

**Halifax Shipyards, 1918 - 1978:**

**An Historical Perspective**

by

© Victor L. Settle

August 1994

Masters Atlantic Canada Studies

Saint Mary's University



National Library  
of Canada

Bibliothèque nationale  
du Canada

Acquisitions and  
Bibliographic Services Branch

Direction des acquisitions et  
des services bibliographiques

395 Wellington Street  
Ottawa, Ontario  
K1A 0N4

395, rue Wellington  
Ottawa (Ontario)  
K1A 0N4

*Your lib - Votre référence*

*Our lib - Notre référence*

**The author has granted an irrevocable non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of his/her thesis by any means and in any form or format, making this thesis available to interested persons.**

**L'auteur a accordé une licence irrévocable et non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de sa thèse de quelque manière et sous quelque forme que ce soit pour mettre des exemplaires de cette thèse à la disposition des personnes intéressées.**

**The author retains ownership of the copyright in his/her thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without his/her permission.**

**L'auteur conserve la propriété du droit d'auteur qui protège sa thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.**

ISBN 0-315-95877-4

**Canada**

Name VICTOR L. SETTLE

Dissertation Abstracts International is arranged by broad, general subject categories. Please select the one subject which most nearly describes the content of your dissertation. Enter the corresponding four-digit code in the spaces provided.

HISTORY GENERAL "HOLIFAX SHIPYARDS, 1918-1929"

SUBJECT TERM

0578

U·M·I

SUBJECT CODE

## Subject Categories

### THE HUMANITIES AND SOCIAL SCIENCES

#### COMMUNICATIONS AND THE ARTS

Architecture ..... 0729  
Art History ..... 0377  
Cinema ..... 0900  
Dance ..... 0378  
Fine Arts ..... 0357  
Information Science ..... 0723  
Journalism ..... 0391  
Library Science ..... 0399  
Mass Communications ..... 0708  
Music ..... 0413  
Speech Communication ..... 0459  
Theater ..... 0465

#### EDUCATION

General ..... 0515  
Administration ..... 0514  
Adult and Continuing ..... 0516  
Agricultural ..... 0517  
Art ..... 0273  
Bilingual and Multicultural ..... 0282  
Business ..... 0688  
Community College ..... 0275  
Curriculum and Instruction ..... 0727  
Early Childhood ..... 0518  
Elementary ..... 0524  
Finance ..... 0277  
Guidance and Counseling ..... 0519  
Health ..... 0680  
Higher ..... 0745  
History of ..... 0520  
Home Economics ..... 0278  
Industrial ..... 0521  
Language and Literature ..... 0279  
Mathematics ..... 0280  
Music ..... 0522  
Philosophy of ..... 0998  
Physical ..... 0523

Psychology ..... 0525  
Reading ..... 0535  
Religious ..... 0527  
Sciences ..... 0714  
Secondary ..... 0533  
Social Sciences ..... 0534  
Sociology of ..... 0340  
Special ..... 0529  
Teacher Training ..... 0530  
Technology ..... 0710  
Tests and Measurements ..... 0288  
Vocational ..... 0747

#### LANGUAGE, LITERATURE AND LINGUISTICS

Language ..... 0679  
General ..... 0289  
Ancient ..... 0290  
Linguistics ..... 0291  
Modern ..... 0291  
Literature ..... 0401  
General ..... 0294  
Classical ..... 0295  
Comparative ..... 0295  
Medieval ..... 0297  
Modern ..... 0298  
African ..... 0316  
American ..... 0591  
Asian ..... 0305  
Canadian (English) ..... 0352  
Canadian (French) ..... 0355  
English ..... 0593  
Germanic ..... 0311  
Latin American ..... 0312  
Middle Eastern ..... 0315  
Romance ..... 0313  
Slavic and East European ..... 0314

#### PHILOSOPHY, RELIGION AND THEOLOGY

Philosophy ..... 0422  
Religion ..... 0318  
General ..... 0321  
Biblical Studies ..... 0319  
Clergy ..... 0320  
History of ..... 0322  
Philosophy of ..... 0469  
Theology ..... 0469

#### SOCIAL SCIENCES

American Studies ..... 0323  
Anthropology ..... 0324  
Cultural ..... 0326  
Physical ..... 0327  
Business Administration ..... 0310  
General ..... 0272  
Accounting ..... 0770  
Banking ..... 0454  
Management ..... 0338  
Marketing ..... 0385  
Canadian Studies ..... 0501  
Economics ..... 0503  
General ..... 0505  
Agricultural ..... 0508  
Commerce-Business ..... 0509  
Finance ..... 0510  
History ..... 0511  
Labor ..... 0358  
Theory ..... 0366  
Folklore ..... 0351  
Geography ..... 0351  
Gerontology ..... 0578  
History ..... 0578  
General ..... 0578

Ancient ..... 0579  
Medieval ..... 0581  
Modern ..... 0582  
Black ..... 0328  
African ..... 0331  
Asia, Australia and Oceania ..... 0332  
Canadian ..... 0334  
European ..... 0335  
Latin American ..... 0336  
Middle Eastern ..... 0333  
United States ..... 0337  
History of Science ..... 0585  
Law ..... 0398  
Political Science ..... 0615  
General ..... 0616  
International Law and Relations ..... 0617  
Public Administration ..... 0814  
Recreation ..... 0452  
Social Work ..... 0626  
Sociology ..... 0627  
General ..... 0938  
Criminology and Penology ..... 0631  
Demography ..... 0628  
Ethnic and Racial Studies ..... 0629  
Individual and Family Studies ..... 0630  
Industrial and Labor Relations ..... 0700  
Public and Social Welfare ..... 0344  
Social Structure and Development ..... 0709  
Theory and Methods ..... 0999  
Transportation ..... 0453  
Urban and Regional Planning ..... 0453  
Women's Studies ..... 0453

### THE SCIENCES AND ENGINEERING

#### BIOLOGICAL SCIENCES

Agriculture ..... 0473  
General ..... 0285  
Agronomy ..... 0475  
Animal Culture and Nutrition ..... 0476  
Animal Pathology ..... 0359  
Food Science and Technology ..... 0478  
Forestry and Wildlife ..... 0479  
Plant Culture ..... 0480  
Plant Pathology ..... 0817  
Plant Physiology ..... 0777  
Range Management ..... 0746  
Wood Technology ..... 0306  
Biology ..... 0287  
General ..... 0308  
Anatomy ..... 0309  
Biostatistics ..... 0379  
Botany ..... 0329  
Cell ..... 0353  
Ecology ..... 0369  
Entomology ..... 0793  
Genetics ..... 0410  
Limnology ..... 0307  
Microbiology ..... 0317  
Molecular ..... 0416  
Neuroscience ..... 0433  
Oceanography ..... 0821  
Physiology ..... 0778  
Radiation ..... 0472  
Veterinary Science ..... 0786  
Zoology ..... 0760  
Biophysics ..... 0425  
General ..... 0996  
Medical ..... 0996  
Earth Sciences ..... 0425  
Biogeochemistry ..... 0996  
Geochemistry ..... 0996

Geodesy ..... 0370  
Geology ..... 0372  
Geophysics ..... 0373  
Hydrology ..... 0388  
Mineralogy ..... 0411  
Paleobotany ..... 0345  
Paleoecology ..... 0426  
Paleontology ..... 0418  
Paleozoology ..... 0985  
Palytology ..... 0427  
Physical Geography ..... 0368  
Physical Oceanography ..... 0415

#### HEALTH AND ENVIRONMENTAL SCIENCES

Environmental Sciences ..... 0768  
Health Sciences ..... 0566  
General ..... 0300  
Audiology ..... 0992  
Chemotherapy ..... 0567  
Dentistry ..... 0350  
Education ..... 0769  
Hospital Management ..... 0758  
Human Development ..... 0982  
Immunology ..... 0564  
Medicine and Surgery ..... 0347  
Mental Health ..... 0569  
Nursing ..... 0570  
Nutrition ..... 0380  
Obstetrics and Gynecology ..... 0354  
Occupational Health and Therapy ..... 0381  
Ophthalmology ..... 0571  
Pathology ..... 0419  
Pharmacology ..... 0572  
Pharmacy ..... 0382  
Physical Therapy ..... 0573  
Public Health ..... 0574  
Radiology ..... 0575  
Recreation ..... 0575

Speech Pathology ..... 0460  
Toxicology ..... 0383  
Home Economics ..... 0386

#### PHYSICAL SCIENCES

Pure Sciences ..... 0485  
Chemistry ..... 0749  
General ..... 0486  
Agricultural ..... 0487  
Analytical ..... 0488  
Biochemistry ..... 0738  
Inorganic ..... 0490  
Nuclear ..... 0491  
Organic ..... 0494  
Pharmaceutical ..... 0495  
Physical ..... 0754  
Polymer ..... 0405  
Radiation ..... 0605  
Mathematics ..... 0986  
Physics ..... 0606  
General ..... 0608  
Acoustics ..... 0748  
Astronomy and Astrophysics ..... 0607  
Atomic ..... 0798  
Atmospheric Science ..... 0759  
Elementary Particles and High Energy ..... 0609  
Fluid and Plasma ..... 0610  
Molecular ..... 0752  
Nuclear ..... 0756  
Optics ..... 0611  
Radiation ..... 0463  
Solid State ..... 0346  
Statistics ..... 0984  
Applied Sciences ..... 0346  
Applied Mechanics ..... 0984  
Computer Science ..... 0984

Engineering ..... 0537  
General ..... 0538  
Aerospace ..... 0539  
Agricultural ..... 0540  
Automotive ..... 0541  
Biomedical ..... 0542  
Chemical ..... 0543  
Civil ..... 0544  
Electronics and Electrical ..... 0348  
Heat and Thermodynamics ..... 0545  
Hydraulic ..... 0546  
Industrial ..... 0547  
Marine ..... 0794  
Materials Science ..... 0548  
Mechanical ..... 0743  
Metallurgy ..... 0551  
Mining ..... 0552  
Nuclear ..... 0549  
Packaging ..... 0765  
Petroleum ..... 0554  
Sanitary and Municipal ..... 0790  
System Science ..... 0428  
Geotechnical ..... 0796  
Operations Research ..... 0795  
Plastics Technology ..... 0994  
Textile Technology ..... 0994

#### PSYCHOLOGY

General ..... 0621  
Behavioral ..... 0384  
Clinical ..... 0622  
Developmental ..... 0620  
Experimental ..... 0623  
Industrial ..... 0624  
Personality ..... 0625  
Physiological ..... 0989  
Psychobiology ..... 0349  
Psychometrics ..... 0632  
Social ..... 0451



Halifax Shipyards, 1918 - 1978:

An Historical Perspective

by


© Victor L. Settle


August, 1994


A thesis submitted to the Faculty of Arts, in partial fulfillment of the requirements for the degree of Master of Arts in Atlantic Canada Studies.

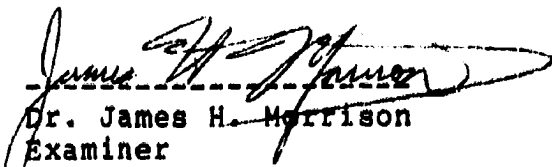
Saint Mary's University  
Halifax, Nova Scotia

Examining Committee:

  
-----  
Dr. Colin D. Howell  
Thesis Adviser  
ACS Coordinator

  
-----  
Dr. John G. Reid  
Examiner

  
-----  
Dr. Kenneth MacKinnon  
Examiner

  
-----  
Dr. James H. Morrison  
Examiner

### Abstract

#### **Halifax Shipyards, 1918 - 1978: An Historical Perspective Victor L. Settle, August 1994**

This thesis will present an historical perspective on the history of Halifax Shipyards and attempt to demonstrate its social and economic importance to Halifax and the Province of Nova Scotia. Halifax Shipyards Limited was the successor of Halifax Graving Dock Company, managed by Samuel Brookfield from its completion in 1889 until its expropriation by the federal government in 1918. In the wake of the Halifax Explosion in 1917, Mr. C.C. Ballantyne, Minister of Marine, sought to begin a shipbuilding program in the Maritimes. Roy Wolvin and Joseph Norcross were invited by the Minister of Marine to consider the potential of establishing steel shipbuilding in Halifax. With the promise of contracts to build four vessels for the federal government and the expropriated Graving Dock site on which to construct a new modern shipyard, Wolvin and Norcross introduced steel shipbuilding to Halifax.

Roy Wolvin, shortly after his arrival in Nova Scotia, saw the advantage of combining the new shipyards with the steel and coal industries in Nova Scotia. Wolvin became a driving force behind the creation of the British Empire Steel Corporation (BESCO) in 1921. Financial problems plagued the company from its formation and led to a takeover of BESCO in 1928 by a group backed by the Royal Bank of Canada. The new company was known as The Dominion Steel and Coal Company (DOSCO), and retained ownership until 1957.

Halifax Shipyards became the center for ship repair, on Canada's east coast, repairing 7145 vessels between 1939 and 1945. This feat was

---

accomplished, in part, by women who entered the shipyards as tradespeople during the Second World War. Following the war they were expected to relinquish their jobs and return to being full time mothers or wives. If they chose to remain in the workplace they would enter traditional roles.

In 1957 A.V. Roe Corporation Canada Limited, a subsidiary of the British based Hawker Siddeley investment group, purchased the DOSCO holdings in Nova Scotia which included the Halifax Shipyards. In 1959, A.V. Roe became Hawker Siddeley Canada Limited. The years 1958-1979 were the shipyard's "golden decades". Unfortunately, as the final decade came to an end it bore witness to the collapse of Halifax Shipyards, one of the city's "great institutions of enterprise and industry" - a collapse that the shipyard is struggling to recover from sixteen years later.

## TABLE OF CONTENTS

ACKNOWLEDGEMENTS .....	i
LIST OF FIGURES .....	iii
LIST OF ABBREVIATIONS .....	iv
INTRODUCTION .....	1
CHAPTER ONE .....	12
The Pre-Halifax Shipyards Era .....	12
Conclusion .....	31
CHAPTER TWO .....	34
Halifax Shipyards, 1918-1945 .....	34
Conclusion .....	66
CHAPTER THREE .....	70
Women in Non-Traditional Occupations During World War II .....	70
Union Attitudes .....	89
Training of Women .....	91
Government Policies .....	92
Women in the Post-War Era .....	94
Women's Impact on Trades in 1992 .....	96
Conclusion .....	97
CHAPTER FOUR .....	102
The Post-War Years and "The Golden Decades" .....	102
Conclusion .....	137
CONCLUSION .....	141
APPENDIX NO. 1 .....	145
APPENDIX NO. 2 .....	150
APPENDIX NO. 3 .....	151
BIBLIOGRAPHY .....	152

## ACKNOWLEDGEMENTS

I dedicate this thesis to a very special person in my life, my wife Janet. Her support throughout my undergraduate and graduate studies made the undertaking possible. In addition, Janet assisted with research and acted as a proof reader.

Others who played an important part in this project were Brenda Bentley, senior typist on the thesis and throughout my graduate years and Noreen Madore who filled in very professionally while Brenda was on leave. Thanks also to John Rhynold and Arthur Zwicker who shared their life story prior to, during and in the post-war years; Dorothy (Hendsbee) Lutz, Bertha (Weir) (Roach) McKeigan and Helen (Rice) Pilicoski who told of their experiences as tradespeople at the Halifax Shipyards during the war and to the staff at the Provincial Archives of Nova Scotia, the Provincial Department of Education Library and Lloyd MacKenzie, Controller at Halifax/Dartmouth Industries.

I would be remiss in not mentioning the staff at Saint Mary's University who provided the inspiration to pursue graduate studies. I was fortunate to have studied under Dr. C. Howell, Dr. A. Seaman, Dr. D. Cone, Dr. M.M. MacDonald and Professor F. Morley. A special thanks to Dr. Colin Howell who acted as thesis advisor and exhibited patience while offering valued constructive criticism and advice throughout this project.

In closing I would like to thank my family who offered support throughout my studies -- my mother, Emily Gertrude Settle, Vera, Wade, Marilyn, Randal, Cheryl, Jennifer, Bradley and Lauren Settle. Thanks also to my father, Wilfrid,



although he did not live to share in my university years or teaching career I drew often on the strength of that quiet ex-marine, farmer and oil worker.

## LIST OF FIGURES

Figure 1.1, Directors and Officers Chebucto Marine Railway . . . . .	33
Figure 2.1, Halifax/Dartmouth Ship Repair Revenues 1928-1938 . . . . .	68
Figure 2.2, Halifax/Dartmouth Ship Repair Revenues 1939-1945 . . . . .	69
Figure 3.1, Training Under the Direction of Technical Education Branch .	100
Figure 3.2, Women's Wages for 1943 and 1945 . . . . .	101
Figure 4.1, Number of Employees by Trade . . . . .	120
Figure 4.2, Employee Wages & Salaries with Government Deductions . .	121
Figure 4.3, Analysis of Purchases Geographically . . . . .	122
Figure 4.4, Expenditures on Wages, Salaries and Fringe Benefits . . . . .	123
Figure 4.5, Expenditures to Government Organizations . . . . .	124
Figure 4.6, Expenditures for Utilities . . . . .	125
Figure 4.7, Summary of Forward Orders . . . . .	126

## **LIST OF ABBREVIATIONS**

1. **BESCO - British Empire Steel Corporation**
2. **CCL - Canadian Congress of Labour**
3. **d.w.t. - Dead weight tons**
4. **DOSCO - Dominion Steel and Coal Corporation**
5. **HALSHIP - Registered trade name of Halifax Shipyards Limited**
6. **H-DIL - Halifax Dartmouth Industries Limited**
7. **HSL - Halifax Shipyards Limited**
8. **HTLC - Halifax Trades and Labour Council**
9. **MTLF - Marine Trades and Labour Federation**
10. **PANS - Provincial Archives of Nova Scotia**

## INTRODUCTION

Halifax Shipyards Limited began operation in 1918 and has been described as a "great institution of enterprise and industry."<sup>1</sup> Between 1918 and 1978 no other industry in the City of Halifax contributed so greatly to the economy, both locally and provincially. Halifax Shipyards was the successor of the Halifax Graving Dock Company which began operation at Halifax in 1889, but the oldest component of the Halifax Shipyard Limited (the present-day Halifax/Dartmouth Industries Limited) is located in Dartmouth. It was at Dartmouth Cove in 1860 that Chebucto Marine Railway Company built the first of four modern drydocking facilities. (These marine railways were still in operation in 1994.)

The objective of this thesis is to trace the historical background of the Halifax Shipyards and demonstrate its social and economic importance to the cities of Halifax and Dartmouth and to the Province of Nova Scotia. This will be accomplished by exploring the social impact that Halifax Shipyards had on the lives of women and men in Nova Scotia prior to, during and in the post World War II era, and by exploring the financial contribution and economic impact which Halifax Shipyards Limited exerted on the community.

The economy of the Maritimes prior to 1850 was built primarily on staples and the production and export of fish, timber and ships. The abundance of

---

<sup>1</sup>Hon. Benjamin Russell, Nova Scotia Blue Book Encyclopedia (Historical Association of Canada 1932) PANS, p.5.

lumber led to the development of Nova Scotia's shipbuilding industry.<sup>2</sup> The British North American colonies enjoyed trade protection from Britain until 1850<sup>3</sup> which resulted in considerable trade between Nova Scotia, the British West Indies and the United Kingdom. Lumber was often shipped aboard boats built in Maritime shipyards with both cargo and vessel being sold at their point of destination. By the mid-19<sup>th</sup> century building ships for foreign buyers gave way to their construction for local ownership.<sup>4</sup>

The continued demand for wooden ships on the local market was important to Nova Scotia which, at that time, had little manufacturing except on the domestic scale,<sup>5</sup> and over half of that was carried out in Halifax.<sup>6</sup> The break-up of the old colonial system in the middle of the 19<sup>th</sup> century and the loss of protected markets presented far-reaching consequences for the British North American colonies<sup>7</sup> and prompted the Maritimes and the Colony of Canada to

---

<sup>2</sup>D.A. Muike, "The 1860s: Forging the Bonds of Union" in E.R. Forbes and D.A. Muike (eds.) The Atlantic Provinces in Confederation (Fredericton, 1993), p. 23; T.W. Acheson, "The National Policy and the Industrialization of the Maritimes: 1880-1910", Acadiensis 1:2, p. 3; L.D. McCann, "The 1890s: Fragmentation and the New Social Order" in Forbes and Muike (eds.) The Atlantic Provinces and Confederation, p. 119.

<sup>3</sup>S.A. Saunders, Economic History of the Maritime Provinces (Fredericton, 1984[1939]), p. 2; Acheson, "The National Policy and the Industrialization of the Maritimes 1880-1910", Acadiensis 1:2, p. 3.

<sup>4</sup>D.A. Muike, "The 1860s", in Forbes and Muike (eds.), The Atlantic Provinces in Confederation, p. 24.

<sup>5</sup>Saunders, Economic History of the Maritime Provinces, p. 2.

<sup>6</sup>L.D. McCann, "The Mercantile Industrial Transition in the Metal Towns of Pictou County, 1857-1931", Acadiensis 10:2 (Spring 1981), p. 31.

<sup>7</sup>Acheson, "The National Policy and the Industrialization of the Maritime, 1880-1910", Acadiensis 1:2, pp. 3-4; Saunders, Economic History of the Maritime Provinces, p. 6.

pursue the Reciprocity Treaty with the United States, which was signed in 1854. Their objective was to secure markets for the region's staple products and manufactured goods that would replace previously protected markets enjoyed with Britain and her overseas colonies under the old colonial system.<sup>8</sup>

Exports from the Maritimes to the United States increased greatly during the years the Reciprocity Treaty was in place. Nova Scotia's exports rose 132.3 percent between 1853 and 1866. The economy of Nova Scotia that had depended so greatly on the pull seaward was now rapidly moving towards a continental one. This was driven firstly by the Reciprocity Treaty with the United States and secondly by Confederation that eventually linked the British North American Colonies from the Atlantic to the Pacific by rail.<sup>9</sup>

The completion of the railroad fulfilled the promise of John A. Macdonald's National Policy of 1879, which was to bind the country together from east to west by building a trans-continental railway; settling the west and building a tariff wall against the outside world to promote industry in Canada. The National Policy was embraced by a large segment of the Maritime business community as a new form of mercantilism that would re-establish the stability that existed in the pre-confederation days under the old British order.<sup>10</sup> The policy recognized that the

---

<sup>8</sup>T.W. Acheson, "The Maritime and Empire Canada" in David Bercuson (ed.), Canada and the Burden of Unity (Toronto, 1977), p. 90.

<sup>9</sup>Paul Phillips, "National Policy, Continental Economics and National Disintegration" in Bercuson (ed) Canada and the Burden of Unity, pp. 21-22; Acheson, "The National Policy and the Industrialization of the Maritimes, 1880-1910", Acadiensis 1:2, p. 27.

<sup>10</sup>Ben Forster, A Conjunction of Interests: Business, Politics and Tariffs, 1825-1879 (Toronto, 1986); Robin F. Neil, "National Policy and Regional Development: A Footnote to the Deutsch Report on Maritime Union", Journal of Canadian Studies 9:2 (12-20 May 1974), pp. 12-14; L.D.

growth of Canada entailed the transfer of capital from one region to another. The Prairie provinces were the center for producing grain. Surplus product would be sent to Ontario to build secondary industries, or value added industries. Growth of Ontario's manufacturing industry at the expense of western Canada caused much of the resentment felt in western Canada. The Maritimes lost entrepreneurial capital, but received in return some increase in federal grants and protection for its iron and coal.<sup>11</sup> The tariffs passed in 1887 to protect these industries were often referred to as the Nova Scotia tariffs designed to make Nova Scotia the Pennsylvania of Canada.<sup>12</sup> However, this never materialized, iron and coal production was always at the mercy of the world markets and competition.

The industrial revolution that swept through the Maritimes in the latter part of the 19<sup>th</sup> century, driven by the National Policy and its promised rail link to the Pacific, brought considerable change to the transportation industry, especially as it related to shipping. Changes affected vessel ownership, size, construction materials, propulsion systems and shipyards that built these vessels. The evolution from wood to steel did not take place all at once. At first only the frames of the ships were built of steel and iron which were then covered with

---

McCann, "Staples and the New Industrialism in the Growth of Post-Confederation Halifax", Acadiensis 8:2 (Spring 1979), p. 60.

<sup>11</sup>Ibid., p. 13.

<sup>12</sup>Acheson, "The National Policy and the Industrialization of the Maritimes, 1880-1910", Acadiensis 1:2, pp. 3-27.

wood. Eventually, the entire ship was constructed of steel.<sup>13</sup> Steel hulls were used in both sailing and steam driven ships, but it was not until the 1880s that Britain's steam tonnage equalled her sailing tonnage. It was the certainty of performance that finally ensured the victory of steam over sail. The steamer was not always faster; a clipper ship could log 15 knots under certain conditions, whereas the average steamer in the 1880s could only make 10 knots. However, the clipper ship might be becalmed for days while the steam driven ship continued on its way.

The opening of the Suez Canal in 1869 was a further blow to the sailing ship. Sailing ships could not pass through the canal to the Red Sea; they had to continue to use the Cape route because of their need of prevailing winds. Steamers would save 3,000 to 4,000 nautical miles on the trading routes from Europe to Asia by passing through the Suez Canal.<sup>14</sup> It should be noted that the canal affected steamships as well; because of shorter voyage patterns, fewer ships were required to service the far east routes.<sup>15</sup>

The decline of the wooden sailing ship and the advent of steel hulled steam ships dealt a blow to the shipbuilding industry in the Maritimes. It resulted in the disinvestment by Maritime merchants in vessel ownership, resulting in the rapid decline of wooden ship construction that had been the financial life blood

---

<sup>13</sup>Peter N. Davies, "The Development of the Liner Trades" in Ships and Shipbuilding in the North Atlantic Region: Proceedings of the Conference of the Atlantic Canada Shipping Project held in Newfoundland, 31 March - 2 April, 1977. Keith Matthews and Gerald Panting (eds.), (Memorial University, Newfoundland, 1978), p. 179.

<sup>14</sup>Ibid., p. 180.

