

# POSTWAR OCEAN SHIPPING AND SHIPBUILDING IN CANADA: AN AGENDA FOR RESEARCH

**Michael A. Hennessy**

This essay provides a brief survey of some suggestive sources and interpretive models for approaching the history of government policy toward the shipping and shipbuilding industries from 1945 to 1970. Documentary sources maintained by the National Archives of Canada and elsewhere are specifically excluded from this discussion.<sup>1</sup> For a variety of reasons to be discussed, government agencies conflated their policies toward these industries in the quarter-century following World War II. Interspersed with insights from my preliminary research is an explanation of the peculiar nature of state support for shipping and shipbuilding in the postwar era. Given the contingent nature of my work, this essay is best thought of as an agenda for research.

Kenneth Mackenzie has noted the "absolute dearth of published material on the Canadian merchant marine after the sailing fleets disappeared."<sup>2</sup> The history of shipping and shipbuilding in the post-World War II period is particularly barren. There is little academic work addressing these industries, a generalization to which Nicholas Tracy<sup>3</sup> and Felicity Hannington<sup>4</sup> provide two very welcome exceptions. Nevertheless, a comparison of these books with the still solid introduction to the subject of Canadian ocean shipping by A.W. Currie<sup>5</sup> demonstrates how little the historiography has developed since 1967.

The history of the maritime unions is the most notable exception to this shortfall. The events in the struggles between the Canadian Seamen's Union and Seamen's International Union are now well known. The red-baiting, investigations, and violence of the CSU strikes of 1948 and 1949 led to disillusionment with that union and the growth of the gangster-led SIU. These labour crises affected all sectors of the shipping industry, straddling even the traditional divisions between the inland and coastal trades on the one hand and the ocean-going merchant marine on the other. While the CSU-SIU struggle continued well after the 1949 strike, there were immediate consequences for the deep-sea trades. The strike led to the re-flagging of most of Canada's ocean-going fleet under British registry. In consequence, the greatest part of the fleet operated under direct British management and with British wage rates from 1950. The strategic military reasons behind the federal government's authorization of such a policy remain generally unknown. In part, the economic reasoning has been addressed in modern labour histories.

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Two recent works on the CSU/SIU reveal the weakness of the historiography. The books by Jim Green<sup>6</sup> and William Kaplan<sup>7</sup> are useful but flawed. Green's work is mostly anecdotal and lacks analysis. Fortunately, the author donated all the interviews conducted for the book to the National Archives; hence, a work of little value has contributed many valuable sources. While Green's account amounts to union hagiography, Kaplan's effort is stilted by a rather unrefined "anti-communism," as if the term "communist" is analysis and explanation in itself. Further, Kaplan's focus on the communist element ignores the increasing and specific freight rate pressures that drove the ocean trades to crisis. The near collapse of deep-sea freight rates during 1948-49 and the marginal nature of Canadian-owned war-built merchant vessels are factors that neither Kaplan nor others have appreciated clearly.<sup>8</sup> The degree to which union radicalism stemmed from an industry experiencing such predicaments remains an open question.<sup>9</sup>

The CSU/SIU story is well known, but the government's decision to re-flag most of the ocean-going fleet, as well as other causes and consequences of the state's response to difficulties in these industries, requires examination. In reviewing the works of Green and Kaplan, Craig Heron correctly pointed to where attention must turn. Heron called for fleshing out the story with the details of "the economics of the industry, the...form of state management...and the Cold-War climate."<sup>10</sup> The untwining of these elements is essential to developing an understanding of the change and decay in the shipbuilding and ocean shipping industries in Canada between 1945 and 1965.

My work reveals that primarily for strategic and military reasons associated with the Cold War, the government intervened in these industries.<sup>11</sup> Hoping to avoid their "socialization," however, government intervention remained quite limited. This policy maintained some very marginal companies and prevented others from competing for free market contracts. Moreover, government policy exhibited only a limited understanding of the international competitiveness of these industries. A full examination of this national policy for shipbuilding and shipping, with its intertwining of economics, state management, and Cold War mentality, cannot be attempted here. A thumb-nail sketch must suffice.

