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CANADA
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TRANSPORTATION BRANCH

SUMMARY REPORT
CANAL STATISTICS
For
DECEMBER
and
SEASON OF NAVIGATION
1924

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Published by Authority of the Hon. Thos. A. Low. M. P.,
Minister of Trade and Commerce.

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OTTAWA

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DOMINION BUREAU OF STATISTICS

TRANSPORTATION BRANCH

OTTAWA

Dominion Statistician, R.H. Coats, B.A., F.S.S., F.R.S.C.
Chief, Transportation Branch, G.S. Wrong, B.Sc.

SUMMARY OF CANAL STATISTICS

FOR

DECEMBER

AND

SEASON OF NAVIGATION

1924

Sault Ste. Marie Canals:

Total traffic for the season of navigation through the Canadian and United States locks aggregated 72,034,828 tons; the decrease of 19,342,003 tons from 1923 was almost entirely in iron ore which was lighter by 16,865,306 tons and in bituminous coal which was lighter by 4,575,410 tons. Wheat showed an increase of 6,776,105 bushels or 203,283 tons and was a high record for the canals for this commodity. Other grains also showed an increase over 1923 of 77,854,038 bushels and flour was heavier by 510,879 barrels.

Welland Canal:

The canal opened April 16 and closed December 13 which was one day earlier than last year for both opening and closing. The traffic aggregated 5,037,412 tons which was a record for the canals, being 1,281,500 tons or 34 per cent heavier than the previous year and 1,176,443 tons heavier than the previous high record made in 1914. The largest increase was in wheat which aggregated 2,999,419 tons or 99,980,600 bushels. This was 35,967,860 bushels over the 1923 movement, Canadian wheat increasing 734,863 tons or 24,495,400 bushels and United States wheat increasing 344,173 tons or 11,472,420 bushels. Barley shipments were lighter by 87,024 tons but all other grains showed increases viz: corn, 9,195 tons; oats, 3,325 tons; rye, 70,556 tons and flax 2,547 tons. Flour shipments also were heavier by 1,970 tons and other mill products by 3,149 tons. Oils aggregated 125,346 tons or 94,516 tons more than last year. Iron and steel showed an increase of 41,558 tons and pulpwood was heavier by 42,505 tons. Anthracite coal shipments were lighter by 489 tons and bituminous coal by 15,019 tons.

St. Lawrence Canals:

The total traffic on the St. Lawrence Canals aggregated 5,536,374 tons which was the heaviest traffic yet handled and exceeded the previous high record made in 1923 by 994,846 tons or 22 per cent. The chief factor in this large increase was the wheat shipments which increased 1,093,445 tons or 36,448,160 bushels over the 1923 traffic. The total of 2,993,902 tons or 99,796,700 bushels comprised 71,477,300 bushels of Canadian wheat and 28,319,400 bushels of United States wheat. Barley shipments were lighter by 79,625 tons and corn by 9,874 tons but increases were made in shipments of oats of 14,075 tons, of rye of 60,854 tons and of flax of 1,659 tons. Pulpwood showed an increase of 118,473 tons, iron and steel of 26,559 tons and merchandise of 10,180 tons but oils were lighter by 38,811 tons, lumber by 30,873 tons, anthracite coal by 151,338 tons, bituminous coal by 22,529 tons and sand by 21,412 tons.

The charts on pages 7 and 8 show graphically the tonnage of the chief commodities of traffic through the Sault Ste. Marie, Welland and St. Lawrence canals during the years 1912 - 1924. One feature brought out by these charts is the steadily increasing quantities of wheat passing through the Canals since 1920. The larger scale of the Welland and St. Lawrence Canal charts make it more pronounced than on the Sault Ste. Marie Canals but the increase has been continuous through that canal also. This is more clearly seen on the ratio chart on page 9.

