

FIFTY YEARS AGO

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Featured Papers

Three papers were published in Vol. XXI, No. 4.

The first, by Alan B. Sunter from the Dominion Bureau of Statistics, examines “Least Squares Adjustment of Biased Observations.”

In the second paper, it was noted that the British Columbia Surveys and Mapping Branch had been using for some time the IBM 1620 version of the survey adjustment program GROOM, which had been written by the Geodetic

Survey of Canada. The Branch then installed an IBM system/360 to replace the 1620, and it was decided to write a new program for the system/360. Michael Perks of the Department of Lands, Forests and Water Resources describes “COSMOS—A FORTRAN Program for the Computation of Survey Material on the Spheroid.”

In the 1960s, there were two basic methods of surveying by satellite: that of photographing a satellite against a background of stars (Echo 1, Echo 2 and PAGEOS balloon-type satellites), and that of range measurements from ground stations to satellite. ANNA 1-B, the first dedicated satellite for geodesy, was launched on Halloween in 1962, carrying the U.S. Army’s Type I SECOR (Sequential Collation of Range) instrumentation. The purpose of the SECOR system was to provide geodetic coordinates of ground points located 160 to 4800 km from known geodetic positions. The system utilized at least four transportable ground stations, three at known geodetic points and one at an unknown location.

In his paper “Surveying by Satellite,” A.J. Flatman, OLS, DLS, describes the SECOR program and discusses test results and sources of error from Type II SECOR satellite measurements. Type II satellites were launched in 1964 and 1965. The cube-shaped Type II SECOR satellite measured 25 x 30 x 35 cm and weighed approximately 18 kg. It was covered with solar cells on all surfaces and sported nine antennas made of flexible steel tape (Figure 1).

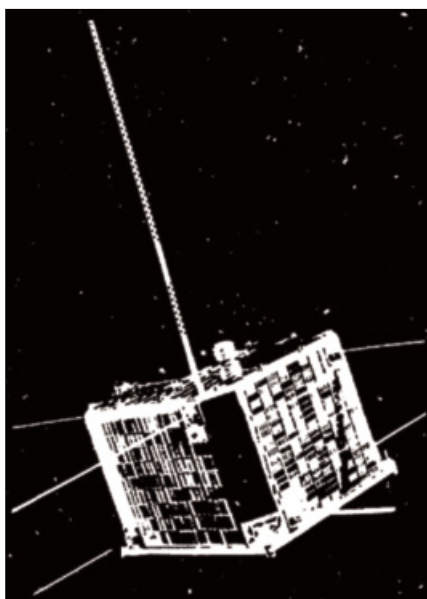


Figure 1: Type II SECOR satellite.

The Supplement

The Eastern Regional Group of Ontario Land Surveyors undertook a centennial project to locate and plot the Parliament Buildings on a survey plan. The cover of *The Supplement* section shows a pair of surveyors in 1867 dress taking measurements employing the old chain and compass technique (Figure 2). Note the jug on the ground under the tripod, necessary for the slaking of thirst. Other less adventurous members of the group used a modern Geodimeter and T2 transit for their portion of the survey.



Figure 2: Charlie Rogers and Dick Dore, in the dress of 1867, work with a sixty-six foot chain and a surveyor’s compass to complete a portion of the survey.

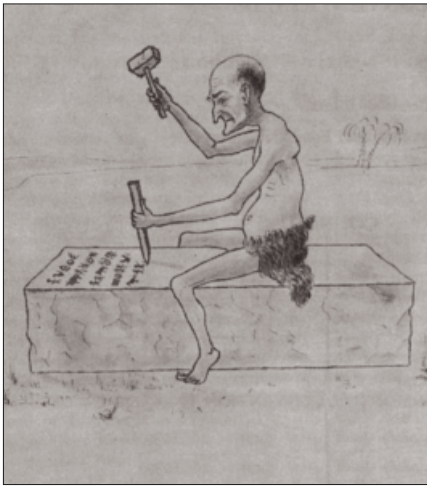


Figure 3: Cartoon of Jim Jones drawn by Les Gregerson and presented to Jim at the Over 50 luncheon.

