Navigation Canals

Rideau Trent Québec St. Peters

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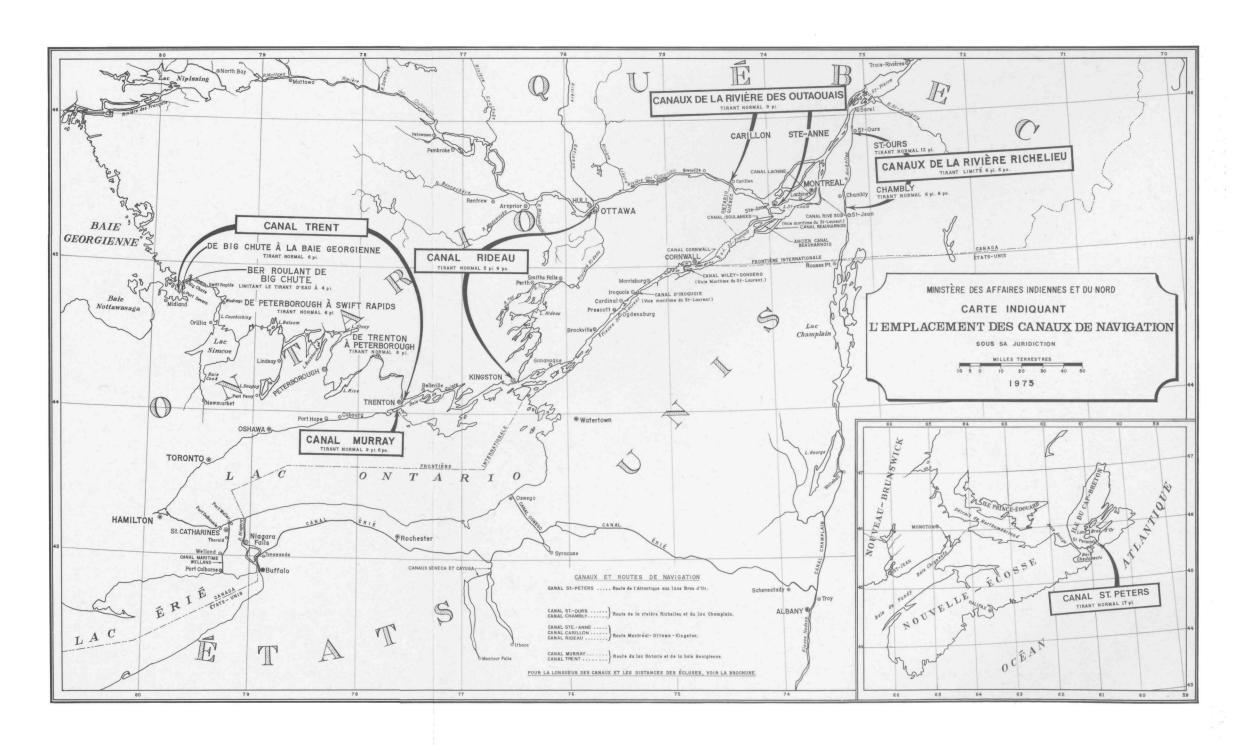
Indian and Northern Affairs Affaires indiennes et du Nord

Parks Canada

Parcs Canada

Cover: Between locks 22 and 23 in the second basin at Merrickville on the Rideau Canal.





Navigation Canals



Rideau Trent Québec St. Peters

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Department of Indian and Northern Affairs

Descriptive Circular

Rideau Canal System ● Trent Canal System ● Québec Canals ● St. Peters Canal

SECTION 1:

GENERAL INFORMATION

1-1 Introduction

This booklet is issued for the convenience and guidance of those who use the canal systems of Canada. The Department trusts that your voyage will be a safe and pleasant one.

1-2 Location

Canals under the jurisdiction of the Department of Indian and Northern Affairs may be summarized briefly:

ONTARIO CANALS

I—Ottawa to Kingston (Rideau Canal System)

II—Trenton to Port Severn (Trent Canal System)

QUÉBEC CANALS

III—Montréal to Lake Champlain (St. Ours Canal & Chambly Canal)

IV—Montréal to Ottawa (Ste. Anne Canal and Carillon Canal)

NOVA SCOTIA CANAL

V—Atlantic Ocean to Bras d'Or Lakes, Cape Breton Island, St. Peters Canal.

The location of these canals is shown on the map (inside front cover). Detailed information on each canal will be found in other sections of this booklet.



Chambly Canal

1-3 Navigation Charts

Canals navigation charts may be ordered by mail, payment included, at the following address:
Marine Charts and Publication Sales
Canadian Hydrographic Service
Environment Canada
P.O. Box 8080
1675 Russell Road,
Ottawa, Ontario
K1G 3H6

1-4 Canal Vessel Permits and Tolls

All boaters are required to observe the requirements of Canal Regulations, the Small Vessel Regulations and the Canada Shipping Act when operating vessels on Canals.

The Canal Regulations have been amended and a Canal Vessel Permit is required by all vessels, other than canoes or skiffs that are not equipped for propulsion by sail or mechanical means, wishing passage through a lock on the Trent or Rideau Canals, in the Province of Ontario and the Carillon, Ste. Anne, St. Ours, or Chambly Canals in the Province of Québec.

TOLLS SCHEDULE

Type permit	Pleasure craft 24' in length and under	Pleasure craft over 24' and under 40' in length	Pleasure craft over 40' in length and commer- cial craft
Single lock station, passage and return	\$ 3	\$ 4	\$ 4
1-day permit, all locks any direction	\$ 3	\$ 4	\$ 4
6-day permit, all locks any direction	\$ 9	\$15	\$15
Season permit, all locks during season	\$30	\$50	\$80

Canal Vessel Permits are not transferable or refundable. They allow passage through lock stations during normal hours of operation and may be purchased at many marinas, tourist information centres and most lockstations. Advance purchase will reduce locking time. The permit must be carried on the vessel.

A Canal Vessel Permit will be issued free of charge for pleasure craft up to 24 feet in length, operated and owned or chartered by Canadian citizens of 65 years or more.

SECTION 2:

CRUISING INFORMATION APPLICABLE TO ALL THE CANAL SYSTEMS

2-1 Canal Regulations

The operation of the canal systems is governed by *Canal Regulations*. This booklet is available at a cost of \$1.25 from the Superintendents of the respective canals. It is advisable to have a copy of the regulations aboard at all times. Boaters are advised to acquaint themselves with the regulations.

2-2 Licensing of Vessels

Canal Regulations stipulates that all Canadian vessels other than canoes or skiffs not equipped for propulsion by sail or mechanical means, be licensed under the Small Vessel Regulations or registered in accordance with the Canada Shipping Act. Vessels from other countries must be licensed and marked according to the laws of their home country excepting canoes or skiffs as noted above.

2-3 Speed Limits

(i) Canal Waters

Canal Regulations stipulates that:

- (1) No vessel shall travel in a canal at a rate of speed in excess of the speed limit for the area designated on a sign in the area.
- (2) No vessel shall travel at a speed in excess of six miles per hour in any canal channel that is less than one hundred and fifty feet in breadth.

(ii) Other Waters

The following is taken from Section 240 of the "Criminal Code of Canada" and applies to all Canadian waters including those covered by Canal Regulations:—

"Everyone who navigates or operates a vessel or any water skis, surfboard, water sled or other towed object on any of the waters or territorial waters of Canada, in a manner that is dangerous to navigation, life or limb, having regard to all the circumstances including the nature and condition of such waters and the use that at the time is or might reasonably be expected to be made of such waters, is guilty of:—

- (a) an indictable offence and is liable to imprisonment for two years, or
- (b) an offence punishable on summary conviction.
- (iii) Boaters are requested to pay particular attention to signs regarding the limiting of wash from vessels.

2-4 Limiting Dimensions

The limiting dimensions of the locks of the various canal systems are shown in Appendix 1, page 30.

2-5 Vessel Clearances

Throughout this booklet the dimensions, depth of

water on the sills of locks and the depths, draughts and minimum overhead clearances in the various reaches are given for normal conditions.

The locks on some canals are narrower at the bottom than at the water surface. Some locks have a lift-wall in front of the upper gates which limits the length of vessels which can be accommodated.

Cases where doubt exists with respect to draught, length, beam, clearance, etc., should be referred to the Superintendent of the canal concerned, or ARC Branch, Department of Indian and Northern Affairs, Ottawa.

