

THE WAR IN THE GULF OF ST. LAWRENCE:

ITS IMPACT ON CANADIAN TRADE

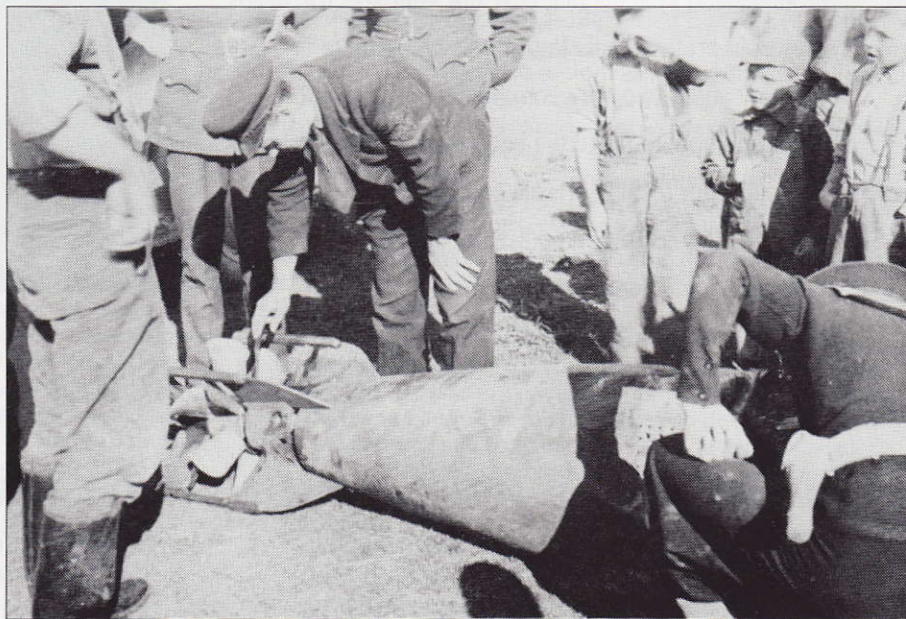
by Captain(N) Robert H. Thomas

During the Second World War German U-boats carried out a number of operational patrols in the Gulf of St. Lawrence, proceeding upriver to within 175 miles of Quebec City. The majority of these incursions took place in 1942, when 22 ships were torpedoed, of which 21 were sunk. Much has been written about the sinkings and related naval and air operations¹, but little attention has been paid to their impact on the vital Canadian trade in support of the Allied war effort. In fact, hasty and ill-advised Canadian responses to the German successes and the failure to assess their implications deprived the United Kingdom of goods equivalent to the average yearly losses experienced in the Battle of the Atlantic.

Early Plans for Defence of Trade

From the earliest days of European settlement in North America the St. Lawrence was a trade lifeline, first to France, and later to England. By 1930 Canada was the fourth leading trading nation in the world with half its foreign trade going by sea.² Montreal was the busiest port in the country, handling more cargo than all the Atlantic coast ports combined.³ At the start of the Second World War the importance of the river ports and their trade was recognized by Naval Service Headquarters (NSHQ), and some of the country's very scarce naval resources were allocated to the defence of this traffic.

Elaborate emergency plans for the defence of the East Coast and the Gulf of St. Lawrence had, in fact, been developed by the Joint Staff Committee a year before the war, calling for the commitment of the majority of the existing fleet. The outbreak of the war, however, saw the RCN ships placed immediately under RN control and virtually all emphasis placed on patrolling and rudimentary Atlantic convoy escort, anticipating a German surface raider threat. The Gulf was guarded through 1940 and 1941 by a small collection of armed yachts, fitted with only single guns of indeterminate vintage and, in some cases, with depth charges. None had ASDIC. Fortunately, U-boat activity was concentrat-



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Remains of a German torpedo that ran aground near St. Yvon, Quebec in September 1942

ed in the Eastern Atlantic, saving the minuscule and ineffectual force from having to counteract a real and capable threat.

The first formal plan for defence of shipping in the Gulf (Plan GL) was developed in April 1940.⁴ This complex plan involved seven phases of control, ranging from individual routing of ships to complete closure of the Gulf, and called upon the armed yachts as well as other forces which did not exist to carry out the search and escort tasks. A Combined Operations Room would be established at Gaspé, with command of the St. Lawrence falling under the Commanding Officer Atlantic Coast in cooperation with the Air Officer Commanding Eastern Air Command.