<sup>15</sup>Ibid., p. 188.



of so many Maritime communities, providing employment for a large portion of the wage earning class of the Maritimes. Research has shown that there were not one but many reasons why merchants disinvested in shipping. As shipping lines provided transportation for merchant's goods on a regular basis, it was no longer profitable to operate a ship as an adjunct to the merchant's primary business. Few merchants had the money, time or were capable of operating a ship in the new market place where liner service controlled the movement of goods around the world.<sup>16</sup> By late in the 19<sup>th</sup> century liner service was provided on scheduled runs across the world's major oceans.

As shipping lines operated year round, more damage to vessels resulted due to the winter storms and ice.<sup>17</sup> Larger repair facilities to handle the increased liner traffic and larger vessel sizes were required. Drydocking facilities, far different than the marine railway used to haul smaller vessels from the water, became necessary to carry out repairs. A drydock of the capacity required was a capital intensive project and certainly not without financial risk. No longer was shipbuilding and repair a backyard operation; servicing larger sailing ships and steel-hulled steamers required a modern plant and drydocking facility from which to operate.

---

<sup>16</sup>Eric W. Sager and Gerald E. Panting, Maritime Capital: The Shipping Industry in Atlantic Canada 1820-1914 (Kingston and Montreal, 1990), pp. 46, 140.

<sup>17</sup>Ian McKay, "Class Struggle and Mercantile Capitalism: Craftsmen and Labourers of the Halifax Waterfront" in Working Men Who Got Wet: Proceedings of the Fourth Conference of the Atlantic Canada Shipping Project held in Newfoundland 24-26 July 1980, Rosemary Ommer and Gerald Panting eds. (Memorial University, Newfoundland, 1980), p. 299.

Based on the promise of Confederation and the National Policy, many Maritime businessmen joined the industrial revolution. The late 1870s saw regional entrepreneurs remove their capital from shipping and staple based industries to a new manufacturing based economy. Halifax financiers invested in textiles, sugar refining, rope factories, confectionery, foundries, manufacture of primary iron and steel and ship repair facilities.<sup>18</sup> Capitalists also invested in the growing service sector driven by the industrial revolution that created a need for power plants and wharfs.

Entrepreneurial leadership was taken over by sons of traditional mercantile families, many of whom were in their fifties, an age when many were planning financially for their retirement years, not risking their family fortunes on industrial enterprises in which they had little or no expertise. However, many respected heads of second generation mercantile families, such as Thomas Kenny, took the risk. Kenny inherited one of the largest shipping firms in the region in the late 1870s. Under his leadership, a small number of Halifax investors, between 1879 and 1881, raised most of the \$800,000 required to meet the capital construction costs of a sugar refinery and cotton company. Development throughout Nova Scotia was financed by local capitalists's. No one centre emerged as the financial capital. Halifax, Liverpool, Yarmouth, Amherst and New Glasgow had regional investors who supported local industry. As manufacturing plants grew in size they became more susceptible to external

---

<sup>18</sup>Colin Howell, "The 1900s: Industry, Urbanization and Reform", in Forbes and Muise (eds.), The Atlantic Provinces in Confederation, pp. 163-164.

market forces such as supply of raw material, the prolonged recession of the 1890s, and the demand for finished product. The small population base of the Maritimes prevented a strong local market from developing which would have seen companies through recessions. Advantages enjoyed in transporting goods by water were lost with the completion of the rail link across Canada. The most difficult force to deal with was competition from larger companies from outside the Maritimes who had access to greater financial resources.

The failure of a viable financial center to emerge in the Maritimes was devastating for many companies. T.W. Acheson has argued that the Maritimes lacked institutions prepared to finance large scale industrialization, thus leaving financial responsibility to individual entrepreneurs. Smaller banks financed local industrialization, while major banks such as the Bank of Nova Scotia ( the largest and most influential banking institution in the region) promoted the flow of Maritime capital out of the region, thus starving local industry. Nova Scotia became an area of "surplus savings" for the Bank of Nova Scotia. The combined assets of Halifax based banks in 1890 was 21.7 million, exceeded by Montreal at 107.3 million and Toronto at 74.3 million. During the latter part of the 19th century and the early 20th century, enormous sums of money were drained away from the region. Between 1900 and 1910, net transfer of funds from Maritime branches to the head office of the Bank of Nova Scotia alone amounted to more than \$4 million.<sup>19</sup> Other financial factors were also present.

---

<sup>19</sup>Ibid., pp. 164-165; James D. Frost, "The Nationalization of the Bank of Nova Scotia 1860-1910", Acadiensis 12:1 (Autumn 1982), pp. 3-4; George A. Nader, Volume II, Profiles of Fifteen Metropolitan Centers (MacMillan, Toronto, 1976), p. 34; Howell, "The 1900s", in Forbes and

Maritime capitalists, although experienced in mercantile practices, lacked expertise in the complexities of the financial and marketing structure of large scale industrial development and the technical skills required to operate such enterprises.

The complexities of financing large scale industrial development proved insurmountable for regional entrepreneurs. The mercantile practice of raising capital consisted of obtaining sufficient financing to construct and equip the physical plant, preferring to finance the operating cost through bank loans, a costly and inefficient process.<sup>20</sup> This was especially true with downturns in world markets; this was a time when banks became nervous, often calling in their loans. The lack of operating capital by many entrepreneurs during the last decade of the nineteenth century resulted in manufacturing industries in Nova Scotia being taken over by outside interests. A British-backed company took control of sugar refineries in Nova Scotia. Montreal business interests purchased cotton mills in Halifax, Windsor and Moncton. Fearful of competition, other smaller mills in the region sold to the conglomerates. Heavy losses were absorbed by merchant families who had invested in manufacturing industries. For example, the sale of Nova Scotia Cotton mills in Halifax to the Montreal syndicate returned only twenty five cents on the dollar of the initial investment. By 1895, excluding iron and steel products, confectionery and staples, export

---

Muise (eds.) The Atlantic Provinces in Confederation, p. 164.

<sup>20</sup>Acheson, "The National Policy and the Industrialization of the Maritimes, 1880-1910", Acadiensis, 1:2, p. 9.

industry in Nova Scotia was taken over by outside interests.<sup>21</sup> The industrial expansion generated during the latter part of the nineteenth century, by community-oriented entrepreneurs, had collapsed by the 1920s. Outside interests including central Canadian business and financiers had asserted control over the regions economic life, including shipbuilding and repair in Halifax.<sup>22</sup>

Lacking ties to local communities, outside investors closed down Nova Scotia's aging manufacturing facilities, a trend that carried over into the 1960s and 1970s when Hawker Siddeley Canada Ltd. abandoned its steel and coal operations in Nova Scotia, and then went on to shut down Halifax Shipyards Limited operation in Halifax and Dartmouth. This thesis presents an historical perspective on the history of Halifax Shipyards from its early origins to its collapse in 1978. It will also attempt to demonstrate the social and economic importance of that great institution to Nova Scotia. Chapter One addresses the influence exerted by early entrepreneurs and capitalists on the shipping industry in the Halifax Dartmouth area. Chapter Two covers the Halifax Shipyards from 1918 to 1945, including the founding of Halifax Shipyards Limited and ship construction and repair during the war and pre-war years. Chapters Three and Four deal with social issues; the former with women shipyard workers and the part that Halifax Shipyards played in their fight for equality in the industrial workplace; the latter addresses the shipyard's influence on Nova Scotia's rural

---

<sup>21</sup>Ibid., p.19.

<sup>22</sup>David Frank, "The Cape Breton Coal Industry and the Rise and Fall of the British Empire Steel Corporation", Acadiensis, 7:1 (Autumn 1977), p. 4.

male population in the war and post-war eras. The final chapter also looks in-depth at the "Golden Decades" between 1958 and 1978 with emphasis on the financial impact Halifax Shipyards Limited had on the Province of Nova Scotia.

## CHAPTER ONE

### The Pre-Halifax Shipyards Era

The keel for the first steel-hulled steamship built in Halifax was laid by Halifax Shipyards Limited in 1918. This chapter addresses the historical background of that "great institution of enterprise and industry".<sup>23</sup> The early history of Halifax Shipyards Limited began at Dartmouth Cove in 1859, when Chebucto Marine Railway Company purchased land adjacent to Lyle and Chapel Shipyards (which had operated at Dartmouth Cove since 1820). Chebucto Marine's first drydock was built by Horace Crandall and opened for business in 1860. Thirty years later it was taken over by Halifax Graving Dock Company, which began operation at north end Halifax in 1889. Under the direction of Samuel Brookfield, a successful repair business was operated at the graving dock until its expropriation by the Canadian government in 1918. The government sold the property to a Montreal group, led by Roy Wolvin and Joseph Norcross, which established Halifax Shipyards Limited.

The Chebucto Marine Railway's drydocking facilities, the oldest component of the Halifax Shipyards Limited, was built at Dartmouth Cove in 1860 by Horace J. Crandall, of Crandall Dry Dock Engineers of Cambridge, Massachusetts.<sup>24</sup> Nova Scotians were taking a continental approach to industrialization at a time when it was customary to look to Britain for skilled

---

<sup>23</sup>Russell, Nova Scotia Blue Book Encyclopedia, p. 5.

<sup>24</sup>PANS, J.W. Regan, Papers, Letter, 5 April 1939, John W. Regan to Alexander Lyle; Halifax Herald, 7 February 1939, p. 12.

labour and management personnel to assist in industrial development. Although tension existed between Britain and the United States, Nova Scotian investors welcomed the suggestion by the United States Consul at Halifax that they hire Horace J. Crandall to build the first marine railway for the company.<sup>25</sup>

The Halifax/Dartmouth City Directory reveals connections between the Chebucto Marine Railway Company and other major companies; C.J. Wylde, Secretary and Treasurer of the Chebucto Marine Railway, held a similar position with the Acadia Power Company Ltd.; A.W. West and P. Ross, Directors of the Graving Dock, were also Directors of Starr Manufacturing Company and Strait of Canso Marine Railway respectively.<sup>26</sup> These findings are consistent with those of Acheson whose research revealed that in Halifax a small number of business men were responsible for a significant portion of the financial investment in the region.<sup>27</sup> Although no list of minority shareholder records are kept at the Registry of Joint Stock, one could reasonably conclude that many of the directors in the aforementioned company were also shareholders in the Chebucto Marine Railway Company. A list of Chebucto Marine Railway Directors is included in Figure 1.1.

The eastern coast of North America had a long history of shipbuilding and repair. The first recorded shipbuilding in the Maritimes occurred in 1606 when

---

<sup>25</sup>PANS, J.W. Regan, Papers, Letter, 3 May 1939, James L. Crandall to John W. Regan.

<sup>26</sup>McAlpine's, Halifax Dartmouth City Directory (1889-1890).

<sup>27</sup>Monetary Times, 20 May 1881; Acheson, "The National Policy, 1880-1910", Acadiensis, 1:2, pp.4-8.



two small vessels were built at Port Royal. This enclave industry grew steadily with 2.2 million tons of shipping built in the Maritimes between 1815 and 1860. The Maritimes were clearly the center of shipbuilding in British North America -- Upper and Lower Canada during the same period built only 800,000 tons of shipping.<sup>28</sup> These figures do not necessarily mean that the Maritimes were building more vessels than Upper and Lower Canada, but rather that they were building larger, ocean-going vessels. Investment had increased dramatically in three-masted vessels for use in transoceanic passages between 1849 and 1879.<sup>29</sup> What was then required was an efficient means of removing these larger vessels from the water for repairs.

The principle of hauling boats up an inclined track was almost as old as the building of ships; however, it was not until the latter half of the 19th century that it was recognized as a problem of engineers rather than shipbuilders. Horace Crandall was one of the pioneers with regards to handling the problem from an engineering standpoint. It was undoubtedly the growth in the size of ships that compelled such considerations.<sup>30</sup> The first marine railway completed at Dartmouth Cove was relatively small, having a capacity of only 200 tons with a cradle one hundred feet long by thirty four feet wide; it was operated by horses

---

<sup>28</sup>Sager and Panting, Maritime Capital, pp. 21, 29.

<sup>29</sup>*Ibid.*, p. 94; Frederick W. Wallace, In The Wake Of The Wind Ships, (Hodder and Stoughton, London, 1927), pp. 184-271.

<sup>30</sup>PANS, Regan Papers, Letter, 15 May 1939, Crandall to Regan.

in a treadmill.<sup>31</sup> The building of this first marine railway began an association between the Lyle and Crandall families that lasted for many years.

The Lyle family's involvement in shipbuilding at Dartmouth Cove goes back to 1820. It was adjacent to the Lyle and Chapel shipyard that Crandall built the first drydock for the Chebucto Marine Railway. The Lyle and Chapel shipyard was a progressive operation; in 1844, the Lyle yard built a steam-driven ferry, the "Mic Mac", for operation between Halifax and Dartmouth.<sup>32</sup> The yard also built a number of wooden sailing vessels. One that played a part in the settlement of Nova Scotia was the "Barbara". It was employed for many years in the immigrant trade between Ireland and Nova Scotia.<sup>33</sup>

Class consciousness was part of the social structure of Halifax during the nineteenth century. Its existence is highlighted by a story regarding the master of the "Barbara" at the time of the famine in Ireland, a captain Willie McKay. Captain McKay visited Halifax frequently and on occasion refitted his ship at the Lyle and Chapel yard. McKay had seen the Lyle girls and wished to meet them; however their father, Alexander Lyle, had definite ideas about the associations of his daughters and seamen. The girls were never seen around the slipways, nor were masters or mates ever entertained at the Lyle residence. It would appear that captains of merchant vessels did not command the same social

---

<sup>31</sup>Halifax Chronicle Herald, 18 September 1959, pp. 20-21; PANS, Regan Papers, Letter, 3 May 1939, Crandall to Regan.

<sup>32</sup>Halifax Herald, 7 February 1939, p. 12.

<sup>33</sup>William A. Baker, "The Irish Connection", Acadiensis, 12:2 (Spring 1983), pp. 124-131; Peter T. McGuigan, The Irish (Four East Publications, Tantallon, Nova Scotia, 1991), pp. 18-24.

standing as naval captains who were viewed as gentlemen and attended most elite social gatherings. This was also true of other occupations. Acheson sees the same social line drawn between merchants.<sup>34</sup> However, being a resourceful man, Captain Willie McKay was determined in his resolve to meet the Lyle girls. He made enquiries into which homes of prominent citizens the girls were invited and set out to procure invitations for himself. Captain McKay eventually married Alexander Lyle's eldest daughter and took her away to sea on the "Barbara". The story does not end there; they were the parents of James Lyle McKay who became chairman of the famous "Peninsular and Orient Line". James, on his death, left \$12,000,000 to be applied to the liquidation of Britain's national debt.<sup>35</sup>

Unlike Captain McKay, Horace Crandall started his associations with the Lyle family on a more positive note. Horace Crandall's arrival in Dartmouth brought into contact two families of note in the ship repair business on North America's east coast. Their association played an important part in the early history of drydocking facilities in Nova Scotia. Alexander Lyle's son, James, worked for Horace Crandall building a marine railway at Dartmouth for the Chebucto Marine Railway Company. Upon completion of the first marine railway another with a capacity of 800 tons was undertaken. Following the completion of this marine railway in 1861, a 1500 ton drydock was started the following

---

<sup>34</sup>T.W. Acheson, "The Great Merchant and Economic Development in St. John 1820-1850", Acadiensis, 8:2 (Spring 1979).

<sup>35</sup>Halifax Herald, 7 February 1939, p.12.

year. This was later increased to a capacity of 2500 ton in 1876. A fourth drydock was built in Dartmouth by Crandall in 1884. Other sites in Nova Scotia bore witness to Crandall's marine railway expertise. They were Liverpool, Port Hawkesbury and Pictou.<sup>36</sup> This specialized product, that was continually improved and marketed throughout Nova Scotia and the world, highlighted the foresight and expertise of entrepreneurs during the last half of the nineteenth century. It stands more than a century later as a model for present-day industrialization of the Maritimes. Many economists feel the future of the area lies in developing specialized technology and marketing it throughout the world.<sup>37</sup>

Horace Crandall made Dartmouth his home from 1878 to 1891. It was from Nova Scotia that he and his trusted friend and foreman, James Lyle, departed for the Hawaiian Islands in 1883.<sup>38</sup> On the island of Honolulu they built a marine railway for the government of King Kalahou, marking Crandall's first drydock sale outside North America. James Lyle remained in Honolulu and operated a prosperous ship repair business there for many years.<sup>39</sup> Back in Halifax, a group of entrepreneurs led by Samuel Brookfield was developing plans for a new type of drydock to be built on the west side of the Harbour, adjacent

---

<sup>36</sup>Chronicle Herald, 18 September 1959, p.20.

<sup>37</sup>M. Bradfield, M. MacDonald, A. Charles, G. MacDonald and R. Williams, Economic Democracy in Atlantic Canada: A Discussion Paper (Saint Mary's University Economics Department, 1990).

<sup>38</sup>PANS, Regan Papers, Letter, 3 May 1939, Crandall to J. Regan; Halifax Herald, 7 February 1939, p. 12; Halifax Reporter, 3 November 1860, p. 2.

<sup>39</sup>PANS, Regan Papers, Letter, 28 February 1939, James L. Crandall to W.E. Urwin.

to the Acadia Sugar Refinery in north-end Halifax.

Increasing size of vessels prompted the need for a drydock capable of removing larger vessels from the water for repairs. Chebucto Marine Railway facilities were limited to a capacity of 2500 tons. Although large enough to handle ships listed on the shipping registry in Halifax, the Dartmouth facility could not service the larger ocean liners that had increased in size to 500' or more by the 1880s.<sup>40</sup> Samuel M. Brookfield Sr., one of Halifax's best known entrepreneurs during the latter part of the 19<sup>th</sup> century, led the drive to establish a new drydock in Halifax. Brookfield Construction Co. operated a general contracting business in Halifax with an office located at 58 Granville Street. This successful business was started by John Brookfield in 1860, who was succeeded by his son Samuel in 1871.<sup>41</sup> The company was incorporated in 1908 and listed the following officers: S.M. Brookfield, President and Managing Director; John W. Brookfield, Secretary; Henry Roper, Treasurer.<sup>42</sup> Other businesses in which Samuel Brookfield held directorships included the Halifax Power Company (forerunner of the present day Nova Scotia Power Corporation)<sup>43</sup> and Nova Scotia Cotton Manufacturing Company Limited<sup>44</sup>. He

---

<sup>40</sup>Port and Province, September 1937, p.14; Sager and Panting, Maritime Capital, p. 67; Wallace, In the Wake of the Wind Ships, pp. 184-271.

<sup>41</sup>A list of Brookfield's projects can be found in Port and Province, September 1937, pp. 9, 30; I.V. Isaacs, (ed.), The City of Halifax: The Capital of Nova Scotia Canada. Its Advantages and Facilities compiled for the Halifax Board of Trade (Wm MacNab & Son Printers, 1909), PANS; Hon. Benjamin Russell, Nova Scotia Blue Book and Encyclopedia, p.5.

<sup>42</sup>*Ibid.*

<sup>43</sup>Port and Province, September 1937, p.30.

was also one of the proprietors of Halifax Salvage Association, had large mining interests in Nova Scotia and was instrumental in forming Eastern Canada Savings and Loan Company Incorporated in 1887.<sup>45</sup> The Eastern Canada Savings and Loan executive included S.M. Brookfield, President; J.C. MacKintosh, Vice-President; Directors included W.A. Black, G.E. Faulkner, M.P.P. Smith and D.E. Smith. The above were described as businessmen and capitalists of Halifax. It was interesting to note that terms of incorporation called for Samuel Brookfield to retain the post of President for fifteen years. Undoubtedly this provided the leadership demanded by investors. (The financial institution's first Manager and Assistant Manager were J.C. Clarke and C.A.B. Bullock, respectively.)<sup>46</sup> Samuel Brookfield's expertise in the business community made him one of the few men in Halifax capable of promoting a Graving Dock and procuring the financing necessary for its construction.

When the Graving Dock was first proposed in 1875 the idea was held in scorn because the casual observer could not see the need for such a ship repair facility in Halifax. Wooden ships still dominated the international shipping trades, and the owners of sailing vessels were determined to retain their influence. The owners, officers, crew and shareholders of these vessels exerted great influence on public opinion and were wary of any suggestion that sail would be replaced

---

<sup>44</sup>McAlpine's, Halifax Dartmouth City Directory (1889-1890), pp. 496-497.

<sup>45</sup>PANS, I.J. Isaacs (ed.), The City of Halifax: The Capital of Nova Scotia (Halifax, 1909), pp. 39, 113.

<sup>46</sup>*Ibid.*, p. 113.

by steam. The builders of the Graving Dock, however, were preparing for a new era; that of the steel-hulled steamship. It is hardly surprising that the scepticism that was held by those involved in the shipping industry would be shared by the residents of the port of Halifax and other observers of shipping activity in its harbour. When one goes back to the "eighties" and, in the waterfront directory of those days find but two steamers in the port of Halifax among 135 sailing vessels of various types, it is possible to sense the point of view of the men who argued that provision for drydocking and repairing steamships 500 feet, or more, in length was something that could be deferred for many years without loss or injury to the business of Halifax city and port.<sup>47</sup>

Opinion was swayed in favour of the drydock's construction, however, when the British Navy, which based its North American squadron at Halifax, came forward in favour of the dock's construction.<sup>48</sup> Britain now realized she needed the colonies' ports. Naval technology, racing faster than ever before as the world entered that last quarter of the nineteenth century, undermined Britain's naval advantage at a time the British political position in the European world was deteriorating. The steam-powered fleets of the navy depended on coaling stations and drydocks capable of repairing their steel-hulled ships which were loaded down with gunnery and armour plates.<sup>49</sup>

---

<sup>47</sup>Port and Province, September 1937, p. 14.

<sup>48</sup>Ibid., April 1934, Vol. II, No. 5, p. 14.

<sup>49</sup>Desmond Morton, Canada and War (Butterworths, Toronto, 1981).

Plans for the Graving Dock moved forward with greater optimism following procurement of financial help from the British Navy, the Dominion Government and the City of Halifax in 1887.<sup>50</sup> Private financing was not easy to secure, for seaward enterprises as shipbuilding waned during the 1880s.<sup>51</sup> During this period, merchant capital was gradually removed from shipbuilding and ownership, invested instead in safer and less troublesome portfolios in real estate and the service sector. Merchant ship-owners were prominent among those who invested in social overhead capital of an export based economy: gas, lighting, schools, transportation and communications networks, water supplies, wharfs and other public services.<sup>52</sup> The fact that the Halifax Graving Dock placed its major emphasis on ship repair may have enticed investors to view the drydock as a landward enterprise. There is little doubt that, in the final analysis, those who did invest in the Graving Dock were influenced to do so because of the business acumen of Samuel Brookfield.

The Halifax Graving Dock Company Limited was incorporated September 1885 in Halifax, Nova Scotia, with its head office in London, England.<sup>53</sup> On that date the amount of authorized capital stock of the company was £160,000. This

---

<sup>50</sup>Port and Province, April 1934, Vol. II, No. 5, p.14.

<sup>51</sup>L.D. McCann, "Staples and the New Industrialism in the Growth of Post-Confederation Halifax", Acadiensis 8:2 (Spring 1979), p. 65.

<sup>52</sup>Sager and Panting, Maritime Capital, p. 115; Acheson, "The National Policy and the Industrialization of the Maritimes, 1880-1910", Acadiensis 1:2, p. 3; Acheson, "The Great Merchant and Economic Development in St. John 1820-1850", Acadiensis, 8:2, pp. 3-27.

<sup>53</sup>Registry of Joint Stock, The Halifax Graving Dock Co., Statement. Filed under Section 18 (Halifax, 1 June 1904).



amount comprised 8600 preference shares and 7400 ordinary shares at £10 each. The amount of stock the company subscribed or issued in September of 1885 was £147,650 comprising 7400 preference shares and 7365 ordinary shares.<sup>54</sup> The Halifax Graving Dock Company secured from the British Admiralty an annual subsidy of \$10,000 for twenty years; in return the admiralty stipulated the capacity of the drydock. The Dominion Government and the City of Halifax also provided an annual subsidy to the Graving Dock Company of \$10,000 each, paid annually for twenty years.<sup>55</sup> In addition to the capital stock and subsidies, £260,000 of 5 percent debenture stock was issued during construction.<sup>56</sup> The Halifax Graving Dock's financial and operational affairs were under direct control of the company's Chairman and Managing Director Samuel M. Brookfield, who held that position from 1885 to 1920. Other officers and directors included John W. Brookfield, John S. Evernden, Sir Clarendon Hyde, Sir Robert Heath, Frederick V. Marriott, John A. Macdonald, Sir W. D. Pierson, Hon. W.H. M. Pearson and W.M. Arthur Smith. All except Samuel and John Brookfield were from England.<sup>57</sup>

The Graving Dock, completed in 1889, is still operational and part of Halifax Dartmouth Industries facilities in 1994. Blasted out of solid rock and lined with ashlar and concrete, the top line length of the dock is 567 feet and the

---

<sup>54</sup>Ibid.; Halifax Herald, 20 September 1920, p. 12.

<sup>55</sup>Port and Province, April 1934, Vol. II, No. 5, p. 14.

<sup>56</sup>Halifax Herald, 20 September 1920, p. 12.

<sup>57</sup>Registry of Joint Stock, The Halifax Graving Dock Company (Halifax, 1 June 1904); Ibid., 26 Feb. 1919; Halifax Herald, 20 Sept. 1920, p.12.

floor is 549 feet. The difference of eighteen feet can be found in the sloping landward end of the dock. The width of the drydock gate is 89 feet, with the inside width of the drydock being 102 feet. The depth from keel block to high water line is 27 feet, allowing the yard to use the Graving Dock for ships drawing less than 27 feet of water. Since ships coming into the yard for repair are unloaded, this allows the Graving Dock to handle very large vessels.<sup>58</sup>

The original gate of the drydock, 100 feet in length and weighing in excess of ten tons, was built in Glasgow, Scotland, in 1888 and towed to Halifax in the wake of a small steamer. It has been modified over the years so that today it has little resemblance to the original gate. The gate is a steel closed vessel of five watertight compartments which may be filled with water or air to give the vessel weight or buoyancy causing it to sink or float as required. To withstand the great pressure from the sea when the drydock is emptied of water, the gate was built with a thickness of twenty-three feet. To close the drydock and keep out the harbour water the caisson is sunk at the dock entrance, then the water inside the dock is pumped out.<sup>59</sup>

The technology involved in the operation of the Graving Dock has changed little over the years. It is interesting to note the time required to empty the drydock remains about the same in 1994 as it did in 1889; three hours for

---

<sup>58</sup>Houston's Canadian Annual Financial Review, 1922, p. 187, PANS.

