THE ENGINEERING INSTITUTE OF CANADA
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L'Institut canadien des ingénieurs
et ses sociétés membres

EIC's Historical Notes and Papers Collection

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ENGINEERING HISTORY PAPER #43

"EIC Presidential Biographies, 1937 - 2010 Part Two"

by Andrew H. Wilson
(previously produced as Cedargrove Series #14/2010 – March 2010)

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EIC HISTORY AND ARCHIVES

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Abstract

The semi-centennial issue of the *Engineering Journal* published in June 1937 included a section with brief biographies of the presidents of the Canadian Society of Civil Engineers from 1887 to 1917 and of the Engineering Institute of Canada from 1918 to 1937. This present paper is intended to update the biographies for the years from 1937 until 1987. It has been extended to include briefer material for the presidents serving between 1988 and 2010.

The material has been collected from a number of sources, including EIC's *Engineering Journal*, personal communications with a number of the past presidents and, for the most recent presidents, news releases by the Institute and several websites.

The paper is physically in two parts, of which this is the second, since a single one would be cumbersome to staple and to handle. Some photographs have been included in this present part.

About this Series

Principally, the Cedargrove Series is intended to preserve some of the research, writings and oral presentations that the author has completed over the past half-century or so but has not yet published. It is, therefore, a modern-day variant of the privately-published books and pamphlets written by his forebears, such as his paternal grandfather and grandmother, and his grandfather's brother John.

About the Author

He is a graduate in mechanical engineering and the liberal arts and has held technical, administrative, research and management positions in industry in the United Kingdom and the public service of Canada, from which he retired almost 25 years ago.

He became actively interested in the history of engineering on his appointment to chair the first history committee of the Canadian Society for Mechanical Engineering in 1975 and served both CSME and the Engineering Institute of Canada in this capacity for varying periods of time until 2003. He has researched, written and edited historical material for both organizations, and is a past president of both.

Introduction

Several years ago, a promise I made to many of the then living past presidents of the Engineering Institute of Canada was that I would put together biographical material for them similar to the material for the 'first fifty' presidents that had appeared in the semi-centennial issue of the *Engineering Journal* in June 1937. For a variety of reasons, it has taken longer than I had hoped to keep this promise.

This present paper is in two parts, to make for easier stapling and handling. This second part also includes briefer material on those who served as president of the Institute between 1988 and 2010. As well, this part includes photographs of presidents - but not all of them - on both sides of 1987 (on pages 15 to 17). The location of the 'split' coincides with my 'three-phase' theory of the Institute's development, which was discussed in a previous paper in the Cedargrove Series (#6/2008) and coincides with the end of the second and the beginning of the third phases - that is, when the original constituent (now member) societies were being formed.

The material was collected from sources that include the *Engineering Journal*, published by the Institute up until 1987, and personal communications between myself and a number of the past presidents. It also made use of news releases and websites, especially for biographies in this second part. A list of sources appears at the end of each part of the paper. *In terms of coverage, the material for the presidents concentrates on the years prior to their election to the office, rather than on their entire careers.* It does not, therefore, include awards and other forms of recognition (including election to the Canadian Academy of Engineering) that some presidents have received *after* being in office. Some such supplementary information can be found in the Honours, Awards & Fellowships section of the EIC website (www.eic-ici.ca), in the HAF citations collected and held in the Institute's archives at the University of Ontario Institute of Technology, and from the Academy's website.

Reference should also be made to two companion papers in the Cedargrove Series. The first - #6/2008, and already mentioned - analyses (anonymously) the backgrounds of all the presidents of the Institute and its predecessor, the Canadian Society of Civil Engineers, between the years 1887 and 2008 against my theory of the three phases in the development of CSCE/EIC. The second - #7/2009 - provides biographical information on the senior executives of the Society and the Institute who served the presidents over the same period. These papers have been included in the History & Archives section of the EIC website, under the sub-section headed *Articles*.

With regard to #6/2008, the sharp-eyed reader will notice at least two differences between it and this present paper. One is that my computer has again discovered how to incorporate French accents into the text. The second is that, from presidents Tupper to Hutchison in Part One and Dinsmore to Shaw in Part Two, the years of the presidencies overlap, while they have been shown as single years in #6/2008. The latter were based on the listing made by Eric Scott, the executive director for the Engineering Centennial in 1987. However, I feel that, since their years in office began between late spring and mid-fall and not early in the year, they should be shown as overlapping, as are the presidencies from Steeves onward in #6/2008.

For the reader who is unfamiliar with the various institutes, societies and associations within the engineering profession in Canada that are mentioned in the text, their full names have been listed at the end of it.

The Presidents: 1971-1987

John Hastings Dinsmore (1971-1972) was the youngest of the 'second fifty' to serve as president of the Institute. As a result, his biography is shorter than most. Numerically, he was the 83rd president.

Dinsmore was born in Toronto in 1931, received an honours degree in electrical engineering from McGill University in 1952, and pursued management studies at Le Centre d'Études Industrielles at Geneva in 1956-57. Between McGill and CEI, he worked for the Canadian General Electric Company in systems engineering and marketing. After Geneva, he founded a product development and marketing company, Godber Dinsmore Lindsay Ltd. and in 1961 acquired the E.W. Playford Company, manufacturers and suppliers of electric controls, control systems and heating equipment, becoming its president.

In 1970, he gave up his business interests to serve Québec as associate deputy minister of the provincial Ministry of Education, with responsibility for facilities planning, construction and equipment, the position he held during his Institute presidency.

Dinsmore joined the Institute as a student in 1949. He had already served as the president of the Corporation of Engineers of Québec and the Canadian Council of Professional Engineers before taking on the most senior position within the Institute. With his predecessor, Leslie Hutchison, he shared the administration of the second principal change in the development of CSCE/EIC - the formation of the constituent societies.

William Pickering Harland (1972-73) was born at Pincher Creek, Alberta, in 1922. He graduated in civil engineering from the California Institute of Technology in 1944. He spent the first three years after graduation as a field engineer working on the water survey of the Columbia River basin for the Dominion Water and Power Bureau.

From 1948 until 1961 Harland was employed by the Shawinigan Engineering Company Ltd. of Montréal, first as a resident engineer on three hydro-electric projects, and later as a field division manager on 11 hydro sites, ranging from 13 MW to 5,225 MW. He was also responsible for construction supervision for four hydro sites in the 60MW to 250 MW range.

In 1961 Harland joined CASECO Consultants Ltd., also of Montréal, and served first as general manager and later as president. This was a 100-200 employee joint venture company with responsibility for a planning study of the Columbia River basin in Canada, the results of which were

used as the basis of Canadian negotiations for the Columbia River Treaty with the United States. Also included were site investigations for the Mica Dam, the largest earthfill dam outside the U.S.S.R., followed by detailed design.

In 1970, Harland went west, to Vancouver, to join Crippen Engineering Ltd. As vice-president and general manager, he was responsible for all aspects of managing the company, including manpower and organization planning. He was in this position when he became president of EIC.

Harland joined the Institute as a full member in 1952. He was senior vice-president in 1971-1972, a founding member of the Canadian Society for Civil Engineering when it was formed as an EIC society, and a member of the American Society of Civil Engineers. He also belonged to the Corporation of Engineers of Québec and to the Association of Professional Engineers of British Columbia.

Bill Harland died in September 2007.

