it before it got too late.

So, under best practices, the field crew shouldn't be making these decisions on-site. They should be communicating with the office. There has to be communication when something— when the scope is changed, or if there's discrepancies or if there's something wrong, you really need to teach your crews to talk you at the office. Hopefully they all do, but if they don't that's something you should be implementing, and that keeps the project manager completely in the loop.

Again, no changes— this is on-site, no changes without the site supervisor providing written, whether they're— whether you're giving them a cut sheet, and there's change that are made, and you get them to sign that they've made the changes, make sure it's documented. And you really should have a proper policy for your field crews to follow with regards to making decisions on-site.

And, you know, there's always going to be that opportunity where I guess there's no cell coverage or something, and they can't get in touch with the office, so make a policy where they have to pull out a red sheet of paper, and you're going to check all the files the next day, but if there's something specific about this and you want to make sure it doesn't get missed, and gets looked at right away, perhaps a red sheet on the front of the folder saying, "I think I screwed up. Can you check this for me tomorrow morning?" And then hopefully it will get looked at the next morning before something happens, and before you're talking to those guys.

MARK SAMPSON: Yeah. All right. Next, we're going to have a little skill-testing question. Under pressure. We're going to wake you guys up just a little bit here because I know we're about halfway through, and it's been a long day already. All

right. We'll see who's been paying attention here, a skill-testing question. So, if you're able, please stand up if you believe that there are different vertical datums and horizontal projections in Ontario especially in the GTA. Please stand up. I'm watching. I'm actually watching.

All right. There's a few are straight up. Yeah, move up. What about, put up your hands up? Do you really think it is? Yeah, all right. Then why are we having claims with different datums? Come on, folks. So, thank very much.

We've seen an increasing trend actually, of losses caused by different datums being used on projects. Once again, the main cause of errors is just communication. Different parties on the project, whether or not it could be the surveyor, it could be the engineer, it could be contractors. They all use different project control points.

So, if you work in the GTA, or in other regions where you know that there's different datums or horizontal projections, then you be aware of that. Because, I don't know why, we've seen it increase at the committee level. We've seen claim after claim come in, with just the mistake is hey, whether or not they—I'm not saying they used the wrong datum. The surveyor used a different datum. All right. And we'll give you an example right now.

The situation. So, the LS was retained to provide survey services including the preparation of a boundary survey and a strata plan, a plan to define the existing boundary and easement on the property. This was preliminary work for a large addition to a building in the City of Toronto. Initial field work was done in September 2015, with further work to be done in 2016. The LS used the City of Toronto benchmark. The vertical datum for this benchmark was CGVD 1928, pre 1978— whatever that means.

I'm not a surveyor. Did you guys know that? Anyway, they used that benchmark—or that datum, I should say. The LS used this benchmark because the previous boundary and strata limits were established by this datum. So, that's why the LS used that benchmark. And what happened, John?

JOHN BREESE: Well, the only problem was there was another firm retained to do the topographic sketch and that was used for a site design. So, unfortunately, that surveyor used a different datum, CGVD 1928, 1978. And, as you are probably aware, there's about a 12-centimetre difference between those two datums.

One of the surveyors was in the program, the other surveyor belonged to one of those big multidiscipline organizations and not insured in our program. So, we looked at this, and the concern that I had originally was, that it was stated on the plan—it was difficult to find, but it was there—that the surveyor had used that datum. The LS, unfortunately, decided or just assumed that the datum that it used was the correct datum to use and, as a result, you know, this 12-centimetre difference.

This impacted some structures. There was a good amount of argument back and forth as to who was responsible. We defended our LS— not in court, just in meetings— and ultimately this claim was resolved. But it was resolved because it wasn't a big claim. Like, the whole thing was, I think, valued at about \$35,000 to correct the problem, but it could have been much worse.

MARK SAMPSON: Okay. So, now we'll talk about lessons learned from Joe. Joe, are you there?

JOSEPH YOUNG: I'm still here.

MARK SAMPSON: Oh, I didn't know you were still— okay.

JOSEPH YOUNG: I was just sitting in awe of Dan speaking so eloquently. I was in a trance listening to him speak.

MARK SAMPSON: Oh, he did very well actually.

DAN DZALDOV: I get that a lot.

MARK SAMPSON: All right.

JOSEPH YOUNG: I thought first I'd circle back on two things, that— well, one thing that Dan talked about was site plans and engineering drawings, what we're seeing now in our practice on occasion is you'll have larger projects— there will be a big engineering drawing. The engineers are working updating it, still designing, and they will issue an entire drawing, but they will circle an area and they'll say, "Issued for construction."

So, you have to make sure that you're managing subsets of a drawing, and that drawing will come in every— and we've seen it come in everyday, and they'll be updated. So, when you get into the bigger projects, you have to make sure that you have a really good change management situation in place.

The other thing I wanted to say from a surveyor's point of view— because most of the guys will take your words with a grain of salt. John and Graeme are your best friends. Call them the second you think you've got a problem. Tell them if you've made a mistake. They're there to advocate for you and help you through a solution and, with their experience, you'll learn from them.

Now, to the situation at hand. Especially in the GTA, but all over Ontario now there are multiple control networks, and it's not just datums, it's horizontal adjustments. And, unfortunately, it's different generations of control monuments within an adjustment. We've found on projects where you'll have one control monument from the '60s and another control from the '70s and another control monument from the '90s and there can be three or four or five centimetres' difference.

So, it's very important when you're doing pre-engineering topos, or when you're doing the construction layout that you're clear, and in writing, what you're going to use. If you're doing the topo, tell your client, "You use these controls." I would suggest that you're forward and recommend to them that this is circulated to all the parties involved so they're using the same control and you'll eliminate some of the problems there.

The next slide. So, best practices. Always confirm in writing what you're going to use, which specific control point you're going to use and recommend that they should use. Because the other problem is our vendors across the hall are doing such a great job of selling GPS to all the contractors now, that the contractors are showing up on-site, setting up on one control monument and going to town laying out stuff.

You could look like a hero if you want to notify them that there are other systems in the area that they should be avoiding. The next slide? That's it, yeah.

MARK SAMPSON: Okay. Good stuff. We've got one more for you, so don't—

JOSEPH YOUNG: I'll stay here.

MARK SAMPSON: --- don't go to the bar too quickly.

JOSEPH YOUNG: I'll stay here for a few minutes.

MARK SAMPSON: All right. So, this is another one. Additions and structures. This is the one that we don't have all the time, but definitely they're a bit more complicated, or can be more complicated, which we'll see by this situation. The LS was retained to provide survey services which include retracing and marking the boundary to confirm compliance to zoning by-law setback requirements locating the existing phase two building finished floor elevations at the different levels and stakeout of grid lines and elevation benchmarks for the addition. The LS was also working to locate all the shoring piles. Six months later, the LS was notified by the client that the benchmarks were allegedly not accurately located. And what happened, John?

JOHN BREESE: Well, another surveyor came to the site and pointed out that its calculations indicated that the elevations were off, or the --- yeah, the elevations were off 200 millimetres to the west and to the north. Before they actually provided this information, they went back --- the LS went back to the contractor and to the architect and requested a clarification as to exactly what information they wanted and where it was from.

And if you can bring up the picture, so this is what they saw. This is the existing building. This is an addition to this building. Okay. That's the next one. And this is actually the situation. So, you can see that the foundation is actually set back, and it

turns out, 200 millimetres from the brick face, so that's the alleged error is that they used the wrong point of reference to start their calculations.

So, we were notified that there will be a claim. Recently, we were told that the claim is coming. We have no idea as to what it involves at this point, but we know that it will be expensive. Probably at least a hundred thousand dollars.

MARK SAMPSON: We don't know at this point yet?

JOHN BREESE: Yeah.

MARK SAMPSON: Because you're going to get delay costs, redesign costs. You're going to get—

JOHN BREESE: We don't know what we're dealing with.

MARK SAMPSON: Right. Lessons learned.

JOSEPH YOUNG: So, on larger projects, one of the key things the client will go— what the contractor goes after is delay costs, and sometimes they can add up to be more than the actual issue to resolve the situation. So, in a case like this, there should be redundant measurements, you should insist on the contractor exposing pillars or something else so you can take redundant measurements.

That's the interior column with the bullet. Expose multiple things. Confirm with the client specifically what grid lines you're showing, what they're assuming, what you're assuming and make sure everyone's in agreement. And it's not mentioned here, but what we've seen too in some of our insurance claims is the surveyor will lay out an addition. They'll get a site plan, and it will have the boundary and they'll lay out the addition from the boundary without even checking the building because it's all digital and they assume it's accurate.

Always tie into the existing feature that you're adding on to. Again, always independently confirm dimensions on architectural plans.

MARK SAMPSON: Because architects are not always correct. I don't know if you— do we get that?

JOSEPH YOUNG: Is that true?

MARK SAMPSON: Yeah. No, I think no.

JOSEPH YOUNG: Again, insist before you continue with the work. Sometimes you want to make the client happy, you're under pressure, but you have to insist that they sign off on what you're assuming. And that applies to the next bullet, the discrepancies. Get written direction, not just a verbal site meeting. Have

documented minutes of the meeting on what you're supposed to use and proceed with.

If you're really lucky, you'll get them to revise the site plan. That may not always happen, but at least you have something documented, and don't jump to conclusions on your own. And last but not least, as I said before, don't proceed ASAP. Always talk to your office, talk to your project manager, talk to the client and make sure that everyone is on the same page before you proceed.

MARK SAMPSON: Great, thanks. So, what I'm going to do is I was just speaking with Maureen before, before this presentation; I'm going to write an article for the next OPS Magazine and we're going to— I'll just summarize these points because some people might want, you know, copies of the PowerPoint. I'll write it in a nice article so you can have a reference if that will help.

All right. Let's quickly talk about the next phase of our— oh, sorry. Before I get into that, I just want to comment, you know, actually for Dan, and Joe, and the rest of the members of the Insurance Advisory Committee. This is a committee that they're volunteering for, and without— you know, we sit, you know, three times a year, go through every claim, and they really give an assessment on each claim, to myself, to John, to Graeme and how we can defend, and represent the surveyor that had the claim.

Sometimes the answer is yeah, the surveyor screwed up, just try to settle. Other times it's no, it's really not the surveyor's fault, or partly at fault, and this is how we think you can defend the surveyor. So, really the committee is made up of not just them, but other surveyors and they really go to bat for you. And they probably won't say it, but really the value that the members— your peers on the committee that they give to the insurance companies, and the knowledge that they bring, and their experience really help manage the overall claims and experience and give us, the insurance people who aren't surveyors, that background needed to defend you and to represent you, and that's why the program works so well.

So, if you haven't already, I suggest you buy them all a beer this afternoon because they really, really work hard on that.

JOSEPH YOUNG: I suggest you buy John and Graeme a beer.

MARK SAMPSON: Oh, well, John and Graeme too, that would be good. Yeah, that's fine. Hopefully, we can— if you have any money left over after today, maybe there will be some money for them.

So, okay, let's quickly talk about retirement coverage. I've got about ten minutes. Okay. So, retirement coverage. So, once again for the program, I did a presentation a year ago. Not everyone attended. It was a break-out session, or maybe you remember.

I did have a guy who called me, one of the surveyors who was retiring to say, "Mark, I went to your presentation, I kind of don't remember what you said, but I remember you talked about it. So, could you walk me through it again?"

So, I thought I would take a quick opportunity, and basically say the retirement coverage through the Association program is actually really good. Basically, you buy at least a one-year discovery policy at your existing limits of insurance. So, if you currently carry \$3 million of professional liability coverage, what I recommend is you buy, you know, like at least three years to extend that coverage— that limit, the \$3 million— for at least three years.

I offer up to six years. One year is six years. And it's a one-time charge. It's charged at the start of when you're selling or retiring your practice, so you can write it off, versus the proceeds that you get from your practice. After the discovery period ends, you revert to a \$500,000 on retirement coverage, and that's free and that's no cost. So, your limit goes from the three million, or whatever you currently have, down to the 500 which is the minimum standard in Ontario right now for a land surveyor. So, that's free. So, that's just the process. And just to— you don't have to remember that. Just remember to call myself or Laura, and we can walk you through there.

But I want to go through a couple of retirement examples that we've had, and this is all within the last year. So, it happens, you retire. You have to remember that as a land surveyor, you're a professional, you're held at a higher standard of care.

So, you're the ones who sign the plan. You will be sued personally. Okay. So, this was an example where the LS was retained by a claimant in September 2005 to locate the survey monuments in all four corners of his property. The LS had since retired from practice and was on the retirement program of the AOLS.

The claimant contacted the retired LS in May 2019. So, that's what, 14 years after the LS actually set the monuments— to advise that they'd been contacted by their neighbour to the south who alleged that they have obtained their own survey which shows that the claimant's southern fence encroaches on to the property by approximately 20 inches.

The claimant alleges that the LS erred in the services that they provided in September 2005 and is looking for them to contribute to the cost of rectifying the encroachment of the fence. So, once again, the land surveyor, completely retired. This happened 14 years ago. You know, gets a call, gets a suit saying that, "Hey, we think you made a mistake."

So, you know, basically the outcome: you know, you're covered, you're with the AOLS program. You know, if a suit officially comes out, we will defend the retired LS, no cost to the LS, no deductible either. You know, the interesting thing in Ontario is that the ultimate limitation period is 15 years.

So, this happened 14 years ago, so they're within their ultimate limitation period, so technically the surveyor is liable if the surveyor made a mistake. We don't know that.

Another interesting bit on Ontario— they have two years to bring a claim. So, we were notified in— what does that say— May 2019. So, they have two years, so basically May 2021 to bring a suit against the LS if it comes to that. But, once again, the AOLS policy will defend should it be required.

Okay. Here's another situation that's kind of far out there. The LS conducted a survey in January 1965— the dreaded 1965 year— showing a tie to a lot line for the house at seven feet one inch— so, seven-foot-one, three-quarter inches. In fact, the actual dimension should have read 11 feet, three inches. The field notes showed the correct tie, however, the dimension on the plan was wrong.

The new owners of the property proceeded with an addition to the home. They received a building permit from the municipality based on the plan that they provided from 1965. They got away with that— I don't know how. But recently a survey was done on the neighbouring property by another surveyor who discovered the error.

The outcome: it was confirmed that a small piece of the addition, the eaves and the concrete curb are on the neighbouring lot. If a formal claim is launched, the AOLS retirement policy would defend the LS and/or the LS estate. Really, this is from 1965. We believe that if a claim did come, that would be statute barred.

But the reason why I brought this up is really because, as a surveyor— once again, 1965— you could be named in a suit. So, just because it's statute barred, the insurance company— John, myself, Graeme, Intact— they're not going to say "Oh, it's statute barred. We're not going to defend you." You still have to hire a lawyer. You still need, you know, John and Graeme to investigate. If you're sued, you still need someone to defend you. And that's the great thing, is that basically, we will defend the LS should a claim occur, and basically say, "We believe it's statute barred." and you can't go after the thing. But that's going to cost time and money, so that's why I brought that situation up.

The last situation which I'll bring up was this is another example where the LS was retained in June 2017 to do an SRPR of a school site in Toronto. The survey was to include a site topography on the site, underground utilities within the road allowance. The information was utilized in 2019 by a civil engineer to prepare a site plan and proposed servicing drawing for the new school.

In reviewing the proposed site servicing design, the city identified a potential conflict where the LS mislabelled a storm and sanitary drain. The LS plan identified separate drains where in fact there was a single combined sewer. Because of this issue, a redesign of the storm water management system is required.

So, once again, in this situation, and the reason why I bring this up is that the surveyor has since retired and sold the practice. But this surveyor bought a three-year runoff policy. So, this is within the three years. So, once again, that example of, you know, let's say the surveyor had \$5 million coverage, three million— it doesn't really matter— that surveyor chose, you know what, "I'm going to buy an extended policy, a discovery policy for three years." So, this claim is within that three years, so this claim is defending the firm for the existing limit of insurance, not the \$500,000 of the retirement policy. Right.

At the end of the day, we don't think that this is going to turn out to be a claim because we think the municipality was withholding some information. But, once again, the reason why we brought this up, we had three unique situations all within the last year that I thought it would be interesting to show, that when you retire from practice, or if you sell your practice, you know, we really, really recommend that you buy the discovery policy. And, once again, you know, I'm going to quote you, Laura and I are going to quote you, one year all the way to six years.

You guys can make the decision on what level you want to have, and what your comfort level is, but it's always available before you go to the 500. Because you just know, as soon as you retire, you just want to enjoy your retirement. You want to golf, you want to sail, you want to become an insurance broker. You know, there's a lot of things that you might want to do and aspire to do in your retirement— especially the last one— but really, you know, this is why we have the coverage for you.

Okay. Now, I hope it's going to be your favourite slide is really let's talk about why you love insurance. Like, this is really why you came. I know you have to save the good stuff to the end. Let's just give you some background.

So, five years ago— actually, in 2009, the survey— the program that we manage had a really good year. The firms had less losses than expected. So, some of you hopefully will remember, actually five years ago almost to the day, we were here at Deerhurst and the insurance program refunded \$150,000 from a profit-sharing endorsement that we have on the policy that's unique to the Association and we returned \$150,000.

And then in 2017, we were in Ottawa at the national conference, and the program still based on that year returned an additional \$20,000 to the members and 65,000 of the self-insured retention program for a total of \$85,000 that we returned to the members and it was proportionally distributed.

And I'm really proud that normally, I give lots of insurance presentations. Wow, that was— that happened— but, anyway, really those two presentations were the only the time in history of any insurance presentation that got a standing ovation. Do you guys remember all that money you got back? Yes? Yeah, yeah. You've already—did you spend it?

Well, guess what? I got some more money for you. Right, yeah. Right, come on. So, we are returning—yay, come on, let's go—we are returning, yay \$130,000 after today. Right, let's go. \$130,000 that we are returning. Right after this presentation and Laura and I have cheques for you. This is, once again, from the self-insured retention fund. How often do you get something back? So, \$130,000, you can pick it up at the end, and we're really hopeful and we really anticipate over the next few years to actually have some other good news for. But you'll have to keep on coming to the insurance presentations to find out what that good news is.

So, hopefully you guys enjoyed the seminar, hopefully it was valuable. That's what we really care about, me personally. We really strive to add value to everyone in the room and hopefully you picked up a few things and you learned some things. And, once again, I can't wait. Finally, people are going to come up to see Laura and I at our booth to actually come pick up their cheques. So, thanks very much, everyone. Keep it going. Keep it going.

AL JERAJ: Thanks, Mark. It's always good when the president—so, 2005, you Dasha's year. And, you know, she— people got a refund from her. And then Murray's was in Ottawa. And so, thanks when I can be remembered as the year of my AGM people got money back.

MARK SAMPSON: There you go, right?

AL JERAJ: Give it up, Mark.

MARK SAMPSON: Yeah. Good job.

AL JERAJ: All right. So, we have a token of our appreciation for each of you, we made a donation in each of your names to the Erin Mills Youth Centre. So, here you go.

MARK SAMPSON: Thanks.

AL JERAJ: Thank you very much, gentlemen.

MARK SAMPSON: Can we just stay here?

AL JERAJ: You can if you want to be part of the Open Forum.

MARK SAMPSON: No.

AL JERAJ: All right. So, we're going to start Open Forum in just a couple minutes, but we're going to get Andrew, Trevor, Sue, Brian and Kevin up on the stage.

Before we start Open Forum, I'd like to invite Saša back up here to address the crowd and hopefully those technical difficulties and issues have been resolved.

SAŠA KRCMAR: So, I intentionally sabotaged it before because not enough people were in the room, so now it's a lot better. Yeah, exactly.

So, here's what I'm going to suggest; we created Protect Your Boundaries about five years ago, but we had a problem and we're trying to figure out how do we promote this sucker. And we had a lot of plans, we wanted to sell these things, but how do we promote it?

And so, the gentleman that's running it for me, together we decided why don't we create a conference that will be run by Protect Your Boundaries and promote the issues related to surveys and plans, and basically, what we're all about. And we created something that was intended to be for realtors to educate the realtor market. Well, what we found out very quickly was that realtors are cheap, didn't want to pay, they don't care about any of that stuff. And then we pivoted very quickly to create Ontario's largest land conference. Gary?

--- (Video presented)

SAŠA KRCMAR: Not bad for a surveyor, eh? So, that's number one. The second thing I wanted to mention that as part of this ongoing approach to bring surveying and land and plans and all that to the general public, we created another thing that you guys haven't heard about yet. It's a thing called Boundary Wise, and it's basically we've created a new professional designation for realtors that learn about land and are educated in land.

It's an online education platform for realtors. We're launching it now and I'll show you the quick video here. But it's being accepted by TREB, OREA and others and some of the other larger brokerages are actually promoting it for all their members. So, here's Chris to explain it, but I will mention this is a pitch to realtors. It's not a pitch to surveyors. So, you are realtors now. Watch it as if you're realtors. And thank you very much for your time.

--- (Video presented)

SAŠA KRCMAR: The online seminar works a lot better than this. So, maybe— you know what, listen, I'll just tell you that it's a program that we're promoting. It's an eight-session kind of program that cost \$350. What I would suggest is if you guys have realtors that need to be educated on land-related matters— easements, how to read a survey plan, title insurance, that type of thing— I suggest you promote it. And you'll be hearing radio ads about it in the future coming as well. So, thanks very much for your time.

AL JERAJ: Thank you, Saša. Do you have one for architects? Okay. Ladies and gentlemen, we'll now have part one of the Open Forum. We'll try to end the session at five or before. Any unfinished discussion will be the first item of the Business Part Two which will continue on Friday morning.

And I ask that if you wish to speak, please approach the floor mic and wait to be recognized by me. After being recognized, please state your name and hometown or affiliation before speaking. So, I might find it necessary to restrict a speaker to one appearance on any subject. All motions presented during this meeting must be in writing and signed legibly by the mover and seconder and forwarded to the Resolution Committee and to the Chair before discussion.

The Resolution Committee includes the two newly elected councillors Amar Loai and Simon Kasprzak. AOLS staff members Julia and Penny are here to facilitate getting any motions or questions printed and up on the screen.

This is an opportunity to bring our deals forward for open discussion with the membership. The floor is open.

OPEN FORUM - PART 1

SAŠA KRCMAR: Saša Krcmar, Krcmar Surveyors, Thornhill. I wanted to just make a suggestion. I think one of the new innovations— well, not an innovation really, but just something that we could bring to this conference is a web-casting facility. We're doing it with our conference. There are some great capabilities out there.

This whole thing should be webcast and members that perhaps either can't make it long distances or just are really busy at other times should be able to webcast in, see the sessions, get the points they need. It's all about learning and I don't think we have to force people to come to this place unless they want to.

So, I'm not putting a motion, I'm just suggesting it to Council to look at for next year. Thank you.

AL JERAJ: Thanks, Saša. No one else? Dan wants someone to ask him an insurance question.

HUGH COUTTS: Hugh Coutts, Renfrew. I'm also the President of the— or Chairman of the Eastern Regional Group. Something that was brought up at our latest meeting was surveyors moving into an area— not that we're complaining about that— but the fact that they're not contacting surveyors in the area for records and we're finding it.

And after giving it some thought, when the SRD comes in to monitor these surveys that they're responsible for, is that they've— right now all they're doing is they're looking to see whether or not surveyors have requested copies of surveys, but they don't follow up on that. They're looking for a list, and they say if a list is there, then they assume that— or in the absence of a list, they assume that searching was done, that request remained.

And because they have none in their file, that there were none that were available. Now, I know that Brian would say with— Brian Maloney would say with the province-wide survey records, it would be an easy thing to be able to go online and see what's available. But that only means that people are looking at it. They're not going to the surveyor and purchasing the records.

And we're seeing that in our area. When I was in business in Oshawa, I know for a fact that there were surveyors that were coming in— I can think of two instances right off. One was out of— I'll use the GTA because they're in the room right now— so they know— these people know who they are. And they came to Oshawa where I was practicing, and I— they had called me earlier, “Do you have records? Yes, I do.” And that was the end of the discussion. They didn't buy them off of me.

So, I think there should be a directive given to the SRD that says, not only will they look for a list. But in the absence of a list, that they will assume that no research was done and that they would act accordingly. So, rather than take the surveyor's word, “Oh, yeah, I did it.” No. In the absence of a list that they assume that it wasn't done. And even if there is a list, I would strongly suggest that the SRD follow up on a few of those requests, just a phone call. “Did survey company ABC get in touch with you to get copies of records and did you supply them?”

AL JERAJ: Thanks, Hugh. Tom, would you like to respond to that?

DASHA PAGE: I actually want to add to that because we are experiencing— this is Dasha Page, Niagara Falls.

We have the same problem, and unfortunately, it's the out-of-town surveyors that are coming in and they are asking for the field notes. They will never follow up to purchase the record.

So, what we do, we are keeping the request, we're scanning it in, and we are showing that they did not purchase anything.

TOM PACKOWSKI: This is Tom Packowski, SRD Manager. The SRD assumes nothing. If you don't have any records in your files, we assume you didn't get any. If you told us you did, and there's no evidence, we make no assumptions whatsoever.

AL JERAJ: Thank you, Dasha. Thank you, Tom.

JULIA MELDRUM SMITH: Kind of an insurance question. It's Julia Meldrum Smith, Cornwall. So, the 15-year limitation, I actually didn't know that existed— and it's lovely. A relief. I took over my dad's practice, and so I've got all of his records, right, and a lot of us, I think, are in similar situations with other surveyors' records.

We have people come in off the street and ask questions. You know, “My house. We have your old survey and whatever.” And because, you know, my dad and I have the same last name, they think we're the same person. And I won't even crack open a file, you know. I'll say, “Well, it wasn't done for you. The privacy laws. Blah, blah, blah.”

But sometimes a lawyer will call and they're a little more accusatory. You know, “Your dad, blah, blah, blah.” Which, you know, 15 years— okay, that's a relief— and dad had coverage and everything. But if I answer a question on that, I feel that that 15 years just went right out the window, and dad's coverage just went right out the window because now we're talking about me, and what I said, and my opinion and the 15 years is starting right now.

Am I correct in that assumption? Yeah, we don't want to try that one out, though, eh? I'm just thinking. That's all.

DAN DZALDOV: Dan Dzaldov, Concord. I'll try to answer that. I don't know if the other folks from the right side or your left side are still in the room, they're more than welcome to join and come to the microphone.

But, I mean, to me, I always feel like if I give advice, I've opened up the door for liability for myself. If someone's purchasing an old survey and there's a disclaimer— and I know you're not asking that. But if there's a disclaimer, then I would imagine that disclaimer has been vetted by a lawyer, and you probably can use that as defence.

But I would strongly urge that— there's kind of this line where you've got public service, where you want to help people, and we all do, but you just have to know when you're crossing the line and giving advice. And I think we talked about it a few years ago when we did the presentation. It's when you're trying to help somebody, that's when you're going to do something wrong. So, you really do have to be careful in giving advice. It's going to come back.

AL JERAJ: Mark.

MARK SAMPSON: Yes, a very good question and Dan actually answered it quite well. That was well done.

AL JERAJ: Sorry, Mark. Do you want to just state your name?

MARK SAMPSON: Oh, sorry. Mark Sampson, Gallagher Insurance Brokers. I live in Newmarket. Is that it? Which is better? Sorry about that, is that enough? Okay. Middle name Andrew.

No, Dan is correct that, you know, the limitation period is funny because it did change in 2004 to 15 years. Sorry, yeah, in 2004, 15 years. Before I think it was 30

years. So, there isn't any precedent really because courts—if you go back and ask, you know, it's still in front of the courts, some cases where they're challenging the 15 years because it hasn't been tested in court.

But really, as a general term, you're a professional. As soon as you give advice or an opinion—a professional opinion on a plan—if that advice was wrong, that professional opinion was wrong, you certainly could be held liable, or accused that “Hey, you gave me a professional opinion on an old plan.” That's still a professional opinion whether or not you're giving it to your neighbour, a family, a friend or a paying client. It's still a professional opinion.

So, yes, if you do give any type of opinion that involves around your licence, you could in fact start liability on that opinion that you gave.

AL JERAJ: All right. Thanks, Mark.

BLAIN MARTIN: Blain Martin, Stouffville. I've just got a question about this 15-year limitation period. When does that period start? I always thought that it started when the problem was found, not necessarily when the firm was in business and when that surveyor was in business.

MARK SAMPSON: Good question. It's when the actual—not when it was found. It was the two-year limitation period to bring a case is when it was found. The ultimate 15-year limitation is when the actual error occurred, when you made the mistake.

So, that's when the clock starts 15 years. As soon as you find the error, then you have two years to bring a suit. What's interesting is that lawyers tend to try to get around that two-year limitation period once again. So, that's what the court and the general law is, but lawyers tend to argue that, you know, when that two years—sometimes through a third-party action, a third party might not know about it. So, you could be third partyed into an action after the two years if the third party didn't know about it then. So, really these are the guidelines by the court which are often challenged by lawyers.

HELMUT PILLER: Helmut Piller, Toronto. I had expected that in view of the presentation this morning on the self-regulation, that this room this afternoon would bristle with questions, arguments and opinions—it hasn't— so I'm trying to start it. Many of the things were said. Self-interest was one of the first notes I made, and what is in the interest of the public. And one thing that came to my mind foremost, and I've always felt strongly about that, that the learning curve, the learning time of our articling young surveyors has to be very thorough.

I think it has to even be—it should even be longer given the view of boundary issues becoming more complex, technology playing on top, using the right technology for the right thing.

So, I would that think we could demonstrate by saying articling period to gain practical experience, minimum of four years. No reduction. Out of self-interest, education, the things that we have offered is all through the Association, and he touched on that point as well saying it should be from an independent party and it all is sort of inbred. We're doing everything together here.

So, let's have a discussion on that. Let's talk about it and let's move forward, not at snail's pace, but move. Thank you.

AL JERAJ: Thank you, Helmut.

BRIAN MALONEY: Brian Maloney. Thanks, Helmut. I want to say that when I went to the CNAR conference— when I first took over a year ago, one of the first things I did in preparing for our strategic planning exercise, was to start looking at other regulators and their practices. And I came across the standards that are actually put in place by the Professional Standards Authority in the U.K. and it really opened my eyes, and we actually used that as part of our strategic planning session. Which is where the risk management approach that you've heard us talk about this year a fair bit came from.

I then followed that up and went to the CNAR conference in the fall where I met Darrel Pink, and it really has opened, I would say, my eyes for sure and I think I've helped open Council's eyes in terms of the needs for change. I think we're making it. We've got a road to go, and I'm going to speak about that on Friday morning. But it's going to take us some time. We can't turn the corner overnight.

One of the things we are doing with respect to AERC this year is we're inviting them to our strategic planning session. And so, we'll meet together, Council and the AERC, and they'll form part of that strategic planning. I believe it is very important that we get our new surveyors properly trained and up to speed coming in to our membership, because they are our future and there's a lot of people in this room that won't be around ten or 15 years from now, including me. And so, it is extremely important.

In terms of the training side, I've been thinking about that, and one of the challenges we've got is where we get that. I think the opportunity will come to bear on Friday morning when we sign our agreement with the other provinces. I think there's a huge opportunity for us to come together and do that. The problem is these courses just don't exist in many cases out there that we need.

You know, we want to put a party chief course on this coming fall and, you know, we really have to develop it. It doesn't exist unfortunately, and nobody's in business to go put on a party chief course for a few people and make a living of it. So, we're going to end up having to pay to have that developed, I think it's worth thinking about, and for sure if we can do it. But if we can't, I think it's up to us to discover the needs.

One of the things we are doing, is looking at all of the evidence that we've got, and Darrel spoke to that this morning in terms of using the information you've got at hand.

So, we've started mining our complaints, our insurance claims— which you saw today obviously feeding this— but Mark and I are meeting in April to actually go through the last five years' worth of claims and kind of categorize them all. And we're starting to try to determine where we do need to put our training efforts. And, but at the end of the day, I'm not sure we can just look to somebody else to deliver it. We don't even have community colleges delivering survey programs these days the way we need it. We've got one university program struggling. So, I think at the end of the day, I hate to say it, but I think we are going to have to pay to have these developed and get them going and we need to do that.

HELMUT GRANDER: Helmut Grander, Port Perry. I'm seeing lately, more and more surveys issued by municipalities to landowners, and these surveys were initially submitted by a client to the municipality for various reasons, zoning compliance and so on. I just wonder if there is anything, any one of you can comment on that? Thank you.

AL JERAJ: From a municipality perspective, it's— I know I can speak for the City of Mississauga. For the ones who have land surveyors on staff, we don't provide those surveys out to the public and I think my colleagues would agree that— and their municipalities also.

The Municipal Surveyors Committee is working on a communication piece that we intend to distribute to all municipalities across Ontario to just inform them of the value that surveyors bring in having a municipal surveyor on staff or someone that they can consult with. Sending out plans of old surveys is— it's, I guess, a decision that each municipality will make on their own, and I'm assuming that they've assessed the risks. Or, if not, then it may be prudent for the surveyor, such as yourself, to alert them of any risks that they're undertaking because maybe they're not aware of them.

ANDY SHELP: Andy Shelp, Ottawa. Just with respect to that particular point, if it's requested under the Freedom of Information Act, then the city will just distribute the plan, correct?

AL JERAJ: I think that some—

ANDY SHELP: We've tried to argue it and say, you know, it had a certain purpose, it's over, it's no longer valid and all that stuff but, at the end of the day, it just goes anyway. So, I guess the real question is after the city's use of the plan is done, a building permit is issued or whatever the plan was needed for, well, why is it still there?

AL JERAJ: I can't answer that question.

ANDY SHELP: Okay.

BRIAN MALONEY: Andy, this is Brian. I'll speak to the Municipal Freedom of Information and Protection of Privacy Act (MFIPPA) piece. So— and I'm a little familiar with it because it mirrors the MFIPPA that I was responsible for when I was with the Ministry of Natural Resources. And it's third-party data, theoretically the municipality should be getting in touch with the third party before they release that information, first off.

Second off, if the information is available in other sources, or commercially available, then they shouldn't be issuing it either. So, I guess the only question you'd have, you could have some rebuttal, I think. They should be, A, at least talking to you before they release the plan. Whether they do or not, I don't know, and I can't speak to that.

But, secondly, if it is available commercially, which many of our plans are now, then there would be no reason for them to issue it. They should be pointing them back to the provider. If it's not available commercially, then there's a question mark in terms of whether they could get it through MFIPPA.

ANDY SHELP: Yeah. But we're talking about plans that aren't available commercially, reference plans, you know, the 1965 survey that Mark was talking about, those sorts of things.

So, in the sense of it ended up happening is that, yes, you get something from the Freedom of Information Act and, yes, you can go back to them, and you argue with them as long as it's one of these points— and I forget the exact three points. But you have to meet their criteria for them not to release the plan. And, invariably, they end up releasing it anyway. And what's happening is that people are trying to bypass a \$4,000 survey and use something that's 50 years old, only to their own detriment.

So, I guess the real question the city is not a library. It's not an archive. The plans were submitted for a particular purpose. Why are they still there once that purpose is fulfilled? Because that takes it right out of the FIPA thing and the city no longer has to release them. Anyway, that was my question. I guess you don't have an answer— and thank you.

HELMUT PILLER: Helmut Piller, Toronto. Along that question, we just came across a situation in Toronto where a client gave us a plan of survey for a building application. It was not done by our surveyor. It was totally wrong. The boundary was wrong, but the city accepted it.

Have we ever reached out to the City of Toronto, in particular in this case, or any

other city, to see whether or what kind of information and education the inspectors, zoning examiners, and so on get and how to sort out this kind of thing?

I do know that the City of Toronto, when it stamps any building permit or so on, it clearly says that it has to be accompanied by a survey, signed by an Ontario Land Surveyor and stamped. So, someone doesn't follow the rules or doesn't know the rules.

I believe it is incumbent on us as a professional body, or individuals, to go and say "Your people are not informed. What are you going to do about it?"

I do know in the City of Toronto—we haven't been there for years now for record search, because everything is done online now. They had a little piece of paper on the table there and say, "Our staff is not permitted to give any or express any opinion because we don't have a Certificate of Authorization."

I also, about last November, spoke to a city inspector and asked him what—you know, how they look at these surveys, as-builts, grading plans and so on. And it was—they don't really know. If it's by an Ontario Land Surveyor, we take it because if something goes wrong, it's his problem.

AL JERAJ: So, to answer your question, Helmut, I don't think there's been any communication to the City of Toronto. But as I mentioned before, there is a Municipal Surveyors Committee, and we can bring that up at that committee and discuss that.

BRIAN MALONEY: This is Brian speaking again. The one thing I might suggest—and I tried to reach out to them last year before our strategic planning session—there is a group of building officials, I forget the exact title of the group, and I think that would be a good group to try to communicate with. And I think, Julia, you may have spoken to them last year, did you not?

JULIA SAVITCH: Yeah, I did.

BRIAN MALONEY: Okay. So, there's also a building officials' group, and I think maybe that's something we could reach out to. They've got a meeting coming up in May or June, I think.

JOHN D'AMICO: Good afternoon. John D'Amico, Orillia.

Not to speak about the field notes issue, but rather something that Helmut started to talk about in light of this morning's presentation and the continual talks about the regulatory bodies, and the scrutiny they're under, and the push on for de-professionalization in many environments including where I work at the Federal Government.

As we work towards—Brian has brought this up a few times, you know, the risk-based model which has some definite benefits, and this morning he spoke about being proactive. And I know one of my daughters who is working on her Ph.D. in the medical field, and we often have discussions about what suffers in the medical profession about reactive versus proactive.

I think that, you know, certainly there's these issues that—you know, surveying, if I can say it this way, we tend to be territorial in some respects, and this is the battle that sometimes underlies the sharing of notes, or the issues we face with records and getting into other areas where you normally don't work, which really shouldn't be the case; pride perhaps, and maybe fear of retribution.

I think a good point that was brought up this morning was that we should look at situations in a way that is unique, not regulating by a fixed regulation that says, "It's at this level and all the time this."

A point was brought up this morning, people change. In time, you might be going through a stage in life. You might have some mental health issues. You might be having some struggles at home and so on.

It's breaching that and recognizing that. Going for help is okay. So, it would be nice within the professional regulating model we have—I'm maybe going to use some loose terms—mentorship isn't the right thing. But if you're at a stage and you're struggling—don't be so proud. Don't have the fear, or shame, or fear of retribution. Maybe the SRD should be modelled more to reach out. Reach out for that help and education.

And we've talked about the insurance thing. Don't be afraid not to undertake something if that is breaching something beyond what you're used to doing. But, at the same time, don't fear to come and reach out, and maybe we can have some kind of program that then we can deal. And that is how you get the balance of the different regulating and not going in. And that addresses that proactive and risk based and works towards a risk-based model. Thanks.

AL JERAJ: Thank you, John.

MICHAEL THOMPSON: Michael Thompson. Beautiful downtown Lethbridge, sunny Southern Alberta, Chair of PSC.

Speaking to the release of survey plans and liabilities in municipalities. We've had members in other provinces reach out to us in terms of unauthorized practice by municipalities, of surveying and the release of plans and those liabilities. We've responded by reaching out to the Federation of Canadian Municipalities, and to the Alberta Urban Municipalities Association, to put on seminars, or to present at their meetings on the liabilities associated with unauthorized practices of surveying and release of plans.

So, if any of your members would want to inform me or James Dorland what equivalent associations who you think might be best served by the same sort of presentation, absolutely. Find me or James.

AL JERAJ: Thank you, Michael.

TRAVIS HARTWICK: Travis Hartwick from Pakenham. I was hoping that today we would have a robust discussion about the upcoming regulation changes, seeing as nobody else has jumped into that. So, I think there's some pretty big decisions being made there, and I was hoping that we could maybe discuss before we jumped into voting and that sort of thing.

One particular thing is PSRI. I do have some concerns about PSRI— not the entity itself. I think we have to move into a digital age, and I think, you know, what Mike Power has put together is a good product. One thing that worries me is that maybe it's a shiny new tool that sits on the shelf and nobody uses. I'm not too sure how Council plans on managing that or the SRD plans on managing that.

But the bigger concern than I have is that PSRI is going to be entrenched in regulation, and I'm wondering if we can have a discussion about why the decision was to put PSRI into regulation versus having it as a by-law. To me, when— or managed by the AOLS. When we put it into regulation, I think it becomes into the hands of the government and I think we lose control.

And listening to the conversation this morning about their regulated bodies, I really feel that as a self-regulated profession, we need to regulate what we do, and look after what we do. And I think that can be done through the Association and not through regulation.

You know, I have visions of us giving away more of our soul, which was alluded to with the planning, and other things that have happened through the years, and I feel that with small changes from other lobbyists, with the government, other things could be changed so that the entity that we're creating is used for something that we're not intending it to be used for.

So, I'm just hoping that we can have a conversation about that. Thanks.

BRIAN MALONEY: I'll take a crack at responding, Travis. This is Brian. I must admit, I'm tired of beating the PSRI drum. But two comments. The first one is we do have a presentation on Friday morning prior to the next session of the Open Forum on the regulation changes, so we've got a couple of slides in there that Andrew will be leading us through. And so, we will have more time to talk there, but we can certainly talk this afternoon on the PSRI if you so choose.

In terms of the PSRI, the reason— we can't— we don't have the ability to put it in by by-law. We did the funding piece by by-law, which obviously we can do

because it's more of an administrative requirement. If we want to require members to actually input records into the PSRI, the only way we can make it mandatory is through regulation. And the reason where we're going down that road, rightly or wrongly, is because if we don't load all the records, it really doesn't become a useable system.

If it's a system with only a partial set of records, then you still have to go and do all the same conventional searching that you're having to do today. And if we can make it mandatory, then at some point in time— even if we have exemptions and we did discuss this in terms of putting exemptions in place— so, if you're a small practitioner, you're the only person that practices in the area, you can just put one record in, and say you've got to call me, and you'll deal with every call. And that's fine. I think that works.