<sup>59</sup>Halifax Mail Star, 25 August 1959, p. 3; Port and Province, April 1934, Vol. II, No. 5, pp. 14-16.

an average ship.<sup>60</sup> Constant pumping, however, is necessary as watertight is a relative term and constant seepage into the dock requires the continual use of a 12-inch suction pump driven by a 40 horse power motor. This pump is somewhat smaller than the two 32 inch centrifugal pumps driven by 250 horse power electric motors used to empty the drydock. In the early years, to provide the large volume of electric power required, the company had its own power plant. By the middle of the 1930s the power supply for the Halifax Shipyards was supplied by the Nova Scotia Light and Power Company of Halifax from its St. Margaret's Bay hydro-generator.

The Graving Dock was the largest facility of its kind on North America's east coast, making it the refit center of the Atlantic. The first ship to enter the drydock for repairs in 1889 was the "H.M.S. Canada". This tiny 2700 ton frigate took up only a small part of the drydock. The dock went on to repair vessels from many countries. The United States was obliged (because of lack of facilities on its east coast in the latter part of the 19<sup>th</sup> century) to send its largest battleship, "Indiana", to Halifax for repairs.<sup>61</sup>

The Halifax Graving Dock Company consolidated its hold on the ship repair business in Halifax Harbour by purchasing the Chebucto Marine Railway Company Limited drydocking facilities in Dartmouth. The take-over was

---

<sup>60</sup>Lloyd MacKenzie of Halifax, interviewed by author, 8 October 1991, Halifax. Notes, Halifax Shipyards, Halifax.

<sup>61</sup>Port and Province, April 1934, Vol. II, No. 5, pp. 14-15; Houston's Canadian Annual Financial Review, 1926, p. 175, PANS.

completed on 22 August 1890 for the price of \$120,000 Canadian.<sup>62</sup> The joint facilities on the east and west sides of Halifax Harbour made the Halifax Graving Dock Company one of the most modern repair facilities on North America's east coast. Under Samuel Brookfield's guidance the company met its financial obligations during the lean years of the 1890s and the early decades of the 20<sup>th</sup> century, due in part to Brookfield's understanding of corporate financing.

During construction the company issued £260,000 of 5 percent debenture stock. The interest on this stock fell into arrears in 1897, resulting in restructuring of the debt. This was accomplished by using £137,700, 3 percent cumulative first mortgage debenture stock, and £137,700 of 7 percent non-cumulative second mortgage debenture stock. Under Brookfield's guidance the redemption out of profits of the first mortgage debenture stock was completed in 1912. The second mortgage debenture was paid out in 1918.<sup>63</sup> Both classes of debenture stock were paid from company profits. As 1917 drew to a close shareholders looked forward to receiving dividends from their investment after many years of waiting. This optimism came to an abrupt ending with the Halifax Explosion of 6 December 1917 and the expropriation of the Halifax Graving Dock and its facilities in 1918.

---

<sup>62</sup>Registry of Deeds, Halifax. The Chebucto Marine Railway Co. to The Halifax Graving Dock Co., 22 August 1890, Book 279, Deed 1150, p. 229.

<sup>63</sup>Halifax Herald, 20 September 1920, p. 12.

The Halifax Explosion of 1917 signalled the beginning of the end for the Halifax Graving Dock Company.<sup>64</sup> The explosion killed over forty of the dock's employees and inflicted damage to the facility that contributed to its expropriation. To use the words of F.B. Carvell, then Minister of Public Works, in reporting to the Privy Council, "the dock was badly damaged and the repair shops and plant connected therewith were practically destroyed."<sup>65</sup> Samuel Brookfield, who was Chairman and Managing Director of the Halifax Graving Dock Company, offered to sell the dock in its damaged condition to the federal government for \$1.25 million. After two weeks of consideration, the offer was turned down by the Canadian government. The Graving Dock Company was undoubtedly pleased later by the government's response because the offer was made before Brookfield knew fully the extent of the damage. When repairs were undertaken it was found that the damage was not as great as first anticipated. In fact, the Graving Dock was in operation two months following the explosion. The expropriation took place three months later; the value of the dock at that time could not be compared to the "calamity offer" of \$1.25 million made following the explosion.<sup>66</sup> When the expropriation took place five months after the explosion the dock was completely restored and in full operation. The company felt that if the government was expropriating the dock under the War

---

<sup>64</sup>MaryAnn Monnon, Miracle and Mysteries. The Halifax Explosion Dec. 6, 1917 (Hantsport 1977) p. 52.

<sup>65</sup>Halifax Chronicle Herald, 20 September 1920, p. 12; Houston's Canadian Annual Financial Review, 1922, p. 182, PANS.

<sup>66</sup>*Ibid.*

Measures Act it was entitled to fair compensation. Fair value, they believed, would not be less than \$3 million, a point well taken as two years later the new owners, Halifax Shipyards Limited, traded their shares in the company for \$7.25 million in BESCO shares.<sup>67</sup>

Two offers were made to purchase the Halifax Graving Dock prior to expropriation but were refused by the company. In January 1918, shortly after the Halifax Explosion, Joseph Norcross, Vice President and General Manager of the Canadian Steamships Limited of Montreal, a well known Canadian shipping company, made an offer to purchase the Graving Dock; Brookfield declined the offer. Following an inspection of the Graving Dock property in April 1918 by a team including J. Norcross and Roy Wolvin, a second offer was made. This offer of \$1.0 million was promptly refused by the Halifax Graving Dock Company.<sup>68</sup> Shortly thereafter, they received notice of expropriation.

When the Graving Dock Company received word of the expropriation, Brookfield proceeded to Ottawa and held a meeting with Mr. Carvell, Minister of Public Works, to determine the reasons for the extraordinary action. Brookfield found it impossible to obtain from the Minister any satisfactory statement for the action his government had taken. Brookfield was informed that the Cabinet had made a definite decision to expropriate the dock and that he (Mr. Carvell) would advise a purchase price of \$1.25 million. When Carvell was asked if the dock

---

<sup>67</sup>David Frank, "The Cape Breton Coal Industry and the Rise and Fall of the British Empire Steel Corporation", Acadiensis, 7:1 (Autumn 1977), pp. 3-34.

<sup>68</sup>Halifax Herald, 20 September 1920, p. 12.

was being taken over under the War Measures Act he replied in the negative. When Brookfield asked the Minister if the government was taking over the Graving Dock thinking it could run it better than the present owners he again answered in the negative. The Minister gave no specific reason why the expropriation was taking place and went so far as to agree with Brookfield and Director John H. MacDonald that he was taking over the property at the "top of the market for the lowest price."<sup>69</sup>

As events developed it became clear that negotiations with other companies were going on prior to expropriation. The Graving Dock Company was well aware of the fact that other shipping people were interested in the dock. Hon. C.C. Ballantyne, Minister of Marine and Fisheries, stated that he had not in any way indicated to Norcross and Wolvin any particular site on the east coast upon which the yard should be established. They had, with expert advisors, visited Halifax and concluded that the Halifax Graving Dock site would be the most advantageous location on the east coast to construct the four vessels contracted to them by the federal government.<sup>70</sup>

On the twenty-fourth of June 1918, the Dominion Government took possession of the Halifax Graving Dock property. It was immediately leased to the Halifax Shipyards Limited for one year at \$62,500 representing an interest of 5 percent on a capital cost of \$1,250,000, the shipyard company undertaking to pay taxes and keep up the property. The lease also contained an option to

---

<sup>69</sup> Ibid.

<sup>70</sup> Halifax Morning Chronicle, 3 June 1918, p. 1.

purchase the dock for \$1.25 million during the year.<sup>71</sup> Thus it became clear that without notification to the Graving Dock Company, the Dominion Government had entered into discussion with a new company to combine shipbuilding with the Graving Dock repair operation.

The manner in which the Dominion Government dealt with the Graving Dock Company leaves open to speculation the government's motives, especially in light of the fact that the dock owners were waiting word from the Canadian Government with regards to establishing a shipbuilding yard of their own in conjunction with the Halifax Graving Dock repair facilities. This would have allowed the company to benefit from the expected investment in steel ships built in Nova Scotia; such investment would be driven by a provincial law passed in 1901 that exempted owners of ships or shares in steel ships built and registered in Nova Scotia from paying taxes on their investment for twenty years. This was in addition to municipal tax concessions that would apply.<sup>72</sup>

Indignation on the part of the London shareholders at the Halifax Graving Dock's expropriation was voiced by President Sir Clarendon G. Hyde at a general meeting of the Halifax Graving Dock Company held in 1918 at 47 Parliament Street, Westminster, London, England. The dock was expropriated by the Government of Canada in May, 1918 and handed over to the Halifax Shipyards Limited in June of 1918. It was only in July of 1920, however, that the

---

<sup>71</sup>Halifax Herald, 20 September 1920, p. 12.

<sup>72</sup>PANS, MG100 Vol. 157, No. 40. Letter from G.H. Murray, Provincial Secretary, to his Worship Mayor Hamilton of Halifax.



Exchequer Court in Canada handed down its decision in the case, determining the compensation to be received by the Halifax Graving Dock Company for their facilities.<sup>73</sup>

Between 25 June 1918 and the commencement of proceedings in the Exchequer Court, the Halifax Graving Dock Company tried unsuccessfully to settle the matter out of court. However, the company was unable to move the government from its position of \$1.25 million plus the amount of money spent by the company on behalf of the government for reinstatement of the dock facilities following the explosion. This resulted in the case going before the court.

On 10 June 1920, summonses were served to Alfred M. Pike and Robert J.R. Nelson, representatives of the Halifax Graving Dock Company and Halifax Shipyards respectively.<sup>74</sup> Hearing of the case took place in the Exchequer Court, commencing in Halifax 15 June 1920. The trial lasted two weeks, with Judge Audetter presenting his judgement on the sixth of July. The Graving Dock Company was awarded \$1,394,080.17 plus interest at 5 per cent from the time of expropriation. The final settlement was approximately \$1.5 million.<sup>75</sup> This sum was paid to the Graving Dock Company by the Canadian government. Halifax Shipyards repaid the debt in annual instalments and was given until 1 December 1936 to retire it.<sup>76</sup>

---

<sup>73</sup>PANS, RG39 Vol. 162. Supreme Court Records (4 June 1919 to 31 January 1921) p. 35; Halifax Herald, 20 September 1920, p. 12.

<sup>74</sup>PANS, RG39 Vol. 162. Supreme Court Records (4 June 1919 to 31 January 1921), p. 35.

<sup>75</sup>Halifax Herald, 20 September 1920, p. 12.

<sup>76</sup>Houston's Canadian Annual Financial Review, 1922, p. 187, PANS.

## Conclusion

The Halifax Graving Dock Company undertook the construction of the Graving Dock in 1886. This facility, completed in 1889, was operated by the Graving Dock Company until it was expropriated in 1918. Why the company was not given the opportunity by the Dominion Government to construct a shipbuilding facility to be operated with its ship repair facility in Halifax is difficult to understand. My research reveals that the Halifax Graving Dock Company, at the time of the expropriation in 1918, was virtually debt free. In addition, the company's technology was in the forefront of the industry and its employees displayed considerable expertise in the repair of steel-hulled steamships.

The manner in which the Dominion Government undertook the expropriation leaves its motives open to question. Expropriation took place following two unsuccessful offers by Norcross and Wolvin to purchase the Graving Dock. The dock was then sold by the Canadian government to Halifax Shipyards Limited for \$1.25 million. This facility formed a large part of the value of the Halifax Shipyards Limited assets deeded to the British Empire Steel Corporation for \$7.25 million in BESCO shares. Shortly following this merger, Norcross sold his shares and left Nova Scotia. In four years he made a far greater return on his investment than Halifax Graving Dock shareholders had made in thirty years.

Many questions remain unanswered. Had the Dominion Government been negotiating with Joseph Norcross and Roy Wolvin prior to the Halifax

explosion of 1917?<sup>77</sup> Was there some commitment made by Norcross and Wolvin, prior to expropriation, to combine Nova Scotia's steel industry and shipbuilding? Or was the Canadian government simply removing any British influence from the Canadian shipbuilding program? If answers to the above questions are in the affirmative, the Dominion of Canada would have enabled a new company to profit at the expense of an established company doing business in the province for thirty years. On the other hand, it would have been understandable if the Dominion Government had stated it wanted to invest in a Canadian company, or a company that it felt could do a better job in the ship construction field than the British-backed Halifax Graving Dock Company. Whatever the case, the expropriation ushered in a new era of shipbuilding under the direction of the Halifax Shipyards Limited. For the next sixty years no other single business enterprise matched its importance, both economically and socially, in the Halifax/Dartmouth area.

---

<sup>77</sup>The 1907-1908 Annual Report for the City of Halifax describes, on page 32, talks between the City of Halifax and prominent shipping people on the Great Lakes to establish steel shipbuilding in Halifax.

Figure 1.1

# DIRECTORS AND OFFICERS CHEBUCTO MARINE RAILWAY

33

	1860	'61	'62	'63	'64	'65	'66	'67	'68	'69	'70	'71	'72	'73	'74	'75	'76	'77	'78	'79	'80	'81'	82	'83	'84	'85	'86	'87	'88	'89	'90
	n/a	n/a	n/a	-	n/a	n/a	n/a	n/a	n/a	-	-	n/a	n/a	n/a	-	-	-	-	-	n/a	n/a	-	-	-	-	-	-	-	-	-	-
Robert Boak	-	-	-	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
John T. Wyld	-	-	-	S	-	-	-	-	S	S	-	-	-	S/T	S/T	S/T	S/T	S/T	-	-	-	-	-	-	-	-	-	-	-	-	-
A. Pillsbury	-	-	-	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Peter Ross	-	-	-	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	D	D	D	D	D	D	D	D	D	D	D
G.A. McKenzie	-	-	-	-	-	-	-	-	P	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
George Esson	-	-	-	-	-	-	-	-	D	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
James W. Turner	-	-	-	-	-	-	-	-	D	D	-	-	-	D	D	D	D	D	-	D	D	D	D	D	D	P	P	P	P	P	P
John P. Mott	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	P	P	P	P	-	P	P	P	P	P	P	-	-	-	-	-
W.P. West	-	-	-	-	-	-	-	-	-	-	-	-	-	-	D	D	D	D	D	-	-	-	-	-	-	-	-	-	-	-	-
E. Weston	-	-	-	-	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	-	-	-	-	-	-	M	M	M	M	M	M
C.J. Wyld	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	S/T	S/T	S/T	S/T	S/T	S/T	S/T	S/T	S/T	S/T	S/T
George Thompson	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	D	D	D	D	D
George Shields	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	D	D	D	-	-
A.W. West	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	D	D	D	D	D
D. McPherson	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	D	D	D	D

C - Chairman, D - Director, M - Superintendent, M/D - Managing Director, P - President, S - Secretary, S/T - Secretary Treasurer

*Compiled by Victor L. Settle from Hutchinson Business Directory of Joint Stock Companies, 1863, PANS; McAlpine's, Halifax/Dartmouth City Directories, 1874 through 1878, 1883 through 1890, PANS.*

## CHAPTER TWO

### Halifax Shipyards, 1918-1945

Steel-hulled shipbuilding began in Halifax during 1918, when a group of Montreal investors led by Roy Wolvin and Joseph Norcross constructed Halifax Shipyards Limited (HSL) in the city's north end. For the next sixty years, no other single company influenced so significantly the City of Halifax and the Province of Nova Scotia both economically and socially. This chapter looks at some of those events beginning with the founding of HSL, the nature of its business and those who constructed and operated the facility. The era in which the shipyard was built was one of labour unrest across the country. Halifax Shipyards Limited and its employees influenced greatly the labour movement and labour politics in Halifax.

In 1921, during a period of labour-management conflict, HSL became part of a merger that created "The British Empire Steel Corporation" (BESCO). A downturn in world markets and labour problems within the corporation made it impossible for BESCO to meet its financial obligations. In 1928 the directors of the corporation, unhappy with the leadership of Roy Wolvin, removed him as BESCO president. A group led by the Royal Bank of Canada gained control of BESCO and created "The Dominion Steel and Coal Corporation" (DOSCO). The Halifax Shipyards, under DOSCO ownership and the direction of General Manager Robert John Roddick Nelson, distinguished itself in shipbuilding and repair during the 1930s and throughout the Second World War.

The construction of Halifax Shipyards in 1918 gave Canada's east coast its first facility designed to build and repair steel-hulled steam ships. From 1918 to 1945 four cargo vessels, an ice breaker, four target barges and two ammo lighters were launched. In addition, keels were laid for two tribal class destroyers.<sup>78</sup> Between 1939 and 1945, 7145 vessels underwent repairs at "HALSHIP", (the registered trade name and cable address of Halifax Shipyards Ltd.).<sup>79</sup>

Halifax Shipyards Limited, registered under the Companies Act of 1906, listed the nature of its business as that of ship construction, ship repairing (including operation of drydocks), towing, wrecking and salvage operations and work relating thereto. The company, with a capital stock of six million dollars divided into thirty-thousand common shares all at par value of one hundred dollars each, was registered at the Registry of Joint Stock Companies in Halifax on 23 May 1918. At time of registration, \$3,564,250 of the capital stock was issued or subscribed.<sup>80</sup> The capital stock was amended by letter dated 21 October 1918, bringing the authorized capital of the company to ten million dollars divided into fifty thousand preference shares and fifty thousand common shares, all at par value of one hundred dollars each. Only thirty thousand of the preference shares were sold; all fifty thousand common shares of capital stock

---

<sup>78</sup>See Halifax Shipyards Hull Record, Appendix No. 1.

<sup>79</sup>Letter, R.J.R. Nelson to Dartmouth Public Library (23 May 1947) Dartmouth Library, Closed Stacks, No. 387, HAL.

<sup>80</sup>Registry of Joint Stock, Halifax Shipyards Limited Letter of Incorporation (23 May 1918).

were issued.<sup>81</sup> This represented the eight million dollars in assets the Halifax Shipyards traded for shares during the creation of BESCO in 1921.<sup>82</sup>

The directorate of Halifax Shipyards Limited, with its head office in Montreal, consisted of the following officers: James Carruthers, of Montreal, Chairman of the Board; James W. Norcross and Roy M. Wolvin, President and Vice-President/Managing Director respectively. Other officers included M.J. Haney, of Toronto, Vice-President; F.S. Isard, Treasurer; H. McElligott, Secretary; and J.E. McLurg, Manager.<sup>83</sup> Samuel Brookfield, Managing Director of the Halifax Graving Dock Company, was retained in an advisory capacity. During initial stages of construction H.W. Brown, a prominent shipbuilder on the west coast, was retained to oversee preliminary details in the establishment of the plant.<sup>84</sup>

---

<sup>81</sup>PANS, Consolidated balance sheets (1929), H-DIL, Box No. 114.

<sup>82</sup>David Frank, "The Cape Breton Coal Industry and the Rise and Fall of the British Empire Steel Corporation", Acadiensis, 7:1 (Autumn 1977), p. 22.

<sup>83</sup>Registry of Joint Stock, Halifax, Letter of Incorporation of Halifax Shipyards Limited (23 May 1918); Halifax Morning Chronicle, 20 June 1918, pp. 1-2.

The following list of Directors and Officers of Halifax Shipyards Limited for 1918:

The names and residence of the Directors of the Company for 1918 were Joseph W. Norcross, Montreal; Roy M. Wolvin, Montreal; Michael J. Haney, Toronto; J.F.M. Steward, Toronto; Frederick S. Isard, Montreal; William E. Burke, Montreal; Frederick H. Markey, Montreal.

The names of the Officers of the Company for 1918 were James Carruthers, Chairman of the Board; Joseph W. Norcross, President; Roy M. Wolvin, Vice-President & Managing Director; Michael J. Haney, Vice President; Frederick S. Isard, Treasurer; Harry McElligott, Assistant Treasurer; H. McElligott, Secretary; Frederick H. Markey, Assistant Secretary; J.E. McLurg, Manager.

<sup>84</sup>Halifax Morning Chronicle, 20 June 1918, p. 2.

Joseph Norcross and Roy Wolvin were the driving forces behind the formation of the Halifax Shipyards Limited; they were experienced and capable entrepreneurs. Norcross had been involved in the steamboat business on Lake Ontario from a very early age, eventually becoming Vice President and Managing Director of Canadian Steamship Lines.<sup>85</sup> In 1918 Norcross was Vice President of Collingwood Shipbuilding Company and a Director of the Canadian branch of Vickers.<sup>86</sup> Like Norcross, Roy Wolvin was an aggressive entrepreneur in the shipbuilding business on the Great Lakes. Born in Michigan in 1880, Wolvin came to prominence as a transportation expert on the lakes. He was well known in Halifax within the shipping trade as one of the shrewdest men in the industry.<sup>87</sup> Prior to their arrival in Halifax, Wolvin and Norcross were involved in Canadian Steamship Lines and Collingwood Shipbuilding. It was their involvement in shipbuilding that had prompted C. C. Ballantyne, the Minister of Marine, to invite Wolvin and Norcross to establish the Halifax Shipyard.

When Mr. Ballantyne, Minister of Marine, commenced upon the government shipbuilding program, he realized the necessity of a very large modern shipyard in the Maritime Provinces and rather insisted that Mr. Norcross and I should undertake the work.<sup>88</sup>

---

<sup>85</sup>Ibid., p. 2.

<sup>86</sup>Ibid.; Frank, "The Cape Breton Coal Industry and the Rise and Fall of the British Empire Steel Corporation", Acadiensis, 7:1, p. 16.

<sup>87</sup>Ibid.

<sup>88</sup>Halifax Herald, 16 July 1920, p. 1.



It was during these negotiations with Ballantyne that Roy Wolvin made his first visit to Halifax.<sup>89</sup> The final agreement between the Minister of Marine, Wolvin and Norcross with respect to establishing a modern shipyard in Atlantic Canada centred on the conditions that they receive the "expropriated Graving Dock, sufficient land to establish a large shipyard and a contract to build four government ships."<sup>90</sup> The Halifax Shipyards was established on the west side of Halifax Harbour, containing 25 acres of land and 20 acres of water property extending along the harbour front 3300 feet with deep water upon the whole frontage.<sup>91</sup> This site included the Halifax Graving Dock property, the Acadia Sugar Refinery site adjacent to the Graving Dock and railway property made available when terminal facilities were moved to the south end of Halifax. Other lands were obtained by filling in the foreshore of Halifax Harbour bordering the Halifax Shipyards property.<sup>92</sup>

Optimism surrounded the announcement of the opening of the shipyard in 1918. "In every respect" said The Halifax Herald, "Halifax is the ideal site for the development of an immense and ever-increasing shipbuilding concern".<sup>93</sup> The industrial centre and working class neighbourhood of Halifax's north end

---

<sup>89</sup>Ibid.

<sup>90</sup>Suzanne Morton, "Labourism and Economic Action: the Halifax Shipyard Strike of 1920", Labour/Le Travail, Vol. 22 (Fall 1988), p. 74.

<sup>91</sup>Houston's, Canadian Annual Financial Review, 1922, p. 187.

<sup>92</sup>Halifax Herald, 17 March 1920, p. 6; Halifax Morning Chronicle, 3 June 1918, p. 1; Port and Province, Vol. 1., No. 5, April 1934, p. 15.

<sup>93</sup>Halifax Herald, 17 March 1920, p. 6; Halifax Morning Chronicle, 20 June 1918, p. 16.

once again provided an important boost to the industrial and commercial life of Halifax as it rebuilt following the explosion of 1917 and the financial dislocation surrounding post-war demobilization. The Shipyard was critical to the post-war revival of Halifax.

Initial site work began late in July, 1918. Mr. Pagano of "Cavicchi and Pagano", the prime contractor in the construction of the Halifax Shipyards Limited, was very enthusiastic about the gigantic shipyard under construction. Mr. Pagano saw the yard giving a financial boost to the economy of Halifax, as well as all Nova Scotia. He went on to say that the new shipyard would increase the population of Halifax by jobs created not only at the shipyard, but as the result of new industries established to supply and service the yard. Commercial enterprises of long standing would expand and enterprises of all types would come to the city. Port traffic would also increase, bringing more money to the City of Halifax and those companies which serviced shipping. During construction and on completion large payrolls would benefit merchants in Halifax. It was estimated that 60 per cent of the cost of production in a shipyard would be spent on wages. The shipyard would put Halifax, and that meant Nova Scotia too, in the forefront of progress in eastern Canada.<sup>94</sup> These predictions, as financial records demonstrated, proved to be correct.

The Bedford Construction Company Limited, general contractors, started work with a full complement of box cars, compressors and 300 men excavating

---

<sup>94</sup>David Frank, Industrialization and Underdevelopment in the Maritimes, 1880-1930 (Garamond Press, Toronto, 1985), p. 68.

for three berths in which vessels from 100 ton up to that of an ocean liner or battle cruiser could be built. "The excavating contractor plans to have 600 men on the job shortly", said The Halifax Herald on July 25, "to complete the ship building berths as soon as possible."<sup>95</sup> Bedford Construction Company subcontracted the excavating work from the prime contractor on the project, Cauicchi and Pagano, who oversaw other work within the yard that included building a retaining wall at Campbell Road, moving the railway tracks closer to the wall making room for new shipyard work shops, office facilities and space for recreational and social functions. The new shop complex faced the relocated tracks to make the unloading of freight for the shipyard easy and efficient.