Following Harland was another 'Vancouver' president - **Ian Alexander Gray** (1973-1974). Gray was born at Orangeville, Ontario, in 1920. He graduated in aeronautical engineering from the University of Detroit in 1943. During his undergraduate years, he participated in a co-operative program with Fleet Aircraft Ltd. On graduation, he joined Canadian Pacific Airlines, briefly, as a service engineer. After Canadian Army service in 1944 and 1945, he returned to the engineering staff of CP Air at Montréal and Winnipeg. By 1949, he was general superintendent of engineering at Vancouver. In 1951 he became assistant to the president, after which he served in a variety of positions of increasing engineering and operations responsibility. He was appointed vice-president, administration, in November 1966, vice president technical services in 1971 - the position he held during his EIC presidency.

In 1972, Gray was awarded the degree of master of business administration by Simon Fraser University.

In his private communication, Gray wrote:

> I really (have) had a pretty mundane but interesting career, technical as a foundation but mostly engaged in the management of an airline using other peoples' strengths and protecting their perceived weaknesses. When I joined Canadian Pacific Airlines in 1943, the industry was in the process of changing from the pre-war technology of welded steel tubing, glued wood, doped fabric and cables to the post-WWII technology of the current all-metal structure. So I had the opportunity to lead our skilled mechanics into the new age.....

Gray was a fellow of the Canadian Aeronautics and Space Institute, a member of the American Institute of Aeronautics and Astronautics, and the APEBC. He was a founding member of CSME

in 1970.

Ian Gray died in North Vancouver in January 2002 at the age of 81.

Donald Louis Mordell (1974-1975) was born in London, England, in September 1920. He was educated at Manchester Grammar School and the University of Cambridge, from which he graduated in 1941 in mechanical engineering. During his undergraduate years, he acquired industrial experience with Metropolitan Vickers Ltd. in Manchester and, after graduation, with Rolls Royce Ltd. at Derby. He began his teaching career as an evening lecturer at Derby Technical College.

In 1947, Mordell came to Canada, to McGill University, as an associate professor of mechanical engineering. In 1951, he was appointed Thomas Workman Professor at McGill, a position he held until 1970. Between 1947 and 1957 he was director of the Gas Dynamics Laboratory. From 1953 and 1957 he was chairman of McGill's Department of Mechanical Engineering and, from 1957 until 1968, the Dean of the Faculty of Engineering and a member of the Senate. Between 1961 and 1964 he was also the managing director of the HARP project, concerned with gun-launched space vehicles. From 1964 until 1967, he was special assistant to the principal for the Space Research Institute (which administered HARP and other projects) and from 1967 to 1968 director of SRI. During this period, his research interests were in gas turbines, heat transfer, fluid dynamics - and space vehicles.

Meanwhile, in various capacities, he assisted a number of institutions in African, Asian and South American countries - for example: as a visiting professor at Kumasi College of Technology in Gambia; an external examiner and visiting professor at Singapore Polytechnic; a guest professor at the Indian Institute of Science at Bangalore; and an advisor to the Faculty of Engineering of the University of the West Indies. He was also a vice president of the Canadian World University Committee and a member of several Government of Canada, Government of Québec and National Research Council Committees.

In 1970, Mordell became president of Ryerson Polytechnical Institute in Toronto, a position he held until 1974. In 1975, he was founder and president of the Canadian College of Advanced Engineering Practice, an organization devoted to the needs of Third World countries seeking to see their own nationals take senior industrial positions and lessening their dependence on imported technology.

Mordell joined the Engineering Institute as a full member in 1947. He was elected a Fellow in 1966. A founding member of CSME, he was its second president - and senior vice-president of EIC in 1973-1974. He was a member, and a councillor from 1965 until 1968, of the Corporation of Engineers of Québec, and a member, and councillor from 1967 until 1970, of the Canadian Aeronautics and Space Institute. He was elected to fellowships in a half-dozen scientific and engineering institutions, was the winner of the 1951 Thomas Hawksley Prize of the U.K.'s Institution of Mechanical Engineers, and was awarded an honorary doctorate by McGill University in 1973.

Don Mordell died in August 1988.

Robert Fletcher Shaw (1975-1976) was one of these rare people who, throughout his life, served with distinction in senior positions in the industry, government and university sectors, in every province and territory, as well as in his chosen profession of engineering. Born in 1910 in Montréal, he was raised in Revelstoke, B.C., where his father was a banker.

A McGill graduate in civil engineering in 1933, Shaw found work as a labourer with the Foundation Company of Canada on the piers of the Mercier Bridge near Montréal and, subsequently, as an erector on the superstructure of the same project, with Dominion Bridge Company, and on its deck and approaches, with A. Janin & Company. After working as a resident engineer and project manager for two other companies, he rejoined the Foundation Company in 1937 as an estimator, working in its construction, marine salvage, shipbuilding and engineering branches, and rising through its ranks to become a vice-president in 1950, executive vice-president in 1958 and president in 1962. During World War II, he became the first manager of the company's engineering design department. For a short period in 1951 and 1952, during the Korean War, he was loaned to Defence Construction (1951) Ltd. Among his assignments for DCL was that of Canadian representative on a NATO engineering team for airfield construction. From 1963 until 1968, Shaw was again loaned to the Government of Canada, this time as deputy commissioner-general for EXPO 67, where he was in charge of the administration, physical planning, construction and operation of the exhibition. He was commissioner-general for a short time in 1968.

That same year, Shaw was appointed vice-principal (administration) of McGill University, a post he held for three years. He was also, concurrently, a director and chairman of the board of the Foundation of Canada Engineering Corporation (FENCO). In 1971, he was appointed by the Government of Canada to be the first deputy minister of the Department of the Environment, the post he held until he reached retirement age in 1975. He then joined the Monenco organization in Montréal as a consultant and as president of Monenco's pipeline company.

Shaw served as president of the McGill Graduates Association, receiving its gold medal in 1968. He was serving as a member of the Board of Governors of the University of New Brunswick at the time of his EIC presidency. He received a Centennial Medal and became a Companion of the Order of Canada in 1967. He received honorary doctorates from several Canadian universities. He also took an active interest in organizations associated with the arts and served on the board of the Montréal General Hospital.

Shaw became a full member of the Institute in 1943. He was senior vice-president in 1974-1975. In 1967 he was awarded the Julian C. Smith Medal and elected a Fellow of the Institute in 1974. He was a member of the Corporation of Engineers of Québec, and its president in 1953. In 1967 he received the gold medal of the Association of Professional Engineers of Ontario.

Bob Shaw died in Montréal in March 2001, at the age of 91.

Allison Earl Steeves (1976-1977) followed Shaw, appropriately taking office at the Institute's Annual Congress at Halifax, where he was president of Nova Scotia Technical College. In terms of presidents from the Atlantic Provinces, he followed McKiel, Macnab, Anson and Higginson. Steeves served as president for roughly 15 months, rather than the usual 12, to allow EIC to change the timing of its Congresses from fall to late spring.

Born in New Brunswick, Steeves was also a rare chemical engineer in a leadership role within the Institute. He received a degree in chemistry from Mount Allison University and a master's degree in agriculture and food from McGill in 1937. He joined the staff of Swift Canadian Laboratories as chief chemist in 1936 and worked in Toronto, Chicago and Edmonton. In 1947, he went into business for himself, introducing pre-mixed cakes into the Canadian market, building motels around the country and operating a pig farm. In 1956, he joined the staff of the Nova Scotia Technical College as an assistant professor of chemical engineering, and later of engineering economics, and moved up the ranks to be head of the Department of Industrial Engineering, Dean of Student Affairs, acting president and, finally, president. In 1977, the year in which he retired, he received an honorary doctorate in engineering from TUNS.