At the end of the day, we're trying to set up an environment to make it easier for surveyors to do research. I must admit— and even some of the comments I heard here this afternoon— I am quite concerned that surveyors are not doing the necessary research that they should be doing. The reason we put the PSRI in place was to try to make that easier. Whether we've taken the right approach or not— I guess if you think about it in Darrel's language; did we have to do that? Maybe. Maybe not. I don't know. But the rationale is essentially to try to get a complete set of records so that we can do easier searches.

HELMUT PILLER: Helmut Piller, Toronto. I would just remind you that the South Central Group index is by by-law.

BRIAN MALONEY: You can remind me of that, Helmut. I hate to tell you this, it's got no teeth. It was done under the previous Act. I've never kind of advertised that very much, but it actually has no legitimacy. Sorry. Well, you're not paying it now. Thank you.

TRAVIS HARTWICK: Travis Hartwick again, Pakenham. Sorry, I missed what Helmut said. I was talking, which I shouldn't do. So, anyways, so my understanding is that the existing SRI for Toronto is through the Association. It's not through regulation, is that correct?

AL JERAJ: Correct.

BRIAN MALONEY: So, it was done by a by-law under the previous Act.

TRAVIS HARTWICK: The previous Act. Okay.

BRIAN MALONEY: And the problem is we just left it there. Nobody ever said a word about it. The fact is it has no legitimacy under the current Act.

TRAVIS HARTWICK: Okay.

BRIAN MALONEY: And we didn't really advertise that because we were hoping people would still use the system.

TRAVIS HARTWICK: Yeah.

BRIAN MALONEY: But the fact is under our current Act, it doesn't have legitimacy unfortunately.

TRAVIS HARTWICK: Okay. So, fair enough. So, what is the hammer now by having this in the legislation to ensure that people are going to 100 percent— that's I think close to a hundred percent is what you're aiming for— is that those people who put the information into this system?

Again, so two things that come out of this. Number one, I don't think the Complaints Committee, the Discipline Committee, or Council could handle all the smaller firms that just say, "Guess what, I ain't doing this." What are we going to do? Are we going to professional misconduct again? What's going to happen to somebody that doesn't do that?

Second-fold, if they do that, what's to preclude them from saying that, "Okay, my records are in the PSRI. I want \$5,000 a record." So, now we have the records in there— everybody complied— we know that they're in there, but we cannot afford to purchase them to extract them from the system to complete service.

So, I think, again, I'm scared that this is going to be a shiny tool that's put on the shelf. I think the intentions are great, and I think that the— it's a great tool to use, there's a lot of things that we can do with it. I'm just afraid that it's going to be the same problem that happened in Toronto that people are just not going to do it.

ANDREW MANTHA: Travis, I'm just going to speak very quickly on this. It's Andrew Mantha from Windsor.

You've actually got two separate issues here, as far as I'm concerned. The PSRI, that's one thing. But when you talk about people who are going to charge us \$5,000 for notes, we have a Fair Fees for Field Notes Task Force that's been working with Council on setting up some sort of system and how we can regulate that. There will be a report on that on Friday, and it will be an issue that will continue on and hopefully this year Council— one of our goals is to complete this and get something out to the members on this. Thank you.

TRAVIS HARTWICK: Okay. So, Travis from Pakenham again. So, I'm going to defer to the second part of my question I guess until Friday, or until after we hear this seminar. So, what about the first part? How are we going to ensure that people use this system? How are we going to track that if somebody goes to North Bay to do a survey from Toronto, from Ottawa, from Sarnia, that they actually go on that

system and get the information from that system? How are we going to enforce that?

JOSEPH YOUNG: So, the intention of putting the system together, my understanding is that, firstly, it allows easier access for individuals to search for these records, and it will give us some functionality in terms of understanding who in fact makes these searches.

And in terms of it having authority through an addition within the regulations, that could fall under professional misconduct under one of the provisions there, and that could potentially form a complaint or an issue that could be pursued in that way, so,

HUGH COUTTS: Hugh Coutts, Renfrew. I really enjoyed the presentation given by Mr. Pink this morning, and he mentioned about the fact that self-regulating professions were under attack. He mentioned a few that had been stripped of their authority to be self-regulating.

And I was wondering how is our Association going to ensure that we prevail as a self-regulating profession? What are we doing that takes care of all the problems that are being mentioned that he mentioned this morning?

BRIAN MALONEY: So, I'll take a crack at answering. This is Brian again. We haven't taken care of all the problems, and I don't want to steal my thunder because I was going to speak to this on Friday morning and I promise I will. But I think we've got a lot of good pieces in place. I would argue that we've got a lot of the mechanics already there. A lot of the pieces that are currently sitting in regulation, from my perspective, are excellent.

What's lacking is some fine-tuning on how we make these things work, and I think that's our challenge. I think moving towards a risk-management based approach makes sense, and we've done a lot of work on that this year.

I can tell you Council has considered risk management at every meeting they've had, and actually turned the lens on themselves in terms of governance and actually identified some of those issues that Mr. Pink raised this morning and have a plan to move forward.

We've identified about 20 actions that are on that plan. Of which about, I would say, a third to a half are underway. There's more work to be done. I don't think we're in dire straights, but I think we need to be proactive on this front and start to look at it. The other touch— the other piece— touch, that's my segue— is this notion of right-touch regulation. And I've been doing a lot more reading and thinking about that, and it's something that I would like to see us try to pursue this coming year, especially if we look towards the future of what we want our regulations to look like and where we want to be.

I think we've got lots of work. As Darrel said, this is not something that will happen overnight. This is something that's going to take us a few years to move forward on. Although I am concerned, and I wrote an article in the quarterly in the summer, about my concerns with respect to loss of self-governance. I don't think it's completely imminent by any means, but there certainly is a trend here and we need to be paying attention to it and we need to be taking action on it and I think we're trying to do that.

HUGH COUTTS: A follow-up if I may, then. If you had to name one thing where we're lacking that should be given immediate attention, what would it be?

BRIAN MALONEY: Well, for me the one— you know, I'm going to say it— I think we haven't been doing a sufficient job of monitoring at the Council table, and I intend to actually put a dashboard together that will track AERC activities, pass rates, complaints received, insurance claims received, soft complaints— if you want to call them. I know Kevin is going to speak to that in his presentation on Friday.

There's a number of metrics that we need to start tracking. As Darrel mentioned, "Can we prove that we're doing a good job?" And the answer is 'no' today. And I think if we don't have some of those metrics, and can't look back to those when we make regulation changes, when we put a PSRI in place, did it actually have a difference, did it make a difference on research?

We've gone through and just pulled statistics from the Survey Review Department reviews for the last five years— obviously generic— looking for trends and common themes that could help influence where we do continuing education.

I'd say that's our biggest challenge is not being able to prove that we're doing a good job, and I think we need to have those metrics in place and be tracking those to understand what happens when we make policy changes. Did we get the impact we wanted to get?

So, if I was to pick one, that's the one I'd pick, and I know we're going to tackle that this year. I intend to have that first cut of a dashboard in place by the strategic planning session because I actually want to use it to try to help inform us as we move forward in April.

DAN DZALDOV: Dan Dzaldov from Concord. I just wanted to add to that. It doesn't happen overnight. Certainly, I sat and listened to the presentation today, and I was very confronted that if you had to put little checkmarks on things that are in progress, I think we would be doing very well.

I think back to two years ago, the first trip I made to B.C. and hearing what they were going through, the changes over there. And the first thing we did is we brought that back to the Association and we started talking about it. So, things like

transparency, they didn't just come out of nowhere. It's actually a concern for this issue.

And I think we— I hope, at least, that we've communicated what we're doing. But if we haven't, I can tell you, as Brian said, we really are dealing with this at every Council meeting. And I think even in the last year, year and a half, two years, we've come a long way towards being able to defend ourselves if we get questions on various issues. But we have to keep going. And it's not just Council— it's the way everyone in this room represents the Association when they're out talking to the public and how you act. You have to remember that.

SAŠA KRCCMAR: Saša Krccmar, Thornhill. So, two quick comments. One, I guess something is still bugging me and I'll just make the comment, and I bet maybe a lot of people in this room kind of have that feeling as well. That I diligently filled in my little ballot for the by-law and I sent it in, only to discover that it passed by two votes. And when you think about what we're creating— I'm talking about the by-law for funding the PSRI— so it bugged me that it passed by two votes on such a big issue. And then I speak to a lot of people in their offices, they just didn't send in their ballots. But the fact that it only passed by two votes just bugs me. I'm just sending it out.

One question about the constitutional challenge— and I know that we may or may not be able to get into it. But if that does go through and there are issues with that, does that kill the whole PSRI? So, I don't know if we're allowed to talk about that, but I'll throw that out there too.

AL JERAJ: So, I'm just going to speak to your first point. It bugs us, too— right— that it only passed by two votes and it bugs us that not everyone voted.

SAŠA KRCCMAR: Well, maybe it was not— that's why I'm saying that maybe a lot of people in this room really didn't want to see it go through. But, for some reason, they just— I don't know— got lazy or didn't— I don't know.

AL JERAJ: I don't know.

SASA KRCCMAR: It should have been 90 percent.

AL JERAJ: I don't know how many times I've said it. You guys are in charge of how the Association moves forward. If a by-law comes out, vote on it. Your vote matters. We're only 478 members or so. Like, we're not a big membership. So, you know, like a by-law could pass with just two votes, and maybe there were 20 other people in the room that were not in favour of the PSRI and had they voted, it would have been a different story.

SAŠA KRCCMAR: Could we do another vote?

AL JERAJ: No.

BRIAN MALONEY: Maybe there were a hundred that were in favour that didn't vote.

AL JERAJ: Exactly.

SAŠA KRČMAR: Well, that's true.

AL JERAJ: I don't think so.

ADAM KASPRZAK: Adam Kasprzak, Renfrew. This by-law for the provincial index really, really bugs me, and I'm just not sure whether I have enough time right now to really express how much it bugs me. So, maybe we'll just leave it to the next session, would that be all right?

AL JERAJ: Sure.

ADAM KASPRZAK: Thank you.

PATRICK LEVAC: Patrick Levac, London. Perhaps on that Provincial Survey Record Index segment, would it not be advisable to have two votes on the legislative changes? One, the updating, and then a second vote would be on the PSRI. And then if the PSRI does pass, then it can be put into the full updating legislation. Because I get you only get one kick at the can for the government because it takes three readings to get passed. Just a suggestion since it's a such a hot topic.

BRIAN MALONEY: So, this is Brian again. And, Sue, you can correct me here if I'm wrong. We normally have always voted regulation changes as a single vote. They come back to us as a package. We're actually looking at amending three different regulations as part of this package. Sue and I spoke, and basically said that it has to be ratified by the membership; it doesn't say in one vote.

And so, we are looking at trying to separate it out so we can get clear decisions on various pieces. If we fail, it will be an interesting challenge in terms of how we open up a black-cornered copy of the regulation that's already been through, but we'll hit that problem if we have to hit that problem.

PATRICK LEVAC: Thank you.

BRIAN MALONEY: I don't know. Sue, do you want to add to that?

SUSAN MacGREGOR: Yeah, Brian's correct. Sue MacGregor, Peterborough. Brian is correct. Typically, these are delivered as a black-cornered copy. MNRF Legal has been assigned to the file and we'll engage legal counsel. I will work with

legal counsel to see if it's possible, but I'm— we'll see how that plays out. It's very unusual for government to bring such changes like this. Like, these would be considered very minor changes to government, and for me to actually try to tease them apart into even smaller subcomponents would be pretty unusual. So, I'm not sure that I'm going to be successful, but I will make that pitch.

I guess if I could just put on my oversight hat again, if you'll forgive me, the whole PSRI notion is about ensuring public protection. When you go out to do a survey, you need to do all the proper research. Sometimes it's very difficult because surveyors are following clients. It's difficult to figure out who's worked in that area. And so, when you think about the reason that you all exist is to protect the public; if you don't have all the information in hand when you go to do your survey, you're putting the public at risk.

The system— I think the regulations are written up in such a way that will allow for one entry if you tend to stay in one small area of the province, so that's not a hardship, I don't believe. If you move out of your localized area and into an area of the province where you don't typically practice, that's the real value of that system.

Because the owners that— the property owners that you're surveying for are entitled to have that information available so that you make the proper decisions. So, I just wanted to throw that in there. I think— I think it's a good thing. I think there's been a lot of maybe misunderstanding about the purpose and what's required. It can be just an index. I've surveyed in this area, contact me. It doesn't have to mean loading up all your plans.

AL JERAJ: Okay. We'll entertain one more speaker. Adam, I think you said— you might go on Friday morning. The last speaker.

MICHAEL VAN LANKVELD: Michael van Lankveld, Brampton. This is just kind of an off-key thing for the PSRI. I think the majority of the complaints that people are having with it is the subscription and having to pay annual dues to pay for it, even though they actually paid for the whole making of the PSRI through the by-law. So, it's like you're paying for a subscription that, if you're from a small town, you never had to pay it before. And those small-town people would normally have just called Joe down the street for the survey.

So, now they're having to pay for an annual due which they never needed to do. I'm just— I'm not— I actually had to pay South Central, so I don't care. But I'm just putting that out there.

AL JERAJ: Thank you. Okay. We will continue Open Forum on Friday morning. So, we're almost at the end, so just stay in your seats for a little bit longer. We're going to have a— we're going to get our Event Sponsor, Mark Sampson of Gallagher Canada Ltd. to come up and say a few words.

MARK SAMPSON: I'm so sorry that I'm keeping you from drinks. I'll be really, really quick. Brian asked me a month ago if I wanted to speak and I said, "No, you've probably heard enough of me." But something came up two weeks ago that I really just wanted to share, because I don't just want to speak, to hear my own voice. It's really not the case. It's really because I really care about the surveyors and my clients.

And I had a surveyor that had a big cyber event. It was in Western Canada, and I did a presentation a year ago at the AGM here about cyber insurance and talked to a few surveyors afterwards. They're like, "Oh, we're just surveyors. We're not going to be impacted." And I've been living it the last two weeks with my client in Western Canada. Their complete system got hacked. It was a larger sophisticated survey firm with multiple offices. Their entire database, all records were completely blocked by a ransom-ware attack called iEncrypt. And within— so, they called me and I said, "What do I do?" Luckily, they did have coverage.

I can tell you right now that they had backups off site. That was encrypted as well. So, you think you hear this in the news, and you think as surveyors you're not targets, and the information you provide are not targets. What the cyber criminals want, is just for you to encrypt your data so you will— in order to operate. This firm could not operate, could not get out in the field; everything was completely locked including all their backups.

We ended up contacting the ransom— the cyber threat actors, they're called, and had to negotiate a release. They wanted \$350,000 U.S., we negotiated it down to \$250,000 U.S. We had to get Bitcoins— they wanted to be paid in Bitcoins. We had to go through the Dark Web. And I keep on saying we— and it wasn't me. Obviously, I'm not qualified for that, but the policy that had we actually have the experts. And we spent about a half a million dollars in three days— they were out for three solid days.

The insurance company had to send a whole crew. We brought the encryption key. They had to send a whole crew out to the survey office. It took them five days to actually de-encrypt using the key. So, I'm just sort of more commenting to the people in the room that you see it all the time. You see it in the news; it's getting worse. It's getting worse. It's getting worse. And you're not a target, but you definitely could be a victim.

And so, the only thing I wanted to say before you go grab some beer, is just be careful out there. And when I dealt with the owner— once again, we're at a half a million dollars of costs, and his comment was— they're a larger firm, as I said— and, he said, "You know, listen, a half a million dollars. My firm would not have gone bankrupt." That's really not the value of the policy, and the value of the policy is the experts that were brought to the table, similar to John and Graeme. Without the experts, he would have no idea how do you buy Bitcoins? How do you go through the Dark Web? How do you negotiate that?

And I'm pretty passionate about it— especially now— because, you know, if that client called me and said, "What do I do?" and I said, "You have no coverage. You're on your own." I would not have done my job as a professional. So, I just wanted to take those few minutes to let you know that this does happen and could happen to you. So, if you have questions, come see me afterwards when you pick up your cheques and you like me again. But I just really wanted to let you know that this is happening out there and just be careful. Thank you.

BRIAN MALONEY: This is Brian. I'm just going to make one addition. We actually did a review this year of our IT policy. And the Association did pursue— we bought cyber insurance, and I did review with our IT provider. We set up off-site daily backups, but depending on the ransom-ware, they can even infiltrate that. And so, we ultimately made a decision to pursue cyber insurance and so we've got it for better or for worse.

Hopefully, we don't have to use it, but I think given the challenges we've had— we've had a number of phone gimmicks coming at us, we've had all kinds of stuff going on. That's why you'll notice our e-mail addresses have disappeared from the website. They're no longer there because we were getting so much junk coming in from people trying to scam us for money, that we moved it off. So, it is an issue for sure.

AL JERAJ: Thanks, Mark. Thanks, Brian. That should lead in with some theme music from Mission Impossible or something like that. Okay. I'm going to call our Sergeant-at-Arms up on stage to read out any infractions that he may have noticed. Hopefully, he didn't notice any, but let's see what he has to say.

SERGEANT-AT-ARMS: Is that your phone, Dan, lying right in front of you there?

DAN DZALDOV: No. That was Al's.

SERGEANT-AT-ARMS: Anyway, as you know, President Al gave me the job of trying to make sure that people participate in the meetings. I am extremely pleased that the number of people who are participating. I found it bloody difficult to keep my phone in my pocket, but— I'm glad to say. But there were a few people, a few people by participating in here agree to be named. And— but I'm going to make them an offer after I say who they are.

By coincidence, their initials is a K for all of them. You can read into that what you like. But Tom Krcmar, who ran out of the room just there a moment ago. Saša Krcmar as well. And Vicky Kumar, I've noticed. The few— being of my age, there was a few people I saw whose names I can no longer remember, but I did take pictures and I'll send them to CSIS tonight for photo identification and have them do a scan of that so you can identify these people.

Anyway, but I will make them an offer that if they can play double-or-nothing if

they are not caught tomorrow, I'll let them off. But if they are caught tomorrow, they'll pay double. That will be --- that's my offer to them. Anyway, thank you.

AL JERAJ: That's a pretty fair, Graham. That's pretty fair. Okay. I just have a couple of announcements. The Veterans' Celebration Dinner is tonight, with a reception at 5:30 and dinner served at six. We moved it up slightly this year to ensure folks can get down to the Welcoming Party, so you only have really, like, ten minutes to get to the reception. The Veterans' Dinner will be hosted by Past President Eric Ansell and it's taking place in the Tom Thomson Room, which is upstairs beyond the Exhibitors' Hall.

The Exhibitors' Welcoming Party starts at 7:30 in the Exhibitors' Hall. This is a great opportunity to share some food and drinks with some friends and to visit the exhibitors and to support our Educational Foundation by purchasing tickets. The Educational Foundation is also sponsoring the graduate student poster competition with awards of two thousand to five hundred dollars available for the first to fifth place winners.

The students' geomatics related research posters will be on display in the Exhibit Hall and the posters will be judged on Wednesday— which is today— by Boney Cherian, Brian Coad and Reuben McRae. The winners will be announced on Thursday.

Tomorrow is our educational day. Please see your itinerary that you received with each of your registration packages. You'll remember the two sessions have moved to Ballroom 5 and the Business Communications session moved to the Tom Thomson Room. Just make sure you have that change. Convocation Lunch will take place at noon in the Peninsula Room which is adjacent to the Exhibitor Hall. And there is also a number of committee meetings starting early Thursday morning. There will be an Accompanying Persons Essential Oils workshop tomorrow at 9:30 a.m. in the Lawren Harris Room, and that will be followed by a nature walk at 2:30 in the afternoon. Please meet in the lobby for that.

And tomorrow night we have the President's Dinner & Dance held in the Peninsula Room, and there will be a reception with a cash bar in the Rotunda at 6 o'clock and dinner will be at seven. Thanks, everyone, for joining and we will reconvene on Friday at 8:30. Have a good night.

--- Whereupon proceedings adjourned at 5:11 p.m.

--- Upon resuming, at 9:00 a.m.

AL JERAJ: Good morning, everyone. The Standard Measure is in place and the meeting can now reconvene. I want to remind you to silence your cell-phones and other electronic devices; our Sergeant-at-Arms has got a keen eye on everyone.

The Open Forum will commence following the reports. Please take note that all motions must be in writing with a mover and a seconder. Present the motion in writing to the Resolution Committee, Amar and Simon, and Penny and Julia will be available to work with you in typing up any motions that you may want. Penny will then create a slide to show the motion on our screen prior to any vote, and voting will be by a show of hands.

PRESIDENT'S PRESENTATION

So, we'll start the morning with a report from the President, which is me. So, normally, I looked through the annual reports and the President usually reflects on the events that have occurred during his or her term. I could certainly do the same, but you guys are all aware of them. We have an amount of communication coming out of the office, so I don't think I need to bore you with all of the things that have happened in the year. What I did want to do instead is skip giving that report and focus on telling you how great you are.

So, I've said in my articles in the magazines, I always highlight the effort of our volunteers. It's amazing to me that one third of our members are on committees. We accomplish an enormous amount for such a small association, and a lot of it is due to the staff that we have at 1043, but a huge part is due to you guys. You guys are shouldering a lot of the responsibility, a lot of you put in a lot of time and commitment to the Association and, without you, I don't think we would be as great as we are and as successful as we are and do as much as we do.

So, what I wanted to do is get an idea of what one third of our volunteers look like. So, if you're serving on a committee or you're volunteering in some capacity, please stand up. Well, a lot of people are not here, but this is still an amazing sight. So, please give— everyone give them a round of applause because our volunteers are incredible.

If you're not volunteering on a committee, please consider doing so because the benefits are plenty. You learn a lot. You grow a lot and that's all good. And really you learn a lot, because I always say I am probably the least intelligent person in this room, and it gives me great benefit from sitting with you guys on a committee and just learning from you guys. So, thank you.

SIGNING OF THE MEMORANDUM OF UNDERSTANDING

As I mentioned on Wednesday, today marks an historic event in surveying. All of the other provinces have agreed to sign a memorandum of understanding to formalize their commitment to work on national issues. We have always been fortunate to have the support of our sister associations. They always welcomed us at their AGMs. We have historically collaborated with each other and have always had a constant and open dialogue to learn from each other, so working together on national issues is nothing new. However, I think this agreement sets out a framework on how we collaborate on common issues.

Each of their respective Councils have endorsed this initiative, and it gives me great honour to host the official signing of the document at our AGM. So, at this time, I'd like to call on the presidents from our sister associations to come up and join me in signing the MOU.

All right. So, we will post the MOU on the website so everyone can read what it says. I'm not going to read it now because it's a couple of pages long, but we will just have everyone sign. So, we've got this fancy pen, and we will start with --- is Bob Halliday in attendance here?

--- (MOU being signed)

BOB HALLIDAY: Right here.

AL JERAJ: So, Bob was like incognito the whole meeting. I didn't see you once. So, Bob, you're up, the Association of Canada Land Surveyors. The Alberta Land Surveyors Association. The Association of British Columbia Land Surveyors. The Association of Manitoba Land Surveyors. The Association of Ontario Land Surveyors.

The Association of Prince Edward Island Land Surveyors couldn't be here with us, so we'll move on. Les Ordre des Arpenteurs-Géomètres du Québec. Orlando? Orlando is here. He's travelling with his young son, I believe, so he's probably busy with that right now. But when he comes in, we'll have him sign. The Association of New Brunswick Land Surveyors. The Association of Newfoundland Land Surveyors. The Association of Nova Scotia Land Surveyors. The Saskatchewan Land Surveyors Association could not be with us today. Ladies and gentlemen, please show your appreciation for the signing of this MOU.

So, before I hand the mic over to Trevor to present the financial statements, I would like to thank my employer, the City of Mississauga, for supporting me during my term as President and during my term on Council. Most of all, I'd like to thank my family, my two boys Aziz and Mikhail, and my incredible wife Sam who inspires me every day to be a better version of myself, to try to be more like Dan Dzaldov. Why is that ever there? I will turn it over to Trevor.

FINANCIAL COMMITTEE PRESENTATION:

BRIAN MALONEY: Well, we had a surplus, but we really didn't.

TREVOR McNEIL: Yeah, with the deferred revenue. So, we had about 13,000 in the red when the year ended, and then with deferred revenue that balances that out. So, these are some of the things that we're always looking at with the revenue when it's coming in.

So, fees and licences— there's a large number of new surveyors this year, so that helps with the fees. Survey Records Index. There was a little gap in there between when the fees were collected for the PSRI and then when the by-law came into effect for the new PSRI. The legal constitutional challenge; there's been no action again for another year on that, so there's been no differences there. We're just still waiting to see whether that will happen or not.

Disciplinary cost recovery; we are now able to get some recovery on some of the newer cases, although there's still the one large outstanding one, so it's still in the process and waiting on that to be finalized. Our book— there's very little sales on that, so we shut down the Amazon process to sell those, but we still have them at the office if anyone still wants those. And then the only other thing— the big thing with the other income, ODCC. We had budgeted that to come in because we were anticipating it to come in last January. It actually came in ahead of time. It came in in December, so that juggled the numbers around a little bit. But it was nice to see money come back from that, as I'm sure most of the members were happy to see as well. And then the same with the Survey Review Department, there was deferred revenue used to balance the budget for that.

So, moving on to other side of the statements, the expenses. Some of the expenses were a little bit higher this year because, as you know, we had— with Blain leaving and the overlap for when Brian started, so there were some extra expenses there. As well as the overlap from Kevin and Bill Buck, there was a few discipline cases going on that we wanted Bill to finish off. We couldn't have Kevin start partway through one, so there was a little bit of overlap for that.

Council approved funding. Council, as typical, did not use all the money that we'd allocated for it, but we did use a fair chunk of it to keep things going, so that helped. There was extra money left over there for helping to balance the budget. Some of the committees, like the Fees Mediation Committee has to seek legal advice on a couple occasions so, of course, legal advice doesn't come free, so there's expenses that go along with that. And moving on, the AERC— now that we're part of CBEPS, so we're getting a large number of articling students and there's processes after that.

Sorry, it's just far enough away I don't need my glasses, but maybe I should. It makes it fuzzy the other way, too. Computer services was another one. Brian is

going through our computer processes and there's been some upgrades for hardware. We looked into offsite storage as part of what he mentioned the other day for the— so that no one can get out data. And then the websites expenses and various things that go along with the software and hardware for the office. And then for our budget for 2020 coming up; we have, of course, our fees and licences are our big source of revenue.

Our Survey Records Index, we have that new by-law in place, so that should be offsetting those costs. Continuing education— we're anticipating having a couple of seminars this year. We really want to get one out for the technical staff, so that's one that we're looking to have come out this year.

The discipline and cost recovery— as we all know, there's the one big case and there will be money coming back from that hopefully, but we're not going to count our chickens before we know for sure because it's just not finalized yet.

With the book, we're not really anticipating any big sales this year on that, so we're not anticipating any real revenue from that.

The Survey Records Index— we have the contract in place, so that's being taken care of, and the rest of the stuff is disciplinary reserve fund. Again, we have that large case that's winding down, so we are getting near the end on that. And legal non-discipline, we're not anticipating any big fees from that, but you never know when you may need to seek an opinion or advice on something.

And then there's just the other— the Council meetings. This year we're having a watered-down Strategic Planning session, we don't need to have the large one every year, so there will be some less costs around that. We have insurance. We have our cyber insurance in place, as Brian mentioned earlier this week.

Website maintenance and development— completion of the website and increasing maintenance costs. So, we're getting close to getting a website. There are a few things to finish up on that. So, we are getting close, getting that wound up as well. And then of course other revenues that go along with that.

And then as always, the other side, the expenses side. So, you can see there's a list there of all the different issues that we look at for that. I can go through them all, but they're similar to what we talked about with the other slides. And if there's any questions? Oh, I'm seeing none.

AL JERAJ: Thank you, Trevor. And I'll call on Andrew Mantha to present the Professional Standards and Practice Commission.

PRESENTATION FROM THE PROFESSIONAL STANDARDS AND PRACTICE COMMISSION

ANDREW MANTHA: Good morning. Thank you, Al. Where's my clicker on this thing? Okay. So, anyways, I'll just open with the committees that make up the Association are really our backbone. So, on behalf of Council and our nonparticipating members, I would like to thank the individual Chairs and participating members for their continued efforts on our behalf.

So, here's the list of the committees that I'll be reporting on today, so you can tell we have a real love of acronyms in this Association.

The Fair Fees for Field Notes Task Force, at six letters, was recently surpassed by the Province-Wide Survey Records Index Task Force in acronyms. But the other, I guess, see changes that we've had in the different committees is that with the whole risk management view on this. We've been trying to get into the different committees and ask them and will be asking them to go through and find out what they identify what their key risks are as a committee and see what they suggest is the best ways of handling those.

I'll start with the Complaints Committee. So, we're surveyors, and we're all about measuring things, and metrics is key, and part of the things that we do is risk management. So, you can see that this committee has met nine times this year and considered 21 complaints. So, one of the things we're doing is we're trying to keep a list of the themes of the different complaints. I know Bill Buck had gone back a few years to sort of get this going for us, and you'll hear things like communication, or right of entry, things like that that we could handle ourselves.

There are lessons to be learned, but these are sort of things that we could easily address as members dealing with the public.

I'm not going to go through a lot of these slides. You can read. I'm just going to sort of give you the theme of these things. So, Discipline Committee, they did handle seven cases over the last year, and three more were referred since October. Now, we know they're costly. They basically— the low end is, I think, about \$15,000 just to get in the door and then they can go up to, as we know, approaching the seven-figure number.

So, the other thing is that part of the transparency is that you'll see on our websites, and this should be no surprise, that we've formulated— that we show the discipline cases as they progress on our website so the public is aware of them.

Council has been working further to maybe a policy of how long they'll stay up and that, and we were wrestling with that at our last Council meeting. We sort of came up with an agreed process which will of course be shown on the website once it is finalized.

The Digital Plans Task Force—I'm going to highlight this group because they did something that I really think that the members should all appreciate. And that's that they finished off their work and disbanded. And, you know, we're a small association and like any association there's mission creep; things that start. The pebble in the clam slowly becomes a pearl, but eventually you want to be able to just say, "Hey, guys. Fine, fine." So, Jeff Buisman and Murray Purcell - Salut.

Now, the Fair Fees for Field Notes Task Force, and this one was the one that I was chairing. So, everyone keeps asking when it's going, and it's like an onion. You start unwrapping it, there's more and more layers. But a report was forwarded to Council where we did the statistical analysis of the numbers that came in from the Survey Monkey. And now Council has said, okay, well, that's what people want to charge, the fees charged. But what are the actual costs?

So, keeping in mind people seem to forget that both in 2007— '01 or '02, I think—but that's the current requirement for field note transfer, and it says what you can assess as cost and how the deliverables are, and I have a right to come to your offices and ask for notes without having to go through a lot of rigmarole. But, anyways, that still in. And the task force in no way, made any changes to that by-law.

So, this still remains a priority for Council. We sent out an RFP to find out what the actual costs are because all we've done so far is figure out what you're charging. We haven't quite defined the costs. We didn't get much of a response on that, but this whole issue remains a priority for council and I guarantee it will be completed this year.

The Monument Protection Task Force. There is a video up on both our old and new websites and it's pretty cool— we're going to show it after the presentation— and I'll let you know it's one thing to have it on your website. If you guys all have websites, you can link to it so that people looking at your website may say, oh, there's something about this, too. And we'll get it out to the different associations and invite them to link on to our website.

Now, the Professional Standards Committee. This one— it's very busy and it has a sufficient impact on us that maybe this one we will go through their slide deck. So, they've initiated a land registry office searching training guide. And those of you who went to Izaak and Anne's seminar, that was sort of touched on.

They developed a comprehensive checklist to assist surveyors on different things available on the website under professional standards, and they provided advice, as requested. They've started working on an updated field note guideline. They've initiated work on a construction checklist which you will find Survey Review is also working with them on that because we're going to start checking, as part of risk management, where the real risks are, and it seems to be in construction. Then they've updated their practice manual, but this will be on the new website once we

get that thing going.

There's another task force that we should all be proud of. So, the South Central SRI Committee is now folded, I guess, into the Province-Wide Survey Records Index. So, again, I'll open by thanking Alister Sankey for steering the South Central Records Index into the ground and therefore it's another thing that's not needed. Salut!

All right. Now, as an aside here and I threw this in, you want to start using this thing because the transparency that we are all very open about, Council and SRD and that will have the facility to see who's using these things or not. And so, we want to, A, populate it with your data, but we also want to see that you use it.

This is very active—the Survey Review Department Committee. And they were actually— aside from Council, they were the first committee that we asked to go through on the risk review—the risk-based review process.

So, they've initiated an updated practice manual that Council has reviewed. Again, they're recommending introducing reviews of construction-related surveys as part of your comprehensive review. How we're going to do it is still up in the air, but it's going to be done.

And also, this is a big one here— we have started a review of the C of R members. So, they've always been— we've always been responsible for doing a review for them, but we haven't really been very good at actually implementing it or knowing how to implement it. So, we've come up with sort of a self-review to get them off the ground. But that is coming, and the template was approved by the SRD and so it's coming.

Now, the big thing is --- I know everyone always goes to the bottom of the list to see what's going on— so we're recommending an increase in fee stickers. Now, let me just put this all, in context. The last sticker increase was in 2012. So, adjusting for inflation, looking in around where we are right there, I think Council's actually talking about 19. Yeah, 19. We're going to round it up to 19. And the reason we are is that they had \$120,000 in the red last year on 40,000 ticket sales. So, let me see, 120,000— sorry, projected for this year. So, you do the math, that would be a three dollar increase which kind of fits with the rate of inflation. So, the one thing about stickers, it's part of your job. You can roll it into each job, so I'm hoping that nobody's going to go ballistic when they see that.

The Underground Utilities Committee is next. They've been looking for working on a new version of the CSAS-250. As it was explained to me, there's basically four levels of locates. Number one, being the one where you actually go out, and there's a hole in the ground, you see the utility, you tie it in to a GPS system and it's a pretty firm system. Going down a level of accuracy to just somebody who has a record from 40 years ago, or somebody took a tie to a curb that may or may not

have moved. So, they're working on coming up with standards not just provincially, but across the country. And I know that our U.S. counterparts have been working on standards as well like this. So, this will be something that will be active over the next few years.

So, I've got a list of all the committee members, and this kind of gives you an idea of the amount of work. Al opened the meeting by asking some of you to stand. I'm sure a lot of the people on this list may not be in this meeting, but this is the Complaints Committee, the Discipline Committee and— well, there's all our committees, I'm just going to go through, and they all deserve our thanks and appreciation for the hard work they've done over the year to move us along. So, with that, I'm going to just ask for a quick round of applause for all the committee members.

Now, Brian also asked me— since I'm up here— and I seem to have no lack of ability to talk except for this morning. Anyways, if I go through a quick report on the Governance Commission Report and where we sit.

GOVERNANCE COMMISSION REPORTS

So, I am not an expert on this, but basically what they've done is they've produced their regulations changes based on Survey Monkey, the regional group meetings and all that stuff. The thing about them is it's more of like a ground-up thing. I don't think that Council has given them too many instructions or anything like that. So, it's really— the regulation changes come from initiatives by the members, so your engagement with the Survey Monkeys that go out and the regional group meetings are what brings these changes.

So, right now Council's accepted, with very minor modifications, the regulation to propose changes and it's in the hand of the Ministry for final wording, and it will come back to Council and the membership for voting hopefully later this year. And the next slide here shows some of the changes. So, they've gone more for the use of project and deliverables defining what they are. A lot of the regulation things are just somewhat modernizing for technology. For example, the use of e-mail as opposed to only post office things.

One change was part of the provincial funding model has— our Lay Councillors have been cut back, and they're— they basically represent the public at all committees and Council things. So, we have asked that a Lay Councillor be appointed to the Executive Committee of Council. It was always there before, but it wasn't formalized so that would be something that would make it so that we don't have them pulled out from under us.

All right. And the other thing is these CPD hours. We've been pretty haphazard in our assumption of what could be a CPD and can be used by you. Council wants to create a committee— more creep, but anyways— we're going to have some sort of

way to define exactly what would qualify for a CPD hour. You can apply to the committee to see if the event or project that you've been working on applies and so that's part of the thing going in here. For plans, they've been working on addressing electronic registration, the use of colour maybe for nonregistered deposited plans, improving consistency in showing comparisons. You know most of this stuff; clarifying seal requirements for non-land registry office plans and requiring records to be stored in the PSRI.

There will be some exceptions and there will be ways of smaller offices being able to get back on. We've already discussed this. We're going to— also the code of ethics dealing with schedules and deadlines and, of course the big one, clarifying the height of rock posts. So, anyways, James Dorland was the Chair on this. Jamie, I may have steered you wrong on that information, but here it is here. And these are the members of the committee and again we thank them— a little round of applause for the fine work they've been doing.

And, with that, I will drop the pointer on the ground and walk away from the mic and hand it back to Al.

--- (Video presented)

AL JERAJ: That was an awesome video. Special thanks to Anne Cole for producing that, and a shout-out goes to the Monument Protection Task Force for reviewing it and setting the parameters for it.

So, now I'd like to call on Andy Shelp to give his presentation on the Outreach and Professional Education Commission.

OUTREACH AND PROFESSIONAL EDUCATION COMMISSION PRESENTATION

ANDY SHELP: I'll try not to drop it. So, for those of you who know me, know that I love to hear myself talk. So, this— you know, life is about choices. So, I just heard from Mark Tulloch that they're about to close the road. So, the choice is listen to me talk, or make another decision, so— and I'm only kidding about the road part.

Anyway, everybody has touched on the importance of committees and the importance of involvement and the importance of all of those things. And I've been on the AERC for coming up on nine years now, and it wasn't really until I joined Council that I really understood how many committees and the work that they do. And then being— complicating that, or compounding on that with being a Commission Chair, you really get an indication and an understanding of how much they actually do.

So, you know, being someone in private practice with a reasonably large firm, I imagine, you know, the time dedicated to this by other people I can only aspire to

ever do. So, you know, through all of this, we have to remember that these are volunteers. They spend their own time. Often times they're spending their own money and they're doing a fantastic job. Keeping track of that is a difficult process.

So, you know, before I even start, I just want to thank Brian because he's very instrumental in helping me keep track of this stuff. Julia, the same thing.

So, anyway, here we go. So, this thing works. Okay. So, like Andrew, I'm not really going to go through each of these individual slides— just sort of touch on things as we go through. The commission is made up of eight committees; a lot of them have overlapping impact on each other or overlap and, you know, we're trying to get them to work together and make sure that they understand what each of us are doing.

So, we'll just go through them one by one. Okay. So, the AERC --- and I had mentioned I've been on this for a long time. If you were at the Convocation Luncheon yesterday, you can see the results of the AERC.

Kevin will speak more to that in the Registrar's report, but these guys work super hard. And, you know, Mike Chapman received an award yesterday, and until you actually meet Mike and understand what he does, it's phenomenal. And, you know, he, like everyone else, will need to be replaced at some point in time, and that's going to be a real challenge for the AERC.

He does such a good job and he is so personable with everyone, and I think—I think it was Al maybe mentioned that Al – tall Al, short Al, I'm not sure— had mentioned that he actually, you know, personally reaches out to all of these people individually and gives them the opportunity to say no. I think I deserve credit for that, and then he provides them opportunity to provide background information for that.

Often times he gets foreign-trained professionals. They haven't got a Capstone project, but— in English. So, he gets them to— yeah, we'll take it if you can somehow get it converted to or translated into something that can be readable by him. You know, so he does a fantastic job, as does the entire committee, but again, Kevin will talk about that. Al Buckle is the present Chair. I don't know if— so, those yesterday who were at the Convocation Luncheon would know that. Yeah, okay.

So, Continuing Ed. You know, like Andrew said, you guys can read as well as I can— well, probably better than I can. You know, these guys do a lot of work. This is driven by Tom Packowski which— again, you know, he's a busy guy. The CPD Audit Task Force: Ron Querubin. You know, again, this is what they do. So, I'll give you a second to take a look at that. And, you know, Andrew had mentioned that—oh, it's okay.

Okay. The Expanded Professions Task Force. These guys didn't meet this year. But if you were here last year or at the AGM last year, James Ferguson stood up and gave a good presentation about the reasons why. You know, they've got a big road ahead of them to try to get the extended profession as members. So, it's not an easy battle for them. They're working hard at it and, again, that's James Ferguson who's the Chair there.

PAC— what happened to my slide? Oh, there we go. Oh, look at that. Yeah, yeah, yeah. Cool. We'll just go all the way. Okay. So, these guys do lots of work as well. You know, they planned the first celebration of International Women's Day by the AOLS promoting, you know, diverse communities and things like that. They attend events hosted by the Ontario Good Roads Association, Urban and Regional Information Systems Association, Realtor Quest shows— things like that.

Natalie Vibert is in charge of that committee. I'll just keep going. The GRLC is chaired by Chris Oyler. Paul Goodridge and Lisa Currie did a thing with the Girl Guides in North Bay and that was quite successful. There was a flyer— and e-flyer created for the Minister of Education to promote specialists in high school majors in construction, which we've heard about over the last few years. There's a bookmark by the AOLS that was redesigned, promoting and targeting— this is a new one for me— IGEN. So, Gen-Z? Mark, you're young. What's Gen-Z?

Okay. I'm trying, but you're just not biting. That's your problem.

All right. Murray Purcell— University and College Liaison Committee again does a good job. Sponsored York University's Civil Engineering and Geomatics Night; created an article for presentation for the first AOLS Educational Foundation Award honouring Henriette Verhoef. Sponsored and attended some socials in Thunder Bay, Kingston, Toronto and Ottawa. You know, these guys— for the past while we've talked, you know, based on Blain's demographics, which everyone loves and has committed to memory, you know, we could see that the profession was suffering from a professional perspective. What these guys are also helping with and, you know, should be of concern to all of us is the lack of technical programs.