The ratio chart on page 9 was designed to bring out any relationship existing between the freight rate for carrying wheat from Fort William-Port Arthur to Georgian Bay Ports and to Buffalo and the vessel tonnage available. Since the iron ore traffic is by far the largest of all commodities handled and is in the same direction as the grain traffic, fluctuations in the iron ore traffic greatly affect the vessel tonnage available for the transportation of grain. The chart being on logarithmic or ratio scaling shows accurately the relative changes in the commodities plotted whether cents per bushel or millions of tons. It will be noted that the freight rates on wheat, especially the curve for the Buffalo rates, follows very closely the curve for the tons of iron ore handled and that the curve for the Bay Ports rates also follows but not so closely and also that the effect of the volume of wheat moved on the freight rates is not apparent, the wheat tonnage being so small in comparison with the ore tonnage. The ore fleet being of United States register is not available for wheat to Bay Ports and consequently the relationship between the ore traffic and the Buffalo rates is more direct than between the Bay Ports rates. The chart indicates that the supply of vessel tonnage available from the iron ore traffic is a very important factor in fixing the rate charged for the transportation of wheat from Fort William - Port Arthur to these ports.

The following tables give details of the principal commodities of traffic on the several canals during December and for the entire season of 1924.

SUMMARY OF CANAL STATISTICS
FOR DECEMBER, 1924

		December 1924	December 1923
<u>Sault Ste. Marie Canal:</u>			
<u>Canadian & American Locks:</u>			
Vessels	No.	444	501
Registered Tonnage	Tons	1,160,090	1,224,662
Passengers	No.	55	71
Flour	Barrels	767,560	738,690
Wheat	Bushels	35,552,749	41,853,237
Other Grains	"	9,816,285	10,602,858
Iron Ore	Tons	6,414	11,088
Soft Coal	"	225,709	113,600
Hard Coal	"	33,872	48,900
Total Freight	"	1,679,266	1,763,943
<u>Sault Ste. Marie Canal:</u>			
<u>Canadian Lock</u>			
Vessels	No.	100	139
Registered Tonnage	Tons	153,424	203,099
Passengers	No.	51	64
Barley	Tons	1,405	13,382
Oats	"	5,984	12,317
Wheat	"	43,868	43,266
Flour	"	17,803	15,328
Total Freight	"	90,870	115,082
<u>Welland Canal:</u>			
Vessels	No.	84	57
Registered Tonnage	Tons	62,126	38,609
Barley	"	2,160	2,539
Corn	"	3,276	1,400
Oats	"	5,708	5,656
Wheat	"	2,679	8,017
Soft Coal	"	23,970	2,250
Total Freight	"	60,988	27,844
<u>St. Lawrence Canals:</u>			
Vessels	No.	114	116
Registered Tonnage	Tons	81,029	65,284
Passengers	No.	-	-
Barley	Tons	4,078	984
Corn	"	1,681	-
Oats	"	13,199	3,520
Wheat	"	17,663	22,020
Petroleum and Oils	"	500	-
Hard Coal	"	4,564	5,382
Soft Coal	"	22,685	7,927
Total Freight	"	78,266	47,918
<u>St. Peters Canal:</u>			
Vessels	No.	85	77
Registered Tonnage	Tons	5,839	5,279
Passengers	No.	13	9
Total Freight	Tons	3,122	3,081

Other canals closed.