The wartime shipping crises and the mobilization of the shipbuilding industry prompted postwar efforts to create a fully-integrated design and production capability for the navy and the maintenance of a Canadian-registered merchant fleet. With the example of American intervention in shipping and shipbuilding in mind, the Canadian government sought to preserve the foundations of such a policy.<sup>12</sup> In a form of nascent militarism, the state, labour, and private enterprise all lent their support. This policy did not emerge fully-formed but developed rather slowly from mid-1943 through 1948. This effort, coordinated through the Canadian Maritime Commission (formed in 1947) and the Royal Canadian Navy, progressed with very mixed results through the 1950s. As so little has been written on this era, any periodization of government policy remains tentative, but it does reveal the general areas and issues requiring detailed examination.

From 1945 to the creation of the Canadian Maritime Commission in 1947, the government sought only to maintain the nucleus of a shipping base. Among the shipyards, this aimed at retaining only seven thousand of the twelve thousand workers, while the Canadian merchant fleet was sold to domestic private sector operators. How the government chose to support the maritime industries during this period requires attention. This was the crucial era when shipping slipped into crisis and shipbuilding became seriously depressed.

In contrast to the "nucleus strategy" of 1945-48, the period 1949-56 was characterized by rapid growth in shipbuilding. Government defence contracts swelled demand, especially after the outbreak of the Korean War. For strategic reasons government contracts were allotted with the intention of keeping the major shipyards operational. To this end, the Canadian Maritime Commission kept track of both government and private building contracts so that shipyards without private business could be kept in operation. This maintained shipyard employment at levels approaching fifteen thousand men. As well, a series of incentives were offered shipowners to construct vessels in Canada and to retain them on Canadian registry. The distorting influence of the Cold War and the fate of these incentive programmes await scholarly analysis.

The naval programme requires a history of its own. Naval shipbuilding began with the St. Laurent-class anti-submarine frigate programme of 1949. The Korean conflict was marked by expansion, as the original three-ship programme swelled to fourteen A/S vessels and the recommissioning of a similar number of retired World War II-built frigates. The technical achievements and financial problems associated with this build-up have been only partially addressed.<sup>13</sup> The transitory stimulus of the Cold War and the Korean crisis inflated the navy's fleet to levels unprecedented in peacetime. Problems and expenses associated with attempting to build and maintain the navy at the numbers then achieved played a crucial role in the denouement of the strategic industry policy.

From 1956 to 1965 the foundations of postwar government policy towards the shipping and shipbuilding industries faced profound challenges and underwent reconsideration. The growing obsolescence of the British-registered Canadian merchant fleet prompted many calls for government action. From 1958 through 1961 several schemes were examined but ultimately rejected as too costly. Hence most of the Canadian-owned ocean-going merchant fleet simply disappeared.

Regarding naval shipbuilding, by 1961 the rate of technological change and the impending obsolescence of the wartime-produced vessels promised only increasing demands on the federal budget through 1985. While curtailing the naval build-up the government sought to maintain the shipbuilding industry through subsidies for private construction. In 1964, faced with escalating costs, it cancelled the navy's major construction programmes, reduced most advanced ship-design research and development, and curtailed much of the navy's independent design and production planning. On the industrial front, government studies concluded that overcapacity in Canadian shipyards was being artificially maintained by government contracts. In a wide-ranging restructuring of government agencies and priorities, the Canadian Maritime Commission lost its role in the assignment of government contracts for shipbuilding. This task now fell to the Department of Industry, which set about "rationalizing" the industry.<sup>14</sup> In sum, by 1965 the Canadian merchant marine had collapsed, the Canadian blue-water cargo fleet had virtually disappeared, the Maritime Commission survived as a shadow of its former self,<sup>15</sup> and the basic approach to maintaining the shipbuilding industry had been overturned.