You know we can see from the AERC's results that the profession, at the professional level, seems to be moving in a positive direction, it seems to be having some good— you know, it's had good impact concentrating on that. But where we are suffering is from the college programs and, you know, it's hard to get those things back online. But we do need to remember that we are a profession, but I can only speak for my own firm. We can't survive without those technical people doing things that they do really well. So, you know, that's an area that needs to be pushed forward.

The Website Maintenance Committee is Ken Wilkinson. So, I'll just let you read that.

The Municipal Surveyors Committee, the Chair is Normans Taurins. And these are all the committee members. So, these guys do a fantastic job. It's not easy and, you know, again, being— trying to keep up with the things that they're doing is not an easy job as well.

So, my thanks to all of them, and I think you guys should thank them as well. They're working on your behalf and trying to move this thing in positive directions all the time. All right. Thank you.

AL JERAJ: Thanks, Andy. Just to clear up any confusion— Al Buckle is "tall Al" and I'm "short Al."

All right. We're going to have a report from our Surveyor General, Sue MacGregor.

SURVEYOR GENERAL'S PRESENTATION

SUSAN MACGREGOR: Good morning, everyone. I'm even shorter than Al, so there you go. I just wanted to highlight a couple of things. No slides. I don't have any slides, that's okay. I started out doing presentations, and now towards the end of my career I just make up notes on the fly.

I just want to, I guess, thank the organizing committee, because I think this meeting has been a very, very good meeting. I was thrilled to see Dan Shilling participate. He gave probably one of the better talks that I've seen given by chiefs to raise awareness of Indigenous issues in this country.

The technical sessions were great, and I think Julia hit it out of the park with her charge to the surveyors. I was in tears.

Just a couple of things that I'll point out about the report. Many may know or may not have realized that the Ministry of Natural Resources and Forestry teased apart the parks and conservation authorities and species at risk, and those moved over to the Ministry of the Environment to form a new ministry called the Ministry of Environment, Conservation and Parks.

So, the Ministry has been operating in turmoil for the last couple of years. Our function, though, has been largely left untouched, so we just continue to serve the client that we always have had. We just do it to a different Ministry. So, from our branch perspective, it was a fairly seamless and easy transition.

You may be finding, however, that there's still a fair bit of disruption in the district offices, and I would encourage you to contact us. We can intervene for you to deal with the district staff if you're running into trouble or if the instructions that you're getting don't seem to make a lot of sense. We don't want to cause extra cost and make you go to the field and do more work when it's unnecessary.

Just a couple other points. Brian Donahue gave a terrific informative session on the Canadian Spatial Reference System and the products that are offered by Natural Resources Canada. And he did mention that Ontario obviously plays a role in those discussions with Canada in determining whether the province moves to new datums and makes the adjustments that are necessary to provide coordinate control— the passive coordinate control in COSINE. So, I'd just encourage you if you have any questions about what we're doing, where we're going, please contact Morgan, he'd be happy to answer your questions.

On an HR front— a human resource front, we've been successful obtaining additional staff or replacing staff in both the geodetic components of the business; we have two additional staff there. And in the Crown Land Survey side, we've got— we've filled a couple of vacancies in the Crown Survey Tech group. So, I'm happy to say that that backlog that has been building will eventually start to come down. So, if you're wondering where your plan is in the queue, it's getting better. So, I appreciate your patience.

The Ministry has been trying to reduce its size over a number of years and trying to streamline and find efficiencies. And we're fortunate that our office is still viewed as an important component to ensuring economic development in the province, so we've really had very little difficulty getting approvals to hire. So, that's been a good, positive thing. I'm also happy to report that we've been successful in hiring a new coordinator of Crown Land Surveys to replace Perry Molloy who is going to be retiring at the end of June. We're going to miss Perry terribly. He took over the position from Eric Ansell when Eric retired, and he's been providing terrific guidance to the staff. If you've had any dealings with Perry, you'll know exactly what I'm talking about. But I'm very happy to say that I think you're going to be very happy with the replacement.

A couple of— project-wise; we've done— we've completed— the Ministry has completed a review of the vault and a couple of other large record inventory components in the Ministry, so it looked at the physical location of the vault, its HVAC, its storage capacity, some structural elements. You know— whether we have water or sprinkler system, versus dry mist, so that if we do have a fire in the building, that it's not going to destroy all those historic records. They've made several recommendations, and the Ministry is just in the process of evaluating what they're prepared to --- you know, prioritizing and work that has to get done there. So, I just want you to be assured that we continue to digitize and continue to work on preserving those records that are critically important to the province and to you.

What else have we got? Project-wise or initiative-wise; reducing burden. So, government has been going through an exercise to reduce burden to business and, as a result, will be reissuing our Crown Survey instruction. And you'll be happy to know you no longer have to buy a copy of the deposited plan from the registry office to complete your file with us. So, that is one burden removed.

But we're also amending the instructions to incorporate some, maybe not inconsistencies, but clarify some issues with respect to mining and under the new Mining Act and the rules thereunder. So, if you have any other suggestions or concerns, or if it's something that you'd like to see us clean up in the Crown Survey instructions, please contact Perry or myself and provide that feedback.

I'm not sure if Brian included this in his report or not, but Brian did come in to meet with the Deputy Minister and reconnect with the Ministry on a more executive level and that meeting went very well. And our Deputy is very alive to the issue of the importance of surveyors, and the roles that you play. I think we were trying to get her here this year, but I think— maybe next year we're going to be able to get her to participate in our meeting. So, she's very supportive of this group and it was a very good meeting, a positive meeting.

We also are working closely with Tom Packowski— I guess from a training perspective, we're supporting training. Scott Kaldeway, I don't know if you know him. He was the Crown patent person in the title component of the ministry. He was in our office for a one-year assignment, and worked with Izaak and Four Point Learning to develop a one-hour webinar that talked about things from a Crown Land perspective that you might encounter in Southern Ontario. You all know that there's Crown Land in Southern Ontario, but it's an easy thing to miss. It's an easy thing to forget.

So, he provided that webinar. I think it's on GeoEd now from a download perspective. So, avail yourself to that. I think it's always a good reminder. And also, Michael Griffiths is working with Tom Packowski on a series of one-hour webinars on Indigenous affairs. So, my office worked with Indigenous Affairs to create three one-hour sessions, there's still one-hour session to be created, and they have agreed to provide that to industry, to yourself. So, we're working on getting that up and running, and I think you'll really enjoy that. It helps set the context in terms of what we're seeing with the Indigenous issues that are going on in the country right now. If you understand the context and the history, you're better informed and I think that's nothing but a positive. I think you all play a very big role in telling that story.

So, just a couple of things, that's about all I have to say, and I hope— are there any questions? Does anyone have any questions about the report or directions or not?

Thank you very much.

AL JERAJ: Thank you, Sue. Next up is Brian Maloney, Executive Director Report.

EXECUTIVE DIRECTOR'S PRESENTATION

BRIAN MALONEY: Yeah, that would be great. Thanks. I'm doing two screens here just to keep my eyes in check for this morning. I did send a report out. It went out last Thursday. I have no intention of going through that. I think you can all read— I hope you can all read. And so, I thought I'd focus on another couple of items, give you a little sense of where we're going and where we're at. So, unlike the previous Executive Director, I've only got four slides. And I've got no demographic. Sorry, folks, I know you're going to miss that.

So, it's now been a year since I've taken the position. It's hard to believe it's been a year, actually. I must say I've really enjoyed it. And one of the reasons I enjoy it is because we've got a great office— a great team at 1043 McNicoll. Blain did a great job setting this up. I inherited this, and I must admit, these are all good people, and they deserve our thanks. They all work hard.

I know I've had some e-mails over the course of the year saying, “Why are you so large? How come you got so many people? How come the budget is so high?” I'll be honest with you, this isn't enough. These people put in ample service. Poor Kevin, he's going to talk to us about the number of calls we receive from the public, and it's huge. He deals with several calls a day from the public and deals with complaints and deals with the AERC and he's got more than a full-time job, I can assure you.

Able assisted by Lena. Lena is more than our Office Manager; she really helps us on all the AERC front and keeps things moving and makes this meeting the success it is. She worries about every little detail from scotch at the table, to you name it and puts a ton of service in. Penny is our Member Services Coordinator, but she's also our IT expert. We lean on her very heavily to help us on the IT front and keep us moving. Julia Savitch is our Program Manager. She has an interesting title. Basically, we give her anything and everything to do. She's actually got an MBA— a very talented lady and does a lot in terms of keeping the committees running. Obviously our CPD piece. She is well involved in that.

On the front of finances, Cynthia has now been with us I think two or three years now and does a great job in feeding me financial information and getting cheques out. All those cheques that our buddy Mark gave out, she had to cut all those the day before the AGM here, trying to get all those things out. We have an unbelievably complicated set of general ledger codes that we've got to simplify this year. I don't know why we track things the way we do, but we've just— it's craziness and we've been trying to simplify that.

She's been helping me kind of modernize our banking and try to put some better protections in place. As some of you know, we've had a couple of Executive Directors in North America that have now absconded with money. I have no plans to do that, by the way— so we are strengthening the financial controls and she's

certainly helping me do that. She's actually working towards becoming a CPA, so she's very helpful.

Our man Tom who's going to speak about the SRD is another key piece of the organization. I usually bend his ear every morning over a coffee, and use some of his expertise that he's got, to try to help give me guidance and direction, and talk me off the ledge when I'm going crazy.

Maureen Mountjoy is irreplaceable. She not only does the Deputy Registrar job and does a great job, and puts lots of services in on AERC, but also as Editor of our quarterly magazine, that I think she does an excellent job on. If and when she leaves, we'll be hard pressed to find somebody to take on all those roles.

Joyce is a pleasure to work with as our receptionist and does a great job answering the phone and keeping people happy. And, believe me, there's lots of people that aren't happy that call us. Usually, they've had a complaint from a surveyor, they're not feeling the best about life and surveyors, and she does a good job of talking them off the ledge.

On the SRD side we've got a number of consultants— I won't go through that. All doing a good job. We actually are in the process of hiring, and Tom, I'm sure, will talk about that.

Sheila supports them with a ton of administration— and there is, unfortunately, a lot of administration. I think we need to think about our whole process on SRD, but that's another conversation for another day. And then obviously, Al out in the field part time, and Herman who's another guy who does just a ton of work for us. Anything we ask of him; whether it's changing light bulbs to you name it— he'll get it done for us and it's great. So, I'm really pleased to work with these folks, and I think they're what makes my job easy.

So, I want to talk a little bit about where we're at, and this really is a follow-up on Darrel Pink's session. And so, when I joined the Association, I had lots of management experience, been around the coin dealing with that side of the equation, lots of policy experience, but I wasn't a regulator. And I really must admit I didn't have a good handle on the expectations of a regulator.

So, I've been trying to educate myself over the course of the last year and, as I've done that, I'm seeing gaps and I'm going to talk about some of the gaps. But I also want to say we've got a lot of strengths. When I look at us for the small association that we are, the small number of members that we have compared to other, I'm amazed at the progress we're making, and I think the job that we're doing, and I think we can be proud. We've got some work to do on demonstrating that, but I think we can be proud of the work we're doing.

It's partially a dedicated hardworking Council. There's no doubt we have a lot of

material to go through when we get together. I think they're pretty focussed. They get along well together. We just did a review of Council's actions and how we behave and how we act and there was a lot of positive stuff came out of it.

Obviously, some areas for work, and I'll touch on some of those. Strong functioning— what happened here? Oh, this is my other one. Strong functioning of our statutory committees.

AERC does a great job. Discipline. Complaints. They all do excellent work, and they're the backbone of a regulatory organization in terms of protecting the public. And, without them, it wouldn't work.

We've got lots of other committees, though, that are there. I think we need to look at where they fit. If you really took that regulatory view, there's some of these committees and task forces that perhaps shouldn't exist; maybe they're more advocacy related. But, nevertheless, we've got 181 unique members on 29 active committees and task forces which is almost— it's too much, to be honest with you, but they're doing great work.

The one thing that we've been trying to do— and it comes back to the staff side— is we've been trying to support those committees a little more with either staff and/or consultants to help them move forward; because often it's very difficult for volunteers to be able to put in the effort to move some of the pieces forward. And so, we actually did change— and Trevor didn't go through it— some of our committees got more money this year, and that was intentional, to allow consultants to be hired to help them move some of the key initiatives forward.

Which leads me to the fact that I think we are reasonably resourced and financially stable. We've been watching our investments. You know, our building is paid for. We've got no mortgage. I've had people tell me we should sell it. I don't know where we're going to work, out of a basement someplace— I'm not sure I agree with that. But, regardless, you know, it's an asset that, on the books, I think, is about \$175,000 or something, but in reality, is likely a \$1.3 million building.

And, you know, it's through the contributions. And I know the dues are expensive but, in honesty, I think you're getting value out of it. And if we're not taking our regulatory responsibility seriously, we won't be self-governing, and you'll be in a different competitive landscape, I'll tell you that, and that's where we don't want to go. We've got a lot of good policies and procedures in place that have been put in well before I got there, and so I think overall we've got all the pieces.

You know, when I compare us whether it's to— well, let's pick the engineers. I'll pick on them. Because George— where is George? Down there. George told me, "You know, we're getting way too many complaints in comparison to engineers." I challenged him a little bit and said, "You know, maybe PEO isn't a good regulator." And to be honest with you, they just had Harry Cayton come in and do a review and

he found all kinds of challenges.

So, they have no mandatory CPD. They have no peer competence review. You know, we can be proud of those things we've put in place. Are they all working perfectly? Of course not. But they're there, and we're taking advantage of them. You know, we did the CPD audit this year. We found some gaps. We're taking action to correct those. You know, we're on a trajectory forward.

So— which leaves me to my last slide, and I'll sit down shortly. So, policy focus. One of the things that we have been trying to do is to really move forward on the policy front, so that fits in line with my background. I'll be quite honest with you— but I think it leads to consistent decisions and consistent actions. If you think your way through the policy, you create it, instead of acting on every individual case. And so, in the last year we've put several policies in— I'm not going to go through them, you'll see them in my report— but I really believe we need to continue on that front. We're still lacking in many areas that we need to really improve our abilities on.

On the risk management in terms of regulation, you know, moving towards an evidence-based piece. We've got some of that in place. We really need to do more work. I have committed to putting a dashboard together for Council so that they can actually review it at every meeting, and understand where we're at, and how we're moving forward. We really do need to be focussed on those things that are of highest risk to the public. And I'm not convinced we've got that completely right, and so that means a tune-up in many of the things that we do.

And which leads me to this notion of right touch regulation. You actually would have seen some of that in Darrel's presentation on Wednesday, and it really is about eight points that moves us there. So, it's really identifying the problem before the solution. So, sometimes we jump to conclusions, and I think we've got to get more rigorous on our analysis and understanding. We've got to quantify and qualify the risks associated with these items. We've got to get as close to the problem as we can, so it's really about driving into the detail of what's causing the issue that we've got in front of us and then ultimately focus on outcome. And you heard Darrel mention that; that, you know, we've really got to set outcomes that we want to get to and measure them and understand we're moving there. It means using regulation only when necessary. And I know I— I personally somewhat struggle with that when I see some of the performance that goes on. And I hate to say it, but I do see some performance that really bothers me. I really enjoy the job, but there's two things I hate, and the first one is insurance claims.

So, I see every insurance claim that gets made and it ruins my day every time I see one. There's lots, to be quite honest with you, that are put forward in an abundance of caution. The surveyor's done nothing wrong. Those are no big deal. You know, appropriate. But there's many that I see, and you shake your head when you look at them, and you go how can we be doing this and over and over and over. And if

we're not learning as an organization, and we're not fixing this problem, we're doing a disservice to the public, we're doing a disservice to ourselves. Anyways, enough of my rant.

It's about keeping it simple. I sometimes think we overly complicate things. Our website is a primary example. We've got so much stuff on there. You can't find what you're looking for. And I do apologize that we haven't got the new website out— we've got it in draft form. It's taken us a lot longer to clean up the content and move it forward than we thought, but we'll do that.

It's about checking for unintended consequences. Because any time you make a policy change, you've got to go back and look at it. And we don't always get it right; we're human. You know, we try to do our best and do the right things. Sometimes we make mistakes and we've got to at least be looking at that. And lastly, it's about reviewing and responding to change. You know, our practice standards— and I think the committee has done great work this year— but we really need to tune-up stuff. You know, we're way out of date in terms of modern technology. We've got a lot work to do, in my mind, on that front.

This year when we do our strategic planning session, which is scheduled for April 22nd, we're going to incorporate our risk management approach to that and we're actually going to combine. We've been dealing with these things as strategic planning stuff that we review at every meeting and the risk management on separate tracks, and we're going to pull those together because it just makes sense.

In terms of governance, we've got to strengthen our communication. We still fail, and I must admit I don't know how to get to it. You know, we've had James Dorland going around with the regulation change to the regional groups; and we sent the documents out in advance, and we get to meeting and less than a handful of people in the room have actually taken the time to read the documents we've sent out. And it's really frustrating when we put all the work into this stuff so that we can inform you so we can have an informed conversation, and people show up and haven't read the material.

You know, we sent out our In Sight. We're religious about it. Every two weeks, it goes out. I think we got about— we get about, I'm guessing, 60 percent of our members actually look at it. And I know many don't because I get questions and we just had an article or something in there. And so that— we've got to do a better job. I don't know how to do that yet. We're going to keeping focusing on it. I know we're going to strengthen our relationship with committees. I think Council has been a little disconnected with them, and I think we're going to do that.

On the process IT side; we've done a review this year. Penny actually mapped all the systems and data flows for me, and we've got just an array of systems there that we need to think about how we can pull that together. So, I think we need some work on an IT strategy in trying to figure out where we need to go and try to simplify our

lives. We've still got a lot of manual processes. We've got a lot of cut and paste and copying which is always a recipe for disaster and so we've got some work on that front.

Online education. I'm really pleased to see that there's progress going on. I sit on a committee—a national committee—and we've got members from a number of the universities sitting there. It's actually being led by ACLS and by JC Tétrault, and they actually put a proposal in to government for funding to move this forward and I'm pleased that just last week we received a notification finally that we've been moved forward. And so, we've got to now, put all the details in around where the cash is going to go, so it's a really good sign. And the work that's been done to date, we've identified about two thirds of the courses that are required to become a surveyor, we've identified two thirds of those in some institution that are available online.

So, we're really trying towards as much online as we can. Maybe it's one year at the actual physical institution and the remainder online. I think it will help us when we look at—you know, some of our challenges on getting people in the north. If you can have them do most of the training from home, I think you've got a high likelihood of keeping them there and having surveyors there. So, it's making progress.

Emphasis on continuing education. I don't know if Tom— Tom may speak a little bit more about this, but we've certainly been trying to look at the evidence in terms of complaints, in terms of insurance claims and that's really what drove a lot of the content that you saw at this meeting this week was driven from challenges that we're seeing and we're going to continue doing that and actually hopefully do a better job. And the last one is collaboration with other jurisdictions. Despite the resources that we have, we still don't have enough resources and we really need to pull together. That MOU, I think, is a great start. I meet with the executive directors on about a quarterly basis. I think there's opportunity for us to share more on several fronts and move forward. So, I'll leave it at that. I'll certainly be glad to any questions you have and deal with it now or in open forum, whichever; it doesn't matter. Thank you.

AL JERAJ: Thank you, Brian. All right. Kevin first. Kevin? The Registrar's report, Kevin Wahba.

REGISTRAR'S PRESENTATION

KEVIN WAHBA: Thanks, Al. So, my oral report is not going to touch on all the details of my written report which was recently delivered, but I would like to touch on two of the more substantial areas that I deal with on a consistent basis; namely AERC and complaints.

As you can see on the slide, we had a number of evaluations in 2019. The number of evaluations in 2019 saw a slight decrease from the previous year. There's no real

empirical information to describe why there was a smaller amount, but those are the numbers. And as of January, of this year, the AERC assessed 11 applications in their January meeting and, as of this time, we've received one academic—one application for an academic evaluation for our next meeting. We tend to receive quite a few of them closer to the meeting, which— our next meeting will be in April. So, with that said, you can see that the number of evaluations still far exceeds what we received in years preceding 2014.

So, similarly with articling applications, we also saw a decrease in the amount of articles we approved in 2019. Currently, we have 102 articling students, and this number tends to vary depending on how many applications we receive each meeting, students being sworn in after they receive their results from their professional examination and being successful in that and we tend to see a few here and there drop out within each term. But in November of 2019, the AERC actually implemented a new structure to the professional examinations.

Over the past several years, we've had an oral and written examination as the end for the final step for licensing. And in November, we kept the oral exam as is, and the written examination in the past used to consist of approximately ten to 12 questions, one of those questions being a plan-checking exercise. This in November, we split the written examination into two components. The previous exam was a four-hour exam, and we split the written exam into two three-hour components. One component being the short and long answer questions that you would have seen in previous exams. The second component being a more thorough plan-checking exercise which the AERC implemented in an attempt to place the applicants in a more realistic and practical setting, giving them underlying title information as well as title documents and underlying surveys plans.

So, the students were given the structure of the actual question relating to the professional plan-checking exam, and we go over it during our September professional lecture course. So, for any students who are in the room right now, that's something that you can expect when you come into the lecture course to further understand what this change actually is.

So, on this slide, you can see that the number of members has levelled off over the past several years. There were several members who retired at the beginning of 2020, and they were mostly set off by the number of surveyors who were commissioned in the last year.

You'll also notice that the number of C of As has dropped quite a bit. But this could potentially be rationalized, at least in part, by the number of firms we've seen, being bought out and amalgamated with others in the province. So, overall, I think this is good news and the membership should be pleased with how the numbers from a high-level perspective seem to be levelling out.

We also have one of our articling students seeking to obtain their OLS designation

outside of the cadastral branch. I know there are a few others who are in the process of applying to article under designations which would lead to a certificate of Registration. And we've also had individuals inquire as to how they may transfer their certificate of registration status from other jurisdictions into Ontario.

So, turning to complaints. The total number of formal complaints last year was 21. That was seven more than we received in 2018, and it's also seven above the average that we've received over the past ten years. Again, I don't have any empirical information which would allow me to analyze why there was a slight spike in complaints over the past year, but I can comment on the fact that most of these seem to derive from deficiencies in member's research, communication issues and contractual issues between the surveyor and the client.

I think a lot of us during the current sessions might have heard about the importance of communication, and it seems to be a consistent trend that a lot of these complaints— formal and informal— seem to derive fundamentally from a communication issue between surveyors and their clients. So, 17 of the complaints received in 2019 were from members of the public, one of them was from an OLS and three were submitted as a result of Survey Review Department referrals.

So, Brian touched on the fact that we as— the Association as a whole does receive quite a few phone calls from members of the public with a variety of concerns, and we've been keeping track of these phone calls and been placing them into several natures which we try to describe, in terms of what they actually seek to ask, or what they express to us in terms of their concerns.

So, since July of last year, we've been keeping these statistics. Some of them come to us strictly by e-mail, but the majority of them do tend to come from people calling into the office. You can see that most of the inquiries are fairly straightforward. They are usually questions with regards to how they can find a surveyor in their area, or if a member of the Association is currently in good standing. So, I've placed them into what you can see there as directory inquiries to describe that.

Many other of the inquiries relate to individuals requesting advice on how they can resolve a boundary dispute with their neighbour, and of course the Association always tries its best to direct members of the public to the correct channels. And there have been several calls I have received throughout the year that end with a recommendation that they retain a surveyor to assist them with their particular issue or possibly a lawyer, depending on the particular situation.

Although there haven't been many over the past half year, the most contentious calls I tend to receive revolve around allegations that a client surveyor has overcharged them or did not clearly indicate what costs would be involved from the outset of a project.

So, I am obligated to act in the public interest, as is our membership. and in doing so, I do my best to discharge that duty while keeping in mind the impracticalities— keeping in mind such impracticalities, such as unnecessary delays and inefficient approaches to resolving disputes. Many of the times I find myself acting somewhat as a mediator between surveyors and their clients and sometimes between one surveyor and another. And, with that said, understanding the several avenues of recourse available to the general public is certainly in the public's best interest. And so, I explain to members of the public the different options available to them.

For example, when dealing with fee disputes, I explain that a client would have the option of submitting a complaint to the Fees Mediation Committee, or even the Complaints Committee depending on the particular facts and the desired outcome of the situation. But common sense often drives me to the opinion that, in some instances, communications between surveyors and the client may have broken down entirely which is often why they end up on the phone with the Association in the end.

So, I often do recommend that as an initial step, I attempt to act as a third party and potentially mediate the issue at the outset to potentially resolve the issue in a potentially much shorter time, and save the stress of the client and the surveyor of going down that more formal channel. And that has often produced a more favourable outcome dealing with some of these issues, and I have been successful in this approach with many of these inquiries or concerns.

But there have been instances when the situation ultimately requires committee intervention, and also there have been instances where my involvement as a third party would be inappropriate. So, overall, you can see the numbers there. They only really represent the past half year, and over time I'm hoping that these statistics will allow us— will drive the Association to understand further where the risks may lie.

So, that's all I wanted to touch on in my presentation. If there's any questions, feel free to ask and, if not, thank you very much. Yes?

ADAM KASPRZAK: Sorry. Adam Kasprzak. Just a quick question. In your statistics for the membership, there was approximately 500 registered OLSs, is that correct?

KEVIN WAHBA: Yeah.

ADAM KASPRZAK: My question is how many of them— would you know how many are employed in the private sector, and how many in the sort of government sector?

KEVIN WAHBA: Yeah, I don't have that number on me at the moment, but I can definitely get that.

ADAM KASPRZAK: Any guesses?

KEVIN WAHBA: I'd prefer not to guess, to be honest.

ADAM KASPRZAK: Thank you.

KEVIN WAHBA: Yeah, approximately 20 percent, I'd say who are government employed.

ADAM KASPRZAK: Thank you.

KEVIN WAHBA: Okay. Thank you.

AL JERAJ: Thanks, Kevin. We're going to take a short break and we'll reconvene here at 10:30.

--- Break at 10:07 a.m. to 10:30 a.m.

AL JERAJ: Okay. Next up we're going to have a report from our SRD Manager, Tom Packowski. Okay. Tom's not right here now. We'll get Mike Thompson up from PSC. Mike Thompson, Chair of PSC.

PROFESSIONAL SURVEYORS CANADA PRESENTATION

MIKE THOMPSON: All right. Thank you very much for allowing me some time to address you today. I'm Michael Thompson, I'm the current Chair of Professional Surveyors Canada. And so, I know we probably want more time discussing the other items, so I'll go through this fairly quickly.

On recent years, we have expanded the number of directors that we have quite a bit. We currently have 14 out of 15 possible positions for directors. Here in Ontario, you have James Dorland representing you. Over the past year we have invited—or we're welcome to have James Tremblay from PEI and Dave Parkhill joining in.

I just wanted to put our mission statements up just so that everybody knows what PSC actually does. This is paraphrased, but you can see that we're communicating the importance of the cadastre, the purpose of the land surveyor to the public interest and communicating to government. But really, we are looking out for what is in the public interest. We act on behalf of surveyors, and surveyors are all mandated to work in the public interest. That's really where we fly.

The liability insurance program—of course not in Ontario—but we administer that in the provinces outside of Ontario and Quebec. Part of the communications we do for our members; detailed quarterly reports on everything that we've been up to that you'll hear about today. We have a monthly newsletter that comes out by e-mail. A number of position papers, the latest of which is S250, underground infrastructure

mapping. A number of them do have to do with underground infrastructure lately and those are available on our website.

We prepare briefing notes for Members of Parliament and Senators on legislation that we are advocating in the public interest. And then of course directly meeting with those government stakeholders.

For public relations—so, there's a bit of a typo here. The new campaign will be in spring 2020, but we do have a social media campaign that has been developed or targeted—targeted to the public, developed by marketing experts, the Madison Avenue guys, not by surveyors so that they can tell us when we're doing something that does not make sense. Campaigns generate over 50,000 visits to our website, and that's a—you know, it doesn't sound like a big number. The actual number of hits is, you know, a million, but 50,000 is the number of people that actually clicked on an ad and spent more than one minute on the PSC website. So, that's actually getting some sort of message across to 50,000 Canadians, unique users, so that's pretty amazing.

And these ads are available for all of the members' use. You can put them on your own website and just contact the PSC office. Helen is there. We have a number of white board videos. We have two that are currently up on our website and on our YouTube channel. One on making a smart home buying decision, another on how to subdivide your property with professional help. Very targeted, very much communicated to the public in delivering them in a manner that will resonate with them.

We have one more—in the next month we'll have one on title insurance that's coming out, and I'm kind of excited about that because it's a video where the surveyor isn't a white guy, you know, which we want to show diversity. But very much trying to communicate very specific points such as the fact that there's lenders and mortgagors' policies about; but look for that to come out in the next month here. And then another one on the books would be for right of entry. They're great videos. Please visit our website and take a look.

We've made some improvements to the website. We found that 70 percent of our traffic on the website was from mobile devices, so we've very much tuned the website to be mobile friendly.

We have new forms so that if you're—you know, after this speech when all of you go out, and you're like, "I need to sign up for membership right now and I need to pay." you can just put your credit card in online, the \$299, all ready to go for you. It's like the same price as pulling out your phone during the meeting.

And we are also working on updating our Set Your Boundaries website content for new CBEPs and foreign credential recognition items. One of our biggest advocacy items of recent years has been on underground infrastructure. Last year, we were

advocating that Bill C-69 be amended in two ways. One for the definition of ground disturbance and the second, for the definition of prescribed areas.

The problem with the prescribed areas is that this is an area outside of a surveyed right-of-way where no one has ever been consulted or compensated for infringement of their property rights and they're there being subject to various crossing agreements and what have you.

So, something not necessarily hitting the direct interest of the individual surveyor, but in the public interest. And we got right to the point where we were presented to the Senate Committee on these two items which is pretty great. You have surveyors getting recognized. The day after those reports came out, we actually had people calling us, like, from Cap saying, "Hey! What the heck are you guys doing? You know, well, we're working on what we sent you six months ago, and you didn't respond to." So, we're actually starting these conversations with other advocacy bodies so we can get our message out.

So, while the Senate recommendation for prescribed area did get thrown out at that level, but in the new regulations the prescribed area in, say, the power line regulation has now been adopted under the CER Act, does limit the prescribed area to the surveyed right-of-way. So, that's actually a better solution than what we had, so we did accomplish what we set out to do. It's pretty amazing— a lot of work from dedicated volunteers.

Also, you know, we're advocating for the requirement of as-built surveys of new underground installations. We have three short videos that are up on our website also for use by our members. So, for mapping underground utilities, the buried depth of utilities being that we want things to be buried at least by the ground disturbance standard. And then also for buffer distances from boundaries. I hear that in Ontario that maybe, kind of, sort of utilities along the property line might be a problem, and also in other parts of the country.

I think I missed a slide there. Well, anyway, I think the slide I may have accidentally missed here is just saying, our three positions are published for PSC on buried infrastructure. Basically, buried depth needs to be at least what the ground disturbance standard is for the jurisdiction. If you're going to put something in the ground, you need to survey where it is. And if you're going to put something in the ground, you need an agreement or an easement to put that in the ground. Which, for some surveyors, sounds kind of crazy that you're putting something in the ground without having an agreement with the landowner, but especially on First Nations land it can be a problem.

Direct advocacy. We saw the MOU that was signed here today between the provinces. We're doing a similar thing to work with our sister associations in other countries. It's been with NSPS in the United States since 2014, just last year with Spain and currently working on one with Consulting Surveyors National of

Australia. The problems that we face in Canada, have been faced before by other jurisdictions, so by cementing these relationships we can look at what the other solutions are, and better approach these problems ourselves with very little cost just by open communication.

The National Surveyors Conference 2019 was last year in May. We had the Evolving Boundaries of Practice workshop amongst a number of other great seminars. I encourage everyone to take a look at going to Mount Tremblant for the joint ACLS and PSC meeting in May of this year.

Two main things for PSC came out of the five recommendations of the Evolving Boundaries of Practice workshop. Number one was to work with the Position Navigation Timing Board on nation-wide real-time networks. The second is to work on a national strategy for communication for surveyors across the country, which we are certainly high on our agenda of what we want to accomplish.

P.Surv. The current iteration of getting the P.Surv trademark has been over a year. We expected to have it by now. It's been somewhat delayed by the U.S. MCA and the trademark office just being backed up by the requirements of those agreements. And so, when we do have this, all PSC members will be able to use our unified brand of P.Surv. And branding is important, because without a brand, you don't have recognition. Without recognition, no one knows what we do. And P.Surv, being likened to P.Eng., the public will resonate with that. This is what we've got from our marketing experts.

So, the road ahead. Like I said, take a look at the Mount Tremblant conference in May. It will be a great conference and great venue. We're going to continue to work for a better legislation for underground infrastructure. After this meeting, I think that that's going to involve looking more at the land surveyors' involvement and reports and the CSA standards for underground infrastructure. Formalizing, like, the P.Surv sub-licensing agreement with legislated bodies, kind of like the P.Eng. agreement with Engineers Canada, so that all of our members can use that unified brand. And continue to making more content; so, if we have content, then it's in our bank and we can use it when we're advocating for public interest on future issues and of course increasing our revenue so we can do more.

Please consider getting involved. I've warned our office that we're going to have a huge influx of Ontario Land Surveyors trying to sign up, so they are prepared for when you call. And I know that not every employer is going to check that box for the PSC fees when you're renewing your AOLS dues. But this— like what we do is— you know, Darrel Pink said, we have to answer this question of self-interest and how do we get around self-interest. That must be answered. And we've had this answer for quite a while, that's what we do when there's a conflict of interest.

We fill that gap. Just like doctors need to— you know, doctors make money off of vaccinations, but the College of Physicians isn't going to be advocating for

immunizations. That's going to be the medical association. Just like them, the same for— you know, with the prescribed area, that's not directly helping surveyors even though there's a perceived conflict of interest. But we fill that gap. We have no problem being that perceived conflict of interest. That's really, in professional governance, the position we hold.

Talk to me. Talk to James if you want to get involved. We have limited resources, but volunteers are definitely our best resources. The more volunteers we have, the more we can do. And if we have questions, that's wonderful. I don't— we might be time restricted. We'll let Brian decide that. But certainly, I'm around. Find me after the meeting. I'm happy to talk to anyone here about our initiatives. Thank you.

AL JERAJ: Thanks, Mike. I think as the Association starts to focus more on regulatory activities, I think PSC is going to play an even greater role in our profession. Next up we're going to have Tom Packowski to give his report on Surveyor Review.

SURVEY REVIEW DEPARTMENT MANAGER'S PRESENTATION

TOM PACKOWSKI: Thank you, Al. One of the good things about being later on in the presentation is that I get to be able to see how the other presenters did their work, and I'm in harmony with the Surveyor General. I have no slides.

Andrew and Andy did a good job of saying what the SRD does, and also what the CEC does, so I'll try and keep my points that I have to a minimum.

The Survey Review Department operates under the Inspection Program of the Surveyors Act. Our Regulation 1026, Section 40. The department is totally funded by sales of the submission plan stickers. The sticker price has remained the same since 2012. That was mentioned to you earlier by one of the other speakers in spite of the rising salaries and other increasing costs. The average number of stickers over five years from 2013 to 2017 was about 35,900 stickers. In 2019, sticker sales were 37,070 and the sales were down to 35,450. That's down just under four and a half percent from the 2018 sales.

And the loss in revenue combined with an increase in the amount of expenses resulted in the department running what would have been considered a deficit, except for we drew from the deferred revenues. This is not a sustainable position for the department to maintain. The department began the year with 71 files open. We added 36, which was less than normal— but that was a deliberate choice on my part— and we closed the year at 30. So, we got through quite a number of files this year, and what we found is that if we don't close files, we don't spend money. If we do close files, we do spend money.

I'm still committed to the contract that I have with the Association, and that is to get the department caught up. My intention is that you should be able to expect a

Comprehensive Review to be committed— or completed, I should say, within a 12-year period— a 12-month period. Yeah, yeah. And so— well, we're down to about a year and a half, so we're making progress. So, about a 12-month period. That seems a reasonable thing to do.

What we've done in the fall and the winter of this year is we put out a call for consultants. We got a very gratifying response, and we did select three consultants. I'm not at liberty to say who they are simply because we don't have contracts signed with them and so it wouldn't be proper. It takes money and time to train the consultants, but I think that the department will be well served going ahead. We're expecting a larger than average number of files to be opened in 2020, and a larger number even still in 2021. That's the year that I'm scheduled to leave. My bet is that I get out the door before Brian does.

So, we're on track to try to get to that 12-month process, but it will take more money. We can continue to draw down from our deferred revenue. I think as businesspeople, you can see that that's not really a practical choice, but it is an option.

As the Manager of the SRD and also the Chair of the Continuing Education Committee, I do have a chance to be able to look at things from what does the membership need as far as educational opportunities go. The clear things that came out of the statistical review that the department conducted over the last five years of Comprehensive Reviews was an increased understanding of what your obligations are under the regulations, and also in view of the different court cases about documenting your research. That became readily apparent to us.

I thought that the presentation yesterday by Anne Cole and Izaak de Rijcke did a great job of spelling out your obligations, and I hope that many, many of you did take the time to take that course.

Some of the other things that we do from a statistical point of view is the Systematics. Over the past four years, the number of Systematic Reviews of the individual reference plans that we did, ranged from 250 in 2016, up to 300 in 2019. I'm happy to say that the most common problems that were uncovered with the Systematic Reviews were decreasing over time. Integration was at 40 percent in 2016, and integration errors in 2019 were down to 14 percent. So, it seems to me that education is working, but a little more work is needed.

There's kind of a general catch-all, a thing called minor comments. And minor comments in 2016 were 45 percent, down to 20 percent in 2019. One of the persistent things that did remain from the Systematic Reviews was method of survey and evidence used.

This is really the core of what it is that you do. So, it's disappointing to see that that statistic remained constant at about seven percent. In other words, there was— as far

as the individual checking the reference plan, it wasn't obvious from the information put on the plan, that there was adequate evidence or that the method that was chosen was probably not right.

We couldn't conclude that it was wrong. If we did, we would have had an obligation to report that to the Registrar. It just didn't appear that there was sufficient evidence for us to make a conclusion and is it your responsibility to make sure that your method of survey is clearly outlined and is supported by the regulations and the statutes.

The department has completed its initial review of the Practice Manual so that the actual day-to-day practices of the department coincide with the manual. Any changes that we make to enable us to conduct reviews in an efficient manner without affecting the integrity of the reviews themselves will be considered.

Any changes that the department wants to make to the manual will be approved by the Survey Review Department Committee. I'm not sure if I saw the SRD Committee up on the list of committees, but that's the committee that acts in your interests. That's the committee that makes sure that we are doing our job properly. That's the committee that reports to Council about the activities of the SRD. The SRD is separate from the day-to-day operations of the Association. Yes, we occupy the same building, but we try to maintain an arm's length so that we don't run into any conflicts because we're such a small organization.

The one thing that the SRD Committee asked me to ask you to do is, if you've had a Comprehensive Review, please take the time to go through the Survey Monkey that is available for that. That's where they get feedback on what it is that we're doing right or wrong, and it's really your way of saying how we're doing.

We do get anecdotal stuff; we get comments in the hallways about a consultant being particularly good or being a little abrasive. I hear those things. I take them to heart, but your way of communicating with us is actually through the SRD Committee and that would be the preferred way that I would like to see you do that.

As stated last year, the SRD Committee is an integral component of the peer review process. They protect the public interest first and foremost, but they do work on behalf of you.

Please remember that we are educational first and foremost, and that the office visits should be viewed as kind of a custom-made seminar for you and your staff dealing with the practices of your particular office.

As we travel about the province, we see a wide range of practices and the different ways the offices are run; how they're organized. And what we try to do is we try to make sure that the practices are universal as far as they're adherence to the regulations. But we also try to give you tips about the way we think that you can run

your office in order to avoid conflicts such as inadequate research, or communication issues with your clients and your staff.

I thought that the seminar put on by Julia yesterday about communication was excellent— really heartfelt. I felt like getting up and saying, “Amen” a couple of times, but that would disrupt the process, so I kept my comments to myself. But another really good seminar that was borne out of the evidence that the department picks up through the Comprehensive Reviews.

It is your obligation to make sure that your communications are with your clients, so that your client understands what's going on. It really is the measure of you as a professional as far as the department is concerned. Your ability to communicate with your clients about the project, how the project is going, what it is that you're doing as far as the needs that they have, are an important part of your professional practice.

One of the initiatives that the SRD Committee has asked us to undertake is a Comprehensive Review of the C of Rs. I have had conversations with some of the membership this weekend about how we're going to do that, and I'm looking at probably— possibly putting a task force together. My boss doesn't know this yet, so this is news to everybody, putting a task force together that will outline what the process is for reviewing C of Rs so that we can come up with a process that's going to be fair and, again, is going to serve the public and also provide the C of Rs value for belonging to the profession.

The last comment that I'm going to make this morning deals with something that the Executive Director brought up in his presentation to you— and brought up quite forcefully, as far as I'm concerned— and that is the construction layout. I think it does not look good on the regulator if the biggest source of problems is not being reviewed. And so, the SRD Committee has asked the department to initiate reviews of the construction projects, and we intend to go forward with that.

That's the state of the department. My actual report was written out, and I'm sure that you all read it, and have picked up on a number of errors that I made as I was reading it, and talking to you at the same time. So, if there are any questions or any clarification that you'd like to have, please step up to the microphone and I'd be happy to answer them. Thank you very much.

AL JERAJ: Thank you, Tom. To all of our speakers this morning, the Association has made a contribution in your names to the Erin Mills Youth Centre.

Before we get started with Open Forum, I'd like to report on the winners of the photo challenge that was hosted by the Archival and Historical Committee. There were ten entries and 237 votes cast for the challenge. The winner received a hundred-dollar gift card from Henry's Photoshop, compliments of Doug Culbert Surveying, and it was quite a response.

So, third-place winner was Nathan Lukes. The second-place winner was Kathy Kujala. And the winner of the 2020 photo challenge was Nathan Lukes with his photo “The Chickadee”. So, great job. The challenge for the 2021 photo contest is posted and the details will be circulated in In Sight.