Plan GL was revised and updated a year later.⁵ It was simplified into four phases, concentrating on convoy operations, and calling for six armed yachts, up to nine corvettes and seven minesweepers, as well as MTBs and other support craft, as escorts. This commitment continued to be well beyond the capability of the RCN, but there was no local enemy activity through 1941 to reveal the weakness of the plan and its supporting elements.



Gavin Clark

Fairmiles on patrol in the Gulf of St. Lawrence.

Through 1940 and 1941 traffic through the major eastern Canadian ports grew steadily, with Halifax and St. John almost tripling their tonnage of foreign-going cargo. The Canadian National Railway had introduced a system called Central Traffic Control, operating from Moncton, which dispatched as many as 100 trains per day. This system maximized the utilization of rolling stock and allowed the rail system to cope with the increased war traffic. The ports, however, were strained to the limit. 'Crew troubles', lack of adequate labour, inadequate supplies of coal due to strikes in the Sydney mines, lack of sufficient berths and the naval demands on the ports all contributed to as many as 87 ships being delayed or missing convoys at one time.⁶

Western Movement of the U-Boats

During 1941 the submarine war spread slowly westward to the mid-Atlantic in search of easier targets, hastened by improved anti-submarine operations by the RN and RAF in home waters. This expansion highlighted the organizational deficiencies and shortage of escorts which plagued the North Atlantic. These problems were, in part, dealt with in the Anglo-American Agreement (ABC-1), with strategic control of the Western Atlantic being assigned to the United States in September 1941.⁷

With the entry of the United States into the war in December 1941, U-boat activities, although delayed by Hitler-ordered diversions into Mediterranean and Norwegian waters, moved rapidly to the American coast. The United States Navy was, in the words of S.E. Morrison, "woefully unprepared, materially and mentally". The use of convoy was disregarded, in equal parts due to lack of escorts and a reluctance to learn from the British experience. The resulting losses were horrendous. Between January and March 1942, eight U-boats sank 44 ships off the American coast. The second 'Happy Time' followed and, although there were never more than 12 U-boats on station, approximately 350,000 tons of shipping was sunk in the American sector, half being tankers.⁸

The westward movement of the U-boats and the events to the south were noted by the Canadian Naval Staff. The threat to the Gulf was discussed extensively at four consecutive Naval Staff meetings in mid-March 1942. Commander H.N. Lay, Director of Operations Division, prepared an 'Appreciation of Situation in River and Gulf of St. Lawrence' for the Naval Staff meeting on 23 March.⁹ This remarkable document reviewed the impact of the relatively limited operations in American waters and their disproportionate success. It forecast that, with the opening of navigation, U-boat incursions could be expected in the Gulf of St. Lawrence and, possibly, in the River itself. The importance of keeping the St. Lawrence open to ocean-going shipping was emphasized in order to relieve the pressure on the rail links to Halifax, St. John and Portland, Maine. It was also essential to ensure the supply of raw materials to the aluminum plant at Arvida and the movement of new construction shipping and warships from the Great Lakes to the Atlantic. It was recognized that the defensive forces available were inadequate and that, beyond a small escort force of *Bangor*-class minesweepers, armed yachts and *Fairmiles*, reliance would have to be placed on new construction of warships for escort duties on their first trip down-river.

Based on the Appreciation, plans for the defence of the Gulf were revised and re-issued on 1 April 1942 as Plan GL2. In addition to the provision of escorts and the institution of convoy operations in the event of U-boat incursions, arrangements were made for the transfer of three *Catalina* flying boats from Sydney to Gaspé or Mont Joli at such time.

U-Boat Activities in the Gulf

The test of Plan GL2 came quickly. Starting with U-553 sinking two merchantmen on 12 May, 22 ships were torpedoed in the Gulf during the 1942 active shipping season, 21 of them being sunk.

