



Bulletin

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ARCTIC RAILROAD FEASIBLE

Transport Minister Don Jamieson announced recently that the Canadian Institute of Guided Ground Transport at Queen's University, Kingston, Ontario, had completed a report entitled *Railway to the Arctic* - a preliminary examination of the technical feasibility and cost of using a railway to move oil over the permafrost region on its way from Prudhoe Bay on the Alaskan North Slope to North American markets.

The railway feasibility study received funding from the Ministry as one part of a continuing examination of alternatives to pipelines, including unit trains, large aircraft, icebreaking tankers, submarines, semi-submersibles, and other transport modes. The CIGGT study suggests that a railway to carry oil at the volumes projected appears to be

technically feasible, and examples of freight rates for certain economic assumptions are calculated.

EQUIPMENT, ROUTE AND COST

The study suggests that the railway would require some 360 locomotive units and 11,000 tank cars of 94-tons capacity each. Twenty of 168-car trains, each about two miles long, pulled by five locomotive units, would move the design volume of two million barrels of oil a day. The proposed railway would be high-standard double track, with an advanced signal-control system along the 1,240-mile route. Of the three routes studied, the report favours one that would proceed from Prudhoe Bay, along the Arctic north slope to the Mackenzie Delta and then south-east along the Mackenzie River Valley to a point near the Trout River in the Northwest Territories. From there, the oil is assumed to move by pipeline, since the study was primarily concerned with the problem of transporting oil over permafrost. The study estimated a capital outlay of about \$2.4 billion to construct the railway, with the total debt rising to about \$3 billion before receipt of revenues. Computed tariffs range from 50 to 84 cents a barrel for 1,240 miles, depending on assumptions.

MANPOWER

Mr. Jamieson stated that the CIGGT study estimated that the railway would require an average of 5,000 people for construction over a five-to-seven-year period. In operation, the railway would directly employ some 4,600 people in the NWT, Yukon and Alaska. Indirect, construction and operations employment could generate up to 50,000 jobs in Canada, as well as an equal number in the United States. Other parts of the study outline the capacity of the railway to carry goods other than oil southward and to carry traffic into the North. Consideration is also given to environmental problems; the study says that railway interaction with permafrost can be negligible

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