So, we will continue with part two of the Open Forum. As mentioned earlier, all motions must be in writing, and voting will be by a show of hands. You may speak to any topic you wish at any time except that once a motion has been presented, I will limit discussion of the topic to the motion. If the motion presented fails to receive a seconder, it will be dropped from the discussion.

I remind you that the proceedings are being recorded and if you wish to speak, you are to proceed to the microphone on the floor and give your name and town or affiliation. The Open Forum will end at 11:45 to allow us some time to have a few more presentations during the business session. The floor is open.

OPEN FORUM – PART 2

JEFF BUISMAN: Jeff Buisman from Guelph. Not a motion, just a request to consider for Council is opening up a deferring monumentation. I know it was looked at quite some time ago and it kind of stalled because it was so complex and not a good answer came out for it.

We're finding out developer clients are almost angry at us for putting bars in the ground because the machines get flat tires, they're in the way. So, not only is it a complaint of just wasted money because the bars go in the ground and they're just removed within 24 hours, but it's also even the disruption to the site and the chaos of the site.

So, I'd ask the Council to consider that as reopening that probably by starting and looking at the last report of the deferred monumentation task force and so that it starts from there and move forward with some options to consider. Thanks.

AL JERAJ: Thanks, Jeff. Adam?

ADAM KASPRZAK: Adam Kasprzak. And I have a motion to present I'd like to speak about. Is there some way that can go on the board?

BRIAN MALONEY: Yeah, we'll get it up. Carry on, there.

AL JERAJ: Okay, Adam, we're going to work to get your motion put up on the screen for everyone to read. In the meantime, we can move on to another speaker if they wish to approach the mic. All right.

ANDREW MANTHA: We must be doing a really good job.

AL JERAJ: We are doing a good job, no one has any...

ANDREW MANTHA: That's right.

AL JERAJ: It must be me. Jaime.

JAIME GELBLOOM: Jaime Gelbloom, Mississauga. Actually, I wanted to— I should have asked while Tom was up there. Wherever Tom is? Tom is right there. He made a comment that it cost more to close a file than to open one or keep one open. Can he clarify on that?

TOM PACKOWSKI: One of the first things I did when I sat back down is, I asked my companion sitting at the table there with me if whether my talk actually made sense. Evidently not. He was much too polite, he said, “No, no, it was good.”

Anyways, what I was attempting to say, Jaime, is that if we don't do anything, we don't spend any money. If we close files, we spend money. There's an interesting statistic that if you track your way through the minutes of the AGMs, you can see that at one point the deferred revenue goes way, way up and I said to the boss, “How did that happen?” And he said, “Simple, you didn't spend any money.”

So, that's what I was attempting to say; that if we close files— like, this year we closed about 72 files and, as a consequence, the associated consultant costs and the disbursements eat into the budget, eat into the revenue that we have and, hence, we ended up going into deferred revenue.

And we do expect that with more files coming up next year and new consultants to be trained, I think that the estimate of the anticipated shortfall in revenue is probably close. I hope that answered the question.

TRAVIS HARTWICK: Travis Hartwick from Pakenham. I'm just wondering about the agenda item of the fees for the field notes, that task force report. From our Open Forum on Wednesday, it was indicated that we were going to speak about that today. I think it is an agenda item.

TREVOR MCNEIL: Travis, as Chair, I did sort of briefly touch on it as part of the Professional Commissions Report. Where it sits right now, we did the— I'll just go over it really quick here. We did the statistical analysis based on the 2017 Survey Monkey.

We sent a recommendation to Council based on two price options. One of which was just a straight you want a one-shot survey information on a plan and notes, and this is the cost, and we had a range established there. And we also addressed the issue of say you need— you're working on a highway and you need 60 properties or something, and then there was an hourly rate for searches.

We've incorporated that in with the 2007-02, I think— by-law which required— which said what you can and can't— it outlined what a fair cost was when processing this. And the whole thing about this thing is— it drives me crazy, is that I hate having to write standards for things that should be obvious to us all. Right? We're adults here in this room. And when you signed on as an Ontario Land Surveyor— you know, like Peter Parker in Spiderman; with great power, comes great responsibility.

Well, you've been given the right to be a land surveyor and have a monopoly, per se, over that profession in Ontario. But right on when you signed in, you can't pick and choose what your rights are, and one of which was that you, A, you've got to keep field notes and, B, you've got to exchange them in compliance with the by-laws.

So, you know, that works great on paper, but we always seem to be, you know, preparing legislation and standards and by-laws not for the general members, but for the two, three, four percent of members. I mean, if we all acted responsibly and if we could all just get together like a big Coke commercial from the '60s— Kumbaya— then we wouldn't have this issue.

But, anyways, where it sits now is that we have gone back. Council and the Surveyor General asked us to kind of define a better idea of what the true costs are for notes. Like, we know what the average fee is across the province from the Survey Monkey; but there's fee and there's cost, so we wanted to see how that works out.

We have sent out an RFP to get an independent body to look at that. That doesn't seem to be going anywhere. We haven't got a response yet, but we're really just at the point— like, this is new, so I can't say that we haven't got a body who will look at that for us, but this is something that this Council commits that will be resolved this year. Travis did that— okay. Thank you.

AL JERAJ: Okay. We have a motion on the floor moved by Adam Kasprzak, seconded by André Barrette. I'll read the motion: Whereas there are considerable issues with the current proposed regulation to implement the PSRI, it is proposed to suspend further implementation of the said PSRI regulation for a minimum of one year.

Be it resolved that AOLS Council obtain and carry out a study by an outside consulting firm and provide clarity on the financial and economic effects of PSRI on various companies throughout the province.

Be it further resolved that AOLS Council obtain legal opinion from a qualified law firm regarding the legality and appropriateness of voting being open to all AOLS members when clearly only the C of A holders are being affected by the proposed implementation of the said index.

Be it further resolved that AOLS Council obtain legal opinion from a qualified law firm regarding the legality and appropriateness of the PSRI proposed regulation forcibly removing the curtain of confidentiality and privacy to business records. The motion is open for discussion.

ADAM KASPRZAK: I'll just make a few comments on my motion that I'd like to put forward in front of the membership. I feel that this is a real game-changer for all the private practitioners in this province. Implementing this index will change the whole nature of our businesses. And I'd really like to see a bit of a slow down to the process and have an outside body carefully and clearly review what it's going to mean to our businesses in the future.

Okay. I feel that the whole implementation of this index did not receive a lot of debate. There were some presentations that were made on the sort of regional group level, but they were very short, and they were more sort of presentations rather than debate. A comparison that I would like to make, is when there was this movement put forward this ODCC some years ago, there was a lot of sort of meetings and I think there was— if I recall— one day was dedicated to a debate over at the York University, but no such thing happened with this by-law, with this regulation for an index.

I feel really strongly that this index will really change the way we carry out our business. I feel that my index is basically my index and nobody else's. It is the skeleton of my company that everything else hangs from; and if I show that index openly to the market, I am giving up my company, and I'm not about to do that. And I feel that many others feel the same.

I feel that the voting that took place regarding this implementation of the index was just totally wrong and not justified. It was open to all members. It only passed— even at that, it only passed by a vote or two. But having said that, only the C of A holders or shareholders in companies should have had a vote of supporting, or not supporting this index.

There were also problems in terms of opening up to confidentiality. I feel that I have no right to see the records of my competition at will. It tends to be very— like, there is such thing as competition out there, and if I open up my index, I'm basically becoming a quasi-government agency, that here I am, these are my records. Come and get them. Anybody else would like to speak on this?

BRIAN MALONEY: I've got a quick response— and this is not with my Executive Director hat on. This is with my kind of project lead hat on. As many of you may know, I was hired as a contractor by Council to actually do the implementation of it and acted as Chair of the committee as a result of that.

So, a couple of things I'd like to remind the members of. This is not something that happened in the last two years. This is something that's been ongoing now for about

five years. We did send out a Survey Monkey to the membership when we originally started this and asked how many people were in favour of it. That Survey Monkey was separated in two pieces; we had C of A holders. We asked people to declare whether they were a C of A holder or not. And the first one, I think we received 87 percent in favour of proceeding with the mandatory PSRI.

And when we looked at numbers between C of A and regular members, or employed members, they were very close to the same numbers. There was not a statistically significant difference. We went back out with another Survey Monkey about three years ago and, at that time, we were starting to get a better understanding of the costs. And we went out and we let the members know the costs, and we still had a majority of members that were in favour of proceeding.

I know I personally attended most regional groups. We've done two webinars on this thing, and I think we've been pretty open and forthcoming about it. In terms of the legal opinion, about only C of A members voting, we've had this issue raised in many different contexts. The Act does not permit that to happen. We would have to change the Act. The Act allows all members to vote and there's nothing we can do about that. I don't need a lawyer's opinion to tell me that because it's very clearly in black and white in the Act and I'll leave it at that.

AL JERAJ: Joe?

JOSEPH YOUNG: Joseph Young, Thornhill, Ontario, Canada. Middle name Russell. I can't speak to the skeletons in his practice, but I'd like to speak to the motion at hand. I'd like to speak against it, and I'll start off by commenting on Andy's comment about we have radioactive blood. I don't think that's the case in my particular situation. I have something wrong with my blood after being up too late with Brian last night, but we'll carry on.

As I said, I'd like to speak against this motion. I think there's been ample seminars, webinars, meetings, explanation. I disagree with the second— the third— the second, further resolve that this is somehow unveiling a curtain of confidentiality. It's just an index to say you did a survey on this property. It has nothing to do with your business practices. I don't believe there's any nefarious plot in the background where iLookabout or Teranet is going to take over the world and run us all out of business.

This is a simple protection of the public where members across the province— and not just our firm, but many firms travel now of all sizes. This is a better opportunity for them to quickly see and find surveys. You don't have to put your plans in. You don't have to put anything else in, and it should be— we should carry on and implement it. Thank you.

AL JERAJ: Thank you, Joe.

JEFF BUISMAN: Jeff Buisman, Guelph. I'd like to echo that I speak against this motion. I don't see how one is revealing their own company. It's not like you're identifying all the surveys done by my company. That's impossible. Because only you're doing is looking for the survey of a specific property. It would be no different than looking for survey plans out of the Registry Office.

I agree that there's been ample opportunity for presentation and strength for it. We heard very strongly with Sue MacGregor— the importance of good research. We heard again yesterday with Izaak and Anne's presentation about good research on title searching. The only way to make really good research happen is to have an index that's available and easy to use. We want to make sure every surveyor out there can find what they want.

If I ever come across a situation where I missed an abutting property, I'm embarrassed because I should have found it and sometimes you can't find it because it's just not around. But this index will only help to be able to find it. And I even just used the index a month ago, and I found some surveys I just did not expect from a company. I am not an expert in that geographic area, and I was thankful to make use of it. So, I'm all for the PSRI.

AL JERAJ: Thank you, Jeff. Eric?

ERIC ANSELL: Eric Ansell, Peterborough. As parliamentarian, I would like to suggest to the mover and the seconder a friendly change to the motion in that they ask that Council consider these options, not direct them to do it. Because at this meeting, we can't direct Council to do something, but we can direct Council to consider it.

ADAM KASPRZAK: Of course, I agree to that.

AL JERAJ: How about your seconder? Would your seconder agree to those changes?

NORM SUTHERLAND: Norm Sutherland, Petrolia. I think I've been out of the country too long because I had trouble figuring out what these four letters meant. Maybe I voted, maybe I wasn't here. But I made the suggestion last year and I'll make it again that when presentations are made, that the acronyms are spelled out. We have 29 committees, and when you see the letters, you can't tell what they are.

But in a lot of the papers in the last couple of days, as I say, acronyms and it's not even spelled out at the first paragraph. So, I'd make that request again. Maybe I'm getting too old to remember all these.

AL JERAJ: Thanks, Norm. Just for clarity, PSRI is province— Provincial Survey Records Index.

DAVE WYLIE: Dave Wylie, Ottawa. While I have opinions about the PSRI, I'll keep those to myself right now. But I do have an opinion about having a distinction between the C of A and general membership. While the C of A do have financial interest in this— and perhaps that's put a bit of a bias on it, the general membership as a whole is responsible for maintaining the public interest, and so therefore I don't think there should be any separation between the rights of general membership and a C of A on voting on something like this.

AL JERAJ: Thank you, Dave. If there's no one else, I'm going to call the question. All those in favour of this motion? Sorry, as amended I call this motion. Sorry, all those in favour of this motion as amended.

SUSAN MACGREGOR: You need to read it.

AL JERAJ: Okay. I'm going to read it again just so we're all clear. Moved by Adam Kasprzak, seconded by André Barrette:

Whereas there are considerable issues with the current proposed regulations to implement the PSRI, it is proposed to suspend further implementation of the said PSRI regulation for a minimum of one year.

Be it resolved that Council consider obtaining and carrying out a study by an outside consulting firm and provide clarity on the financial and economic effects of the PSRI on various companies throughout the province.

Be it further resolved that AOLS Council consider obtaining a legal opinion from a qualified law firm regarding the legality and appropriateness of voting being open to all AOLS members when clearly only the C of A holders are being affected by the proposed implementation of the said index.

Be it further resolved that the AOLS Council consider obtaining a legal opinion from a qualified law firm regarding legality and appropriateness of the PSRI proposed regulation forcibly removing the curtain of confidentiality and privacy to business records.

All those in favour? All those against? The motion is defeated. Any abstained? The motion is still defeated.

JAIME GELBLOOM: Jaime Gelbloom, Mississauga. I don't really have a lot of questions throughout the past years— you may think I have— but then something hit me just after that vote. Why do we say the Council consider? Why can't we— do you guys consider when we ask you to consider? Like, I mean, do you guys sit down and say, can I get that passed? Okay. Let's consider it. And then everybody says forget it, and then it's been considered and that's it. Like, do you guys actually consider it?

AL JERAJ: We actually, a hundred percent, do consider everything that coming up.

JAIME GELBLOOM: Okay. So, if you consider it, why the hell do we have to say consider it? Why can't we just make a vote and say, no, you should do it? What's wrong with that? I'm not— I apologize for not understanding the wordings of the Act.

BRIAN MALONEY: Okay. I think it's a number of things that play into this. But at the end of the day, Council actually has the authority to make the decision. So, if you were to say Council go do this, then it takes them out of that decision-making link. The fact is—

JAIME GELBLOOM: Well, it's not like everybody is going to be here. And now that we know that whatever we ask you to do on a vote, we're going to have you do it, we get maybe one or two motions, and most of them are just very minor issues.

BRIAN MALONEY: But if the motion says do it, and everyone— let's assume it passes, then it's still not necessarily there. You've taken Council's decision-making discretion away. And, in fact, the way the Act is structured, and from a business perspective, under the Corporations Act which we operate partially, Council actually is the decision-making body. And so that's the reason that we've always taken that approach from a parliamentary perspective saying, "Please consider it." And I can ensure you that Council does consider it.

JAIME GELBLOOM: So, really you don't have to consider anything that we— any motion? In reality you don't have to.

BRIAN MALONEY: Well, no, we absolutely have to consider it. But then we don't have to act on it. When I say we— I'm not part of Council, but I'm just explaining.

JAIME GELBLOOM: Okay, that sounds kind of weird.

AL JERAJ: But it speaks to the demographic process of electing Councilors. So, you, as the membership, are electing the people you want to represent you. So, Council absolutely considers it based on the input of the membership. It definitely influences our decisions.

So, as I've said before many, many times, you really have the power of influencing the direction the Association moves in. So, be vocal. Participate in your regional group meetings. Read the material that's coming out, so when you're going out to your regional groups, you guys can be prepared to have, you know, meaningful discussions about the things that we're proposing back to you. Absolutely. We consider everything that comes to our table.

HELMUT PILLER: Helmut Piller, Toronto. I'm going back again to our first morning presentation on the regulatory functions, and then I also took into

consideration what Brian brought up again risk management. And the errors I believe that are made in the field on construction sites are not necessarily our personal ones, but are those of the people that we employ, whether we give them the right direction and instructions, whether they fully understand, or not or are qualified.

I've spoken to many of my colleagues here and just about everybody has a problem recruiting people, training them, and maintaining them. Now, we are using very sophisticated equipment which leads the people out there to rely on, and if that data collector spits out a certain number, and they believe that whether it's the right one or not, we don't know until we check all through the raw data file which they can bring from the field, which is, again, a tedious task to do.

I know this Association has considered at various times whether we can or whether we should implement a training process or information educational process for our staff. Maybe it has to be separated out. I don't think any in this room would remember that once upon a time we had Association— well, we had, what was it— survey technicians. And so, I do think we have to take into consideration, to give proper training to people, and recruitment, and I don't know why we cannot recruit people, why our colleges cannot, and what greater role we can play.

But I think this is a starting point where we can begin. I can give the best instructions to the people. I can give them the best equipment. And it still depends on how well they are informed and trained, and I think that's part of our risk management then.

TOM PACKOWSKI: I'll take a moment to answer that question. Tom Packowski, Chair of the Continuing Education Committee.

This year the CEC has embarked on a training program for party chiefs. We've contacted a subject expert and we have directed him to put a program together for a presentation in the Fall. So, we are going to do that.

The second point I want to make is, that we share this responsibility of training staff with you. It's really in your best interest to have training programs. And I know many of the firms do that— particularly on a rainy day, they don't send the staff home when they could. They could— to reduce wages if they did that, but no, what they do is, they get the staff to come in, and they have a training program that management has put together, and they implement that training program on an opportunity basis.

I applaud the firms that do that, and I also recognize that it's at great expense that you're going to do that. If you're a small firm, I recognize that it is expensive, but nevertheless, the management of the individual firms does bear the brunt of the responsibility for training their staff and training their staff the way management wants the work to be done.

The third thing I want to say is, back to the Association point of view, and that is, that this is a really good profession to belong to, and we've done wage studies that indicate that the wages that are paid, for the most part, are really quite good. We don't pay minimum wage for even people who walk-in off of the street, and that's more anecdotal than from my own previous firm than any statistical studies I have.

But I think that would be backed up, that we recognize that the staff that we have out in the field, doing the necessary work that we need to have done in order to be able to provide a professional opinion, does get done by the staff we hire. Does that help answer the question, Helmut?

HELMUT PILLER: Yes.

BRIAN MALONEY: I'd like to add one thing, and that is Council has directed me to put out an online survey or Survey Monkey, whatever you want to call it, on technical wages so that we actually have some statistics around there that we can put up on our website to try to help attract people into this career. I know I spoke to somebody from Nova Scotia this morning from COGS. They're having trouble recruiting students. I know Loyalist, I think, had six people in their program. Like, we're not attracting folks into the technical programs that we've got, and we've got very few of them.

And so, anyways, we will be doing that Survey Monkey. You'll see it coming out in the next month or so.

TOM KRCMAR: Good morning, everyone. Tom Krcmar, Thornhill. So, I'd like the Council to consider that as we look for qualified land surveyors in Ontario, that a few years ago my brother wanted a consideration towards Gord Wallace to be named an Ontario Land Surveyor because of amount of experience and knowledge that he has towards being a land surveyor, and I wonder— I think it was three years ago he asked that— has anything been done and, if not, please consider it again. We are looking for good land surveyors. We are at 503. We need more. And Gord Wallace is an excellent land surveyor with great knowledge of surveying. So, I'd ask the Council to consider it. That's one.

So, my next topic is field notes. I remember when I was young in the '90s, I had to go to Speight van Nostrand to do research to get some field notes and some plans and I remember having to drive to their office. I had to get that book out, figure out where they were, drive to their office, figure out, go inside, talk to them, start looking through their records, finding their records, trying to understand what it was and go through their filing. Finally, I find what I'm looking for, finally photocopy what it was, go back, say, "Oh, I missed something." go back, go look again and I paid somewhere about \$120 plus GST at that time.

I'm right now charging something like \$150. That was 30 years ago, guys. How is it possible that we are looking at field notes as an expensive piece from surveyors like

me, that I suppose you're talking about in the three or four percent? I don't understand it.

In the '90s, that was the game, and no one complained. And now, all of a sudden, why. And now it's even better because I have things scanned from 1800s in there. I have field notes. I have plans from 1800s. I spent a ton of money to do that so that everybody has easy access to all of our plans. You press a button. It's in your office that day.

And all of a sudden, now we want to have a task force to figure out if it's too expensive. I don't get it. You know, back in the '90s, an SRPR cost \$1,200. Now, an SRPR still cost \$1,200. I don't get it. I think that it should be more. 30 years. I know that it seems like the '90s were just around the corner, but it was 30 years ago. We should be pricing our surveys SRPRs at three to \$4,000, and if clients can't understand that, they don't understand it.

But field notes cost. We scanned it, we have it in our records, we've kept them. We've made it clear and easy with websites, that we make it, so that someone was talking about cyber warfare and malpractice— taking over websites and black hackers. We make sure that we hire the right people and do the right thing so that it never gets hacked— so that everybody has access to it.

And I don't hear a 'thank you' when I have these things up from 1800s that would never have been put up.

Instead, we're getting, "Wow, you're charging too much." I don't get it. So, I hope in that your resolution that you guarantee for this year that you come to talk to us about the costs that we have done and the ample effort that we put together so that everybody has these records as you have said is so important for evidence. Thank you.

AL JERAJ: Thank you, Tom.

HUGH COUTTS: Hugh Coutts, Renfrew. I'd like to speak to the idea of recruiting people for field staff. When I had my own practice in Oshawa, I actively went out and recruited people that I thought would be a good addition to my firm. And part of the way that I did it was, I went to the local high schools and I got co-op students to come in. It's free labour. You know, if you get somebody that's interested in working outdoors, you know what, there's absolutely no cost for you to do it.

And three of the five young people that I took on stayed with the industry, and they became very valuable employees. As a matter of fact, when they finished their co-op, I hired them on a full-time basis. But I got four months of free labour, and I was able to then assess whether or not they were going to be any good or not. And I think that that's something that's really being missed by the members of the Association.

If you're not reaching out to high schools and saying you're willing to take on co-op students, then you're really missing a valuable source of prospective employees. There are people out there— and I've said it more than once— surveying in Ontario is one of the best-kept secrets that we have. There are so many people who haven't got a clue about surveying, what it is, what it does. They don't understand the value of surveying. They don't understand the fact that you can make a really good living as a surveyor. And, as a matter of fact, young people can make a pretty decent living as technical staff.

And I think that we need to be doing a better job, and I would highly recommend to everyone go to the high schools, recruit co-op students.

AL JERAJ: Thank you, Hugh.

JAMIE KRCCMAR: Jamie Krccmar, Thornhill. Articling student. So, as a precursor, when my dad said, black hacker, he meant black-hat hacker which are the bad guys. And then there's the white-hat hackers which basically look into your vulnerabilities and secure your website against those guys.

So, to go on about education, I think that the main restriction— as somebody who went through the geomatics engineering program— is that, there isn't enough coordination between the professional aspects, like the laws and the actual field. Right. Because everybody is trying to become, you know— like, trying to become an OLS. But, I mean, in all my four years of geomatics, I didn't see one survey plan. I didn't put together one survey plan. I mean, I put together a topo maybe, but it wasn't really, you know, Ontario's— you know, like an SRPR.

So, I think my recommendation as somebody who went through the program is to maybe suggest to York's staff to maybe include more of the practical aspects of field, and then guide it up towards, you know, the professional aspects of becoming an OLS so that those two together, you know, we could provide more knowledge and they could be useful in the field and in the office. All right.

AL JERAJ: Thank you. Thank you for your insights and thank you for contributing to this meeting, Jamie?

JAMES FERGUSON: Yeah. James Ferguson, Ottawa, CofR 64. First, I'd like to say thank you for a well-run and engaging meeting this year. I have two brief points, neither of which are complaints.

The first is, you know, Andy had alluded to the work of the task forces and the committees and so on. With the Expanded Profession Task Force, the embers have been glowing, they have not gone out, and this year you'll see some more fuel added to that fire. So, stay tuned for that. We'll be looking for support from the full membership on that.

And then the second one is in the spirit of getting together and having meetings and learning and so on, the 25th Annual Geodetic Picnic will take place on September 25th appropriately at Isaiah Tubbs Resort in Prince Edward County near Picton and it will be a one-and-a-half-day event. We're hoping to have a car rally on the Thursday afternoon, the 24th. And with that, no gadgets; you're going to have to learn how to use your map again; a compass, your odometer and rates and descriptions.

So, hope to see you there and learn some stuff too. Thanks.

AL JERAJ: Thanks for that. Kevin?

KEVIN LOMBARD: Kevin Lombard from Nova Scotia. I wear two hats today; one, I represent our Association, but I'm also an instructor at the Centre of Geographic Sciences in Lawrencetown. And from the comments I'm hearing here about education, we're seeing that in Nova Scotia as well.

So, if anybody has any comments on what you're looking for staff, be it survey assistants or technicians or suggestions, I am willing to put my COGS hat on and I am more than happy to listen to anybody and get as many ideas as I can because this is a nation-wide problem.

AL JERAJ: Thank you.

JAMES DORLAND: James Dorland, Sudbury. Chair of the Legislation Regulation Task Force. I would like to express my thanks to any individual member who has the initiative to speak about something they believe in that affects the Association, and I'd like to say out loud that I have a thick skin and I welcome any dialogue. And if anybody wants to talk to me about any of this stuff, I'm asking you to do so because I think this is part of a skill that we have to develop, and I wish to express that I'm committed to do so and open to discussion.

AL JERAJ: Thank you. Maureen.

MAUREEN MOUNTJOY: I can't reach the mic here. Maureen Mountjoy, Brampton. On behalf of the Educational Foundation, I just wanted to thank everyone who purchased tickets at the Welcoming Party for the Exhibitor Draw which went towards the foundation. At our Annual Meeting of Members yesterday, I brought many thank you letters from the students who have received awards, and not only were they grateful for the financial support, but they felt the recognition for their academic, you know, efforts was really well received on their part.

So, thank you to all the members who support the foundation and the member companies. And if you'd like to make more donations this year, I know the students will really appreciate it. As was mentioned, 19 of our current articling students are award winners, so we really are attracting the best and the brightest. Thanks.

AL JERAJ: Thanks, Maureen. Just so everyone knows, at the Exhibitors' draw at the Welcoming Party, we raised \$3,435 for the Educational Foundation.

All right. So, we're at 11:40. I'm not seeing anyone else coming up to the mic, so I will bring the Open Forum to a close. Thanks, everyone, for a very stimulating Open Forum.

I'm now going to call upon our Sergeant-at-Arms to read his list of infractions, if he has any, from what he's seen over the course of the meeting.

SERGEANT-AT-ARMS: Thank you, President Al. My name is Graham. I'm a phone-aholic. I've realized that sitting in here today. I keep wanting to reach for it. I'm going to try to get better and get over this affliction.

Anyway, a few comments. On Wednesday, I had identified three individuals who had been using their phone and made them the offer of double or nothing if they were able to keep their hands in their pockets. All three were successful, so they are not required to make a contribution to the Education Foundation.

I did observe— and it was quite a surprise --- Peter Feren was actually using two phones simultaneously. I don't know how he does that, but I want to ask him to help me change my screen saver photo on my phone because I can't do it.

I did talk to Lena, and we've got a new improved technique for the next Annual General Meeting, I'll just it practice now. I've had her download all of your cellphone numbers onto my phone, and when I push it now, it's going to dial you and I'll just watch the heads bob down or reach for their pockets. Okay? We'll see how you're doing. Oh, that's pretty good. All right, thank you. That's good. President Al did want me to single out Bruce Clark. Apparently, he was on time for every meeting and President Al feels that should be penalized \$50 for doing that.

The CSIS face recognition software I mentioned is working very well. They've sent an entire list of the people who have had their heads bobbing up and down at their phones. So, I'll forward those names on to the Education Foundation who, two weeks from now, we'll send out invoices to all of you. You can remain anonymous, but of course you will be getting your invoice. Though I do make you this offer that those of you who are feeling guilty, and think you're going to get this invoice, you may proactively wish to submit \$50 and avoid— then we will cancel the invoice for a hundred or two hundred.

Okay. Anyway, thank you very much. I encourage anyone to take the opportunity to be Sergeant-at-Arms, it was a very interesting experience and a great way to catch up with everybody at the meeting. Thank you.

AL JERAJ: Thanks, Graham. Bruce, we're even. I want to thank our out-of-town guests for attending our meeting. It was a pleasure to host you here in Ontario and at

Deerhurst. I hope you enjoyed your stay, and I hope we provided you with a fruitful learning opportunity.

It's tradition at this time to invite one of the tour members to come forward and say a word on behalf of the delegates. So, at this time, I'd like to invite the President of the British Columbia Association of Land Surveyors, Chris Cryderman, to say a few words.

INTRODUCTION OF CHRIS CRYDERMAN OF ABCLS

CHRIS CRYDERMAN: Okay. Well, thank you, Al. On behalf of all the delegates, I would like to express our appreciation for your kind invitation and for the warm hospitality we received since arriving here in Ontario. It's been a great privilege travelling with your President Al Jeraj and his lovely wife Sam over the last year. At times, it hasn't been an entirely smooth journey, but with Al around, there's never a dull moment as you can see from the full cup holders there.

My first meeting with Al was in Banff, Alberta. He and Jaret Guimond, the President of the Association of New Brunswick Land Surveyors had decided to take an early morning hike up a mountain before the meeting with Arnold Stovall of Manitoba. Arnold runs marathons or ultra-marathons in sub-zero weather. He was prepared. Al and Jaret? Well, not so much. Al was in his pajamas and Jaret was wearing his wife's yoga pants. I guess they travel light. They were all late to the meeting. I believe they missed the delegate introduction—much to the displeasure of Bruce Clark—who introduced them anyways with a dramatic look of disdain at the time just for fun.

So, what did you fine them, Bruce? I can't remember what your fine was.

BRUCE CLARK: Two hundred dollars.

CHRIS CRYDERMAN: Two hundred bucks. That's pretty good. In Saskatchewan, Al showed up at the AGM in super-fan mode wearing a Raptor's T-shirt and sweatpants. Air Canada had allegedly lost his luggage. He got fined again. This is becoming a habit, right? The gala dinner was at the same time as the NBA Final, so both Al and Sam were streaming basketball on their cellphones under the table at dinner. You were, yeah.

When the fourth quarter rolled around, they abandoned the dinner and searched out the nearest big screen in the lobby bar. Trailing behind them was every other president and partner on the tour, and that was really a moment for the whole country. So, insert Leaf fans joke here. No, I'm not doing a Leaf joke. After that Zamboni driver thing—I'm from B.C., we have the Canucks. It's kind of the same thing.

So, finally there's PEI. The smallest stop on the tour and only every two years.

You're warned, don't bring a suit, we're going to play golf. The meeting lasts only two hours and we'll be eating lots of lobster for dinner. Sometime during the lobster dinner, Al found out that he'd left the sunroof open on the rental car during the downpour. I think there was a picture of it right there. The car's interior was soaked, the cup holders were over-flowing with water. Yeah, he had a bag of towels about this high to mop it up, and I think he just kind of left it at the car place and dropped the keys on the desk and ran.

AL JERAJ: I had insurance.

CHRIS CRYDERMAN: Oh, you had insurance? Good for you. So, it's never a dull moment. There's, you know—I think there was pictures up there of shooting galleries and axe throwing. You can go on and on. One thing you can say about Al is, he's got a passion for life. Fortunately for us, this passion extends into his career and we all benefit from it.

He and Sam have represented the AOLS in the most of Canadian ways—with their hearts. Al, you've earned your past presidency. You know every car-soaking cloud has a silver lining. At the Exhibitor's Welcoming Party two nights ago, I managed to win the Horizon Measurements draw for the exotic car driving experience. So, I've got to say it's a little far to travel for a half a day of driving. But I didn't enter the draw for me. So, Al, there you go.

AL JERAJ: Wow. Thanks, Chris.

CHRIS CRYDERMAN: I did a little checking online of that exotic car site, and it looks like the Ferraris and Lamborghinis don't have any sunroofs, so you should be safe.

In closing, I look forward to welcoming your new President, Andrew Mantha and his wife Carol to the ABCLS Annual General Meeting coming up in a few short weeks in Vancouver. Get ready for the tour. Again, thank you, all. It's been a great AGM.

AL JERAJ: Thanks, Chris. Bruce, that \$200 fine wasn't split four ways. It was \$200 each, just so you know, and I got insurance for the car, so that's fine.

Chris, all the best wishes for a successful meeting in Vancouver next month. And to the rest of you, all the very best wishes in your tenures as president. This has been the highlight of a lifetime for me, travelling across the country and just spending time with each of your associations, and thank you so much for all your hospitality.

You've always greeted us with open arms, and for us, we can't thank you enough. All right. Moving on. We're going to—I'm going to invite Mel Truchon, Chair of Annual General Meeting Committee. Mel, would you please come forward and give the AGM report?

AGM COMMITTEE CHAIR PRESENTATION:

MEL TRUCHON: Thanks, Al. I'll keep the report brief. According to the comments I received this week, our AGM has been one of the best in recent years. This is largely accredited to the AGM Committee for putting together the agenda, but it is also accredited to each and every one of you in attendance that have been engaged through the sessions of the meeting.

This year we had a total of 637 registrants. Of those, there were 417 members, 114 non-members and other types of registrations which includes: exhibitors, AOLS staff and accompanying persons totaling 106. Of the members, 348 were OLSs, 16 retired members, five associate members, three Lay Councilors, one Honorary Member and 46 articling students.

At this time, I'd like to recognize the members of the AGM Operating Committee for all of their hard work: Graham Bowden, Sergeant-at-Arms; Shawn Hodgson, Hospitality Suite Manager; Darren Walker, Exhibitors' Liaison; Julia Savitch, AOLS Program Manager; Penny Anderson, AOLS Member Services Coordinator; Herman Bernardo, SRD Examiner Assistant; Brian Maloney, Executive Director; Al Jeraj, President for a few more hours; Sam Jeraj, Accompanying Persons Program Organizer and of course our First Lady, Lena Kassabian, the heart of the committee and our guru of the AGM.

A special thank you to Gary Irwin for designing the Exhibit Hall layout and creating all of the signs for our event as well. I'd now like to call upon Al Jeraj to say a few words about next year's AGM. Thank you.

AL JERAJ: Before I do that, the AGM Committee is just amazing. I've been behind the scenes, I've organized, I've been the Chair of two AGM Committees and it's a ton of work. And there's a lot of stuff that goes on behind the scenes, a lot of glitches that we have to, you know, attend to right away. But from what I'm hearing about this one, the hotel staff were incredible, but the AGM Committee really stepped up. It was super organized, and I think there were— as far as I know, I don't think there were any major glitches. So, you guys did a fabulous job.

So, next year, Bruce Parker will take the reins from Mel as our Chair for the 2021 AGM. We're looking forward to hosting you next year in London on February 24th to February 26th. Unfortunately, Bruce could not be with us today, but I'm certain we'll have another great meeting.

While on Council, especially during my term as President, I have worked with and gotten to know the AOLS staff and, again, you've heard me say this before, but I can't say it enough. And yesterday, you know, it was a great opportunity for AOLS staff to kind of let loose and dance. A special shout-out to Bill Webb for doing a great job with the band, Flathead Ford. They just rocked it out of the park.

And for me personally, I was going through the list and I thanked the AOLS staff, but I'm going to go through them again. But I want to make sure I made a huge mistake and I forgot to thank Lena. I thanked her for the AGM Committee, but I didn't thank her as part of the AOLS staff and I was so remiss about that, so I'm going to start with Lena.

Lena, thank you so much for all you do; you are truly an asset to this organization, you're an asset to the AERC, you mentor all the kids and you've kept me in line since I've been in Council and you've guided me through my journey up through Council and as President. So, thank you, thank you, thank you.

All right. I will ask the AOLS staff to stand as I read their names, and then we'll all join them in a big round of applause: Executive Director, Brian Maloney; Registrar, Kevin Wahba; Deputy Registrar, Maureen Mountjoy; Lena; Program Manager, Julia Savitch; Member Services Coordinator and Webmaster Penny Anderson; Administrative Officer Joyce Tenefrancia; Bookkeeper, Cynthia Gibson; Survey Review Manager, Tom Packowski; Survey Review Field Survey Examiner, Al Worobec; Survey Review Administrative Officer, Sheila Lavina; Survey Review Plan Field Support Check, Herman Bernardo.

I think that's it. Please join me in thanking them for all their work throughout the year.

We're almost there. Don't forget to return your name badges. Return them to the registration desk prior to leaving the meeting so that we can reuse them and do our part for the environment. Brian and Kevin, are there any other announcements?

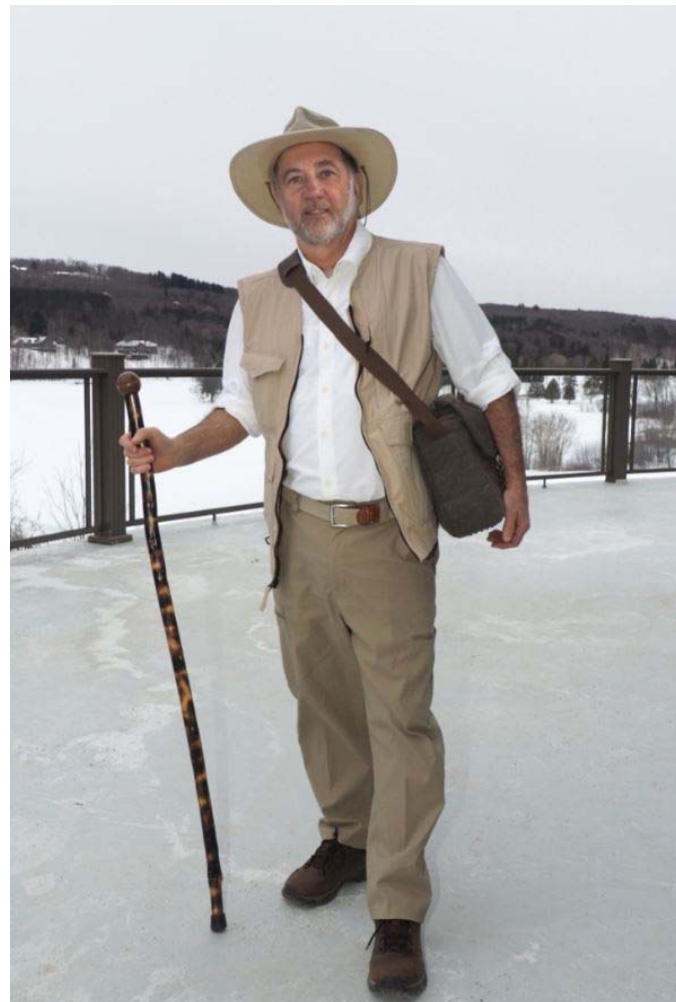
KEVIN WAHBA: No further announcements.

AL JERAJ: This concludes today's agenda. My esteemed colleagues and guests, would you kindly stand for the removal of the Standard Measure. Sergeant-at-Arms, will you please remove the Standard Measure?

--- Standard Measure was removed.

AL JERAJ: The 2020 Annual General Meeting of the Association of Ontario Land Surveyors is now adjourned.

--- Whereupon proceedings adjourned at 11:57 a.m.



Sergeant-at-Arms, Graham Bowden, OLS (Ret.)



Sergeant-At-Arms, Graham Bowden, presenting the Standard Measure at the Opening Ceremonies



Dan Shilling,
Chief Administrative Officer of Rama First Nation



2019/2020 Council

Back, left to right:

Kevin Wahba, Trevor McNeil, Peter Meerveld, Andrew Shelp, David Kovacs

Third row, left to right:

Brian Maloney, Al Jeraj, George Wortman, Andrew Mantha

Second Row, left to right:

Dan Dzaldov, Susan MacGregor, Anna Aksan, Gavin Lawrence

First Row: Patricia Meehan



New OLS Members

Second row, left to right:

Dmitri Elmov, Tim Bunker, Stephen Kosmachuk, Ricardo Pinos, Mojtaba Tavallae, Amir Keshavarz, Fereidoon Khosravirad

Front, left to right:

Tyler Renaud, Colin Vanderwoerd, Yifan Zhang, Shawn Ryan Leroux, Tyler Allison, Vinujan Aravinthan

Missing:

Lauren Elizabeth Dawe, Tareyn Gardner and Michael Masciotra



Lunch with Exhibitors, Wednesday





Keynote Speaker, Darrel Pink
“Re-thinking Professional Regulation— what’s really important?”



Plenary Session Speaker: Carl Pucci
Canada’s RADARSAT Constellation Mission: Opportunities for Monitoring

Veterans’ Dinner, Wednesday



**President’s Dinner and Dance, Thursday
featuring Flathead Ford**





Al Jeraj (right) presenting the Fellowship Award to Blain Martin (left) in recognition of his many years of service as the AOLS Executive Director and his substantial contribution to the Surveying Profession in Ontario



Incoming President Andrew Mantha, sworn in by the Registrar Kevin Wahba



Al Jeraj and Al Buckle presenting the Fellowship Award to Michael Chapman. The Award was received by Aziz Abdelshahid on behalf of Michael who was unable to attend



Outgoing President Al Jeraj (left) presenting the Chain of Office to the Incoming President Andrew Mantha (right)



Incoming President Andrew Mantha (right) presenting the Past President's gavel to Al Jeraj (left)



Carol Mantha (right) presenting a gift to the outgoing President's wife, Samra Hashim-Jeraj (left)

Surveyor General's Report 2019 – 2020

Susan F. MacGregor, OLS, Surveyor General

sue.macgregor@ontario.ca

**Mapping and Information Resources Branch
Ministry of Natural Resources and Forestry**

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Introduction

The Ministry of Natural Resources and Forestry (MNRF) continues to protect Ontario's biodiversity while promoting economic opportunities in the resource sector and supporting outdoor recreation opportunities.