SUMMARY OF CANAL STATISTICS
FOR SEASON OF NAVIGATION, 1924

		Season of Navigation	
		1924	1923
<u>Sault Ste. Marie Canals:</u>			
<u>Canadian & American Locks:</u>			
Vessels	No.	17,867	21,974
Registered Tonnage	Tons	57,291,961	68,547,016
Passengers	No.	53,825	56,485
Flour	Barrels	10,996,400	10,485,521
Wheat	Bushels	289,654,520	282,878,415
Other Grains	"	164,107,130	86,253,092
Iron Ores	Tons	42,491,637	59,356,943
Soft Coal	"	12,133,892	16,709,302
Hard Coal	"	1,435,201	1,680,824
Total Freight	"	72,034,823	91,376,831
<u>Sault Ste. Marie Canal:</u>			
<u>Canadian Lock:</u>			
Vessels	No.	3,316	3,966
Registered Tonnage	Tons	4,992,571	6,349,704
Passengers	No.	34,367	35,697
Barley	Tons	57,453	131,143
Oats	"	210,326	187,937
Wheat	"	402,211	698,230
Flour	"	491,582	502,067
Total Freight	"	1,631,531	2,255,929
<u>Welland Canal:</u>			
Vessels	No.	5,361	4,762
Registered Tonnage	Tons	5,016,511	3,852,183
Barley	"	79,971	166,995
Corn	"	87,010	77,815
Oats	"	204,739	201,414
Rye	"	243,214	172,658
Wheat	"	2,994,419	1,915,383
Pulpwood	"	211,767	169,262
Soft Coal	"	576,572	591,591
Sand	"	160,787	167,698
Total Freight	"	5,037,412	3,755,912
<u>St. Lawrence Canals:</u>			
Vessels	No.	11,538	11,600
Registered Tonnage	Tons	5,882,806	5,248,925
Passengers	No.	78,450	81,777
Corn	Tons	46,216	56,090
Oats	"	210,020	186,945
Rye	"	231,804	170,950
Wheat	"	2,993,902	1,900,457
Petroleum and Oils	"	49,265	88,076
Pulpwood	"	494,759	376,286
Hard Coal	"	147,043	298,381
Soft Coal	"	622,732	645,261
Sand	"	187,885	209,297
Total Freight	"	5,536,374	4,541,528
<u>Ottawa Canal:</u>			
Vessels	No.	2,201	2,428
Registered Tonnage	Tons	310,023	341,404
Passengers	No.	25,067	28,337
Total Freight	Tons	205,277	233,092
<u>Rideau Canals:</u>			
Vessels	No.	1,419	1,836
Registered Tonnage	Tons	103,384	105,100
Passengers	No.	3,345	6,299
Total Freight	Tons	85,986	81,299

SUMMARY OF CANAL STATISTICS
FOR SEASON OF NAVIGATION, 1924.

		<u>For Season of Navigation</u>	
		<u>1924</u>	<u>1923</u>
<u>Chambly Canal:</u>			
Vessels	No.	1,523	1,277
Registered Tonnage	Tons	138,490	165,162
Passengers	No.	844	827
Total Freight	Tons	225,518	213,190
<u>Trent Canal:</u>			
Vessels	No.	3,079	2,335
Registered Tonnage	Tons	121,508	106,954
Passengers	No.	61,929	62,777
Total Freight	Tons	41,099	31,402
<u>Murray Canal:</u>			
Vessels	No.	383	934
Registered Tonnage	Tons	38,091	49,498
Passengers	No.	3,673	4,392
Total Freight	Tons	2,711	3,144
<u>St. Peters Canal:</u>			
Vessels	No.	1,370	989
Registered Tonnage	Tons	87,166	74,341
Passengers	No.	298	486
Total Freight	Tons	51,661	46,574
<u>St. Andrews Canal:</u>			
Vessels	No.	387	324
Registered Tonnage	Tons	68,299	50,498
Passengers	No.	-	-
Total Freight	Tons	50,982	37,364

TRAFFIC ON CANADIAN CANALS, 1924

<u>Canal</u>	<u>Freight Tonnage</u>	<u>Compared with 1923</u>	
		<u>Increase</u>	<u>Decrease</u>
Sault Ste. Marie	1,631,531		624,398
Welland	5,037,412	1,281,500	
St. Lawrence	5,536,374	994,846	
Chambly	225,518	12,328	
St. Peters	51,661	5,087	
Murray	2,711		433
Ottawa	205,277		27,815
Rideau	85,986	4,687	
Trent	41,099	9,697	
St. Andrews	50,982	13,618	
Total	12,868,551	1,669,117	

