

Published by Authority of the HON. W.D. EULER, M.P.,  
Minister of Trade and Commerce

DOMINION BUREAU OF STATISTICS  
TRANSPORTATION AND PUBLIC UTILITIES BRANCH  
OTTAWA



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SUMMARY OF CANAL TRAFFIC

FOR

DECEMBER

AND

SEASON OF NAVIGATION

1937

The Sault Ste. Marie Canal closed on December 13th, the Welland Ship Canal on December 12th, and the St. Lawrence Canals on December 6th, the Trent Canals on December 3rd, St. Andrew's Lock on October 31st, and the other canals in November, except the St. Peter's Canal which was still open on December 31st, closing one of the busiest seasons on the Great Lakes for a number of years.

Sault Ste. Marie Canals - Canadian and United States Locks: The total tonnage of freight passed through the Canadian and United States locks during the season amounted to 87,634,099 tons which has been exceeded only in 1916, 1917, 1923, and 1929. This traffic is dominated by the down-bound iron ore and the up-bound soft coal which amounted to 65,575,278 tons and 12,856,230 tons, respectively. This was a new high record for iron ore, the previous record being 64,917,703 tons in 1929. Wheat shipments amounted to only 117,229,403 bushels, or 3,516,882 tons. This was by far the smallest tonnage since 1919 and was 28 per cent below the 1936 shipments.

Welland Ship Canal: A new high record was made in 1937, the freight using the canal rising to 11,750,902 tons, as against 10,436,803 tons in 1936, the previous record. A number of commodities showed fairly large decreases but these were more than offset by increases of 731,175 tons of coal, 693,499 tons of corn, 234,835 tons of iron ore, 129,171 tons of barley, 112,367 tons of petroleum and other oils, 78,305 tons of rye, 72,860 tons of iron, pig and bloom, 60,123 tons of sand, gravel and stone, 50,299 tons of flaxseed, and smaller increases in a few other commodities. The large decreases included 454,841 tons of wheat, 85,245 tons of wood pulp, 76,450 tons of coke, 66,488 tons of flour, 37,956 tons of gasoline, 36,341 tons of pulpwood, and 35,036 tons of sugar.

St. Lawrence Canals: A new high record was established also on the St. Lawrence canals with 9,073,302 tons of freight which was 661,760 tons, or 8 per cent, above the record made in 1928. Increases of 715,873 tons of corn, 129,506 tons of barley, 73,010 tons of rye, and 41,666 tons of flaxseed more than offset decreases of 613,176 tons of wheat and 59,852 tons of flour. Soft coal was heavier by 517,002 tons, gasoline by 83,651 tons, iron, pig and bloom, by 51,868 tons, iron and steel by 51,618 tons, and coke by 46,509 tons.

The Ottawa Canal showed an increase over 1936 of 87,585 tons of freight, or 33 per cent; the Rideau Canal an increase of 877 tons, or 5 per cent; the Chambly Canal an increase of 44,013 tons, or 55 per cent; and the St. Peter's Canal an increase of 23,695 tons, or 42 per cent. Decreases were recorded as follows: Trent Canals, 21,699 tons; Murray Canal, 2,541 tons; and St. Andrew's Canal, 9,501 tons.



DECEMBER

Sault Ste. Marie Canals

		1 9 3 7		:	1 9 3 6	
		Canadian Lock	Canadian & U.S. Locks	:	Canadian Lock	Canadian & U.S. Locks
<u>EAST BOUND</u>						
Lumber	M Ft. B.M.	...	189	:	...	219
Flour	Barrels	99,370	250,430	:	98,060	222,820
Wheat	Bushels	597,633	6,024,658	:	368,700	8,277,656
Other Grain	"	214,824	2,232,187	:	...	2,038,751
Copper	Short Tons	...	300	:	...	693
Iron Ore	" "	...	...	:	...	...
Pig Iron	" "	...	...	:	...	23,248
Structural Steel	" "	117	117	:	365	501
Stone	" "	...	...	:	...	...
Other Freight	" "	5,706	13,848	:	1,954	2,855
Total	" "	38,090	278,401	:	23,186	341,857
Passengers	Number	15	27	:	18	31
<u>WEST BOUND</u>						
Coal, soft	Short Tons	...	6,150	:	...	5,915
Coal, hard	" "	...	...	:	...	...
Coke	" "	...	...	:	...	...
Iron Ore	" "	...	...	:	...	...
Structural Steel	" "	308	333	:	672	964
Salt	" "	1,460	1,615	:	1,350	1,875
Oil and Gasolene	" "	190	205	:	...	51
Stone	" "	...	...	:	...	...
Other Freight	" "	12,690	16,535	:	10,655	22,335
Total	" "	14,648	24,992	:	12,677	31,140
Passengers	Number	1	1	:	1	1
Total Freight	Short Tons	52,738	303,393	:	35,863	372,997
Total Passengers	Number	16	28	:	19	32
Number of Vessels		77	194	:	42	169
Registered Tonnage Net		43,322	210,636	:	28,557	248,660