New federal policies adopted in 1965 toward shipbuilding brought rapid changes. Gone was the effort to maintain marginal producers; as a result, employment in Canadian shipyards declined from approximately thirteen thousand workers in 1966 to about 7,200 in 1970. Without tax incentives to compete with foreign producers no domestic shipyard produced a vessel for export between 1962 and 1972. The total value of new ship construction fell from roughly \$150,000,000 in 1967 to \$80,000,000 in 1970. Between 1964 and 1970 virtually no merchant ships over five hundred gross tons were completed in Canada.<sup>16</sup> Four major shipyards withdrew

from the industry. Only the introduction of new government initiatives in the early 1970s arrested this rapid decline. Canada, although ranked seventh in the world in the use of deep-sea shipping, continued her decline from being in the top five deep-sea vessel-owning nations in 1946 to rank seventeenth among the twenty-three OECD nations by the early 1970s.<sup>17</sup> In contrast to the strategic foundations of the policies followed between 1945 and 1965, these new initiatives were essentially regional development or employment maintenance programmes.<sup>18</sup> Concern with strategic military considerations, which had dominated the postwar programmes, was all but extinct.

Historians have yet to address the dynamics of these various phases. While historical perspective is lacking, there are many government reports and industry studies. Beyond the previously-mentioned sources on labour problems, published sources generally fall within one of three categories: government publications; antiquarian narratives; or industry-produced or sponsored studies. With an eye to identifying important questions some of this literature is addressed briefly in turn.

The virtually endless stream of government reports and studies provides many valuable insights into both industries. Such studies of the shipping industry are particularly ubiquitous. Beyond the Royal Commission reports described elsewhere, open reports include Alcan Shipping Services Ltd., *Shipping Options for Canadian International Deep Sea Trade* (Ottawa, 1977); Allardice and Associates, Ltd., *Crew Cost and Their Impact on Employment* (Hull, 1984); Howard J. Darling, *The Elements of an International Shipping Policy for Canada* (Ottawa, 1974); Transport Canada, *A Shipping Policy for Canada* (Ottawa, 1979); Department of Finance, "An Analysis of Canadian Deep-Sea Shipping Options (main report)" (Unpublished working paper for the Shipping Advisory Board, 1978); and Hedlin Menzies and Associates Ltd., *Canadian Merchant Marine, Analysis of Economic Potential* (Ottawa, 1970). The latter is the most far-reaching and useful report because it entails a very detailed economic analysis of the various sectors of the industry. Further, Department of Finance discussions of its recommendations are open to researchers.

Historically, however, most reports betray similar ideologies and conceptual shortcomings. In particular, they reflect an extremely narrow economic calculus of the unprofitability of the ocean freight trades and the necessity of "rationalizing" the shipbuilding industry. Comparison of the long historical section in the *Second Annual Report of the Canadian Maritime Commission* (Ottawa, 1949) with the *Task Force on Deep-Sea Shipping* (Ottawa, 1985) reveals a glaring example of this.<sup>19</sup>

One of the greatest weaknesses of the government studies is the failure to address the economic dynamics of international shipping and shipbuilding. All nations with thriving shipping and shipbuilding industries enjoy a large degree of government support. Direct subsidies, tax incentives, increased depreciation and many other forms of protection are used. Canadian government reports often note these features, but their level of investigation is remarkably shallow.<sup>20</sup> For instance, though acknowledging British incentives, there is virtually no discussion of the role of British market share or control of the Atlantic shipping conferences. While ignoring market share could be merely a function of a shared belief in the unsullied fruits of *laissez-faire* economics, ignorance of the conferences cannot be similarly dismissed. The conferences are restrictive trade organizations, limiting the risk assumed by shipowners through attempts to control freight rates. This is done through what are secretive and largely illegal agreements among major liner services for the carriage of commodities. Between 1945 and 1970, conference

practices included setting more competitive rates for shipping to and from Montreal and the Great Lakes than available for carriage to Saint John and Halifax, even though these ports were only two-thirds the distance from Europe. The economic consequences of these practices on the development of the Maritimes has yet to be addressed.<sup>21</sup> Although some members of the Canadian Maritime Commission were disturbed by the role of the conferences, there was little formal internal discussion and no public investigation prior to 1963.<sup>22</sup>

When the Commission did get around to examining the conference system, it concluded that while it functioned contrary to Canadian law and had been doing so throughout much of the twentieth century, the federal government had done nothing to try to influence (or dismantle) the system.<sup>23</sup> The decision to turn a blind eye to the problem appears to be based on the failed effort in 1925 to set Canadian rates independent of the conferences, as well as a high degree of British intransigence on the subject. Whatever the full details, the federal government did not rise to the challenge anew.

