

The Canadian Geotechnical Society

A Brief Historical Perspective to 2016

Note: This brief history is based on an original article by W.J. (Bill) Eden titled “Canadian Geotechnical Society”, published in Geotechnical News, June 1985. It has been revised and updated by A.G. (Tony) Stermac in 1998, by Jim Graham in 2007, and by Heinrich Heinz and Doug VanDine in 2016.

In 2016, with almost 1,460 members nation-wide, the Canadian Geotechnical Society (CGS) is a large and thriving professional association serving the needs and interests of a wide range of geotechnical professionals. New members might assume that this has always been the case, but in fact the CGS has evolved and grown over many years from small and humble roots.

Background, timeline, and key figures

The roots of the Canadian Geotechnical Society date back 71 years to 1945, when the National Research Council of Canada established the **Associate Committee on Soil and Snow Mechanics (ACSSM)**. The first Chair of the ACSSM was **Robert Legget**, who at that time was a Professor of civil engineering at the University of Toronto. In 1947, the President of the **International Society for Soil Mechanics and Foundation Engineering (ISSMFE)**, **Karl Terzaghi**, called upon Robert Legget to organize a Canadian Section of the ISSMFE, and to be the first Canadian delegate at the 2nd International Executive Meeting of the ISSMFE in Rotterdam, in 1948. This meeting was held in conjunction with the 2nd (first post-war) International Conference of the ISSMFE.

In April 1947, Robert Legget, with assistance from the ACSSM, convened the first Canadian “Civilian Soil Mechanics Conference”, which was held in Ottawa, ON and attended by some 40 individuals. This marked the beginning of organized geotechnical activity in Canada. At the conference, a subcommittee on soil mechanics was established, consisting of a chairman and six regional representatives.

Activity increased steadily throughout the 1950s, with an ACSSM conference held each year. By 1960, the **Engineering Institute of Canada** organized an Engineering Geology Division that worked closely with the ACSSM, and in 1962 that division took over organizing the Canadian annual geotechnical conference.

In 1963, a group of enthusiasts in southern Ontario, under the leadership of **Victor Milligan**, established and began publishing the peer-reviewed **Canadian Geotechnical Journal (CGJ)**. The journal was published independently for several years, with Victor Milligan serving as Editor for the first five years. In 1970, the National Research Council (NRC) Press took over production, but the editorial support remained with members of the CGS. Since 2010, the *CGJ* has been published by the Canadian Science Press, an independent, not-for-profit publisher that has assumed publication of all of the former NRC Press journals. The *CGJ* presents high-quality research and case histories on all aspects of geotechnical engineering and is regarded internationally as a leading geotechnical journal. Past Editors of the *CGJ* are listed on the CGS website.

Also in 1963, an informal newsletter, edited by **W.J. (Bill) Eden**, was established to help members of the Canadian Section of the ISSMFE communicate about planning for the 6th International Conference of the ISSMFE, to be held in Montreal in 1965. Robert Legget and others associated with the ACSSM were instrumental in organizing this international conference. It was attended by more than 2,000 Canadian and international delegates, was a highly successful event and demonstrated to the world that Canadian geotechnique had come of age.

Also in 1965, the ACSSM was renamed the **Associate Committee on Geotechnical Research (ACGR)**, which became the official Canadian representative to the ISSMFE. The ACGR encouraged larger Canadian cities to organize geotechnical sections, and Ottawa, Toronto, Winnipeg, Calgary and Edmonton were among the first cities to do so.

The ACGR also initiated the tradition of Cross Canada Lecture Tours, with **Ivan Rosenqvist**, from the University of Oslo, Norway, presenting the first CCLT in the fall of 1965.

The 1991 photo below shows several people who were actively involved in the early endeavours of the ACSSM / ACGR.



Photo 1: ACGR chairmen and technical advisors honoured at a special dinner hosted by Golder Associates Ltd. on August 23, 1991, at the Rideau Club in Ottawa. From left to right, with years of ACGR involvement for each: Carl B. Crawford (1966-76), Victor Milligan (1983-88), Robert F. Legget (1945-66), W.J. (Bill) Eden (1951-85), Michael Bozozuk (1985-91), Don H. Shields (1988-91), and Lorne W. Gold (1976-83; 1988).
(photo provided by Michael Bozozuk)

The Canadian geotechnical community matured rapidly following the 1965 Montreal

conference, and there were ongoing calls to create a self-governing geotechnical society. With the help of **David Townsend**, this was finally achieved in 1972, when the **Canadian Geotechnical Society (CGS)** was formally established as a constituent society of the Engineering Institute of Canada.