In addition to being a full member and Fellow of EIC, Steeves was also a Fellow of the Chemical Institute of Canada, the Canadian Institute of Food Science and Technology and APENS, of which he was president in 1971.

Al Steeves died in 1995.

Russell Hood (1978-1979), who succeeded Steeves, also served for roughly 15 months, from January 1978 to May 1979. Australian born, Hood graduated in civil engineering from the University of New South Wales in Sydney in 1953, and became an associate of Sydney Technical College in civil engineering in 1957. He worked in Australia from 1953 until 1958, when he came to Canada to join the UMA Group, based in Winnipeg, as a resident engineer.

Hood was promoted in 1960 to senior project manager at UMA, responsible for various rural and urban development projects in Manitoba. In 1962, he was promoted again, to chief engineer of the Manitoba & Northwest Ontario Branch of UMA and, in 1966, was appointed manager for the company's operations in that area. He became a vice-president of the UMA Group in 1971 and had senior responsibilities for all projects undertaken in Manitoba and Northwestern Ontario and had national responsibility for the delivery of services in the transportation and agricultural sectors. During these years, he was also responsible for initiatives leading to the diversification of the services offered by the Group in project management, agriculture, grain handling, photogrammetry, geotechnical engineering, transportation and water resources, and for computer applications for engineering design and business reporting. This involved a large increase in the personnel for which

he was responsible. He was in this position when serving as president of the Institute.

Hood joined EIC as a full member, receiving a fellowship in 1974. He was also a member of CSCE. He served as president of APEM and was the 1974 president of the CCPE. His other memberships included the Association of Consulting Engineers of Manitoba, the Institution of Engineers (Australia), the Roads and Transportation Association of Canada, and the American Society of Civil Engineers. He has also been closely associated with the Faculty of Engineering at the University of Manitoba.

Colin Dominic di Cenzo (1979-1980), who followed Hood, was numerically the 90th president of CSCE/EIC.

di Cenzo was born in Hamilton in 1923. He began his engineering career at the age of 17 with an electrical diploma from the Hamilton Technical Institute, and then entered the Royal Canadian Navy as a boy apprentice. During World War II, he served in the Pacific, Atlantic and European theatres. While still in the RCN, he was admitted to the University of New Brunswick for electrical engineering studies, receiving both BSc (in 1952) and MSc (in 1957) degrees. Also awarded an Athlone Fellowship, he completed a DIC course at the Imperial College of Science and Technology in London in 1953. From 1954 until 1957 he was a lecturer in electrical engineering at the Royal Military College, Kingston.

In 1957, di Cenzo was appointed to naval headquarters in Ottawa, first as a project engineer and later as deputy head of the naval sonar engineering group, where he was involved in the development of anti-submarine detection devices, and received civil service awards for his designs. From1960 until 1962, he was head of the underwater fire control systems group in the naval Directorate of Weapons. Between 1962 and 1964, he was squadron staff officer with the Second Canadian Destroyer Squadron in the Pacific. From 1964 to 1965 he was systems engineer in the hydrofoil ship development group at naval headquarters He then left the RCN with the rank of Commander, transferring to the Naval Reserve. In 1973, he was granted an award under the Public Servants' Invention Act for his work in connection with variable depth sonar.

di Cenzo joined the staff of the Department of Electrical Engineering at McMaster University in 1965 as an associate professor. He was promoted to full professor in 1972 and was later named professor of electrical and computer engineering. He was appointed associate dean of engineering in 1975, serving until 1979, after which he was appointed Dean of the Faculty of Engineering at the Memorial University of Newfoundland.

di Cenzo received the Canadian Decoration for his naval service, the Centennial, 125th Anniversary and Queen's Jubilee Medals, and was admitted to the Order of Canada as a Member in 1972. He was elected a Fellow of EIC in 1975 and received the Institute's Julian C. Smith Medal in 1978. He was awarded the APEO Engineering Medal in 1976 and, the following year, was elected a fellow of IEEE.

di Cenzo's service within EIC was principally with the Canadian Society for Electrical Engineering. He was, for example, a member of the Publications Committee for the Society's *Journal*, vice-president for Ontario, its senior vice-president, and its president in1976-1977. For the Institute, he was a member of the Technical Operations Board, and senior vice-president prior to his presidency. For IEEE, he was the founding chairman of the Hamilton Education Chapter and associate editor of its journal on industrial electronics and control instrumentation. In the early 1970s he was involved with the Education Committee of the Canadian Electrical Association.

Colin di Cenzo died in December 1992.

Born in Saskatoon in 1927, and a graduate in civil engineering from the University of Saskatchewan in 1948, **Vernon Douglas Thierman** (1980-1981) joined EIC as a student member in 1946, became a junior in 1950, a full member in 1951 and a Fellow in 1978. Over the years, he did just about every job a member could do within the Institute. He began at the level of the branch - in Edmonton - joining its executive in 1965, and becoming chairman and member of the Western Region Executive Committee in 1968. He then served as chairman of this committee and vice-president for the Region on the EIC Council - positions he held for several years, during which time his influence was felt at the branch, region and Council levels and his example influenced others to devote time, energy and enthusiasm to the service of the profession and the Institute. In 1979 Thierman was elected senior vice-president, and followed Colin di Cenzo to the presidency in 1980.

Thierman's first job after graduation was with the Saskatchewan Department of Highways, after which he joined the consulting firm of Underwood McLellan & Associates and worked in the municipal field. In 1955, he joined another consulting firm, Haddin Davis & Brown, in Calgary but moved to Edmonton as director and manager. In 1964, he was a founding partner of Reid Crowther & Partners, serving as vice-president, director and regional manager for Northern Alberta and the Northwest Territories. In 1973, he formed his own consulting firm, Thierman & Associates, based in Edmonton.

Thierman also attended the Banff School of Advanced Management and the first Arctic Summer School at the University of Alberta. He joined APEGGA in 1956 and served on its committees for many years. He was also a member of Kiwanis and took an active part in the community and in local government.

Doug Thierman died in November 2001.

Jack Hahn (1981) served as president of the Institute for only a few weeks. Elected to follow Thierman, a serious accident suffered by his wife made it impossible for him to devote sufficient time and attention to Institute affairs and activities. He reverted temporarily to being senior vice-president but, in the fall of the year, was forced to relinquish this position too.

Hahn was born in Germany in June 1920. He received his university education at McMaster and at McGill, from which he graduated in electrical engineering in 1947. He spent most of his working life with the SNC Group, which he joined in 1946, in Montréal and Toronto. He served as a project engineer for ten years, until 1956, and as director of engineering until he was made a partner in 1959. In 1966 he became a vice-president and director of the company, until 1980. In particular, he was responsible for marketing and development within the Group and for expanding its international activities, while still remaining active in specific projects. From 1970 to 1975 he was also president of GECO in Toronto, and chairman and CEO of SNC-GECO beginning in 1977. Retiring from SNC in 1980, he established a consulting firm, Jack Hahn Associates Inc., in Toronto to undertake work for government and industrial clients in management and international trading.

Hahn joined the Institute in 1945. He chaired the Montréal Branch in 1963 and the Toronto Branch in 1979. He was also a member of the Downing Committee, which guided the formation of CSME, the EIC's first constituent society, in 1970. He was elected a Fellow of EIC in 1973.

Hahn belonged to the professional engineering associations in Québec and Ontario, held office in the Consulting Engineers of Ontario, chaired the Taxation Committee of the ACEC, was a member of the Canadian and American Mining and Metallurgy Associations, and chaired committees of the Canadian Chamber of Commerce.

