

education and an initial account of the Canada Council in support of the arts, letters and social sciences.

The 1957-58 edition contains a further instalment on the construction of the St. Lawrence Seaway and Power Project and of oil and gas pipelines, as well as the up-dating of basic material dealing with such subjects as immigration, vital statistics, public health and welfare, scientific, medical and industrial research, forestry, water power development, mineral production, manufacturing, the labour force, prices, public finance, banking, insurance, transportation, communication by various media, domestic marketing of commodities, foreign trade, national income and expenditure and Canada's international investment position. Numerous charts graphically portray significant trends in the developing Canadian economy.

The concluding chapter presents handy reference material listing Government information services, special material published in earlier Year Books, federal legislation of recent sessions of Parliament, a Canadian chronology of events, a register of official appointments, and a statistical summary of the progress of Canada since 1871. Enclosed in the pocket on the inside back cover are two maps: a detailed map depicting the principal mineral areas, and a map showing the distribution of population based on the 1956 Census specially printed on transparent paper to facilitate its use as an overlay on the mineral map.

The price of the regular cloth-bound copies of the Canada Year Book 1957-1958 is \$5.00. Orders for copies should be accompanied by remittance in the form of cheque or money order payable to the Receiver General of Canada, and be addressed to the Queen's Printer, Ottawa, or the Dominion Bureau of Statistics, Ottawa.

A limited number of paper-bound copies has been set aside for ministers of religion, school teachers and students, who may obtain them at the reduced price of \$1.50. Applications for these special copies, accompanied by remittance as above, should be sent to the Information Services Division, Dominion Bureau of Statistics, Ottawa, or the Queen's Printer, Ottawa.

*Encyclopedia Canadiana* - Scholars, educators and publicists from all parts of Canada gathered in Ottawa recently to celebrate the completion of the new *Encyclopedia of Canada*. This unique reference work of 4,300 pages, profusely illustrated with drawings, photographs and maps, is devoted entirely to the Canadian scene, past and present. Dr. John E. Robbins, former Director of the Education and Information Divisions of the Dominion Bureau of Statistics is the editor-in-chief.

*William Lyon Mackenzie King* - The first book of a three-volume biography of Mr. Mackenzie King, published on November 17, covers the period of his life from his birth in 1874

in Berlin (now Kitchener), Ontario, until 1923, just after he had become Prime Minister of Canada, a position he was to fill for almost twenty-two years.

The Rockefeller Foundation made a grant of \$100,000 to Mr. King in 1949, to assist him in uniting his memoirs. The former Prime Minister died in 1950 but left instructions in his will for the work to be carried on by three literary executors.

Volume I is by the late Professor R. Macgregor Dawson who died last summer. Volumes II and III are being written by Dr. Blair Neatky and Mr. J.W. Pickersgill, a former private secretary of Mr. King, respectively.

\* \* \* \*

## ROCKET EXPERIMENT

An 85-pound rocket nose cone, designed and instrumented at the Defence Research Board's Canadian Armament Research and Development Establishment (CARDE) at Valcartier, Quebec, has been hurled 90 miles into the upper atmosphere at Fort Churchill, Manitoba. Object of this International Geophysical Year activity was to detect and measure theoretically predicted night-time infrared radiation.

As the result of studies and calculations, the CARDE scientists believe that infrared radiation and visible light are components of night air glow which appears as a general brightening of the sky. The visible light and near infrared radiation can be measured from the ground but efforts to detect the far radiation from the ground have been unsuccessful because of atmospheric absorption effects. When the data obtained have been processed, the Canadians hope not only to confirm the presence of night-time infrared radiation but expect also to measure its intensity as against its altitude distribution.

Air glow can be detected on clear, moonless nights when the aurora borealis is relatively inactive and does not interfere with visibility. Another similar experiment was successfully carried out on November 13.

Almost five feet long and seven inches in diameter, the aluminum alloy nose cone was cylindrical in shape with a tapered nose. It contained a four-lens optical system designed to carry out separate infrared radiation measurements and a two-lens system for measurements of the visible light above the earth. Radar-like instrumentation, by transmitting signals between the nose cone and the ground, determined the position and velocity of the Nike-Cajun rocket within a few feet throughout its flight. Associated telemetering equipment and battery power supplies were included.

The solid propellant rocket used as the carrier was provided by the United States. The first stage was a Nike guided missile system booster which ignited at the time of launch and accelerated the rocket carrier for the instrumented nose cone.

(Over)