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(Compilation of Articles, Notes and Papers originally published as
EIC Articles, Cedar Grove Series, and EIC Working Papers)

ENGINEERING HISTORY PAPER #12

“Engineering Centennial and achievements”

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(previously published as EIC Article #12)

EIC HISTORY AND ARCHIVES

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During the morning of 22 January 1987, Prime Minister Brian Mulroney attended a ceremony in the Centre Block on Parliament Hill in Ottawa to launch the year-long celebration of the centennial of engineering as an organized profession, coupled with the founding of the Canadian Society of Civil Engineers. Bernard Lamarre, the chairman of the Engineering Centennial Board, presided. At the beginning of the ceremony, the Engineering Centennial stamp was unveiled by the Chairman of Canada Post, Sylvain Cloutier.

The Prime Minister then presented certificates to those representing the companies most closely associated with the 10 major engineering achievements of the past century selected by a jury that included three nominees each from the Engineering Institute of Canada, the Canadian Council of Professional Engineers and the Association of Consulting Engineers of Canada. The jury chairman was James W. MacLaren.

The jury first met in August 1985 when, among other matters, it set a schedule and method for the selection process. At its second meeting in October it established the criteria for selection. To qualify for consideration, the achievements:

- must have made significant contributions to the advancement of engineering;
- must also have made outstanding contributions to the social, physical and economic well-being of Canadians, and have been major catalysts of social and economic change;
- must have brought international recognition to Canada;
- must have involved superlative organizational and management efforts; and
- must have exhibited originality, ingenuity, creativity or, by any other measure, been unique.

The call for nominations went out through the publications of the three sponsoring institutions and the technical press, and were required by the end of February 1986. Some 88 nominations were received in this way, to which the jurors added others in order to ensure - as practicably as possible - that all geographical areas of the country, each of the quarters of the century, and the dozen or more disciplines of engineering were represented. The third meeting of the jury was held in early April and a comprehensive list of 110 achievements was considered. It was agreed that a short list of 25 would then be selected by means of discussion and majority vote. After further study and discussion, the jurors chose the final list of 10 achievements at their meeting in August. These were:

- the transcontinental railway network built by the CPR;
- the St. Lawrence Seaway;
- the synthetic rubber plant of Polymer/Polysar at Sarnia;
- the Athabasca commercial oil sands development;
- the Hydro-Quebec very high voltage transmission system;
- the CANDU nuclear power system;
- the De Havilland DHC-2 'Beaver' aircraft;
- the 'Alouette I' orbiting research satellite;
- the Bombardier snowmobile; and
- the trans-Canada telephone network.

On 1 March 1999 a ceremony was held to honour the five most significant Canadian engineering achievements of the 20th century. This time it provided the launch for the 1999 National Engineering Week and was held at the National Museum of Science and Technology in Ottawa. Micheline Bouchard, the Honorary Chair of NEW, and Dan Levert, the NEW Executive Committee Chair, presided.

The final list of five was compiled by the NEW Executive Committee, based on extensive research as well as on input from the Engineering Institute of Canada, the Canadian Council of Professional Engineers, the Association of Consulting Engineers of Canada and the Canadian Academy of Engineering.

To qualify, the achievements:

- must have been conceived, designed and executed with significant input by a Canadian engineer or team of engineers;
- must have involved ground-breaking engineering thinking and ingenuity; and
- must have demonstrated the scope and diversity of Canada's engineering profession.

The companies or individuals most closely associated with the winning achievements received their awards from Mme. Bouchard. The five were:

- the CPR Rogers Pass project, completed in 1989;
- the fixed link Confederation Bridge across the Northumberland Strait;
- the Canadarm remote manipulator system;
- the IMAX system of motion picture photography and projection; and
- the Hopps pacemaker.

An Angus Reid poll was conducted on behalf of the NEW Executive Committee among 1500 members of the general public to determine which of these five achievements "made them most proud to be Canadian." The result of this poll was announced at the 1 March ceremony: the Hopps pacemaker. Donald Hopps, son of John Hopps, received this award on behalf of his family and the National Research Council of Canada.

How does Canadian engineering rate world-wide? Construction writers, engineers and executives reportedly announced at the Conexpo Construction Trade Fair in March 1999 that the following engineering achievements were the most significant of the century: the Chunnel; Chep Lap Kok Airport in Hong Kong; the Panama Canal; the Empire State Building; the Sydney Opera House; the Aswan High Dam in Egypt; the Golden Gate Bridge; the Hoover Dam; the World Trade Centre in New York; and the U.S. Interstate Highway Network. Granted, this poll was confined to construction achievements. But in this context, Canadians might have expected to see mention of the Confederation Bridge, the CN Tower or the Skydome!

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