MNRF responsibilities include:

- Managing Ontario's fish and wildlife resources
- Managing Crown lands, water, oil, gas, salt and aggregates resources
- Ensuring the sustainable management of Ontario's Crown forests
- Protecting people, property and communities from forest fires, floods and droughts
- Developing and applying geographic information to manage natural resources

The Mapping and Information Resources Branch (MIRB) is an essential partner in the management of natural resources, ensuring decisions are supported by the best possible advice, information and data through leadership in surveying, geomatics and information management.

Office of the Surveyor General

The Office of the Surveyor General (OSG) provides professional legal surveying, mapping and georeferencing advice and services to government ministries, municipalities and the surveying and mapping industry.

The Surveyor General has the legal responsibility to manage all surveys and legal descriptions on Crown land and to maintain original plans, field notes and instructions connected with these surveys

Surveying and mapping work:

- Reviewing and approving Crown Location Plans Survey
- Providing professional survey advice and supporting MNRF in court and tribunals

- Supporting First Nations land negotiations by reviewing plans of survey and mapping land claim areas
- Reviewing Reserve Boundary Confirmation Plans
- Preparing Regulation Plans for planning areas, local services boards, provincial parks and conservation reserves
- Maintaining Crown parcel and other cadastral and administrative data including the geographic township and lot fabric data sets

In 2019, OSG responded to:

- 908 requests for information
- 90 Crown Land reference plan submissions
- 14 perimeter mining claim survey submissions
- 7 perimeter mining claim survey instructions
- 63 applications for absolute title under the Land Titles Act
- 15 provincial park and conservation reserve plan requests

Land surveys and legal descriptions define clear boundaries which protect property rights, avoid landowner disputes and support policy that enables economic investment and preserves Crown Title

The Vital Records Project continues to be a priority for OSG. Thousands of survey documents have been scanned and verified by OSG staff to ensure the records are available for future generations.

OSG also supports the Ministry of Indigenous Affairs on several First Nation land claims including:

- Hiawatha
- Gull River
- Pic Mobert
- Mitaanjigamiing TLE
- Mississauga
- Sagamok
- Treaty 3 flooding claims potentially impacting over 50 Reserves

A geodetic control network is unseen but vital - providing a framework of stable, identifiable points that allow seamless mapping, engineering design and construction of infrastructure

Geodetic Activities

The COSINE (COnTrol Survey INformation Exchange) database is the official source of provincial, federal, and municipal control survey information for Ontario.

A new version of COSINE was released in May 2019 with several improvements including:

- Seamless operation on a laptop, tablet or smart phone
- Map display of horizontal and vertical control once a datum is selected
- Automatic zoom to a Toronto view and access to NAD27 values when NAD27TOR is selected
- Reference Sketches integrated with the station report when available
- Multiple datums for each control station or benchmark
- Easy to read report format with control station or benchmark photo if available
- GeoLab IOB format output of UTM and MTM for loading directly into network adjustments
- KML output for easy integration with Google Earth or other GIS applications

A COSINE Index product is now available that allows users to view different types of control within a GIS environment. The coordinate values associated with this product are approximated for map display purposes only. To obtain the official and accurate horizontal coordinates or vertical elevations, users must still access COSINE On-Line.

To access the COSINE Index, email geodesy@ontario.ca

We work with municipal, provincial and federal governments to design and adjust control networks providing stable points of reference on an everchanging earth

The Georeferencing team continued to work with the cities of Burlington, Ottawa, Peterborough and the towns of Sutton, Ingersoll and Whitchurch-Stouffville on several geodetic projects.

The Ministry of Transportation (MTO) contributed projects along several highways resulting in 223 NAD83 CSRS coordinates loaded into COSINE.

The 2019 Canadian Geodetic Reference System (CGRSC) Meeting included discussions on the implementation of the new vertical datum, CGVD2013. Representatives also discussed the proposed implementation of a new horizontal datum, North American Terrestrial Reference Frame 2022 which the US National Geodetic Survey is advocating for Canada to adopt.

The Geodetic Control Survey Specialist and the Geodetic Control Analyst positions were filled in 2019 after being vacant for almost a year.

To access COSINE or for more information about geodetic activities, visit ontario.ca/page/geodesy or email geodesy@ontario.ca

Geographic Names

The Ontario Geographic Names Board met three times and considered 52 cases resulting in 12 approved names with 17 more awaiting approval. Five approved names were in memory of navy men from Ontario who lost their lives in the HMCS Kootenay and HMCS Nipigon disasters in the 1960's.

In 201, the Geographic Names team:

- Responded to more than 200 requests for information
- Provided 50 names for the Ontario portion of Stories from the Land: Indigenous Place names in Canada
- Updated spatial data model for Geographic Names Ontario now available through GeoHub

Geographic names are an integral part of society and essential for navigation, mapping, emergency response, travel and tourism, and resource management

Foundation Geospatial Data

The Mapping and Information Resources Branch acquires, maintains and delivers geomatics and information services to MNRF, other ministries and Ontarians.

Foundation geospatial data includes:

- Roads
- Water
- Utilities
- Wetlands
- Elevation data
- Imagery

This data is currently referenced by the survey community when developing survey plans or planning survey activities. Much of this data is available for direct download from Land Information Ontario: [Ontario.ca/lfo](https://ontario.ca/lfo)

For more information e-mail: lio@ontario.ca

High-quality, authoritative foundation geospatial data ensures accurate mapping and supports sound decision-making for government, businesses, academia and the public.

Ontario GeoHub

Land Information Ontario released a new data discovery and download tool called the Ontario GeoHub. GeoHub allows users to easily find, download or stream geospatial data. Surveyors can now evaluate data on the fly before deciding to access it. GeoHub has more than 300 open data sets available for download.

For more information, email lio@ontario.ca.

Ontario Hydro Network

In 2019 the Ontario Hydro Network team:

- Updated over 63,000 km² of water network data for northern Ontario and 15,000 km² of southern Ontario. Since 2013, over 390,000 km² have been updated to support forest management planning.
- Researched and developed new methods to leverage high resolution Light Detection and Ranging (LiDAR) data for future hydro network maintenance. These new methods will help ensure the product meets the expanding business needs of users and stakeholders.

Advancing the Topographic Map

Users of survey and geomatics software and web mapping applications reference the topographic map cache on a regular basis for authoritative mapping. In 2019, cartographers developed new methods for creating and maintaining a vector-based map cache that will allow for faster update times, require less storage space, support better display quality and printing, and allow for dynamic labelling with clearer text. A beta version of the Vector Topographic Map Cache will be released in 2020.

Ontario Road Network

The Ontario Road Network (ORN) contains information for more than 260,000 kms of roads across the province and is maintained by sourcing data from municipal, provincial and federal levels of government.

In 2019, more than 100,000 kms of roads were added or updated. The ORN is fundamental to Ontario's emergency response systems. The data is used by the federal government to update Canada's National Road Network, the Statistics Canada Road Network and to improve Canada's census geography.

Elevation Data

The Ministry of Natural Resources and Forestry continues to partner with federal, provincial and municipal partners to acquire high resolution airborne topographic LiDAR. In 2019, the Provincial Mapping Unit provided quality control support to conservation authorities in southern Ontario and collaborated with Natural Resources Canada to gain access to LiDAR for the Greater Toronto Area. These projects contributed over 5,700 km² of high-quality LiDAR data to Ontario's open data holdings now available through Ontario GeoHub: geohub.lio.gov.on.ca

The Provincial Mapping Unit also provided support to the ministry's Forest Resource Inventory program by performing an independent vertical accuracy assessment of new single photon LiDAR data collected in 2018-2019 over the Petawawa Research Forest. This project was supported by provincial geodetics and surveyors in the Office of the Survey General to procure external OLS services to complete a vertical control survey for the project area.

Ontario Imagery Acquisition Program

Land Information Ontario coordinates partnerships to acquire current high-resolution imagery for the province. The partnership approach provides cost savings to all parties, allowing access to the imagery for a rate typically in the range of \$4-\$6 per km².

Several surveying firms have taken advantage of a subscription option available to private sector organizations. Organizations contribute a minimum of \$1,000 to an acquisition and can select imagery on an as-needed basis for up to three years after the imagery is delivered.

The imagery is multi-spectral with a resolution of 16 cm for southern Ontario and 20 cm for north-central Ontario. Ground control is established for each project area resulting in a horizontal accuracy of 45 cm for southern Ontario and 50 cm for north-central Ontario. Stereo data is also available to partners at no additional cost.

Used for mapping, managing natural resources, land use planning, law enforcement and more; LIO offers partnership opportunities to make high-resolution aerial imagery affordable to those who need it

The 2020 project partners are finalizing plans to collect imagery for southwestern Ontario. Partnership opportunities are still available.

The following past acquisitions are available for purchase:

- South-central Ontario (2018)
- North-western Ontario (2017)
- Central Ontario (2016)
- South-western Ontario (2015)
- Eastern Ontario (2014)

Elevation data generated from these imagery projects will include a digital surface model point cloud and a raster digital elevation model. These products are available as Open Data through Land Information Ontario.

As new imagery becomes available, it can be viewed on the Make a Topographic Map application: ontario.ca/page/topographic-maps

For more information e-mail: imagery@ontario.ca or visit the ontario.ca/lio

Strategic Directions

MNRF has undergone some significant organization changes including the transfer of Ontario Parks, species at risk and conservation authorities to the Ministry of Environment, Conservation and Parks. We have completed the transition of people and responsibilities, with little impact to the Mapping and Information Resources Branch. The transition was seamless and we continue to serve our partners at the Ministry of Environment, Conservation and Parks as we always have.

We continue to refine our multi-year plan to ensure our mapping and geographic information services continue to support government priorities such as economic development and Open for Business in Ontario and meet the needs of businesses and Ontarians. The work is underway and progressing with a view to being more efficient and effective.

While we were very successful in our efforts to recruit geodetic staff this year and additional survey technical staff, our ability to recruit and retain surveyors continues to be a significant challenge. We have been fortunate to have a dedicated staff resource devoted to supporting the development of an action plan and we look forward to reviewing this plan and implementing recommendations, generating positive results from our efforts.

Susan F. MacGregor O.L.S.
Surveyor General
susan.macgregor@ontario.ca

PRESIDENT'S REPORT

Al Jeraj, OLS, OLIP

What a year! Let's start off with how impressive our new Registrar is. Kevin has really embraced his role as Registrar and is doing a fantastic job. Under his watch, we have had 25 new surveyors join our ranks, and expect to have 14 receive their certificates at the AGM. We have also maintained the number of articling students at around 100. I've been told that he handles inquiries and concerns from the public like a veteran Registrar and always maintains a level of professional decorum.

Another huge success this year was hiring Brian as our Executive Director. Brian hit the ground running and was instrumental in organizing our Strategic Planning Meeting, introducing risk management to the Association, developing relationships with government and other stakeholders, budget planning, organizing Council meetings and the list goes on. He brings fresh perspectives to the way we operate while still staying true to our mandate which is to protect the public. Promoting transparency has been a priority for me, and publishing Council minutes

online was a key milestone. Prior to being on Council, I always wondered what ‘they’ did, but now for those wondering the same thing, you can find out what ‘we’ do by reading the minutes. I urge you to do so because Council is making decisions that affect you as a licensed surveyor.

Travelling across the country is a highlight to being President. Not only do you get to see our beautiful country coast-to-coast, but you get to meet some incredible people and develop strong friendships along the way. You also have the opportunity to see the issues that plague our profession on a national scale.

Our Past Presidents have commented on how common our issues are and have worked behind the scenes on addressing them by fostering communication with our sister associations. However, I think the time has come to take further action.

At the National Surveyors Conference in Nova Scotia, we learned that self-regulating professions are under more scrutiny now than ever before; therefore, it is imperative to ensure that the surveying profession in Canada is living up to the basic expectations of transparency, continuing professional development and regulating our members effectively. In British Columbia, due to the public trust being breached, the government did not hesitate to step in and remove the self-governing privilege from 5 self-regulating professions. Therefore, it is important that each Association tackle our common issues together.

As a result, our sister associations have agreed to enter into a Memorandum of Understanding (MOU) to formalize their commitment on national collaboration and it is my honour to host the historic signing ceremony of the MOU at our AGM.

On the home front, the Legislative and Regulation Review Task Force has been hard at work presenting the proposed changes to each Regional group. We incorporated the changes requested by the membership and have sent a draft version of the proposed Regulations to the Ministry for their review.

This task force along with our other committees and task forces continue to operate well and provide great service to the public and to our members. I can’t thank the members who volunteer on these committees enough.

I also can’t thank the membership enough for allowing me to represent you across the Country. It was a true honour to serve as your President. I would like to thank Council for their commitment, hard work and support and would like to express my gratitude to the staff at head office who are the silent heroes of this Association.

As I join the rank of Past Presidents, I know our future is looking brighter than ever. We have a strong Council, diligent staff and an engaged membership. I am proud to be part of this amazing Association.

EXECUTIVE DIRECTOR’S REPORT 2019 Brian Maloney, OLS

The Executive Director is the senior staff officer of the Association, responsible to the President and Council of the Association. In addition to formal roles as Secretary to Council and Treasurer of the Association, the Executive Director Implements decisions of Council, promotes the welfare and image of the Association, promotes liaison between all segments of the Association and other organizations, government bodies and the public and ensures the efficient day-to-day operation of the Association offices.

This report will cover the period from January 1st, 2019 to December 31st, 2019 under the general headings of Staff, Administration, Strategic Planning, Membership, Government Relations and Public Relations.

Staff

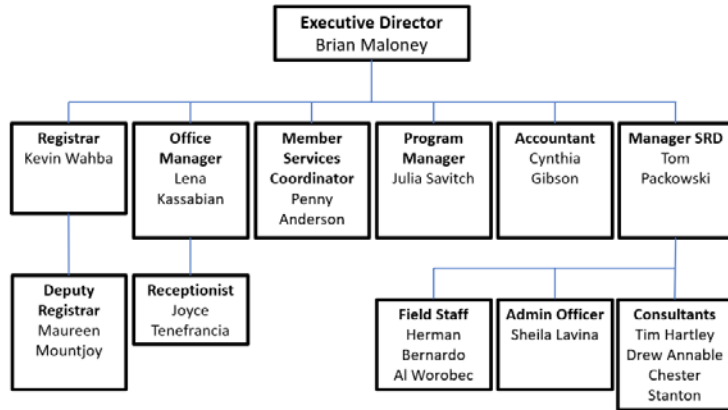
The Association’s staff complement for 2019 included a total of 12 staff members (including 5 Ontario Land Surveyors). In addition, we have 3 Ontario Land Surveyors on contract to assist the Survey Review Department (SRD) with the Peer Review Program.

During 2019 there were changes to the staff complement. Brian Maloney replaced Blain Martin as Executive Director in March 2019 and Kevin Wahba replaced Bill Buck as Registrar at the beginning of the year.

The complete staff list at the end of 2018 is as follows:

Brian Maloney, OLS	Executive Director
Kevin Wahba, OLS	Registrar
Maureen V. Mountjoy, OLS	Deputy Registrar
Lena Kassabian	Office Manager
Julia Savitch	Program Manager
Penny Anderson	Member Services Coordinator and Webmaster
Cynthia Gibson	Bookkeeper / Accountant / Controller
Joyce Tenefrancia	Administrative Officer
Tom Packowski, OLS	Survey Review – Manager
Al Worobec, OLS	Survey Review – Field Survey Examiner
Sheila Lavina	Survey Review – Administration Officer
Herman Bernardo	Survey Review – Examiner Assistant

Association of Ontario Land Surveyors
Organization Chart



The following provides a brief background of the staff members.

Brian Maloney joined the AOLS as **Executive Director** in February, just prior to the Annual General Meeting. He was fortunate to have a month overlap with Blain Martin that allowed some significant knowledge transfer. He was the owner and operator of Fiducial Points Consulting, which he operated for five years. He retired from the Ontario Ministry of Natural Resources (OMNR) six years ago, where his last position was Acting Assistant Deputy Minister, Corporate Management and Information Division. In his previous role as Director, Mapping and Information Resources Branch, he was responsible for setting direction for information management and the geographic information program for OMNR and Ontario. As such, he led the development of an Information Management Strategy and implementation plan for OMNR and also led an initiative which defined information management roles for the Ontario Public Service. Brian completed major information components of Ontario's Land Information Infrastructure (policy, technology, and major data components such as the Ontario Parcel and the Ontario Road Network). He also brokered many cost and information sharing agreements with private sector, government and non-government organizations to leverage capacity to deliver information services and products and provided national leadership through a variety of federal and national committees. He is a former Surveyor General Ontario and a Past-President of the AOLS. He holds an Honours B.Sc. with a Specialist in Survey Science from University of Toronto.

Kevin Wahba joined the AOLS as **Registrar** in January 2019. He is a graduate of York University with a Bachelor of Engineering (Geomatics Stream). He also holds a Bachelor of Laws from Dundee University in Scotland. As well as being an Ontario Land Surveyor, he is also registered as a lawyer with the Law Society of

Ontario, which is a real asset to the AOLS. He has lectured in the survey law courses at York University and has practiced both as a lawyer and surveyor. He is responsible for delivering on the many statutory provisions included in the Surveyors Act. His principal duties include supporting the Academic and Experience Requirements Committee and the Complaints Committee by preparing their agendas and minutes and ensuring that all correspondence emanating from these committees is processed expeditiously.

During 2019 Kevin supported the AERC with processing academic evaluations and articling applications as well as assisting with examinations, the annual lecture course, and presiding over the Convocation Lunch. He also prepared the agendas and minutes and processed the files for Complaints Committee meetings.

Kevin participated in discipline hearings, dealt with several referrals from the Survey Review Department, provided administrative assistance to the Fees Mediation and Registration Committees, participated in the Professional Standards Steering Committee and responded to numerous inquiries from both members and the public. He also attends Council meetings, represents the AOLS as a member of the CBEPs Board, acts as liaison to the Office of the Fairness Commissioner and conducts Registrar's Investigations as required.

Maureen Mountjoy is a graduate of the first class ('76) of the Survey Science program at Erindale College, University of Toronto. In 1978, she was the second woman to become an Ontario Land Surveyor.

She has been the **AOLS Deputy Registrar** and the **Editor** of the **Ontario Professional Surveyor** magazine since the fall of 2000. She is also the Secretary and Chief Administrative Officer of the AOLS Educational Foundation and works closely with the colleges and universities whose students benefit from the awards generated from the Foundation. Maureen is a non-voting member of the Academic and Experience Requirements Committee (AERC), a member of the Public Awareness Committee (PAC), the Geomatics Recruitment and Liaison Committee (GRLC) and the University and College Students Liaison Committee (UCSLC). She attends many trade shows and career fairs to promote our profession and works closely with faculty and students in the Geomatics program at York University. She is the AOLS representative on the York University Geomatics Engineering/Geomatics Science Advisory Committee.

Maureen continues to work with Secondary Schools to expand the Specialist High Skills Major (SHSM) "Introduction to Surveying" course to raise awareness of surveying as a career. Her tireless work on promoting our profession should continue to pay dividends in the form of new members.

Lena Kassabian has been with the AOLS since August 2005. As **Office Manager**, she ensures the AOLS office is running smoothly and the staff and members' expectations are met in a timely manner.

Lena is deeply involved with the AERC. She is responsible for processing evaluations and articling applications for students seeking their designation as an Ontario Land Surveyor. She meets with prospective candidates and engages them in the process in a positive fashion and ensures that all applicants receive the necessary materials. She takes great joy in helping local and foreign candidates achieve their goals.

Lena also scouts out locations for Annual General Meetings, Council Meetings, AERC events, the Geomatics Picnic and other meetings and seminars. She negotiates contracts for these events and organizes them. Along with all of the above, Lena is the key organizer of the Associations' Annual General Meeting.

Julia Savitch has been with the AOLS since July 2011 as **Program Manager**. She has a Bachelor of Business Administration from the Schulich School of Business and has completed her MBA from the same school. Her responsibilities include working with Continuing Education Committee to develop courses for our members and managing CPD; Website Committee; AGM Planning & Operating Committees, and all the Commissions of the Association. She also tracks the implementation of our annual Strategic Plan.

Julia is the **Editor of AOLS In Sight e-newsletter** and the organizer of our monthly webinars. She also manages our social media presence on LinkedIn and Facebook. Julia enjoys working with our great volunteers - committee and task force members, Regional Group Executives, Council, - as well as enabling communication and information sharing between various stakeholders of the AOLS. She welcomes suggestions from all members for newsletter, webinar and seminar content and encourages them to get involved in AOLS social media outlets.

Penny Anderson has been with the AOLS since June 2012 as the **Member Services Coordinator and Webmaster**. She is certified in Web Design and Development from Sheridan College and is currently working on her Information Systems Management Certification at Ryerson University.

Her role involves managing the Membership Database, Scheduling Membership Dues, and updating website content. Penny is the channel for Members' information changes, REACH Bulletin Distributions and assistance to Members on how to navigate the website and setting up membership accounts online. Penny also provides support to the Executive Director in generating demographic reports and assists in taking the minutes of Council meetings.

Joyce Tenefrancia is the Receptionist and Administrative Assistant. She joined AOLS on June 20, 2016. Joyce is your first point of contact with the Association. She is the AOLS **Administrative Officer** at reception, answering the telephone, checking and responding to emails, opening the mail, and generally meeting and greeting those who come into the office.

She supports almost all the AOLS staff, and various committees, specifically the AERC and Complaints Committee. Daily, she acts as service conduit for a variety of stakeholders. The OLS membership and extended community is important to her. If you don't know which staff member you should be contacting, contact Joyce and she will send you in the right direction!

Cynthia Gibson joined the AOLS in 2018 as our **Bookkeeper / Accountant / Controller**. She is responsible for financial wellbeing; for all processes of recording accounting information, analyzing its components & producing monthly financial statements for the management. All these steps are vital for us not only in order to know our current financial performance, but also necessary for forecasting future activities and making them financially feasible.

Cynthia also does all year-end procedures including preparation of various tables, schedules & reports needed for auditors in preparation for annual Financial Statements. As we want to manage our funds wisely and gain interest on investments, we have a number of investment portfolios. Recording of accrual interest revenue is done by Cynthia based on monthly financial reports and adjusted in annual financial statements. Liability Insurance, although handled by the insurance broker, is getting incorporated into our accounting system. We are also involved in the whole process as we receive premiums paid by members prior to paying the portion to the insurance broker. Other current operations handled by Cynthia include payroll, reconciliations with banks & government bodies & preparation of annual reports for Revenue Canada. She has made many changes this year to improve our efficiency and ensure accuracy in our reporting. Cynthia is working towards becoming a Certified Professional Accountant.

Tom Packowski joined the Association Offices as the **Manager of the Survey Review Department (SRD)** in early June of 2018. Tom is a graduate of the '79 class of the Survey Science program at Erindale College, University of Toronto (UofT). Tom brings a wealth of experience from his many years as a principal in a private practice firm and from his involvement in Association activities.

Tom, the SRD staff and the consultants at the Survey Review Department are constantly trying to improve the operation of the department. This year Tom reinstated generating reports to identify trends and potential problems. He, along with his consultants have made significant progress this year in reducing the backlog of comprehensive reviews and improving timeliness of reviews. It is worth reminding members that every comprehensive review undergoes a review by a second consultant to attempt to remove any bias.

Tom is also the Chair of the Continuing Education Committee, which is a great fit with his AOLS position. He has written several articles for the Ontario Professional Surveyor reflective of findings from reviews.

Al Worobec joined the Association Offices as the **Field Survey Examiner of the Survey Review Department (SRD)** in early January of 2014. Al is a graduate of

the '84 class of the Survey Science program at Erindale College, University of Toronto (UofT). Al brings a wealth of experience from his many years in private practice and from his involvement in Association activities, most recently as the 2009 President. Al works on a part-time basis completing field reviews.

Sheila Lavina has been with the AOLS since March 2010 and has worked as the Administration Officer. In September of 2014, she transferred to the role of **SRD Administrative Officer**. Sheila acts as the liaison between the SRD and the participating firms. Other duties consist of ordering and maintaining supplies, coordinating meetings and assisting in planning day-to-day operations. Sheila's main responsibility is to make sure activities between the firms and SRD are organized and completed within the time allotted. She has been instrumental in maintaining statistics and developing historical reports.

She is dedicated to serving our AOLS members as well as the members of the public. Part of her dedication is ensuring that all meetings of Council and Committees are scheduled, and reminders are sent out prior to each meeting. This has really helped to ensure attendance at our meetings.

Herman Bernardo has been with the AOLS since November 2010 as the **Survey Review Department Examiner Assistant**. His responsibilities include coordinating deposited plans by OLS / Firms received from Land Registry Offices, as well as reviewing Comprehensive Reviews supporting documentation for missing material. Herman assists the Field Survey Examiner with field examinations, so he is often out in the field, working in the fresh air all over Ontario. He also fulfills the logistic needs for the field operations.

He is also our go-to person whenever something needs to be assembled, disassembled, moved or fixed in the office.

The staff at "1043" all put in a tremendous effort on behalf of the members. The Association is certainly here for public protection and all take that role seriously. We also believe that working with our members and making the Association strong is another way that we protect the public.

Strategic Planning

We developed a new 5-year Strategic Plan this year following significant research and consultation. The new plan was the result of nearly 30 members' work over two days assisted by two experts in strategic planning. We developed the following new vision:

"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 processes
- 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 through 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."

Our key priorities and actions were focussed on education, increasing public and government awareness, risk management, and regulation changes. Actions were reviewed and refined at every Council meeting. The risk management component was significantly new and required a lot of attention, with it being specifically addressed at every Council meeting. Although we have a long way to go to meet the vision, we have certainly made progress in that direction this year.

Membership

We continue to face a future challenge of maintaining a sufficient number of surveyors to meet the public's needs. We have a large demographic of surveyors over 60 years of age who will inevitably retire. We saw a small decline in numbers at the end of 2019 with 21 surveyors retiring bring our numbers to 488 licensed members and 30 holding Certificates of Registration. Fortunately, we had seven new surveyors sworn in in January and still have over 100 articling students. The number of Certificates of Authorization remains steady with 167. We remain at only 7% female members despite efforts to encourage diversity as surveyors. We are fortunate to have over 15% of our articling students who are female, but clearly more work is required.

AOLS committee work is a key resource that benefits the AOLS. It allows us to involve active practitioners, while at the same time containing our costs through the use of volunteers. This year we had over 180 unique committee members participate in 6 statutory committees and an additional 23 active committees or task forces. This is fantastic for an association of our size. We have recognized that these committees and task forces require support and have endeavoured to provide staff and consulting resources to them.

The Geomatics Picnic took place at the Nottawasaga Inn Resort and Conference Centre with approximately 100 members and guests in attendance. Once again it was a huge success. The AOLS also hosted a one-day course on "Remotely Piloted Aerial Systems (RPAS) Implementation into a Professional Practice". It was offered in London, Toronto and Ottawa and attended by just over 70 members.

We put on an Administrative Law webinar, that although originally targeted at Committee members, was taken by over 200 members. We also provided 6 other webinars to keep our members informed.

Public Relations

The Public Awareness Committee oversees most of the Association's activities in public relations. In addition to preparing brochures and articles, the Committee provides support to the membership and hosts promotional activities at trade fairs, conferences and career fairs. The Committee was very busy with exhibits and/or presentations at the Ontario Good Roads Association, URISA, Realtor Quest, Science Rendezvous, the Ontario Association of Committees of Adjustment and Consent Authorities Conference, the Ontario Association for Geographic and Environmental Education Conference and throughout Ontario at the World of Choices events. They also sponsored the 2019 National Geomatics Competition, the Geomatics and Civil Engineering Career Fair at York University and supported renovations at the University of Toronto, Gull Lake Survey Camp.

Four information packed issues of the Ontario Professional Surveyor were published along with online In Sight articles every two weeks, which are broadly subscribed to. The Public Awareness Committee and Deputy Registrar, Maureen Mountjoy are to be commended for their efforts. The Executive Director met with the CEO's of Teranet and MPAC and the Deputy Minister of the Ministry of Natural Resources and Forestry who are key AOLS partners. The Executive Committee met with the Director of Titles as well

Executive Directors Meetings

We continue to be very active on the national front in seeking solutions to strengthening our profession as a whole. Executive Directors/Chief Executive Officers meet quarterly with three online meetings and one face-to-face meeting annually, which was hosted by Nova Scotia this year.

Summary

I would like to thank President Al and all of Council for their help over the past year. I also especially want to thank all the staff at 1043 and all committee members for their continued efforts and work toward the betterment of our Association and profession.

Brian Maloney, OLS
Executive Director

REGISTRAR'S REPORT

For the year 2019

Kevin Wahba, OLS, LL.B., B. Eng.

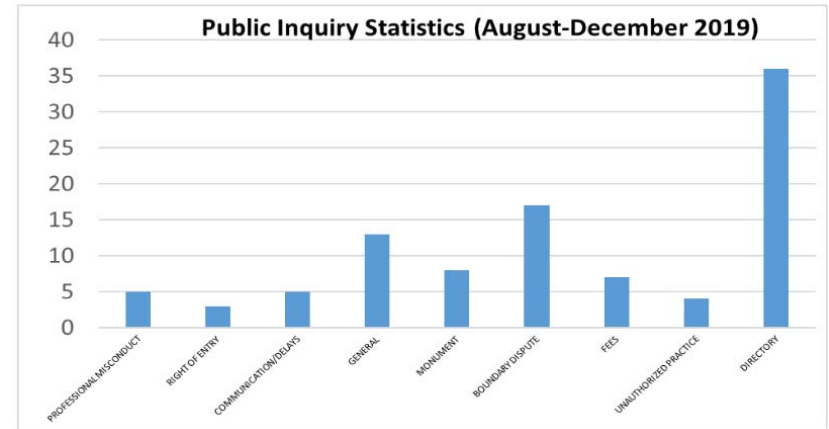
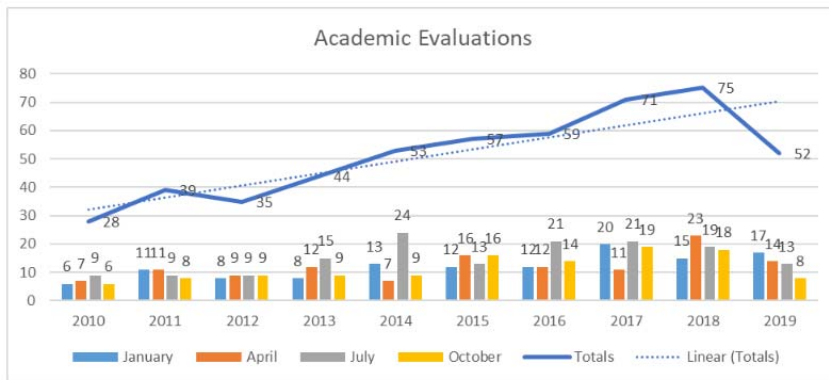
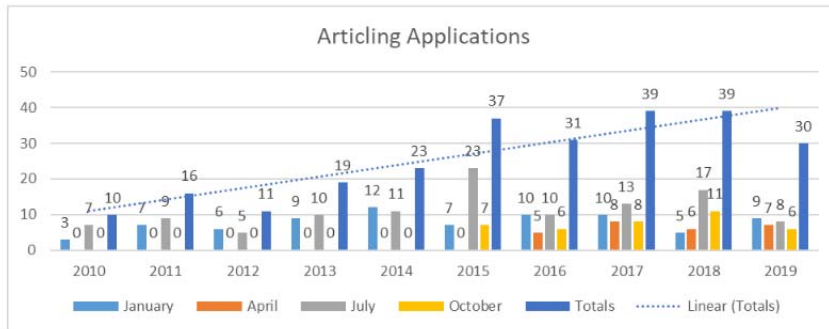
The Registrar is appointed by Council under Section 3. (8) of the *Surveyors Act* and is responsible for overseeing the statutory responsibilities of the Association of Ontario Land Surveyors.

The Registrar's activities are concentrated primarily in the areas of Academic and Experience Requirements, Public Inquiries, Licences, Certificates of Registration, Certificates of Authorization, Complaints and Discipline.

Academic and Experience and Requirements Committee (AERC)

The Registrar is not a voting member of the Academic and Experience Requirements Committee, but carries out its administrative activities, including preparation of the agendas, motions and minutes for each meeting. On behalf of the Committee, the Registrar also responds to requests for information regarding academic evaluations, requirements for membership, articling, monitoring, and examinations. Deputy Registrar Maureen Mountjoy assists in coordinating the activities of the Committee, in consultation with the Registrar and the AERC Chair, ensuring that all relevant issues are brought to the Committee's attention. In 2019, the Registrar presented four articling information sessions, assisted with the Statutes, Oral and Written Professional Examinations, organized and participated in the annual Professional Lecture Course, and participated in the swearing-in of 15 new Ontario Land Surveyors.

Thirty (30) new students entered into articles during 2019, and eight (8) students' articles expired or were cancelled. As of December 31, 2019, there were one hundred and three (103) articling students, an increase of five (5) over last year, and the most we have had since 1993. Twelve (12) of the current articling students are females. The Academic and Experience Requirements Committee also approved fifty-two (52) academic evaluations during 2019, twenty-three (23) less than last year. Thirteen (13) of the 2019 evaluations (25%) were internationally educated applicants. Seven (7) of the 52 were female applicants. The following charts provide a graphical illustration of these statistics.



Educational Services

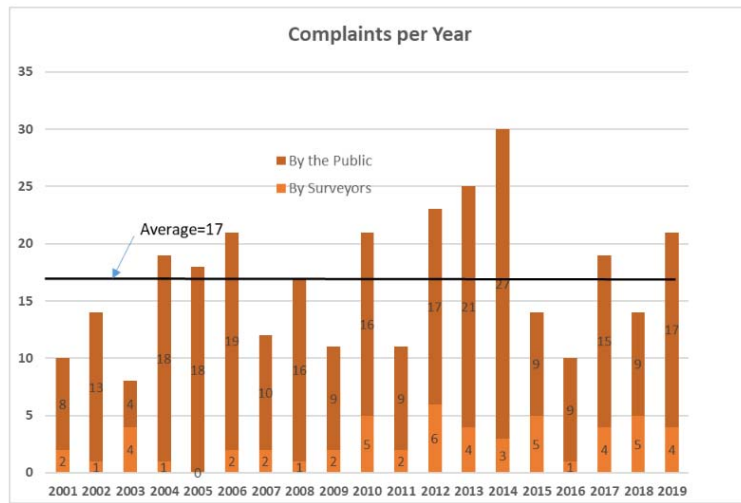
The Registrar responds to inquiries from both the membership and the public. Many requests for information are satisfied during the initial contact, but others require research and written responses after appropriate discussions with other surveyors, staff and occasionally Council. Typical issues included non-OLS activity in cadastral surveying, right-of-entry inquiries from the public, concerns from the public regarding lack of response from members for various reasons, and requests from the public to assist in encouraging members to honour their business and/or financial responsibilities. It is often possible to resolve issues at this level and avoid a formal written complaint, which by statute, must be directed to the Complaints Committee. The following chart provides a graphical illustration of the various inquiries received by the AOLS between July and December of 2019:

Compensation Fund

No applications to the Compensation Fund was received during 2019. The Compensation Fund is set out under *Section 33* of the *Surveyors Act*. Council established a Compensation Fund Committee in 1998 and delegated its powers pursuant to Section 33 (10) of the *Surveyors Act* to this Committee, made up of the Executive Director, Registrar and Finance Councillor, for any application up to \$5,000.

Complaints Committee

Formal complaints regarding the actions or conduct of a member of the Association must be filed in writing with the Registrar. The Registrar acknowledges receipt of the complaint and notifies the member who is the subject of the complaint. The member is provided with a copy of the complaint letter and materials and is given at least two weeks to provide an explanation and supporting documentation in response. The member's response is provided to the complainant, who is also allowed two weeks to make any further response, and the member is also provided with the complainant's second response and allowed to make a final submission. The Registrar compiles all of the information submitted by both the complainant and the surveyor and presents the file, without comment, to the Complaints Committee in a timely fashion. The Registrar also acts as the recording secretary of the Complaints Committee and distributes all correspondence and decisions resulting from the Committee meetings. The Registrar is not a member of the Committee and attends meetings at the request of the Committee to provide information and administrative support. This Committee makes extensive use of their secure area of the AOLS website for the exchange of information, and committee meetings are held using Go-To-Meeting, allowing members from all areas of the province to easily participate.



Twenty-one (21) new complaint files were opened in 2019, compared to fourteen (14) in 2018. The Committee held nine (9) teleconference meetings during 2019 and one face-to-face meeting. Seventeen (1) of the twenty-one complaints originated from members of the public, one (1) from Association members and three (3) from the Registrar. The Committee issued twenty (20) final and eight (8) interim decisions during 2019. Interim decisions usually request specific action on the part of the surveyor. If the surveyor complies, the interim decision becomes final and no further action is required. If the surveyor does not comply, the Committee must reconsider the matter and determine an appropriate course of action. Of the twenty (20) decisions issued in 2019, nine (9) referred a member to AOLS Council for further action. The following chart shows the total number of complaints per year from 2000 to 2019, the average number over that period being 17 per year.

Discipline Committee

Three new discipline hearings were completed in 2019. Both hearings were concluded when the panel accepted a joint submission agreed to by both parties. The decisions in these cases were published in several editions of the Ontario Professional Surveyor magazine and were also posted on the AOLS website.

A hearing that began in January 2016 was concluded in 2018 and a decision was issued on December 18, 2018. The hearing for submissions on penalty is concluded in 2019. The member has filed an appeal to Divisional Court and a decision was rendered in February of 2020. The Divisional Court decision is posted on the AOLS website.

Registrar's Investigations

Section 30 of the *Surveyors Act* allows the Registrar to undertake an investigation where the Registrar believes that there are reasonable and probable grounds that a member of the Association has committed an act of **professional misconduct or incompetence**, or that there is cause to refuse to issue, or to suspend or revoke a Certificate of Authorization. No Registrar's Investigations were initiated during 2019.

Registration Committee

The Registration Committee is a statutory committee, created under Section 9 of the *Surveyors Act*, having a Statutory Power of Decision that allows it to hold a hearing under the *Statutory Powers Procedure Act*. When the Registrar proposes to revoke or refuse to issue a licence, Certificate of Registration or Certificate of Authorization, or proposes to issue one of these subject to conditions, the member or applicant may appeal to the Registration Committee, who must then hold a formal hearing.

Regulation 1026 of the Surveyors Act requires that this committee approve applications from members who wish to be in charge of more than one survey office. Four applications were made during 2019.

Survey Review Department Referrals

During the past year, several firms were referred to the Registrar from the Survey Review Department pursuant to Regulation 1026, S.40(8), subsequent to a Comprehensive Review. Most referred files are closed after the firms provide satisfactory explanations and/or implement remedial procedures to address the concerns identified in the review report. Some may undergo a follow up review to assess progress in addressing the concerns. Three (3) members were referred to the Complaints Committee during 2019 as a result of a Survey Review Department referral to the Registrar.

Licences, Certificates of Registration and Certificates of Authorization

The Registrar is responsible for the issuance and renewals of Licences, Certificates of Registration and Certificates of Authorization (C of A). As of January 21, 2020, sixteen (16) new licences and several new or revised Certificates of Authorization were issued. As detailed in the Statistics section below, there has been a slight decrease of 1.1% in the overall number of professional members, a decrease of 0.84% in the number of licenced members and a slight increase of 0.6% in the number of Certificates of Authorization as of January 21, 2020.

Elections and By-Laws

The Registrar oversees the distribution and counting of ballots for voting on By-laws, Regulations and elections to Council. By-laws 2019-1 was approved by secret vote of the membership during 2019, and two new Junior Councillors for 2020 were filled by secret ballot vote among three nominees.

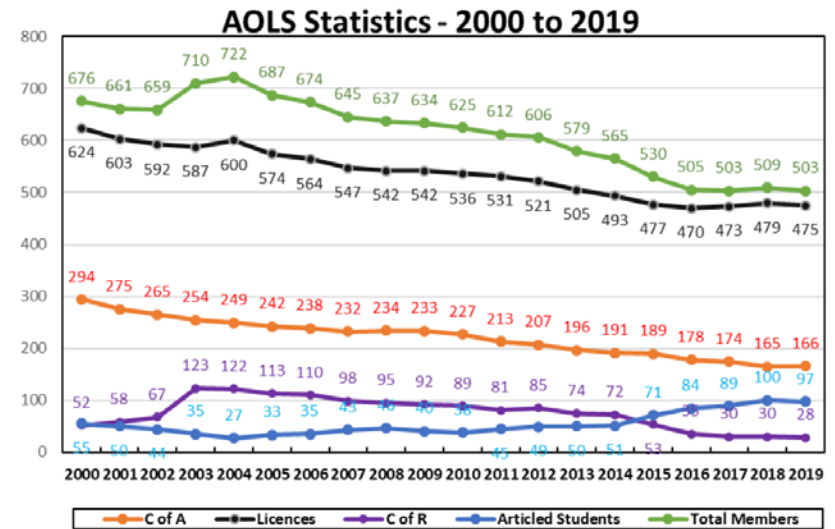
For the 2020 Council, Vice-President Andrew Mantha was acclaimed as President and Councillor Gavin Lawrence was acclaimed as Vice-President. Three members were nominated as candidates for the two Junior Councillor positions, namely, Adam Kasprzak, Amar Loai and Richard Emode. At the time of writing this report, the elections have not been completed. Senior Councillor Trevor McNeil did not pursue the position of Vice-President and retired from Council.

Statistics

Below are some relevant statistics of the Association, current to January 21, 2020.

	As of Jan. 31, 2020	Last Year	Change	% Change
Total Membership	503	509	-6	-1.1%
Licences	475	479	-4	-0.84%
▪ Certificates of Registration	28	30	-2	-6.7%
▪ Certificates of Authorization	166	165	+1	+0.6%
Members who have passed away since the last AGM	10	13		
Retired Members	125	142	-17	-12.0%
Newly commissioned members since the last AGM	15	25	-10	-40.0%
Articling Students	97	100	-3	-3.0%
Associate Members	36	61	-25	-41.0%

The AOLS Statistics chart illustrates the trends in our membership over the past 19 years, during which we have seen a decline of 23.9% in the number of licensed members. Total membership during this period has decreased by 173, a drop of 25.6% however the good news is that these trends have had a slight upward trend over the past several years. The number of Certificates of Authorization has declined from 294 in 2000 to 166 as of January 21, 2020, a drop of 43.9%. This, in part, may be because many firms have been bought out and amalgamated with others over the past few years. The number of articling students has risen steadily from a low of 27 in 2004 to the current number of 97, an increase of 359%.