The U-553 sinkings took place within 50 miles of Gaspé. Plan GL2 was implemented, with all shipping being stopped until convoys could be established, and additional warships were assigned to the Gulf.¹⁰ The matter was raised in the House of Commons, with the Minister being aggressively challenged over the failure of the Navy to prevent the sinkings. Angus L. MacDonald refused to be drawn out on details, explaining that he did not want to be in the position of providing potentially useful information to the enemy. This bitter exchange was only the prelude to a

series of questions dealing with maritime defence in home waters, both in Parliament and the press.¹¹

MacDonald had good reason to be less than forthcoming. Demands for escorts in every theater were out-stripping the almost-completed building programs and few additional ships would be available before 1943. At the same time, the devastation on the American coast had led to the institution of Canadian convoys between Halifax and Trinidad/Aruba to protect the vital oil supplies. A total of seven corvettes were withdrawn from the Halifax Escort Force at various times through the summer to escort 13 convoys.¹²

The next U-boat incursion came when U-132 sank two ships and fatally damaged a third on 6 July, and torpedoed a fourth two weeks later. Once again all river sailings were halted, more naval assets were assigned to Gaspé and a substantial force was formed to patrol the River between Bic Island (near Rimouski) and Gaspé.¹³ There was another furore in the House of Commons, with MacDonald being savagely attacked again over the failure of the Navy to adequately protect the Gulf. This resulted in an extraordinary secret session being held in the House, devoted to the question of coastal defence.¹⁴ The sinkings had a particularly sobering effect on the Quebec members, in part placated by the subsequent assignment of troops to Gaspé for coastal defence.

Through this period the Government was preoccupied with other, more pressing, matters. Coincident with the Gulf problems were controversies following the plebiscite on conscription on 27 April and the release of the Report of the Loss of Hong Kong on 4 June.¹⁵ The Hong Kong controversy, replete with charges and counter-charges between George Drew and King, occupied the House until it recessed for six months on 1 August.

The sinkings in May and July had only a modest immediate effect on overseas trade. Traffic was stopped and convoys instituted for a brief period, resulting in some slight drop in tonnage shipped. The only effect of any specific consequence was the doubling of the War Risk Insurance rate to three percent on voyages within the Gulf.¹⁶

Shipowners were seriously concerned about convoy protection in the Gulf and were considering the options of re-routing traffic to other eastern ports and shipping goods by rail. Shippers were less enthusiastic, citing additional costs, lost time and potential unemployment. At the same time, within the British Ministry of War Transport (MWT), bypassing the Gulf completely in 1943 was considered in order to reduce turn-around time and reduce pressure on the merchant fleet. The MWT had been in touch with NSHQ on the matter of convoying and had gained the impression that the RCN would favour a drastic curtailment of traffic in the River in 1943, as the shortage of escorts would continue.¹⁷

After a six week hiatus the U-boat attacks in the Gulf resumed. On the night of 27/28 August, U-165 and U-517 sank two ships

from successive Sydney-Greenland convoys. They then moved independently into the Gulf, patrolling between Anticosti Island and Gaspé, where U-517 sank a tanker on 3 September. During the night of 6/7 September, U-165 sank a freighter and the armed yacht, *HMCS Raccoon*. U-517 followed the same convoy and, in one spectacular attack, sank three ships with three torpedoes. She then sank *HMCS Charlottetown* on 11 September and, four days later, sank two more ships from within a heavily defended convoy. U-165 attacked the same convoy the next day, sinking one ship and damaging another.¹⁸

This series of sinking severely challenged the Gulf defenders. Three bomber squadrons and a *Canso* detachment were transferred to Mont Joli and Gaspé, but it was virtually impossible to augment the surface forces. As noted above, since May, up to seven corvettes drawn from the Halifax Escort Force had been assigned to escort tanker convoys from the Caribbean to Halifax. In August a further seven corvettes were assigned to the Commander, Eastern Sea Frontier, to escort convoys between Guantanamo, Cuba and New York City. Late in the same month, NSHQ was advised of another forthcoming request for the loan



The rail yard at Saint John, New Brunswick, June 1941

of escorts in support of the assault forces for Operation *Torch*, scheduled for 8 November in North Africa.¹⁹

Closure of the Gulf

MacDonald reported to the Cabinet War Committee on 9 September that the Naval Staff had concluded that 17 corvettes (over a quarter of those operational at that time) could be spared for *Torch* and that the importance of the planned invasion warranted the risk of weakening escort forces in coastal waters. Five corvettes could be released from the West Coast as the Japanese threat had diminished following the Battle of Midway in June. The remaining 12 corvettes would be provided at the expense of closing the Gulf of St. Lawrence to overseas shipping and replacing corvettes with minesweepers as escorts for coastal convoys.