LAKE FREIGHT RATES

ON

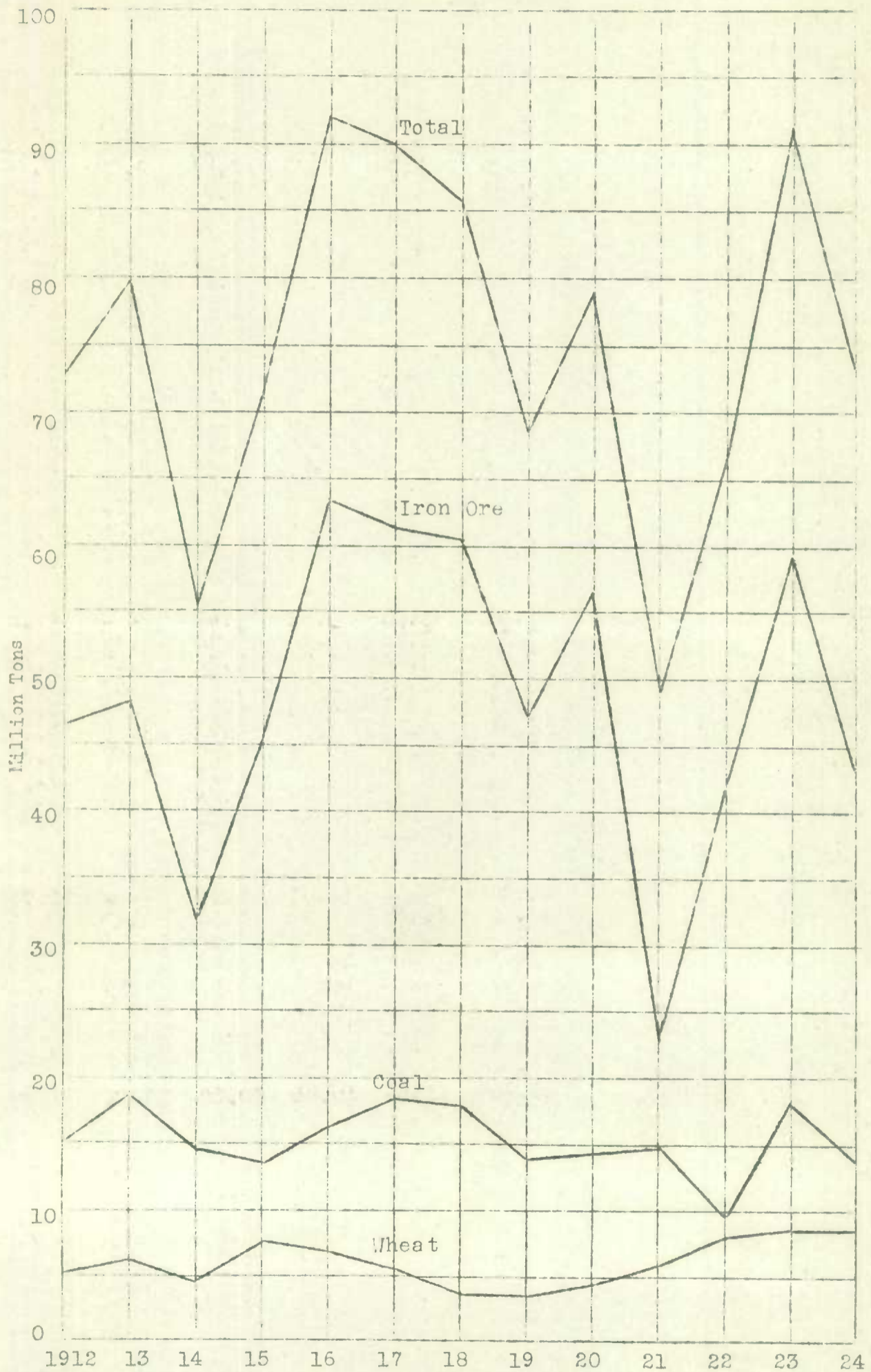
CANADIAN WHEATAverage Rate per Bushel (cents)