2-6 Comments

The Department constantly seeks to improve the service offered by the canal systems. Comments and opinions of those who travel the canals are useful in achieving this aim. Complaints, suggestions, or requests for information should be directed in writing to the following:

QUÉBEC CANALS

Superintending Engineer, Parks Canada, 1369 Bourgogne Street, P.O. Box 237, Chambly, Québec J3L 1Y4

RIDEAU CANAL

Superintendent, Parks Canada, 12 Maple Avenue N., Smiths Falls, Ontario K7A 1Z5

TRENT CANAL

Superintendent, Parks Canada, Ashburnham Drive, P.O. Box 567, Peterborough, Ontario K9J 6Z6

NOVA SCOTIA CANAL

Superintendent, St. Peters Canal, Parks Canada, P.O. Box 8, St. Peters, Nova Scotia

2-7 Clearance Papers

Boats entering Canada from foreign ports are required to obtain clearance papers from the Collector of Customs at the Port of Entry.

- (a) Those travelling to the Chambly Canal will find a Collector of Customs at Lacolle, Québec.
- (b) Those travelling the Rideau Canal System will find convenient Customs offices at Kingston on Lake Ontario.
- (c) Those travelling the Trent Canal System will find convenient Customs offices at Trenton on Lake Ontario and Midland on Georgian Bay.

2-8 Approach Wharves

Certain portions of tie-up and entrance walls at locks are designated as "approach wharves". Each approach wharf is marked by a sign having a white letter "A" on a blue background. A horizontal blue band is painted on the wharf as an additional means of identification. The purpose of these approach wharves is to provide mooring space for vessels while they are waiting to be locked.

Canal Regulations states: "Vessels shall not be moored at approach wharves during the operating day except while waiting for lockage". The penalty for contravening this regulation is a fine not exceeding \$100.00.

2-9 Aids to Navigation

The following day beacons are in use on the canals: The Starboard Beacon used on bridge piers, lock entrances and as channel markers ashore, is a red triangle on a white triangular background, and marks the starboard side of the channel when proceeding upstream.

The Port Beacon used on bridge piers, lock entrances and as channel markers ashore, is a black square on a square white background, and marks the port side of the channel when proceeding upstream.

The Leading Beacon is to provide a direction target to assist in navigation across longer reaches where the main channel may not be clearly defined. The leading beacon is a white diamond-shaped beacon with a red and black marker at the centre and the perimeter outlined by either a red or green band. The preferred channel is indicated by the top colour of the red and black marker and the colour of the perimeter band.

Buoys on the canals conform to the standard buoyage system. They consist of spars and may be port, starboard, mid channel, or middle ground buoys. Generally the channels are not equipped for night navigation.

The use of navigation charts is strongly recommended to all canal users.

2-10 Signals for Locks and Bridges

It is requested that a whistle, horn or siren be sounded to signal the lockmaster or bridgemaster of your approach—

Bridges Locks Three blasts of 5 seconds each.

As most of the lockgates are manually operated, it is normal to open only one gate for small craft. If boatmen for any reason wish both gates to be opened to facilitate the passage of a craft in or out of the lock, indicate by giving the following signal—

4 short blasts of 3 seconds each.

2-11 Power Outlets

Outlets for the supply of electrical power to vessels are not available at lock or bridge stations or from Department service buildings adjacent to the canal.

2-12 Ships' Reports

All commercial craft are required to file a Ship's Report at the first station reached after entering the canal.

2-13 Pollution

The pollution of canal waters is becoming more acute each year. In order to help alleviate the problem, the canal systems have provided sanitary con-

veniences and refuse receptacles at many of the operating stations. Boaters are urged to make use of these facilities.

2-14 Boat Campers

Boat campers are permitted to use canal reserve lands for camping purposes when on a trip through the system. Boat campers are permitted to stay one or two nights at a lock station, but must apply to the lockmaster for permission to camp. The lockmaster will issue a permit and campers must comply with its provisions and any other directions of the lockmaster.

2-15 Weed Obstructions

Water weed growth in many areas adjacent to the Rideau and Trent Canal navigation channels is very heavy during the summer months. To avoid fouling water intakes and propellers, vessel operators should proceed with caution if they deviate from the buoyed channel.

2-16 Literature Published by Provincial Governments

Descriptive literature and information on tourist facilities along the Rideau and Trent Canals is published by the Ontario Department of Tourism and Information and is available on request from their office, 10A Parliament Buildings, Toronto, Ontario. Similar information for Québec waterways may be obtained from Québec Department of Tourism and Information, Québec City, Québec, and for Nova Scotia waterways from Nova Scotia Department of Tourism and Information, Halifax, Nova Scotia.

2-17 Fire Prevention

During a lock operation, boaters are requested to refrain from smoking, not to idle engines, not use open flame appliances and not to restart their motors until instructed by the lock operator.



Old blockhouse on the Rideau Canal at Merrickville, Ont. It is now a museum.

SECTION 3:

TRENT CANAL SYSTEM

The distance from Lake Ontario to Georgian Bay, following the Trent Canal route, is about 240 miles and there are 43 locks and 1 marine railway. The passage through each lock normally takes 15 to 20 minutes. The total length of actual canal channels is about 33 miles and the remainder of the main route (207 miles) is through improved lake and river channels. The speed limit in actual canal channels is 6 miles per hour, whereas in lakes and rivers forming the minor waters of Canada, operators of vessels are not permitted to exceed a reasonably safe speed. With this information in mind boat owners can estimate the approximate length of time required for any trip.

3-1 Charts

Charts may be ordered from, and are for sale at Trent Canal offices, Ashburnham Drive, P.O. Box 567, Peterborough, Ontario K9J 6Z6. A remittance payable to the Receiver General for Canada in Canadian funds must accompany all chart orders.

Charts are also available for direct sale at the following stations:

Lockmaster, Lock 1, Trenton, Ont.

Trent Canal Office, Kirkfield, Ont.

Lockmaster, Port Severn Lock, Port Severn, Ont.

Lockma	ster, Port Severn Lock, Port Se	vern,	Ont.
No. 2031	Murray Canal, Presqu'île	Price	\$3
	Bay to Trenton		
No. 2069	Bay of Quinte		\$3
No. 2021	Trenton to Healey Falls Lock		\$6
No. 2022	Healey Falls Lock to Peterborough		\$6
No. 2023	Peterborough to Buckhorn, including Stony Lake		\$6
No. 2024	Buckhorn to Bobcaygeon, including Chemung Lake		\$8
No. 2025	Bobcaygeon to Lake Simcoe		\$6
No. 2026	Lake Scugog and Scugog River		\$4
No. 2028	Lake Simcoe and Lake Couchiching		\$4
No. 2015	Lake Simcoe Scale 1 in. = 1 statute mile		\$3
No. 2029	Lock 42 to Port Severn		\$4
No. 2202	Port Perry to Parry Sound		\$8

3-2 Storms and Squalls — Lake Simcoe and Lake Couchiching

Sudden storms are frequent on Lakes Simcoe and Couchiching and every care and seamanlike precaution should be observed when navigating the lake, especially in small craft. Mariners entering the lake can usually obtain information on the condition of its water from the Canal staff at Locks 41 and 42, and from the marina operators in the vicinity

of the Atherley Narrows. For detailed weather information, dial:

CFOR 1570 Orillia CKBB 950 Barrie Marine Radio 161.9

3-3 Big Chute Marine Railway

Vessels with beams between 13'-6" and 15'-1" may, depending on the shape of the hull, be accommodated by the Marine Railway. Further details may be obtained from the Superintendent of the Trent Canal. The weight capacity of the Big Chute Marine Railway is 40,000 pounds.

3-4 Channel below Big Chute, Mile 232.5

The channel below Big Chute marine railways is winding and there is considerable discharge from the power-house which forms a crosscurrent below the marine railways, particularly at times when the flow is above normal. Boatmen who have not previously navigated this channel are warned to proceed with caution. Those going downstream should ask for direction from the operators of the marine railway.

3-5 Traffic Lights

At several locks, red-green navigation traffic lights have been installed to provide control of vessels. No vessel shall pass a "limit of approach" sign unless the light is green. A flashing red light means the lock is being prepared for your vessel.

3-6 Radio Stations

This list of local radio stations whose broadcasts are heard along the Trent Canal System is supplied so that boaters may be informed of local weather conditions and other information of interest to persons using the canal facilities.