As the city's most modern and largest employer with approximately 2,000 employees, the Halifax Shipyards dominated the shipbuilding industry in Halifax and employed modern management techniques. The company went to great lengths to develop employee loyalty through team and individual sports such as boxing, baseball, hockey, social activities and publishing its own newspaper, "The Shipyard Times". The yard provided a social club, a canteen where meals were served, and a definite emphasis was placed on health and safety. A nurse was employed full time and a doctor visited twice a day.<sup>96</sup> Companies realized early in the twentieth century that the key to a successful business depended on the skill and productivity of its work force and that effective management implied

---

<sup>95</sup>Ibid.

<sup>96</sup>Halifax Herald, 17 March 1920; The Citizen, 29 August 1919; Ibid., 27 February 1920; Halifax Herald, 17 March 1920.

a respect for the health, well-being and satisfaction of its workers. In so doing, the employer hoped to win labour's support to increased productivity and to reduce time lost through injury and absenteeism. However, potential benefits to Halifax Shipyards were marred by the employment of J. Ernest McLurg as General Manager. McLurg later became Vice-President of BESCO during its period of labour turmoil in Cape Breton during the 1920s. His abrasive attitude toward the striking miners is well documented by David Frank.<sup>97</sup> McLurg's most famous statement regarding the striking coal miners in the 1920s was that "They can't stand the gaff."<sup>98</sup> As history has recorded, not only did they stand the "gaff", they brought the British Empire Steel Corporation to its knees.

Halifax Shipyards' early years saw considerable labour unrest across Canada. Between 1916 and 1925, Nova Scotia experienced unparalleled levels of strikes. Economic militancy often translated into political action. Coal miners in Cape Breton, Cumberland and Pictou counties; steelworkers in Sydney and industrial workers in Amherst and New Glasgow took part in the radicalism sweeping the country. Halifax was not bypassed by labour militancy of the spring of 1919.<sup>99</sup> The building boom that Halifax witnessed during World War I, and in the post-war era, absorbed all available local labour and that from outlying Maritime towns and villages. People as far away as Montreal came to

---

<sup>97</sup>Frank, "The Cape Breton Coal Industry and the Rise and Fall of the British Empire Steel Corporations", Acadiensis, 7:1, pp. 3-34.

<sup>98</sup>B. M. Green (ed.), Who's Who and Why? 1919 (Toronto, 1920), p. 1443.

<sup>99</sup>Morton, "Labourism and Economic Action: The Halifax Shipyards Strike of 1920", Labour/Le Travail, Vol. 22, pp. 67-98.

the city seeking employment.<sup>100</sup> The 1921 census lists a Halifax work force of 17,175 men and 5,888 women over the age of ten. Twenty percent of the men were employed in the construction and transportation sectors respectively. The construction sector included shipbuilding, Halifax's largest single employer.<sup>101</sup>

The construction trades were highly organized under the Halifax Trades and Labour Council (HTLC). By 1919, its membership of 8,000 made it the fourth largest local organization in Canada.<sup>102</sup> On 1 May 1919, the HTLC went on strike; construction in Halifax ground to a halt and the city began the largest strike in its history. The general buildings trade strike involved 2,000 men in the city's most active economic sector. What started as a strike for higher wages and an eight-hour day soon became one where the dominant issue was "collective bargaining" across the trades. This concept was new; its purpose was to place the fragmented craft unions under one collective bargaining unit.<sup>103</sup> The unification of carpenters, plumbers, plasterers, painters, bricklayers, and masons into a city-wide bargaining unit achieved a definite victory for the principle and practice of collective bargaining. The success of the building trades strike settled on 12 June 1919 provided the optimum and central

---

<sup>100</sup>Graham Metson, The Halifax Explosion: 6 December, 1917 (Toronto, 1978), p.119.

<sup>101</sup>Morton, "The Halifax Shipyards Strike of 1920", Labour/Le Travail, Vol. 22, pp. 74-75; Census of Canada 1921, Vol.4, pp. 386-399.

<sup>102</sup>Canada Department of Labour, Tenth Annual Report on Labour Organizations in Canada, 1920, (Ottawa, 1921), p. 276; *Ibid.*, (1925), p. 237.

<sup>103</sup>Ian McKay, The Craft Transformed: An Essay on the Carpenters of Halifax, 1885-1985 (Halifax, 1985), p. 71.

issue - that of collective bargaining - for the Halifax Shipyards strike of 1920.<sup>104</sup> Halifax Shipyards employed prominent men in the labour movement including E.J. Rudge, who was active in the Labour party for twenty five years and a metal worker at Halifax Shipyards. He became Ward Six Alderman in Halifax during the election of 1920, running under the banner of the labour party. Other shipyard employees active in the labour movement included Ronald MacDonald born in Cape Breton in 1890. He was President of Halifax Shipyards Machinists Union and a leading challenger to the established leadership of HTLC.<sup>105</sup> A more controversial figure was George Boland, President of the Marine Trades and Labour Federation (MTLF). Born in Great Britain, he was a doctrinaire socialist member of the socialist party of Great Britain.<sup>106</sup> It was under the veil of these experienced labour leaders that Halifax Shipyards began its strike of 1920.

The MTLF buoyed by the success of the HTLC a year earlier began their strike on 1 June 1920. However, it could not have taken place at a more inopportune time. The country was experiencing an economic downturn, not a strong position from which unions could bargain. Secondly, the impending creation of the British Empire Steel Corporation (BESCO) further complicated the union's position. It was important to Roy Wolvin that the shipyards be included

---

<sup>104</sup>Suzanne Morton, "Halifax Shipyards Strike of 1920", Labour, Le Travail, Vol. 22. p.79.

<sup>105</sup>Morning Chronicle, 10 January 1919; *Ibid.*, 26 July 1919.

<sup>106</sup>*Ibid.*, 17 January 1920.

in the BESCO merger and they enter on a sound financial footing.<sup>107</sup> Two factors important in obtaining these ends were cost of production and control of the work place. The brashness of employees' demands was extraordinary in management's eyes. They sought an increase in pay of nearly 30 cents an hour, a 44 hour work week and significant control over management decisions. The Marine Trades and Labour Federation also requested double pay for work at noon, after five and on seven holidays throughout the year. Triple pay was sought for Labour Day and Sundays. The MTLF also demanded control of the company's handling of lay-offs and re-hiring, the abolition of physical examinations, a grievance procedure through union business agents, control over the number of apprentices and what they were allowed to do, sanitary lavatories were to be placed in every department, payment on company time and five minutes clean up time each day.<sup>108</sup> To these demands the Halifax Shipyards offered a five cent an hour increase. This offer was rejected by the employees on 31 May 1920. This began the largest industrial strike in the city. It involved approximately 2,500 men, made up of 1,700 workers from the Halifax Shipyards and 800 workers from smaller marine engineering shops in Halifax and Dartmouth.<sup>109</sup> On June 20<sup>th</sup>, McLurg announced he would no longer recognize the authority of the Marine Trades and Labour Federation to negotiate

---

<sup>107</sup>Frank, "The Cape Breton Coal Industry", Acadiensis 7:1, pp. 24-34.

<sup>108</sup>Morton, "The Halifax Shipyards Strike of 1920", Labour/Le Travail, Vol. 22, p. 86.

<sup>109</sup>The Citizen, 4 June 1920.

on behalf of Shipyard workers and would deal with the trades separately.<sup>110</sup> Twenty days into the strike, the main issue moved from wages and benefits to the larger and more important issue of "collective bargaining".

As the strike dragged on, non-unionized employees began returning to work. By the latter part of June 1920, there were reports of clashes between these workers and union members. McLurg took the opportunity to convince city council to locate city police near the yard gates.<sup>111</sup> No doubt he hoped this action would encourage union members to break rank. McLurg was successful in convincing most of the city council to support his request. A notable exception was Alderman Rudge, the labour candidate and shipyard union member elected in Ward Six. The police presence did not prevent conflicts between strikers and those who crossed the picket lines, some of which ended up in court.<sup>112</sup> McLurg contended that the officers of the MTLF and labour agitators were responsible for the strike and that the company was acting in the best interest of its employees by refusing to recognize the MTLF. McLurg stated that foreign leadership of the unions was responsible for the work stoppage. If the union had been under control of "men brought up in Nova Scotia and ... familiar with local conditions" the present strike would not have been advised.<sup>113</sup> It would appear that the general manager's statements were somewhat exaggerated; Boreland

---

<sup>110</sup>Ibid., 18 June 1920.

<sup>111</sup>Minutes, Halifax City Council, 2 July 1920, pp. 186-187.

<sup>112</sup>Halifax Herald, 5 July 1920, p. 2; Ibid., 8 July 1920, p. 2; Ibid., 9 July 1920.

<sup>113</sup>Ibid., 14 July 1920.



was the only leader directly involved with the MTLF to be born in Great Britain. Donald Stewart, the other Scottish-born radical in the city, was said to be working as a strike-breaker.<sup>114</sup> As the strike continued, it became obvious that General Manager J.E. McLurg, working under the direction of Roy Wolvin and the Halifax Shipyards' directors, was not going to back down. The absence of the weekly payroll and its resulting impact on Halifax and the Province of Nova Scotia was staggering. This coupled with the fact that a provincial election was to be held on 27 July 1920 gave rise to the hopes for a political solution.

Labour parties were strong in Britain, New Zealand, and Australia during the latter part of the nineteenth and into the twentieth century.<sup>115</sup> Labourism varied distinctly from place to place according to the social and cultural structure. The first labour party in Halifax was formed in 1907 in a period of unrest among longshoremen, electricians, bricklayers and boilermakers at the Halifax Graving Dock.<sup>116</sup> (The boilermakers at the Graving Dock also walked out in July 1912 and September 1915)<sup>117</sup>. Realizing that power could not be achieved with such a narrow base, the Halifax Labour Party opened its membership to all.

---

<sup>114</sup>Morton, "The Halifax Shipyards Strike of 1920", Labour/Le Travail, Vol. 22, p.88.

<sup>115</sup>Ibid., pp. 67-98; Craig Heron, "Labourism and the Canadian Working Class", Labour/Le Travail, Vol. 13 (1984), p. 12.

<sup>116</sup>Labour Gazette (July 1907), p. 14; (August 1907), p. 235; (October 1907), p. 467; (August 1908), p. 1441; Morton, "The Halifax Shipyards Strike of 1920", Labour/Le Travail, Vol. 22, p.23.

<sup>117</sup>Labour Gazette (August 1912) p.188; (May 1913), p. 1301; (June 1913), p. 1416; (June 1914), p. 1463; (September 1915), p. 349; (August 1917), p. 613; (March 1918), p.206; Catherine Waite, The Longshoremen of Halifax 1900-1930: The Lives and Working Conditions, M.A. Thesis, Dalhousie University, 1977.

As the shipyard strike that began 31 May 1920 moved into July, it became evident to the MTLF that it could not obtain its objective with respect to wages and benefits and was also losing the fight for "collective bargaining". Its last hope for a settlement was through political pressure. The Halifax Labour Party's agenda was to replace the Conservative Party as the official opposition in the election held on 27 July 1920. However, Labour experienced a crushing defeat at the polls. The loss of the election and the collapse of the strike came during the same week. By early August, individual craft unions agreed to the five cent an hour increase that they were offered prior to their May 31<sup>st</sup> strike.<sup>118</sup> The loss of the Halifax Shipyards strike crushed the MTLF's attempt to gain the right of "collective bargaining" for its members, and crippled the labour movement in Halifax. With a powerless union to defend them, the shipyards refused to re-hire the strike leaders. Boreland left Halifax, unable to find employment in the city. Others such as MacDonald were demoted and placed on temporary employment.<sup>119</sup> At the launching of the "Canadian Mariner" on 4 September 1920, McLurg briefly summarized his version of the strike. He stated that "the fight was not with the men. They had no quarrel with them, but only with the imported Bolshevik agitators who had sought to make trouble. Today the men working in the yards are absolutely satisfied."<sup>120</sup>

---

<sup>118</sup>Morton, "The Halifax Shipyards Strike of 1920", Labour/Le Travail Vol.22, pp. 90-98.

<sup>119</sup>The Citizen, 6, 13 August 1920.

<sup>120</sup>Halifax Herald, 9 September 1920.

For a short period in Halifax's labour history, workers put forth a successful and relatively unified labour movement. The prime factors combining to weaken the labour movement were a lack of militancy among workers, a stagnating economy and massive out-migration (a trend which included union leaders). The hardship endured by strikers did not end with the collapse of the union and loss of jobs by the strike leaders. In 1921, a large number of Halifax Shipyards' workers were laid off, and those who remained had their wages reduced five cents an hour, eliminating the gain of the past summer. The strike that lasted 52 working days, with a loss of 104,000 man-days, and accounted for over 12% of the total strike days in Canada during 1920, was possibly labour's most crushing defeat in Halifax.<sup>121</sup>

With the strike over, the first of four ships contracted to the Halifax Shipyards by the federal government was launched on 4 September 1920. The "Canadian Mariner" slid into Halifax Harbour three months behind schedule. In spite of labour management difficulties that delayed the launching of the Mariner, the company and its skilled work force demonstrated that steel-hulled steam ships could be built in Halifax, enhancing the port's reputation as a shipbuilding center and bringing prosperity to employees and merchants. During 1920 the shipyard's average payroll was \$171,300 per month, or in excess of \$2 million a year. This money generated in turn many jobs in the Halifax-Dartmouth retail and service industries.<sup>122</sup>

---

<sup>121</sup>Labour Gazette (February 1921), p. 181.

<sup>122</sup>McAlpine's, Halifax/Dartmouth City Directory, 1920, pp. 747-748.

The contract price for the four ships placed by the federal government with Halifax Shipyards Limited in 1918 amounted to \$7,419,600 and included the building of the largest vessel built in a Canadian yard. The launching of the "Canadian Mariner" was followed by the "Canadian Explorer", weighing 8,390 dead weight tons each. They were contracted for \$195 a ton, or \$1,636,050 per vessel. The two largest steamers built in Canada were the "Canadian Constructor" and "Canadian Cruiser", each weighing 10,500 ton dead weight -- some 1900 tons greater than any other ship built in Canada to 1924. The latter two ships were built for \$2,073,750, representing a construction cost of \$197.50 a ton.

Halifax Shipyards Limited was so confident of success that it invested in a 45-room hotel. The King Edward Hotel was located on the corner of North and Lockman Street in close proximity to the shipyards. The hotel provided accommodations for its officers, managers and employees.<sup>123</sup> The optimism held by many in the City of Halifax in 1918 was well founded. The three million dollar construction cost of the yard, the revenues generated in repair work at the Graving Dock and the construction of steel-hulled steamships fulfilled many of the promises made by James Norcross and Roy Wolvin during pre-construction visits to Halifax in 1918.<sup>124</sup> After being invited to build a new shipyard at Halifax, Roy Wolvin stated that he took a more serious look at this part of the country. He was especially interested in a plate mill at Sydney, he commented:

---

<sup>123</sup>PANS, Papers, H-DIL, Box No.56.

<sup>124</sup>Halifax Morning Chronicle, 20 June 1918, p. 1; Ibid., 3 June 1918, p. 1.

Mr. Ballantyne with admirable foresight, had also provided for a plate mill to be built at Sydney. Some negotiations as to cancellation of this plate contract arose, and I considered it a very serious thing for the shipbuilding industry and for Nova Scotia if this should occur and at that time took my first interest in Dominion Steel Corporation affairs.<sup>125</sup>

At a later date Roy Wolvin joined the Board of the Dominion Steel Corporation, eventually taking over the presidency of the company, completing one step along the way to a plan that Wolvin foresaw of close ties between shipbuilding and steel making in Nova Scotia. Becoming President of Dominion Steel and part owner in Halifax Shipyards placed Wolvin in a position to push forward with the creation of The British Empire Steel Corporation, which would be the largest industrial enterprise in Canada and among the largest in the world.

The enthusiasm demonstrated by Wolvin as he spoke to the Board of Trade on July 15th, 1920 was contagious. Wolvin felt certain that BESCO would be a success, bringing great benefits to business, labour and government in Nova Scotia. He had no anxieties as to the future of the company.

The British Empire Steel Corporation will possess the largest individual holdings of iron ore and coal of any company in the world. To my mind its properties are best situated for the cheap manufacture of steel products, and are most advantageously located for world trade. In these days of railroad difficulties and congestion, our situation is such that for export trade we need place no dependence whatever upon railroad service, and with a water outlet for our coal, our miners are able to work every day of the week if they will, instead of being idle on account of shortage of cars or other similar difficulties.<sup>126</sup>

---

<sup>125</sup>The Halifax Herald, 16 July 1920, p. 1.

<sup>126</sup>Ibid., p. 2.

Wolvin felt that the natural resources of Nova Scotia had not been properly managed to gain the maximum industrial development for Nova Scotia. One of the major problems for industry in the province was the raising of sufficient capital; as well, the companies depended too heavily on government assistance and the domestic trade. The company's name, "British Empire Steel Corporation" implied an empire position and a world position. "I expect we will have sufficient vision and proper British enterprise and nerve to go into the world's markets and obtain sufficient profitable business for all our plants", Wolvin declared.<sup>127</sup>

On 16 April 1921, the shares of the Halifax Shipyards were traded for shares in the newly formed British Empire Steel Corporation. Companies involved in the merger were Dominion Steel, Dominion Coal, Dominion Iron and Steel, Nova Scotia Steel and Coal, Eastern Car and Halifax Shipyards and their subsidiaries. Wolvin, Norcross and associates traded their shares in Halifax Shipyards Limited for shares of the newly formed British Empire Steel Corporation (BESCO) in 1921. The merging share capitalization of the Halifax Shipyards at that time was valued at \$3.0 million in 2nd preference, 7% cumulative shares and \$5.0 million in common shares. These were traded for \$3.0 million in 1st preference B, 7% cumulative shares and \$3.0 million in 2nd preference, 7% cumulative shares and \$1.25 million in common shares. A new class of share was created in the merger: Common Shares of the merging

---

<sup>127</sup>Ibid.; Frank, "The Cape Breton Coal Industry and the Rise and Fall of the British Empire Steel Corporation", Acadiensis, 7:1, pp. 3-34.

companies were traded for second preference cumulative "B" shares -- the importance of this new class of stock being that it allowed the merging companies to lay claim to profits ahead of the 7 percent non-cumulative preference shares sold to raise part of the \$25 million dollars in working capital Wolvin promised to inject into the merger.<sup>128</sup>

Unfortunate timing of the BESCO merger resulted in the company being unable to meet its financial obligations. By the date of the merger in 1921, the post-war speculation boom was over. With the constriction of British capital, borrowing by Canadian companies became difficult. It was under these unstable economic conditions of the 1920s that the British Empire Steel Corporation began operation. Hopes for an enhanced level of profits were soon lost. Throughout its short history the British Empire Steel Corporation remained in financial crises. The company fell far short of making the \$8.0 million in profits required to pay the various classes of shares held by investors in the company.<sup>129</sup> The shareholders finally became dissatisfied with Wolvin's leadership. Under pressure from the shareholders Wolvin resigned at the Annual Meeting of January 1928.

On 30 March 1928, an act to incorporate Dominion Steel and Coal Corporation (DOSCO) Limited was passed by the legislature of Nova Scotia. The transfer of BESCO shares was completed in May 1930, giving DOSCO

---

<sup>128</sup>Houston's Canadian Annual Financial Review, 1922, pp. 180-193; *Ibid.*, 1930, p. 478; Frank, "The Cape Breton Coal Industry and the Rise and Fall of the British Empire Steel Corporation", Acadiensis, 7:1, pp. 22-23.

<sup>129</sup>*Ibid.*

control of:

**DOMINION COAL COMPANY, LIMITED.** Owning and operating sixteen Collieries in Cape Breton; The Sydney & Louisburg Ry.; Shipping Piers at Sydney and Louisburg; Receiving and Distributing Stations at Halifax, N.S., St. John, N.B., Quebec, Three Rivers and Montreal, P.Q.; Tugs, Harbour Barges, etc.

**DOMINION IRON & STEEL COMPANY, LIMITED.** Owning and operating Iron Ore Mines at Wabana, Newfoundland, Limestone properties at Marble Mountains, N.S. and at Port au Port, Newfoundland; Coke Ovens, Blast Furnaces, Steelworks and Mills at Sydney, N.S.

**CUMBERLAND RAILWAY & COAL COMPANY.** Owning and operating three Collieries at Springhill, N.S.; Cumberland Railway from Springhill Junction to Parrsborough, N.S.

**DOMINION SHIPPING COMPANY, LIMITED.** Owning and operating a fleet of 12 cargo-carrying Steamships with an aggregate deadweight capacity of about 68,000 tons.

**JAMES PENDER & COMPANY, LIMITED.** Manufacturers of Wire, Nails, Fencing, etc., at St. John, N.B.

**SYDNEY LUMBER COMPANY, LIMITED.** Manufacturers of Lumber, Shooks, Laths, etc., at Dalhousie, N.B.

**NOVA SCOTIA STEEL AND COAL COMPANY, LIMITED.** Owning and operating four Collieries at Sydney Mines, N.S.; Iron Ore Mines at Wabana, Newfoundland; Limestone and Dolomite properties in Cape Breton; Blast Furnace and Steel Works at Sydney Mines, N.S.; Mills and manufacturing works at Trenton, N.S. Through holdings of their capital stocks the Nova Scotia Steel & Coal Company Limited, controls the following subsidiary Companies:

**EASTERN CAR COMPANY, LIMITED.** Manufacturers of standard Railway Cars and other rolling stock at Trenton, N.S.

**ACADIA COAL COMPANY, LIMITED.** Owning and operating five Collieries in Pictou County, N.S.

**WASIS STEAMSHIP COMPANY, LIMITED.** Owning and operating one steel cargo-carrying ship.



NOVA SCOTIA LAND COMPANY, LIMITED. In which is vested a tract of land at Sydney Mines upon which are erected fifty-three detached dwellings.

PECK ROLLING MILLS. Sydney.

HALIFAX SHIPYARDS, LIMITED. Owning and operating a Dry Dock and extensive shipbuilding and repair plant at Halifax, N.S., Marine Railway and Shops at Dartmouth in Halifax Harbour, N.S.; Tugs, Floating Crane, etc.<sup>130</sup>

Following the completion of the "Mariner" and "Cruiser" in 1921, and "Constructor" and "Explorer" in 1924, there was a lull in ship construction at the Halifax Shipyards until the federal government contracted the yard to build the ice breaker "N.B. McLean", ordered by the Department of Marine to service the Hudson Strait.<sup>131</sup> The "N.B. McLean", when launched on 17 February 1930, was the second largest icebreaker in the world. It measured 277 feet in length, 60 feet in width and had a depth to upper deck of 31 feet. The McLean was designed by Charles F.M. Dugid, naval constructor of the Dominion government, who designed the ship to meet the special requirements of the Hudson Strait service. The only other icebreaker larger than the "N.B. McLean" was the "Mikula Seleaninovitch", which was built during the First World War by the Canadian Vickers Company. It was operated by the Russian Government in its waters for some time, later being turned back to the Canadian Government for operation in the Saint Lawrence.<sup>132</sup>

---

<sup>130</sup>Houston's, Canadian Annual Financial Review, 1929, p. 216.

<sup>131</sup>Port and Province, April 1934, Vol. II, No.5, p. 16; Halifax Shipyards Hull Record, Appendix No.1.

<sup>132</sup>The Halifax Herald, 18 February 1930, p. 10; The Halship Saga: The War Effort of Halifax Shipyards Ltd., by Wallace Advertising Ltd. (Halifax 1947) Dartmouth Public Library Closed Stacks 387 HAL.

Unfortunately for Nova Scotian industry, most of the materials used for construction were supplied from outside Nova Scotia. The "N.B. McLean's" boilers were built by Collingwood Shipbuilding Limited of Collingwood, Ontario. Her steel plates and shapes were brought from David Colwell and Sons Limited of Glasgow, Scotland, with the exception of some sizes that could be secured in Canada. Her decking was of British Columbia fir and her woodwork was supplied by Maxwell and Sons, Montreal. The stern castings and steel frames were supplied by Canadian Steel and Foundry, Montreal. However, the 55 foot motor launch that the "N.B. McLean" had on board, along with two 25 foot life boats were built by Hetherington Boat Builders of Shelburne, Nova Scotia. The rudder stock and rivets were products of the Nova Scotia Steel and Coal Company, being the only spinoff business Nova Scotia industries received from the project.<sup>133</sup> Wolvin's dreams were never realized; with the building of the Halifax Shipyards in 1918 and the yard's later merger with BESCO in 1921, it was his vision that a complete ship could be constructed and outfitted at the Halifax Shipyards with Nova Scotia being in a position to supply the steel for ship construction through BESCO from its steel mill in Cape Breton. However, the fact is that little except labour was supplied by Nova Scotia during construction of the "N.B. McLean".

Robert John Roddick Nelson, General Manager of the Halifax Shipyards Limited, received much credit for building an organization at the yard that was capable of constructing the large icebreaker even though six years had passed

---

<sup>133</sup>Halifax Herald, 18 February 1930, p. 10.

between the launching of the "Explorer" and the "N.B. McLean". Complicating the task was the fact that the "McLean" was not a conventional vessel, but rather an icebreaker. The lines of the "McLean" were very different from those on conventional ships of the day -- its rounded design presented engineers and tradesmen with new problems of recognizing and overcoming design faults as well as the bending of steel plates. The launching in 1930 attested to the skill of local tradesmen under the direction of R.J.R. Nelson.<sup>134</sup>

Robert John Roddick Nelson was born in Huntingdon, Quebec, son of John and Elizabeth (Roddick) Nelson. Educated in public schools and the Academy of Huntingdon, Quebec, R.J.R., as he was often called, began his career with the Grand Trunk Railway coming to the Halifax Shipyards in 1919 as Chief Accountant. Mr. Nelson was appointed General Manager of the shipyards in 1924, became a Director in 1944, Vice President in 1952. Following thirty-nine years of service, R.J.R. Nelson retired in 1958. He served as President of the Halifax and Maritimes Board of Trade, the Canadian Shipbuilding and Ship Repairing Association and the old Halifax Aero Club. Nelson was active in sports; he was a noted amateur golfer, curler and fisherman in addition to being active in the Royal Nova Scotia Yacht Squadron, Halifax. R.J.R. further promoted sport in the Halifax/Dartmouth area when the Halifax Shipyards, under his leadership, sponsored a baseball team in the old H. and D. Baseball League. He died in Halifax in 1970 at the age of 83.<sup>135</sup>

---

<sup>134</sup>Ibid., 18 February 1930, p. 1.

