

The machine will provide an extensive analysis of the dam design and the materials that will be used to build it. Thus aided, engineers can create a detailed picture of the dam in a short time and get answers to many vital questions, such as the effect on the dam of fantastic stress both from its own weight and the depth of water that will build up behind it.

LARGE RUN-OFF

Portage Mountain will be one of the largest dams in the world, 3,000 feet thick at the base, narrowing to 50 feet at the crest.

The river behind the dam that will impound 88 million acre-feet of water, most of it from the Rocky Mountain Trench, will create an artificial lake about 70 miles along the west side of the Peace River to Finlay Forks. The lake will then spread north 90 miles along the Finlay and south for 110 miles along the routes of the Parsnip and Crooked Rivers. While run-off waters from some 25,000 square miles are filling the dam over a seven or eight year period, adequate water-supplies will be passed through the dam to the lower reaches of the river.

The entire completed project will provide a total of 3,150,000 kilowatts for the continued expansion of British Columbia.

VISIT OF SURVIVAL EXPERT

Brigadier J.E.S. Stone, Director of Work Study for the British Army, visited Canada recently for discussions on the "Critical Path" planning method now used by the Canadian Army in planning, scheduling and controlling both costs and time on large military construction projects. While in Ottawa, on August 13 and 14, Brigadier Stone conferred with heads of the Quartermaster General Branch at Army Headquarters. On August 15 he flew to Quebec City, to visit the Provincial Regional Emergency Headquarters project located at Valcartier before leaving for Washington, D.C., on August 17.

USE IN CANADA

Based on the most important steps in planning, and type of project, the "Critical Path Method" has undergone extensive study in both the United States and Canada and will be added to the curriculum at the Royal Canadian School of Military Engineering at Camp Chilliwack, British Columbia, this fall.

The technique has been used with outstanding success by the Department of National Defence in construction projects for the national survival programme. Used in the construction of provincial headquarters buildings for the Emergency Measures Organization, the new planning system may be made mandatory in the calling of tenders for National Defence building projects in the future.

The "Critical Path Method" was first tried by the Canadian Government in the Ottawa area two years ago on a building project of a year's duration. Since then further study has revealed that the same techniques can be applied to advantage in other fields, including that of military tactics.

GREAT LAKES RESCUE CUTTERS

Transport Minister Léon Balcer has announced that contracts are being awarded for three small, high-speed search-and-rescue cutters, to be operated by the Canadian Coast Guard on the Great Lakes.

The 70-foot wooden vessels will have a double skin below the low-water-line, a curved, flared, "soft-nosed" stem, a transom stern and a continuous main deck. The wheelhouse will be admidships.

Each cutter will be powered by twin diesel engines, developing a total of 1,050 brake horsepower. Driving through a fluid coupling and a two-to-one reverse reduction gearbox, the engines will be operated by remote control from the wheelhouse.

Provision will be made on each of the vessels for a jet-propelled workboat to be carried in a rapid-launch recess aft.

The cutters will also be fitted with a gas-turbine fire pump delivering 500 gallons a minute at a head of 100 pounds a square inch through a fire monitor mounted aft.

In spite of their small size, the cutters may have to remain on continuous duty for up to six days and their accommodation will, therefore, be of a high standard.

The cutters will cost about \$275,000 each. The contracts call for completion of the vessels by early summer 1963.

TRAFFIC IN SECURITIES

Security transactions between Canada and other countries gave rise to a net capital outflow of \$96 million in the second quarter of the year compared to \$61 million in the first. Trade in outstanding Canadian securities was dominated by the repurchase from non-residents of some \$46 million of Canadian stocks. In both May and June, repatriations set new monthly records for the postwar period. Investors in the United States, in the United Kingdom, and in other overseas countries sold Canadian stocks. There were on balance net sales \$4 million of outstanding Canadian bonds and debentures to non-residents in the second quarter, sales in May and June having more than offset a substantial purchase balance in April.

New issues of Canadian securities sold to non-residents produced \$167 million in the quarter, up sharply from the figure of \$38 million recorded in the first quarter. Some \$125 million was applied to refinancing external indebtedness in other forms. Retirements of foreign-held securities totalled \$61 million in the quarter.

FOREIGN ISSUES

Net acquisitions of foreign securities by Canadian residents totalled \$35 million in the second quarter. This outflow followed one of \$27 million in the first quarter. The largest part of the outflow in each quarter covered the purchase of outstanding foreign stocks, mainly of United States corporations.