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Station	Frequency	Location
CKBB	950	BARRIE
CJBQ	800	BELLEVILLE
CKCB	1400	COLLINGWOOD
CKLC	1380	KINGSTON
CKLY	910	LINDSAY
CKMP	1230	MIDLAND
CFOR	1570	ORILLIA
CKLB	1350	OSHAWA
CKAR-1	1340	PARRY SOUND
CHEX	980	PETERBOROUGH
CKPT	1420	PETERBOROUGH
CBL	740	TORONTO
CFRB	1010	TORONTO
CHIN	1540	TORONTO
CHUM	1050	TORONTO
CJBC	860	TORONTO
CKFH	1430	TORONTO

3-7 Canal Lake and Mitchell Lake

Boaters are advised to navigate with care in Canal Lake and Mitchell Lake, due to numerous stumps and logs. These objects come loose from time to time and may float, partially submerged, into channel areas.

3-8 Trent Canal — Mileage and General Data

		OVER	HEAD	CLEARANCE			LOCKS		
Miles from Trenton	Structure, Locality, etc.	Nor	rmal	Least Recorded	Length between hollow quoins	Minimum Width	Normal Draught	Average Lift	Canal Prism
		FT.	IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	MILES
	(Lake Ontario—Mean level,	 2 <i>45.9</i> 	above	e M.S.L.; Sta	 nndard low w	 ater, 243.0 a	 bove M.S.L.,	 	
0.00 0.00 0.32	Entrance to Bay of Quinte Bridge 1—Dundas St., Trenton—Highway— Swing Fixed Bridge	25′	7''	22′ 8′′					
0.36 0.86	Bridge 2—C.N.R.—Swing Bridge 3—C.P.R.—High level	43′	4"	40′ 1′′					0.75
1.74 1.78 2.24 2.41 3.70 3.85 5.15 6.38 7.26 7.61 8.01 13.82	Bridge 4—C.N.R.—High level Trenton, Lock 1 Bridge 4A—High level—Highway Sydney, Lock 2 Bridge 5—Glen Miller—Fixed Glen Miller, Lock 3 Batawa, Lock 4 Trent, Lock 5 Frankford, Lock 6 Bridge 6—Frankford—Fixed Emergency Dam Glen Ross, Lock 7	30' 24' 22' 22'		27' 3'' 21' 6½'' 21' 0'' 21' 0''		33' 0" 33' 0" 33' 0" 33' 0" 33' 0"	8' 0" 8' 0" 8' 0" 8' 0" 8' 0"	17' 7" 20' 0" 27' 0" 18' 0" 18' 0" 10' 0"	1.00 0.25 1.75
13.85 13.96	Bridge 7—Glen Ross—Highway—Swing Bridge 8—C.N.R.—Swing				175 0	33 0	8 0	10 0	0.50

						1				
25.26	Percy Reach, Lock 8			175′ 0′′	33′ 0′′	8′	0′′	19′	7''	-
										1.25
26.41	Meyers, Lock 9			175′ 0′′	33′ 0′′	8′	0′′		0"	-
27.99	Haigues Reach, Lock 10			175′ 0′′	33′ 0′′	8′	0′′	24'	0′′	
										0.75
29.68	Ranney Falls, Locks 11 and 12 in flight			175′ 0′′	33′ 0′′	8′	0′′	48′	0′′	
29.75	Bridge 11—Highway—Swing									
20.77	Deider 12 CND High lavel	28′ 8′′	27′ 8′′							1.00
30.77	Bridge 13—C.N.R.—High level		21' 0''							
31.13	Bridge 14—Campbellford—Fixed	22′ 0′′	21 0	475/ 0//		0′		201	0"	
32.17	Campbellford, Lock 13			175′ 0′′	33′ 0′′	8′	0′′	23′	0''	
				4==1 011	001 011	0,	0//	05/	0′′	0.50
33.70	Crowe Bay, Lock 14			175′ 0′′	33′ 0′′	8'	0′′			
36.16	Healey Falls, Lock 15			175′ 0′′	33′ 0′′	8'	0′′	21′9	1/2	
36.18	Bridge 15—Highway—Swing			200 STATE STATE OF THE STATE OF	5000000 II (0000000)		100007037	10000 1000 M		
36.51	Healey Falls, Locks 16 and 17 in flight			175′ 0′′	33′ 0′′	8'	0′′	54'	0′′	1.00
37.14	Fixed Bridge	22' 0''	18' 0''							
43.36	Bridge 17—Trent Bridge—Fixed	22′ 0′′	18′ 0′′							
51.13	Hastings, Lock 18			175′ 0′′	33′ 0′′	8'	0′′	9′	0′′	
51.16	Bridge 18—Highway—Swing									
51.95	Bridge 19—C.N.R.—Swing									
57.00	Entrance to Rice Lake									
69.00	Mouth of Otonabee River									
76.55	Bridge 20—Bensfort—Fixed	25′ 5′′								
80.35	Bridge 21—Wallace Point—Fixed	25′ 5′′								
87.34	Fixed Bridge	25′ 5′′	15′ 4′′						-	
88.74	Scott's Mills, Lock 19			134′ 0′′	33′ 0′′	6′	0′′	8'	0"	
88.83	Bridge 22—Fixed	22' 0''								
88.94	Bridge 23—C.N.R.—Swing									
89.51	Ashburnham, Lock 20			142' 0''	33′ 0′′	6'	0′′	12'	0"	
89.61	Bridge 24—Maria St.—Swing									
89.72	Bridge 25—C.P.R.—Swing									
								The state of the s		

3-8 Trent Canal — Mileage and General Data (Cont'd)

		OVERHEAD (CLEARANCE			LOCKS		
Miles from Trenton	Structure, Locality, etc.	Normal	Least Recorded	Length between hollow quoins	Minimum Width	Normal Draught	Average Lift	Canal Prism
		FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	MILES
	For navigation between Lake Ontario and Lock 1	19, twelve (1	2) hours not	ice must be g	given by vess	els of more t	than 6 ft. dra	ught.
90.10	Peterborough Lift Lock—Lock 21			140′ 0′′	33′ 0′′	6' 0''	65′ 0′′	
90.58	Bridge 26—Norwood Road—High level	23′ 8′′	22′ 9′′					
91.01	Bridge 27—Warsaw Road—Highway—Swing							3.50
91.03	Guard Gate							
93.25	Guard gate—Nassau							
93.33	Bridge 28—C.N.R.—Swing							
93.38	Bridge 29—Nassau—Highway—Swing							
94.25	Nassau Mills, Lock 22			142′ 0′′	33′ 0′′	6' 0''	14' 0''	
				~	20		updown a months	0.25
94.84	Otonabee, Lock 23			142′ 0′′	33′ 0′′	6′ 0′′	12' 0"	
96.38	Douro, Lock 24			142′ 0′′	33′ 0′′	6′ 0″	12′ 0′′	0.25
97.29	Sawyer Creek, Lock 25			142′ 0′′	33′ 0′′	6′ 0′′	10′ 0′′	
98.72	Lakefield, Lock 26			142′ 0′′	33′ 0′′	6′ 0′′	15′ 8″	
99.00	Bridge 30—Lakefield—High level	23′ 6″	20′ 6′′					
99.04	Guard Gate—Lakefield							0.50
104.38	Bridge 31—Young's Point—High level	22′ 0′′	19′ 0′′					
104.47	Young's Point, Lock 27			175′ 0′′	33′ 0′′	8′ 10′′	7′ 3′′	
104.49	Guard Gate—Young's Point							
112.92	Fixed Bridge	31′ 0′′	27′ 0′′					
112.96	Burleigh Falls, Lock 28			145′ 0′′	33′ 0′′	6′ 0′′	24′ 0′′	
114.75	Lovesick, Lock 30			134′ 0′′	33′ 0′′	6′ 0′′	3' 6''	
120.66	Buckhorn, Lock 31			134′ 0′′	33′ 0′′	6′ 0′′	11' 6''	
		_						