<sup>135</sup>Russell, Nova Scotia Blue Book and Encyclopedia; The Halifax Mail Star, 8 February 1964.

Nelson's longevity as an effective part of the management team at Halifax Shipyards Limited transcended his expertise at shipbuilding and repair. The respect he gave and received from shipyard employees added to Nelson's long and effective service to the company. One such example was when R.J.R. Nelson received a portfolio of reproductions of the Documents of Surrender presented to him by the National War Finance Committee following World War II for the yard's participation in nine successful war bond drives. With typical generosity, the General Manager gave the portfolio to Harvey Hill, the shipyard worker who had spearheaded the drives. The documents, containing the signatures of allied and axis war leaders were treasures of Mr. Hill, who said of Mr. Nelson twenty years later, "It was a nice gesture by R.J.R. and one I have always remembered and appreciated."<sup>136</sup>

Under Nelson's guidance the Halifax Shipyards undertook many large ship repair jobs between 1930 and 1939, gaining a good reputation for the quality of its workmanship. Ship repair and hull construction are the major revenue-generating components of most shipyards, but multiple hull construction of vessels with the same design generated the highest profits. Hull construction often requires considerable government subsidies to enable a shipyard to compete for a contract. This is especially true in the contemporary Maritimes where our shipyards are relatively small by world standards. To be competitive in hull construction requires state-of-the-art technology and the ability to launch

---

<sup>136</sup>Ray Truscott (ed.), The Keel Block, Halifax Shipyards Quarterly (Dartmouth Free Press, Winter 1965), p. 3.

more than one hull of similar design. It is estimated that labour costs can be cut in half by launching ten ships of similar design.<sup>137</sup> This is a luxury that Halifax Shipyards has only encountered once in its long history. That was during the trawler construction period of the 1960s and early 1970 when twenty-eight trawlers were launched.<sup>138</sup>

Ship repair was a major source of revenue and has been so at the Halifax Shipyards throughout its history. It is from revenues generated through ship repair that much of a shipyard's fixed costs are recovered. One of many repair jobs carried out at the Halifax Shipyards between 1930 and 1939 was that involving the "Silveryew", a British merchant mariner freighter. This vessel enhanced the shipyard's reputation in the pre-war era for expertise that was called on by most allied navies during the Second World War. In July 1935 a headline in Port and Province read "Silveryew again puts to sea good as new."<sup>139</sup> This was one of the most extensive, complex jobs completed at a Canadian shipyard. The contract required returning the ship to alignment, restoring two thirds of her bottom and all her double bottom, dismantling and repairing machinery on board and numerous incidental repairs. The Shipyards demonstrated in this repair that they had the organization, technical knowledge and skilled work force supported by modern facilities and mechanical equipment to do the job. There was a special pride felt by the yard that they were able to

---

<sup>137</sup>Sager and Panting, Maritime Capital, 1820-1914, p. 12.

<sup>138</sup>See Halifax Shipyards Hull Record, Appendix No. 1.

<sup>139</sup>Port and Province, July 1935. Vol. III, No. 2, p. 15.

restore one of the British Merchant Navy's finest vessels to a sea-worthy state so that it could continue to promote British prestige and leadership as a world class trading nation. T. Knowles and S. Stoddart, hull and engine experts, acting as inspectors for the owners, pronounced the "Silverew" repairs as fine a job that was ever done in any shipyard. The ship owners expressed themselves highly pleased with the job and the way the work was done.<sup>140</sup>

In the course of repairing the "Silverew", 151 plates were removed with 116 being replaced with new material. The weight of the steel used in the job was 600 tons with 175,000 new rivets installed. Employment of skilled and unskilled wage earners totalled approximately 45,000 man-days. The official trial at sea was on July 4th, 1935. Mr. Thompson of Stanley and Thompson Limited, and owner of the vessel, was on board the ship during sea trials. On completion of sea trials, Thompson announced that the "work has been done to our uttermost satisfaction."<sup>141</sup> The "Silverew" sailed from Halifax on 9 July 1935 for Baltimore to resume active service in the Silver Line fleet of express freight carriers around the globe.

Another repair job in the 1930s involved the cruiser "H.M.S. Dauntless". Towed into Halifax badly damaged, keeping the ship from sinking was regarded as a salvaging miracle. Within a few months the cruiser was completely restored and the work done in such a manner as to receive warm words of praise from

---

<sup>140</sup>Ibid., p. 24.

<sup>141</sup>Port and Province, July 1935, Vol. III, No. 2, pp. 27-28.

the British Admiralty.<sup>142</sup>

Ship repair provided a great stimulus to the economy of Nova Scotia during the difficult years of the depression. Throughout the 1930s the Halifax and Dartmouth Shipyards returned a combined profit of \$1,735,829.92.<sup>143</sup> To generate these profits \$8,369,484.86 was spent on material, labour and burden because in repair work, labour costs almost always exceed material costs, the greater part of money spent stayed within the province of Nova Scotia. Very few businesses in operation at that same time could boast of returning a profit of 20% to its investors and benefiting so greatly the economy of a province.

Ship repair during the Second World War continued to be a profitable component of the Halifax Shipyards. During the period 1939 through 1945, 7,145 vessels were repaired at the Halifax and Dartmouth facilities,<sup>144</sup> generating a profit for the years available (Halifax yard missing record for 1943, Dartmouth yard for 1940 and 1943) of nearly \$17 million and an estimated profit of \$20 million. (For details, see Figure 2.2.) The fact that over seven thousand ships were repaired and substantial profits made may leave the impression that the Halifax Shipyards was at the forefront of the federal government's war-time policies; however, nothing could be further from the truth. The de-industrialization of the shipping industry during the 1970s in Nova Scotia and the collapse of the Halifax Shipyards in 1978 can be traced to policies of William

---

<sup>142</sup>Ibid., March 1937, p. 12.

<sup>143</sup>PANS, Ship Repair Revenues, 1939-1945, H-DIL Box No. 114. See Figure 2.1.

<sup>144</sup>Letter, R.J.R. Nelson to Dartmouth Public Library, 23 May 1947.

Lyon Mackenzie King and his associates; especially C.D. Howe, who was in charge of the Department of Munitions and Supply. Howe held extraordinary power in the King government and greatly affected the shipping and steel industries in Nova Scotia during the Second World War and the post-war era. If not for Angus L. Macdonald's efforts in securing shipbuilding contracts for the Halifax Shipyards, the war might have ended without a ship being constructed at the Halifax yard. The Halifax Shipyards was bypassed during the early years of the war, while the Canadian government financed shipbuilding on the Great Lakes and large ship repair facilities in Quebec. The government defended their policies of not developing steel ship building in the Maritimes because the Halifax Shipyards was needed for ship repair. Initial bypassing resulted in the loss of skilled tradespeople to the Great Lakes yard. This problem would become acute in 1942 when 23 vessels were sunk by German U-boats and the St. Lawrence was virtually shut down, placing more pressure on the undeveloped Maritime yards.<sup>145</sup>

When Angus L. Macdonald went to Ottawa in July of 1940 he could not hope to change the contracts already underway, but he worked to include the Maritimes in any new construction. In 1941 MacDonald proposed to the War Committee to build two tribal class destroyers in Halifax. Howe endorsed the proposal as a supplement to repair work during the shipping season on the St. Lawrence River, when most of the repair work was diverted to Montreal. During

---

<sup>145</sup>E.R. Forbes, "Consolidating Disparity: The Maritimes and the Industrialization of Canada During the Second World War", Acadiensis, 15:2, pp. 14-20.



the early years of the war MacDonald and Howe were far apart on the question of ship repair. The British were also concerned with the lack of year-round repair facilities on the east coast during World War II.

The British regarded Halifax as the logical naval headquarters and begrudged the additional time and risk involved in sending escorts to Montreal.<sup>146</sup> The Canadian government was asked to develop Halifax as a repair centre with multiple Graving Docks to hold the British navy's largest ships. Howe came out strongly against the proposal and was backed by King, who argued against the dangerous concentration of nearly all naval facilities at Halifax. Despite Halifax's strategic location as convoy headquarters, Howe's department continued to treat it as secondary to Montreal. After considerable pressure was brought to bear, Howe promised to make adequate ship repair facilities on the east coast before the St. Lawrence closed for the winter of 1941. In January, 1942 DOSCO President, Arthur Cross, reported to Howe that less than 13 percent of the half-million dollars worth of repair machinery which the government had authorized for the shipyard had been delivered. The equipment was being supplied by "Citadel Company", a Montreal-based crown corporation<sup>147</sup>. There was always a backlog of repairs, especially after the closure of the St. Lawrence in 1942, making the modernization of Halifax Shipyards repair facilities critical.

---

<sup>146</sup>The Halship Saga: The War Effort of Halifax Shipyards Limited (Halifax 1947).

<sup>147</sup>Forbes, "Consolidating Disparity: The Maritimes and the Industrialization of Canada During the Second World War", Acadiensis, 15:2, pp. 14-20.

The neglect of Maritime shipyards affected the navy's war effort whose major role was convoy protection. With the advent of modern submarine detection equipment in 1942, a program was started that required conversion of the corvettes to install this equipment. By 1943 only 22 of the 74 corvettes were outfitted, greatly affecting the navy's prime objectives. The additional pressure on Maritime yards to work on the corvettes, coupled with the responsibility for all the ship repair work meant that the Halifax Shipyards was forced to delay completion of the two tribal class destroyers until after the war. By the summer of 1945 the U-boat threat was over and the St. Lawrence was once again open to shipping; two thirds of the ship repair activity again shifted to the St. Lawrence.<sup>148</sup> The Halifax Shipyards never again saw the magnitude of ship repair that was carried out there between 1939 and 1945, nor has it seen the loss of life that marred that feat.

The most serious accident resulted in the death of nineteen Halifax Shipyard employees in 1943. Only five of the twenty-four men aboard the Halifax Shipyard's tug "Erg" survived a collision between the 50-foot "Erg" and the Norwegian merchant vessel "Norg" which was leaving Bedford Basin. The men, nearly all skilled war workers, were en route to a repair job on a merchant ship anchored in the harbour when the two ships collided. A survivor tells of hearing someone shout that a freighter was coming up on their stern. Vaughan Ross said that when he looked out he saw a freighter bearing down on them only eight feet away. The tug was pushed along with its bow rising in the air and

---

<sup>148</sup>Ibid.

flipped over. It came to rest in approximately 300 feet of water almost in the center of Bedford Basin shortly after 10:00 a.m. on 6 July of that year, trapping many workmen inside.<sup>149</sup> The Halifax Shipyards tug "Erg" was hoisted from the bottom of Bedford Basin on 20 July 1943 by the yards floating crane, Lord Kitchener. The broken and battered steel hull of the shipyards welding tug yielded the bodies of ten of the nineteen men who perished.<sup>150</sup> The "Erg", a 20 ton steel-hulled craft, had been well known along the waterfront. Sunk in the Halifax Explosion of 1917, it was later refloated and refitted for service. It returned to operation in 1930 under the command of Captain Rudolph, a veteran mariner who commanded the vessel until his death aboard the tug in the 1943 collision. Captain Rudolph served in the Royal Navy during the first World War and had been employed by the Halifax Shipyards since 1923.

The largest strike in Halifax Shipyard's history took place on 26 July 1944, when Local No. 1 of the Canadian Congress of Labour (CCL) led 3,000 men and women employed at the Halifax Shipyards out on strike. The issue was not one of wages but the rights to have union dues automatically deducted from their pay cheques, a procedure known as "check-off". As with the Halifax Shipyards strike of 1920, the employees became victims of poor timing again in 1944. With the battle of the Atlantic over, work on the three destroyers under construction at the shipyards was no longer critical to the war effort. More devastating to the union, repair work on damaged vessels had fallen off

---

<sup>149</sup>Chronicle Herald, 7 July 1943, pp. 1-4.

<sup>150</sup>Halifax Herald, 21 July 1943, p. 1.

considerably by mid 1944. The strike had a minimal impact on the war effort. With governments' hands-off policy and Halifax Shipyards' refusal to negotiate "check-off", the strike dragged on into August bringing considerable hardship to the HSL employees. Many strikers left the province, others found employment with other companies. Those that remained on the picket line were informed the union was in a financial crisis, in part from the theft of dues by union leaders. With minimal financial assistance from the labour unions, the membership of Local No.1, accepted a provincially-brokered settlement that called for employees of HSL to return to work and submit their grievances to the "Regional War Labour Relations Board". The strike ended on the 27 August 1944, one month from the day it began. The board, unable to make a decision, sent the matter before the Supreme Court with the judgement delivered in February of 1945, with the union winning a partial victory. The court did not rule on closed shops that would have excluded non-union members from working at the Shipyard. The court ruling on deduction of union dues required a majority vote of employees to ratify check-off along with a signed written request from each worker to authorize the deduction from their wages. The failure to obtain an outright concession from the company damaged the credibility of Local No. 1 of the CLC. Attempts were made by the Halifax Trades and Labour Council (HTLC) to sign up the shipyard employees. HTLC officers told Local No. 1 members that their union would have taken the "check-off" issue to court initially

instead of taking members out on what he termed an ill-conceived strike.<sup>151</sup>

In 1945, plagued with discontent from shipyard employees, the CCL recognized they could not hold the shipyards from takeovers by HTLC without assistance. The CCL approached "The Marine Workers Federation", formed in 1943 to become the parent body for the shipyards in Nova Scotia and New Brunswick. The new union turned out to be hardy, outliving the CCL. Local No. 1 continues to represent shipyard trades in Halifax to this day.<sup>152</sup>

### Conclusion

Steel-hulled shipbuilding began in Halifax with the founding of Halifax Shipyards Limited in 1918. The company, under the direction of Roy Wolvin, Joseph Norcross and associates, assembled properties and constructed a shipyard that became the largest single employer in Halifax, a facility that was of considerable importance to the city.

The shipyard was built during the time of labour unrest in Canada. Halifax trades people experiencing a post-war industrial boom were active in the labour movement, which involved both union activity and political involvement. Two years into its operation, Halifax Shipyards was involved in Canada's largest strike affecting a single community. Unfortunately for the union movement in Halifax, the timing was bad and Halifax Shipyards Limited's resolve to break the union was strong, resulting in a collapse of the strike and the labour movement

---

<sup>151</sup>Jay White, "Pulling Teeth: Striking for the Check-Off in Halifax Shipyard, 1944", Acadiensis, 16:1 (Fall 1989), pp. 115-141.

<sup>152</sup>*Ibid.*, p. 141.

in the city. Labour's position in Halifax did not improve until World War II. Wolvin, not content with shipbuilding (a business he both understood and in which he demonstrated considerable expertise) went on to become the driving force behind the creation of BESCO. Unfortunately for Wolvin and Nova Scotia, the scope of the company far exceeded his expertise. He neither understood the coal and steel business nor the people who worked in these industries. On the whole, coal miners were more radical than their brothers in Halifax, whose union was defeated by Wolvin and McLurg in the Halifax Shipyards strike of 1920. Wolvin's mistake in underestimating the miner's resolve cost him not only the presidency of the corporation, but resulted in the demise of BESCO. With BESCO in financial crisis and Wolvin no longer having the support of the Corporation's directors, Wolvin was removed as President in 1928, and BESCO was taken over by a group led by the Royal Bank of Canada. Under DOSCO management and the leadership of R.J.R. Nelson, "Halship" launched the icebreaker "NB McLean" in 1930, and carried out considerable salvage and repair work. Even during the BESCO years, Halifax Shipyards remained one of the few profitable components of the merger. The shipyards strong financial position carried over into the DOSCO years. During the depression years of the 1930s, the Halifax and Dartmouth Shipyards combined to return profit close to \$2 million when most companies were facing bankruptcy. HSL made even greater profits between 1939 and 1945, repairing 7145 vessels during World War II, thanks in part to labour supplied by women who worked in trades at Halifax Shipyards during the war years.

**FIGURE 2.1  
HALIFAX SHIPYARD - SHIP REPAIR REVENUES**

YEAR	MATERIAL	LABOUR/ BURDEN	TOTALS	PROFIT
1929	\$ 121,921.10	\$ 302,456.87	\$ 424,377.97	\$ 121,299.00
1930	152,693.72	425,836.64	578,520.36	59,741.06
1931	146,892.33	368,450.25	515,342.58	49,277.78
1932	470,399.04	461,899.08	932,298.12	140,123.98
1933	102,945.08	254,591.98	357,537.06	7,504.82
1934	104,954.27	286,236.00	391,190.27	41,240.25
1935	434,916.97	441,800.46	876,717.43	146,736.74
1936	96,135.11	169,093.04	265,228.15	96,384.27
1937	204,562.73	419,905.54	624,468.27	130,526.77
1938	234,776.46	482,508.09	717,284.55	197,894.62

**DARTMOUTH SHIPYARD - SHIP REPAIR REVENUES**

YEAR	MATERIAL	LABOUR/ BURDEN	TOTALS	PROFIT
1929	\$ 45,117.88	\$ 97,526.77	\$140,644.15	\$ 74,972.46
1930	104,065.61	136,084.68	240,150.29	92,923.66
1931	55,166.56	114,170.49	169,337.04	44,331.04
1932				
1933	34,691.18	85,477.74	118,168.92	21,586.94
1934	60,864.59	120,680.46	181,545.05	45,808.52
1935	54,234.96	115,041.57	169,276.53	37,183.20
1936	54,046.26	112,524.30	166,570.56	40,599.01
1937	78,397.72	184,599.30	232,997.02	59,843.20
1938	75,344.02	145,728.08	221,072.10	63,989.71

153

<sup>153</sup>Compiled by Victor L. Settle from H-DIL, Box No. 114, PANS.

**FIGURE 2.2  
HALIFAX SHIPYARD - SHIP REPAIR REVENUE**

YEAR	MATERIAL	LABOUR/ BURDEN	TOTALS	PROFIT
1939	\$ 224,600.33	\$ 439,325.59	\$ 663,925.92	\$ 176,681.24
1940	530,858.80	654,941.16	1,185,799.96	510,841.23
1941	1,254,852.45	2,205,641.16	3,460,493.63	413,174.14
1942	1,188,586.28	2,707,339.62	3,895,925.90	1,154,188.34
1943	N/A	N/A	N/A	N/A
1944	N/A	N/A	N/A	1,355,570.22
1945	N/A	N/A	N/A	1,351,873.95

**DARTMOUTH SHIPYARD - SHIP REPAIR REVENUES**

YEAR	MATERIAL	LABOUR/ BURDEN	TOTALS	PROFIT
1939	\$ 119,275.27	\$ 203,55.39	\$ 322,831.16	\$ 87,221.65
1940	N/A	N/A	N/A	N/A
1941	468,677.76	761,699.15	1,230,376.91	419,709.53
1942	600,456.00	1,248,363.58	1,848,819.58	523,077.32
1943	N/A	N/A	N/A	N/A
1944	N/A	N/A	N/A	359,901.47
1945	N/A	N/A	N/A	304,484.39

154

---

<sup>154</sup>PANS, H-DIL Papers, Box No. 114.



## CHAPTER THREE

### Women in Non-Traditional Occupations During World War II

In the struggle for equality between the sexes, World War II offered women only a temporary opportunity to break out of traditional patterns.<sup>155</sup> Women, at the time constituted a reserve pool of labour, recruited by industry only when men were no longer available for employment. When the war was over, they were the first to be laid off. Women were expected to relinquish their jobs to returning veterans and resume their traditional roles as fulltime mothers and wives.<sup>156</sup> If they continued to work, they were expected to leave high paying non-traditional jobs and return to traditional occupations such as nursing, secretaries, teaching, domestic service, or low-paying factory jobs.<sup>157</sup>

This chapter intends to shed further light on those women who worked as tradespeople during the Second World War; the factors that led to their removal from shipyards in the post-war era; and the social and economic impact of those events. The chapter will profile women who worked in trades at the Halifax Shipyards during World War II, concentrating largely upon five women who graduated as welders from the Nova Scotia Technical College in 1943. These women went on to become an important part of the skilled work force that repaired 7,145 vessels and began construction of two tribal class destroyers

---

<sup>155</sup>Margaret Conrad, "The Re-Birth of Canada's Past: A Decade of Women's History", Acadiensis, 12:2, (Spring 1983), p. 150.

<sup>156</sup>Joan Sangster, Dreams of Equality: Women on the Canadian Left, 1920-1950 (McClelland & Stewart Inc., Toronto, 1989), p. 173.

<sup>157</sup>Ruth Roach Pierson, They're Still Women After All: The Second World War and Canadian Womanhood (McClelland and Stewart, 1986), p.61.

between 1939 and 1945, a feat Halifax Shipyards manager R.J.R. Nelson referred to as "The Halship Saga" in a pictorial account of that era published in 1947.<sup>158</sup>

Although women were a significant part of wartime shipyards, many studies argue that women were exploited. Interviews with women tradespeople at Halifax Shipyards during World War II confirm the views of authors such as Patricia Connelly in "Last Hired, First Fired",<sup>159</sup> who saw structural and institutional factors contributing to women's lack of participation in the industrial work force. Ruth Roach Pierson in They're Still Women After All<sup>160</sup> saw women manipulated in and out of the work force by a government that encouraged patriotism, and glamourized war work to attract women to military service and war-production industries. At the same time, there was little doubt that the jobs were temporary and would become male enclaves again after the war. Unions, labour and government all mirrored that attitude. Deborah Scott Hirshfield in Women Shipyard Workers<sup>161</sup> argued that women's limited training and work experience was inadequate to provide the necessary skills for post World War II shipyard employment. Unions, the business community, the government, all shared some responsibility for this. The roots of the problem,

---

<sup>158</sup>The Halship Saga: The War Efforts of Halifax Shipyards Ltd. (Halifax, 1947).

<sup>159</sup>Patricia Connelly, Last Hired, First Fired: Women and the Canadian Work Force (Women's Press, Toronto, 1978).

<sup>160</sup>Pierson, They're Still Women After All.

<sup>161</sup>Deborah Scott Hirshfield, "Women Shipyard Workers in the Second World War", International History Review, Volume XI, No. 3, (Simon Fraser University, August 1989).

however, ran deep. As Joan Sangster notes women were seldom represented in influential positions in labour, government or industry.

During the early 20<sup>th</sup> century women in Canada were nonetheless influenced by the transformation from a rural agricultural to an urban industrialized society. Farms became larger and more mechanized and census records have shown a steady decline in the size of the agricultural labour force between 1900 and 1941. In rural areas women who were employed in farm-related work, paid or unpaid, were forced to seek employment outside domestic and agriculture spheres. Many moved to larger centers where employment opportunities for women were greater.<sup>162</sup> Changes in family size also influenced the lives of many women. The smaller families that were a product of the 1930s Depression afforded women more opportunity to seek employment outside the home. Although while World War II brought into question many assumptions about the occupations that were suitable or not suitable for women, the acceptance of women in non-traditional occupations remains an issue even today.

The Second World War's demand for labour created a need for women in non-traditional spheres of employment. When the war broke out in September, 1939, 900,000 workers were unemployed.<sup>163</sup> By mid-1941 the reserve pool of male civilian workers had been largely exhausted. A

---

<sup>162</sup>Alan Portigal, Women at Work in Canada, Department of Labour, Canada (Queen's Printer, Ottawa, 1987), p. 3.

<sup>163</sup>Alison Prentice, Naomi Black et al., Canadian Women: A History, (Harcourt, Brace, Jovanovich, Toronto, 1988), p. 297; Pierson, They're Still Women After All, p.23.

government-appointed committee calculated that there was a female labour reserve of approximately 561,000 in Canada. This figure fell short of the 876,000 required to sustain the war effort in 1941. The 561,000 excluded all rural homemakers because of the indispensable work they were doing on the farms. Also excluded were 85% of urban housewives because the government committee feared a disruption of family life.<sup>164</sup>

By 1942 it was projected that 1,437,000 women would be required to sustain Canada's war effort;<sup>165</sup> many of that number were needed for employment in non-traditional occupations. The general shortage of skilled labour was acute. Competent mechanics in every trade had dwindled during the long depression of the 1930s,<sup>166</sup> because little new training had been undertaken over the period of the depression. To reach its goals, Prime Minister Mackenzie King created The National Selective Service (NSS) in 1942, adding a special women's division of NSS in September, 1942 to register women twenty to twenty-four years of age.<sup>167</sup> The objective was to document the number of women available for service in essential war industries. Registration was compulsory for women from 20 to 24 years of age whether they were married or unmarried. Whenever possible, the selective service officers were to restrict

---

<sup>164</sup>Ruth Roach Pierson, Canadian Women and the Second World War, The Canadian Historical Association Booklet No. 37 (Ottawa, 1983), p. 8.

<sup>165</sup>Annual Report, Superintendent of Education for Nova Scotia, year ending 31 July 1941, (Kings Printer, Halifax, 1942), p. 166.

<sup>166</sup>Ibid.

<sup>167</sup>Ibid.

employment permits to single women, or married women without children.<sup>168</sup>

To assist those married women with children who worked in essential industries, a daycare plan was instituted by the federal government in July of 1942. The program was cost shared between the federal government, the provincial governments and families participating in the program. Day nursery mothers contributed thirty-five cents per day for the first child and fifteen cents for each additional child. If both parents worked, the cost was fifty cents per child per day. The program was of limited success because only the two richer provinces, Ontario and Quebec, took advantage of the cost-sharing program. Provinces like Nova Scotia did not have the resources to pay fifty percent of the costs of operating the programs.<sup>169</sup>

One war-industry that recruited women to non-traditional occupations was Canada's shipyards, where the war had brought about a rapid change in ship construction technology. Riveted steel ships that had replaced wooden hulled vessels were now being replaced by all welded hulls. While welded ships had been built prior to 1940, limited demand during the 1930s Depression prevented widespread adoption of this new technology.<sup>170</sup> All-welded ships had several significant advantages over riveted vessels. One welder could be trained to replace an entire four-person riveting team. Welding saved on steel by

---

<sup>168</sup>Ibid., p.9; P. Stacey, The War Among Men and Government: The War Policies of Canada, 1939-1945, (University of Toronto Press, 1960), pp. 416-417.