	<u>1919</u>	<u>1920</u>	<u>1921</u>	<u>1922</u>	<u>1923</u>	<u>1924</u>
<u>From Ft. William - Pt. Arthur</u>						
<u>To Bay Ports</u>						
April	3.50	3.01	2.68	2.99	- -	3.43
May	3.07	3.00	2.29	2.43	4.10	2.65
June	3.00	3.00	2.25	2.46	3.71	2.26
July	2.34	3.00	2.26	2.53	2.86	2.51
August	2.36	2.99	2.25	2.84	2.99	2.44
September	2.93	3.87	2.97	3.00	3.54	2.19
October	3.00	5.08	3.01	3.88	4.53	2.91
November	3.00	5.52	3.08	5.65	3.87	3.83
December	5.15	5.64	4.59	6.25	4.72	5.17
Average for Season	3.15	4.17	2.96	4.13	4.07	3.51
<u>To Buffalo</u>						
April	- -	- -	2.27	2.31	- -	2.90
May	3.50	- -	1.75	2.19	5.29	2.14
June	- -	- -	1.75	2.03	4.86	1.63
July	3.00	- -	1.78	2.29	3.64	1.61
August	3.50	3.00	1.84	2.73	3.20	1.47
September	- -	5.34	2.04	2.84	4.58	1.95
October	- -	6.06	2.05	4.49	5.24	2.26
November	- -	5.74	2.76	4.87	3.64	3.29
December	6.00	5.31	4.86	5.89	4.80	5.37
Average for Season	3.73	5.70	2.15	4.19	4.42	2.88
<u>To Port Colborne</u>						
April	3.95	3.50	3.82	3.44	- -	4.18
May	3.31	3.50	3.18	3.02	4.45	3.34
June	3.02	3.44	2.70	2.96	4.17	3.19
July	2.57	3.50	2.77	3.01	3.67	2.83
August	3.43	3.50	2.63	3.33	3.33	2.48
September	3.41	4.32	3.19	3.72	3.99	3.29
October	3.41	6.05	3.31	4.29	4.57	3.71
November	3.31	6.32	3.18	4.71	4.51	3.84
December	5.60	6.75	3.79	5.74	4.30	4.70
Average for Season	3.46	4.57	3.13	3.81	4.24	3.46
<u>To Montreal</u>						
April	12.00	- -	12.63	9.67	- -	11.71
May	11.50	11.00	11.71	9.49	12.10	9.57
June	- -	11.00	10.18	9.75	10.26	9.33
July	9.89	- -	10.00	9.75	9.32	6.52
August	10.50	- -	10.00	10.40	9.05	6.81
September	11.00	13.46	10.00	9.77	10.77	10.06
October	- -	11.00	11.00	11.93	12.61	10.22
November	11.10	- -	11.00	12.63	11.01	9.57
December	- -	- -	- -	- -	- -	- -
Average for Season	10.76	11.64	10.86	10.60	10.91	8.99
<u>Port Colborne to Montreal</u>						
April	- -	- -	8.50	6.44	- -	7.02
May	- -	- -	8.50	6.14	7.33	6.62
June	- -	- -	7.87	6.37	6.62	5.97
July	- -	- -	7.50	6.42	6.15	4.71
August	- -	- -	- -	6.21	5.39	4.32
September	- -	- -	7.87	6.15	4.41	4.73
October	- -	- -	7.50	6.92	6.61	5.98
November	- -	- -	7.27	7.02	6.43	6.54
December	- -	- -	- -	- -	6.00	5.74
Average for Season	- -	- -	- -	6.41	6.07	5.58