Ĭ													
120.66	Bridge 33—Buckhorn—Highway—Swing												0.25
132.68	Bridge 61—Chemung Lake—Fixed	22'	0"										
130.17	Bridge 34—Gannon's Narrows—High level	22'	0"	21′	7"								
138.17	Bridge 35—Bobcaygeon—Swing												
138.21	Bobcaygeon, Lock 32					175′ 0′′	33'	0′′	6'	0"	5′	5"	0.25
138.23	Guard Gate												
148.00	Sturgeon Point												
156.19	Fixed Bridge	13′	6"	11′	11"								
						(Sturgeo	Bran		nt Donn	1			
156.31	Bridge 66—Lindsay Street—Fixed	13′	0"			(Sturgeo	n Lake	10 POI	Peri	y) 	l ——		
156.35	Lindsay Lock					142′ 0′′	33'	0′′	6'	0"	7'	0′′	7
157.20	Bridge 67—C.N.R.—High level	31′	0′′	29'	2"						<u> </u>		
157.87	Bridge 68—Ops—Fixed	13′	6′′	12'	0"	1							
157.95	Bridge 68A—Lindsay By-Pass—Highway—												
	Fixed span	12′	1′′	10'	7''								
183.00	Port Perry	-											
153.61	Fenelon Falls, Lock 34					142′ 0′′	33′	0"	6′	0′′	23′	7''	0.50
153.61	Fixed Bridge	25′	8"	24'	1"								
153.98	Bridge 37—C.N.R.—Swing			3000 0									
157.17	Rosedale, Lock 35					175′ 0′′	33′	0"	6'	0''	4'	0′′	1.00
157.98	Fixed Bridge	22'	3′′	21′	4′′								
158.10	Entrance to Balsam Lake												
		sam La	ke—S	Summit	t level,	841.0 above	e M.S.L	<i>)</i>					
163.91	Guard gate—Balsam Lake												
165.24	Bridge 39—Victoria Road—Fixed	22′	3"	21′	4"								
166.82	Bridge 40—Portage Road—High level	24'	3"	23′	5"								
167.88	Guard Gate												
169.26	Guard Gate—Kirkfield												
169.36	Kirkfield Lift Lock—Lock 36	24′		24′	1"	140′ 0′′	33′	0"	6'	0′′	49′	0′′	
172.98	Bridge 42—High-level arch	28′	1"	27′	6"							-8	
175.23	Bridge 43—Bolsover—Highway—Swing												
176.85	Bridge 44—Boundary Road—Highway—Swing												

3-8 Trent Canal — Mileage and General Data (Cont'd)

		OVERHEAD CLEARANCE						
Miles from Trenton	Structure, Locality, etc.	Normal	Least Recorded	Length between hollow quoins	Minimum Width	Normal Draught	Average Lift	Canal Prism
		FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	MILES
177.04	Bolsover, Lock 37			142′ 0′′	33′ 0′′	6′ 0′′	21′8½′′	6.00
178.05	Talbot, Lock 38			142′ 0′′	33′ 0″	6' 0''	14' 0''	
178.20	Bridge 46—Kane's—Fixed	22′ 0′′						
179.63	Portage, Lock 39			142′ 0′′	33′ 0″	6′ 0′′	13′ 0′′	
180.09	Thorah, Lock 40			142′ 0′′	33′ 0″	6′ 0′′	14′ 0′′	3.00
180.74	Gamebridge, Lock 41			142′ 0′′	33′ 0′′	6′ 0′′	11′ 6′′	
180.79	Bridge 47—Gamebridge—High level							
181.70	Bridge 48—C.N.R.—High level	22′ 8′′	21′ 10′′					
182.15	Bridge 50—Lakeshore Road—Highway—Swing							
182.20	Entrance to Lake Simcoe							
			ř	18.3 above N	1.S.L.)			
197.57	Fixed Bridge	22′ 10′′	21′ 6′′					
197.66	Bridge 52—C.N.R.—							
	Atherley Narrows—Swing							
208.27	Bridge 54—Muskoka Road—High level	22' 0''	21′ 0′′					
209.14	Bridge 55—C.N.R.—Washago—Swing							
209.87	Guard Gate—Couchiching							
209.89	Couchiching, Lock 42			175′ 0′′	33′ 0″	7′ 0′′	20′ 3′′	3.00
209.90	Bridge 56—Couchiching—Highway—High level	31′ 0′′	28′ 7′′					
212.73	Bridge 57—Hamlet—Highway—Swing							
222.40	Bridge 58—C.N.R.—Ragged Rapids—High level	34′ 0′′	32′ 8′′					
224.45	Swift Rapids, Lock 43			142′ 0′′	33′ 0″	6′ 0′′	47′ 0′′	
228.07	Bridge 59—C.P.R.—Severn Falls—High level	33′ 7′′	33′ 2″					

232.45	Big Chute, Lock 44, Marine Railway	 	60′ 0′′	13′ 6′′	4' 0''	58′ 0′′	
240.55	Port Severn, Lock 45	 	100′ 0′′	25′ 0′′	6′ 0′′	12' 0''	
240.55	Bridge 60—Port Severn—Highway—Swing						
240.56	Entrance to Georgian Bay						
	Total	 					33.25

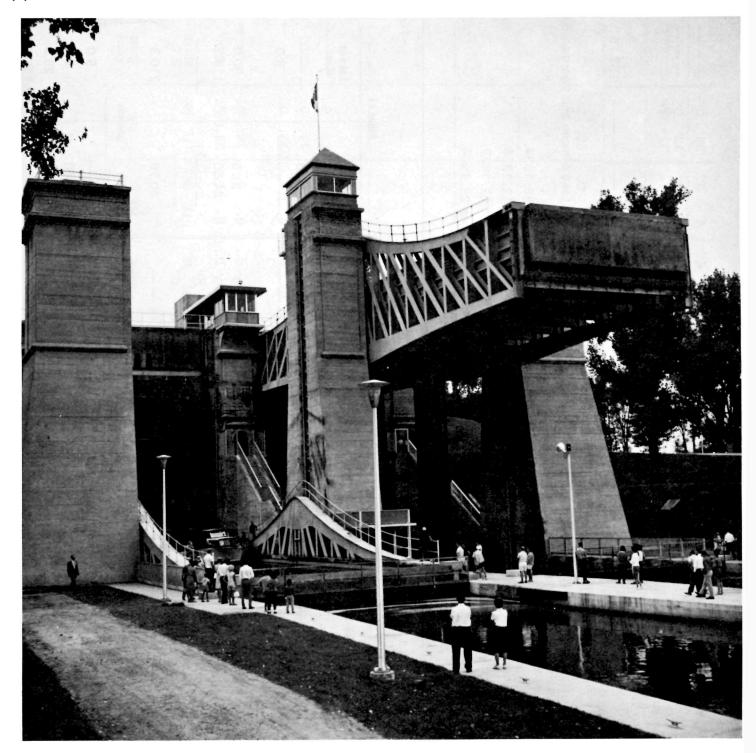
(Lake Huron—Mean level, 580.6 above M.S.L. Standard low water 578.5 above M.S.L.)

The depth of water on lock sills varies with prevailing water levels. The depths at locks opening on Lake Ontario, Lake Simcoe and Georgian Bay have been as low as the following during the navigation season:—

Lock 1, Trenton	7' 4" on October	28, 1934.
Lock 41, Gamebridge	6' 1" on October	12, 1958.
Lock 42, Couchiching	7' 8" on October	17, 1929.
Lock at Port Severn	5' 0" on November	28, 1964.

	No. of Locks	Normal Draught	Canal	Lake or River			
1. Murray Canal—Presqu'ile Bay to Bay of Quinte		9′ 6′′	7.53				
Bay of Quinte from Murray Canal to Trenton			-	3.0			
2. Trent Canal							
Trenton to lower entrance Lock 19, Peterborough	18	8′ 0′′	8.75	80.0			
Lock 19 Peterborough to Big Chute	23	6′ 0′′	24.50	119.2			
Big Chute Marine Railway		4′ 0′′					
Big Chute to Georgian Bay at Port Severn	1	6′ 0′′		8.1			
Totals	42		40.78	210.3			
Total distance, Presqu'ile Bay to Port Severn—251.08 statute miles.							
Branches of Trent canal:							
Buckhorn Lake to Bridgenorth	0			9.0			
Sturgeon Lake to Lindsay	1	6′ 0′′	0.10	9.9			
Lindsay to Port Perry	0	4′ 0′′		25.0			

Miles of



A cruiser is brought down to the lower level at the Peterborough lift lock, Trent Canal.



Official opening of the lock at Swift Rapids, on the Trent Canal.