SURVEY REVIEW DEPARTMENT MANAGER'S REPORT Tom Packowski, OLS

For those of you who I have not met, my name is Tom Packowski. I assumed the position as Manager of the Survey Review Department (SRD) from Tim Hartley in June of 2018. The staff at 1043, and in particular, the SRD and Consultants, have done a wonderful job of assisting me in carrying out my duties as the Manager.

The Survey Review Department (SRD) operates under the Inspection Program of the Surveyors Act, Regulation 1026, Section (40). The Department is totally funded by the sales of the \$16 Plan Submission Form Sticker. The sticker price has remained the same since 2012, in spite of rising salaries, expenses and other costs. The average annual number of stickers sold over the five-year period from 2013 to 2017 was about 35,900. In 2018, the sticker sales were 37,070 and last year, sticker sales were 35,450—down just under four and a half percent from 2018 and below the previous five-year average. While income from sticker sales was lower, expenses too were lower. Expenses were 12% lower than the budgeted amount, but still, the result was a negative cash flow for the first time in many years. If sticker prices remain the same, it is anticipated that the Department will continue to see negative cash flows for at least the next two years.

From revenues we paid the salaries of our staff, including our administrative officer (Sheila Lavina), assistant examiner (Herman Bernardo), a part-time OLS field examiner (Al Worobec), as well as consultants' fees for two longstanding OLS

Comprehensive Review Consultants (Doug Reitsma and Drew Annable), one new Consultant (Chester Stanton) and OLS Consultant for systematic reviews (Tim Hartley). The Department also pay for all our office expenses, allocation costs for our use of the facilities and administrative costs at '1043'. We have a very talented group of staff and consultants. Of the OLSs within the Department, three have been on Council, two are Past Presidents, and one has a CLS designation along with an MBA for good measure.

The Department began 2019 with 71 active files, we opened 31 Comprehensive Reviews, which is lower than average and added 5 referral reviews. This lighter workload scheduled for last year provided an opportunity for our newest Consultant to learn the process from our more experienced Consultants. We closed a total of 77 files and ended the year with 30 active files.

At the end of 2019, one of our experienced Consultants decided to pursue other opportunities. To fill the gap, the Department sent out a request for Consultants and we were quite gratified at the positive response we received. We interviewed three applicants for the Consultant's position and are expecting to have at least two Consultants join the Department in the near future and perhaps a third later this year.

The scheduled workload for 2020 will be higher than average and we anticipate that the workload for 2021 will be higher again.

We completed 297 Systematic Reviews in 2018 compared with 254 in 2018.

Years	Plans Checked	Integration	Method/Evidence	Minor/Comment
2019	297	41 (14%)	13 (4%)	61 (20%)
2018	254	50 (20%)	15 (6%)	52 (20%)
2017	245	59 (24%)	22 (9%)	118 (48%)
2016	248	99 (40%)	22 (9%)	111 (45%)

The Department has completed its initial review the Practice Manual so that the actual day to day practices of the Department coincide with the Manual. Any changes that we can make to enable us to conduct the reviews in an efficient manner, without affecting the integrity of the Reviews themselves, will also be included in the Manual.

I should hasten to add that any changes to the Manual are/ or will be, as approved by the SRD Committee. Marvin McNabb has stepped down as Chair and Laura Gibson is now the Chair of the SRD Committee along with, Andrew Mantha and Gavin Lawrence as our Council reps along with Robb McKibbon, Gabriel Laframboise, Julia Meldrum Smith, Paul Francis and the newly added Andrea Tieman round out the Committee. The Committee is also ably assisted by the Executive Director and Sheila Lavina.

The SRD Committee has directed that the Department begin the process of reviewing all members of the Association including holders of Certificates of Registration. The Committee felt that there was adequate direction in Part 1 of O. Reg. 216/ 10 with which to initiate the review of C of R members.

As stated last year, the SRD Committee is an integral component of the Peer Review process. They protect the public interest first and foremost, but they also work on behalf of you, the membership. The SRD Committee reports to Council on the activities of the Committee and of the Department.

Part of the Comprehensive Review (CR) process includes an invitation to the firms to take part in an opinion survey regarding their experience with the CR process itself. These opinion surveys are confidential, OR not, depending on whether you wish to identify your firm. The results of the individual opinion surveys are sent on to the SRD Committee where they are reviewed and tabulated. Matters of particular importance are raised by the Committee at the regular meetings held between the SRD Committee and the SRD Manager. On behalf of the Committee, I would encourage you to take part in the opinion survey as part of your CR. It has been updated so that it only takes a few minutes to complete.

One of the initiatives the SRD has undertaken is the compilation of five-year statistics from the results of the Comprehensive Reviews. The Department will continue to accumulate these statistics and share them with the Insurance Advisory Committee as well as the Complaints Committee in order to determine what educational opportunities are available to the Continuing Education Committee in order to improve our services to the public.

Finally, I want to raise my concern that, you as a Professional Community provide many services to the Public such as cadastral surveying, opinions on boundary and construction layout. I have seen improvements in the quality of the cadastral work and would suggest that this is in part because cadastral opinions are subject of continuing professional development and peer review. However, construction layout, which is a frequent topic for continuing education, by way of webinars, articles in the OPS magazine and indeed at functions such as the AGM, is so far, not subject to peer review. Yet errors arising from construction layout are by far the largest source of monetary claims against our liability insurance policy. This inconsistency, from my perspective as part of a regulatory body, is not right. The SRD Committee has recommended that the Department consider reviewing construction surveys and processes as part of the Comprehensive Review.

Respectfully,
Tom Packowski, OLS
February 28, 2020

INAUGURAL PRESIDENT'S ADDRESS
Andrew Mantha, OLS, OLIP

I am very humbled to accept the position of President of this great Association.

I note that I will be the 129th person to hold this position and so I accept it as merely the "place-holder" that I intend to be. I will take on this role mainly to continue the fine work done by my predecessors and therefore am speaking not just on my behalf but I hope on their behalf too. As they have done for me, my overall goal will always be to pave the way for the Presidents to follow.

The role of President is more that of a facilitator. Council itself is the leader of this Association and my job will merely be to harness their energy and focus it on the issues of the day. We have a strong team with the experience and breadth of knowledge that makes me confident we can handle any things that come our way. We also have an amazing staff at the AOLS offices who I have found to be some of our greatest resources and who really are the backbone of the team.

The main thing I have learned from my 5 years on Council is that you never go wrong if you always remember that our primary role is to maintain the public's trust and act in their best interests. Everything else will fall into its proper place from that.

I am grateful for the support of my friends and family and for the many messages of goodwill and support I have received from across the province as I start out on my term of office.

Thank you all,
Andrew S. Mantha

ARCHIVAL AND HISTORICAL COMMITTEE
Annual Report 2019
Gord Good, O.L.S. (Ret.), Chair

The Committee is composed of Gordon Good (15) (as Chair, 13), James Hill (23) (as Past Chair, 4), Ross Burton (21) (as Past Chair, 2) and Manager of our Ottawa Branch, Doug Sutherland (19) Rental Director, Don Anderson (17) Photographer, Vicky (10) and Doug Culbert (15) caretakers of the Monument Garden, Kent Campbell (5) John Vinklers (3) Bruce McMurchy (4) Brian Maloney Office Liaison (1), Peter Lamb, Commissioner, Gavin Lawrence, Assistant Commissioner. (The number after the names represent years of service.)

This year we had the opportunity of having Brian Maloney join our group to replace Blain Martin. Blain, as the previous Executive Director of our Association, is definitely regarded in a position of high esteem, but we refer to him as a friend, and we really miss his personal exposure to lessons on safety.

Peter Moreton also retired, and we lost a valuable member. Upon joining our group, he mentioned he could only commit to one or perhaps two years at the most. Eight years and nine months later, we presented Peter with a letter of thanks for his participation.

It is such an honour to have Vicky and Doug Culbert in our group. Without these two I am sure our displays at each AGM would be so common that few would be attracted to our booth. Their survey monument garden is unique and is an interest grabber, especially for visitors from Europe.

The Yates database which has been accepted by Council is being maintained by Gord who will continue with its accuracy and development, until such a time as Council decides otherwise. This is a record of all registered surveyors and people reported as surveyors or people who signed plans, in the now known Province of Ontario from 1774 to present.

Kent has an increased workload at his regular job and is still finding time to help us plan for some special events. Perhaps the coming year will permit the completion of a joint venture with Archives Ontario.

A visit to head office will show that we have been a bit tardy with regards to identifying and documenting survey equipment sent to us from several sources. Doug Sutherland, Don Anderson and John Vinklers will be solving the open storage of gifts that can be seen at the bottom of the stairs. We thank everyone at 1043 for their patience and understanding. Many of the staff at Head Office assist us through the year and the committee would like to recognize Lena, Joyce, Penny, Julia, Sheila, Cynthia and Maureen.

INDEPENDENT AUDITORS' REPORT

To the members of
Association of Ontario Land Surveyors,

Opinion

We have audited the accompanying financial statements of the Association of Ontario Land Surveyors, which comprise the statement of financial position as at December 31, 2019 and the statements of operations, changes in fund balances and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

In our opinion, the accompanying financial statements present fairly, in all material aspects, the financial position of Association of Ontario Land Surveyors as at December 31, 2019, and its results of operations and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Association in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian accounting standards for not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Association's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Association or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Association's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Association's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that

may cast significant doubt on the Association's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Association to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Toronto, Ontario
February 18, 2020


RSSM LLP
Licensed Public Accountants

ASSOCIATION OF ONTARIO LAND SURVEYORS
STATEMENT OF FINANCIAL POSITION
AS AT DECEMBER 31, 2019

	General Operating Fund	Liability Insurance Fund	Claims Reserve Fund	Compen- sation Fund	Total 2019	Total 2018
	\$	\$	\$	\$	\$	\$
ASSETS						
CURRENT						
Cash	627,417	19,336	1,808,217	-	2,454,970	2,268,037
Investments (note 2)	537,988	1,421,914	1,098,522	150,000	3,208,424	2,931,771
Accounts receivable	30,328	-	-	-	30,328	28,617
Inventory	105,018	-	-	-	105,018	107,757
Prepaid expenses	158,651	-	-	-	158,651	113,952
	1,459,402	1,441,250	2,906,739	150,000	5,957,391	5,450,134
CAPITAL ASSETS (note 3)	144,633	-	-	-	144,633	142,426
TOTAL ASSETS	1,604,035	1,441,250	2,906,739	150,000	6,102,024	5,592,560
LIABILITIES						
CURRENT						
Accounts payable and accrued liabilities	101,056	-	-	-	101,056	109,128
HST payable	53,106	-	-	-	53,106	83,620
Deferred revenue (note 5)	976,723	-	-	-	976,723	1,186,346
Insurance premiums refund payable	-	265	-	-	265	265
	1,130,885	265	-	-	1,131,150	1,379,359
FUND BALANCES						
Invested in capital assets	119,633	-	-	-	119,633	142,426
Discipline reserve	9,410	-	-	-	9,410	8,565
Externally restricted	-	1,440,985	2,906,739	150,000	4,497,724	3,746,191
Unrestricted	343,663	-	-	-	343,663	315,575
Building reserve	444	-	-	-	444	444
	473,150	1,440,985	2,906,739	150,000	4,970,874	4,213,201
TOTAL LIABILITIES AND FUND BALANCES	1,604,035	1,441,250	2,906,739	150,000	6,102,024	5,592,560

COMMITMENTS (NOTE 4)

APPROVED ON BEHALF OF THE COUNCIL:

Executive Director and Treasurer

Finance Councillor

ASSOCIATION OF ONTARIO LAND SURVEYORS
STATEMENT OF OPERATIONS
YEAR ENDED DECEMBER 31, 2019

ASSOCIATION OF ONTARIO LAND SURVEYORS
STATEMENT OF CHANGES IN FUND BALANCES
YEAR ENDED DECEMBER 31, 2019

	General Operating Fund			Restricted Funds				Total 2019 \$	Total 2018 \$
	Budget 2019 (Note)	Actual 2019 \$	Actual 2018 \$	Liability Insurance Fund \$	Claims Reserve Fund \$	Compensation Fund \$	Total 2019 \$		
	\$	\$	\$	\$	\$	\$	\$		
REVENUE									
Fees and licences	1,378,530	1,406,688	1,359,457	-	-	-	-	-	
Survey Review Department	600,000	593,073	558,987	-	-	-	-	-	
Survey Records Index	39,000	21,350	33,750	-	-	-	-	-	
Investment income (loss)	60,000	53,681	3,965	231,451	-	14,879	246,330	93,042	
Cost-related activities	333,000	390,441	379,912	-	-	-	-	-	
Continuing education	10,000	29,208	10,052	-	-	-	-	-	
Internship program	-	10,416	7,000	-	-	-	-	-	
Book sponsorships and sales	5,000	499	3,550	-	-	-	-	-	
Insurance premiums	-	-	-	1,515,352	550,000	-	2,065,352	2,055,165	
Credit card fees	18,000	15,314	18,634	-	-	-	-	-	
Other income	125,000	14,095	86,276	-	-	-	-	-	
	<u>2,568,530</u>	<u>2,534,765</u>	<u>2,461,583</u>	<u>1,746,803</u>	<u>550,000</u>	<u>14,879</u>	<u>2,311,682</u>	<u>2,148,207</u>	
EXPENSES									
Salaries, benefits and consultants	729,596	804,731	759,250	48,000	-	-	48,000	48,000	
Office and general	287,439	188,591	226,467	-	-	-	-	12	
Survey Review Department	671,900	593,073	558,987	-	-	-	-	-	
Survey Records Index	39,000	67,222	33,575	-	-	-	-	-	
Building	54,359	53,608	44,971	-	-	-	-	-	
Discipline expenses	150,000	199,155	293,915	-	-	-	-	-	
Cost-related activities	326,000	362,168	291,663	-	-	-	-	-	
Governance commission	168,000	110,491	89,938	-	-	-	-	-	
Professional standards and practice commission	6,500	11,525	7,247	-	-	-	-	-	
Outreach and professional education commission	80,100	64,271	60,721	-	-	-	-	-	
Member services and other commission	36,100	28,904	26,311	-	-	-	-	-	
Continuing education	14,120	29,208	10,052	-	-	-	-	-	
Insurance premium	-	-	-	1,472,270	-	-	1,472,270	1,468,367	
Claims against the fund	-	-	-	-	25,000	-	25,000	75,944	
Credit card charges	18,000	15,466	18,084	-	-	-	-	-	
Cost of books distributed	2,500	1,841	25,708	-	-	-	-	-	
Donations	-	13,250	-	-	-	-	-	-	
	<u>2,583,614</u>	<u>2,543,504</u>	<u>2,446,889</u>	<u>1,520,270</u>	<u>25,000</u>	<u>-</u>	<u>1,545,270</u>	<u>1,592,323</u>	
EXCESS OF (EXPENSES) OVER REVENUE) REVENUE OVER EXPENSES	(15,084)	(8,739)	14,694	226,533	525,000	14,879	766,412	555,884	

	General Operating Fund				Restricted Funds			Total 2019 \$	Total 2018 \$
	Unrestricted	Invested in Capital Assets	Discipline Reserve	Building Reserve	Liability Insurance Fund	Claims Reserve Fund	Compensation Fund		
	\$	\$	\$	\$	\$	\$	\$		
Fund balances at the beginning of year	315,575	142,426	8,565	444	1,214,452	2,381,739	150,000	4,213,201	3,642,623
Excess of revenue over expenses (expenses over revenue)	205,485	(15,069)	(199,155)	-	226,533	525,000	14,879	757,673	570,578
Investment in capital assets	7,724	(7,724)	-	-	-	-	-	-	-
Intrafund transfers (note 8)	(200,000)	-	200,000	-	-	-	-	-	-
Interfund transfers (note 8)	14,879	-	-	-	-	-	(14,879)	-	-
FUND BALANCES AT THE END OF YEAR	343,663	119,633	9,410	444	1,440,985	2,906,739	150,000	4,970,874	4,213,201

ASSOCIATION OF ONTARIO LAND SURVEYORS
STATEMENT OF CASH FLOWS
YEAR ENDED DECEMBER 31, 2019

ASSOCIATION OF ONTARIO LAND SURVEYORS
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2019

	General Operating Fund		Restricted Funds			Total 2019	Total 2018
	2019	2018	Liability Insurance Fund	Claims Reserve Fund	Compensation Fund		
	\$	\$	\$	\$		\$	\$
OPERATING ACTIVITIES							
Cash collected from members, customers and other sources	2,244,750	2,828,123	1,515,352	550,000	-	2,065,352	2,030,165
Investment income	10,954	8,486	153,767	-	2,966	156,733	30,234
Cash paid to suppliers and employees	(2,608,980)	(2,439,966)	(1,520,270)	-	-	(1,520,270)	(1,592,482)
	(353,276)	396,643	148,849	550,000	2,966	701,815	467,917
INVESTING ACTIVITIES							
(Increase) decrease in investments	(25,519)	(8,738)	(130,724)	-	11,913	(118,811)	(20,602)
Purchase of capital assets	(17,276)	(9,800)	-	-	-	-	-
	(42,795)	(18,538)	(130,724)	-	11,913	(118,811)	(20,602)
NET INCREASE (DECREASE) IN CASH	(396,071)	378,105	18,125	550,000	14,879	583,004	447,315
Cash position at the beginning of the year	1,008,609	629,484	1,211	1,258,217	-	1,259,428	813,133
Interfund transfers	14,879	1,020	-	-	(14,879)	(14,879)	(1,020)
CASH POSITION AT THE END OF THE YEAR	627,417	1,008,609	19,336	1,808,217	-	1,827,553	1,259,428

PURPOSE OF THE ORGANIZATION

The Association of Ontario Land Surveyors (the "Association") is an organization whose principal object is to regulate the practice of professional land surveying in Ontario and to govern its members and holders of certificates of authorization in order that the public may be served and protected. The Association is a corporation without share capital created under the laws of the Province of Ontario. It is not subject to either federal or provincial income taxes.

1. SIGNIFICANT ACCOUNTING POLICIES

These financial statements have been prepared in accordance with Canadian accounting standards for not-for-profit organizations.

(a) Fund Accounting

The Association follows the restricted fund method of accounting for contributions. Unrestricted contributions related to general operations are recognized as revenue in the General Operating Fund in the year in which the related expenses are incurred. Restricted contributions are recognized as revenue in the appropriate restricted fund in the year received.

Revenues and expenses related to program delivery and administrative activities are reported in the General Operating Fund.

The Liability Insurance Fund has been established to cover the costs of administering the professional liability master insurance policies. Member firms are covered by master policies with the Novex Insurance Company. The Association's deductibles under these policies are paid out of the Claims Reserve Fund.

The Surveyors Act requires the Association to maintain the Compensation Fund to relieve or mitigate loss sustained by any person as a consequence of the dishonesty or incompetence of any member of the Association in the practice of professional land surveying.

(b) Revenue Recognition

Revenue for the Survey Review Department and the Survey Records Index and Continuing Education are recorded as deferred contributions and are recognized as revenue of the General Operating Fund in the year in which the related expenses are incurred.

Fees and licences are recognized into income in the period to which they relate.

Revenue from cost-related activities is recognized as revenue in the General Operating Fund in the year in which the goods are sold or when the services are rendered.

Unrestricted investment income is recognized as revenue in the General Operating Fund when it is earned. Restricted investment income accrued on the restricted funds is recognized in the fund balances as it is earned.

Revenue from insurance premiums is recognized in the Liability Insurance and Claims Reserve Funds in the year the invoices are issued, and collection is reasonably assured.

(c) Capital Assets

Capital assets are recorded at cost less accumulated amortization. Amortization is provided on a straight-line basis at the following annual rates:

Land and building	1/30
Furniture and fixtures	1/10
Computer equipment	1/3

If there is an indication that the capital assets may be impaired, an impairment test is performed that compares carrying amount to net recoverable amount, which is normally determined by estimating the sales less direct costs on an undiscounted basis over the remaining life of the asset. There were no impairment indicators in 2019.

(d) Donated Services

The work of the Association is dependent on the voluntary services of many members. Since these services are not normally purchased by the Association and because of the difficulty of determining their fair value, donated services are not recognized in these financial statements.

(e) Inventory

Inventory is recorded at the lower of cost and net realizable value, with cost being determined on an average basis. Net realizable value is estimated selling price less costs to sell in the ordinary course of operations.

(f) Collections

The Association has a collection of historical artifacts and a library of books and publications. No value is placed on these collections in these financial statements.

g) Management Estimates

The preparation of financial statements in conformity with Canadian accounting standards for not-for-profit organizations requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the year. Significant areas requiring the use of management estimates include amortization of capital assets, long-lived asset impairment assessments, and allocation of administration expenses to various departments within the Association. Actual results could differ from those estimates.

(h) Financial Instruments

The Association initially measures its financial assets and financial liabilities at fair value, except for non-arm's length transactions. The Association subsequently measures all its financial assets and financial liabilities at amortized cost, except for investments, which the Association elected to measure at fair value. Changes in fair value are recognized in the statement of operations.

Financial assets measured at amortized cost include cash and accounts receivable.

Financial liabilities measured at amortized cost include accounts payable and accrued liabilities.

Financial instruments that will be subsequently measured at amortized cost are adjusted by the transaction costs that are directly attributable to their origination, issuance or assumption. Transaction costs for financial instruments that will be subsequently measured at fair value are recognized in the statement of operations in the period they are incurred.

2. INVESTMENTS

	Fair Value	
	2019	2018
Guaranteed investment certificates (GICs)	\$ 442,267	\$ 965,316
Bonds	1,353,683	542,446
Equity	<u>1,412,474</u>	<u>1,424,009</u>
	<u>3,208,424</u>	<u>2,931,771</u>

The GICs and bonds mature from November 2020 to May 2025 and earn interest at rates between 3.556% and 6.75% (2018 - 2.55% and 5.63%).

3. CAPITAL ASSETS

	Cost	Accumulated Amortization	2019 Net Book Value	2018 Net Book Value
Building	\$582,677	\$(464,839)	\$117,838	\$118,785
Furniture and fixtures	240,972	(233,229)	7,743	8,919
Computer Equipment	101,478	(82,426)	19,052	14,722
	925,127	(780,494)	144,633	142,426

Amortization expense for the year was \$15,069 (2018 - \$13,460), of which \$10,869 (2018 - \$9,260) is included in office and general expense and \$4,200 (2018 - \$4,200) is included in the Survey Review Department expenses.

4. LEASE COMMITMENTS

The Association is committed under the terms of its non-cancellable equipment leases to make the following payments over the next 3 years:

	\$
2020	8,600
2021	8,600
2022	2,150

5. DEFERRED REVENUE

Deferred revenue relates to amounts collected in advance and is recognized into income in the period in which the related expenses are incurred or when the service is rendered.

	2018	Funds Received	Revenue Recognized	2019
Fees and licences	\$634,428	\$1,177,646	\$1,406,688	\$405,386
Survey Review Department	465,317	570,906	593,073	443,150
Cost-related activities	-	441,891	390,441	51,450
Continuing Education	65,332	29,760	29,208	65,884
Internship program	21,269	-	10,416	10,853
	1,186,346	2,242,052	2,451,675	976,723

6. FINANCIAL INSTRUMENTS

The significant financial risks to which the Association is exposed are credit risk, liquidity risk and market risk.

Credit risk

Credit risk is the risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation. The Association is subject to credit risk in respect of its accounts receivable but has historically suffered very few bad debts.

Liquidity risk

Liquidity risk is the risk that the Association will encounter difficulty in meeting obligations associated with financial liabilities. The Association is exposed to liquidity risk arising primarily from the accounts payable. The Association expects to meet these obligations as they come due by generating sufficient cash flow from operations.

Market risk

Market risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk is comprised of currency risk, interest rate risk and other price risk.

Currency risk

Currency risk is the risk that the fair value or cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. The company does not use derivative instruments to reduce its exposure to foreign currency risk.

As at December 31, 2019, the balance sheet includes \$951,532 (2018 - \$753,897) of cash and investments, denominated in foreign currency and converted into Canadian dollars.

Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Association has investments in bonds and GICs yielding fixed interest rates. Changes in the market yield rate can cause fluctuations in the fair value of the investments. The Association does not use derivative financial instruments to alter the effects of this risk.

Other price risk

Other price risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices other than those arising from interest rate risk or currency risk, whether those changes are caused by factors specific to the individual financial instrument or its issuer, or factors affecting all similar financial instruments traded in the market. The Association is exposed to other price risk through its investments in marketable securities invested in equity securities traded in an active market.

7. BUDGET

The budget figures are presented for comparison purposes only. They are unaudited and have been reclassified to conform with these financial statements.

8. TRANSFERS

During the year, the Association's Council internally restricted \$200,000 (2018 - \$300,000) to be used for discipline related. Transfers of this amount were made from the unrestricted fund balance to the discipline reserve and building reserve funds within the General Operating Fund. The internally restricted amount is not available for unrestricted purposes without approval of the Council.

In 2007, the Council passed a motion to allow the Compensation Fund to accumulate to a maximum of \$150,000. Accordingly, in the year ended December 31, 2019, \$14,879 was transferred from the Compensation Fund to the General Operating Fund (2018 - \$1,020).

9. ALLOCATION OF EXPENSES

	2018	2017
	\$	\$
Salaries, benefits and consultants:		
Survey Review Department	27,600	27,600
Survey Records Index	3,000	3,000
Office and general:		
Survey Review Department	16,200	16,200
Building:		
Survey Review Department	14,700	14,700
Amortization:		
Survey Review Department	4,200	5,330

Association of Ontario Land Surveyors – Budget 2020

SUMMARY OF REVENUE AND EXPENSES

	2019 Budget	Actual 2019	2020 Budget
REVENUE:			
FEES AND LICENSES	\$1,378,530	\$1,406,688	\$1,454,300
SURVEY RECORDS INDEX	\$39,000	\$21,350	\$132,900
INTEREST	\$60,000	\$68,560	\$60,000
CONVENIENCE FEE ON CREDIT CARD CHARGES	\$18,000	\$15,314	\$14,000
COST-RELATED ACTIVITIES	\$333,000	\$390,441	\$327,500
CONTINUING EDUCATION	\$10,000	\$29,760	\$30,000
LEGAL/LEGAL CONSTITUTIONAL CHALLENGE COST RECOVERY	\$1,500	\$0	\$0
DISCIPLINE COST RECOVERY	\$100,000	\$18,226	\$40,000
BOOK GREAT LENGTHS SALES REVENUE	\$5,000	\$499	\$0
OTHER INCOME (Internship+York Un.incl.)	\$125,000	\$24,241	\$14,000
SUB-TOTAL AOLS	\$2,070,030	\$1,975,079	\$2,072,700
PLAN SUBMISSION REVENUE	\$600,000	\$593,073	\$560,000
SUB-TOTAL	\$600,000	\$593,073	\$560,000
TOTAL REVENUE	\$2,670,030	\$2,568,151	\$2,632,700
EXPENSES:			
SALARIES, BENEFITS AND CONSULTANTS	\$729,596	\$804,731	\$748,334
OFFICE ADMINISTRATION	\$184,939	\$166,764	\$170,114
SURVEY RECORDS INDEX	\$39,000	\$67,222	\$130,000
BUILDING	\$44,359	\$46,208	\$44,800
BUILDING - RENOVATIONS & REPAIRS	\$10,000	\$7,400	\$10,000
COMMITTEES & RELATED EXPENSES	\$291,600	\$222,440	\$332,700
DISCIPLINE RESERVE FUND	\$250,000	\$217,381	\$140,000
COST RELATED ACTIVITIES	\$326,000	\$362,168	\$305,000
CONTINUING EDUCATION	\$14,120	\$29,208	\$48,428
LEGAL NON DISCIPLINE	\$100,000	\$17,958	\$15,000
BOOK GREAT LENGTHS COST OF SALES	\$2,500	\$841	\$600
CREDIT CARD CHARGES	\$18,000	\$15,466	\$14,000
MISCELLANEOUS	\$0	\$0	\$0
AMORTIZATION	\$4,000	\$10,869	\$9,500
SUB-TOTAL AOLS	\$2,014,114	\$1,968,656	\$1,968,476
SURVEY REVIEW DEPARTMENT	\$671,900	\$593,073	\$678,077
SUB-TOTAL	\$671,900	\$593,073	\$678,077
TOTAL EXPENSES	\$2,686,014	\$2,561,728	\$2,646,553
NET INCOME (EXPENSES) FOR PERIOD	-\$15,984	\$6,423	-\$13,853

GENERAL REVENUE AND COST RELATED INCOME (EXPENSE)

	2019 Budget	Actual 2019	2020 Budget
FEE AND LICENSES:			
OLS (Licensed) FEES	\$1,016,025	\$1,038,302	\$1,068,750
OLS (Registered) FEES	\$20,625	\$24,075	\$23,800
CERTIFICATE OF AUTHORIZATION	\$276,050	\$297,599	\$304,050
ASSOCIATE MEMBERS FEES	\$65,830	\$46,712	\$57,700
TOTAL FEE AND LICENSES	\$1,378,530	\$1,406,688	\$1,454,300
OTHER INCOME:			
MISCELLANEOUS REVENUE,(Interest on investmts, other)	\$125,000	\$14,095	\$14,000
TOTAL OTHER INCOME	\$125,000	\$14,095	\$14,000
COST-RELATED INCOME OR (EXPENSE):			
REVENUE			
EXAMS,LECTURE,EVALUATIONS	\$80,000	\$89,936	\$80,000
PUBLICATIONS & MATERIALS	\$3,000	\$1,160	\$500
QUARTERLY	\$50,000	\$44,855	\$47,000
ANNUAL GENERAL MEETING	\$200,000	\$254,490	\$200,000
TOTAL REVENUE	\$333,000	\$390,441	\$327,500
EXPENSE			
EXAMS,LECTURE,EVALUATIONS 8200 8205	\$65,000	\$45,433	\$50,000
PUBLICATIONS & MATERIALS 8210 - 8219, 8221- 8230	\$3,000	\$4,253	\$3,000
QUARTERLY 8260 8261	\$55,000	\$49,788	\$52,000
MEMBERSHIPS & SUBSCRIPTIONS 8220	\$3,000	\$591	\$0
ANNUAL GENERAL MEETING 4510:4999 2015	\$200,000	\$262,103	\$200,000
TOTAL EXPENSES	\$326,000	\$362,168	\$305,000
TOTAL COST-RELATED INCOME(EXPENSE)	\$7,000	\$28,273	\$22,500

COMMITTEE AND RELATED EXPENSES

	2019 Budget	Actual 2019	2020 Budget
GOVERNANCE COMMISSION:			
COUNCIL MEETINGS 2500	\$60,000	\$69,569	\$55,000
COUNCIL REGIONAL GROUPS 2501	\$5,000	\$111	\$4,000
COUNCIL APPROVED PROJECT FUNDING	\$100,000		\$100,000
Council approved Project Funding Balance		\$26,160	
-Public Relations		\$0	
-Gull Lake		\$6,250	
-PSRI	\$0	\$2,045	\$0
-BOOK PROMOTION 2504	\$0	\$0	\$40,000
- SURVEYORS NEEDED ? - DAVE HORWOOD 2503	\$0	\$7,817	\$0
REGISTRATION COMMITTEE 2020 (STATUTORY)	\$500	\$0	\$500
REGISTRATION HEARING 2025	\$0	\$0	\$0
FEES MEDIATION (STATUTORY) 2035	\$100	\$3,076	\$100
NOMINATING COMMITTEE (STATUTORY) 2110	\$100	\$0	\$100
EXECUTIVE COMMITTEE (STATUTORY) 2115	\$300	\$0	\$300
LEGISLATION REVIEW COMMITTEE 2216	\$2,000	\$1,713	\$2,000
	\$168,000	\$116,741	\$202,000
PROF STANDARDS & PRACTICE COMMISSION:			
PROFESSIONAL STANDARDS COMMITTEE 2200	\$1,000	\$5,000	\$5,000
DIGITAL PLAN SUBMISSION TASK FORCE 2201	\$500	\$0	\$500
SRD COMMITTEE 5790	\$2,000	\$2,627	\$2,000
COMPLAINTS COMMITTEE 2040	\$2,000	\$2,912	\$2,000
DISCIPLINE COMMITTEE (STATUTORY) 2535	\$500	\$987	\$2,000
UNDERGROUND UTILITIES COMMITTEE 2230	\$500	\$0	\$100
MONUMENTATION PROTECTION COMMITTEE 2145	\$500	\$0	\$100
	\$7,000	\$11,525	\$11,700
OUTREACH & PROFESSIONAL EDUCATION COMMISSION:			
PUBLIC AWARENESS 2560-61	\$30,000	\$19,402	\$21,000
GEOMATICS RECRUITMENT LIAISON COMMITTEE 2150	\$12,000	\$7,020	\$9,000
UNIVERSITY COLLEGE STUDENTS LIAISON COMMITTEE 2151	\$7,000	\$2,991	\$7,000
A.E.R.C. COMMITTEE (STATUTORY) and CBEP5 2510	\$30,000	\$34,858	\$40,000
CONTINUING EDUCATION	\$500	\$0	\$100
EXPANDED PROFESSION TASK FORCE		\$0	\$1,500
MUNICIPAL SURVEYORS		\$0	\$100
WEBSITE MAINTENANCE COMMITTEE 2185	\$500	\$0	\$200
	\$80,000	\$64,271	\$78,900
MEMBER SERVICES COMMISSION:			
AGM PLANNING COMMITTEE 2170	\$500	\$380	\$500
INSURANCE ADVISORY COMMITTEE 7260	\$500	\$0	\$500
ARCHIVES AND HISTORICAL 2010	\$2,000	\$1,884	\$2,000
AGM OPERATING TASK FORCE 2160	\$500	\$0	\$0
	\$3,500	\$2,264	\$3,000
PRESIDENT'S EXPENSES 2540			
PUBLICATIONS 2570	\$30,000	\$21,423	\$30,000
AWARDS AND CITATIONS 2580	\$1,000	\$4,641	\$5,000
FINANCE COMMITTEE 2222	\$2,000	\$575	\$2,000
	\$100	\$0	\$100
	\$33,100	\$26,639	\$37,100
TOTAL COMMITTEE EXPENSES	\$291,600	\$221,440	\$332,700

OFFICE ADMINISTRATION AND BUILDING EXPENSES

	2019 Budget	Actual 2019	2020 Budget
OFFICE ADMINISTRATION EXPENSES:			
AUDIT & ACCOUNTING 1510	\$15,000	\$23,525	\$15,000
BANK CHARGES 1530	\$500	\$4,017	\$2,000
INSURANCE GENERAL 1535	\$15,450	\$12,208	\$18,800
INTERNET ACCESS 2187	\$2,575	\$3,515	\$4,500
WEBSITE MAINTENANCE & DEVELOPMENT 2188	\$75,000	\$44,717	\$50,000
WEBSITE HOSTING 2189	\$2,000	\$400	\$1,500
OFFICE SUPPLIES & EXPENSES 1560 1565	\$7,500	\$10,646	\$9,000
POSTAGE & COURIER 1570	\$7,000	\$12,783	\$8,500
STAFF SEARCH 1735	\$10,000	\$0	\$10,000
STATIONARY & PRINTING 1580	\$3,000	\$1,747	\$3,000
TELEPHONE 1590	\$6,000	\$8,401	\$9,000
COMPUTER SERVICES 1600	\$15,000	\$24,429	\$22,000
SOFTWARE UPDATES & SUBSCRIPTIONS 1602	\$10,000	\$5,697	\$7,500
CITRIX WEB EXPENSES 1603		\$0	\$0
COPIER LEASING & MAINTENANCE 1610 1615	\$12,500	\$12,956	\$14,000
EXECUTIVE DIRECTOR'S EXPENSES 1743	\$7,500	\$9,603	\$6,000
REGISTRAR'S EXPENSES 1746	\$5,000	\$3,406	\$3,000
DEPUTY REGISTRAR'S EXPENSES 1750	\$7,500	\$4,800	\$3,000
MISCELLANEOUS 1760	\$100	\$114	\$0
LESS ALLOCATION TO SRD 1790	-\$16,686	-\$16,200	-\$16,686
TOTAL	\$184,939	\$166,764	\$170,114

SALARIES, BENEFITS AND CONSULTANTS

SALARIES, BENEFITS AND CONSULTANTS:			
SALARIES 1700	\$715,800	\$765,342	\$733,831
BENEFITS & PENSIONS 1710:1720	\$90,000	\$114,989	\$87,207
STAFF TRAINING 1736	\$500	\$0	\$4,000
CONSULTANTS & OFFICE OVERLOAD 1730	\$0	\$0	\$0
LESS ALLOCATION FROM INSURANCE	-\$48,000	-\$48,000	-\$48,000
LESS ALLOCATION TO SRD 1794	-\$28,704	-\$27,600	-\$28,704
TOTAL	\$729,596	\$804,731	\$748,334
BUILDING EXPENSES:			
UTILITIES 3010	\$20,000	\$21,526	\$20,000
INDOOR MAINTENANCE	\$12,000	\$11,914	\$12,000
V.B.V. OUTDOOR MAINTENANCE 3030	\$8,000	\$9,000	\$9,000
PROPERTY TAX 3040	\$7,500	\$7,314	\$7,500
INSURANCE 3060	\$12,000	\$11,153	\$11,000
LESS ALLOCATION TO SRD 1791	-\$15,141	-\$14,700	-\$14,700
TOTAL	\$44,359	\$46,208	\$44,800
AMORTIZATION:			
AMORTIZATION 3000	\$9,000	\$15,069	\$14,500
LESS ALLOCATION TO SRD 1792	-\$5,000	-\$4,200	-\$5,000
TOTAL	\$4,000	\$10,869	\$9,500

SCHEDULE OF CONTINUING EDUCATION

	2019 Budget	Actual 2019	2020 Budget
REVENUE:			
CONTINUING EDUCATION-REVENUE ADJUSTMENT	\$0	\$0	\$0
SEMINARS	\$0	\$0	\$20,000
MEASUREMENT ADJUSTMENT SEMINAR	\$0	\$0	\$0
LEADERSHIP EXCELLENCE SEMINAR 8047	\$0	\$0	\$0
SURVEY EQUIPMENT THEORY, USE, MAINTENANCE & ADJUSTMENT	\$0	\$22,449	\$0
GEODETIC PICNIC	\$10,000	\$7,311	\$10,000
TOTAL REVENUE	\$10,000	\$29,760	\$30,000
EXPENSES:			
CONTINUING EDUCATION COMMITTEE 2070	\$0	\$0	\$0
CONTINUING EDUCATION SUBSCRIPTIONS 2071	\$3,570	\$3,500	\$1,000
CONTINUING EDUCATION WEBINARS 2072	\$2,550	\$4,048	\$4,000
POSTAGE & COURIER 6640	\$0	\$0	\$0
SEMINARS			\$20,000
MEASUREMENT ADJUSTMENT SEMINAR	\$0	\$0	\$0
LEADERSHIP EXCELLENCE SEMINAR 8247	\$0	\$0	\$0
SURVEY EQUIPMENT THEORY, USE, MAINTENANCE & ADJUSTMENT 8249	\$0	\$15,126	\$15,428
GEODETIC PICNIC 8255	\$8,000	\$6,534	\$8,000
TOTAL EXPENSES	\$14,120	\$29,208	\$48,428
NET INCOME OR (EXPENSE)	-\$4,120	\$552	-\$18,428

Surplus as of Dec 31, 2019 \$65,884

LEGAL NON-DISCIPLINE

	2019 Budget	Actual 2019	2020 Budget
REVENUE:			
REVENUE	\$1,500	\$0	\$0
TOTAL REVENUE	\$1,500	\$0	\$0
EXPENSES:			
LEGAL GENERAL 1540	\$15,000	\$17,958	\$15,000
LEGAL - CONSTITUTIONAL CHALLENGE 1541	\$85,000	\$0	\$0
TOTAL EXPENSES	\$100,000	\$17,958	\$15,000
NET INCOME OR (EXPENSE)	-\$98,500	-\$17,958	-\$15,000

BUILDING – RENOVATION & REPAIRS

	2019 Budget	Actual 2019	2020 Budget
EXPENSES:			
RENOVATIONS & REPAIRS 3050	\$10,000	\$7,400	\$10,000
TOTAL EXPENSES	\$10,000	\$7,400	\$10,000

Surplus for Building Fund as of Dec 31, 2019 \$444

SURVEY RECORDS INDEX

	2019 Budget	Actual 2019	2020 Budget
REVENUE:			
SURVEY RECORD INDEX FEES	\$39,000	\$21,350	\$132,900
Transfer from Surplus	\$0	\$0	\$0
TOTAL REVENUE	\$39,000	\$21,350	\$132,900
EXPENSES:			
ADMINISTRATION 9210	\$3,000	\$55	\$30,000
CONSULTANTS 9215	\$36,000	\$67,167	\$100,000
POSTAGE & COURIER/PRINTING 9220 9230 9240 9250 9260	\$0	\$0	\$0
2008 CONTRACT	\$0	\$0	\$0
TOTAL EXPENSES	\$39,000	\$67,222	\$130,000
NET INCOME or (EXPENSE)	\$0	-\$45,872	\$2,900

DISCIPLINE RESERVE FUND

	2019 Budget	Actual 2019	2020 Budget
REVENUE:	\$100,000		\$40,000
DISCIPLINE COST RECOVERY HEARING 1 1030	\$0	\$0	
DISCIPLINE COST RECOVERY HEARING 2 1031	\$0	\$0	
DISCIPLINE COST RECOVERY HEARING 4 1033	\$0	\$18,226	
TOTAL REVENUE	\$100,000	\$18,226	\$40,000
EXPENSES:			
REGISTRAR'S INVESTIGATION 2528	\$10,000	\$0	\$10,000
HEARINGS	\$0	\$0	\$100,000
-HEARING 2- DISCIPLINE	\$60,000	\$138,889	\$30,000
-HEARING 3- DISCIPLINE	\$15,000	\$0	\$0
-HEARING 4- DISCIPLINE	\$65,000	\$0	\$0
-HEARING 6- DISCIPLINE	\$85,000	\$0	\$0
-HEARING 7- DISCIPLINE	\$0	\$0	\$0
-HEARING 8- DISCIPLINE	\$15,000	\$0	\$0
- HEARING 10 - DISCIPLINE	\$0	\$0	\$0
- HEARING 12 - DISCIPLINE		\$36,440	
- HEARING 13 - DISCIPLINE		\$18,116	
- HEARING 14 - DISCIPLINE		\$15,867	\$0
- HEARING 15 - DISCIPLINE		\$1,372	
- HEARING 16 - DISCIPLINE		\$3,311	
- DISCIPLINE CASES GENERAL		\$3,387	
TOTAL EXPENSES	\$250,000	\$217,381	\$140,000
NET INCOME or (EXPENSE)	-\$150,000	-\$199,155	-\$100,000

Surplus (Budget) as of Dec 31, 2019 \$9410

SURVEY REVIEW DEPARTMENT

	2019 Budget	Actual 2019	2020 Budget
REVENUE:			
PLAN SUBMISSION REVENUE	\$600,000	\$570,906	\$560,000
Deferred Revenue		\$22,167	
TOTAL REVENUE	\$600,000	\$593,073	\$560,000

EXPENSES:			
OFFICE EXPENSES 5540	\$4,000	\$4,080	\$4,000
POSTAGE & COURIER 5545	\$6,000	\$6,964	\$7,500
STATIONERY & PRINTING 5550	\$7,000	\$5,594	\$7,000
TELEPHONE 5560	\$5,800	\$7,188	\$7,500
COMPUTER 5570	\$6,500	\$6,360	\$6,500
COPIER 5580	\$600	\$0	\$600
SALARIES 5700	\$260,000	\$254,551	\$278,322
BENEFITS & PENSIONS 5710:5720	\$40,000	\$34,688	\$35,751
CONSULTANTS 5730	\$247,500	\$211,755	\$247,500
MANAGER'S EXPENSES & TRAVEL 5745	\$8,000	\$3,645	\$5,000
EXAMINERS' EXPENSE & TRAVEL 5750	\$40,000	\$11,747	\$30,000
DEPRECIATION 5755	\$4,200	\$4,200	\$5,000
ALLOCATION OF FACILITIES 5770	\$14,700	\$14,700	\$14,700
ALLOCATION OF GRL SALARY 5785	\$27,600	\$27,600	\$28,704
TOTAL EXPENSES	\$671,900	\$593,073	\$678,077
NET INCOME or (EXPENSE)	-\$71,900	\$0	-\$118,077

Surplus as of Dec 31, 2019 \$443,150

BIOGRAPHIES

Frederick Robert Bearman, OLS# 773 **1913 – September 19, 2008**



Frederick "Bert" Bearman passed away peacefully on Friday, September 19, 2008 at the Sunnybrook Hospital K Wing in his 95th year.