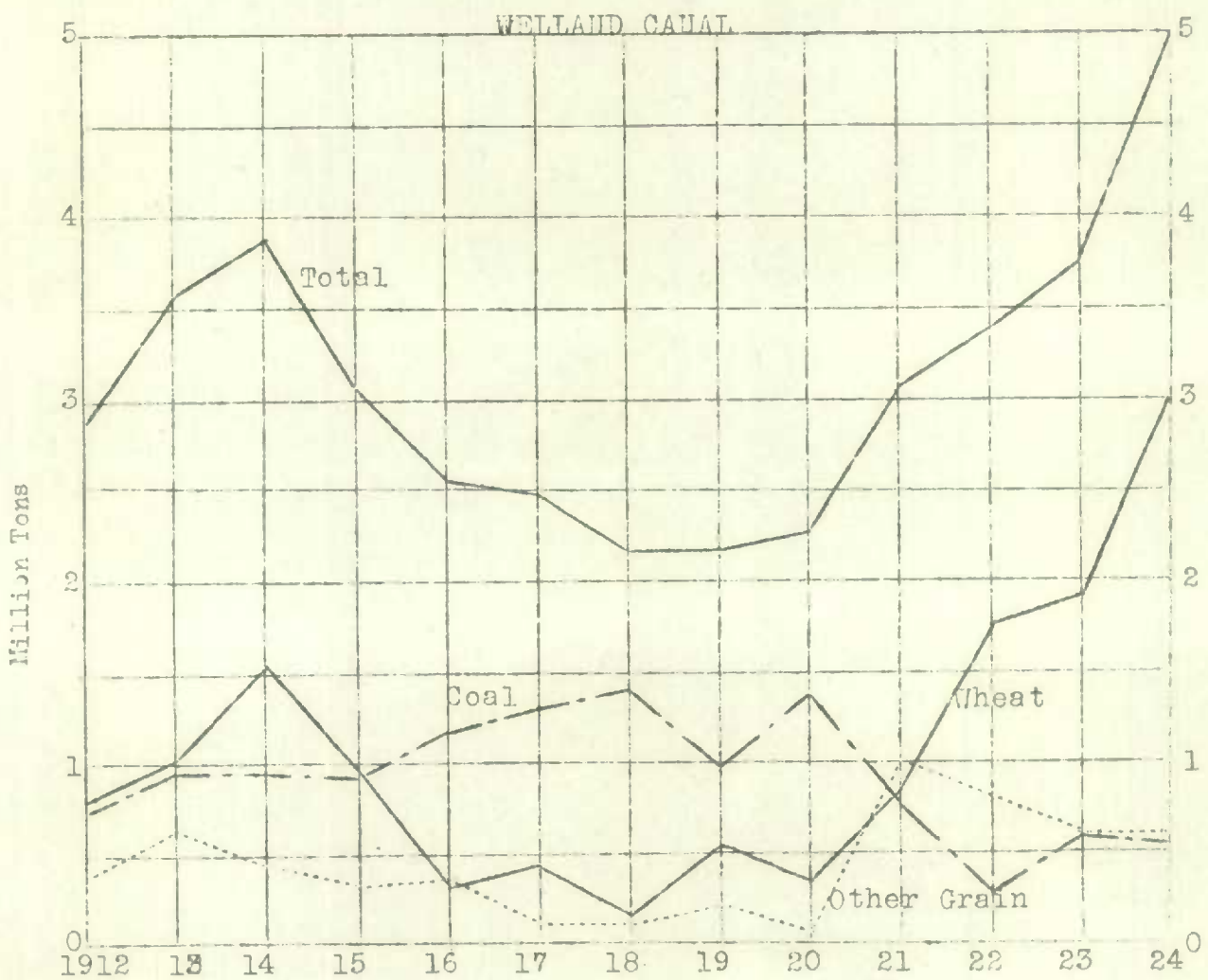
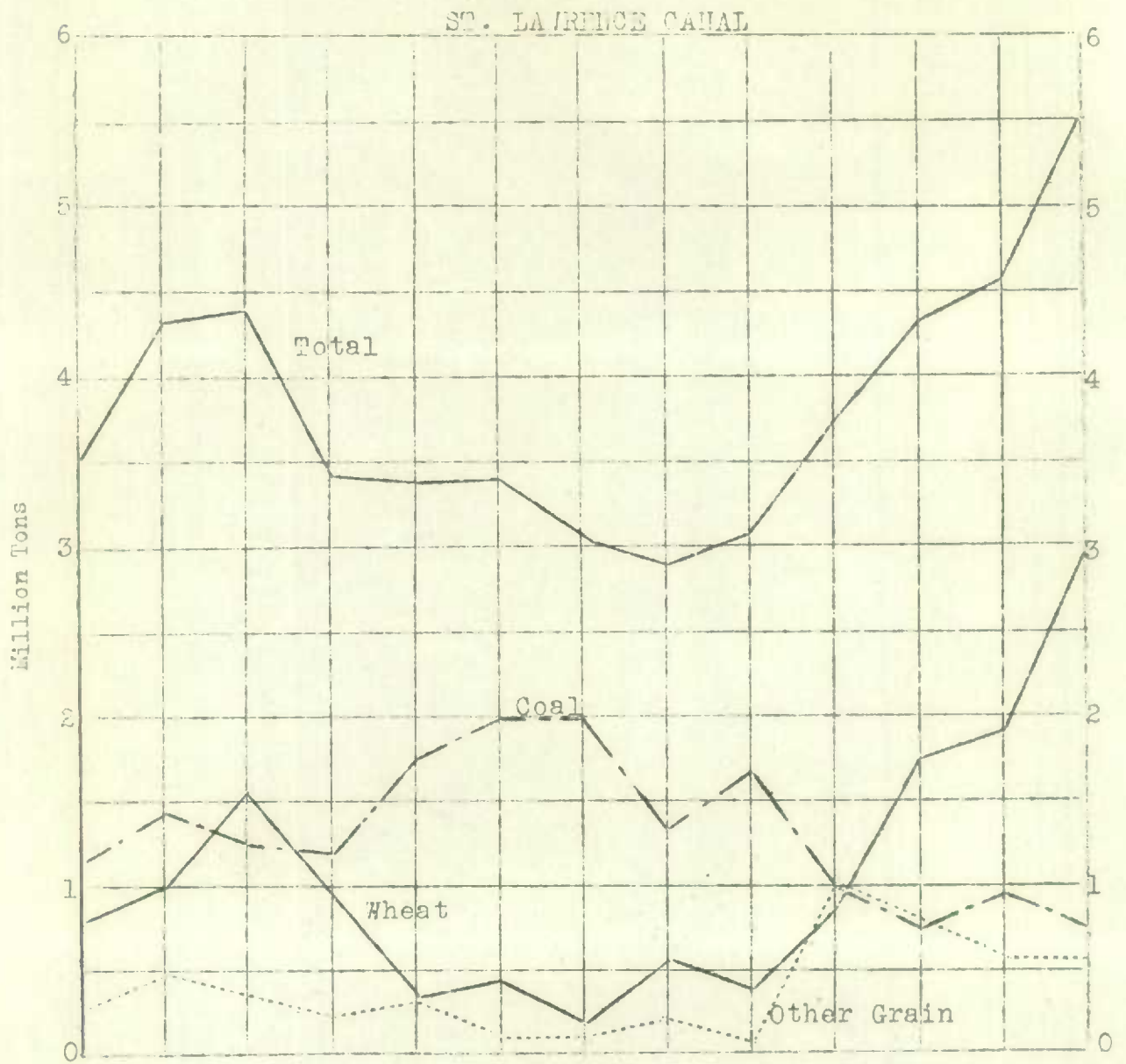
Note.- Nov. Dec. and average for season, 1924 subject to revision.