SECTION 4: RIDEAU CANAL SYSTEM

The distance from Lake Ontario, to the Ottawa River following the Rideau Canal route is about 125 miles. There are 48 locks, the passage through each of which normally takes 10 to 15 minutes. A new lock at Smiths Falls provides passage adjacent to Locks 28, 29 and 30 in a single lock operation. The total length of actual canal channel is about 12 miles and the remainder of the main route is through improved lake and river channels. The speed limit in actual canal channels is 6 miles per hour or as posted. It is emphasized that the speed limit on Dow's Lake in the City of Ottawa is 6 M.P.H. and this is rigidly enforced.

The Tay Branch is reached by two locks from Lower Rideau Lake to the raised waters of the Tay River which it follows to the Town of Perth, a distance of about $6\frac{1}{2}$ miles.

4-1 Charts

During the navigation season, charts may be purchased by counter sale only, from the lockmaster, at Ottawa Locks, Smiths Falls Detached Lock, Kingston Mills Lock, the Canal Superintendent at Smiths Falls, or from the Rideau Canal Office, 25 William Street W., Ottawa, Ontario. They can also be purchased at chart dealers in Ontario and Northern New York State, or directly from the Hydrographic Chart Distribution Office, Department of the Environment, Ottawa, K1A OH3, Telephone 994-5594, area code 613.

RIDEAU CANAL CHARTS

1513—Smiths Falls to Kingston including Tay Branch to Perth Price: \$8 1512—Smiths Falls to Ottawa Price: \$6

4-2 Traffic Lights

At several locks, red-green navigation traffic lights have been installed to provide control of vessels. No vessel shall pass a "limit of approach" sign unless the light is green. A flashing red light means the lock is being prepared for your vessel.

4-3 Radio Stations

This list of local radio stations whose broadcasts are heard along the Rideau Canal System is supplied so that boaters may be informed of local weather conditions and other information of interest to persons using the canal facilities.

Station		Freque	ency	Location
СВО	FM	103.3		OTTAWA
CBO	AM	910		OTTAWA
CBOF	AM	1250	(French)	OTTAWA
CFGO	AM	1440		OTTAWA
CKCH	AM	97	(French)	HULL
CIMF	FM	94.9	(French)	HULL
CKOY	AM	1310		OTTAWA
CKBY	FM	105.3		OTTAWA
CJRC	AM	1150	(French)	OTTAWA
CFRA	AM	580		OTTAWA
CFMO	FM	93.9		OTTAWA
CHEZ	FM	106		OTTAWA
CJET	AM	630		SMITHS FALLS
CJET	FM	101.1		SMITHS FALLS
CKWS	AM	960		KINGSTON
CKWS	FM	96.3		KINGSTON
CKLC	AM	1380		KINGSTON
CKLC	FM	98.3		KINGSTON

4-4 Rideau Canal — Mileage and General Data

LOCKS

Miles from Ottawa	Structure, Locality, etc.	Length between hollow quoins	Minimum Width		Normal Draught	Average Lift	Overhead Clearance	Canal Prism
		FT. IN.	FT. IN.		FT. IN.	FEET	FT. IN.	MILES
	(Ottawa River—Mean level 135.0 above	M.S.L.; low	in 1921—	127	7.8; high in 1	928—148.7	<u>'</u>)	
0.00	Ottawa River, Ottawa							
0.00	Ottawa Locks, 1 to 8, in flight	134′ 0′′	33′ 0′	,	5' 6''	79.00′		
0.22	Plaza—Concrete arch and steel bridge			-			26' 6''	
0.40	Mackenzie King—Concrete fixed span bridge			-			26' 0''	
0.54	Laurier Avenue—Steel arch bridge			-			27′ 3′′	
1.50	Fixed Bridge			-			22' 0''	
1.56	Bridge 1—Vertical Life—Pretoria Ave.			-			22' 0''	
2.81	Bank Street—Concrete arch bridge			.			27′ 0′′	
3.42	Bronson Avenue—Concrete fixed span bridge			-			22' 0''	
4.17	Hartwell Locks, 9 and 10 in flight	134′ 0′′	33′ 0′	,	5' 6''	21.50′		4.17
5.10	Fixed Bridge			-			22' 0''	
5.23	Hogs Back Locks, 11 and 12 in flight	134′ 0′′	33′ 0′		5' 6''	14.50′		1.05
5.25	Bridge 4—Swing—Hogs Back; canal enters Rideau River							
7.43	C.N.R. High-level bridge			•			31′ 0′′	
9.25	Lock 13—Black Rapids	134′ 0′′	33, 0,	'	5' 6''	9.16′		
14.25	Long Island Locks, 14 to 16 in flight	134′ 0′′	33′ 0′	'	5' 6''	25.33′		0.13
14.33	Bridge 5—Swing—Long Island, over Lock 16			.				0.13
16.03	Manotick—High level—Fixed bridge			.			22' 0''	
23.00	Fixed Bridge			.			22' 0''	
23.33	Public Wharf							

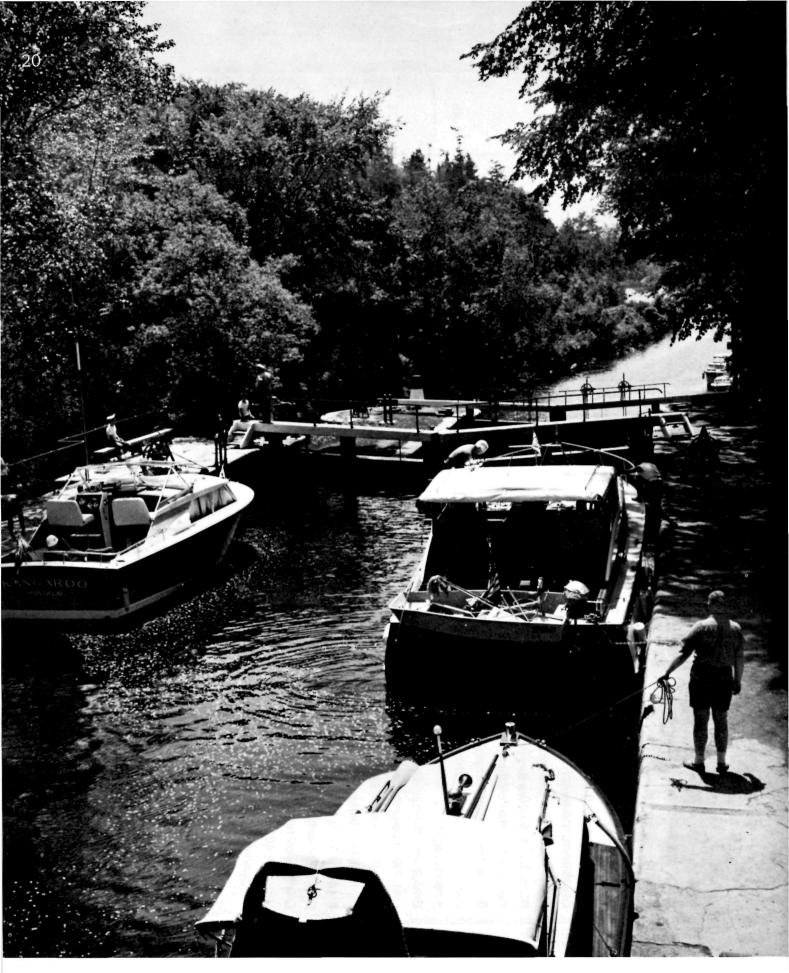
		T	E		1		ı	ĺ	Ī
28.80	Highway 416—High level—Fixed bridge							22' 4''	
30.48	Channel to Kemptville		South Rideau Branch to Kemptville						
33.38	Kemptville Wharf			Navig	able,	shallow	draught ves	sels only	
31.93	Becketts—High level—Fixed bridge							27′ 0′′	
38.93	Lock 17—Burritts Rapids	134′ 0′′	33'	0"	5′	6''	9.00′		
39.43	Bridge 9—Swing—Burritts Rapids								1.50
41.83	Flight Lock 18—Nicholsons	134′ 0′′	33'	0′′	5′	6''	6.50′		
42.09	Flight Lock 19—Nicholsons	134′ 0′′	33′	0"	5′	6''	8.00'		0.57
42.10	Bridge 10—Swing—Nicholsons—over Lock 19								
42.50	Lock 20—Clowes	134′ 0″	33′	0"	5′	6"	7.58′		0.07
44.30	Merrickville—C.P.R. High-level bridge							40′ 0′′	
44.65	Flight Lock 21—Merrickville	134′ 0′′	33′	0"	5′	6"	8.66′	·———	
44.71	Flight Lock 22—Merrickville	134′ 0′′	33′	0′′	5′	6"	10.00′		0.53
44.81	Flight Lock 23—Merrickville	134′ 0′′	33′	0′′	5′	6''	6.00′		
44.81	Bridge 11—Swing—Merrickville over Lock 23								
52.81	Lock 24—Kilmarnock	134' 0''	33′	0"	5′	6"	2.00′		0.25
52.82	Bridge 13—Swing—Kilmarnock, over Lock 24								
56.22	Lock 25—Edmonds	134' 0''	33′	0′′	5′	6"	9.16′		0.15
57.72	C.P.R. High-level bridge—Smiths Falls							30′ 0′′	
57.72	Old Slys Locks 26 and 27, in Flight	134′ 0′′	33′	0"	5′	6"	16.00′		0.23
57.77	Bridge 15—Swing—Old Slys								
*58.52	Smiths Falls Combined Locks 28, 29 and 30 (not in use)	134' 0''	33′	0"	5′	6"	26.00′		0.11
58.56	Fixed Bridge—Lock 30							12' 6"	
58.54	Fixed Bridge—Entrance Lock 29A							22′ 0″	
*58.55	Smiths Falls—High Lock 29A	140′ 0′′	33′	0"	5′	6"	26.00′		
58.86	Bridge 19—Swing—Abbott Street								
58.88	Smiths Falls Detached Lock 31	134′ 0′′	33′	0"	5′	6''	8.50′		0.19
58.98	C.N.R. bascule bridge								
60.98	Lock 32—Poonamilie	134′ 0′′	33′	0"	5′	6"	5.75′		1.06
61.58	Entrance to Lower Rideau Lake								
65.10	Diversion to Tay Branch					Tay Car	nal to Perth		
65.80	Canal entrance—Beveridge Bay—Rideau Lake								
*High loc	k 29A parallels Flight Locks 28, 29 and 30								