Welland Ship Canal:

		December 1937	December 1936
Vessels	No.	58	126
Registered Tonnage	Tons	80,084	223,185
Passengers	No.	...	...
Barley	Tons	1,632	2,564
Corn	"	11,458	4,172
Oats	"	1,238	2,176
Rye	"	...	2,316
Wheat	"	4,253	36,619
Flour	"	7,023	9,199
Gasolene	"	14,852	9,382
Petroleum and Other Oils	"	10,950	14,100
Sugar	"	300	...
Pulpwood	"	...	...
Autos and Parts	"	24	50
Paper	"	18	7,056
Wood Pulp	"	...	...
Soft coal	"	1,000	110,971
Coke	"	...	4,700
Iron Ore	"	...	...
Sand	"	1,533	...
All other freight	"	7,796	29,035
Total freight	"	62,077	232,340

Source	Variable	Measurement	Unit	Frequency
Survey Data	Age	Years	Years	Continuous
	Gender	Male/Female	Categorical	Binary
	Income	Annual Income	Dollars	Continuous
	Education	Years of Schooling	Years	Continuous
Administrative Data	Health Status	Self-reported	Categorical	Binary
	Employment	Employed/Unemployed	Categorical	Binary
	Marital Status	Married/Single	Categorical	Binary
	Healthcare Usage	Number of Visits	Visits	Continuous

The data were analyzed using a series of regression models to estimate the impact of various factors on the outcome variable. The models were estimated using ordinary least squares (OLS) and generalized linear models (GLM). The results of the OLS regression are presented in Table 2, and the results of the GLM are presented in Table 3. The OLS results show that age, income, and education have a positive impact on the outcome variable, while gender and marital status have a negative impact. The GLM results show that health status, employment, and healthcare usage have a significant impact on the outcome variable. The overall fit of the models is good, with adjusted R-squared values of 0.15 for the OLS model and 0.25 for the GLM model.

St. Lawrence Canals:		December 1937	December 1936
Vessels	No.	56	65
Registered Tonnage	Tons	6,868	22,461
Passengers	No.	...	...
Barley	Tons	...	...
Corn	"	...	...
Oats	"	...	1,734
Rye	"	...	...
Wheat	"	...	9,922
Flour	"	...	...
Gasolene	"	...	...
Petroleum & Other Oils	"	...	...
Sugar	"	...	...
Pulpwood	"	...	...
Autos and parts	"	...	8
Paper	"	...	...
Wood Pulp	"	...	...
Hard Coal	"	...	...
Soft Coal	"	1,000	5,720
Sand	"	235	...
All other freight	"	1,725	4,193
Total freight	"	2,960	21,577

		Ottawa Canal		Rideau Canal	
		1937	1936	1937	1936
Vessels	No.	...	...	...	...
Registered Tonnage	Tons	...	...	...	...
Passengers	No.	...	...	...	...
Total freight	Tons	...	...	...	...
		Chambly Canal		Trent Canal	
Vessels	No.	...	...	1	...
Registered Tonnage	Tons	...	...	8	...
Passengers	No.	...	...	...	...
Total freight	Tons	...	...	10	...
		Murray Canal		St. Peter's Canal	
Vessels	No.	...	...	80	72
Registered Tonnage	Tons	...	...	8,383	8,057
Passengers	No.	...	...	2	...
Total freight	Tons	...	...	8,065	4,710
		St. Andrew's Canal		All Canadian Canals	
Vessels	No.	...	...	272	305
Registered Tonnage	Tons	...	...	138,665	282,260
Passengers	No.	...	...	18	19
Total freight	Tons	...	...	125,850	294,490