FREIGHT TRAFFIC ON SAULT STE. MARIE CANALS

(Canadian & United States Locks)

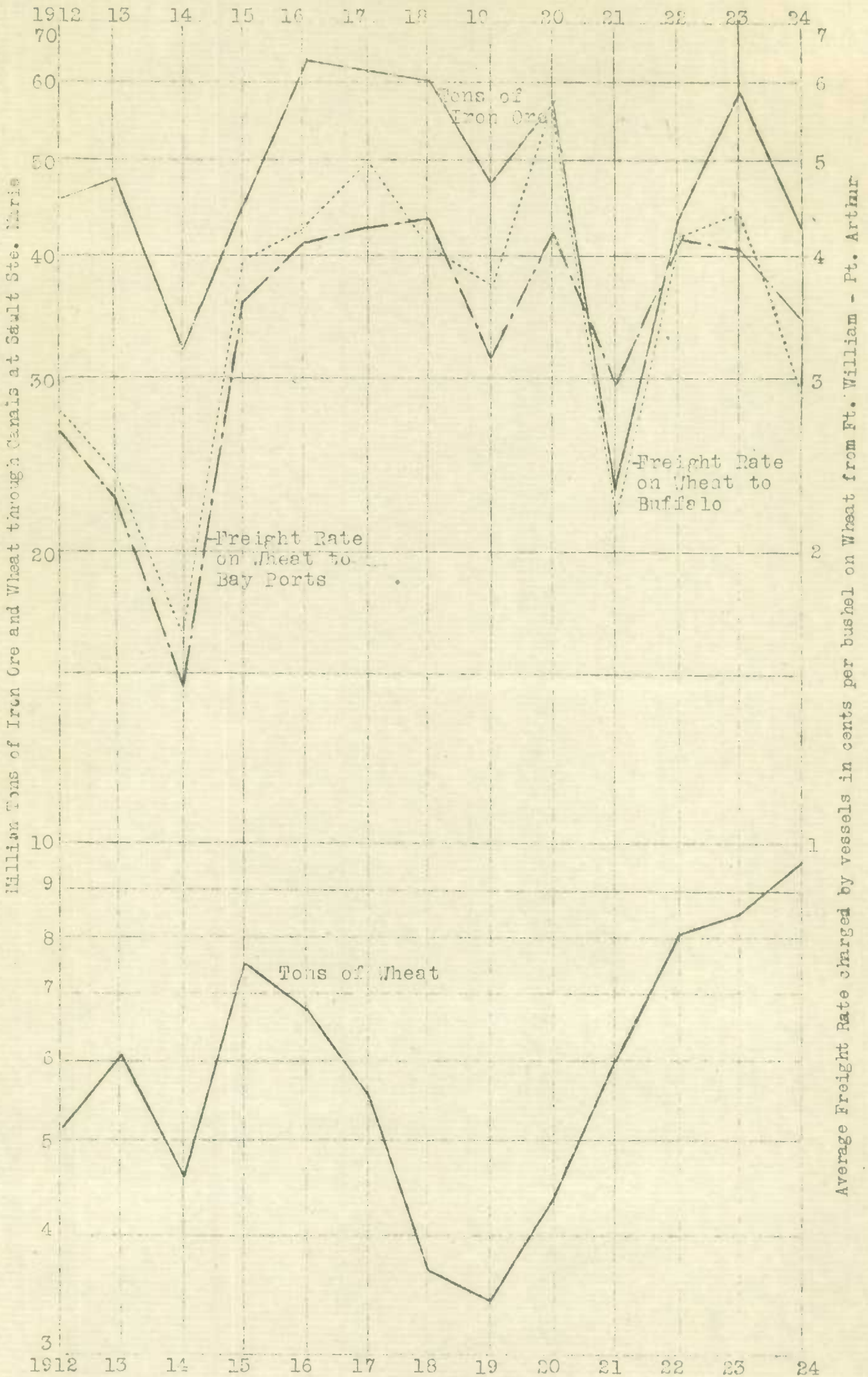


FREIGHT TRAFFIC
ON THE ST. LAWRENCE AND WELAND CANALS



Legend:

- Tons of Iron Ore _____
- Tons of Wheat _____
- Freight Rate on Wheat to Georgian Bay Ports _____
- Freight Rate on Wheat to Buffalo



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