4-4 Rideau Canal — Mileage and General Data (Cont'd)

LOCKS

Miles from Ottawa	Structure, Locality, etc.	Length between hollow quoins	Minimum Width	Normal Draught	Average Lift	Overhead Clearance	Canal Prism
		FT. IN.	FT. IN.	FT. IN.	FEET	FT. IN.	MILES
66.00	Lock 33—Beveridges	134′ 0′′	33′ 0′′	5' 6''	12.00′		
66.09	Fixed Bridge					22' 0''	3.50
66.32	Lock 34—Beveridges	134′ 0′′	33′ 0′′	5' 6''	13.00′		
71.52	Perth, Craig St.—Fixed bridge—Public wharf					7′ 9′′	
71.77	Perth, Beckwith St.—Fixed bridge					5′ 2′′	
71.86	Perth, Drummond St.—Fixed bridge					9' 6''	
71.92	Perth, Basin Wharf						
71.96	Gore St.—Fixed bridge, end of canal		(Total I	ength of Tay	Branch 6.12	? miles)	
67.02	Bridge 26—Rideau Ferry—Fixed					22' 0''	
72.42	Diversion to Portland		Channel	to Portland V	Vharf on Sou	ıth Shore	
78.90	Portland Public Wharf			Big Ride	au Lake	ı	
80.02	Lock 35— The Narrows	134′ 0′′	33′ 0′′	5' 0''	3.00′		0.04
80.02	Bridge 27—Swing—The Narrows						
80.08	Entrance to Upper Rideau Lake						
	(Summit level 408.0 above M.S.L.)						
80.08	Diversion to Westport		Channel	to Westport	Wharf on We	est Shore	
85.33	Westport—Public wharf			Upper Rid	leau Lake		
84.43	Newboro—High level—Fixed bridge					27′ 6′′	
84.74	Lock 36—Newboro	134′ 0′′	33′ 0′′	5′ 6′′	7.75′		1.06
89.74	C.N.R. High-level bridge					34′ 0′′	
90.00	Lock 37—Chaffeys	134′ 0′′	33′ 0′′	5′ 6′′	10.75′		0.45

ı	I	Ì	l		ı				
90.00	Bridge 30—Swing—Chaffeys								
92.15	Lock 38—Davis	134′ 0′′	33′	0"	5′	6''	9.00'		0.08
95.95	Fixed Bridge—Officer's Quarters							23′ 0′′	
96.45	Lock 39—Jones Falls	134′ 0′′	33′	0"	5′	6''	13.75′		
96.48	Jones Falls basin								
96.59	Locks 40 to 42 in flight—Jones Falls	134′ 0′′	33′	0"	5′	6''	44.75′		
96.63	Bridge 33—Swing—Jones Falls over Lock 41								
99.38	Diversion to Morton				Chann	el to N	1orton Dam		
101.00	Morton dam; no public wharf				on	Morto	n Creek		
100.88	Diversion to Seeleys Bay				Chanr	nel to S	Seeleys Bay		
101.53	Seeleys Bay Public Wharf				Vill	lage ar	d Wharf		
103.08	Bridge 36—Swing—Brass' Point								
107.28	Locks 43 and 44 in flight—Upper Brewers	134′ 0′′	33′	0"	5′	6"	18.00′		1.45
107.58	Fixed bridge							22' 0"	
109.06	Bridge 39—Swing—Lower Brewers, over entrance to Lock 45	5							
109.06	Lock 45—Lower Brewers (Washburn)	134′ 0′′	33′	0"	5′	6"	13.00′		4.25
118.81	Lock 46—Kingston Mills	134′ 0′′	33′	0"	5′	6"	9.83'		
118.81	Bridge 41—Swing—Kingston Mills over Lock 46								
118.83	Kingston Mills basin								
118.91	Locks 47 to 49 in flight—Kingston Mills	134′ 0′′	33'	0"	5′	6"	35.16′		0.25
118.93	C.N.R. high-level bridge over Locks 47 and 48							30′ 0″	
119.56	Highway 401—Fixed bridge							24' 0"	
123.53	Kingston—LaSalle Causeway—Bascule bridge								
									17.72
	Mileage 123.53 small craft under 14' vertical clearance may	,							
	pass through LaSalle Causeway by using the small boat	t							
	channels at the eastern end of the causeway.								
	(Lake Ontario—Mean level, 245.9 above M.S.L.)								
	(Standard low water, 243.0 above M.S.L.)								
					1				



Pleasure craft in the lock at Kingston Mills, on the Rideau Canal.

SECTION 5:

QUÉBEC CANALS

5-1 Charts

Navigation charts covering the waters of which the Québec Canals form a part, may be obtained at the following addresses in Montréal: Kelvin & Hughes (Canada) Ltd., 401 McGill Street; Harrison Company, 1448 St. Catherine St. West; Gabriel Aero-Marine Instruments Ltd., 351 St. Paul St., West. Canals Navigation charts may be ordered by mail, payment enclosed, at the following address: Marine Charts and Publication Sales, Canadian Hydrographic Service, Environment Canada, Box 8080, 1675 Russell Rd., Ottawa, Ontario, K1G 3H6.

OTTAWA RIVER CHARTS

1511 — Ottawa to Carillon	Price	\$6
1510 — Lake of Two Mountains		\$4
1410 — Lake St. Louis		\$3
RICHELIEU RIVER CHARTS		
1325 — Sorel to Beloeil Bridge		\$3
1326 — Chambly Basin to Lake		
Champlain		\$3

5-2 Radio Stations

This list of local radio stations whose broadcasts are heard along the Québec Canals System is supplied so that boaters may be informed of local weather conditions and other information of interest to persons using the canal facilities.

Station	Frequency	Location
CFCF	600	MONTREAL (English)
CFGL	105.7	LAVAL (French)
CFQR-FM	92.5	MONTREAL (English)
CHRS	1090	LONGUEUIL (French)

5-3 Richelieu River Route

St.	0	urs	Car	ıal

Length	0.15 statute miles
Number of Locks	1
Dimensions of Lock	339 feet by 45 feet
Normal draught	12 feet*
Total lift	5 feet
Minimum overhead clearance	No restrictions

The lock is operated and lighted by electricity.

From St. Ours Lock to the foot of the Chambly Canal the distance is 32 miles and the normal draught is 12 feet. The minimum overhead clearance under the Trans-Canada Highway bridge located 2 miles downstream of Beloeil is 50 feet.

There is a launching ramp for small craft near the lock.