He leaves behind his beloved wife Lilian of 57 years. Loving father of Robert and James of Mississauga and Patricia and her husband Gary Fowler of Etobicoke. Dear grandfather of Jason and Daniel. Predeceased by his sister Olga Day. He will be greatly missed by his family and friends who have wonderful memories of their times together.

Born in Owen Sound, he excelled in sports particularly swimming. He joined the Air Force in 1941 and served 5 years, mostly overseas. After the war, Bert became an Ontario Land Surveyor and went on to own both a surveying and bowling business.

Source: Published in the Toronto Star on Sept. 21, 2008

Howard Milton Gibson, OLS# 1107 **1926– December 24, 2013**



GIBSON, Howard Milton - Passed away peacefully on Tuesday, December 24th, 2013, at the age of 87. Beloved husband of the late Ormah (2005). Dear father of Hugh, Ormah-Lee Jacobs, and Laura (Paul VanDenAkker), all of London. Loving grandfather of Sadie and Nicolas. Dear brother of Jean Brunskill and brother-in-law of Janet Lee. Fondly remembered by his extended family, the Muldoon family and friends.

Howard was a WWII Veteran, retired from the R.C.A.F. and later retired from his professional, private career as a Professional Engineer and an Ontario Land Surveyor.

Source: <http://yourlifemoments.ca/sitepages/obituary.asp?oid=765097>

Beecher Doran Poyser, OLS# 829 **August 5, 1926 – December 28, 2013**

My brother, John (Beecher) Poyser, passed away from a rare blood disease on December 28, 2013. He was 87 years old. Known by most people in Bobcaygeon by his nickname 'John', he was a familiar figure around town, riding his bicycle, greeting friends, neighbours and acquaintances alike with his warm, cordial smile. Unpretentious in manner, gentlemanly in bearing, he lived a quiet life in his small bungalow on Head Street.

A visitor to his home would receive the royal treatment, being offered a chair (on which a cat or two may be sleeping) close to the wood-burning fire, and served a cup of hot coffee made from the fresh water of a nearby spring. Then, comfortable ensconced, the two would sit a while in quiet companionship talking of many things, for he possessed a fine intellect and was knowledgeable on many subjects. Jeopardy was his favourite TV show, and he would often come up with the answer before the contestant, in questions pertaining to history, geography or mathematics.

His chief passion and concern were for the feral cats that abound in Bobcaygeon. Every night between the hours of five and six, he could be seen pedaling up Head Street in the direction of the seniors' centre where a multitude of cats awaited his arrival.

Upon seeing him, they would run from all directions, leaping crazily in their eagerness to partake of the bounty he was providing. They will surely miss him, as will I, for he was the kindest brother one could ever have. Goodbye Beecher. God be with you.

By Dorothy Hannon

Source: https://issuu.com/thepromoter/docs/the_kawartha_promoter_feb_7_2014

POYSER, Beecher (known as John to many) On Saturday, December 28, 2013, passed away quietly at home.

Born in North Bay, Ontario on August 5, 1926, Beecher was the dear brother of Barbara Walker of Haliburton and Dorothy Hannon of Bobcaygeon. Special uncle of Lesley Sheppard, Laurie Eadie, Dennis and Alison Eadie, and David, Jamie, Kenny and Laura Walker.

A graduate of Queen's University (1948), a World War II Veteran, he was a long-term employee of the Provincial Government – Ministry of the Environment. He will be sadly missed by his family and friends as well as by the feral cats of Bobcaygeon whose feeding, and care was a daily pleasure for John.

Source: <https://hendrenfuneralhome.com/tribute/details/432/Beecher-Poyser/obituary.html#content-start>

Thomas Richard Windsor, OLS# 1218, DLS
September 18, 1930 – December 24, 2013



With great sadness the family wishes to announce his passing on August 31 at the age of 84.

He is loved and cherished husband of Barbara Windsor. Loving father to Roy (Sharon) and Grant (Karen). Treasured Grandpa to Jake and Zack. Born in Saskatchewan to Frank Windsor and Mary Bell. He will be fondly remembered by his in-laws and extended family.

Source: The Ottawa Citizen, September 12, 2015

Thomas Richard Windsor graduated from Turtleford Highschool in Saskatchewan in 1948. From 1948 to 1951 he received Canadian Officers Training with the Royal Canadian Engineers at Chilliwack, B.C. and at Whitehorse, Y.T.

In 1953, he obtained his undergraduate degree in civil engineering from the University of Saskatchewan.

He served his articles under Peter John Timoschuk, DLS, ALS# 217. 1955, he was commissioned as a Dominion Lands Surveyor. From 1954 to 1963, he worked with the Federal Government with legal surveys with the Department of Mines and Technical Surveys.

On May 24, 1968 he was commissioned as an Ontario Land Surveyor. He is a professional engineer— having spent the years from 1963 to 1970 on various heavy construction projects in Toronto, Montreal and Ottawa.

Thomas volunteered with the Pinecrest Little League in Ottawa. He was also a member of the Biography and Repository Committee of the Association of Ontario Land Surveyors.

Submitted by Thomas Richard Windsor on December 28, 1970.

Anthony Charles Bourne, OLS# 782
May 10, 1924 – June 5, 2019

BOURNE, Anthony Charles “Tony” - World War II Veteran of RCAF, Former owner and operator of Bourne and Simpson Surveyor, lifelong Legion Member and avid Supporter of the Pembroke Lumber Kings for 50 years.

Peacefully at Ottawa Hospital - General Campus on Wednesday, June 5th, 2019 in his 96th year. Tony Bourne of Pembroke, beloved husband of Marilyn Bourne (nee McConeghy). Loving father of Terry Bourne, Maureen (Mark) Cormack, Marcia Leach and Paul Bourne (Lisa).

Caring grandfather of Vicki Leach, Jennifer Leach, Murray Leach, Tyler Bourne, Raynah Bourne and Jessica Cormack. Dear brother of Josephine Morris and Ruth Thiessen. Predeceased by parents Raymond and Winnifred Bourne (nee Thorpe), by brothers David and Austin Bourne, and by sisters Pauline Kelley and Barbara Bjelke.

Source: <https://www.nevillefuneralhome.ca/book-of-memories/3866901/Bourne-Anthony/index.php>

Paul Alexander Riddell, OLS# 1236, CLS
August 30, 1942 – July 30, 2019



Peacefully on July 30, 2019. Beloved husband and friend of Sharon. Loving father of Christine and Catherine (Glen MacEachern). Cherished grandfather of Benjamin, Isaac and June. Dear brother of David (Nancy), John (Donna) and the late Robert (Late Sherrie).

He will be greatly missed by nieces, nephews, extended family and friends. Paul was a member of the Lions Club doing charitable work for over 40 years

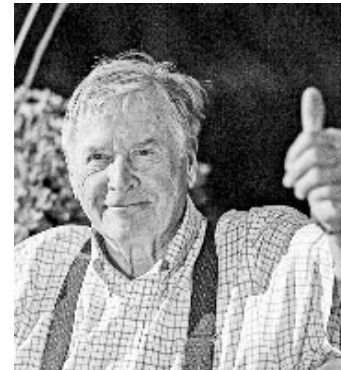
Paul articled with Stewart, W. Allan, OLS 954 of Picton, Ontario on April 1, 1964. He was sworn in as an OLS on June 16, 1969. He was employed at Fairhall & Moffatt Limited in Wellington, ON in the 1970's and was in private practice during the 1980's.

Paul was a Fence Viewer for Goulbourn Township. He volunteered at the Stittsville District Lion's Club and the Ottawa-Carleton Industrial Training Council Architects and Engineers Committee.

He was member of the AOLS Registration Committee, Task Force of Technical Education, Municipal Task Force, Ombudsman Committee, Fee Schedule Committee and the Annual General Meeting Committee. The AOLS Council and President Michael J. O'Sullivan OLS 1169 presented him with a citation on February 20, 1990 for his three years of service as a Councillor.

Submitted by Paul A. Riddell

William James "Bill" Plaxton, OLS# 1161
May 20, 1933 – September 8, 2019



Sadly, on Sunday, September 8, 2019 we lost Bill to a brave and prolonged battle with cancer at Parkwood Mennonite Home in Waterloo, Ontario. Bill was a devoted husband to Jill (Merry), loving father to William (Emma Wakim) and Heather (David MacDonald), and grandfather to Scott, Brynn, Graham, Reese, Alison, and William. Bill charmed everyone he met and was known for his gentle character, contrarian wit, and his deep love for his family and friends.

Educated at UTS and U of T, Bill worked his entire life as an Ontario Land Surveyor. Without a doubt, he was a devoted supporter of the varied activities of Granji, Bill, and Heather, as well as his six active grandchildren. Bill never missed a sporting event at UCC or Havergal, and he took great pride in every gathering of friends and family, convocation, homecoming, or equestrian event on the family calendar.

Bill was happiest on the farm in Puslinch, and he took pride in a meticulously maintained lawn, happy family dogs, and well-attended horses. In his later years, Bill cherished cards, phone calls, and visits from everyone - and especially with his old friends Jimmy, Rumble, Gerry, and Bob who shared great laughs and memories! Enormous thanks to so many people who provided excellent care and company to him including the staff at Grand River Hospital, Luther Village, Lisaard House, and Parkwood Mennonite Home.

Published in The Globe and Mail from Sept. 19 to Sept. 23, 2019

**William Douglas Smith, OLS# 1403, OLS
1945 – December 24, 2013**



Doug was born and raised in Barrie, Ontario. As a teenager, during the summer months, he worked for the Engineering Department of Barrie. During this time, he was exposed to surveying and it was this experience that led him to pursue this profession as his career.

He attended Ryerson Polytechnic Institute for 2 years starting in 1967. Following his schooling he was employed by Marshall, Macklin & Monahan in Guelph, Ontario. In 1971, he returned to Ryerson for additional studies. Upon completion in 1972, he

continued working in Guelph and started his articling under Bruce Donaldson, OLS# 1125.

In 1974, he moved to St. Thomas and transferred his articles to Brian Vaughan, OLS# 1355. He received notice that he passed his exams and he was sworn in as an Ontario Land Surveyor on May 16, 1975. He and Brian formed a partnership in St. Thomas and Vaughan & Smith Ltd. was created.

In 1977, Doug moved back to Barrie to be close to his mother following his father's death and opened his business, Smith, W. D. Ltd. During the next 18 years, his work involved surveying properties in the Simcoe County and surrounding areas. Doug was involved with the Kinsmen and Rotary Clubs in Barrie. He enjoyed hockey both as a player and as a coach. He sold his business in 1995 to Epplett, Worobec Raikes Surveying Ltd. in Barrie.

In his retirement, Doug enjoyed spending time with his grandchildren, especially being an active viewer at many sporting venues, cheering from the stands. Doug was diagnosed with ALS in April 2019 and passed away peacefully at home on September 29, 2019 with his wife Verna, and his children, Shelby, Jana, and Douglas by his side.

Submitted by Verna Smith and Family

**Albert "Ab" Henry Heywood, OLS# 1177
July 17, 1929 – September 24, 2019**



Sadly, Ab passed away on the morning of September 24, 2019. He leaves his wife Veronica (Vonnie) and his daughter Michele. He was predeceased by his son Andrew William and his daughter Marie Annette.

His passions were his family, his beliefs and boating with his buddy Rick. He was a long-time volunteer with his church, St Cyprian's Anglican Church and the Canadian Cancer Society. A tremendous thanks to the whole palliative care team at North York General Hospital.

Published in The Toronto Star on Sept. 28, 2019

**William Charles Carmichael, OLS# 1210
June 26, 1939 – November 17, 2019**



Bill passed away at Uxbridge Cottage Hospital on Thursday, November 7th, 2019 at the age of 80.

Much loved Dad of Jody Carmichael of Whitby. Survived by his sister Nancy Sheffield and her husband Robert, of Colorado.

Fondly remembered by his cousin Suzanne Hethrington of Thornbury, as well as nieces and nephews and many dear friends. Bill loved the outdoors and was most at home at his beloved Head Lake.

Source: <https://barnesmemorialfuneralhome.com/book-of-memories/4015879/Carmichael-William/index.php>

Robert Terrence Stephenson, OLS# 1113
May 18, 1933 – November 20, 2019



Robert peacefully passed away in his 86th year. Beloved and devoted husband of Mildred (Hutton) for 61 years. Cherished father of Michael Stephenson and Annie (Jon) Wells.

Adored grandfather of Shannon, James, Brittany, Matthew and Ashleigh. Beloved great grandfather of Beau and Levi. Cherished brother of Shirley Hynd. Forever missed by Tracy Derkach and David Mander. Lovingly remembered by his nieces, nephews and dear friends.

Source: <https://www.arbormemorial.ca/brampton/obituaries/robert-terry-stephenson/41877>

Robert Terry Stephenson was born on May 18, 1933. He obtained his secondary school diploma at St. Michael's College School in Toronto in 1951.

He entered the surveying profession in May of 1952 with the firm, King Coons Phelan and Porter. By October of 1952, he was articling with Herbert Coons, OLS# 715. From 1954 to 1958, he worked on various construction and surveying projects with Ontario Hydro and Marshall, Macklin's Elliot Lake town site. He continued to article under John D. Barnes, OLS# 734. He was commissioned as an Ontario Land Surveyor on July 4, 1962.

From 1962 to 1967 he worked with McConnel & Jackson and with Speight & van Nostrand Ltd. he went into private practice from 1967 to 1977. He worked at the head office of Marshall Macklin Monahan from 1977 to 1982. In 1989, Robert worked with David B. Searles Surveying Ltd. until 1993. Robert went into private practice in 1994 until his retirement in December of 2000.

Submitted by Robert Terry Stephenson

John "Jack" Richard Webster, OLS# 1052
June 24, 1937 – December 17, 2019



Peacefully, with his family by his side at Victoria Hospital, London, John "Jack" Webster passed away on Tuesday, December 17, 2019 in his 83rd year. Beloved husband of E. Anne (nee Brown) Webster for nearly 53 years. Loving father of Todd Webster and his wife Brenda and Kym Webster-Abrams and her husband Ken. Cherished Grandpa of Christian and Cameron Abrams. Dear brother-in-law of Doug Brown (the late Janice).

Jack had a long career of over 40 years as a land surveyor and partner with A.G.M. Surveyors and following his retirement was active with travelling and church activities.

John Richard Webster was born to Richard William Webster and Maggie Cowie Webster on June 24, 1937. He was educated at Chesley Avenue Public School and Trafalgar Public School. He obtained his secondary school education at H. B. Beal Technical School and Central Collegiate in London, ON.

John apprenticed as a surveyor with John Elworthy Farncomb, OLS 587 and on May 13, 1960 he obtained his OLS designation. He worked for the firm Archibald Gray and McKay in the 1960's and was responsible for the 'city work', with some opportunity to 'get out of town'. In 1979, he became an equal shareholder.

During the 1990's he took on a more of 'management' role rather than a 'field' role. He is an original member of the Southwestern Regional Group having served as a director and secretary-treasurer for several years. He also served in several committees at Fanshawe College. He retired from active practice on January 1, 2004.

He served as an elder and member of the church board of Hamilton Road Presbyterian Church until it closed. He also attended Chalmers Presbyterian Church, and served on the property management committee.

Submitted by John Webster, OLS 1052

**John Stuart Duncan, OLS# 1242, OLS
May 12, 1945 – December 17, 2019**



John passed away at Hospice Peterborough on Tuesday, December 17, 2019, in his 75th year. John was the loving husband for 50 years of Joan (née Oliver), and the devoted father of Andrew (Joyce Grant), Jill (Colin Mitchell) and Laura.

A wonderful Grandpa to Bennett, Maxwell and Thomas. Dear brother of Kenneth (Nancy) and James (Suzanne).

John left this world the same way he lived in it—with determination, grace, kindness and dignity that inspired everyone around him.

He was born in Sault Ste. Marie, Ontario, to Florence Henry and John Duncan. John was an Ontario Land Surveyor for his entire career and retired as owner of Beninger Surveying in Peterborough. He was a loyal friend, an active volunteer, church member, curler, card player, and he loved diving off the dock at the cottage. John loved his family more than anything and his family loved him so much.

We would like to thank Hospice Peterborough for giving John, and our family, extraordinary care and support that allowed us to spend quality time together during his final days.

Source: <https://ashburnhamfuneral.ca/tribute/details/8797/John-Duncan/obituary.html>

**John R. Hiley, OLS# 818
1929 – December 28, 2019**

John passed away at the Ottawa General Hospital on December 28th, 2019. Predeceased by his wife Isobel in 2017. Loving father of John, Richard, Margaret (Frank Fantauzzi), Bernard and Collin (Pam). He will be missed by his grandchildren, Jaymie, Jason, Emilia, Saija, Nicholas, Robyn and Shane.

John graduated from the Civil Engineering program at the University of Toronto and following his Articles was commissioned as an Ontario Land Surveyor in 1953.

After spending his early years in private practice, he joined the Regional Municipality of Ottawa-Carleton and then the National Capital Commission.

Cross Country Skiing and Marathon Canoeing were John's passions and he continued with these well into retirement both as a participant and volunteer.

The family would like to thank the Hazeldean Gardens Retirement Residence, John's close friend, Geri Anderson and the many others who made his time there so very special.

Respect and kindness were of utmost importance to John and these will be his legacy.

John William Lawrence “Larry” Monaghan, OLS# 792
July 26, 1928 - January 21, 2020



It is with great sadness that we announce the passing of Larry on Tuesday, January 21, 2020 at Baycrest Hospital, surrounded and comforted by his loving family. He spent his final days at peace listening to his daughters read his favourite poetry and enjoying the music he loved.

Larry will be deeply missed by his loving wife Una, his three adored daughters Cathy (Barry), Ellen (Chris) and Carol (Jack), his grandchildren and great-grandchildren. Larry was predeceased by his parents and brothers Bernard (Mike) and Patrick. He is survived by his sister Cecile Tilden.

Larry was born in Winthorpe, Saskatchewan. He graduated from the University of Saskatchewan with a B.A.Sc. Civil Engineering. His career was interesting and took him to many parts of the world, beginning with surveying and engineering in the Arctic and Northern Canada as well as in the Middle East and Africa.

Larry lived life to the fullest applying the same enthusiasm to reading, fishing and flying his plane. He entertained family and friends with stories of his travels and adventures. He had a remarkable ability to always see the positive in things. Even as his memory failed in later years, he would always note the pleasure of family or the beauty in a day. His wit and good humour are a life lesson for us all.

Source: <https://www.dignitymemorial.com/obituaries/toronto-on/larry-monaghan-9008997>

2020 ANNUAL REPORT
– Active Membership –
(as of February 26, 2020)

Branches: Cadastral, Geodetic, Geographic Information,
 Hydrographic, Photogrammetry

1926	Abdelshahid, Aziz Branch: C// OLS, OLIP 2010-Jan-18	1434	Annable, Drew J. Branch: C// OLS, OLIP 1977-Jun-24
1802	Adams, Kim C. Branch: C// OLS, OLIP 1997-Feb-19	1869	Aregers, Craig G. Branch: C// OLS, OLIP 2002-Jul-19
1961	Afzalzada, Haron Branch: C// OLS, OLIP 2013-Jul-22	1509	Ashworth, Duncan Branch: C// OLS, OLIP 1980-Dec-05
1995	Ahluwalia, Sabir Branch: C// OLS, OLIP 2016-Jan-27	2009	Assaie-Ardakany, Farrokh Branch: C// OLS, OLIP 2017-Feb-22
2019	Akhlaghi, Armin Branch: C// OLS, OLIP 2018-Jan-26	1650	Astri, Dino R.S. Branch: C// OLS, OLIP 1988-Dec-19
1831	Aksan, Anna M. Branch: C// OLS, OLIP 1999-Jul-21	1860	Aubrey, Peter N. Branch: C// OLS, OLIP 2001-Sep-12
1591	Aldworth, Geoffrey G. Branch: C// OLS, OLIP 1986-Jun-18	1501	Auer, Gerhard Branch: C// OLS, OLIP 1980-Jul-09
1753	Alton, J. Mark Branch: C// OLS, OLIP 1994-Jan-11	1592	Balaban, Steven J. Branch: C// OLS, OLIP 1986-Jun-18
1976	Amirnezhad, Bahram Branch: C// OLS, OLIP 2015-Jan-14	2045	Banaszek, Piotr Branch: C// OLS, OLIP 2018-12-11

1763	Barrette, André P. Branch: C// OLS, OLIP 1994-Aug-02	1754	Bhatti, Wikar A. Branch: C// OLS, OLIP 1994-Jan-11	1967	Bogdanov, Yuriy Branch: C// OLS, OLIP 2014-Jan-22	CR157	Buckle, Alan D. Branch: I// OLS, OLIP 2002-Jun-27
1941	Batchvarova, Tania Nenova Branch: C// OLS, OLIP 2011-Feb-24	2020	Bheri, Aisar Branch: C// OLS, OLIP 2018-Jan-26	1651	Bogue, Colin B. Branch: C// OLS, OLIP, P.Eng. 1988-Dec-19	1768	Buisman, Jeffrey E. Branch: C// OLS, OLIP 1995-Jan-11
1913	Baya, Martin Branch: C// OLS, OLIP 2008-Sep-03	1885	Bianchi, David Branch: C// OLS, OLIP 2004-Sep-08	1689	Bortolussi, Adrian Branch: C// OLS, OLIP 1991-Jan-29	1947	Bunker, Chris Branch: C// OLS, OLIP 2011-Oct-06
1888	Bedard, Mark Branch: C// OLS, OLIP, P.Eng. 2005-Jan-21	1606	Biason, Lawrence J. Branch: C// OLS, OLIP 1986-Jun-18	1861	Bounsall, Andrew T. Branch: C// OLS, OLIP 2001-Sep-12	1701	Burchat, Martha L. Branch: C// OLS, OLIP 1991-Aug-14
1771	Beerkens, John M. Branch: C// OLS, OLIP 1995-Jan-21	2031	Bienkowski, Pawel Branch: C// OLS, OLIP 2018-07-25	CR67	Bowlby, Ewart D. Branch: G// OLS, OLIP 1991-Jan-29	CR142	Cadeau, Francis M. Branch: I// OLS, OLIP 2002-Feb-21
1800	Benedict, Paul J. Branch: C// OLS, OLIP 1996-Dec-11	1593	Bishop, Gregory C.P. Branch: C// OLS, OLIP, P.Eng. 1986-Jun-18	1530	Bowyer, Edward W. Branch: C// OLS, OLIP 1982-Jun-04	1982	Calonia, Gualberto C. Branch: C// OLS, OLIP 2015-Jul-10
1375	Benedict, Ralph Branch: C// OLS, OLIP 1974-Jun-14	1702	Black, David A. Branch: C// OLS, OLIP 1991-Aug-14	1760	Bracken, George N. Branch: C// OLS, OLIP 1994-Jan-14	1810	Campbell, Kenton H. Branch: C// OLS, OLIP 1997-Aug-13
1614	Bennett, R. Grant Branch: C// OLS, OLIP 1987-Jun-17	1104	Blackburn, P. Ardon Branch: C// OLS, OLIP 1962-May-14	1917	Bridges, Ron Branch: C// OLS, OLIP 2009-Jan-15	1747	Campbell, Brian R. Branch: C// OLS, OLIP 1993-Aug-11
1836	Beresniewicz, Chris Branch: C// OLS, OLIP 2000-Jan-26	1738	Bode, Ralph T. Branch: C// OLS, OLIP, CLS 1993-Jan-16	1620	Brown, Donald H. Branch: C// OLS, OLIP 1987-Dec-14	CR109	Carnegie, J. Trevor Branch: H// OLS, OLIP 1992-Jan-01
1737	Berg, Ronald E. Branch: C// OLS, OLIP 1993-Jan-21	1580	Boehme, Kerry Branch: C// OLS, OLIP 1985-Dec-18	1971	Broxham, Andrew James Branch: C// OLS, OLIP 2014-Feb-27	1654	Chambers, Donald G. Branch: C// OLS, OLIP 1989-Jun-19

CR159	Chapman, Michael A. Branch: I// OLS, OLIP, P.Eng., Ph.D. 2002-Jun-27	1254	Clipsham, Robert E. Branch: C// OLS, OLIP, P.Eng. 1970-May-12	1977	Crocker, J. Paul Branch: C// OLS, OLIP 2015-Jan-15	1458	de Rijcke, Izaak Branch: C// OLS, OLIP, LL.B. 1978-Jul-19
1811	Chapple, Brooke D. Branch: C// OLS, OLIP 1997-Aug-13	1781	Coad, Brian A. Branch: C// OLS, OLIP 1995-Jul-20	1527	Culbert, Douglas A. Branch: C// OLS, OLIP 1982-Jan-25	1789	De Rosa, Pier L. Branch: C// OLS, OLIP 1996-Feb-22
2032	Chapple, Riley Branch: C// OLS, OLIP 2018-Jul-25	1542	Cole, J. Anne Branch: C// OLS, OLIP, CLS 1982-Dec-06	1928	Cummings, Dwayne Branch: C// OLS, OLIP 2010-Jan-18	1655	Del Bosco, Terry W. Branch: C// OLS, OLIP 1989-Jun-19
1962	Cherian, Boney Branch: C// OLS, OLIP 2013-Jul-22	1641	Collett, Brent W. Branch: C// OLS, OLIP 1988-Jun-07	1892	Currie, Lise Roxanne Branch: C// OLS, OLIP 2006-Aug-14	1876	Della Mora, Rick Branch: C// OLS, OLIP 2003-Aug-13
1886	Chitty, Phil W. Branch: C// OLS, OLIP 2004-Sep-08	1803	Comery, David A. Branch: C// OLS, OLIP 1997-Feb-19	CR132	Czajka, Stephen D. Branch: I// OLS, OLIP 2001-Sep-12	2033	DeMarco, Michael Branch: C// OLS, OLIP 2018-Jul-25
1338	Clancy, Ronald W. Branch: C// OLS, OLIP 1973-Aug-17	1511	Consoli, Guido V. Branch: C// OLS, OLIP, CLS 1980-Dec-05	1714	D'Amico, John M.J. Branch: C// OLS, OLIP 1992-Jan-29	1878	DenBroeder, Ross B. Branch: C// OLS, OLIP 2003-Sep-10
1690	Clark, W. Bruce Branch: C// OLS, OLIP, ALS 1991-Jan-29	1788	Coons, Scott E. Branch: C// OLS, OLIP 1996-Jan-23	CR196	Davis, Kelly P. Branch: I// OLS, OLIP 2003-Feb-20	1863	Di Cosmo, Matthew Branch: C// OLS, OLIP 2002-Feb-21
912	Clarke, Alvin Branch: C// OLS, OLIP 1956-Aug-15	1987	Côté, Sophie-Rose Branch: C// OLS, OLIP 2015-Jul-20	1748	Day, Nigel A.P. Branch: C// OLS, OLIP 1993-Aug-26	1568	Dietz, Terry P. Branch: C// OLS, OLIP 1984-Dec-20
1567	Clarke, Barry J. Branch: C// OLS, OLIP, CLS 1984-Dec-20	1837	Coutts, Hugh S. Branch: C// OLS, OLIP 2000-Jan-26	1739	de Haan, Peter Branch: C// OLS, OLIP 1993-Jan-16	1478	Dixon, Richard C. Branch: C// OLS, OLIP 1979-Jun-27
1201	Clarke, Ross A. Branch: C// OLS, OLIP, PLE, P.Mgr. 1966-Oct-04	1805	Cranch, Crystal R. Branch: C// OLS, OLIP 1997-May-13	1983	de Jager, Matthew Branch: C// OLS, OLIP 2015-Jul-10	1921	Domagalski, Adam Branch: C// OLS, OLIP 2009-Jul-22

1661	Dore, Ronald Branch: C// OLS, OLIP 1989-Nov-06	2034	Elliott, Jason Branch: C// OLS, OLIP 2018-Jul-25	2028	Fernandes, Annie Branch: C// OLS, OLIP 2018-May-31	1138	Gacser, Ernest Branch: C// OLS, OLIP 1963-May-28
1400	Dorland, David S. Branch: C// OLS, OLIP 1975-May-09	CR113	Emode, Richard E.O. Branch: G// OLS, OLIP, P.Eng., FEC 1993-Feb-11	1957	Fiddes, Zachary Branch: C// OLS, OLIP 2013-Jan-14	1636	Galejs, John Branch: C// OLS, OLIP 1988-Jun-07
2006	Dorland, James D. Branch: C// OLS, OLIP 2017-Jan-31	1554	England, Brent J. Branch: C// OLS, OLIP, CLS 1983-Dec-21	1575	Finnie, Roderick Branch: C// OLS, OLIP 1985-Jun-10	1727	Garden, Edward R. Branch: C// OLS, OLIP 1992-Aug-04
1854	Dosen, Vladimir Branch: C// OLS, OLIP 2001-Jan-31	1782	Ertl, Lawrence O. Branch: C// OLS, OLIP 1995-Jul-31	1934	Fisher, Michael John Branch: C// OLS, P.Eng. 2010-Sep-08	CR95	Gariepy, David H. Branch: P// OLS, OLIP, P.Eng. 1991-Nov-19
1724	Dunlop, R. Dean Branch: C// OLS, OLIP 1992-Aug-04	1812	Even, James Branch: C// OLS, OLIP 1997-Aug-13	1828	Fleguel, Robin L. Branch: C// OLS, OLIP 1999-Feb-03	2003	Gauthier, John Branch: C// OLS, OLIP 2017-Jan-30
1491	Dutrisac, Denis Branch: C// OLS, OLIP 1979-Aug-15	1975	Fathi, Seyed Abdolmajid Branch: C// OLS, OLIP 2014-Jul-24	1555	Fligg, Robert A. Branch: C// OLS, OLIP, CLS 1983-Dec-21	1762	Gauthier, Richard R. Branch: C// OLS, OLIP 1994-Jun-15
1852	Dzaldov, Dan Branch: C// OLS, OLIP 2001-Jan-16	1937	Fee, Jeff John Branch: C// OLS, OLIP 2011-Jan-12	1974	Ford, Greg Branch: C// OLS, OLIP 2014-Jul-24	1808	Gelbloom, Jaime Branch: C// OLS, OLIP, CLS 1997-Jun-17
1716	Dzaldov, Ophir N. Branch: C// OLS, OLIP 1992-Jan-29	1932	Feren, Peter Raymond Branch: C// OLS, OLIP 2010-Sep-08	1882	Fournier, Marc G. Branch: C// OLS, OLIP 2004-Jan-09	1718	Geyer, Rodney H. Branch: C// OLS, OLIP 1992-Jan-29
1538	Edward, Paul C. Branch: C// OLS, OLIP 1982-Dec-06	CR64	Ferguson, James E. Branch: G// OLS, OLIP 1990-Nov-06	1988	Fox, Christopher Branch: C// OLS, OLIP 2015-Aug-19	1984	Ghofrani, Mansour Branch: C// OLS, OLIP 2015-Jul-20
1990	El-Chanti, Oussama Branch: C// OLS, OLIP 2016-Jan-18	1616	Ferizovic, Ken Branch: C// OLS, OLIP 1987-Jun-17	CR21	Francis, Paul M. Branch: P//I OLS, OLIP 1990-Jan-23	1952	Gholami, Ali Branch: C// OLS, OLIP 2012-Jul-19

1819	Gibson, Laura E. Branch: C// OLS, OLIP 1998-Jan-27	1942	Gondo, Thomas Branch: C// OLS, OLIP 2011-Feb-24	1868	Griffiths, Michael A. Branch: C// OLS, OLIP 2002-Jul-18	1693	Harper, William A. Branch: C// OLS, OLIP, CLS 1991-Jan-29
1625	Gifford, Steven J. Branch: C// OLS, OLIP 1987-Dec-14	1663	Goodridge, Paul G. Branch: C// OLS, OLIP 1990-Jan-23	1999	Grose, Roger Branch: C// OLS, OLIP 2017-Jan-25	1532	Harris, Robert K. Branch: C// OLS, OLIP, CLS 1982-Jun-04
1791	Gilmore, Mark V. Branch: C// OLS, OLIP 1996-Feb-22	2035	Goonewardena, Shan Branch: C// OLS, OLIP 2018-Jul-25	1824	Grozelle, Nancy J. Branch: C// OLS, OLIP 1998-Aug-12	1786	Harris-Herr, Nancy L. Branch: C// OLS, OLIP 1995-Oct-14
2018	Girin, Ignat Branch: C// OLS, OLIP 2018-Jan-24	1839	Gorman, Michael J. Branch: C// OLS, OLIP 2000-Jan-26	1465	Gutri, John H. Branch: C// OLS, OLIP 1978-Oct-30	1528	Hartley, Timothy D. Branch: C// OLS, OLIP 1982-Jan-25
2011	Girin, Mark Branch: C// OLS, OLIP 2017-May-31	1430	Gossling, Steven J. Branch: C// OLS, OLIP 1977-Feb-02	2044	Haddad, Kevin Branch: C// OLS, OLIP 2018-Oct-24	1705	Hartwick, Gregory J. Branch: C// OLS, OLIP, CLS 1991-Aug-14
CR96	Goadsby, J. Morgan Branch: G// OLS, OLIP 1991-Nov-19	1288	Graham, Derek G. Branch: C// OLS, OLIP 1971-Nov-22	2001	Haines, Michael Branch: C// OLS, OLIP 2017-Jan-26	1847	Hartwick, Travis G. Branch: C// OLS, OLIP 2000-Jul-19
1813	Goebelle, Hugh B. Branch: C// OLS, OLIP, CLS 1997-Aug-13	1183	Grander, Helmut F. Branch: C// OLS, OLIP 1965-Dec-13	1556	Halliday, Robert D. Branch: C// OLS, OLIP, CLS 1984-Jul-04	1406	Hawkins, Robert C. Branch: C// OLS, OLIP 1975-Jun-17
1814	Goldman, Barry D. Branch: C// OLS, OLIP 1997-Aug-13	1759	Grander, Ralph F. Branch: C// OLS, OLIP 1994-Jan-13	CR134	Ham, Jeffrey J. Branch: I// OLS, OLIP, CET 2001-Sep-12	1761	Hawley, David J. Branch: C// OLS, OLIP 1994-Apr-13
1998	Golinski, Waldemar Branch: C// OLS, OLIP 2016-Dec-02	1945	Green, David Branch: C// OLS, OLIP 2011-Apr-07	2002	Hanna, Maryna Branch: C// OLS, OLIP 2017-Jan-30	1880	Hazen, Jason P.E. Branch: C// OLS, OLIP 2004-Jan-08
1185	Goltz, John F. Branch: C// OLS, OLIP 1965-Dec-13	CR120	Greenfield, Kirsten M. Branch: I// OLS, OLIP, CLS 2000-Jul-19	1713	Haramis, Patrick J. Branch: C// OLS, OLIP 1991-Aug-22	2036	Healey, Owen Branch: C// OLS, OLIP 2004-Jan-08

CR135	Henrickson, David R. Branch: I// OLS, OLIP 2001-Sep-12	1919	Hodgson, Shawn Branch: C// OLS, OLIP 2009-Jan-15	1582	Husted, Kimberly S. Branch: C// OLS, OLIP 1985-Dec-18	1550	Jemmett, Douglas W. Branch: C// OLS, OLIP 1983-Jul-12
1930	Herman, Zoltan Branch: C// OLS, OLIP 2010-Jan-18	1533	Hofmann, Phillip Branch: C// OLS, OLIP 1982-Jun-04	1827	Hyde, Harold D. Branch: C// OLS, OLIP 1999-Feb-03	1648	Jemmett, Shawn A. Branch: C// OLS, OLIP 1988-Dec-19
1576	Herweyer, Edward H. Branch: C// OLS, OLIP 1985-Jun-10	1750	Homer, Peter J. Branch: C// OLS, OLIP 1993-Sep-24	1832	Iavicoli, Bruno Branch: C// OLS, OLIP 1999-Jul-21	1574	Jenkins, Kevin G. Branch: C// OLS, OLIP 1985-Feb-19
1899	Hewlett, James A. Branch: C// OLS, OLIP 2007-Jan-15	1815	Hook, Stephen D. Branch: C// OLS, OLIP 1997-Aug-13	1797	Ims, Theodor H. Branch: C// OLS, OLIP 1996-Aug-13	1864	Jeraj, Alnashir Branch: C// OLS, OLIP 2002-Feb-21
1621	Heywood, Allan J. Branch: C// OLS, OLIP 1987-Dec-14	1773	Hoppe, Thomas Branch: C// OLS, OLIP 1995-Jan-25	1573	Irwin, Gary A. Branch: C// OLS, OLIP 1985-Feb-19	1889	Johnson, James W. Branch: C// OLS, OLIP 2005-Jan-26
1720	Hickson, Gerald G. Branch: C// OLS, OLIP 1992-Jan-29	CR144	Horwood, David M. Branch: I// OLS, OLIP 2002-Feb-21	1897	Isip, Reynaldo Lagman Branch: C// OLS, OLIP 2007-Jan-11	1688	Johnston, Kerry S. Branch: C// OLS, OLIP 1991-Jan-15
1596	Higginson, Leslie M. Branch: C// OLS, OLIP 1986-Jun-18	741	Houghton, Donald I. Branch: C// OLS, OLIP 1950-Aug-29	1086	Jackson, John E. Branch: C// OLS, OLIP 1961-Sep-20	1626	Jordan, Robert J. Branch: C// OLS, OLIP 1987-Dec-14
1494	Hiley, John W. Branch: C// OLS, OLIP 1979-Dec-07	1706	Houghton, Ward I. Branch: C// OLS, OLIP 1950-Aug-29	1629	Jacobs, Bryan Branch: C// OLS, OLIP 1988-Jun-07	1955	Kaczmarek, Rafal P. Branch: C// OLS, OLIP 2013-Jan-10
1634	Hillis, Kerry F. Branch: C// OLS, OLIP 1988-Jun-07	1958	Hu, Yahui Branch: C// OLS, OLIP 2013-Jan-14	1425	Jason, Ronald M. Branch: C// OLS, OLIP CLS, P.Eng. 1976-Jul-15	1922	Kalantzakos, Harry Branch: C// OLS, OLIP 2009-Jul-22
1631	Himma, Mart H. Branch: C// OLS, OLIP 1988-Jun-07	1534	Hunt, Douglas E. Branch: C// OLS, OLIP 1982-Jun-04	1927	Jeffray, Angela Branch: C// OLS, OLIP 2010-Feb-18	2017	Kanaganayagam, Athiththan Branch: C// OLS, OLIP 2017-Sep-08