The Admiralty was informed of their decision the next day.²⁰ The MWT was advised that future sailings from the United Kingdom should be directed to the Atlantic ports and the trans-Atlantic convoy schedule was expanded from seven to eight days.

With little more than two months left in the shipping season the decision to cease overseas shipping through the St. Lawrence seemed to be a prudent one. Convoys continued for about two weeks to clear ships already in the River, and coastal convoys were continued with whatever protection might be available. It was assumed that Halifax and St. John would be able to pick up the shipping slack, particularly as the assembly port for the HX convoys was transferred from Halifax to New York in mid-September, as 75 percent of the ships for these convoys were being loaded in New York or southern ports.²¹

U-boat activities persisted in the Gulf with three sinkings in October. Two caused considerable public concern - the sinking



The rail yard at Halifax

of the *Carolus* only 175 miles from Quebec City, and of the Sydney-Port Aux Basques ferry, *Caribou*, on 14 October with the loss of 137 lives. The last German operation of the year was the landing of an almost comically inept agent, Werner von Janowski, near New Carlisle. He was quickly captured.²²

The situation in the Gulf was reviewed late in 1942 in NSHQ.²³ Captain Lay, the newly-promoted Director of Operations, noted the essential coastal traffic, particularly coal from Sydney and iron ore from Wabana, but made no mention of the traffic from Quebec to Goose Bay in support of the new American air base. Neither was there an analysis of the importance of overseas trade. He recommended that all ocean shipping be excluded from the Gulf for the 1943 shipping season, ignoring the observation of the NCSO Sydney, that such action would overtax the railways.²⁴

The Chiefs of Staff Committee was concerned and formed a committee to carry out a comprehensive review of the defence of the St. Lawrence. Its report, issued in January, 1943,²⁵ examined all activities in the area since the beginning of the war. Future operations were based on the anticipation of shipping in the Gulf being limited to essential coastal traffic. This was no small amount - the Trade Division forecast 1223 voyages and 3.695 million tons of cargo. The only exceptions would be for 22 ships per month to enter the Gulf in support of the timber trade.²⁶ There was no mention of the capability of the rail system to cope with the diversion of trade and, again, no analysis of the effect on over-

seas traffic of closing the Gulf. Following discussion of the report in February, and approval by the Naval Staff in early March, mention of the St. Lawrence essentially disappeared from the Naval Staff minutes for the next six months.

The Impact of the Closure

Public criticism of the defence of the Gulf occurred in both the Quebec Legislature and the House of Commons. J.S. Roy (Gaspé), who had led the criticism the previous year, returned to the attack. This time, however, he addressed the impact of the 1942 sinkings, noting that: *the people think that if the St. Lawrence protection had been better organized last year, and if better protection had been given to our ships for the maintenance of that water route, there would not have been so much damage done to the Harbours of Montreal and Quebec. They claim that the single-track railroad going to Halifax has been overloaded because of all the materials which have to be transported. They claim this water route deserves to be better protected, that it is the cheapest route, the shortest one, and the one with the greatest capacity for transporting materials overseas.*²⁷

Despite the accuracy of Roy's charges, MacDonald did not reply to the specific concerns about the impact of the closure on the railroad and on overseas shipping.

Missed Signals

The lack of effective analysis of the closing of the Gulf is hard to comprehend. There were three readily available indicators which demonstrated that the capability of Canada to supply the United Kingdom was being impaired. First, starting in June 1942, the monthly totals of Canadian goods going to the United Kingdom via all routes changed from a trend of monthly growth, and for the rest of the year fell to levels below 1941, not recovering until the summer of 1943.²⁸ The second indicator was the record of cargo loadings of the major East Coast ports. While Halifax and St. John experienced a steady increase in tonnage loaded each year from 1939 to 1943, Montreal had an enormous decrease in 1942 and 1943 which, in no way, was compensated for by the increases in the Maritime ports (see **Table 1**).²⁹ The decline is even more dramatic if one notes that Montreal had only a seven month season as compared to the year-round operations in the Maritimes.