Throughout this era the old imperial connection played a larger role than generally acknowledged in undercutting Canadian efforts to protect the shipping and shipbuilding industries. The UK roundly criticised virtually every protective measure adopted by Canada and threatened to challenge many under the GATT regime. Objections by the United States, on the other hand, were muted because the Americans had adopted their own protective measures.

Of the British connection it has rightly been remarked that "British shipping was competitive with Canadian shipping, even in Canadian markets, because of the high cost of Canadian labour."<sup>24</sup> But that is only part of the explanation for why British ships could compete in domestic markets for Canadian trade. Imperial shipping arrangements, particularly the British Commonwealth Merchant Shipping Agreement affirmed at the 1931 Imperial Conference, restricted the coasting trades, i.e., purely domestic cargo services, to ships registered within the Empire. Since Britain controlled between 27.3% and 44.9% of the world's tonnage from 1913 to 1939,<sup>25</sup> British market domination must have challenged Canadian efforts to foster domestically-registered services. Britain developed its dominant position on the sea, it must be recalled, through restrictive trade practices, which imperial "free trade" now supplemented.<sup>26</sup> Further, under bilateral agreements, to which Canada was not a party, the UK government could grant access to foreign-flag vessels to Empire waters.

Following World War II, the question of protecting the domestic industries became acute in the face of restrictions imposed by both the UK and USA. Britain, facing financial collapse, restricted the use of dollars. This immediately closed the British market to most Canadian shippers. Moreover, even cargo purchased with funds provided to Britain by Canada went primarily in British bottoms. The series of restrictive measures employed by the UK, and the federal government's inability and unwillingness to challenge those measures, has yet to be addressed in the literature.

The United States also followed highly-restrictive practices that undercut Canadian interests. By statute American-registered ships were guaranteed at least fifty percent of Marshall Plan cargoes, while the remainder had to be carried in ships belonging to or chartered by the receiving nation. This policy not only helped the United States to maintain its merchant marine but also assisted it to sell its huge war-built merchant fleet. Again, the effect on Canadian interests has yet to be fully explained. It would also be interesting to test the correlation between the postwar world shipping glut and subsequent rate collapse with the hasty disposal

of American Liberty Ships and crises in the Canadian industry. Canada's deep-sea services were virtually non-existent by the time these protective measures ceased.<sup>27</sup>

Relief from UK domination of the domestic coasting trade would take even longer. Fearing that the St. Lawrence Seaway would open the Great Lakes to British competition, Great Lakes' shippers succeeded in having the coasting law reconsidered in the 1955-57 Royal Commission enquiry into the coasting trade.<sup>28</sup> Although the Royal Commission argued that Canadian shipping firms could benefit from certain tax incentives similar to those available to their British competitors, revision of the coastal laws did not follow. The Commission cited the potential of increased freight rates if the state intervened to protect the Canadian industry. As well, arguing that the threat posed to Canadian shippers was presently hypothetical, the Commission recommended that the government reject protection until the consequences of opening the Seaway became clear.<sup>29</sup> The ideological thrust of these recommendations is worth exploring. Cost of shipping, rather than protection of domestic industry, appears to have been the major priority of the Commission. Indeed, the report questioned the present restrictions on the coasting trade to Commonwealth ships, "since economy of service is appraised as the decisive consideration."<sup>30</sup>

In any event, the decline in Canadian Great Lakes' shipping following the opening of the St. Lawrence Seaway resulted in the 1961 decision to restrict shipping within the Great Lakes below Montreal to Canadian-registered ships. How and why the Great Lakes' shipping interests were able to gain government relief from foreign competition, support traditionally denied coastal shippers and ocean traders, is a question that desperately needs to be addressed. To be fair, Great Lakes' concerns were well-established when the Seaway opened: hence the fiduciary responsibility of the government for the ensuing decline. Whereas protection of Great Lakes' interests offered preservation of the old order, a policy to foster strong coastal or ocean services promised to challenge established patterns and interests.