Jack Priestman (1981-82) was senior vice-president of the Institute when he assumed the presidency following the resignation of President Hahn during the summer of 1981.

Born at Carlisle in England, he was the only 'third phase' president of the Institute to enter the profession by the pupil/apprentice route. In 1939, he achieved registration as a chartered engineer in the municipal field. During WWII he was commissioned in the Corps of Royal Engineers, attaining the rank of Lieutenant-Colonel. One of his main jobs in the army was the construction of airfields in Burma. He was admitted to the Order of the British Empire as a Member in recognition of his wartime services.

Immediately after the war, Priestman headed engineering programs associated with the planning, design and construction of the new town of Hemel Hempstead in England. Subsequently, in Africa, he was involved in the planning and construction of the capital city of Nigeria, Lagos. He came to Canada in the mid-1950s. His first assignment was on a dam project on Vancouver Island, with the B.C. Power Commission. This was followed by senior management appointments with two engineering consulting firms in Victoria, after which he became a principal in Ker Priestman & Associates. He retired in 1978.

Priestman was a director, and later chairman, of the Greater Victoria Environmental Centre. He was chairman of the Open Space Advisory Committee of the Capital Region District from 1972 to 1976, and served on the Environmental Committee of the B.C. Association of Professional Engineers for several years.

Priestman served EIC for a number of years as a member of the executive of the Vancouver Island Branch and was chairman in 1968-69. He also served on the Western Region Council and on the Institute's Council. He was a member of Council of the CSCE, beginning in 1973, and served as the Society's president in 1976-77.

The honours he received include the 1964 Richard Pickering Prize and Gold Medal of the Institution of Municipal Engineers of Britain, membership in the convocation of the University of Victoria in 1972, and the Queen's Silver Jubilee Medal in 1977. He became a Fellow of the Institute in 1976.

Jack Priestman died in April 1999.

When Hahn stepped down as senior vice-president of EIC late in 1981, **Andrew Hastie Wilson** (1982-83) succeeded him and, in May 1982, succeeded Priestman as president.

Wilson graduated twice from the University of Glasgow. The first time was in mechanical engineering in 1949, a course he combined with a 'co-operative' apprenticeship in marine engineering. The second was in liberal arts in 1954, a course that included training in economics and history. In between degrees, he gained experience in hydraulic engineering and held a commission in the Technical Branch of the Royal Air Force. From 1954 until 1957, he was a technical and sales engineer in the ball bearing industry in England and Wales.

From 1958, and for almost 30 years, he served in the federal public service of Canada, first as a design engineer and research administrator at AECL's Chalk River Laboratories, then in research and project management staff positions with the Economic and Science Councils in Ottawa. For the former, he was secretary and chief research officer for the Committee on Industrial Research and Technology. For the latter, he took part in studies of policies and economics related to science and technology, the innovation process, scientific and technical manpower, patent and technical information systems. He represented both Councils nationally and internationally. In addition to contributing formal reports to the Councils, he also began contributing articles independently to other publications on these same subjects. In his own words, he was "a 'tame' scientist at the Economic Council and a 'tame' economist at the Science Council." In 1978 he joined the Division of Building Research of the National Research Council, serving in several positions, including that of head of building performance research - the one he held at the time of his EIC presidential year.

Wilson was active for a number of years on CCPE's Canadian Engineering Manpower Council, serving as its chairman for two years, and was the leading organizer of its 1976 national conference on engineering manpower planning. His first service within EIC was as program chairman of the Chalk River Branch. After a gap of some years, and the founding of CSME, he was asked in 1975 to be the founding chairman of the Society's new History Committee - one of several Society committees on which he served. In 1978 he was elected senior vice-president of CSME and, a year later, became president of the Society and a vice-president of EIC. During this particular year, he and President di Cenzo began their work as the Institute's task force charged with monitoring

and assisting with the founding of a Canadian Academy of Engineering. He was also the founding chairman of the Institute's Federal Government Liaison Committee. He was a member of the British and American societies of mechanical engineers and was elected an EIC Fellow in 1980.

Eric C. Garland (1983-84) was born at Moncton in 1931, educated as a civil and mechanical engineer at the University of New Brunswick, graduating in 1954 and 1955, and was registered as a professional engineer in 1956. He later attended Stanford University in California, from which he received two graduate degrees in the early 1960s.

Garland spent the major portion of his career as an engineering faculty member at UNB and retained teaching duties after his appointment as director of planning in 1970 and assistant vice-president for administration at the University in 1974. In these positions, his responsibilities included the planning, design, construction, operation and security of the physical facilities and services at the Fredericton and Saint John campuses. He was also assistant to the Dean of Engineering from 1960 to 1969, acting dean in 1969-70, and became a full professor of civil engineering in 1970. He served on the University Senate and Board of Governors as well as a number of committees within the University.

Garland was very active in engineering organizations, serving as president of the APENB and, subsequently, of CCPE. He joined CSCE when it was formed in 1972, served on its Council and was its president in 1974-75. He was chairman of the Fredericton Branch of EIC in 1960-61, vice-president for the Atlantic Region and a national councillor, before becoming president of the Institute. He was a member of the Senate of the Technical University of Nova Scotia. He was elected a Fellow of the Institute in 1975 and of CSCE in 1982. He received the C.C. Kirby Award of APENB, and the Queen's Silver Jubilee Medal.

Garland was a member of several technical societies, volunteered his services to many groups outside the University, such as the United Way and Theatre New Brunswick. He was a member of the Canadian Power Squadron and of the Rotary Club, and was involved in AHL hockey franchise negotiations. He was a commissioner of the New Brunswick Power Commission, a board member of the Fredericton Chamber of Commerce and the New Brunswick Higher Education Commission, and a member of the Industrial Development Committee for the city of Fredericton. He represented Canada at several international engineering conferences.

Eric Garland died in February 1997.

Harold L. Macklin (1984-85) was the 96th president of the Institute. He was born in Coburg, Ontario, graduated in civil engineering from the University of Toronto in 1943, and was one of the few presidents who combined academic and private sector appointments during his career. He was for many years on the staff of the Department of Civil Engineering at UofT and, at the time of his EIC presidency, was still a part-time professor. He was particularly concerned with surveying and

geodesy.

Macklin was also active as a partner in a consulting practice, having been closely associated with O.J. Marshall and Patrick Monaghan. Their general interests were principally in public works and planning projects, as well as in international consulting. Macklin, himself, was active in projects in pipeline and mine surveys and in townsite and industrial developments. He was qualified as an Ontario and a Canada Land Surveyor, and a member of the American Institute of Surveying and the American Society of Photogrammetry. Macklin was president of the firm from 1960 until 1974 and chairman at the time of his EIC presidency. He also played a leading part in the formation and operation of Cansult Ltd., a firm of consulting engineers with many large projects in the Middle East, and was elected a director. He was a member of the Canadian Water Resources and the Military Engineers Associations.

Macklin was a long-time member of EIC, served on several of its committees, and served on the executive of the Toronto Branch, chairing it in 1963. He was also a founding member of CSCE in 1972, served on several of its committees, and was president in 1973-74. Macklin was elected a Fellow of both the Institute and CSCE, was awarded the EIC's Julian C. Smith Medal in 1978 and the CSCE's James A. Vance Award in 1983. He was a member of APEO and was active in ACEC. In 1977, he was awarded the Queen's Silver Jubilee Medal. He saw active service during World War II..