1557	Kasprzak, Adam Branch: C// OLS, OLIP 1984-Jul-04	1639	Kirkup, Roy S. Branch: C// OLS, OLIP 1988-Jun-07	1865	Kubicki, Borys D. Branch: C// OLS, OLIP 2002-Feb-21	1798	Larocque, Brent R. Branch: C// OLS, OLIP 1996-Aug-13
1985	Kasprzak, Simon A. Branch: C// OLS, OLIP 2015-Jul-20	1607	Kliaman, Cindy S. Branch: C// OLS, OLIP C.L.S. 1986-Jun-18	1564	Kuelling, Laurence J. Branch: C// OLS, OLIP 1984-Sep-04	1914	Lau, Francis Branch: C// OLS, OLIP 2008-Aug-28
2014	Kayuk, Andrew Wade Branch: C// OLS, OLIP 2017-Jul-24	1649	Knisley, Martin W. Branch: C// OLS, OLIP 1988-Dec-19	1848	Kujala, Kevin P. Branch: C// OLS, OLIP 2000-Jul-19	1953	Lau, Jansky Tak Choi Branch: C// OLS, OLIP 2012-Jul-19
1678	Keat, John C.G. Branch: C// OLS, OLIP 1990-Jul-10	1851	Kovacs, David A. Branch: C// OLS, OLIP 2000-Jul-22	1986	Kumar, Vaitheki Branch: C// OLS, OLIP 2015-Jul-20	1906	Lawrence, Gavin Eldred Branch: C// OLS, OLIP 2008-Jan-23
1883	Keatley, Gordon R. Branch: C// OLS, OLIP 2004-Jan-13	1774	Krcmar, Maja Branch: C// OLS, OLIP 1995-Jan-25	1956	Ladines, Jayson F. Branch: C// OLS, OLIP 2013-Jan-10	1792	Laws, James M. Branch: C// OLS, OLIP 1996-Feb-22
2037	Kelsall, Jason Branch: C// OLS, OLIP 2018-Jul-25	1775	Krcmar, Saša Branch: C// OLS, OLIP 1995-Jan-25	1898	Laframboise, Gabriel Branch: C// OLS, OLIP 2007-Jan-11	1809	Legat, Jaro A. Branch: C// OLS, OLIP 1997-Jun-17
1442	Kennedy, John H. Branch: C// OLS, OLIP C.L.S. 1977-Sep-27	1900	Krcmar, Tomislav Branch: C// OLS, OLIP 2007-Jan-23	1951	Lale, Goran Branch: C// OLS, OLIP 2012-Jun-06	1755	LeGrow, Neil A. Branch: C// OLS, OLIP 1994-Jan-11
1352	Kerr, Brian W. Branch: C// OLS, OLIP 1973-Nov-22	1370	Krcmar, Vladimir Branch: C// OLS, OLIP 1974-Jan-22	1729	Lamb, Peter B. Branch: C// OLS, OLIP 1992-Aug-04	1997	Leiper, Rob Colin Branch: C// OLS, OLIP 2016-Jul-26
1972	King, Adam Branch: C// OLS, OLIP, BCLS 2014-Feb-27	1622	Kreze, Daniel Branch: C// OLS, OLIP 1987-Dec-14	1829	Lamont, David A. Branch: C// OLS, OLIP 1999-Feb-03	1896	Lemmetty, Anita I. Branch: C// OLS, OLIP 2006-Nov-10
1429	Kirkland, James E. Branch: C// OLS, OLIP P.Eng. 1977-Feb-02	1722	Kristjanson, Tom Branch: C// OLS, OLIP 1992-Jan-29	1918	LaPointe, Stéphane Branch: C// OLS, OLIP 2009-Jan-15	1940	Leslie, Jamie William Branch: C// OLS, OLIP 2011-Jan-26

1694	Leslie, Craig Branch: C// OLS, OLIP, P.Eng. 1991-Jan-29	1849	MacDonald, Christopher A. Branch: C// OLS, OLIP 2000-Jul-19	2015	Malek, Maaz Branch: C// OLS, OLIP 2017-Aug-01	1740	Matthews, Michael F. Branch: C// OLS, OLIP, CLS 1993-Jan-12
1989	Levac, Patrick Branch: C// OLS, OLIP 2016-Jan-18	2007	MacDonald, Gregory Michael Branch: C// OLS, OLIP 2017-Feb-07	1549	Maloney, Brian J. Branch: C// OLS, OLIP 1983-Jul-12	1884	Maughan, David U. Branch: C// OLS, OLIP 2004-Jan-20
1830	Lin, Joseph Branch: C// OLS, OLIP 1999-Feb-03	1822	MacDonald, Thomas G. Branch: C// OLS, OLIP 1998-Jul-22	2000	Mantha, Alec Sloan Branch: C// OLS, OLIP 2017-Jan-30	2012	Maulion, Keene Branch: C// OLS, OLIP 2017-May-31
1825	Linhares, Eduardo J. Branch: C// OLS, OLIP 1998-Aug-12	1605	Macek, Michael Branch: C// OLS, OLIP 1986-Jun-18	1744	Mantha, Andrew S. Branch: C// OLS, OLIP 1993-Jan-19	1548	Mauro, Frank Branch: C// OLS, OLIP 1983-Jul-12
1963	Lise, Arthur J. Branch: C// OLS, OLIP 2013-Jul-22	1656	MacGregor, Susan F. Branch: C// OLS, OLIP 1989-Jun-19	1924	Mares, Viorel Branch: C// OLS, OLIP 2009-Aug-11	1756	Mayo, Roy C. Branch: C// OLS, OLIP 1994-Jan-11
1664	Lo, George C.M. Branch: C// OLS, OLIP 1990-Jan-23	1246	MacMillan, Don J. Branch: C// OLS, OLIP 1969-Nov-17	1337	Marr, Douglas G. Branch: C// OLS, OLIP 1973-Aug-14	1966	Mc Rae, Reuben Branch: C// OLS, OLIP 2014-Jan-22
1991	Loai, Amar Branch: C// OLS, OLIP 2016-Jan-18	1816	Magee, Bret G. Branch: C// OLS, OLIP 1997-Aug-13	1745	Martin, Robert C. Branch: C// OLS, OLIP 1993-Jan-13	1724	McConnell, Robert Branch: C// OLS, OLIP 1992-Jan-29
1679	Lord, Rodney D. Branch: C// OLS, OLIP 1990-Jul-10	CR99	Mailhot-Aron, Ann-Marie Branch: G// OLS, OLIP 1991-Nov-19	1907	Marton, Alexandru Branch: C// OLS, OLIP 2008-Jan-23	1730	McDermott, Robert M. Branch: C// OLS, OLIP 1991-Aug-04
2027	Losyev, Sofia Branch: C// OLS, OLIP 2018-May-31	1785	Mak, Ronald M. Branch: C// OLS, OLIP 1995-Aug-15	1339	Mascoe, William A. Branch: C// OLS, OLIP 1973-Sep-20	1751	McGuire, Gordon D. Branch: C// OLS, OLIP 1993-Sep-23
1642	Lynch, Brian J. Branch: C// OLS, OLIP 1988-Jun-07	1546	Mak, Rudy Branch: C// OLS, OLIP 1982-Dec-06	1881	Matthews, Jeremy C.E. Branch: C// OLS, OLIP 2004-Jan-09	1583	McKay, Scott A. Branch: C// OLS, OLIP C.L.S. 1985-Dec-18

1949	McKechnie, Michael Branch: C// OLS, OLIP 2012-Feb-23	1585	Miller, Richard D. Branch: C// OLS, OLIP 1985-Dec-18	1779	Muir, John W. Branch: C// OLS, OLIP, CLS 1995-Jul-24	1833	Niculae, Roxana Branch: C// OLS, OLIP 1999-Jul-21
1708	McKibbon, Robert W. Branch: C// OLS, OLIP 1991-Aug-14	1855	Milne, Neil C. Branch: C// OLS, OLIP 2001-Jan-31	CR136	Murdoch, Robert M. Branch: I// OLS, OLIP 2001-Sep-12	CR199	Nielsen, Peter M. Branch: G// OLS, OLIP 2004-Jan-08
1709	McLaren, Daniel S. Branch: C// OLS, OLIP P.Eng. 1991-Aug-14	1806	Miret, Dario A. Branch: C// OLS, OLIP 1997-May-13	1912	Musclow, Chris Branch: C// OLS, OLIP 2008-Jul-25	1682	Nisbet, T. Martin Branch: C// OLS, OLIP, CLS 1990-Jul-10
1874	McMorran, Douglas Scott Branch: C// OLS, OLIP 2003-Feb-20	1923	Mirzakanlou, Manouchehr Branch: C// OLS, OLIP 2009-Jul-22	2030	Musil, Andrew Branch: C// OLS, OLIP 2018-Jul-13	1908	Nisoiu, Tudor Branch: C// OLS, OLIP 2008-Jan-23
1558	McNabb, Marvin D. Branch: C// OLS, OLIP 1984-Jul-04	1946	Mitrev, Simeon E Branch: C// OLS, OLIP 2011-Jul-29	2038	Muth, Nicholas Branch: C// OLS, OLIP 2018-Jul-25	1867	O'Connor, Shawn M. Branch: C// OLS, OLIP 2002-Jul-16
1840	McNeil, Trevor D.A. Branch: C// OLS, OLIP 2000-Jan-26	1980	Mo, Jason Chun-Ho Branch: C// OLS, OLIP 2015-Jan-29	1658	Mwinyi, Omari B.S. Branch: C// OLS, OLIP 1989-Jun-19	1893	Osinski, Marek Branch: C// OLS, OLIP 2006-Aug-14
1780	Meldrum Smith, Julia M. Branch: C// OLS, OLIP, CLS 1995-Jul-19	1681	Molloy, Perry A. Branch: C// OLS, OLIP 1990-Jul-10	2021	Najjarbashi, Navid Branch: C// OLS, OLIP 2018-Jan-26	CR200	Osuchowska, Zofia Branch: P// OLS, OLIP 2004-Sep-08
1903	Merrles, John Branch: C// OLS, OLIP 2007-Sep-07	1053	Monteith, John D. Branch: C// OLS, OLIP 1960-May-13	1870	Nanfara, Joseph Branch: C// OLS, OLIP 2002-Oct-03	1936	Oyler, Christopher John Branch: C// OLS, OLIP 2010-Sep-08
1559	Merry, William I. Branch: C// OLS, OLIP 1984-Jul-04	1317	Moreton, Peter G. Branch: C// OLS, OLIP, CLS 1972-Dec-19	1871	Ng, Foo Yip Branch: C// OLS, OLIP 2003-Jan-08	1572	Packowski, Thomas J. Branch: C// OLS, OLIP 1984-Dec-20
1512	Miller, Paul A. Branch: C// OLS, OLIP, CLS 1980-Dec-05	1467	Mountjoy, Maureen V. Branch: C// OLS, OLIP 1978-Dec-14	1959	Nicol, James Andrew Branch: C// OLS, OLIP 2013-Jan-14	1834	Page, Dasha Branch: C// OLS, OLIP 1999-Jul-21

1909	Papa, Valerio G. Branch: C// OLS, OLIP 2008-Jan-23	CR171	Piraino, John P. Branch: I// OLS, OLIP P.Eng. 2002-Jun-27	1579	Quinlan, Danny P. Branch: C// OLS, OLIP 1985-Jun-10	1766	Reid, Rodger J. Branch: C/G/ OLS, OLIP CLS, P.Eng. 1994-Dec-01
1721	Parker, Bruce A. Branch: C// OLS, OLIP 1992-Jan-29	CR130	Poot, Robin W.L. Branch: G// OLS, OLIP 2001-Aug-10	2023	Rahman, Shafic Branch: C// OLS, OLIP 2018-Jan-26	2039	Restivo, Ben Branch: C// OLS, OLIP 2018-July-25
1680	Pearson, Michéle M. Branch: C// OLS, OLIP 1990-Jul-10	1973	Popa, Dacian Nicolae Branch: C// OLS, OLIP 2014-Jun-12	1841	Raikes, Peter T. Branch: C// OLS, OLIP, CLS 2000-Jan-26	1386	Reynolds, Rodney G. Branch: C// OLS, OLIP 1974-Jul-25
1670	Pearson, Robert G. Branch: C// OLS, OLIP 1990-Jan-23	1891	Popa, Dorin Branch: C// OLS, OLIP 2006-Jan-13	1684	Raithby, David J. Branch: C// OLS, OLIP 1990-Jul-10	1915	Rizk, Ashraf Branch: C// OLS, OLIP 2008-Sep-03
1994	Perera, Wickramage Sunil Branch: C// OLS, OLIP 2016-Jan-27	CR173	Power, K. Michael Branch: I// OLS, OLIP 2002-Jun-27	2004	Rajakulendran, Shajieeshane Branch: C// OLS, OLIP 2017-Jan-31	1931	Robinson, Daniel Bernard Branch: C// OLS, OLIP 2010-Aug-18
1776	Pesce, David Branch: C// OLS, OLIP 1995-Jan-25	1539	Preiss, Richard A. Branch: C// OLS, OLIP 1982-Dec-06	1968	Ramachandran, Piratheepan Branch: C// OLS, OLIP 2014-Jan-22	1725	Robinson, Gregory G. Branch: C// OLS, OLIP 1992-Jan-29
1536	Petrich, Fred Branch: C// OLS, OLIP 1982-Jun-04	1993	Pu, Tony Branch: C// OLS, OLIP 2016-Jan-20	1561	Ramsamooj, Sase N. Branch: C// OLS, OLIP 1984-Jul-04	1804	Rody, Eric Branch: C// OLS, OLIP 1997-Feb-19
1970	Petrovic, Djordje Branch: C// OLS, OLIP 2014-Jan-22	1683	Purcell, T. Murray Branch: C// OLS, OLIP 1990-Jul-10	1943	Rathnayake, Vineetha S. Branch: C// OLS, OLIP 2011-Feb-24	1856	Rouse, Tracy R. Branch: C// OLS, OLIP 2001-Jan-31
1586	Phillips, Gary W. Branch: C// OLS, OLIP 1985-Dec-18	1965	Querubin, Ron Branch: C// OLS, OLIP 2014-Jan-22	1731	Ray, Gordon A. Branch: C// OLS, OLIP 1992-Aug-04	1910	Roy, André Roger Branch: C// OLS, OLIP 2008-Jan-23
1217	Piller, Helmut Branch: C// OLS, OLIP 1968-May-22	1637	Quesnel, Paul M. Branch: C// OLS, OLIP 1988-Jun-07	1872	Reed, Thomas R. Branch: C// OLS, OLIP 2003-Jan-09	1733	Rudnicki, Les S. Branch: C// OLS, OLIP 1992-Aug-04

1541	Rueb, Erich Branch: C// OLS, OLIP 1982-Dec-06	1920	Seguin, Ryan William Branch: C// OLS, OLIP 2009-Feb-19	1794	Simpson, Michael J. Branch: C// OLS, OLIP 1996-Feb-22	1799	Sperling, Ernest G. Branch: C// OLS, OLIP 1996-Aug-13
1875	Salb, Thomas J. Branch: C// OLS, OLIP 2003-Jul-15	1611	Senkus, Tom A. Branch: C// OLS, OLIP 1986-Dec-15	1518	Simpson, Walter J. Branch: C// OLS, OLIP, CLS 1981-May-08	1570	Stanton, Chester J. Branch: C// MBA, CLS, OLS, OLIP 1984-Dec-20
2010	Salehi, Farzad Branch: C// OLS, OLIP 2017-May-29	2040	Shanmugarajah, Ragavan Branch: C// OLS, OLIP 2018-Jul-25	1687	Singh, Tirbhowan Branch: C// OLS, OLIP, P.Eng. 1990-Jul-10	1850	Starcevic, Dario Branch: C// OLS, OLIP 2000-Jul-19
1523	Salna, Robert Branch: C// OLS, OLIP 1981-Dec-02	1857	Shanmugarajah, Tharmarajah Branch: C// OLS, OLIP 2001-Jan-31	1673	Sinnis, Spiro Branch: C// OLS, OLIP, CLS 1990-Jan-23	1672	Stauskas, Tony Branch: C// OLS, OLIP 1990-Jan-23
1894	Salzer, Eric G. Branch: C// OLS, OLIP 2006-Aug-14	1686	Shantz, Murray R. Branch: C/I OLS, OLIP 1990-Jul-10	1699	Skuro, Peter M. Branch: C// OLS, OLIP 1991-Jan-29	1457	Stewart, Ronald J. Branch: C// OLS, OLIP, CLS 1978-Jul-05
CR12	Sani, Anthony P. Branch: P/I OLS, OLIP, M.R.I.C.S. 1989-Nov-06	1719	Shelp, Andrew V. Branch: C// OLS, OLIP 1992-Jan-29	1448	Smith, Andrew J. Branch: C// OLS, OLIP 1978-Jun-05	1769	Stidwill, Grant T. Branch: C// OLS, OLIP, P.Eng. 1995-Jan-20
1842	Sankey, Alister D. Branch: C// OLS, OLIP 2000-Jan-26	1697	Shipman, Jeffrey P. Branch: C// OLS, OLIP 1991-Jan-29	1600	Smith, Anthony G. Branch: C// OLS, OLIP 1986-Jun-18	1588	Stidwill, Kirk L. Branch: C// OLS, OLIP, P.Eng. 1985-Dec-18
1895	Scott, John S. Branch: C// OLS, OLIP 2006-Aug-14	1904	Sibthorp, Raymond James Branch: C// OLS, OLIP 2007-Sep-14	CR125	Smith, Ian D. Branch: I// OLS, OLIP 2000-Jul-19	1843	Stojanovic, Svetomir Branch: C// OLS, OLIP 2000-Jan-26
2008	Seaman, Gavin P.T. Branch: C// OLS, OLIP 2017-Feb-08	CR124	Silburn, James L. Branch: I// OLS, OLIP 2000-Jul-19	1960	Smith, Kevin R.D. Branch: C// OLS, OLIP 2013-Feb-28	1783	Stringer, David B. Branch: C/G/I OLS, OLIP, P.Eng. 1990-Jul-10
2024	Sedaghat, Saeid Branch: C// OLS, OLIP 2018-Jan-26	1698	Simone, Roy A. Branch: C// OLS, OLIP, MIS 1991-Jan-29	2041	Sonier, Katherine Branch: C// OLS, OLIP 2018-Jul-25	1589	Suda, Philip Branch: C// OLS, OLIP 1985-Dec-18

2042	Sukumarsath, Surendran Branch: C// OLS, OLIP 2018-07-25	1844	Thomsen, Paul R. Branch: C// OLS, OLIP 2000-Jan-26	2043	Van Lankveld, Michael Branch: C// OLS, OLIP 2018-Jul-25	1845	Wahba, Youssef Branch: C// OLS, OLIP 2000-Jan-26
1969	Sundar, Ganesh Branch: C// OLS, OLIP 2014-Jan-22	1635	Tieman, Andrea E. Branch: C// OLS, OLIP 1988-Jun-07	1515	Van Lankveld, Ted Branch: C// OLS, OLIP 1980-Dec-05	1902	Walczak, Jacek Branch: C// OLS, OLIP 2007-Aug-23
1659	Suppa, Pasquale Branch: C// OLS, OLIP 1989-Jun-19	CR148	Tierney, Kevin M. Branch: I// OLS, OLIP 2002-Feb-21	1777	Vanderveen, Gary B. Branch: C// OLS, OLIP 1995-Jan-25	1846	Walker, Darren R. Branch: C// OLS, OLIP 2000-Jan-26
1858	Sutherland, Bloss J. Branch: C// OLS, OLIP 2001-Jan-31	1911	Tomaszewski, Henry Branch: C// OLS, OLIP 2008-Jan-23	1757	Verdun, Michael D. Branch: C// OLS, OLIP 1994-Jan-11	1056	Wallace, Ivan B. Branch: C// OLS, OLIP 1960-May-20
1435	Sutherland, Norman Elliot Branch: C// OLS, OLIP, CLS, P.Eng. 1977-Jun-24	1340	Torrance, Paul H. Branch: C// OLS, OLIP, CLS 1973-Nov-01	2026	Vibert, Natalie Branch: C// OLS, OLIP 2018-Mar-01	1944	Wannack, Robert John Branch: C// OLS, OLIP 2011-Feb-24
1879	Swift, Phillip S. Branch: C// OLS, OLIP, BCLS 2003-Oct-01	1938	Truchon, Mel Branch: C// OLS, OLIP 2011-Jan-17	1396	Visser, Raymond J. Branch: C// OLS, OLIP, CLS 1975-Jan-10	1660	Warren, Brad K. Branch: C// OLS, OLIP 1989-Jun-19
1862	Talbot, Jeffrey P. Branch: C// OLS, OLIP 2001-Sep-12	1954	Tulloch, David Branch: C// OLS, OLIP 2012-Aug-13	1417	Vollebekk, Dan R. Branch: C// OLS, OLIP 1975-Oct-27	1735	Watson, Keith Branch: C// OLS, OLIP 1992-Aug-04
1734	Taurins, Normans V. Branch: C// OLS, OLIP 1992-Aug-04	1905	Tulloch, Mark Kenneth Branch: C// OLS, OLIP 2008-Jan-15	1765	Vollick, Stephen M. Branch: C// OLS, OLIP, ALS 1994-Aug-17	CR152	Watt, David R. Branch: I// OLS, OLIP 2002-Jun-14
1563	Thaler, Robert C. Branch: C// OLS, OLIP 1984-Jul-04	1476	Urso, David S. Branch: C// OLS, OLIP, CLS 1979-Feb-20	1929	Wahba, Christopher Branch: C// OLS, OLIP 2010-Jan-18	2029	Webb, Todd Edward William Branch: C// OLS, OLIP 2018-July-12
1795	Thom, Kevin S. Branch: C// OLS, OLIP 1996-Feb-22	1935	van der Veen, Blake Campbell Branch: C// OLS, OLIP 2010-Sep-08	2005	Wahba, Kevin Branch: C// OLS, OLIP 2017-Jan-31	1770	Webster, Brian J. Branch: C// OLS, OLIP, CLS 1995-Jan-20

1319	Webster, William J. Branch: C// OLS, OLIP, FSPLS 1972-Dec-22	2025	Wood, Robert Branch: C// OLS, OLIP 2018-Jan-26	1979	Zapata, Juan Diego Branch: C// OLS, OLIP 2015-Jan-19	1835	Zervos, George J.F. Branch: C// OLS, OLIP 1999-Jul-21
1887	Werrell, Adam J. Branch: C// OLS, OLIP 2004-Sep-08	1645	Woolley, Patrick J. Branch: C// OLS, OLIP 1988-Jun-07	1925	Zeng, Zhiqiang Branch: C// OLS, OLIP 2009-Aug-11	2013	Ziemlewska, Justyna Marzena Branch: C// OLS, OLIP 2017-Jul-24
1696	Wiegenbröcker, Robert Branch: C// OLS, OLIP 1991-Jan-29	1613	Worobec, Alan J. Branch: C// OLS, OLIP 1986-Dec-15				
1877	Wilband, Jason P. Branch: C// OLS, OLIP, P.Eng. 2003-Sep-10	1820	Wylie, David J. Branch: C// OLS, OLIP 1998-Jan-27				
1996	Wilcox, Luke G. Branch: C// OLS, OLIP 2016-Jul-26	1866	Yadollahi, Seyed M. Branch: C// OLS, OLIP 2002-Jul-16				
1758	Wilkinson, Kenneth D. Branch: C// OLS, OLIP 1994-Jan-11	1916	Yalda, Bahram Branch: C// OLS, OLIP 2008-Sep-03				
1675	Williams, Edward J. Branch: C// OLS, OLIP 1990-Jan-23	1807	Yeo, Michael W. Branch: C// OLS, OLIP 1997-May-13				
1211	Williams, Peter J. Branch: C// OLS, OLIP 1967-Jan-23	1821	Young, Joseph R. Branch: C// OLS, OLIP 1998-Jan-27				
1427	Wilson, Paul Branch: C// OLS, OLIP, P.Eng. 1976-Nov-11	1964	Yuen, John Ho-Ting Branch: C// OLS, OLIP 2013-Jul-22				
1612	Wilton, David Branch: C// OLS, OLIP 1986-Dec-15	1933	Zaharieva, Yordanka Nikolova Branch: C// OLS, OLIP 2010-Sep-08				

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– Retired Membership –

(as of February 26, 2020)

Branches: Cadastral, Geodetic, Geographic Information,
Hydrography, Photogrammetry

1772	Agnihotri, Anil Branch: C// OLS, OLIP (RET) 1995-01-25	1502	Bezaire, Bernard Branch: C// OLS, OLIP (RET) 1980-Jul-09
CR203	Amin, Khairul Branch: I// OLS, OLIP (RET) 2011-Feb-24	934	Bishop, Curry Branch: C// OLS, OLIP (RET), CLS, P.Eng. 1957-Apr-30
1543	Ansell, Eric Branch: C// OLS, OLIP (RET) 1982-Dec-06	1702	Black, David A. Branch: C// OLS, OLIP (RET) 1991-Aug-14
1498	Aron, Douglas Branch: C// OLS, OLIP (RET) 1979-Dec-07	1651	Bogue, Colin B. Branch: C// OLS, OLIP (RET), P.Eng. 1988-Dec-19
1525	Avis, Roger Branch: C// OLS, OLIP (RET), CLS, MIAS, FRICS 1982-01-25	1440	Bowden, Graham W. Branch: C// OLS, OLIP (RET) 1977-09-27
CR206	Baila, Mircea Branch: I// OLS, OLIP (RET) 2013-Feb-28	1274	Brooke, Michael E. Branch: C// OLS, OLIP (RET) 1971-Jun-07
1551	Baker, Bruce Branch: C// OLS, OLIP (RET) 1983-Dec-21	1553	Brouwers, Bruce Branch: C// OLS, OLIP (RET) 1983-Dec-21
CR76	Barron, David A. Branch: P/I/ OLS, OLIP (RET) 1991-Aug-14	1237	Brouwers, Harry Branch: C// OLS, OLIP (RET) 1969-Jun-19
CR83	Beck, Norman Branch: G// OLS, OLIP (RET) 1991-Nov-19	994	Brubacher, Wayne D. Branch: C// OLS, OLIP (RET) 1959-Jan-14

1230	Bruce, Douglas R. Branch: C// OLS, OLIP (RET) 1969-Feb-10	1443	Clarke, Carlton H. Branch: C// OLS, OLIP (RET) 1978-Jan-18
1295	Buck, William D. Branch: C// OLS, OLIP (RET), CLS, P.Eng. 1971-Dec-17	1443	Clarke, Carlton H. Branch: C// OLS, OLIP (RET) 1978-Jan-18
1323	Bunker, Thomas A. Branch: C// OLS, OLIP (RET), CLS, P.Eng., CA 1973-Jan-29	902	Coe, William R. Branch: C// OLS, OLIP (RET) 1955-Nov-28
1034	Burton, Ross I. Branch: C// OLS, OLIP (RET) 1959-Nov-25	1413	Cotterill, J. Stanley Branch: C// OLS, OLIP (RET) 1975-Oct-08
1314	Cameron, Andrew Branch: C// OLS, OLIP (RET), P.Eng., 1973-Jan-29	1608	Coulas, Timothy A. Branch: C// OLS, OLIP (RET) 1986-Dec-15
1566	Card, Steven J. Branch: C// OLS, OLIP (RET) CLS, ALS, BCLS 1984-Dec-20	CR161	Crann, Wayne F.R. Branch: I// OLS, OLIP (RET) 2002-Jun-27
1269	Card, William H. Branch: C// OLS, OLIP (RET) 1971-May-26	791	Crewe, Richard H. Branch: C// OLS, OLIP (RET) 1952-May-05
1531	Chau, Marvin M. Branch: C// OLS, OLIP (RET), MHKIS, Accredited Mediator 1982-Jun-04	1704	Cronier, Eric M. Branch: C// OLS, OLIP (RET), LLS (Cayman Islands) 1991-Aug-14
1466	Church, Paul L. Branch: C// OLS, OLIP (RET) 1978-Dec-11	1537	Czerwinski, Tom Branch: C// OLS, OLIP (RET) 1982-Dec-06

1304	Daniels, William J. Branch: C// OLS, OLIP (RET) 1972-Jun-20	1764	Eplett, Dale F. Branch: C// OLS, OLIP (RET), P.Eng. 1994-Aug-17	1644	Galati, Pasquale Branch: C// OLS, OLIP (RET) 1988-Jun-07	1058	Hermanson, Glenn D. Branch: C// OLS, OLIP (RET), CLS 1960-Jun-21
1939	Davidson, Steven Palmer Branch: C// OLS, OLIP (RET) 2011-Jan-21	CR35	Erickson, Caroline A. Branch: G// OLS, OLIP (RET), CLS, P. Eng. 1990-Feb-19	1545	Gaspirc, Robert J. C. Branch: C// OLS, OLIP (RET), CLS 1982-Dec-06	1078	Hill, James L. Branch: C// OLS, OLIP (RET), CLS 1961-May-10
1630	Delorme, Line G. Branch: C// OLS, OLIP (RET) 1988-Jun-07	1424	Fencott, Robert J. Branch: C// OLS, OLIP (RET), P.Eng. 1976-Jul-15	1332	Glassford, Thomas L. Branch: C// OLS, OLIP (RET) 1973-Jul-24	1617	Hogan, J. Russell Branch: C// OLS, OLIP (RET) 1987-Jun-17
1692	Denis, Ronald A. Branch: C// OLS, OLIP (RET), CLS, 1991-Jan-29	1059	Fenton, William M. Branch: C// OLS, OLIP (RET) 1960-Aug-26	1111	Good, Gordon S. Branch: C// OLS, OLIP (RET) 1962-Jun-19	1360	Hume, Darrell L. Branch: C// OLS, OLIP (RET), CLS 1973-Dec-31
1521	Dolliver, Dan Branch: C// OLS, OLIP (RET) 1981-Dec-02	1615	Ferguson, Kerry D. Branch: C// OLS, OLIP (RET) 1987-Jun-17	1132	Graham, Howard M. Branch: C// OLS, OLIP (RET) 1963-May-07	1728	Irwin, Bruce C. Branch: C// OLS, OLIP (RET) 1992-Aug-04
1125	Donaldson, Bruce A. Branch: C// OLS, OLIP (RET) 1962-Nov-17	1992	Fletcher, Alexander Branch: C// OLS, OLIP (RET) 2016-01-20	1595	Gregoire, Paul J. Branch: C// OLS, OLIP (RET), CLS 1986-Jun-18	1646	Jiwani, Zul Branch: C// OLS, OLIP (RET), CLS 1988-Aug-10
1222	Dotterill, Christopher E. Branch: C// OLS, OLIP (RET) 1968-Jul-11	1436	Force, Robert T. Branch: C// OLS, OLIP (RET) 1977-Jun-24	1516	Gunn, Robert C. Branch: C// OLS, OLIP (RET), P.Eng. 1981-Feb-06	1688	Johnston, Kerry S. Branch: C// OLS, OLIP (RET) 1991-Jan-15
1309	Douglas, Robert G. Branch: C// OLS, OLIP (RET) 1972-Jul-11	1311	Forth, Paul F. Branch: C// OLS, OLIP (RET) 1972-Jul-24	1118	Gurnett, Edward G. Branch: C// OLS, OLIP (RET) 1962-Sep-17	CR128	Jones, Darrell W. Branch: I// OLS, OLIP (RET) 2000-Nov-17
1115	Emo, Ronald J. Branch: C// OLS, OLIP (RET) 1962-Jul-04	1359	Fulford, Bruce F. Branch: C// OLS, OLIP (RET) 1973-Dec-27	941	Hadfield, Colin D. Branch: C// OLS, OLIP (RET) 1957-Jun-19	1282	Jones, Russell W.R. Branch: C// OLS, OLIP (RET) 1971-Sep-13
1408	Endleman, Thomas H. Branch: C// OLS, OLIP (RET), CLS 1975-Jul-11	1676	Fulton, Robert J. Branch: C// OLS, OLIP (RET) 1990-Jul-10	1503	Halsall, John R. Branch: C// OLS, OLIP (RET) 1980-Jul-09	1950	Jones, Tom Dixon Branch: C// OLS, OLIP (RET) 2012-Mar-26

1619 Jordens, Douglas F.
Branch: C//
OLS, OLIP (RET), SLS
1987-Jul-11

1577 Ketchum, Kenneth J.
Branch: C//
OLS, OLIP (RET)
1985-Jun-10

1609 Kidd, Paul
Branch: C//
OLS, OLIP (RET)
1986-Dec-15

1299 Kirstine, B. Gary
Branch: C//
OLS, OLIP (RET), P.Eng.
1972-Feb-14

1488 Kowalenko, Walter
Branch: C//
OLS, OLIP (RET)
1979-Aug-15

1401 Krupicz, Joseph A.
Branch: C//
OLS, OLIP (RET), P.Eng.
1975-May-09

1368 Kupferschmidt, Martin
Branch: C//
OLS, OLIP (RET)
1974-Jan-10

1257 Larocque, Richard
Branch: C//
OLS, OLIP (RET)
1970-Aug-25

1610 Lawlor, Michael J.
Branch: C//
OLS, OLIP (RET), AMCT
1986-Dec-15

1367 LeGris, Murray J.
Branch: C//
OLS, OLIP (RET)
1974-Jan-04

1198 Legros, Leo A.
Branch: C//
OLS, OLIP (RET)
1966-Aug-03

CR167 Li, Songnian
Branch: I//
OLS, OLIP (RET), Ph.D., P.Eng.
2002-Jun-27

1597 Lymer, Daniel
Branch: C//
OLS, OLIP (RET), P.Eng.
1986-Jun-18

1459 MacIntosh, James A.
Branch: C//
OLS, OLIP (RET)
1978-Jul-19

1489 MacLeod, Alistair M.
Branch: C//
OLS, OLIP (RET), CLS
1979-Aug-15

1668 Mann, Robert J.
Branch: C//
OLS, OLIP (RET)
1990-Jan-23

1535 Mansfield, Peter J.
Branch: C//
OLS, OLIP (RET), CLS
1982-Jun-04

1540 Marlatt, Michael E.
Branch: C//
OLS, OLIP (RET), CLS
1982-Dec-06

CR70 Marlow, Robert M.
Branch: P//
OLS, OLIP (RET)
1991-Jan-29

CR149 Martin, Blain
Branch: I//
OLS, OLIP (RET), CLS, PMP
1978-Jul-05

920 Maughan, Michael J.M.
Branch: C//
OLS, OLIP (RET),
CLS (RET), P.Eng. (RET),
1956-Aug-15

CR181 McCausland, Alvin D.
Branch: I//
OLS, OLIP (RET)
2002-Jul-17

CR101 McElravy, Gordon
Branch: P//
OLS, OLIP (RET), CC
1991-Nov-19

1508 McKechnie, Stewart D.
Branch: C//
OLS, OLIP (RET)
1980-Oct-09

1137 McKibbon, Ronald G.
Branch: C//
OLS, OLIP (RET)
1963-May-07

1741 McLeod, Daniel J.
Branch: C//
OLS, OLIP (RET)
1993-Jan-21

1109 McMurchy, Bruce I.
Branch: C//
OLS, OLIP (RET), CLS
1962-Jun-19

1584 McPherson, Bruce G.
Branch: C//
OLS, OLIP (RET), P. Eng.
1985-Dec-18

1710 Minnie, Steven J.
Branch: C//
OLS (RET), BCLS, CLS
1962-Jun-19

889 Moffatt, W. Harland
Branch: C//
OLS, OLIP (RET)
1955-Jul-05

1746 Mountjoy, Robert G.
Branch: C//
OLS, OLIP (RET)
1993-Jan-12

CR45 Mrstik, Paul F.
Branch: G//
OLS, OLIP (RET), P.Eng.
1990-Feb-19

1341 Murray, Richard W.
Branch: C//
OLS, OLIP (RET)
1973-Nov-08

CR170 Nadjiwon, Cathryn A.
Branch: I//
OLS, OLIP (RET)
2002-Jun-27

2016 Noman, Juzer
Branch: C//
OLS, OLIP (RET)
2017-Aug-15

1420 O'Donnell, J. Hugh
Branch: C//
OLS, OLIP (RET), QLS
1975-Dec-10

1010 Ogilvie, Donald W.
Branch: C//
OLS, OLIP (RET), CLS
1959-May-06

CR208 Oren, Nedim
Branch: I//
OLS, OLIP (RET)
2016-Jan-20

1169 O'Sullivan, Michael J.
Branch: C//
OLS, OLIP (RET), CLS
1964-Dec-14

1182 Parr, Robert B.
Branch: C//
OLS, OLIP (RET)
1965-Nov-12

1410	Patten, Lynn H. Branch: C// OLS, OLIP (RET) 1975-Jul-11	1342	Redmond, Donald A. Branch: C// OLS, OLIP (RET) 1973-Nov-16	1260	Sauvé, Peter I.R. Branch: C// OLS, OLIP (RET), CLS 1970-Nov-17	1365	Stassen, Bastian J. Branch: C// OLS, OLIP (RET) 1974-Jan-03
1290	Patterson, Douglas W. Branch: C// OLS, OLIP (RET) 1971-Nov-29	1495	Reitsma, Douglas P. Branch: C// OLS, OLIP (RET) 1973-Nov-16	CR122	Sauvé, Sheryn I. Branch: I// OLS, OLIP (RET) 2000-Jul-19	1469	Statham, James S. Branch: C// OLS, OLIP (RET), CLS 1979-Feb-07
2022	Pearlman, Robert Branch: C// OLS, OLIP (RET) 2018-Jan-26	1474	Renaud, Marcel Branch: C// OLS, OLIP (RET) 1979-Feb-20	1890	Seleem, Nahed N. Branch: C// OLS, OLIP (RET) 2006-Jan-13	1948	Stephen, Adam Michael F. Branch: C// OLS, OLIP (RET) 2012-Jan-13
1695	Perkins, Kevin D. Branch: C// OLS, OLIP (RET) 1991-Jan-29	1001	Roberts, Anthony F. Branch: C// OLS, OLIP (RET) 1959-Apr-22	1188	Sexton, Christopher A. Branch: C// OLS, OLIP (RET) 1965-Dec-13	1164	Stewart, Robert Craig Branch: C// OLS, OLIP (RET) 1964-Nov-17
CR112	Perkins, Stephen Branch: P// OLS, OLIP (RET) 1992-Aug-04	1176	Roberts, Donald E. Branch: C// OLS, OLIP (RET) 1965-05-17	1633	Sheehy, Paul J. Branch: C// OLS, OLIP (RET), CLS 1988-Jun-07	1513	Stirling, Robert D. Branch: C// OLS, OLIP (RET) CLS 1980-Dec-05
1638	Persaud, George M. Branch: C// OLS, OLIP (RET) 1988-Jun-07	1472	Robinson, Ian D. Branch: C// OLS, OLIP (RET) 1979-Feb-07	898	Smith, Ralph A. Branch: I/C/P OLS, OLIP (RET), CLS 2003-Sep-11	1444	Stringer, Peter J. Branch: C// OLS, OLIP (RET), CLS, BCLS 1978-Jan-18
1787	Pettit, Bruce D. Branch: C// OLS, OLIP (RET) 1995-10-19	1587	Roccaforte, Alfonso Branch: C// OLS, OLIP (RET) 1985-Dec-18	1601	Snell, William D. Branch: C// OLS, OLIP (RET), CLS 1986-Jun-18	1428	Strongman, Charles T. Branch: C// OLS, OLIP (RET) 1976-Nov-11
1752	Preston, Gary L. Branch: C// OLS, OLIP (RET) 1993-Aug-18	1096	Rody, Talson E. Branch: C// OLS, OLIP (RET) 1961-Nov-22	1712	Snucins, Erik P. Branch: C// OLS, OLIP (RET) 1991-Aug-04	CR186	Sussman, Raphael Branch: I// OLS, OLIP (RET) 2002-Aug-26
1421	Pun, Yip K. Branch: C// OLS, OLIP (RET) 1975-Dec-30	1140	Roeser, Heinrich L.S. Branch: C// OLS, OLIP (RET) 1963-Dec-04	CR176	Springate, Mark C. Branch: C// OLS, OLIP (RET) 1991-Aug-04	1326	Taggart, Ross W. Branch: C// OLS, OLIP (RET), P.Eng. 1973-Feb-04
1318	Rady-Pentek, Joseph Branch: C// OLS, OLIP (RET), P.Eng. 1972-Dec-19	1544	Sam-Guindon, Kathryn Branch: C// OLS, OLIP (RET), CLS 1982-Dec-06	CR52	Srom, Jaromir Branch: G// OLS, OLIP (RET), P.Eng. 1990-Jul-10	1426	Tamblyn, Bryan W. Branch: C// OLS, OLIP (RET) 1976-Jul-15

CR185	Tarantino, Giovanni Branch: I// OLS, OLIP (RET) 2002-Aug-19	1369	Wall, Francis Edward Branch: C// OLS, OLIP (RET), CLS 1974-Jan-18
1603	Thorpe, Peter Branch: C// OLS, OLIP (RET) 1986-Jun-18	1504	Watson, Mark T. Branch: I// OLS, OLIP (RET) 1980-Jul-09
1823	Ting, Eric Branch: C// OLS, OLIP (RET) 1998-Aug-12	1035	Welsman, Roger R. Branch: C// OLS, OLIP (RET) 1959-Nov-25
1279	Trivers, Colin G. Branch: C// OLS, OLIP (RET), P.Eng. 1971-Jul-30	783	Wiseman, Kenneth Branch: C// OLS, OLIP (RET) 1951-Dec-10
1348	Turpel, Wayne D. Branch: C// OLS, OLIP (RET) 1973-Nov-20	856	Wood, Gordon H. Branch: C// OLS, OLIP (RET), P.Eng. 1954-May-20
1155	Van Harten, Menno P. Branch: C// OLS, OLIP (RET) 1964-May-08	1344	Wyman, Paul C. Branch: C// OLS, OLIP (RET) 1973-Nov-16
1259	Vinklers, John Branch: C// OLS, OLIP (RET), CLS, P.Eng. 1970-Nov-16	1493	Young, John F. G. Branch: C// OLS, OLIP (RET) 1979-Oct-16