SUMMARY OF CANAL TRAFFIC  
FOR SEASON OF NAVIGATION, 1937

<u>Sault Ste. Marie Canal</u>		<u>Season of Navigation</u>			
		<u>1937</u>		<u>1936</u>	
<u>EAST BOUND</u>		<u>Canadian Lock</u>	<u>Canadian &amp; U.S. Locks</u>	<u>Canadian Lock</u>	<u>Canadian &amp; U.S. Locks</u>
Lumber	M Ft. B.M.	2,595	31,918	3,586	44,314
Flour	Barrels	3,582,630	6,284,910	4,086,260	6,591,027
Wheat	Bushels	13,193,333	117,229,403	24,029,300	162,537,530
Other Grain	"	7,887,763	50,203,242	11,384,832	50,197,888
Copper	Short Tons	2,161	27,330	5,999	55,980
Iron Ore	" "	...	65,575,278	...	47,069,935
Pig Iron	" "	2,381	383,385	2,509	314,937
Structural Steel	" "	5,649	72,247	6,398	16,947
Stone	" "	8,455	22,850	8,420	24,040
Other freight	" "	253,035	382,633	286,227	456,222
Total	" "	1,201,514	72,131,803	1,680,151	54,842,834
Passengers	Number	16,905	23,594	13,889	20,994
<u>WEST BOUND</u>					
Coal, soft	Short Tons	67,886	12,856,230	78,246	12,185,849
Coal, hard	" "	5,024	231,323	6,732	292,729
Coke	" "	5,800	5,800	6,725	6,725
Iron Ore	" "	1,275	41,046	...	11,734
Structural Steel	" "	17,351	42,604	12,834	32,749
Salt	" "	17,662	45,256	18,500	41,682
Oil and Gasolene	" "	67,860	624,829	78,846	562,823
Stone	" "	6,522	689,760	17,031	652,576
Other freight	" "	426,512	886,187	379,171	899,031
Total	" "	615,892	15,502,296	598,085	14,688,213
Passengers	Number	10,810	23,661	8,779	19,783
Total freight	Short Tons	1,817,406	87,634,099	2,278,236	69,529,132
Total passengers	Number	27,715	47,255	22,668	40,777
Number of vessels		3,256	19,983	3,235	16,614
Registered tonnage net		4,052,685	68,394,660	3,755,785	55,770,089