Year	Halifax	St. John	Montreal	Quebec	Trois Rivières
1939	690,345	1,096,450	3,144,189	158,039	445,390
1940	1,375,772	1,848,417	3,975,777	311,029	633,916
1941	2,329,753	2,408,599	4,078,207	320,263	472,626
1942	3,012,149	2,666,106	1,600,935	142,308	306,360
1943	3,364,989	3,227,429	1,089,447	162,243	320,728
1944	3,472,020	2,658,481	2,291,525	237,433	376,707
1945	2,683,160	2,721,266	4,904,744	544,280	871,455

Source: National Harbours Board Annual Reports, 1939-45

The third indicator is perhaps the most revealing. In the early stages of the war a small amount of cargo was shipped to overseas destinations through the United States, primarily through Portland, Maine. This was initially constrained by American neutrality but, following her entry into hostilities, the amount of Canadian trade going through the United States grew rapidly. In 1943, 21.57 percent of Canadian trade to the United Kingdom was going through the United States. While the Canadian ports might not have been able to handle the record volume of foreign trade in any event, export through the United States had an enormous impact on Canadian rail transport.

By March 1943, permits were being sought to ship 1044 car loads of lumber through East Coast American ports. Lumber exports through the States averaged between 40 and 60 thousand tons per month. Flour was also being exported in substantial quantities, using ports as far south as Tampa, Florida. The ulti-



German torpedo hits *HMCS Magog* in the St. Lawrence, October 1944.

mate effect was noted in early 1945 when shipping through the States resulted in a debit balance of 15,000 box cars with respect to the United States, requiring their rationing throughout the whole Canadian rail system.³⁰

The railroad capacity was severely challenged. Rolling stock for all the railroads had declined through the war and, in almost all categories was at a lower level in 1945 than in 1938.³¹ The 15,000 missing boxcars represented almost 13 percent of the Canadian inventory. No-one appeared to recognize the magnitude of the problem.

The Situation in 1943

That is not to say that the closure of the Gulf ports was not questioned. The MWT, in early March 1943, proposed that 12 ships per month be cleared for Gulf and Newfoundland ports to load lumber.³² The RCN was not prepared to reconsider the decision

as the U-boat threat remained high and the escort situation was still critical, in part due to the withdrawal of Canadian Escort Groups from the Atlantic for training.³³ A further letter in early summer urged the continued reliance on Halifax and St. John to the maximum extent possible because of their geographic positions, but noted that the labour situation at both ports was 'extremely unsatisfactory' and that sending a few ships to Montreal 'might have a good psychological effect on the labour.'³⁴

By July 1943 the strategic situation had eased somewhat and U-boat operations in North American waters had decreased. There were no losses in the St. Lawrence, the only U-boats entering in futile attempts to rescue escaping POWs, and the escort situation had improved with the return of the 24 corvettes assigned to the Guantanamo convoys and the *Torch* landings. With these ships available and additional air resources stationed in Newfoundland, NSHQ was now prepared to consider limited traffic in the St. Lawrence, agreeing on 7 July to 15 ships per month, depending on the U-boat situation.³⁵

In September, the Admiralty requested that ships destined for the United Kingdom be permitted to sail independently in the St. Lawrence. This was agreed to by the Naval Staff as a means of speeding up the turn-around of the grain and timber ships - a clear indication that the Maritime ports could not cope with the volume of traffic.³⁶

It was too late in the season to significantly alter ships' schedules. The total cargo shipped through Montreal for 1943 was barely a quarter of shipped in 1941 and Halifax and St. John had been unable to make up the difference. Nonetheless, the MWT seemed to be at odds with the Admiralty as, while the latter sought to re-exploit the St. Lawrence ports, the MWT could not see the advantage, advising the Trade Division: *The advantages of loading in the St. Lawrence are so slender and debatable that if there is any delay at the rendez-vous when the ships are west-bound waiting for convoy, or at the loading ports when the ships are east-bound, ... it is doubtful if we are justified in making any change at all from last year's arrangements, from the strictly shipping point of view.*³⁷

Restrictions on use of the Gulf were effectively rescinded by the end of 1943, yet little traffic had returned. No U-boat attacks had occurred in the Gulf to induce such caution. Trade had not switched to the Maritime ports as anticipated, but had largely gone to the East Coast American ports, putting a considerable strain on Canadian rail capabilities.