*The draught available at this lock varies with the stage of the Richelieu River. During navigation seasons the lowest depth of water on the lock sills has been 11.20 feet on the upper sill (Oct. 13, 1934). The highest levels recorded were on April 21, 1896—33.63 on the lower sill and 34.46 on the upper.

Chambly Canal

Length of canal	11.78 statute miles
Number of locks	9

Dimensions of locks:—	
Lift Locks 1 to 8	(Width, from 23 ft.
	3 in. to 24 ft. 4 in.
	Length, from 120
	ft. 6 in. to 126 ft.)
Guard Lock 9 at St. Jean	120 ft. 7 in. by
	23 ft. 7 in.
Total lift	80 feet
Normal draught	6 feet 6 inches*
Breadth of canal at bottom	36 feet
Breadth of canal at water	
surface	60 feet
Minimum overhead clearance	29 feet (Highway high-level bridge)

The canal overcomes the rapids between Chambly and St. Jean. The locks are hand-operated and the canal is lighted by electricity. From St. Jean to the International Boundary the distance is 22 miles. A winch allows for lowering and rising of masts upon entering and leaving the canal.

5-4 Montréal-Ottawa Route

Ste. Anne Canal

In 1816 the first canal with one wooden lock was built in the western channel at Vaudreuil by the St. Andrews Steam Forwarding Company to provide 5 feet draught. In the years 1840 to 1843 the first Ste. Anne Canal was built in the eastern channel by the Board of Works to provide 6-foot draught. The canal was enlarged in the years 1879 to 1886 to provide 9-foot draught.

There is a launching ramp for small craft near the lock.

Length	0.37 statute miles
Number of locks	1
Dimensions of lock	200 feet by 45 feet
Total lift	3 feet
Normal draught	9 feet*
Overhead clearance with 9 feet	

of water on lower sill ** 41 feet 5 inches

- *The draught available at this lock varies with the stage of the Ottawa River and Lake St. Louis. During navigation seasons the lowest depth of water on the lock sills has been 7.85 feet on the lower sill (Sept. 11, 1934). The highest levels recorded have been 17.32 feet on the lower sill (May 14, 1943) and 20.00 feet on the upper sill (May 29, 1909).
- **This clearance (C.N.R. Bridge) varies with the level of Lake St. Louis. The minimum recorded has been 33 feet, 1 inch; the maximum 42 feet, 7 inches.

Below Ste. Anne Canal, there is a channel (Baker's Dam) measuring 1200 feet in length, by 120 feet in width, located half a mile below the lock and rapids, through the shoal.

Carillon Canal

The Carillon Canal replaces the old Carillon and Grenville Canals.

The first Carillon Canal was built between the years 1825-1833 and the first Grenville Canal was built between the years 1825-1829 by the Royal Engineers to provide 6 feet draught.

These canals were rebuilt and enlarged to 9 feet draught in the years 1871-1882. The present canal

was built by Quebec Hydro as part of the Carillon Power Project in the years 1960-1963.

•	
Length	0.50 mile
Number of locks	1
Dimensions of lock	188 feet by 45 feet
Total lift	65 feet
Normal draught	9 feet
Breadth of canal at bottom	45 to 50 feet
Breadth of canal at water	
surface	50 to 80 feet
Minimum overhead clearance	42 feet

The lock is power operated with a vertical lift gate at the lower end, and sector gates at the upper end. Four floating bollards are provided in the lock. The lock is lighted by electricity. The Ottawa River affords unimpeded navigation to the foot of the Rideau Canal at Ottawa, 68 miles distant.

Between Carillon Canal and the foot of the Rideau Canal, the minimum overhead clearance is 42 feet under Perley Bridge, at Grenville.



In the lock at Carillon, Québec, on the Ottawa River.



Entrance to lock at St. Ours, Québec.

5-5 Chambly Canal — Mileage and General Data

LOCKS

Mileage	Structure, Locality, etc.	Length between hollow quoins	Minimum width	Normal draught	Lift
		FT. IN.	FT. IN.	FT. IN.	FEET
0.00	Entrance—Chambly Basin (outer end of guide pier)				
0.12	Lock 1	125′ 10′′	23′ 5′′	6′ 6′′	1 5.50′
0.14	Lock 2	125′ 11″	23' 6''	6′ 6′′	9.70'
0.17	Lock 3	126′ 0′′	23′ 8″	6′ 6′′	9.80′
0.18	Bridge 1—Swing—Highway				
0.72	Lock 4	120′ 6″	23′ 4′′	6' 6''	7.20'
0.84	Lock 5	120′ 8′′	24′ 4′′	6′ 6′′	8.00'
0.93	Lock 6	120′ 9′′	23′ 4′′	6′ 6′′	8.20'
1.08	Bridge 2—Swing—Highway				
1.26	Lock 7	120′ 9′′	23′ 4′′	6′ 6′′	7.40′
1.51	C.N.R. Bridge—Chambly Canton—Swing				
1.60	Lock 8	126′ 0′′	23′ 3″	6′ 6′′	9.00'
1.61	Bridge 3 (Mark's)—Rolling				
2.13	Bridge 4—Swing—Farm road				
3.32	Highway high-level bridge—Clearance 30'				
2.76	Bridge 5—Swing—Farm road				
3.75	Bridge 7—Swing—Highway				
5.57	Bridge 9—Ile Ste. Therese—Swing—Highway				
8.32	Bridge 10—Ile Ste. Therese—Swing—Highway				
9.60	Siphon Culvert				
9.76	Highway high-level bridge—Clearance 29'				
10.21	Siphon culvert				
11.13	Lock 9	120′ 7′′	23′ 7′′	6′ 6′′	5.20′
11.23	C.P.R. Bridge at St. Johns—Swing				
11.51	Bridge 12 (Gouin) at St. Johns—Bascule—Highway				
11.70	Entrance—Richelieu River (end of guide pier)				
11.78	Upper end of wharf				
	Total Lift				80.00′



A boat going through the lock at Chambly, Québec.



Boaters enjoy the sunshine while waiting in lock 45 at Lower Brewers on the Rideau Canal.

SECTION 6:

ATLANTIC OCEAN TO BRAS D'OR LAKES ROUTE

6-1 St. Peters Canal

1854-1869—First canal and lock built to provide 13 feet draught.

1875-1881—Enlarged to 18 feet draught.

1912-1917—Lock enlarged from 200 feet by 48 feet to 300 feet by 48 feet.

Length of canal about 2,640 feet (0.50 statute miles)

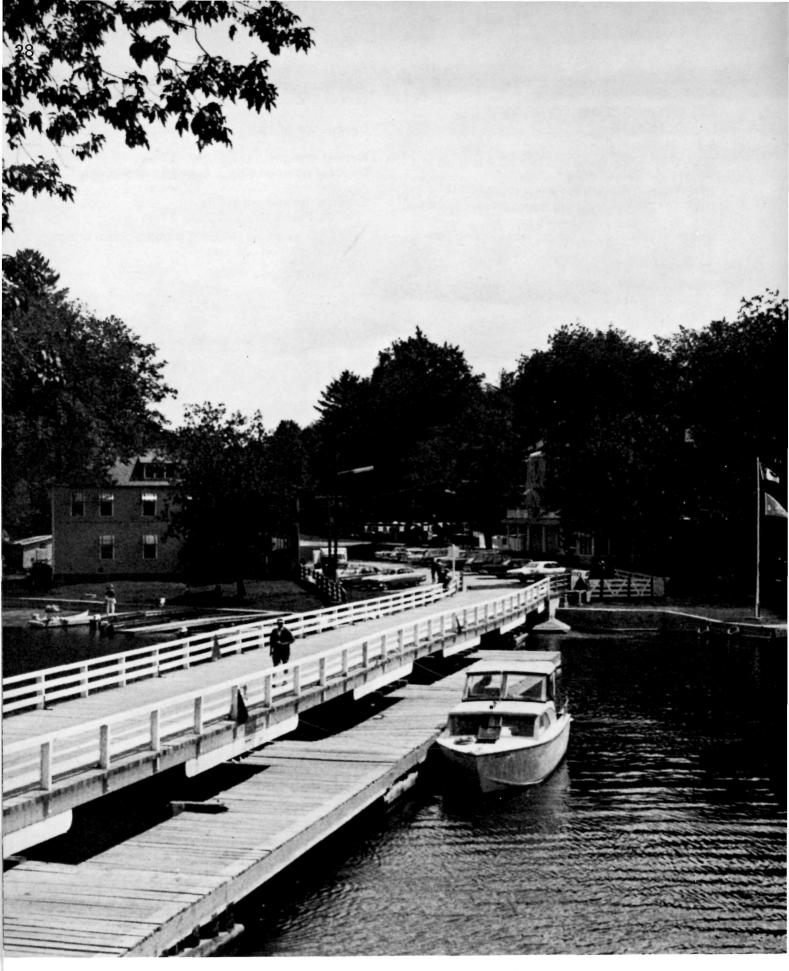
Breadth at water line	55 feet	
Lock	1 tidal lock, 4 pairs	
	of gates	
Dimensions of lock	300 feet by 47 feet	
	41/8 inches	
Normal draught	17 feet	
Depth of water on sills	18 feet at lowest	
	water	

Extreme rise and fall of tide in St. Peters Bay 7 feet

One highway swing bridge. Clearance when bridge in closed position—20 feet.