William B. Rice (1985-86) began his career as a machinist and draftsman with the Northern Electric Company in Montréal before World War II. In 1940, he received a Workman Studentship at McGill University in mechanical engineering, graduating in 1944. For the next two years he was commissioned in the Royal Canadian Navy before returning to Northern Electric for a year, and before becoming a lecturer and assistant professor at McGill. In 1950 he received a BSc degree from Sir George Williams University and was appointed an associate professor at Queen's University. In 1956 he obtained an MEng degree from McGill and, in 1959, a doctorate from École Polytechnique. At Queen's he was promoted to full professor and later served as head of the Department of Mechanical Engineering and as chairman of the Engineering Division of the Graduate School. His research field was production engineering and, in particular, machining and metalworking.

In 1964, Rice was the first Canadian elected a member of the International Institution for Production Engineering Research (CIRP). He was also a founding member of the North American Metalworking Research Conference and chaired its scientific committee. In 1982, Rice was awarded the gold medal of the Society of Manufacturing Engineers. In 1985, APEO awarded him its Engineering Medal for his contributions to engineering research. He was a long-time executive member of the ASME's Production Engineering Division, which he later chaired. He also held the Canadian Forces Decoration (CD) and was awarded the Centennial Medal.

Rice served EIC in several capacities. In the 1960s, he chaired the Kingston Branch, was a national

councillor and vice-president for Ontario. He was associated with the Downing Committee in the lead-up to the formation of CSME as the first EIC constituent society in 1970. He has chaired its Membership, Intersociety Coordination and ASME-CSME Coordination Committees, and the Production Engineering and Design Division. He was president of the Society in 1980-81.

Bill Rice died in March 2001.

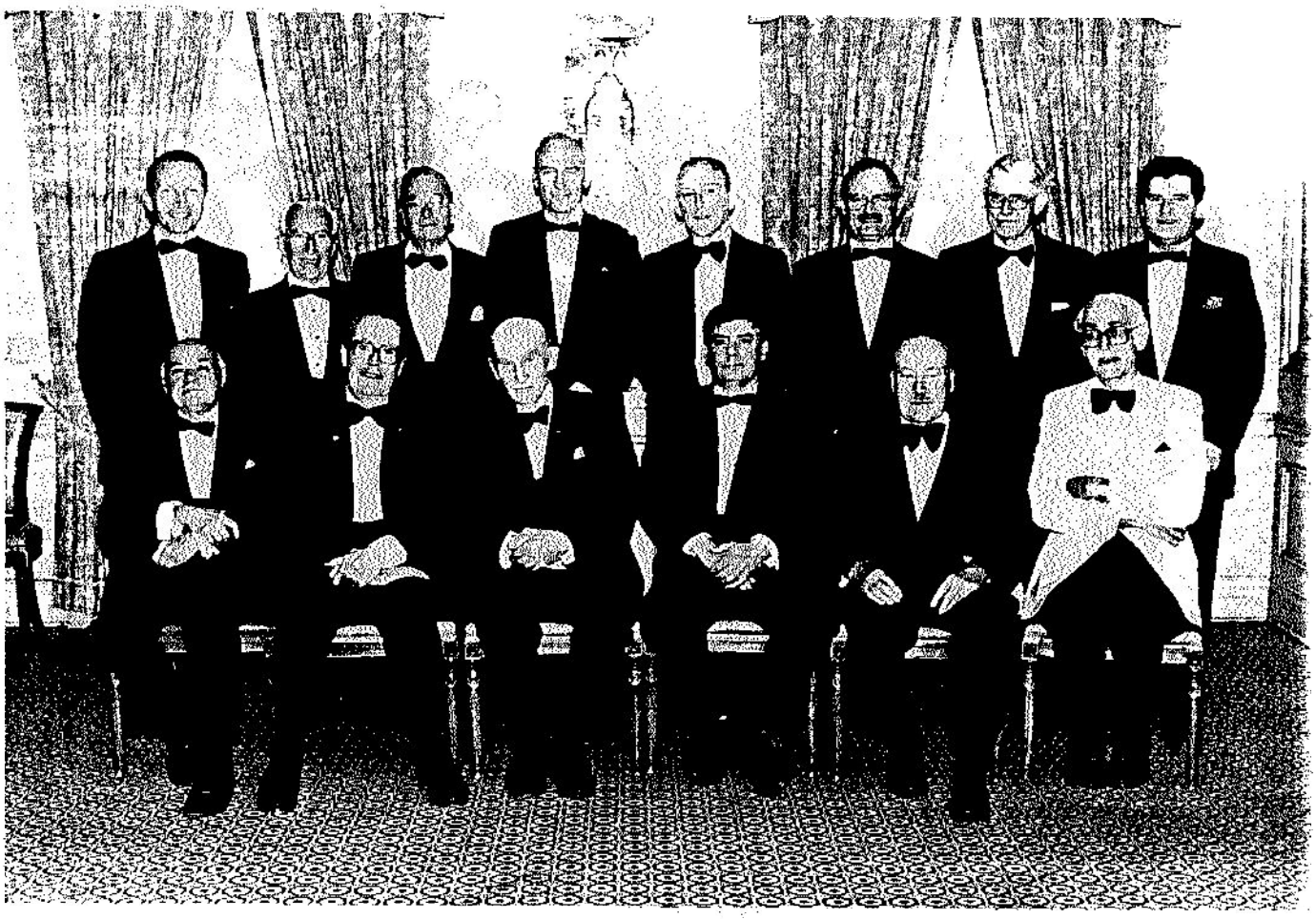
Remy G. Dussault (1986-87) shared the presidency of the Institute during the celebration of the Centennial of Engineering in Canada in 1987. A native of Quebec City, he graduated in civil engineering from L'Université Laval in 1961. As an Athlone Fellow, he earned two diplomas - in hydrology and soil mechanics - at Imperial College, London in 1962 and 1963.

The major part of Dussault's career has been spent in engineering and construction of hydro-electric development projects in Québec. For example, he participated in two of the Outardes projects, the Caniapiscau reservoir, and Laforge diversion. From 1979 until1983 he was manager of the preliminary studies for the Nottaway-Broadback-Rupert Complex with La Societé d'énergie da la Baie James. However, he spent two years, from 1968 until 1970, as manager of membership services and assistant general manager of EIC and, from 1971 until 1974, he was - as an expert assigned by CIDA - with the Ministry of Public Works of the Government of Jamaica. After James Bay, he became an associate of the firm, Vezina, Fortier et Associés of Montreal.

Dussault has participated actively in the CGS since its formation in 1972, and also in CSCE, of which he has been vice-president for Québec. He was elected a Fellow of both CSCE and EIC.

William A.H. Filer (1987-88) was the other centennial year president and is the last to be considered a member of the 'second fifty.' He graduated in civil engineering from the University of Toronto in 1951and has been the principal of consulting firms in Hamilton since 1956. He was president of Filer Consultants Ltd. at the time of his EIC presidency - a firm that specializes in industrial design and structural engineering in the Hamilton region. His structural projects have included the McMaster Nuclear Reactor, Hamilton Place and Hamilton YMCA, the University of Guelph Biology Building, Mohawk College, Brantford, St. Catharines Collegiate, and Westmount High School. He has also participated in the design of bridges and roads and in historic building renovations, and has taken an interest in the history of engineering.