At this time, the ACGR turned over its official Canadian representative status in the ISSMFE to the CGS. (In 1997, the ISSMFE changed its name to the **International Society for Soil Mechanics and Geotechnical Engineering - ISSMGE**).

Since 1972, the CGS has assumed responsibility for organizing the Canadian annual geotechnical conference.

In 1972, the CGS also assumed responsibility for the informal newsletter, created in 1963, and it was issued on a more regular basis under the continuing editorship (until 1984) of Bill Eden. From 1963 to 1983 the newsletter was variously called the *Newsletter*, the *EIC-CGS Newsletter*, the *Letter*, the *Official Newsletter of the CGS* and the *CGS News*. Prior to 1976 it was mimeographed and stapled. In 1976 it became printed and bound. As the CGS continued to grow and evolve, the **CGS News** became a regular section in the quarterly publication, **Geotechnical News**, a multinational trade magazine founded and published by CGS member **John Gadsby** and **BiTech Publishers Ltd**. The magazine presents technical articles on topics such as computing in geotechnical engineering; groundwater; instrumentation; grouting; and waste geotechnique.

In 1978, the CGS published its 1st edition of the *Canadian Foundation Engineering Manual* (Editor, **Donald Scott**). Currently in its 4th edition, this publication (Editors, **Dennis Becker** and **Ian Moore**; and **Jean LaFleur**, Editor for the French edition), available in both English and French, is referenced in both the *National Building Code of Canada* and the *CSA Canadian Bridge Code*. The *CFEM* is currently (2016) being updated as an online publication.

In 1985, under President **David Devenny**, the CGS became federally incorporated as a financially independent and self-governing learned society.

Officers of the CGS

In 1972, **G. Geoffrey Meyerhof** was elected the first President of the CGS. One of Canada's most distinguished geotechnical engineers, he was best known for his work on the bearing capacity of foundations. Geoff Meyerhof, pictured below, served as President until 1974.



Photo 2: *G. Geoffrey Meyerhof, the first President of the CGS
(photo provided by Andrew Corkum)*

Since then, 22 others have served as CGS Presidents:

- T. Cameron Kenney (1975-76)
- Don H. Shields (1977-78)
- Jack I. Clark (1979-80)
- John I. Adams (1981-82)
- A.G. (Tony) Stermac (1983-84)
- David W. Devenny (1985-86)
- Michael Bozozuk (1987-88)
- Norbert R. Morgenstern (1989-90)
- François Tavenas (1991-92)
- John L. Seychuk (1993-94)
- Jim M. Laing (1995-96)
- Jim Graham (1997-98)
- Guy Lefebvre (1999-2000)
- R. Kerry Rowe (2001-02)
- Suzanne Lacasse (2003-04)
- Dennis E. Becker (2005-06)
- Peter Wu (2007-08)
- Michel Aubertin (2009-10)
- Bryan Watts (2011-12)
- Richard Bathurst (2013-14)
- Doug VanDine (2015-16)
- Dharma Wijewickreme (2017-18)

Until 1983, the President was the sole officer of the CGS, and ran the society along with several regional representatives. In 1983, under President **Tony Stermac**, two vice presidents were added, a VP Technical and a VP Finance. This was the beginning of the Executive Committee and Board of Directors. In 2001, an Associate VP Technical was added, and in 2003, this position became VP Communications. In 2016, VP Communications was expanded to VP Communications and Member Services.

In 2007, the Executive Committee was enlarged to include a Representative of the CGS Sections and a Representative of the CGS Technical Divisions. In 2015, a Young Professional Representative was added.

Besides the Executive Committee, currently the Board of Directors include the Section Directors, Technical Divisions Chairs, Standing Committees Chairs, Chair of the Geotechnical Research Board, the Editor of the *Canadian Geotechnical Journal*, the Editor of *CGS News*, the Past President (in odd years) and the President-elect (in even

years).

In 1986, the first paid position, that of a part-time Director General, was established. The name of that position changed to Secretary General in 1999 and to Executive Director in 2015.