Re-opening of the Gulf

In 1944 the Trade Division established a plan for the shipping season, permitting a maximum of 48 ships per month to proceed upriver.³⁸ Early in the season convoys from Sydney were reinstated to permit fast refrigerator ships to proceed to Montreal as the delays in shipping by rail to the Maritimes, necessitated by the requirement to stop for ice, were more than the rail system could handle. Labour difficulties in the Maritime ports persisted, exerting more pressure on the rail car situation, and the RCN was finally convinced to fully re-open the Gulf in August. The number of ships entering the St. Lawrence increased steadily for the rest of the season, eventually reaching 80 to 90 per month.

Between September and November, 1944, six U-boats operated in and around the Gulf. *HMCS Shawinigan* was sunk, *HMCS Magog* and a freighter were damaged but, apart from diversionary routing, little reaction occurred. By this time the focus of the war was on the land battle in Europe.

In planning for the 1945 shipping season, the use of the Gulf was still in dispute. The Minister was still concerned about the

strain on escort resources,³⁹ but the risk was accepted by the Cabinet War Committee. By the time the shipping season arrived, however, the war with Germany was in its final weeks. Following VE-Day, the Gulf traffic quickly returned to its peacetime pattern of commercial operations.

Conclusion

The war in the Gulf of St. Lawrence was, in reality only a small sideshow to the Battle of the Atlantic. The losses there were few compared to the overall losses in the war at sea, but their impact, reflected in the decision to close the Gulf and River ports to overseas shipping, was out of all proportion.

NSHQ had an inadequate strategic outlook. The constant problem of provision of sufficient escorts and the focus of the Trade Division on control of shipping tended to obscure the fundamental importance of trade to winning the war. Any possible understanding was frustrated by the fragmented civilian administration which almost guaranteed that operational decisions would be based on incomplete information and parochial interpretations. Lost in the turmoil was the urgency of maximizing the amount of war material reaching Europe.

The decision to close the Gulf in 1942 was certainly justifiable in the short term, but the failure to review the decision and analyze its implications is surprising. Neither the Maritime ports or the railroads were capable of coping with the diversion of material. Foreign trade through eastern Canadian ports dropped by almost two million tons in 1942 and remained below the 1941 level until the end of the war. Considering that U-boats sank 14,554,000 gross tons in the entire war, and notwithstanding diversions through the American ports, the closure could well be judged to have cost the Allies as much as was lost in a year's war at sea.

The Americans and the British saw the closing of the Gulf as a matter of little consequence. Following the entry of the United States into the war, they became the key source of supply and, as described by C.P. Stacey, Canada was almost entirely excluded from the Allied organization for the higher direction of the war. *The Outline History of the Trade Division* perhaps summarized the situation most effectively in hindsight. In its conclusion it states:

It is already become clear that during this war the general movement of Trade particularly in Canada, would have been more efficiently and economically arranged had there been some sort of coordinating committee or board which surveyed the whole broad field.

This is not to say that there was any lack of cooperation between the various authorities concerned but in attempting to digest the lessons of the war it does seem that the higher policy for the movement of shipping as related to rail facilities, the geographic situation of the Canadian ports, and the escort available was not kept as continually under review as it might have been.

*For instance, it was not until August, 1944, that a clear brief showing the absolute necessity for the full use of the St. Lawrence ports in season was given to the Navy. Up to that time, the policy for the use of the St. Lawrence had been a matter of arrangement on too low a plane seeing that high political considerations and the overall employment of the available Naval escorts were considerably involved.*⁴⁰ □

