

(6) With the 25 ft. project the saving is estimated at \$1.60 per ton.

NOTE: With joint financing it is considered that the capital can be raised at not over 4%.

(iii) Ottawa St. Lawrence Routes.

(a) Head of Galops Rapids - Hawkesbury - Ottawa River increases total distance from 132 to 144 miles and canal from 26 to 75 miles.

(b) Via Ottawa - still longer by 30 miles and canal is 55 miles long.

490,000 Horse Power at Carillon.

Very expensive to construct either of these routes which would in any event impose serious delays to navigation.

NOTE. 1 Hour's delay on Great Lakes costs \$1,000,000 per annum.

(iv) Lake St. Francis - Lake Champlain - Hudson Route.

Level of Lake St. Francis at elevation 152.4 to Kings Bay on Lake Champlain a distance of 48 miles, there descending to elevation 100. Route follows Lake Champlain to Whitehall, thence a land line along Hudson to Waterford - 7 locks in all - numerous railway and highway crossings.

St. Lawrence water could be diverted to Hudson.

No route net in Canadian Territory physically feasible.

Very expensive and if constructed Canada could open a route to the sea by building a few miles of canal which would take all the traffic.

6. Summary of alternatives.

- (a) Georgian Bay. Insufficient traffic capacity - outflanks some of most important U.S. and Canadian traffic cities.
- (b) Champlain - Hudson - 300 additional miles of restricted waterways - deficient in traffic capacity - excessive in cost.
- (c) Ottawa Routes. 29 or 49 miles extra canals - excessive cost.
- (d) American alternatives to Welland. Unimportant at present in view of near completion of Welland - important only if U.S. should decide to build a national route.

7. Comparison of Oswego Hudson & St. Lawrence.

	: Ex. M. :		: Hours Differ-
	: America :		: ence from Lake
World Market	: Commerce:	Key point	: Ontario in
	: of Great:		: favour of
	: Lakes :		: St. Lawrence: Oswego
	: area :		: Hudson
: United Kingdom	: 32.8% :	Liverpool	: 57.5 :
			: (D) 61.0 :
: Baltic Ports	: 7.3% :	Copenhagen:	: (E) 51.3 :
		Bishops	: :
: N.W. & W. Europe	: 17.2% :	Rock	: 51.3 :
: Medn. E. Coast of Af'ca	:		: :
: India & East Indies	: 10.2% :	Gibraltar	: 34.8 :
: Western America	:		: :
: Orient & Australasia	: 11.1% :	Colon	: : 80.5

(continued over) /