In 1994, a second paid position was added, a part-time Secretary. As the work load increased, in 2008 that position was held by two part-time positions, known as Administrators, and in 2016 those part-time positions were better defined and named Director of Finance and Administration and Director of Communications and Member Services.

A list of past CGS executive committees, executive directors, and administrators is available on the CGS website.

CGS as a “learned society”

When the Canadian Geotechnical Society was federally incorporated as a learned society in 1985, it adopted the mandate to “provide for its members opportunities for updating and upgrading their technical knowledge and skills, and to present results of their research and other technical achievements.”

To this end, and as of 2016, the CGS:

- organizes an annual national conference and various specialty conferences (see below)
- organizes and/or sponsors five prestigious lectures annually (see below)
- presents a number of annual awards and honours, including a number of student awards, and the Legget Medal, the CGS’s most prestigious award named after Robert Legget
- provides editorial support for the *Canadian Geotechnical Journal* (see above)
- publishes the *Canadian Foundation Engineering Manual* (see above)
- publishes the quarterly *CGS News* (see above) and a monthly electronic newsletter, now called the *CGS-Geotechnical Info Net*
- maintains CGS Facebook and LinkedIn social media sites
- represents the Canadian geotechnical profession in the Engineering Institute of Canada and the Canadian Federation of Earth Sciences
- in addition to the ISSMGE, the CGS has affiliations with the international societies associated with engineering geology, rock mechanics, hydrogeology, geosynthetics and permafrost
- has affiliations with a number of other Canadian and US geotechnical-related learned societies and trade organizations, and
- supports seven technical divisions and seven standing committees, the Geotechnical Research Board (GRB) and has 20 sections across the country that regularly organize and promote technical talks, workshops, and seminars of local interest (see below).

CGS technical divisions, standing committees, GRB and sections

In 1972, the Canadian Geotechnical Society recognized that the geotechnical field encompasses much more than soil mechanics and foundation engineering. In response, in the mid-1970s the CGS created an Engineering Geology Division to accommodate engineering geologists and rock mechanics professionals. This marked the beginning of an evolution that would eventually produce a true “geotechnical” society.

As of 2016, the CGS includes a technical division for each of the following disciplines (in alphabetical order):

- Cold Regions Geotechnology
- Engineering Geology
- Geoenvironmental
- Geosynthetics
- Groundwater
- Rock Mechanics, and
- Soil Mechanics and Foundations.

To address issues of importance and/or interest to all members, the CGS has also established several standing committees. At this time, there are seven active committees:

- Education
- Heritage
- Geohazards (formally Landslides)
- Mining Geotechnique
- Professional Practice
- Sustainable Geotechnics, and
- Transportation Geotechnique.

In 1990, when the ACGR was disbanded, the CGS assumed a more active role in the promotion of geotechnical research and became the spokesperson for the Canadian geotechnical research community by forming the Geotechnical Research Board (GRB).

The concept of geotechnical sections, which was initiated by the ACGR in the late 1960s, has grown. Currently, there are 20 CGS Sections, all across Canada. They are located in major centres, but also provide technical outreach to a number of smaller centres.

CGS conferences and lectures

The Canadian Geotechnical Society, and its predecessors, has organized a conference in every year since 1947, the proceedings of which are available to members on the CGS website. This may well be the longest continuous organization of geotechnical conferences in the world!

In 1997, the CGS celebrated its 50th Jubilee CGS Annual Conference in Ottawa—the

same city where it all began 50 years prior. **Gordon McRostie**, who was on the organizing committee for the 1947 conference, chaired the organizing committee for the 50th Jubilee Conference. In 2015, Gordon McRostie was awarded the CGS's first honorary Life Membership at the 68th CGS Annual Conference (GeoQuebec 2015). In the past 69 years, he has attended 67 of the 69 annual conferences and he is presently on the organizing committee of the 70th CGS Annual Conference (GeoOttawa 2017).

In addition to annual conferences, the CGS organizes or co-organizes a number of specialty conferences on topics such as marine geotechnical engineering, geohazards, conferences for younger geotechnical engineers and geoscientists. In addition, several of the CGS annual conferences have been held jointly with other organizations such as Canadian National Committee-International Permafrost Association and the Canadian Permafrost Conference and the International Association of Hydrogeologists-Canadian National Chapter Conference. A compilation of all conferences organized or co-organized by the CGS is available on the CGS website.