<sup>169</sup>Ibid., p. 49-60; Sangster, Dreams of Equality, p. 173; Prentice, Black, et al., Canadian Women: A History, p. 298; The Main Deck, Vol. 1, No. 1, Vancouver, B.C., 14 July 1943, p. 6.

<sup>170</sup>Welding Engineer, November 1937, p. 41.

eliminating the need to overlap plates - this was of significant importance because steel was in short supply during the war. In addition the reduced weight of the ships allowed cargo tonnage to be increased.<sup>171</sup> Welding was well suited to mass production. Large sections of the ship could be welded in separate shops then assembled on the ways, and women were recruited to work on the shop floor.

Women were not recruited for shipyard work, however, until all other sources of male labour were exhausted. With the depletion of the reserve pool of male workers by July 1940, for example, the Honourable Norman McCarty, Minister of Labour, announced the "National Youth Training Plan." The Nova Scotia Technical College in Halifax opened special classes for training young men in aeroplane manufacture and munitions making. The courses offered were machine tool operation, machine fitting, sheet metal work and welding.<sup>172</sup> The training was organized under the authority of the Canadian Department of Labour. The operational cost for the program was paid out of the war funds. The objective of the program was to supply the required skilled labour to industry allowing for increased productivity, and a successful war effort. The courses were open at first to young men between eighteen and thirty. There were no vocational schools in Nova Scotia, so dependence was placed on the Technical College and other training centers established throughout the province. A government building in New Glasgow was converted into a trade training center

---

<sup>171</sup>Hirshfield, "Women Shipyard Workers", p. 479.

<sup>172</sup>Halifax Citizen, 12 July 1940, p. 2; *Ibid.*, 5 July 1940, p. 2.

for aircraft metal workers. The Eastern Car Company and Trenton Industries provided space to train machinists. In Pictou, the Canadian National Railway leased a portion of its roundhouse and a hall in the passenger station in which shipyard workers were trained. Dalhousie gave over its common room in the Arts building for training in instrument repair. Every effort was made to provide male recruits for the Nova Scotia Technical College and the ad-hoc training centers. It was not until 1942, after most available men were recruited, that government and industry turned to training women in non-traditional occupations,<sup>173</sup> in any great numbers. Canada had 4000 women working in trades during World War II. In Nova Scotia, 364 women were trained for employment in war-related industries from 1942 to 1945. Of that number 237, or 65%, attended trade schools in 1943. Ninety-two percent of these women became aircraft metal workers or machine tool operators. The remaining 8% were trained as aircraft riveters and welders. Figure 3.1 provides further statistics regarding women in non-traditional areas.

Experiencing a shortage of skilled labour in 1943, the Halifax Shipyards Limited employed the first women welders trained for the war effort in Nova Scotia. In a joint venture between the Halifax Shipyards and the Nova Scotia Department of Education, five women were selected and trained as welders. Selecting women for non-traditional occupations presented a problem. Women lacked involvement with machines and few came from mechanical environments and they tended to score extremely low in mechanical aptitude tests. Recruiters

---

<sup>173</sup>Ibid.; Pierson, They're Still Women After All, pp. 29-30.

set up new criteria based on education, intelligence, temperament and attitudes. Low scores on mechanical aptitude tests were not reflected in skill development; women outperformed men in almost all facets of their training.<sup>174</sup>

The oldest of the five students selected for the training program was Bertha Roach who was 27 and raising two children. The youngest was Dorothy Hendsbee at sixteen years of age. Roach was from Shubenacadie, Colchester County. Hendsbee's home was in Half Island Cove, Guysborough County. The three other students who made up the class were Pauline McKay of Milford, Colchester County, Helen Rice from Halifax and Inez Charron, Halifax, who was married but did not have children.<sup>175</sup> The selection both of a woman with children, and a sixteen year old, would indicate that the National Selective Service had to recruit beyond the twenty to twenty-four age group and beyond those who were either single or married without children to fill their quota for the war effort in Nova Scotia.<sup>176</sup> The five women, referred to as the "Class of 1943" throughout this chapter, reported to the Nova Scotia Technical College on April 6, 1943 for their interview. The five women selected commenced their program on 12 April 1943.<sup>177</sup> The course consisted of 420 hours of shop practice and 60 hours of theory. Time did not permit the usual four-year

---

<sup>174</sup>Halifax Citizen, 12 July 1940, p. 2; *Ibid.*, 5 July 1940, p. 2.

<sup>175</sup>Halifax Mail Star, 5 June 1943, p. 1.

<sup>176</sup>Prentice, Black et al, Canadian Women: A History, p. 298.

<sup>177</sup>Information regarding dates and times taken from documents obtained from Dorothy (Hendsbee) Lutz (World War II shipyard worker) during an interview in 1992; see Appendix 2, signed by A.C. Cooke, Director of Selections; Appendix 3, signed by R.S. Cochrane, Selection and Placement Officer.



apprenticeship plan. The solution was to institute short, intensive courses in trades where the most acute shortages existed.<sup>178</sup>

The 480 hour welding program taught to women at the Nova Scotia Technical College was far superior to that received by their counterparts in the United States. There, women received only one-half of the hours of training.<sup>179</sup> (However, neither program provided jobs for women in the post-war shipyards.) Training of the women welders at the Nova Scotia Technical College was carried out jointly by the college and Halifax Shipyards Ltd. The method of training used is worthy of note because it could be used for skill development and technical training in today's colleges. The "Class of 1943" was being trained specifically for the Halifax Shipyards. It was extremely difficult to secure and retain competent instructors who had both theoretical knowledge and practical skill. Such persons were highly paid and sought after in the war production industries.<sup>180</sup> This problem was solved at the Nova Scotia Technical College when the shipyard loaned the college one of their "A" class welders, Harold Bowman, to teach the skills part of the program while Arthur Green, welding instructor with the Department of Education taught metallurgy and other related theory.<sup>181</sup> The "Class of 1943" was comprised of two school teachers, an

---

<sup>178</sup>Annual Report, Superintendent of Education for Nova Scotia, year ending 31 July 1941, (Kings Printer, Halifax, 1942), p. 166.

<sup>179</sup>Hirshfield, "Women Shipyard Workers", p. 479.

<sup>180</sup>Annual Report, Superintendent of Education for Nova Scotia, year ending 31 July 1943, (Kings Printer, Halifax, 1943), p. 162.

<sup>181</sup>Halifax Mail Star, 5 June 1943, p. 1.

office clerk, a laundry worker and a clothing factory employee who also provided care for an elderly lady.<sup>182</sup> This group of young women with diverse backgrounds graduated on 26 June 1943 and reported for work at the Halifax Shipyards.<sup>183</sup> Helen (Rice) Pilicoski in a letter dated 26 October 1993, gave a capsule glance of what it was like entering "blue collared" employment in 1943. "The first day on the job, I did not feel intimidated -- in fact, I was excited. We were helping the war effort and the wages were better than working in an office." Helen goes on to relate that they "encountered no prejudice at all -- no resentment from the men; in fact, they were helpful. We had to put up with a few good natured jokes, but all in all, we enjoyed the work." Helen spent considerable time in the welding shop prefabricating pipe for the destroyers under construction. She described the work as hot, hard and uncomfortable at times, "We had to be strong and quick moving"; sometimes if the work was heavy, we were assigned helpers. She remembers their working attire as not at all glamorous. The women wore safety boots, denim overalls, and covered their hair with a bandanna before donning safety helmets. Helen, who was twenty-one in 1943, remembers feeling very patriotic, "i sold war bonds in the shipyards and did very well at it. We were all in the same boat, fighting an unseen enemy across the water. I would cry when I read the casualties in the

---

<sup>182</sup>Ibid.; Canadian Legion, April 1989, p. 23.

<sup>183</sup>Dorothy (Hendsbee) Lutz, interviewed Halifax, 1992; See also letter from Selection Committee, Appendix 2.

daily paper, even though I knew none of those brave men."<sup>184</sup> Women contributed more than skilled labour; they also brought a new sensitivity and patriotism to the male dominated workplace. The overalls and bandannas of the women war workers "became a symbol of service" around the country.<sup>185</sup>

The Class of 1943, like women employed in skilled trades throughout Nova Scotia, soon gained the respect of management and fellow employees. Women received considerable praise for their attributes. They were considered in the opinion of Dr. F.H. Sexton, Director of Technical Education, faithful, efficient, conscientious workers who were serious in their efforts to become proficient. He went on to say women had a keener sense of patriotism in the national war effort than their brothers. According to government records women were particularly fitted for routine repetitive work because they did not lose interest when jobs were monotonous.<sup>186</sup> This provides a good example of the attitudes that prevailed with educators and government leaders of the day. Obviously women in the workplace were not considered as just another employee, but were being continually evaluated in comparison with accepted male norms.

Although the success of the welding program prompted the Halifax Shipyards to fill vacancies in other trades with women, this should not to be

---

<sup>184</sup>Letter, Helen (Rice) Pilicoski (World War II shipyard worker) to Victor L. Settle, 26 October 1993. Letter in files of V.L. Settle, Kentville, Nova Scotia.

<sup>185</sup>Pierson, They're Still Women After All, p. 44.

<sup>186</sup>Annual Report, Superintendent of Education for Nova Scotia, year ending 31 July 1943, (Kings Printer, Halifax, 1943), p. 159.

interpreted as leading to the emancipation of women. Bertha (Weir) (Roach) MacKeigan, when interviewed in 1992, said that although they were not asked to sign a statement that they would give up their jobs following the war, they were told that this would be what was expected of them. Women were considered a reserve pool of labour, recruited by industry when men were no longer available.<sup>187</sup> Their venture into non-traditional occupations was regarded as nothing more than a temporary necessity. Following the war they were to resume their feminine roles, including the responsibilities of wife, mother and homemaker.<sup>188</sup> Those who remained in the workforce were expected to return to traditional female occupations, and it was assumed that they wished to do so. Dr. F.H. Sexton, in his 1943 annual report, stated that there was no indication that women desired to continue in the "strange trades" after the war was over. He went on to state that the common attitude among women was that when hostilities ceased they would return to the spheres of effort they were used to under normal conditions.<sup>189</sup> The paramount appeal to woman by the National Selective Service was one of patriotic duty and the necessity to make sacrifices for the nations war effort. Women's obligation to work in wartime clearly took precedence over women's rights to work.<sup>190</sup>

---

<sup>187</sup>Connelly, Last Hired First Fired, p. 23.

<sup>188</sup>Naomi Black, Social Feminism (Cornell University Press, London, Ontario, 1989), p. 1.; Sangster, Dreams of Equality, p. 173.

<sup>189</sup>Annual Report, Superintendent of Education for Nova Scotia, year ending 31 July 1943, p. 159.

<sup>190</sup>Pierson, They're Still Women After All, p. 23.

Many people feared that as woman donned pants and fitted into man's roles in industry they would become more masculine. Many in society believed that women in industry, along with those serving in the armed forces, would cease to be feminine. Women, it was believed, would no longer hold to the traditional values of chastity and monogamy.<sup>191</sup> Fortunately for the war effort in Canada and the United States, women were not unduly influenced by such attitudes and responded in great numbers to recruitment drives by government and industry. It became apparent from interviewing women employed in trades during the 1940s that what changes did take place were not in the women themselves, but rather that they introduced sensitivity and renewed patriotism to the industrial workplace.

Although the women employed in trades at the Halifax Shipyards during World War II did not encounter what they would consider sexual harassment, the fact that they were women placed them on an unequal footing with men. For instance, women were not trained or allowed to weld in the overhead position,<sup>192</sup> and this prevented them from reaching journeyman status and the higher pay scale that accompanied that level. The reason given to them was that welding in the overhead position would be stressful on their bodies, a premise that was later discounted by the medical profession.<sup>193</sup>

---

<sup>191</sup>Pierson, Canadian Women and the Second World War, pp. 7-8.

<sup>192</sup>Halifax Mail Star, 5 June 1943, p.1.

<sup>193</sup>Wendy Mitchinson, The Nature of Their Bodies (University of Toronto Press, Toronto, 1991), pp. 81-82.

In most cases, training provided to women under the War Emergency Training Program was designed to fit them for a specific job, and only for the duration of the war, not for a lifetime career or competition with men in the post-war era. In many instances, women were trained for a shorter number of weeks than men. Although this was not the case with the five welding students discussed in this study, it should be noted that the length of the training program was shorter than pre-war training programs for both men and women.<sup>194</sup> Karen Skold's research shows that the majority of women shipyard workers were channelled into lower paying unskilled jobs; women's entrance into welding was one of the few exceptions to the rule.<sup>195</sup>

Women's hours of work were also restricted. Men could work unlimited overtime and were encouraged to do so,<sup>196</sup> while women's overtime hours were restricted to three nights a week until 10:00 p.m., in addition to their regular work week of forty-four hours.<sup>197</sup> In most cases, women did not press for unlimited overtime and unions accepted the restrictions on overtime hours because they felt women were not physically strong enough to endure working

---

<sup>194</sup>Pierson, They're Still Women After All, p.73.

<sup>195</sup>Karen Bech Skold, "The Job He Left Behind: American Women in the Shipyards During World War II", in Berkin and Lovett (eds.) Woman War and Revolution, pp. 55-75.

<sup>196</sup>The Marine Worker, Vol. 2, No. 4, 11 March 1943, Halifax, N.S., p. 2; *Ibid.*, 9 January 1943; The Main Deck, Vol. 1, No. 7, 28 July, 1943, Vancouver, B.C., p. 3. These union papers, one on the east coast and the other on the west, condemned their members for refusing overtime work on emergency jobs. Another practice the union tried to discourage was workers who refused overtime with employing companies and worked for small operations after hours, taking their pay "under the table." Unions and companies worked closely together in promoting the war effort. The Allied Trades Council and Halifax Shipyards Limited, along with other companies, promoted a play seen by over 27,000 workers and their wives in Nova Scotia.

<sup>197</sup>Halifax Mail Star, 17 July 1943, p. 1.

as long as men.<sup>198</sup> Such issues were seldom addressed by the wartime press, which rarely became involved in controversial social issues regarding women in non-traditional occupations. Instead, newspaper stories projected a positive image of women in war industries.

Media propaganda also encouraged women to enter the labour force and military service during World War II. Glamorous advertisements and photographs in newspapers and magazines helped to attract 43,000 women to military service, most looking for travel and the excitement of overseas service. Yet only one in nine service women served outside Canada. The Canadian government was ever mindful of women's place in society, and continually assured the public that women's jobs were short term.<sup>199</sup> Female recruits were encouraged to look attractive and feminine and were reminded "at all time to act in a becoming and ladylike manner."<sup>200</sup> It was important that women be continually portrayed in a favourable manner. Wartime planners felt that bad publicity might result in a shortage of women to support the war industries. Like women in the military, those who chose to serve in war industries were given positive media coverage. Dorothy Hendsbee of the "Class of 1943" was perfect for that role. The newspaper published a picture of this happy, attractive, young woman working at the Halifax Shipyards. The following quotation accompanied the picture.

---

<sup>198</sup>Mitchinson, The Nature of Their Bodies, p. 81.

<sup>199</sup>Prentice, Black et al., Canadian Women: A History, p. 302.

<sup>200</sup>Elizabeth Forbes, Wild Roses at Their Feet: Pioneer Women of Vancouver Island (Evergreen Press, Vancouver, 1971), pp. 27-28.

"I wouldn't trade my job for anything," says this comely maid who has just turned 16. "Yes, I work overtime, three nights a week, until 10 o'clock. When I go home I study text books. Weekends I remain at my boarding house studying." Shyly Dorothy admitted she had no boy friends, at least nothing serious.

"I'm too busy with my books for that," she explains. Her chief relaxation when she does go out evenings is the movies. And Dorothy is deeply attached to her parents.

"The only reason that would make me quit would be if my mother told me," she says, and in the same breath: "but mother says it's great for me to be working here. I get a great thrill knowing that I am helping to build Canada's new destroyers and I'm glad mother and dad are thrilled too."<sup>201</sup>

Dorothy's attitude and that of her parents were representative of many Nova Scotians. It is also likely that unfavourable publicity regarding women in non-traditional occupations would have eliminated Dorothy and many other women from the skilled work force.

What did the women themselves think of their new careers? As with the 4,000 other women who sought employment in industrial facilities such as Canada's shipyards and working in trades, their reasons for working varied. Some enjoyed helping in the war effort, others were underemployed at home, and for most financial rewards were attractive. The war did much to awaken women to the fact that wages were considerably higher in trades dominated by men than in traditional female occupations. Indeed, women welders at the Halifax Shipyards in 1943 earned in excess of \$2,000 a year, compared to the average of \$376 a year for women in the Maritimes in 1941.<sup>202</sup>

---

<sup>201</sup> Halifax Herald, 17 July 1943, p. 1.

<sup>202</sup> Census of Canada 1941, Table 6, p. 110; H-DIL Box No. 110, PANS.



Bertha Roach was ecstatic about her new career. For the first time she was able to provide luxuries for her children, and rise above the poverty line. Bertha was twenty-seven when she started work at the Halifax Shipyards. At that time she supported two children and herself on money earned by working at both a factory and in the domestic sphere caring for an elderly lady.<sup>203</sup> Bertha's enthusiasm for her job and plans for a career in the post-war era were brought to light in a comment to a Halifax reported. "I might get married," she said, "but I will make my husband keep the home."<sup>204</sup> Like hundreds of other women, however, Bertha was replaced in 1946 by returning service men. Now that the war was won, welding at a shipyard suddenly was no place for a woman. Bertha was asked to give up her 85¢ an hour job to returning servicemen. She was obliged to seek employment in traditional work where the financial rewards were far less. Bertha got a job in a Halifax art store, before going to work in the office of a Halifax home fuel firm. This pioneer wartime welder subsequently married and became Bertha (Weir) (Roach) MacKeigan, and continues to reside in Halifax.<sup>205</sup>

Helen (Rice) Pilicoski, now living in Toronto, wanted to do something in support of the war effort in 1943. "I wanted some adventure, not just to be another stenographer."<sup>206</sup> Helen viewed their pioneering efforts as "not

---

<sup>203</sup>Bertha (Roach) MacKeigan, interviewed Halifax, 1993.

<sup>204</sup>Halifax Mail Star, 17 July 1943, p.1.

<sup>205</sup>Bertha (Roach) MacKeigan, interviewed Halifax, 1993; The Legion, April 1989, p. 23; Daily News, 20 August, 1987, p. 1; Halifax Mail Star, 5 June 1943, p. 1.

<sup>206</sup>Daily News, 20 August 1987, p. 21.

romantic or dangerous, but good. It was our bit toward the war effort."<sup>207</sup> Now retired, Helen is presently involved in the wartime job that employed the largest number of women between 1939 and 1945 - that of a volunteer. Immediately following her departure from the Halifax Shipyards, Helen explored Montreal and Toronto before settling down to work in a life insurance office.<sup>208</sup>

Dorothy Hendsbee planned to make welding her life's profession, believing it "too good to give up for the kitchen."<sup>209</sup> As fate would have it, however, Dorothy contracted pneumonia in 1944 and returned home to Half Island Cove to recover. When she was ready to return to work her position had already been filled by a returning military man. Dorothy took a job at a lunch counter which was "a come down, but it was food."<sup>210</sup> Dorothy married at a young age, becoming Dorothy (Hendsbee) Lutz. After residing in various parts of the Maritimes, she returned to Halifax where she now resides. Even though it was Dorothy's choice to continue as a welder at the Halifax Shipyards, she accepted the fact that when military men returned home they needed jobs, "You see, that was part of the deal."<sup>211</sup> Her acceptance of the situation is consistent with a Gallup poll conducted in 1944, in which 68% of the women and 75% of

---

<sup>207</sup>The Legion, April 1989, p. 23.

<sup>208</sup>Ibid.; Letter, Helen (Rice) Pillicoski to Victor L. Settle, 26 October 1993.

<sup>209</sup>Halifax Mail Star, 5 June 1943, p. 1.

<sup>210</sup>The Canadian Legion, April 1989, p. 24; Dorothy (Hendsbee) Lutz, interviewed Halifax, 1993.

<sup>211</sup>Ibid.; Halifax Daily News, 20 August 1987, p. 21; Dorothy (Hendsbee) Lutz, interviewed Halifax, 1993.

the men polled believed men should be given preference in post-war employment.<sup>212</sup>

Pauline MacKay, a former school teacher, saw welding only as a wartime necessity for, she was quoted as saying, "it's really a man's job, but they [men] are scarce now."<sup>213</sup> Inez Charron, also a school teacher, before she married, became a welder to help out the war effort. Following the war Pauline was laid off from the shipyard and went to work at a post office in Halifax. She married a career navy man in 1946 and became Pauline (MacKay) Burke. In keeping with the usual practise, Pauline ceased work and became a full-time wife, mother and homemaker. She lived in Dartmouth until her death in 1987.<sup>214</sup> I could find no trace of Inez Charron following her departure from Halifax Shipyards in 1945.

Of the five Nova Scotian women from the "Class of 1943" only two wished to pursue welding as a career. However, for the 180,000<sup>215</sup> women like Bertha Roach who traditionally worked to support a family, the loss of their high paying wartime jobs was significant. Bertha was removed from a job at the shipyards paying just under \$3,000 a year to work in an art store for less than one-half the wages. Bertha's rise above the poverty line in 1943 was short lived.

---

<sup>212</sup>Prentice, Black et al., Canadian Women: A History, p. 303; Sangster, Dreams of Equality, p. 173.

<sup>213</sup>Halifax Mail Star, 5 June 1943, p. 1.

<sup>214</sup>Information on Pauline (MacKay) Burke (World War II shipyard welder) was obtained from interview with her brother, Keith MacKay, Dartmouth, 1992. Transcript in files of V.L. Settle, Kentville, NS.

<sup>215</sup>Pierson, Canadian Women and the Second World War, p. 20.

Women were once again forced to take low paying jobs, leaving them in the position where they had to live near or below the poverty line. Unions, run traditionally by men, provided little support to women prior to, during and immediately following World War II.

### Union Attitudes

Unions traditionally saw women in the labour force as a symbol of an unhealthy industrial order in which men could not make sufficient wages to support their families. The predominately male leadership within unions contended that "once the family wage was secured there would be no reason for daughters and wives to desert hearth and home."<sup>216</sup> North American trade unions seemed oblivious to the economic contribution made to society by women, as well as their right to work. Unions did not see men and women having equal worth. This was clearly demonstrated by the treatment of Mary McNab who, in the 1920s, was hired by the amalgamated clothing workers union in Hamilton and paid half the salary of male organizers.<sup>217</sup> Male union leadership was also unsympathetic to issues that were important to women, such as sexual harassment, unsanitary working conditions and equal pay with men.<sup>218</sup> International unions during World War II continued to treat the

---

<sup>216</sup>Prentice, Black, et al. Canadian Women: A History, p. 230; Sangster, Dreams of Equality, p. 173.

<sup>217</sup>L. Luke, Women's Suffrage in Canada (Toronto , 1976), pp. 335-36.

<sup>218</sup>Prentice, Black, et al., Canadian Women: A History, p. 230.

recruitment of women to traditional male occupations as an emergency concession on their part in support of the war effort. In Britain, for example, unions in Britain classed women as substitute labour. They negotiated with government the terms under which they accepted women into their unions. Women were employed only when men could not be found to fill the vacancy, and when there was a reduction in staff, temporary labour (i.e. women) would be laid off first. Finally, men who joined military or national service would have their jobs reinstated following the war.<sup>219</sup>

Post-war employment was an issue in North America as well. Not only did unions force women from their jobs, but they did little to ensure that women were trained for employment in post-war shipyards.<sup>220</sup> Although women welders employed at the Halifax Shipyards received training and work experience far superior to those in the United States shipyards, their fate was the same. They were replaced by men. Male welders trained and employed at the Halifax Shipyards during the war, however, were not asked to give up their jobs. Bertha (Weir) (Roach) MacKeigan, one of the women welders displaced in 1946, put it this way: they reasoned that the jobs of the men who protected the country had to be protected but, with a wry grin, added World War III would break out if women had to concede today what they did yesterday."<sup>221</sup> As

---

<sup>219</sup> Halifax Citizen, 12 April 1941, p. 1.

<sup>220</sup> *Ibid.*; Hirshfield, "Women Shipyard Workers", p. 480.

<sup>221</sup> The Canadian Legion, April 1989, p. 24; Bertha (Roach) MacKeigan, interviewed Halifax, 1993.

noted previously, a Gallup poll conducted in 1944 indicated that in Canada women polled believed that men should be given preference in post-war employment.<sup>222</sup> The question, however, for most wartime women shipyard workers was not relevant. The level of skill required by women for post-war shipbuilding was neglected by both unions who represented and the companies who employed them. As a result, they lacked the skill to stay.

### Training of Women

Training provided women in wartime shipyards proved to be inadequate for post-war ship construction and repair. The assumption that women were around only for the duration of the war encouraged employers to train women to do a single operation and made other women reluctant to learn new skills. The Second World War brought about major innovations in wartime shipbuilding. Mass production reduced many aspects of shipbuilding from a skilled to a semi-skilled craft.<sup>223</sup> Unfortunately, the level of skill acquired by women during the war proved to be inadequate in the post-war era when shipbuilding reverted to highly-skilled methods of construction. During the war new shipyards had been constructed both in Canada and the United States to build merchant vessels.<sup>224</sup> For example, the United States Government designed a ship that

---

<sup>222</sup>Prentice, Black, et al., Canadian Women: A History, p. 303.

<sup>223</sup>Hirshfield, "Women Shipyard Workers", p. 479.