The lore of the sea and ships has always prompted antiquarian writings. Such studies nevertheless yield much obscure but important technical detail. Gary S. Dewar's series on the construction of Great Lakes' fleets from 1945 to 1970 provides a wealth of information highly suggestive of issues upon which an historian of technology or shipping could seize.<sup>31</sup> For instance, how did the opening of the St. Lawrence Seaway affect shipping patterns and ship construction? The transitions outlined by Dewar suggest rather specific changes that merit further examination.<sup>32</sup>

Beyond such sources are those written *partipris*. M. G. Angus's short paper, "Post War History and Present Pattern of the Canadian Deep-Sea Shipping Industry"<sup>33</sup> is but one example of interpretations generated by participants. This is a rather rich and important field because both labour and industry repeatedly lobbied the government for relief or advantage. The role of such lobbies requires proper attention.<sup>34</sup> That such lobbying bore fruit cannot be denied, but the way in which the government responded cannot be discerned simply from stated policy. The vital internal decision-making remains relatively unexamined.<sup>35</sup>

How best to approach all these questions is a matter of concern. Explanation demands context, including factors such as the particular bourgeois perceptions of technology and the economy held by the Canadian power elite;<sup>36</sup> new international economic regimes; strategic naval concerns; and regional politics. Recent contributions to the writing of Canadian political economy<sup>37</sup> and the history of technology offer some guidance.

Marxist class analysis does not appear the appropriate approach to explaining the Cold War-driven, militaristic elements of the government's policy to support the shipping and shipbuilding industries. Nevertheless, the bourgeois ideology of the chief decision-makers undoubtedly helped determine the shape and duration of state intervention. Gordon Laxer's recent work suggests a fruitful explanatory framework.<sup>38</sup> Laxer addresses the success of particular forms of industrial protection, especially measures spawned by militaristic nationalism. He maintains that this failed to develop in Canada to the same extent as in Sweden, Germany, or Japan. Yet militaristic nationalism was a key ingredient in the development of government policy towards these industries in Canada following World War II. The particular thrust and influence of such tendencies remains to be demonstrated.

The history of technology offers many useful schemes for analyzing these developments. The insights of such well-known writers as Nathan Rosenberg<sup>39</sup> should inform any discussion of the dynamics of the industry and state interaction. Recent works addressing the "social constructivist" nature of economics and technology, particularly the manner by which technological systems are socially-constructed by specific groups, for distinctive goals, and at particular moments in history appear even more on the mark. Explaining the unique circumstances under which the government became so heavily involved in supporting the shipping and shipbuilding industries, and then withdrew that support, suggests such an approach.<sup>40</sup>

This review of the development, issues, and approaches to state interaction with the shipping and shipbuilding industries is far from complete. The key dynamics of the industry and state policy outlined above should nonetheless inform future investigation of the fate of these industries in the postwar era.

#### NOTES

1. For a superb introduction to the sources maintained by the National Archives (NAC), see M. Stephen Salmon, *Through the Shoals of Paper An Introduction to the Sources for the Study of Twentieth Century Canadian Maritime History at the National Archives of Canada*, "International Journal of Maritime History", I, No. 2 (December 1989), 239-253. Salmon cites not only the most important departmental sources but also most available ministerial papers, especially those of C.D. Howe. It should be noted, however, that not all sources discussed by Salmon are open to research. An important collection that he omitted is the C.M. Drury papers.
2. Kenneth S. Mackenzie, "The Preparedness of Canada's Merchant Marine for Two World Wars, 1913-1947" (Unpublished paper presented at the Conference on the Canadian Navy In The Modern World, Halifax, N.S., October 1985), 2.
3. Nicholas Tracy, *Canadian Shipbuilding and Shipping Businesses: The State of the Scholarship*, Research Report No. 11, Canadian Marine Transportation Centre, Dalhousie University (Halifax, 1985).
4. Felicity Hannington, *A History of Shipping, Shipbuilding and Policy in Canada, Part 4*, Canadian Marine Transportation Centre, Dalhousie University (Halifax, 1983).
5. A.W. Currie, *Canadian Transportation Economics* (Toronto, 1967).
6. Jim Green, *Against the Tide: The Story of the Canadian Seamen's Union* (Toronto, 1986).
7. William Kaplan, *Everything That Floats: Pat Sullivan, Hal Banks, and the Seamen's Unions of Canada* (Toronto, 1987).
8. Kaplan reportedly donated the materials collected in the preparation of his manuscript to the University of Toronto Archives. My inquiries have failed to confirm this.
9. Eric Sager's work, while addressing an earlier period, is suggestive of the processes wherein increased competition in Atlantic shipping increased the exploitation of seamen. In the period addressed

by Sager, however, this did not lead to radical trade union confrontation with the state. See his *Seafaring Labour: The Merchant Marine of Atlantic Canada, 1820-1914* (Kingston, 1989).