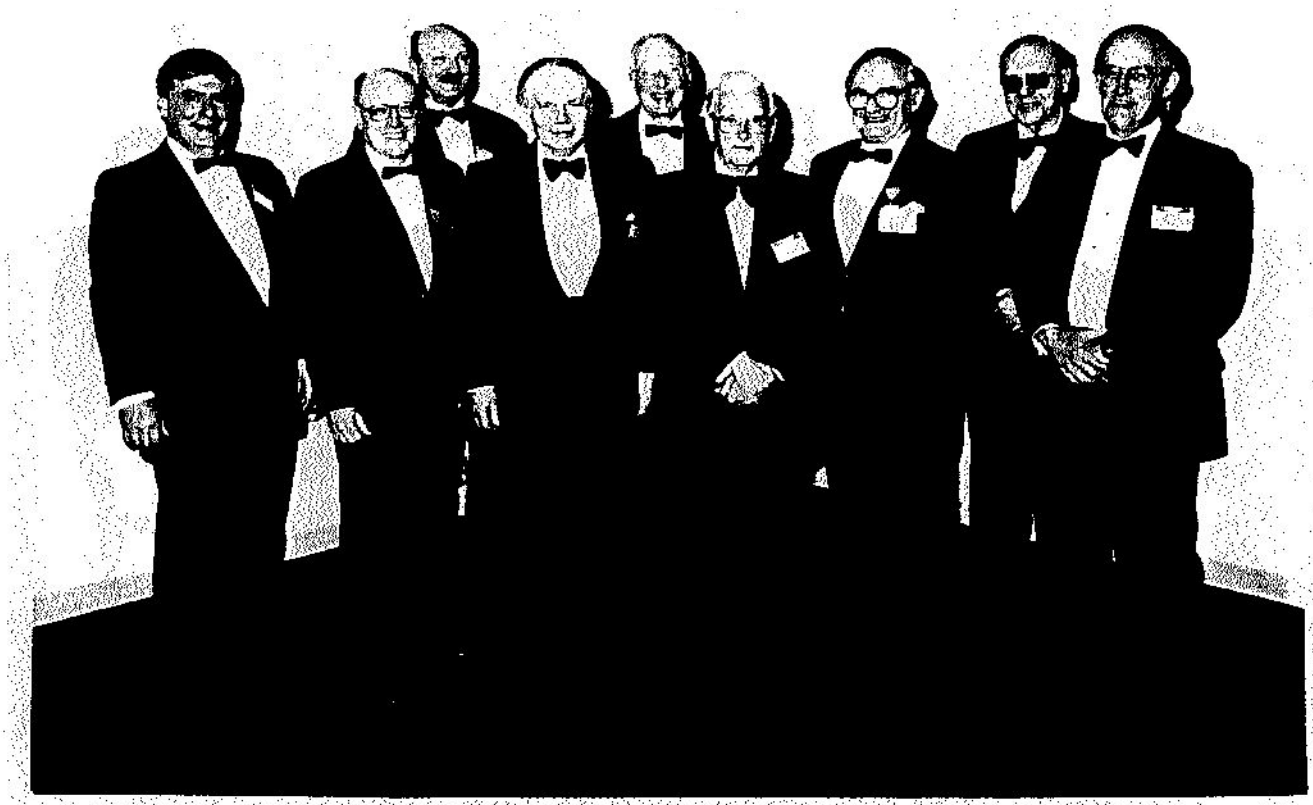
Filer has been active in the Engineering Institute of Canada since graduation. For example, he took an interest in professional development and chaired the National Committee on Professional Development Programs, was vice-chairman of the Committee on Technical Operations, chaired the Hamilton Branch and represented it on EIC's Council. He was elected senior vice-president for 1986-87 and president the following year. He has also been active in CSCE since it was formed in 1972, serving in 1982-83 as president, and has been awarded fellowships in both CSCE and EIC in recognition of his work at the local, regional and national levels.



Presidents photographed at the Centennial Dinner at the Mount Stephen Club, Montréal, May 1987

Back row: Dinsmore; Hahn; Macklin; Harland; Hood; Wilson; Rice; Garland

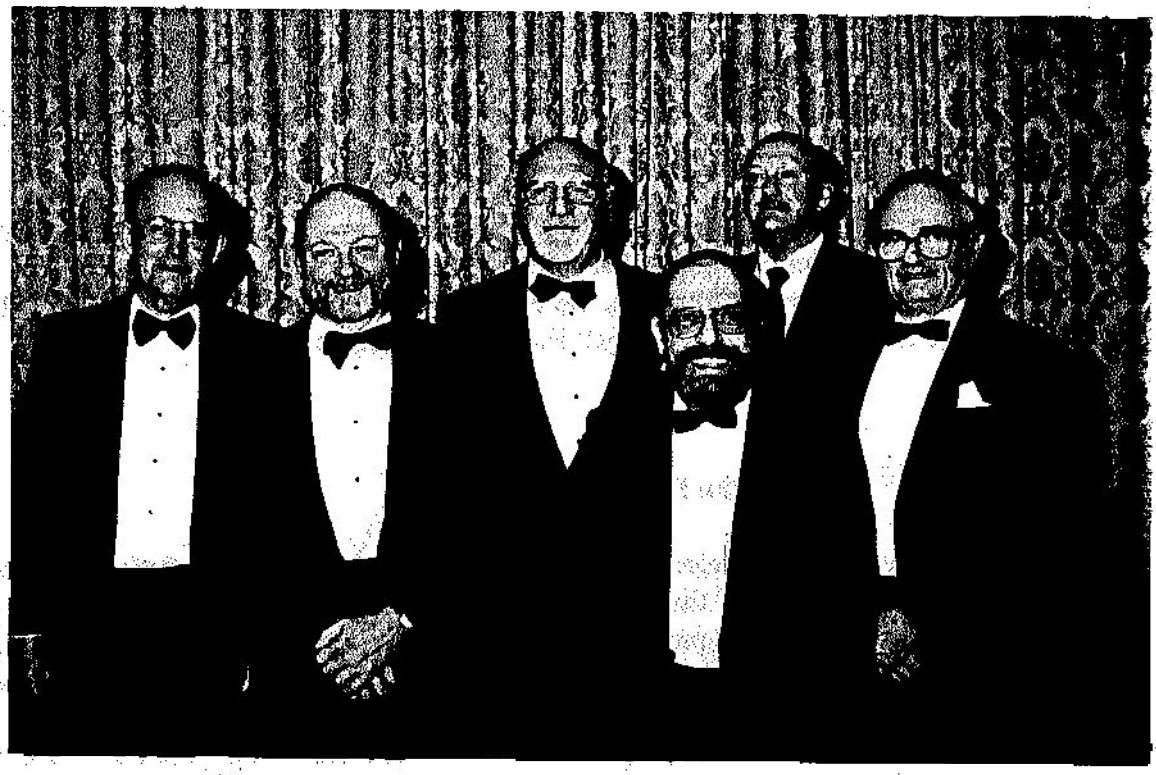
Front row: Côté: Shaw; Stirling; Dussault; Humphrey; Mordell



Presidents photographed at the Annual Awards Banquet, Ottawa
May 1994

Back row: Benson; Filer; Thierman

Front row: Dussault; Ferguson; Revay; McKay; Wilson; Campbell



Presidents photographed at the Annual Awards Banquet, Ottawa
March 2000

Back row: Seychuk; Benson

Front row: Campbell; Plant; Rollin; Wilson

Weaver

Veljkovic

Filer was active in APEO at the chapter, region and provincial levels and his many services to the Association were recognized in 1982 by his admission to the Order of the Sons of Martha. He has also been active in ACEC and CEO and took leadership roles in the Hamilton Engineering Institute. Over the years, he has been a member of the American Concrete Institute and the Association of Port Authorities, the Hamilton and Ontario Chambers of Commerce, several city of Hamilton organizations, clubs and committees, the Canadian Club of Hamilton and the Association of Canadian Clubs, the Art Gallery of Hamilton, the boards of local hospitals, the Anglican Church and Wycliffe College in Toronto, and the Royal Hamilton College of Music.