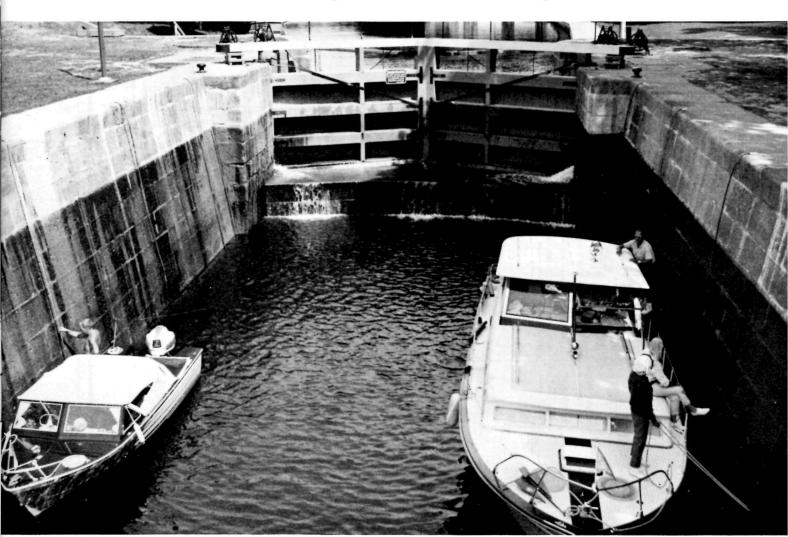
Proceeding towards the lower entrance into lock 39 at Jones Falls on the Rideau Canal.



Pleasure craft often tie up at this wharf just downstream from the Jones Falls lockstation.



Water churns around these vessels as the filling of lock 40 at Jones Falls nears completion.



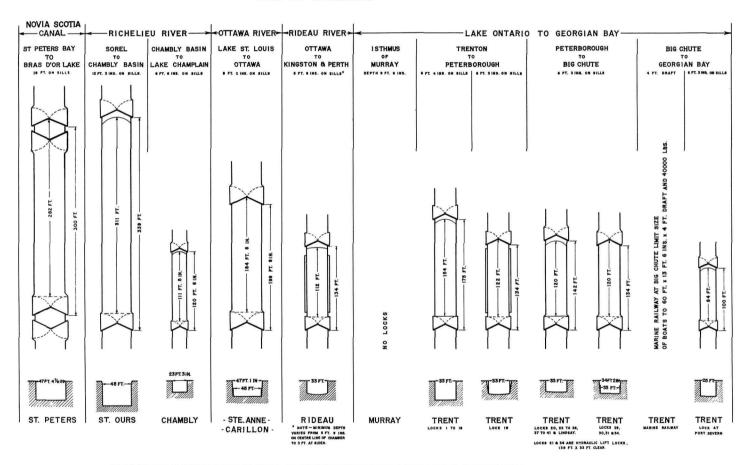
Passing time while lock 37 fills at Chaffeys on the Rideau Canal.

DEPARTMENT OF INDIAN AND NORTHERN AFFAIRS

PLANS AND SECTIONS SHOWING

LIMITING DIMENSIONS OF THE LOCKS ON EACH OF THE CANAL ROUTES

UNDER ITS JURISDICTION

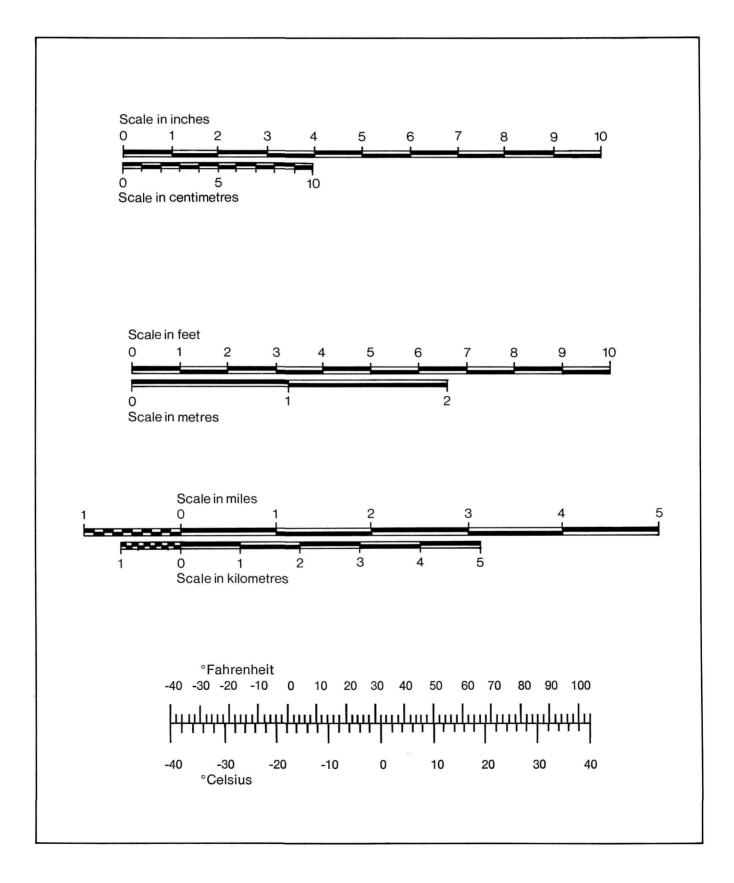


SLIGHT SHIFTING OF MASONRY IN SOME LOCK WALLS HAS SOMEWHAT NARROWED THE CLEAR WIDTH OF LOCKS IN CERTAIN SPOTS.

DETAILED INFORMATION RESPECTING OVERHEAD CLEARANCES AND AVAILABLE WIDTHS AND DEPTHS OF
CANAL CHANNELS WILL BE FOUND IN THE TEXT.

APPENDIX 2

IMPERIAL/METRIC COMPARISON SCALE



APPENDIX 3

IMPERIAL/METRIC CONVERSION TABLES

LENGTH

Metric base-unit: metre (m)

Imperial to Metric

```
1 inch (in) = 25.4 \text{ mm}

1 foot (ft) = 12 \text{ in} = 0.3048 \text{ m}

1 yard (yd) = 36 \text{ in} = 3 \text{ ft} = 0.9144 \text{ m}

1 chain (ch) = 22 \text{ yd} = 20.117 \text{ m}

1 furlong (fur) = 220 \text{ yd} = 10 \text{ ch} = 0.2012 \text{ km}

1 mile = 1760 \text{ yd} = 80 \text{ ch} = 8 \text{ fur} = 1.6093 \text{ km}
```

Metric to Imperial

```
1 millimetre (mm) = 0.0394 in
1 centimetre (cm) = 0.3937 in
1 metre (m) = 39.37 in = 3.2808 ft = 1.094 yd
1 kilometre (km) = 0.6214 mile = 1.093.6 yd
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Nautical Measure

```
1 fathom (fm) = 6.08 \text{ ft} = 1.8532 \text{ m}
1 nautical mile = 1.000 \text{ fm} = 6.080 \text{ ft} = 1.8532 \text{ km}
(1 international nautical mile = 1.852 \text{ km})
```

Velocity

```
1 mile/h = 1.609 km/h

1 ft/s = 0.3048 m/s

1 km/h = 0.621 mile/h

1 m/s = 3.281 ft/s
```

Thus, to convert feet per second to metres per second the table converting feet to metres can be used. Similarly, the corresponding Length table can be used to convert mile/h, m/s, km/h, etc.