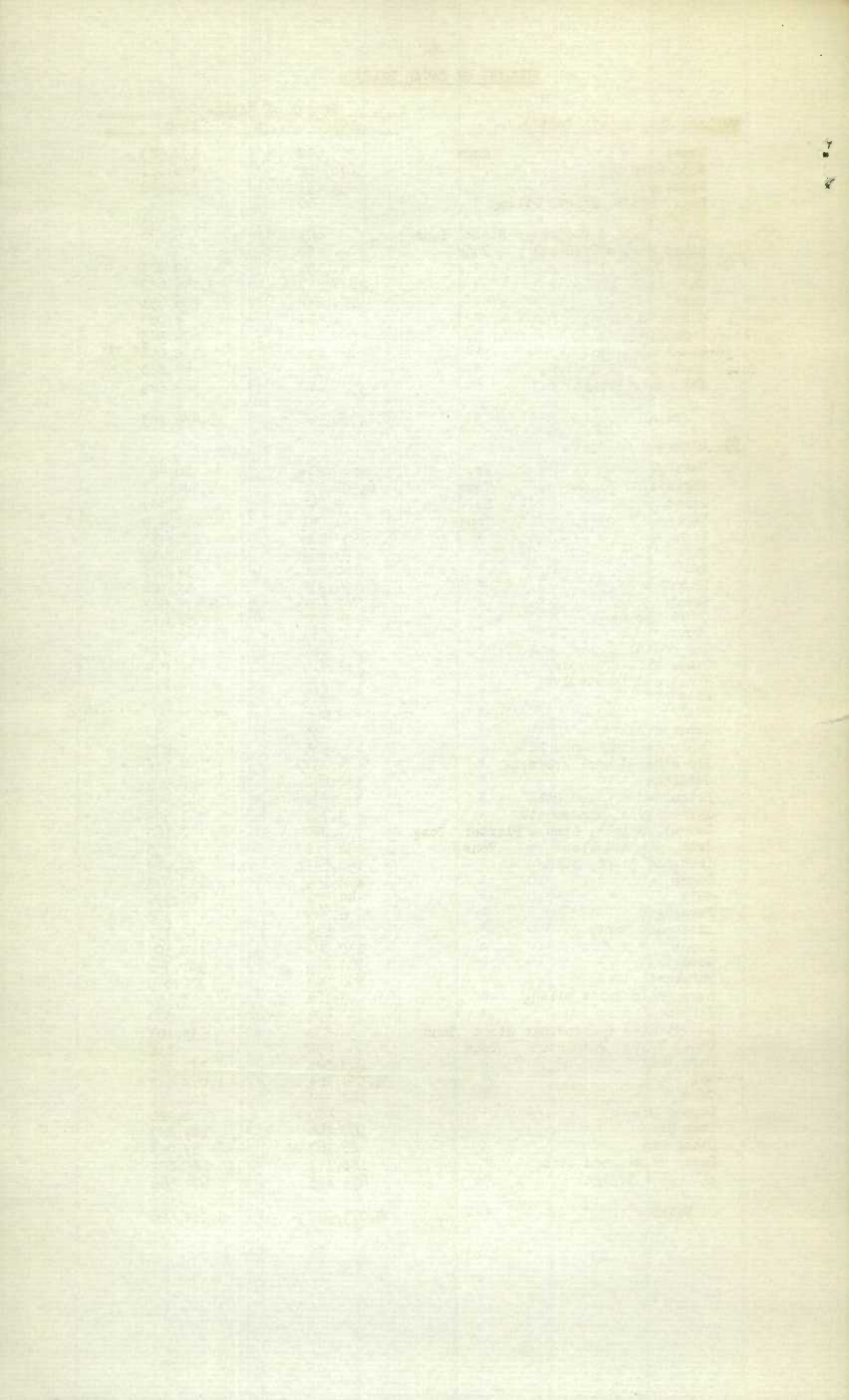
<u>Welland Ship Canal:</u>		<u>Season of Navigation</u>	
		<u>1937</u>	<u>1936</u>
Vessels	No.	5,573	6,398
Registered Tonnage	Tons	9,584,993	9,127,229
Passengers	No.	1,840	2,054
Barley	Tons	334,157	204,986
Corn	"	851,354	157,855
Oats	"	111,753	123,823
Rye	"	119,361	41,056
Flaxseed	"	100,958	50,659
Wheat	"	1,872,242	2,327,083
Other grains	"	38,907	56,320
Flour	"	134,553	201,041
Hay and Straw	"	...	...
Other Mill Products	"	19,657	20,501
Fruit and Vegetables	"	340	135
Potatoes	"	...	...
Fish	"	1,116	1,643
Dressed Meats	"	...	90
Other Packing House Products	"	...	521
All other Animal Products	"	5	...
Gasolene	"	452,503	490,459
Petroleum & Other Oils	"	470,799	358,432
Agricultural Implements	"	4,036	3,972
Cement, Bricks, Lime & Plaster	"	21,755	39,068
Iron, pig and bloom	"	84,443	11,588
Iron and Steel, other	"	186,909	189,918
Sugar	"	92,498	127,534
Salt	"	39,010	27,348
Beverages	"	7,385	8,563
Autos and parts	"	63,901	44,796