NOTES

1. See Michael L. Hadley, *U-boats Against Canada*, (Kingston: McGill-Queen's University Press, 1985, for the definitive coverage of these events.
2. Government of Canada, *House of Commons Debates (Hansard)*, 26 April 1939, p.3235.
3. Government of Canada, *Annual Report of the National Harbours Board*, (Ottawa: King's Printer, 1936-45).
4. PAC RG 24 Box 11, 124 file 501-9-3, 'Defence of Shipping - Gulf of St. Lawrence' 29 April 1940.
5. DHIST NHS 1650-239/16, 'Defence of Shipping - Gulf of St. Lawrence', NS 1048-48-22, 25 April 1941.
6. DHIST NHS 82/520/8280 Box 1 8280 B. Vol.2, *Outline History of Trade Division, 1939-45*, p. 18.
7. Cdr W.G.D. Lund, 'The Royal Canadian Navy's Quest for Autonomy in the North-West Atlantic: 1941-43', *The Naval War College Review* (May-June 1980), p. 75.
8. Captain S.W. Roskill, *The War at Sea 1939-1945 Vol. II*, (London: Her Majesty's Stationery Office, 1956), p.94-5.
9. PAC RG Box 3976 NSS 1048-48-3 v. 1, 'Appreciation of Situation in River and Gulf of St. Lawrence', 21 March 1942.
10. DHIST NSS 1650-239/16B, *North American Waters Operations (River and Gulf of St. Lawrence)*, 'Attacks, Sinkings and Counter Action St. Lawrence Gulf and River, 1942', (Weekly Report to Minister), 14 May 1942, hereafter referred to as WR/M.
11. *The Toronto Globe and Mail*, 15 May 1942.
12. *History of Trade Division*, p.35.
13. *WR/M*, 9 July 1942.
14. *Hansard*, 18 July 1942, p.4376.
15. J.W. Pickersgill, *The Mackenzie King Record Vol. I*, (Toronto: University of Toronto Press, 1960), p. 364-403.
16. *Globe and Mail*, 16 May 1942.
17. DHIST, *Milner Papers*, Letter G.D. Huband to Director-General, Ministry of War Transport, London, England, 30 July 1942.
18. *WR/M*, 10 and 17 September 1942.
19. Government of Canada, *Documents on Canadian External Relations, Vol. 9*, (Ottawa, Queen's Printer, 1980). Letter Prime Minister of Great Britain to Prime Minister, p.353.
20. PAC RG 24 Box 6789 NSS 8280-166/16 Vol. 3, Message 10 September, 1942, NSHQ to Admiralty.
21. *Outline History of Trade Division*, p.38.
22. Hadley, *U-boats Against Canada*, provides a detailed account.
23. DHIST NHS 1650-239/16, Memorandum 'Naval Aspect of the Defence of the Gulf and River St. Lawrence', 15 December 1942.
24. *Ibid*, Memorandum NCSO Sydney to NOIC Sydney, 15 October 1942.
25. DHIST 193.0096(D15), *General Review and Report Upon Defences in the Gulf and River St. Lawrence Areas by a Committee Formed Under Direction of the Chiefs of Staff Committee*, 30 January 1943.
26. PAC RG Box 11692 File H 1002-1.8 Vol.1, *Minutes of St. Lawrence Operation Conference Held in Ottawa February 22nd-24th, 1943*. 27 February 1943.
27. *Hansard*, 15 March 1943, p.1270.
28. Government of Canada, Dominion Bureau of Statistics, *Trade of Canada: Analysis and Summary*, Ottawa: King's Printer, 1939-46.
29. Government of Canada, *National Harbours Board Annual Reports*, (Ottawa: King's Printer, 1939-45).
30. PAC RG Box 421, *Correspondence Regarding Flour and Lumber at US Ports*, Letter, Transport Controller, Montreal to Chief of Transportation, Army Service Forces, Washington, 12 March, 1945.
31. *Canada Year Book*, 1947, p.660-61.
32. PAC RG 12 Box 421 *op. cit.*, letter MWT to Trade Division, 10 March 1943.
33. For a detailed discussion, see Marc Milner, *North Atlantic Run*, (Toronto: University of Toronto Press, 1985) chapters 7 and 8.
34. PAC RG Box 6789 NSS 8280-166 Vol. 4, Letter (undated) G. Ropner, NWT to Captain E. S. Brand, Trade Division.
35. *Ibid.*, Letter Captain Brand to MWT, 7 July 1943.
36. DHIST NSS, *Naval Staff Minutes*, 13 September 1943.
37. PAC RG Box 6789, *op. cit.*, Letter Ropner, MWT, to Trade Division, 27 December 1943.
38. *Outline History of Trade Division*, p.49.
39. DHIST NSS 1650-239/16, Memorandum for file 10 March 1945 provides an extract from the minutes of the Cabinet War Committee meeting of 7 March 1945.
40. *Outline History of Trade Division*. p.55.