Jim Jones' Letter

Elmo James Jones (1910–1969), known simply to most as Jim Jones, was the guest of honor at the “Over 50 Club” luncheon held during the 1967 annual meeting of the Institute in February. During his lifetime, Jim was a mariner, minister, soldier, boxer, surveyor, instructor and writer. He joined the Canadian Institute of Surveying in 1949, the same year he came to the Topographical Survey of the then Department of Mines and Resources. He was editor of *The Canadian Surveyor* for some ten years. In 1961 Jim created *The Supplement* section of the journal, which served as a vehicle for his lively wit and imagination.

Appearing in the September 1967 *Supplement* is an open letter to Angus Hamilton (then chairman of the publications committee) from Jim thanking the Institute for the gifts and honor bestowed upon him.

In a cartoon presented to Jim at the luncheon, artist Les Gregerson captured “the many years of service, the spirit and the determination” of the former editor of the journal (Figure 3).

Past president T.J. Blachut announced the creation of “The Jim Jones Award” by the CIS, to be made to the member who makes the most valuable contribution to the journal’s *Supplement* each year (Figure 4). The contribution could be in the form of an

article, a letter or a cartoon. It would be judged for its interest, its liveliness and its value to the survey community.

It was the announcement of the award that seemed to have most moved Mr. Jones. From the letter in his own words:

“It is not often given to a man to see his own preachments so completely taken to heart during his lifetime. The terms of the award... certainly constitute the heartiest endorsement of my often-stated thesis that the wise man takes everything seriously but nothing too seriously, particularly himself.

“I consider it most generous of the Institute to reward me for something that I so much enjoyed doing and from which I derived so much benefit by way of experience in publishing, intimate exposure to technical literature written by experts, and, most important of all, warm personal contact with that magnificently competent, versatile, and interesting fellow, the surveyor.”



Figure 4: T.J. Blachut (right) makes a presentation to Jim Jones.

At the time of the luncheon, Jim Jones had been ill for several years and was in and out of hospital. Jim passed away on January 5, 1969.

Field Notes and Office Memos

Always in a hurry? Two notable quotes were spotted.

G.S. Andrews, then surveyor general of British Columbia and director of Surveys and Mapping, described the problem of mapping British Columbia.

My province is a wrinkled up country with lots of contours in a hurry.

E.D. Baldock, then director of map production, Department of Energy, Mines and Resources, explained why there was a difference in the style of three adjoining map sheets.

The first sheet was done by scribing, the second was done in pen and ink, and the third was done in a hurry.

Major James A.H. Church (1884–1967)

The Supplement noted the passing of Major James Archibald Hepburn Church, DSO, MC, PLS in Lawrencetown, Nova Scotia on June 24, 1967 (Figure 5).

Born in India of Scottish parents and educated in England and Scotland, James Church immigrated to Canada in 1907 and worked as a mining engineer on the eastern slopes of the Rocky Mountains.

At the outbreak of World War I, he enlisted with the 19th Alberta Dragoons, went overseas and transferred to the 251st Tunnelling Company, Royal Engineers. He was discharged in 1919 with the rank of Major, having been decorated with the Distinguished Service Order and the Military Cross.

Major Church then returned to Alberta and his profession as a mining engineer, but gave that up in 1931 and moved to Nova Scotia to take up farming.

During World War II, the Department of National Defence asked the Major to organize a training school for surveyors in the armed forces in Halifax. With the end of the war, the army ordered the termination of the training program, but Church argued that the military had an obligation to find employment for the demobilized forces and that his survey course was one way of doing just that.

In 1948, "Major Church's School" was relocated to the Annapolis Valley, but being supervised by different government agencies, it moved around from place to place and building to building, such as "the Agricultural Building and a lean-to shed adjacent to the old Legion Hall." But the Major was persistent and persuasive. Through a series of submissions and recommendations for better teaching of land surveying delivered to the Vocational Division of the Department



Figure 5: Major J.A.H. Church.

of Education, it would take another ten years before his dream to establish an institution devoted exclusively to training surveyors was realized.

In 1958, the Nova Scotia Land Survey Institute found a permanent home in Lawrencetown, facilitated by the donation of land by the Canadian Legion and of funds by Dr. J.B. Hall. (Dr. Hall died in 1928. In his will, he had left considerable funds for the establishment of a vocational school in Annapolis County.) Major Church retired as principal of the Institute in 1963.

With the popularity of the courses offered and a growing student enrollment, the facilities of the original building were soon insufficient. A new and larger building was opened in 1975 and is now known as the Centre of Geographic Sciences.

Major Church was an Honorary Member of the Canadian Institute of Surveying and of the Association of Provincial Land Surveyors of Nova Scotia. □



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