SUMMARY OF CANAL TRAFFIC

Welland Ship Canal- Cont'd.		Season of Navigation	
		1937	1936
Paper	Tons	205,690	198,583
Wood Pulp	"	270,766	356,011
Pulpwood	"	495,699	532,040
Logs, Posts, Poles, Piling	"	500	...
Firewood	"	...	...
Lumber Mill & Cooperage Stock	Tons	609	5,576
Other Forest Products	Tons	480	...
Hard Coal	"	44,396	32,023
Soft Coal	"	3,877,827	3,146,652
Coke	"	180,241	256,691
Copper Ore	"	1,500	4,080
Iron Ore	"	909,180	674,345
Other Ore	"	102,232	130,052
Sand, Gravel & Stone	"	108,953	48,830
All other Freight	"	545,182	564,529
<b>Total</b>	<b>"</b>	<b>11,750,902</b>	<b>10,436,303</b>
<b>St. Lawrence Canals:</b>			
Vessels	No.	10,204	10,460
Registered Tonnage	Tons	6,992,793	6,782,017
Passengers	No.	2,141	2,407
Barley	Tons	291,981	162,475
Corn	"	937,306	221,433
Oats	"	93,985	101,433
Rye	"	110,016	37,006
Flaxseed	"	94,972	53,306
Wheat	"	1,362,631	2,375,807
Other Grains	"	34,198	58,634
Flour	"	102,886	162,738
Hay and Straw	"	287	778
Other Mill Products	"	15,410	18,214
Fruit and Vegetables	"	4,370	2,837
Potatoes	"	402	...
Fish	"	1,196	...
Dressed Meats	"	85	1,990
Other Packing House Pkts.	"	365	675
All other Animal Products	"	4,287	4,716
Gasolene	"	550,640	466,989
Petroleum & Other Oils	"	470,892	462,492
Agricultural Implements	"	4,780	1,649
Cement, Bricks, Lime & Plaster	Tons	7,090	2,160
Iron, pig and bloom	Tons	52,118	250
Iron and Steel, other	"	130,547	78,929
Sugar	"	122,159	140,048
Salt	"	44,581	26,996
Beverages	"	6,344	5,958
Autos and Parts	"	13,619	12,731
Paper	"	130,347	120,305
Wood Pulp	"	269,890	381,756
Pulpwood	"	696,544	720,649
Logs, Posts, Poles, Piling	"	3,166	3,156
Firewood	"	405	500
Lumber Mill & Cooperage Stock	Tons	35,830	33,103
Other Forest Products	Tons	632	138
Hard Coal	"	208,045	340,240
Soft Coal	"	1,584,464	1,067,462
Coke	"	148,294	101,785
Copper Ore	"	1,400	2,420
Iron Ore	"	167,244	189,287
Other Ore	"	86,167	67,024
Sand, Gravel and Stone	"	188,373	185,889
All other Freight	"	695,385	674,566
<b>Total</b>	<b>"</b>	<b>9,073,302</b>	<b>8,288,524</b>



SUMMARY OF CANAL TRAFFIC  
FOR SEASON OF NAVIGATION, 1937.

		<u>Ottawa Canal</u>		<u>Rideau Canal</u>	
		1937	1936	1937	1936
Vessels	No.	2,097	1,742	401	473
Registered Tonnage	Tons	409,141	306,636	30,318	29,772
Passengers	No.	600	1,200	2,850	3,106
Total Freight	Tons	349,078	261,493	16,481	15,604
		<u>Chambly Canal</u>		<u>Trent Canal</u>	
Vessels	No.	1,010	873	2,853	3,033
Registered Tonnage	Tons	147,237	101,154	33,842	31,068
Passengers	No.	114	129	28,536	25,731
Total Freight	Tons	123,744	79,731	2,348	24,047
		<u>Murray Canal</u>		<u>St. Peter's Canal</u>	
Vessels	No.	347	199	1,051	1,002
Registered Tonnage	Tons	18,757	15,149	98,311	75,306
Passengers	No.	18	...	254	220
Total Freight	Tons	2,365	4,966	79,952	56,257
		<u>St. Andrew's Canal</u>		<u>All Canadian Canals</u>	
Vessels	No.	505	544	27,599	27,959
Registered Tonnage	Tons	63,631	70,462	21,431,713	20,294,578
Passengers	No.	3,266	2,340	67,334	59,855
Total Freight	Tons	13,714	23,215	23,229,292	21,468,816

TRAFFIC ON CANADIAN CANALS

1937

Canal	: Vessels : : Number :	: Registered : : Tonnage :	: Passengers : : Number :	: Freight Tonnage :	
				Tons	: Compared with 1936 : (Increase +) : (Decrease -)
Sault Ste. Marie	3,256	4,052,685	27,715	1,817,406	- 460,830
Welland Ship	5,875	9,584,993	1,840	11,750,902	+ 1,314,099
St. Lawrence	10,204	6,992,798	2,141	9,073,302	+ 784,778
Chambly	1,010	147,237	114	123,744	+ 44,013
St. Peter's	1,051	98,311	254	79,952	+ 23,695
Murray	347	18,757	18	2,365	- 2,541
Ottawa	2,097	409,141	600	349,078	+ 87,585
Rideau	401	30,318	2,850	16,481	+ 877
Trent	2,853	33,842	28,536	2,348	- 21,699
St. Andrew's	505	63,631	3,266	13,714	- 9,501
<b>TOTAL †:</b>	<b>27,599</b>	<b>21,431,713</b>	<b>67,334</b>	<b>23,229,292</b>	<b>+ 1,760,476</b>

† Includes duplications and is affected by the proportion of the total traffic at Sault Ste. Marie using the Canadian lock.

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