The Presidents: 1988-2009

Sixteen Society members have been elected to the office of president of EIC during this period. Since it goes beyond the 'second fifty,' the bios in this section of the paper are shorter, concentrating on education, principal experience and previous senior offices held within the Institute, its societies, and the profession. *As before, the material relates to the years prior to election to the office of president.* To reduce the material further, it may be assumed that all of the presidents held the office of senior vice-president of the Institute in the year(s) immediately prior to their presidencies and that they are all Fellows of the Institute.

Pieter Van Vliet (1988-1989) was, numerically, the 100th president of the Institute. Born in Holland, he graduated in mechanical engineering at the H.T.S. at Arnhem. He also completed classes in economics and communications at the University of Saskatchewan. Joining Sasktel in 1955, he rose through the ranks to vice-president. In 1986, on retirement from Sasktel, he was appointed a special assistant to the president of the University of Regina. He is also a past president of APES and of CCPE.

Arthur P. Earle (1989-1990) graduated in electrical engineering from McGill and later studied business administration at Harvard and textile manufacturing at Clemson. He joined the Shawinigan Water & Power Co. in 1949 and served in technical and administrative posts. In 1963 he joined Dominion Textile Inc. as chief engineer, becoming a group vice-president in the 1970s, and senior vice-president in 1978. He has been president of the Montreal Board of Trade and the Quebec Chamber of Commerce and also served as president of the Montreal International Airport Council. A member of the Canadian Society for Electrical Engineering, he served two years as treasurer of EIC.

Nelson Ferguson (1990-1991) was born in Scotland and graduated in naval architecture from the Royal College of Science and Technology and the University of Strathclyde in Glasgow. He later earned an MASc degree in mechanical engineering from the University of British Columbia. Professionally experienced on both sides of the Atlantic, he joined the faculty of the Technical

University of Nova Scotia in 1965 to teach naval architecture and mechanical design. He also served TUNS as registrar and dean of students from 1977 to 1980 and as vice-president, administration, from 1980 to 1984. He was active in the Halifax Branch of EIC and served as president of the CSME from 1984 to 1986.

Stephen George Revay (1991-1992) was born in Hungary and was a military college graduate in civil engineering from that country. He was also a chartered arbitrator and chairman of the National Committee on Construction Arbitration. Prior to forming his own company, Revay & Associates in Montréal in 1970, and serving as president, he was general manager of Dufresne Engineering Company Ltd. and responsible for the construction of large hydro-electric developments, major bridges and other structures. His consulting firm was in the construction management and arbitration fields and its practice extended across Canada, into the United States and abroad. He was president of CSCE, a former associate editor of the Canadian Journal of Civil Engineering, and chairman of the CSCE Construction Engineering Division. He published and lectured extensively. Steve Revay died in 2004.

Colin A. Campbell (1992-1993) received a diploma from the Royal Military College in 1955 and a degree from McGill in civil engineering the following year. He then took post-graduate courses in structural engineering. He formed C. A. Campbell Consulting Engineers Ltd. in Calgary in 1977, of which he was president. Since 1983 he has been a partner in Campbell Woodall & Associates, also of Calgary. Both companies have been concerned with the design, construction and supervision of major civil engineering and building projects. Campbell is a past chairman of the Calgary Branch of EIC. He was chairman of the EIC General Members' Group in 1984 and continued on the executive when the GMG became the Canadian Society for Engineering Management. He was also a member of CSCE, APEGGA and the Calgary Chamber of Commerce.

Raymond P. Benson (1993-1994) was a farm-boy, born near Strongfield, Saskatchewan, in December 1935. Attending high school in Calgary, he worked as a rodman with Calgary Power for three years before enrolling in civil engineering at the University of Alberta. He received his degree in 1960 and joined the PFRA at Saskatoon as an engineer-in-training - his main interest being in soil mechanics - and worked on the South Saskatchewan Dam. In the fall of 1962 he joined IPEC, with further soil mechanics experience in mind. However, he went back to university - Illinois - and received a master's degree in 1966, after which he was persuaded to return there for a doctorate in rock mechanics. Before completing this, in 1970, he had joined H.G. Acres, with whom he remained until July 1976, when he joined Klohn Leonoff Consultants Ltd. in Vancouver as vice-president, engineering. In 1984 Benson was named senior vice-president of the Company and, 1987, became president.

B. John Plant (1994-1996) was born in Smiths Falls, Ontario in 1933. He attended the Royal

Military College in Kingston, the Royal Naval Engineering College in Plymouth, England, the Massachusetts Institute of Technology and the National Defence College in Kingston. He saw sea service in the Royal Canadian Navy in RN and RCN submarines, destroyers and frigates. In 1970, he retired from the RCN with the rank of Commander (E). He received his doctorate in electrical engineering from MIT in 1965, the year he was given an academic appointment to RMC, where he served as head of the Department of Electrical Engineering and as dean of studies. In 1975 he became active in the naval reserve, serving as commanding officer of HMCS Cataraqui and, in 1980, was promoted to Captain (N). In 1984 he was appointed an Officer of the Order of Military Merit and as principal of the RMC, the position he occupied during his EIC presidency and in which he served for two years, establishing it as the new 'norm' in that office. Plant was also elected a senior fellow of IEEE, president of CSECE, and was instrumental in the merger of this Society in 1993 with Region 7 of IEEE to form the largest member society of the Institute - IEEE Canada. (Since his retirement from RMC in 1999, Plant has served as executive director of the Institute.)

Anthony R. Eastham (1996) was a professor of electrical engineering at Queen's University when elected president of the Institute in 1996. However, he remained in office for short time, resigning to accept an academic appointment abroad. He had earlier been president of CSECE.

John L. Seychuk (1996-1998), then senior vice-president, stepped in to replace Eastham on September 1, 1996. He graduated in civil engineering from the University of Manitoba and in 1954 accepted an Athlone Fellowship to study geotechnical engineering at Imperial College in London, England. For around 40 years, Seychuk served in a consulting capacity with Golder & Associates, based in Toronto. From 1978 until 1991 he was president of the company, and later chairman. He travelled extensively throughout the world, including a two-year residence in Australia. He retired in 1996, when his EIC presidency began, but continued to provide specialized services in forensic engineering and dispute resolution. A registered professional engineer in three provinces, he has also been active in ACEC, CEO, and CCPE and, especially, in the Canadian Geotechnical Society, of which he was president.

André Rollin (1998-2000) - a chemical engineer by training, graduating at the master's and doctorate levels - taught in the Department of Chemical Engineering at L' École Polytechnique in Montréal for many years, retiring in 1997 as a full professor, having serving a term as the Dean of Continuing Education. Since retirement, he has been involved part-time with the consulting firm, Solmers International, working on national and international development programs. For many years, Rollin's work was in environmental research, specifically in the field of geosynthetics. He chaired numerous technical committees and has been a member of the board of the North American Geosynthetics Society. He has also been a member of the editorial board of the International Journal on Geotextiles and Geomembranes and of the Geosynthetics International Journal, and chair of the Canadian General Standards Board on Geosynthetics. Over the years, Rollin has taken an interest in manpower utilization questions and has been a board member of the Canadian Council for Human

Resources in the Environment Industry. He brought to his presidency of EIC a strong commitment to making it a leading proponent of continuing education for engineers.