<sup>224</sup>Ibid.; E.R. Forbes, Consolidating Disparity: The Maritimes and the Industrialization of Canada During the Second World War, The Acadiensis Reader, Volume Two, Fredericton, N.B., p. 387.

could be built in large numbers in the shortest possible time (2710 were constructed, it took 9 days to complete a ship). They were known as "Liberty ships", speed was sacrificed for cargo capacity and they were expected to last for five years only. However, many plied the world's oceans well into the 1960s. Two museum ships remain. Shipyards were built especially for the construction of these ships. Neither the ships or the shipyards were designed to be operational in the post-war era. It was in these shipyards that the greatest number of women worked and mass production techniques were employed.<sup>225</sup> Most of the "liberty ships" were mass produced on the Pacific coast. The old traditional shipyards on the United States east coast built primarily for the navy and avoided, in large part, both mass production and the employment of women. As in Canada, a combination of skill level and government policies forced women from jobs in post-war shipyards.

#### Government Policies

Women received the same callous treatment from the federal government with respect to post-war employment in non-traditional occupations that they had from unions and industry. The federal government used the Income Tax Act to remove women from the workforce and the Veterans Preference Act to ensure they remained out. In June 1942 when there was a shortage of labour, the Income Tax Act was amended allowing women to make in excess of \$750 a

---

<sup>225</sup>Hirshfield, "Women Shipyard Workers", p. 480; Halifax Mail Star, 12 August 1994, p. B1.

year and still remain a full dependent.<sup>226</sup> On January 1, 1947 the Income Tax Act was changed again, allowing a wife to earn only \$250 a year. If she earned over this amount, the husband could no longer claim the full married status exemption.<sup>227</sup> This effectively removed many women from the labour market.

The "Veterans Preference Act" also worked against women. Priority for government employment was given to Canadians who had performed active duty overseas. Few Canadian women met this criteria for only 7,000 women had served overseas.<sup>228</sup> There was an effort put forth by the federal government not to employ women in the civil service. Although single women were hired, it was not until 1955 that they were allowed to retain their jobs after they married.<sup>229</sup> Prime Minister Mackenzie King went so far as to request cabinet ministers not to employ women secretaries. It would appear he did not get his way on this matter with all ministers. W.R. Motherwell, the then Minister of Agriculture, was reported to have responded, "To \_\_\_\_\_ with him. I couldn't get along without her."<sup>230</sup> Despite a few supporters like Motherwell, women entered the post-war era under a veil of oppression by unions, industry and government.

---

<sup>226</sup>Prentice, Black, et al., Canadian Women: A History, p. 289.

<sup>227</sup>*ibid.*, p. 305; Pierson, They're Still Women After All, pp. 48-49.

<sup>228</sup>Catherine L. Cleverdon, The Women's Suffrage Movement in Canada (University of Toronto Press, Toronto, 1974), pp. 22-26.

<sup>229</sup>Prentice, Black, et al., Canadian Women: A History, p. 306.

<sup>230</sup>Judy LaMarch, Memories of a Bird in a Gilded Cage (McClelland and Stewart, Toronto, 1969).



## Women in the Post-War Era

The economic and political status of women had improved during the war. It was important that their new found prosperity be maintained as families struggled to put their lives together following the war. For a variety of reasons, women became the principal wage earners as their husbands, brothers and fathers were sometimes killed or disabled during World War II. Divorces tripled in the years following the war<sup>231</sup>, further adding to the need for women to work outside the home. The issue of the woman's right to work in the post-war era was thus fundamentally important. The question following the war was to what extent would women's wider role and large responsibility be accepted. Post-war planners did not see women's presence in the non-traditional workforce to be anything other than temporary. They estimated that 55% of the women who joined the paid labour force since 1939 would respond to the normal urges of a traditional housewife and leave their paid jobs at the end of the war.<sup>232</sup> Those predictions proved to be fairly accurate because by 1946 only one quarter as many women were employed as had been during the war years.<sup>233</sup>

The years immediately following the war were devastating for the 180,000 women who already were in the job market<sup>234</sup>, or because of the war, had become the principal wage earner in the family. Not only were they now forced

---

<sup>231</sup>Pierson, They're Still Women After All, p.84.

<sup>232</sup>Canadian Advisory Committee on Reconstruction, Post War Problems of Women, 30 November 1943 (King's Printer, Ottawa, 1944).

<sup>233</sup>Pierson, Canadian Women and the Second World War, p. 25.

<sup>234</sup>Ibid, p. 21.

out of high paying, non-traditional jobs, but they had to compete for jobs with the women who had worked in wartime industries, women from disbanded military services and those women who chose not to return to their rural communities following the war. It was during the Second World War that women made their greatest strides in narrowing the wage difference between men and women. In 1941, the 1,985 women employed at manufacturing in Nova Scotia averaged \$399 a year compared to \$1,014 a year for the 16,062 men working in the same sector.<sup>235</sup> However, because women were removed from the workplace before the 1946 census was taken, the extent to which the gap was narrowed for the period was not recorded. As the war ended, over 1,000,000 women in Canada were employed in the paid work force.<sup>236</sup> Of that number, 261,000 were employed directly or indirectly in war production. By 1943 those women employed at the Halifax Shipyards saw their yearly wages increase from \$376 per year in 1941, to in excess of \$2,000 in 1943. When these women were displaced from their jobs in 1945, they were making just under \$3,000 per year.<sup>237</sup>

Women across North America had experienced independence and prosperity few had experienced prior to World War II. Yet as the following chart indicates, not all women were prepared to put aside traditional roles as mother

---

<sup>235</sup>Census of Canada 1941, Table 6, p. 110.

<sup>236</sup>C.P. Stacey, The War Arms, Men and Governments: The War Policies of Canada 1939-1945 (University of Toronto Press, 1945), pp. 416-417.

<sup>237</sup>Wages for 1941 was taken from Census of Canada 1941, Table 6, p. 110; Halifax Mail Star 5 June 1945; See Figure 3.2.

and housewife:

Post WWII Plans for Women Tradespeople

Richmond  
California  
Shipyards

Expected to become housewives	29.2%
Preferred to be employed outside current occupation	21.1%
Preferred to remain in current occupation	39.7%
Women who expected to be employed in post-war era	50.4% <sup>238</sup>

Women's Impact on Trades in 1992

Preliminary information from Nova Scotia government agencies, industry and trade unions point to the fact that little progress has been made with respect to women working in the mechanical and construction trades. In 1992 Local No. 56 of the Plumbing and Pipefitters Union had only one woman member in a total membership of 750.<sup>239</sup> The Nova Scotia Department of Education apprenticeship division records also indicate that women are not entering mechanical and construction trades. Of six trades surveyed in November, 1992, the apprenticeship division had only 15 women among 1,393 apprentices, or only 1.07% of the candidates. Even more revealing is that there were only 11 women in Nova Scotia in 1992 holding certificates of qualifications in the trades surveyed.<sup>240</sup> Nova Scotia's shipyards also reveal a lack of progress with respect to women working in the trade areas.

---

<sup>238</sup>Compiled by Victor L. Settle. Information from Hirshfield, "Women Shipyard Workers", pp. 478-48.

<sup>239</sup>Letter, James B. Henley, Business Manager, Local Union No. 56, United Association of Plumbing and Pipe Fitting Industries to Victor L. Settle, 9 October 1992. Letter in files of V.L. Settle, Kentville, Nova Scotia.

<sup>240</sup>Letter, Donald MacAulay, Registrar, Nova Scotia Department of Education to Victor L. Settle, 2 November 1992. Letter in files of V.L. Settle, Kentville, Nova Scotia.

Pictou Industries Limited, a shipyard located in northern Nova Scotia, was recognized in 1992 by Employment and Immigration Canada for promoting employment equality were one of only eleven companies receiving an award in Canada and the only company in the Maritimes. Significantly, they employed but three women in non-traditional areas and only one in the trade area. The latter was a welder, the other two were female managers; one responsible for safety and the other in personnel.<sup>241</sup> As of January, 1993 the Halifax Shipyards employed one woman as a welder.

### Conclusion

The belief that World War II removed the barriers that prevented women from entering high paying non-traditional jobs is a myth. Women's entrance into the industrial workplace was temporary and did not carry over into the post-war years. Government recruitment agencies stressed women's obligation to contribute to the war effort as part of their patriotic duty, but never espoused their right to work. Women were continually reminded that this obligation was temporary and that they were expected to withdraw from the industrial work place when World War II ended. This attitude carried over into a post-war rehabilitation training program for women. Although equal opportunity for men and women was stressed, it was not understood to mean the same opportunity or the same training. Women were directed into traditional occupations, as teachers, stenographers, and domestic servants while men returned to traditional

---

<sup>241</sup> Halifax Chronicle Herald, 25 October 1992.

jobs in trades. Nor were women removed from their jobs in the industrial sector given preference for openings in the civil service. Civil Service Commission appointments were given to ex-service personnel who had seen active service overseas or on the high seas. This effectively removed women, both civilian and military, from obtaining jobs - many at or near the management level in the civil service. Women, both civilian and military, were essentially regarded as replacement workers and treated as such at war's end.

The wartime breakthrough by women into male dominated trade areas did not carry over into the post-war era. The fact that women are so under represented in trades areas in 1992 leads to the conclusion that in part, women consciously made that choice. Training institutions, unions and industry are all open to women applicants, and in many cases, government contracts to industry encourage the hiring of women. The trade areas surveyed, including carpentry, electrical, construction wiring, heavy duty equipment repair, machinist, plumbing and welding, continue to attract men in large numbers but not women. Why is this so? It would appear that separate spheres of production for men and women still exist, and that the trade areas remain in the men's sphere. Considerable publicity has been given to women's progress, and their competition with men for male-dominated jobs, but in reality the major competition is for male-dominated management jobs. Society's attitudes, including those of women themselves, have changed very slowly during the 20<sup>th</sup> century. Had those women who chose to remain in trade areas in the post-war era been allowed to do so, the statistics regarding women in trade areas today

would have greatly been altered. Undoubtedly women today would be represented in larger numbers in non-traditional occupations. The fact remains that women who wished to work in trade areas following the war were not given this opportunity. They were forced from the male-dominated trade area and directed into traditional low-paying jobs such as existed for women in the pre-war years. Many women still carry the financial scars of their post-war treatment, despite the sacrifices they made during the war. Those sacrifices led Ben Wicks to say, "I always feel that on November 11 it's not the dead we should honour, when the parades go by, they should pause and salute the women of the war."<sup>242</sup>

---

<sup>242</sup>The Halifax Mail Star, 8 November, 1991, p. B3.

Figure 3.1

**TRAINING UNDER THE DIRECTION OF TECHNICAL EDUCATION  
BRANCH OF THE PROVINCIAL DEPARTMENT OF LABOUR IN  
AGREEMENT WITH THE DOMINION DEPARTMENT OF LABOUR**

		Number of Trainees				Placed In Employment				Left Before Training Complete			
		1942	'43	'44	'45	1942	'43	'44	'45	1942	'43	'44	'45
Shipyard Machinists	Men	--	9	8	--	--	1	8	--	--	--	--	--
	Women	--	--	--	--	--	--	--	--	--	--	--	--
Aircraft Electricians	Men	4	--	--	--	2	--	--	--	2	--	--	--
	Women	--	--	--	--	--	--	--	--	--	--	--	--
Aircraft Metal Workers	Men	211	207	42	--	135	147	37	--	32	32	5	--
	Women	51	95	21	--	--	69	16	--	--	19	5	--
Coppersmiths	Men	8	--	--	--	8	--	--	--	--	--	--	--
	Women	--	--	--	--	--	--	--	--	--	--	--	--
Marine Electricians	Men	13	--	--	--	13	--	--	--	--	--	--	--
	Women	--	--	--	--	--	--	--	--	--	--	--	--
Electric Welders	Men	19	58	--	--	15	57	--	--	2	1	--	--
	Women	--	5	--	--	--	5	--	--	--	--	--	--
Instrument Repairers	Men	36	32	4	4	20	27	4	--	2	1	--	--
	Women	--	--	--	--	--	--	--	--	--	--	--	--
Machine Fitters	Men	47	23	17	9	45	16	13	9	2	4	4	--
	Women	--	--	--	--	--	--	--	--	--	--	--	--
Machine Tool Operators	Men	181	80	41	15	130	45	33	14	26	4	8	1
	Women	51	111	4	--	16	97	4	--	2	10	--	--
Mechanical Draftsmen	Men	2	5	2	--	1	4	2	--	--	--	--	--
	Women	--	--	--	--	--	--	--	--	--	--	--	--
Ship Riveters	Men	127	--	--	--	102	--	--	--	23	--	--	--
	Women	--	--	--	--	--	--	--	--	--	--	--	--
Aircraft Riveters	Men	--	--	--	--	--	--	--	--	--	--	--	--
	Women	--	26	--	--	--	25	--	--	--	1	--	--
Electricity	Men	--	9	--	--	--	8	--	--	--	1	--	--
	Women	--	--	--	--	--	--	--	--	--	--	--	--
Shipfitting	Men	--	12	--	--	--	8	--	--	--	1	--	--
	Women	--	--	--	--	--	--	--	--	--	--	--	--
Marine Engineering	Men	--	--	9	7	--	--	1	7	--	--	1	--
	Women	--	--	--	--	--	--	--	--	--	--	--	--
Stenography	Men	--	--	--	--	--	--	--	--	--	--	--	--
	Women	--	--	70	66	--	--	61	59	--	9	7	--

Compiled by Victor L. Settle

Source: Annual Reports, Superintendent of Education for Nova Scotia, year ending 31 July 1941; *Ibid.*, 31 July 1942; *Ibid.*, 31 July 1943; *Ibid.*, 31 July 1944; *Ibid.*, 31 July, 1945.

Figure 3.2

WOMEN'S WAGES FOR 1943 AND 1945  
HALIFAX SHIPYARDS LIMITED

Wages for "Improver Welder", July 1943

Regular work week 44 hours @ \$0.59/hour =	\$25.96
Overtime 15 hours @ time and one half - 22.5 hours @ \$0.59 =	<u>\$13.28</u>
Total weekly wage, 1943 =	\$39.24
Total yearly wage, 1943 = (\$39.24 x 52)	\$2,040.48
Total yearly wage less overtime, 1943 = (\$25.96 x 52)	\$1,349.92

Wages for "B" Classification Welder, July 1945

Regular work week 44 hours @ \$0.85/hour =	\$37.40
Overtime 15 hours @ time and one half - 22.5 hours @ \$0.85 =	<u>\$19.13</u>
Total weekly wage, 1943 =	\$56.53
Total yearly wage, 1943 = (\$56.53 x 52)	\$2,939.56
Total yearly wage less overtime, 1943 = (\$37.40 x 52)	\$1,944.80

Compiled by Victor L. Settle

Source: Halifax Mail Star, 5 June 1943; PANS, H-DIL Box No. 110; Welder classifications "Improver" and "B" welders established by comparing hourly pay listed in Mail Star, 5 June 1943 with Halifax Shipyards wage scale located at PANS in H-DIL Box No. 110.



## CHAPTER FOUR

### The Post-War Years and "The Golden Decades"

This chapter covers the years 1945 to 1978, dividing them into three distinct periods. The first of these periods, 1945 to 1958, "the Intervening Years", precedes the so-called "Golden Decades" of the 1960s and 70s. The second period, 1958 - 1968 (the first "Golden Decade") found Halifax Shipyards under new management and involved in the most prolific era of hull construction in its history. From 1958 to 1968, Hawker Siddeley, the new owners of Halifax Shipyards Limited, concentrated on building naval vessels, fishing trawlers and diversified into non-ship related fabrication. The second so-called "Golden Decade" covers the years 1968-1978. During this period, Halifax Shipyards turned almost exclusively to the construction of oil rigs, a decision which many contend led to the demise of Halifax Shipyards in 1978, bringing with it financial hardship for employees, merchants and governments at all levels.

### The Intervening Years, 1945-1958

Halifax Shipyards took on a broader role in the years following the war. During the Second World War Halifax Shipyards was chiefly a repair facility. Although the keels for two tribal class destroyers were laid during the war, these being the "H.M.C.S. Micmac" and "H.M.C.S. Nootka", ship construction was secondary in importance to ship repair. The Micmac and Nootka were not launched until the end of the war, the former in 1945 and the latter in 1946. Following those successful launchings, contracts for two additional tribal class

destroyers were awarded to Halifax Shipyards and completed in 1947.<sup>243</sup> Between 1947 and 1950 Halifax Shipyards built three civilian transport vessels - hulls sixteen through eighteen. These launchings were followed in 1956 by two naval vessels, "H.M.C.S. Saguenay" and "H.M.C.S. Margaree". In total for the period March 31, 1955 to October 31, 1957 Halifax Shipyards received an excess of \$47 million in federal government contracts.<sup>244</sup> It was obvious that Halifax Shipyards depended on government contracts for survival, as was true of yards across Canada. By maintaining high levels of employment in major shipyards, especially in the years immediately following the war, the federal government was able to provide employment to veterans and war-production workers who found themselves unemployed in a Canada whose social structure and settlement patterns had changed greatly from the beginning of the war in 1939.

The intervening years, between the end of World War II and the change in ownership of Halifax Shipyards in 1958, bore witness to considerable social change. Social programs became part of the Canadian way of life. In the 1940s unemployment legislation was passed; in 1944 family allowance was instituted; 1951 brought increases in old age pensions; and by 1957 hospital insurance legislation was implemented.<sup>245</sup> These social programs were important to all

---

<sup>243</sup>See Halifax Shipyard Hull Record, Appendix No. 1.

<sup>244</sup>The Mail Star, 6 January 1958.

<sup>245</sup>The Canadian Global Almanac (Global Press, Toronto, 1992), p.81; Carman Miller, "The 1940s: War and Rehabilitation" in Forbes and Muise The Atlantic Provinces in Confederation (Fredericton, 1993), p. 328.

Canadians, especially elderly residents of rural communities whose sons and daughters chose not to return and take over the family farm, or family fishing and lumbering operations. Interviews I conducted suggest that the desire for change was there in the pre-war years, and that the war provided the opportunity to move. Few of those interviewed chose to return home after the war, a finding consistent with that of Barry Broadfoot in his book, Six War Years, 1939-1945. Broadfoot found a common assumption that things could never be as they were in 1939.<sup>246</sup> For many, like those women welders in the "Class of '43" who obtained a measure of financial independence and were in control of their own lives, returning to pre-war conditions was not an option. Most young men and women enjoyed the social aspects of living in the city and looked forward to the future with great optimism. Bertha Roach remembers taking her children to a restaurant for the first time and providing them with luxuries she had not been able to afford in the pre-war years.<sup>247</sup> As noted earlier, women did not receive equal treatment in the post-war years. Halifax Shipyards, despite its progressive policy of hiring women during the war, did not provide opportunities for them to work as tradespeople in the post-war years. Women were considered temporary labour. At the same time, Halifax Shipyards provided jobs and training in the post-war era for male veterans and rural Nova Scotians who migrated to the city. This made a significant contribution to the government's post-war rehabilitation

---

<sup>246</sup>Barry Broadfoot, Six War Years, 1939-1945: Memories of Canadians Home and Abroad (Doubleday, Toronto, 1974).

<sup>247</sup>Information on Bertha (Roach) MacKelgan came from personal interviews, 1993; The Canadian Legion, April, 1989, p. 23; Daily News, 20 August 1987, p. 1.

program and the economy of Nova Scotia in general, and the Halifax/Dartmouth area in particular.

John Rhynold, an overseas army veteran, chose not to return to the fishing village he left in 1940. Instead he remained in Halifax and found employment at the Halifax Shipyards. John was typical of many young men who grew up in rural communities. His memories of growing up in Fox Island, Guysborough County, during the Depression centered upon the meagre existence and sacrifices made by those in the community to provide for their families. Rhynold's father worked long hours to provide for a wife and four children on an income from the fishery, when lobster sold at seven cents a pound and cod at fifty cents a hundred weight.<sup>248</sup> Before John joined the army, local fishermen in the Canso area were experiencing a decline of inshore fish stock. There was no money to buy or build larger boats to go off-shore where fish stocks were more plentiful (but declining as well).<sup>249</sup> It is little wonder that John Rhynold and the thousands like him never returned to rural communities. An army sergeant with a wife and one child to support, John Rhynold decided to remain in Halifax after the war. Under the government rehabilitation program he trained as a welder at the Nova Scotia Technical College, while living on the \$19 a week gratuity paid to ex-service

---

<sup>248</sup>Information obtained from John Rhynold, interviewed by Victor L. Settle (February, 1992). Transcript of interview in files of Victor L. Settle, Kentville.

<sup>249</sup>David Alexander, "Economic Growth in the Atlantic Region, 1880 to 1940", Acadiensis 8:1 (Autumn 1978), pp. 48, 67-68.

personnel.<sup>250</sup> Like so many other veterans, John subsequently found employment at Halifax Shipyards. While the job market was favourable, locating suitable accommodations proved more difficult. Halifax's wartime housing shortages carried over into the post-war years. Halifax Shipyards alone had 3000 employees, and like John, were looking for adequate housing.

John Rhynold and his family found less than ideal accommodations until 1947 when they rented a wartime prefab in north end Halifax. This was one of the 45,930 units built across Canada by the Wartime Housing Corporation during and immediately following the war. Many of the wartime housing units were later sold by Central Mortgage and Housing Corporation when they took over control of their administration in 1947.<sup>251</sup> In 1950 John purchased a prefab on Vestry Street for \$2300. Like countless others he and his family moved into their first home and paid the mortgage with money earned from employment at the Halifax Shipyards.<sup>252</sup>

Many civilians came to work in Halifax during the war and never returned home. Arthur Zwicker was one of them. During an interview I asked why he left Dalhousie, a small village in Kings County. "Blackflies and hunger", he joked. "I hated every minute spent working at the mill and in the woods." Like many young people who grew up in the 1930s Arthur left home during the war years

---

<sup>250</sup>Pierson, Canadian Women and the Second World War, p. 23; John Rhynold interview, 1992.

<sup>251</sup>Carman Miller, "The 1940s", in Forbes and Muise, The Atlantic Provinces in Confederation, p. 238.

<sup>252</sup>Information on John Rhynold obtained from John Rhynold interviewed by Victor L. Settle (7 February 1992). Transcript of interview in files of Victor L. Settle, Kentville, Nova Scotia.

driven not by blackflies and hunger but rather by the desire for a better way of life. For Arthur, the 45 cents an hour he made working with Brookfield Construction's ship repair department upon arriving in Halifax in 1940, convinced him he would not return to the life he had left. Although Brookfield's ship repair department was closed out after the war, Arthur went to work for Halifax Shipyards Limited in February, 1946.<sup>253</sup> Halifax Shipyards was booming immediately following the war, providing jobs for returning veterans and civilian workers who found themselves out of work when the war ended. But there would be dislocations to follow. Although Maritime shipyards employed 75,000 in 1943, this number was reduced to 12,000 by 1950.<sup>254</sup>

As employment and training was provided to thousands during the period 1945 to 1958, the influence of Halifax Shipyards was felt throughout Nova Scotia. Apprentices from trade schools found employment at the yard. Many of these moved on to better job opportunities with companies locating in Nova Scotia upon reaching journeyman status. Halifax Shipyards was thus instrumental in providing a pool of skilled labour, an important consideration to companies who located in the Halifax/Dartmouth area. In addition, many graduates from the Halifax Shipyards' journeyman program went on to become teachers in the expanded vocational training programs of the 1960s,<sup>255</sup> the

---

<sup>253</sup>Arthur Zwicker interviewed by Victor L. Settle (14 May 1992); see also transcript from Arthur Zwicker dated 15 June 1992 in files of Victor L. Settle, Kentville, Nova Scotia.

<sup>254</sup>Miller, "The 1940s", in Forbes and Muise, The Atlantic Provinces in Confederation, p. 324.

<sup>255</sup>Della Stanley, "The 1960s", in Forbes and Muise, The Atlantic Provinces in Confederation, pp. 442-443.

forerunners of present day community colleges. John Rhynold and Arthur Zwicker were among the group of Halifax Shipyard trained tradespeople who contributed significantly to the community college system and industrial development in Nova Scotia.

#### The First of the "Golden Decades", 1958-1968

As Halifax Shipyards entered the first of its "Golden Decades" government contracts remained important. The yard also actively sought out and obtained work in the private sector building fishing trawlers and undertaking non-ship related fabrication. It seems ironic that what is often considered the "Golden Age" of the Halifax Shipyards should have taken place when the Dominion Steel and Coal Corporation's (DOSCO) other operations under Hawker Siddeley management were facing hardships. Halifax Shipyard workers, as well as local merchants and the government, recognized that Halifax was as dependent on the success of the Halifax Shipyard as Cape Breton, Pictou and Springhill were on the coal and steel industries. DOSCO was the largest corporation in Nova Scotia and one of the largest in Canada, employing 11,000 in their coal mines alone. When DOSCO's other Nova Scotia interests, Sydney Steel and Halifax Shipyards were included, one out of five Nova Scotians in 1957 depended on DOSCO for a living.<sup>266</sup> But DOSCO faced competition from cheap United States coal, as well as from alternative energy sources. Even generous financial

---

<sup>266</sup>Harry Bruce, The Story of R.A. Jodrey: Entrepreneur (McClelland and Stewart, Toronto, 1981), p. 224.

assistance from governments was insufficient to prevent crises in Nova Scotia's DOSCO operations, especially with respect to coal. The financial structure of the corporation was such that income from the few profitable components such as the Halifax Shipyards, were being used to offset losses in DOSCO's less successful operations. This meant that any financial problems in the corporation would be felt in Halifax.