Besides the 6th International Conference of the ISSMFE held in Montreal in 1965, the CGS has also acted as a host of numerous other international events, including:

- 25th Association of Engineering Geologists Annual Meeting (Montreal, QC 1982)
- 7th Pan-American Conference on Soil Mechanics and Foundation Engineering (Vancouver, BC 1983)
- 4th International Symposium on Landslides (Toronto, ON 1984)
- International Symposium on Environmental Geotechnics (Edmonton, AB 1994)
- North American Rock Mechanics Symposium (Montreal, QC 1996)
- International Association of Engineering Geology Congress (Vancouver, BC 1998)
- North American Rock Mechanics Symposium (Toronto, ON 2002)
- Landslide Risk Management Conference (Vancouver, BC 2005).
- 4th International Conference on Soft Soils (Vancouver, BC 2007)
- 11th International and 2nd North American Symposium on Landslides and Engineered Slopes (Banff, AB 2012)
- 14th Pan-Am CGS Geotechnical Conference (Toronto, ON 2011)

Since 1965, the Canadian Geotechnical Society, and its predecessors, has organized one or two Cross Canada Lecture Tours each year. Invited lecturers tour the country and speak to eight to 14 CGS Sections, typically over a two-week period. To date (2016), the CCLT has hosted a total of 98 prominent lecturers from Canada and around the world. A list of past lecturers is available on the CGS website.

As an integral part of each CGS annual conference, the CGS also supports three plenary keynote lectures: the R.M. Hardy Lecture, which typically opens each annual conference; the CGS Colloquium, a prestigious opportunity for a 'younger' geotechnical professional to present the results of his/her work, and the Graduate Student Presentation, with the graduate student being selected in a national competition.

CGS membership

Strong and steady membership is a testament to the value of the Canadian Geotechnical Society within the Canadian geotechnical community. The chart below shows CGS membership numbers at five-year intervals since 1950.

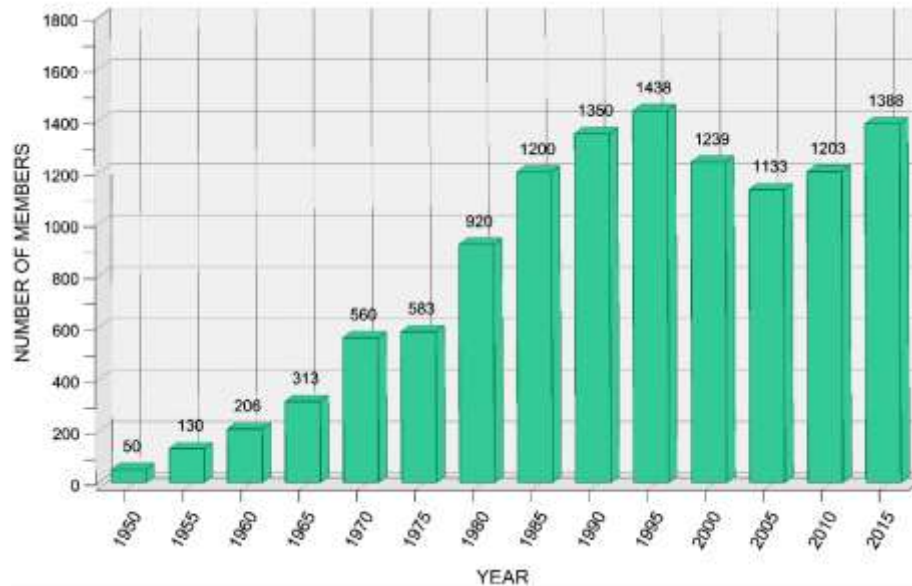


Chart 1: *CGS membership over time*

In the 70 years since its humble beginnings as the Associate Committee on Soil and Snow Mechanics, the Canadian Geotechnical Society has become “home” many of the Canadian professionals active in the geotechnical field. It enables close co-operation and cross-fertilization between these professionals, and speaks with one voice for all of them, both nationally and internationally.

Above all, the CGS has demonstrated that it is an indispensable forum for the continuing education of its members, and that it is progressive, flexible, and adaptable. As the profession has changed, the CGS has changed. And regardless of the changes that have occurred, they were always addressed within the context of a single objective: “To better serve the needs of CGS members, the profession, and the country.”