Linda Weaver (2000-2001) was the first lady-president of the Institute. The News Release at the time of her appointment said:

> Ms. Weaver is an engineer and entrepreneur with extensive experience in designing and implementing information technologies in healthcare. In 1993, she co-founded TecKnowledge Healthcare Systems Inc., which is the Canadian market leader in providing telehealth solutions. She has a Bachelor of Science (mathematics) from Dalhousie University, and a bachelor of Electrical Engineering (Electrical) from the Technical University of Nova Scotia, with graduate studies in biomedical and electrical engineering. She also completed a Masters of Business Administration from Saint Mary's University in Halifax....
>
> Ms Weaver is a past-president and director of IEEE Canada....Well respected in both business and engineering fields, Ms. Weaver has received a progress Woman of Excellence Award, 1996...

At the time of her appointment as president, Ms. Weaver was chief technical officer of Tecknowledge Healthcare Systems. She served for one year.

Kenneth W. Putt (2001-2002) followed Linda Weaver in mid-2001. He graduated in metallurgical engineering from the University of British Columbia in 1965 and was employed by Imperial Oil Ltd. and its affiliates for 27 years after graduation, the last 14 in positions of executive leadership. He then moved into consulting practice in the management of technology development, after which he was employed as an industrial technical advisor and consultant by the National Research Council. Putt co-founded the Professional Development Consortium in Calgary and was a founding member of the University of Calgary Engineering Internship Industry Advisory Committee, a member of the University's Senate for eight years, and a special advisor to its president and its vice-president of research. He was a founding director of the Petroleum Technology Alliance of Canada, a director of Maxxam Analytics International Corporation, a member of committees of NSERC, has coached CEOs and mentored executives, and is an emeritus member of the Innovation Management Association of Canada. Putt is a past president of CSEM, and the 1998 winner of EIC's CP Rail Medal. He served 18 months as Institute president.

Guy Gosselin (2002-2004), unusually, was elected president of the Institute *before* having served as president of a member society of the Institute. (He led CSCE in the year 2008-09.) He graduated in civil engineering from the University of Ottawa in 1979, following this with an MSc from the University of Saskatchewan and an MBA from the University of Ottawa, at the end of which he won

the Touche, Ross and Associates Award for highest achievement. He has since had a varied career at the National Research Council in Ottawa, involving fire research, business development, product evaluation, and as a technical advisor to National Building Code committees. At the time of his presidency, he managed the production and marketing group within the National Construction Codes and Evaluation Program.

Maja Veljkovic (2004-2006) was the second lady to be elected president of the Institute. She received her master's degree in chemical engineering from the University of British Columbia. In June 2001, she was appointed director general of the NRC's Innovation Centre and National Fuel Cell Program in Vancouver. To accept this position, she left an outstanding engineering career with Syncrude Canada, where she directed R&D activities on a number of major programs of international significance and was a senior advisor for the company's upgrading research program. She also chaired the Upgrading Technical Planning Group of the Canadian Oil Sands Network for R&D. Her research work was tempered by experience of the business world and included a strong interest in clean energy technology. Among the distinctions she has received was the 1997 YWCA Women of Distinction Award for Science and Technology. She served as president of the Canadian Society for Chemical Engineering which, in 1998, became a member society of EIC

R. Kerry Rowe (2006-2008) was the second Australian-born engineer to become president of the Engineering Institute. He received his degree in civil engineering from the University of Sydney, and also earned PhD and DEng degrees. He worked as a geotechnical engineer in the Australian Department of Construction prior to emigrating to Canada in 1978. He then spent 22 years as a professor at the University of Western Ontario, including eight as chair of the Department of Civil and Environmental Engineering. At Queen's, he has been a professor of civil engineering and vice-principal (research). Rowe has published 400 refereed journal papers, conference and book contributions dealing with geotechnical, geosynthetic, hydrogeological and geoenvironmental engineering. He is a Fellow of the Royal Society of Canada and the Canadian Academy of Engineering, and has been awarded the Killam Prize and the Legget Medal. He has served as president of the Canadian Geotechnical Society and of the International Geosynthetics Society.

Marc A. Rosen (2008-10) is, numerically, the 115th and the last on this present listing of EIC presidents. He received a BASc degree in engineering science (nuclear and thermal power option) from the University of Toronto in 1981, and his MASc and PhD degrees in mechanical engineering from the same university in 1983 and 1987. He subsequently taught at Ryerson Polytechnic University, and served as head of the Department of Mechanical Engineering. From 2002 until 2008 he was the founding dean of the Faculty of Engineering and Applied Science at the University of Ontario Institute of Technology at Oshawa and is currently a professor in this Faculty. Rosen's research areas include thermodynamics, energy systems, heat transfer and environmental impact

assessment, and he has published widely. He has received a number of awards, including the EIC's Julian C. Smith Medal and the Angus Medal of CSME, and is a Fellow of the Canadian Academy of Engineering. He was president of CSME from 2002 until 2004.

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Acronyms

ACEC: Association of Consulting Engineers of Canada, now the Association of Consulting Engineering Companies (ACEC)

APEBC: Association of Professional Engineers of British Columbia, now the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC)

APEGGA: Association of Professional Engineers, Geologists and Geophysicists of Alberta

APEM: Association of Professional Engineers of Manitoba, now the Association of Professional Engineers and Geoscientists of Manitoba (APEGM)

APENB: Association of Professional Engineers of New Brunswick, now Engineers and Geoscientists New Brunswick

APENS: Association of Professional Engineers of Nova Scotia, now Engineers Nova Scotia

APEO: Association of Professional Engineers of Ontario, now Professional Engineers Ontario (PEO)

APES: Association of Professional Engineers of Saskatchewan, now the Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS)

ASCE: American Society of Civil Engineers

ASME: American Society of Civil Engineers

CCPE: Canadian Council of Professional Engineers, now Engineers Canada

CASI: Canadian Aeronautics and Space Institute, formerly the Canadian Aeronautics Institute (CAI)

CEO: Consulting Engineers of Ontario

CEQ: Corporation of Engineers of Québec, now l'Ordre des ingénieurs du Québec (OIQ)

CGS: Canadian Geotechnical Society

CSCE: from 1887 to 1917 the Canadian Society of Civil Engineers, since 1972 the Canadian Society for Civil Engineering (an EIC constituent/member society); CSCE/EIC has been used to indicate all or some of the time between 1887 and the present that has included both institutions

CSEE: Canadian Society for Electrical Engineering, later the Canadian Society for Electrical and Computer Engineering (CSECE), now IEEE Canada

CSEM: Canadian Society for Engineering Management, formerly the General Members' Group/Society of EIC

CSME: Canadian Society for Mechanical Engineering

EIC: Engineering Institute of Canada

HARP: High Altitude Research Project

IEEE: Institute of Electrical and Electronic Engineers, formerly, before their merger, the American Institute of Electrical Engineers (AIEE) and the Institute of Radio Engineers (IRE)

IEEE Canada: see IEEE and CSEE above

IMechE: Institution of Mechanical Engineers (U.K.)

NSTC: Nova Scotia Technical College, later the Technical University of Nova Scotia (TUNS), now part of Dalhousie University

SNC Group: the Surveyer, Nenninger, Chênevert group of consulting engineering companies, Montréal

UMA Group: the Underwood, McLellan group of consulting engineering companies, Winnipeg

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