10. Craig Heron, "Communists, Gangsters, and Canadian Sailors," *Labour/Le Travail*, XXIV (Fall 1989), 231-237.

11. On the formalization of this nucleus strategy, see Cabinet Documents 770-48, and 771-48, 11 November 1948, and Record of Cabinet decisions, 11 November 1948, Privy Council Records; J.V. Clyne, Chairman, Canadian Maritime Commission, to Minister of Transport, Lionel Chevrier, 5/10/1948; C.D. Howe, Minister of Trade and Commerce, to Clyne, 12/10/1948, National Archives of Canada (NAC), Records Group 46, MCXCI, file 2401-0, pt. 1.

12. In the Merchant Marine Act of 1936, the United States closed its "coasting trades" to foreign shipping, but Canada repeatedly rejected similar policies. On the role and scope of operations of the American Maritime Commission, see United States, Department of Commerce, US Maritime Commission, *Reports to Congress* (Washington, D.C., 1946-49); *Annual Report of the Federal Maritime Board and Maritime Administration 1950* (Washington, D.C., 1950); "Forty Years of Ship Design Under the Merchant Marine Act, 1936-1976," Society of Naval and Marine Engineers *Transactions* (1976).

13. Two very useful works are the technical chapters in James A. Boutilier (ed.), *RCN in Retrospect 1910-1968* (Vancouver, 1982), and W.A.B. Douglas (ed.), *RCN in Transition 1910-1985* (Vancouver, 1988). Nevertheless, as a comparison of the chapters by S. Mathwin Davis and Dan Middlemiss demonstrates, interpretation of even such basic details as budgets remains mixed.

14. The role of "new" thinking in the federal government through this period of transition can be gleaned from two inadequate but suggestive works: Joseph Wearing, *The L-Shaped Party: The Liberal Party of Canada, 1958-1980* (Toronto, 1981); and David E. Smith, "Patronage in Britain and Canada: An Historical Perspective," *Journal of Canadian Studies*, XXII, No. 2 (Summer 1987), 34-54. Many of the reforms adopted by the Liberal government resulted from the 1963 recommendations of the Glassco Royal Commission on Government Organization.

15. In 1967 the remaining duties of the Commission were transferred to the Canadian Transport Commission.

16. See "A National Strategy For The Shipbuilding, Ship Repairing And Allied Marine Industries" (Unpublished brief prepared by the Canadian Shipbuilding and Ship Repairing Association, May 1977).

17. Canada outstripped only the relatively minor shipowning nations of Austria, Iceland, Ireland, New Zealand, Switzerland, and Turkey, and then only when the Great Lakes' fleet was included in the Canadian total. Indeed, by the late 1970s ninety percent of the 725,000 gross tons registered in Canada were lakers. See I.A. Bryan and Y. Kotowitz, *Shipping Conferences in Canada* (Ottawa, 1978), 25.

18. The distinction between pre- and post-1965 policies can be seen clearly in Department of Finance records, NAC, RG 19.

19. See particularly the minority report attached to the 1985 *Report* for a view of the ideological continuity. This continuity is more than circumstantial; J.V. Clyne, late of the B.C. Supreme Court, chaired the Canadian Maritime Commission in 1949 and was a member of the 1985 Task Force. On both, see Clyne's memoirs, *Jack of All Trades: Memories of a Busy Life* (Toronto, 1985).

20. I refer here to the records that I have reviewed of both the Canadian Maritime Commission and the Department of Finance at the NAC. This weakness also appears to be characteristic of non-public, internal appraisals.

21. For further insight into the competitive problems of Halifax and Saint John, see Economist Intelligence Unit, *Atlantic Provinces Transportation Study. DC: Ports of Halifax and Saint John* (London, 1967).

22. See the report of the investigation into the *Helga Dan* incident. In an effort to develop new shipping patterns for the opening of the St. Lawrence Seaway, a Quebec firm contracted with the Asbestos Corporation Ltd. to charter services for carriage from Quebec in February 1959. This practice would have rerouted trade away from the traditional carriers and the winter ports of Halifax and Saint John. Upon learning of this, the London-based Atlantic Shipping Conference informed the Asbestos Corporation that conference vessels would no longer carry its cargo if loading of the *Helga Dan* continued. Following this act of international extortion, the company cancelled



its charter for the *Helga Dan*. Complaints from the original contractor led to an investigation by the Restrictive Trade Practices Commission, beginning in April 1963. See Restrictive Trade Practices Commission, *Shipping Conference Arrangements and Practices. A Report in the Matter of an Inquiry under the Combines Investigation Act in Connection with the Transportation of Commodities by Water and to Ports in Eastern Canada* (Ottawa, 1965).

23. See the discussion of the 1971 Shipping Conferences Exemption Act in Bryan and Kotowitz, *Shipping Conferences in Canada*. See also Ingrid A. Bryan, "Shipping Conferences and Canadian Shipping Policy," *New Directions in Federal Marine Transportation Policy* (Toronto, 1975).

24. Tracy, *Canadian Shipbuilding and Shipping*, 8.

25. *Report of the Committee of Inquiry into Shipping* (London, 1970), 9.

26. A solid account of the protective measures employed by Britain and later supplanted by the ideology of free trade is to be found in Bernard Semmel, *Liberalism and Naval Strategy. Ideology, Interest, and Sea Power during the Pax Britannica* (London, 1986).

27. The extinction of Canada's ocean-going merchant fleet therefore came well before the collapse of the British and American-registered fleets. The economic reasons, however, were similar.

28. *Report of the Royal Commission on the Coasting Trade* (Ottawa, 1958).

29. *Ibid.*, 110-140.

30. *Ibid.*, 140.

31. Gary S. Dewar, "Canadian Bulk Construction, 1945-59: Expansion and Expectation," *Inland Seas* (Spring 1987), 24-42; Dewar, "Canadian Bulk Construction, 1960-1970: Seaways and Subsidies," *ibid.* (Summer 1987), 102-123.

32. *Merchant Ships World Built*, III-XIV (London, 1955-1966), is an example of a different type of anti-quarian source full of useful statistical material.

33. Angus, the former President of the Canadian Shipowners Association, presented this address to the annual dinner of the Technical Section of the Canadian Shipbuilders and Ship Repairing Association in Montreal in February 1964. In a similar vein is a paper by Gerald Morgan of the Company of Master Mariners; see his "Park Steamships: An Outline History" (paper presented at the Deepsea Shipping History Conference, Memorial University of Newfoundland, 1983).

34. Apart from union records, those of the Shipping Federation of Canada and most important the Canadian Shipbuilders and Ship Repairing Association are essential for explaining the interaction of labour, industry and the state. An example of the information to be derived from this source is C.S.M. Shepard, *An Inquiry into the Canadian Shipbuilding Industry: The Facilities, Subsidies and Future*, Canadian Marine Transportation Centre, Dalhousie University (Halifax, 1983). See also note 15.

35. The Department of Finance records are now available; NAC, RG 19.

36. Here there is room to contrast profitably the divergent works of Robert Porter, *The Vertical Mosaic* (Toronto, 1965), and Wallace Dement, *The Canadian Corporate Elite* (Toronto, 1975).

37. For the sake of discussion the basic volumes forming the foundation of transportation studies in Canada are taken as a given to any discussion of how to approach the subject matter. I refer especially to works such as G.P. de T. Glazebrook, *A History of Transportation in Canada. Vol. II: National Economy 1867-1936* (reprint, Toronto, 1964); and H.L. Purdy, *Transport Competition and Public Policy in Canada* (Vancouver, 1972). However, such basic works are of extremely limited value.

38. Gordon Laxer, *Open for Business: The Roots of Foreign Ownership in Canada* (Toronto, 1989).

39. Nathan Rosenberg, *Inside the Black Box: Technology and Economics* (Cambridge, 1982).

40. See particularly the works of Thomas Hughes and Edward Constant adumbrated in Wiebe E. Bijker, Thomas P. Hughes, and Trevor Pinch (eds.), *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology* (Cambridge, Mass., 1987).