In the midst of the problems facing DOSCO came the announcement that A.V. Roe Canada limited was making a takeover bid. A.V. Roe Canada Limited, a subsidiary of the British-based Hawker Siddeley investment group, was promoted by Sir Roy Dobson with generous support from C.D. Howe, and had created a vigorous fighter-plane industry in Canada. Thriving on fat government contracts, A.V. Roe had expanded its Canadian operations, and by 1957 included rolling stock, diesel buses, and navigational aids. The Diefenbaker cabinet saw A.V. Roe offering an alternative to escalating subsidies for DOSCO's operations in Nova Scotia: DOSCO's difficulties had plagued the Conservative government in Ottawa since Diefenbaker's election, and was a problem for which they had no easy solution.<sup>257</sup> A.V. Roe, whose rise in the corporate world was built around government subsidies, was an ironic choice to overcome the government's financial obligations to Nova Scotia. Nevertheless, many in the Conservative cabinet saw A.V. Roe's young executives, whose

---

<sup>257</sup> Margaret Conrad, George Nowlan: Maritime Conservative in National Politics (University of Toronto Press, Toronto, 1986), p. 236-238.



average age was forty-four, as more aggressive than the aging DOSCO team.<sup>258</sup>

Not everyone was as optimistic about the Roe takeover as the Diefenbaker cabinet. Michael MacDonald, CCF member for Cape Breton Center, expressed concern over the takeover of important Nova Scotian industries by A.V. Roe.<sup>259</sup> MacDonald considered it a company more adept at seeking government grants than investing in the region's future.<sup>260</sup> Hantsport industrialist R.A. Jodrey fiercely opposed the A.V. Roe takeover. The Jodrey family owned 105,000 DOSCO shares, many bought by Roy Jodrey from the company's predecessor BESCO.<sup>261</sup> The stock was held through some very lean years. Now that DOSCO was experiencing a measure of success - it accrued a net profit in 1956 of \$7,049,382 (up \$4 million from 1955) and during the first half of 1957 amassed a profit of \$7,563,735 - Jodrey was not about to give up his shares without a fight. Jodrey contended that A.V. Roe's offer for DOSCO shares was too low, especially since the company was showing a profit and paying dividends. He stated the offer was tantamount to stealing from DOSCO shareholders.<sup>262</sup> Jodrey's long-time friend, George Nowlan, finance

---

<sup>258</sup>Bruce, The Story of R.A. Jodrey, pp. 225,259.

<sup>259</sup>J.M. Beck, Politics of Nova Scotia, 1896 - 1988 Vol. II, (Four East Publications, Nova Scotia, 1988), p. 262.

<sup>260</sup>Margaret Conrad, "The 1950s: The Decade of Development", in Forbes and Muise, The Atlantic Provinces in Confederation, p. 390-391.

<sup>261</sup>Bruce, The Story of R.A. Jodrey, p. 298.

<sup>262</sup>*Ibid.*, p. 261.

minister in the Diefenbaker cabinet was sympathetic to his position but was unable to influence events as they unfolded. The fiercely free-enterprise atmosphere of the 1950s and the minority Conservative government of 1957 left the party in no position to intervene in the boardrooms of the nation. Nothing would be gained, and much more could be lost, by becoming involved in a three-way battle between R.A. Jodrey, DOSCO President C.D. Lang and A.V. Roe's President, Crawford Gordon Jr.. Michael MacDonald and Jodrey lost the battle. A.V. Roe took control of DOSCO operations in October, 1957 followed shortly after by Jodrey's removal from the board. In 1958, Gordon became President of DOSCO's operations in Nova Scotia which included the Halifax Shipyards. A one-time assistant to C.D. Howe, Gordon knew how to operate in the corridors of government. Although he obtained millions in government assistance, this support was not enough to prop up Nova Scotia's coal industry, then plagued by shrinking world markets and aging mining equipment. By 1959, with natural gas pouring through the controversial Trans-Canada pipeline, markets for Nova Scotia coal were devastated.<sup>283</sup> Halifax Shipyards was Roe's most successful operation in their DOSCO holdings.

Halifax Shipyards, like other Roe operations in Nova Scotia, displayed the A.V. Roe name, paying homage to the growing Roe empire, and was promoted by the company as the symbol of success. Throughout the A.V. Roe years, Halifax Shipyards remained a profitable component of the corporation. Following the launching of the "H.M.C.S. Saguenay" in 1956, Halifax Shipyards launched

---

<sup>283</sup>Beck, Politics of Nova Scotia, 1896-1988 Vol. II, p. 238-239.

six more hulls between then and 1959. They included the "H.M.C.S. Margaree", "H.M.C.S. Chaudiere" (both destroyer escorts), the "Sir William Alexander" (a Department of Transport vessel), a calibration barge and two work boats.<sup>264</sup> The work force of 1400 men at the Halifax and Dartmouth yards were further encouraged by the announcement that Halifax Shipyards had been awarded a \$26 million contract for the construction of "H.M.C.S. Annapolis", an improved version of the Restigouche class destroyer.<sup>265</sup>

A. V. Roe expanded their facilities at the Halifax Shipyards. The completion of a new pier in December, 1958 provided for much needed docking space which allowed additional work to be undertaken. The new dock covered 250 feet and filled in the existing space between number six and number seven docks. A new mobile crane added to the efficiency of the dock. Prior to December 1958, there was only a stationary crane at one end of pier number seven and another at pier six. With the completion of the new pier the last of the mine sweepers, the "H.M.C.S. Chaudiere", was moved to that location, allowing for an upgrading of pier number six. The expanded dock space allowed additional work to be brought into the Halifax Shipyards. The new management hoped to move the company from one involved mostly in refit and repairs to one whose center of concentration would be ship building.<sup>266</sup>

Optimism at the Halifax Shipyards was overshadowed by difficulties in

---

<sup>264</sup>See Halifax Shipyards Hull Record, Appendix No. 1.

<sup>265</sup>Halifax Mail Star, 6 November 1958, p.1; *Ibid.*, 13 June 1959, p.1.

<sup>266</sup>Halifax Chronicle Herald, 2 October 1958, p. 26.

Roe's Nova Scotia Coal and Steel industries. There was also concern about the company's stability. It was rumoured that Diefenbaker might cancel the CF-105 Arrow fighter plane contract, and this was confirmed by an announcement from the government on February 20, 1959. Within four hours of the announcement, A.V. Roe laid off 13,800 aircraft workers. The cancellation of the contract meant a 40 percent reduction in earnings for the Roe empire. Crawford Gordon resigned as President of A.V. Roe, one of eight senior executives to do so during the months following the cancellation of the Arrow.<sup>267</sup> In 1959, A.V. Roe was taken over by their parent company, the British based Hawker-Siddeley investment group, and operated by their newly formed Canadian arm, Hawker Siddeley Canada Limited (formerly A.V.Roe) under the name SIDBEC-DOSCO Incorporated. This led Halifax Shipyards into its first "Golden Age", which lasted until 1968. These were busy years at the Halifax Shipyards. Following the five launchings in 1959 another work boat was launched in 1960. Three more vessels, the ferry "Confederation" and two Department of Transport vessels, the "Maxwell" and "Cape Freels" were completed in 1962.<sup>268</sup> They were followed in 1964 by the launching of the "H.M.C.S. Annapolis." This destroyer was the first in the Canadian Navy to have a helicopter flight deck and anti-submarine gear built into its design. The anti-submarine detection equipment included sonar capable of detecting submarines at various depths. The sonar detection

---

<sup>267</sup>Bruce, The Story of R.A. Jodrey, pp. 294-295; Conrad, George Nowlan: Maritime Conservative in National Politics, p. 290.

<sup>268</sup>Halifax Chronicle Herald, 2 Oct. 1958, p. 26; Ibid., 6 Nov. 1958, p. 1; Halifax Shipyards Hull Record, Appendix No. 1.

equipment was developed at the naval research establishment in Dartmouth, and was standard equipment on the six new destroyer escorts. The Annapolis was one of the most modern submarine detection vessels in the world.<sup>269</sup>

The new management, Hawker Siddeley Canada Ltd., actively sought out and obtained new work and in 1964 launched the "Cape Anne", the first of 28 trawlers to be built at the Halifax Shipyards between 1964 and 1972.<sup>270</sup> Not only was the Cape Anne the first steel fishing trawler built in Halifax, it was the first ever built in Nova Scotia. The 362 gross-ton, 141 foot long trawler was the first of three built for the Lunenburg Sea Products Limited, and thus continued the tradition of Nova Scotians building fine ships of sail, steam and diesel propulsion.

The trawlers were built with a 26 foot beam and 13 foot depth from the main deck. They were equipped with 750 horse power diesel engines with a service speed of eleven knots. The trawler "Cape Anne", along with her sister ships "Cape Royal" and "Cape Norman", were built to standards that in many ways exceeded Lloyds' classifications. The owner designed the ship based on its long operating experience. The trawler's hull was made from 3/8" thick steel plate reinforced to withstand the pressure of the ice encountered in the Atlantic fishery. The design of the new trawlers also took into consideration the comfort of the crew and fish storage. Management realized that higher productivity was

---

<sup>269</sup> Halifax Mail Star 13 June 1959, p. 1; The Chronicle Herald, 29 April 1963, p. 1.

<sup>270</sup> Halifax Mail Star, 29 January 1964, p. 10; Ibid., 30 January 1964, p. 1; Halifax Shipyard Hull Record, Appendix No. 1.

the result of a satisfied crew which continued to sign on from trip to trip. To ensure a crew of highly skilled fishermen, their social needs had to be dealt with and this revealed itself in ship design.<sup>271</sup>

The fish holds were also state of the art, taking advantage of the latest developments in insulation. Compartments, pens and shelves were located to prevent damage to fish because of excess weight; fishermen had been bothered by deterioration of fish caught on their first days at sea. In many cases, the fish caught early in the voyage became unusable for human consumption because of the great weight of the overlying fish on those at the bottom of the hold. The new trawlers were designed to ensure that all fish caught during the trip reached the market place in top quality. Not only the design of the fish holding areas changed, but the material they were lined with changed as well. Non-corrosive and bacteria resistant aluminum was used.<sup>272</sup> Although aluminium had been used for many years, oxy-acetylene welding was the early means of joining it. To do a job of this magnitude new welding techniques were required. Training by company and community colleges in gas tungsten arc welding and gas metal arc welding was undertaken.<sup>273</sup>

Among the many building techniques used to cut costs and make the Halifax Shipyards competitive was sectional construction. This method of

---

<sup>271</sup>Halifax Mail Star, 29 January 1964, p. 10.

<sup>272</sup>Ibid.

<sup>273</sup>Report on Vocational Education in Nova Scotia's Fourteen Regional Vocational Schools, Department of Education (Halifax, 1978), p. 2; Ibid., p. 37; Stanley, "The 1960s", In Forbes and Muise, The Atlantic Provinces in Confederation, pp. 442-443.

construction allowed more tradesmen to work on the ship at one time. Sections were built in shops under ideal conditions, resulting in increased productivity and a higher quality of finished product. The completion of the "Cape Anne" in 1964, the first all-steel trawler to be built in Nova Scotia, indicated once again that Maritime industry had the ability to provide quality construction at a competitive price. It was with great pride that the three hundred tradespeople who worked on the "Cape Anne", along with Halifax Shipyards officials and her owners, watched the \$500,000 trawler enter the Halifax Harbour on 30 January 1964. The "Cape Anne" was the first of sixteen modern trawlers built by Halifax Shipyards to supply fish for the \$8 million fish processing plant which officially opened in Lunenburg Co., Nova Scotia in June, 1964.<sup>274</sup>

### Economic Benefits

The years between 1958 and 1968 were prosperous ones for the Halifax shipyards. During this period thirty-seven of the sixty-eight hulls built by the yard after 1918 were launched.<sup>275</sup> The era began with the launching of hull no. 21, "H.M.C.S. Chaudiere", in 1959 and ended with the launching of the "Cape Charles" in 1969. The "Cape Charles", hull no. 57, was one of twenty-six trawlers built at the Halifax Shipyards during that decade. In an effort to keep its approximately 1200 employees working full time new industrial work was obtained to supplement the trawler construction. The new segment of work

---

<sup>274</sup>Halifax Mail Star, 29 January 1964, p. 10; *Ibid.*, 30 January 1964, p. 1.

<sup>275</sup>Halifax Shipyards Hull Record, See Appendix No. 1.

added to the shipyard by Hawker Siddeley included ten oil heaters 12 feet in diameter by 30 feet high for the Canadian Oil Tar Sands Limited project north of Edmonton, Alberta. The yard also obtained contracts to fabricate several thousand tons of large diameter pipe, ranging from 6 inches to 6 feet, for the heavy water plant in Glace Bay.<sup>276</sup>

For Nova Scotians, the record-setting launchings supplemented by non-ship related contracts provided stable employment, with an average yearly work force of 1,183 trades and salaried personnel. Adding to the stability of the local economy, fluctuations in employment levels were modest throughout the period 1959 through 1968; highs and lows ranged between 1,327 and 1,037.<sup>277</sup> This level of consistent employment provided opportunities for graduates from Nova Scotia's expanded vocational school system (now community colleges) to serve their apprenticeship. The highly skilled work force in the Halifax/Dartmouth area was the catalyst that encouraged industry to locate in Nova Scotia during the 1960s and 1970s. Development of skilled tradespeople within the Halifax/Dartmouth area was due in large part to the expanded vocational school system<sup>278</sup> and post-graduate apprenticeship training provided by the Halifax Shipyards Limited who assisted in upgrading the skill level of 490 tradespeople

---

<sup>276</sup>Ray Truscott (ed.), The Keel Block, Halifax Shipyard Quarterly (Dartmouth Free Press, Winter 1966), p. 5; Industrial Jobs: Positive Effect on 1966 Profits, H-DIL Box No. 74, PANS.

<sup>277</sup>Number of Employees by Trade, 1959-1968, H-DIL Box No. 110, PANS; See Figure No. 4.1.

<sup>278</sup>Stanley, "The 1960s", in Forbes and Muise, The Atlantic Provinces in Confederation, p. 443; Report on Vocational Education (Halifax 1976), p. 2-30.



between 1972-1975.<sup>279</sup>

The 1,183 direct jobs at the Halifax Shipyards resulted in considerable spin-off employment across Nova Scotia. Between 1959 through 1968 aggregate employees' salaries averaged \$5.665 million per year,<sup>280</sup> most of which was spent in the local economy. Over that decade, companies in the Halifax/Dartmouth area provided an additional \$19.876 million supplying goods and services directly to the Halifax Shipyards.<sup>281</sup> Purchases nationally, excluding Nova Scotia, amounted to an additional \$41.265 million.<sup>282</sup> Governments at all levels benefited from the success of the Halifax Shipyards. Over the decade 1959 through 1968 employees paid \$5.096 million in personal income tax, \$507.0 thousand in unemployment premiums<sup>283</sup>, and \$250.0 thousand to the Canada Pension Plan.<sup>284</sup> In addition, the company paid \$510.0 thousand to unemployment insurance, \$252.0 thousand to Canada pension, \$548.0 in workman's compensation premiums<sup>285</sup>, and \$3.543 million

---

<sup>279</sup>Peat Marwick and Partners/A and P Appledore Report (1975) PANS, p. 11-88. (From here on The Appledore Report.)

<sup>280</sup>Employees Wages and Salaries, 1959-1968, H-DIL Box No. 110, PANS. See Figure No. 4.2.

<sup>281</sup>Analysis of Purchases Geographically, 1959-1968, H-DIL Box No. 110, PANS. See Figure No. 4.3.

<sup>282</sup>*Ibid.*

<sup>283</sup>Employees Wages and Salaries, 1959-1968, H-DIL Box 110, PANS. See Figure No. 4.2.

<sup>284</sup>Expenditures on Wages, Salaries and Fringe Benefits, 1959-1968, H-DIL Box No. 110, PANS. See Figure No. 4.4.

<sup>285</sup>*Ibid.*

in custom duties, excise and other taxes.<sup>266</sup> Provincial and civic governments also reaped the benefits, both directly and indirectly from the Halifax Shipyard's operation. Civic taxes paid by the Halifax Shipyard and the Dartmouth yard amounted to \$2.084 million and \$459 thousand respectively.<sup>267</sup> Expenditures for utilities and hospital taxes amounted to an additional \$1.599 million dollars that found its way back into the accounts of the civic and provincial governments.<sup>268</sup> To the Canadian economy the Halifax Shipyards was significant in providing jobs, not only directly but also to companies who supplied goods and services to the shipyards and their employees. The success of the Halifax Shipyards in the decade ending 1968 brought optimism to the people of Nova Scotia and governments at all levels. This was further bolstered with the announcement that oil drilling rigs were to be built in Halifax.

---

<sup>266</sup>Expenditures to Government Organizations 1959-1968, H-DIL Box No. 110, PANS. See Figure No. 4.5.

<sup>267</sup>Ibid.

<sup>268</sup>Expenditures for Utilities 1959-1968, H-DIL Box No. 110, PANS. See Figure No. 4.6.

Figure 4.2

**EMPLOYEE WAGES & SALARIES  
with GOVERNMENT DEDUCTIONS  
for the years 1959 to 1968  
Dollars in Thousands**

	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968
<b>WAGES AND SALARIES AFTER DEDUCTIONS</b>	<b>4898</b>	<b>4194</b>	<b>4496</b>	<b>5344</b>	<b>5000</b>	<b>6082</b>	<b>4958</b>	<b>5307</b>	<b>482</b>	<b>5636</b>
<b><u>ADD:</u></b>										
<b>C.P.P.</b>	--	--	--	--	--	--	--	85	77	88
<b>U.I.</b>	37	50	50	60	55	58	46	49	43	59
<b>P.I.T.</b>	<u>397</u>	<u>340</u>	<u>365</u>	<u>484</u>	<u>434</u>	<u>652</u>	<u>490</u>	<u>560</u>	<u>589</u>	<u>785</u>
<b>Sub-total Additions</b>	<b>434</b>	<b>390</b>	<b>415</b>	<b>544</b>	<b>489</b>	<b>710</b>	<b>536</b>	<b>694</b>	<b>709</b>	<b>932</b>
<b>TOTAL WAGES &amp; SALARIES</b>	<b><u>5332</u></b>	<b><u>4584</u></b>	<b><u>4911</u></b>	<b><u>5888</u></b>	<b><u>5489</u></b>	<b><u>6792</u></b>	<b><u>5494</u></b>	<b><u>6001</u></b>	<b><u>5591</u></b>	<b><u>6568</u></b>

**Legend:**

C.P.P.      Canada Pension Plan  
U.I.        Unemployment Insurance  
P.I.T.      Personal Income Tax

From H-DIL Box No. 110, PANS

Figure 4.3

**HAWKER INDUSTRIES LTD.  
HALIFAX SHIPYARDS DIVISION  
ANALYSIS OF PURCHASES GEOGRAPHICALLY  
for the ten years 1959 to 1968  
Dollars in Thousands**

	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968
<b><u>NOVA SCOTIA</u></b>										
Halifax	1777	1451	1397	1609	1289	1637	1811	1596	1970	2109
Dartmouth	123	209	146	82	114	118	291	472	293	546
Other	81	9	196	73	15	53	131	117	70	91
	1981	1669	1739	1764	1418	1808	2233	2185	2333	2746
<b>MARITIMES</b>										
Nova Scotia excluded	23	---	---	2	---	46	437	163	54	163
<b>MARITIMES TOTAL</b>	2004	1669	1739	1766	1418	1854	2670	2348	2387	2909
<b><u>QUEBEC</u></b>	251	477	439	237	482	336	758	1558	1484	2185
<b><u>ONTARIO</u></b>	300	461	667	377	190	227	457	513	396	1524
<b><u>OTTAWA</u></b>	1641	303	372	532	668	845	422	518	383	428
<b><u>WESTERN PROVINCES</u></b>	---	---	2	---	26	4	117	12	24	33
<b>CANADIAN TOTAL</b>	4196	2910	3219	2912	2784	3266	4424	4949	4674	7079
<b>U.S.A.</b>	41	77	89	38	23	22	150	56	103	65
<b>FOREIGN (U.S.A excluded)</b>	87	122	333	25	161	93	1241	1132	1557	728
<b>SUB-TOTAL</b>	4324	3109	3641	2975	2968	3381	5815	6137	6334	7872
<b>UNCODED AS TO SOURCE</b>	442	647	190	161	246	487	285	450	212	877
<b>TOTAL PURCHASES</b>	4766	3756	3831	3136	3214	3868	6100	6587	6546	8749

From H-DIL Box 11C, PANS.

Figure 4.4  
EXPENDITURES ON WAGES, SALARIES AND FRINGE BENEFITS  
for the ten years 1959 to 1968  
(Dollars in Thousands)

	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968
<u>Salaries &amp; Wages</u>										
Wages	4792	4037	4325	5265	4862	5707	4209	4670	4393	5301
Salaries	<u>540</u>	<u>547</u>	<u>586</u>	<u>623</u>	<u>627</u>	<u>1085</u>	<u>1285</u>	<u>1331</u>	<u>1198</u>	<u>1267</u>
SUB-TOTAL	5332	4584	4911	5888	5489	6792	5494	6001	5591	6568
<u>Fringe Benefits</u>										
Company Pension Plan	120	89	92	115	108	127	107	139	328	235
Canada Pension Plan	--	--	--	--	--	--	--	85	78	89
Workmans Compensation Insurance and Welfare Plan	44	43	48	51	50	63	43	57	61	88
Unemployment Insurance	<u>40</u>	<u>48</u>	<u>52</u>	<u>60</u>	<u>55</u>	<u>58</u>	<u>46</u>	<u>49</u>	<u>44</u>	<u>58</u>
SUB-TOTAL	259	234	242	290	274	310	251	440	614	569
GRAND TOTAL	<u>5591</u>	<u>4818</u>	<u>5153</u>	<u>6178</u>	<u>5763</u>	<u>7102</u>	<u>5745</u>	<u>6441</u>	<u>6205</u>	<u>7137</u>

From H-DIL Box No. 110, PANS.

Figure 4.4  
EXPENDITURES ON WAGES, SALARIES AND FRINGE BENEFITS  
for the ten years 1959 to 1968  
(Dollars in Thousands)

	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968
<u>Salaries &amp; Wages</u>										
Wages	4792	4037	4325	5265	4862	5707	4209	4670	4393	5301
Salaries	<u>540</u>	<u>547</u>	<u>586</u>	<u>623</u>	<u>627</u>	<u>1085</u>	<u>1285</u>	<u>1331</u>	<u>1198</u>	<u>1267</u>
SUB-TOTAL	5332	4584	4911	5888	5489	6792	5494	6001	5591	6568
<u>Fringe Benefits</u>										
Company Pension Plan	120	89	92	115	108	127	107	139	328	235
Canada Pension Plan	--	--	--	--	--	--	--	85	78	89
Workmans Compensation Insurance and Welfare Plan	44	43	48	51	50	63	43	57	61	88
Unemployment Insurance	<u>40</u>	<u>48</u>	<u>52</u>	<u>60</u>	<u>55</u>	<u>58</u>	<u>46</u>	<u>49</u>	<u>44</u>	<u>58</u>
SUB-TOTAL	259	234	242	290	274	310	251	440	614	569
GRAND TOTAL	<u>5591</u>	<u>4818</u>	<u>5153</u>	<u>6178</u>	<u>5763</u>	<u>7102</u>	<u>5745</u>	<u>6441</u>	<u>6205</u>	<u>7137</u>

From H-DIL Box No. 110, PANS.

Figure 4.6

**EXPENDITURES FOR UTILITIES**  
**for the years 1959 to 1968**  
**(Dollars in Thousands)**

	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968
Telephone/ Telegraph	20	21	26	24	25	28	34	42	41	44
Light & Power	87	82	91	118	111	113	108	123	116	128
Water	9	11	12	12	15	31	18	18	13	16
<b>TOTAL</b>	<b>116</b>	<b>114</b>	<b>129</b>	<b>154</b>	<b>151</b>	<b>172</b>	<b>160</b>	<b>183</b>	<b>170</b>	<b>188</b>

From H-DIL Box No. 110, PANS.

Figure 4.6

**EXPENDITURES FOR UTILITIES**  
**for the years 1959 to 1968**  
**(Dollars in Thousands)**

	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968
Telephone/ Telegraph	20	21	26	24	25	28	34	42	41	44
Light & Power	87	82	91	118	111	113	108	123	116	128
Water	9	11	12	12	15	31	18	18	13	16
<b>TOTAL</b>	<b>116</b>	<b>114</b>	<b>129</b>	<b>154</b>	<b>151</b>	<b>172</b>	<b>160</b>	<b>183</b>	<b>170</b>	<b>188</b>

From H-DIL Box No. 110, PANS.



**Figure 4.7**  
**SUMMARY OF FORWARD ORDERS**

SHIPBUILDING FIRM	SHIP TYPE	CUSTOMER	VALUE (MILLION \$)	DELIVERY
Halifax Shipyards	Drill Rig	Shell	22	September 1975
Halifax Shipyards	Drill Rig	Marine Drilling	35	August 1976
Halifax Shipyards	Drill Ship	Sedco	45	May 1977
HALIFAX SHIPYARDS			TOTAL	<u>102</u>
Ferguson Industries	Trawler (460 Tons)	Canso Seafoods	3.48	May 1975
Ferguson Industries	Trawler	Canso Seafoods	3.48	June 1975
Ferguson Industries	Trawler	Canso Seafoods	3.48	October 1975
Ferguson Industries	Trawlers	Canso Seafoods	3.48	December 1975
Ferguson industries	Patrol Craft	Gov. of Canada	11.0	September 1976
FERGUSON INDUSTRIES			TOTAL	<u>24.92</u>
Breton Industrial & Marine	Patrol Craft (126')	Environment Canada	2.7	September 1976
Breton Industrial & Marine	Patrol Craft	Environment Canada	2.9	November 1976
Breton Industrial & Marine	Pilot Boat	Atlantic Pilotage	.5	March 1976
BRETON INDUSTRIAL & MARINE			TOTAL	<u>6.1</u>
PROVINCIAL TOTAL				<u>133</u>

Source: Data from Peat Marwick & Partners/A & P Appledore Shipyard Survey, pp. II - 86.

investment was one-half the Canadian figure and nearly 50 percent of provincial revenues came through federal transfer payments.<sup>291</sup> Nova Scotia's offshore oil, referred to by the Chronicle Herald as "Fields of Dreams", provided hope for a brighter economic future for the province. Those dreams were enhanced in 1967 when Mobil Oil Canada spudded the "Sable Island 1", their first oil well on the Scotian Shelf.<sup>292</sup> This success was followed by Mobil's vast discovery of crude oil near Sable Island in 1971.<sup>293</sup> Nova Scotia's Premier, Gerald Regan, was pictured in the Chronicle Herald holding a bottle of crude furthering hope that Nova Scotia's "fields of dreams" were nearing production.<sup>294</sup> Speculation was increased when additional oil reserves were discovered in Mobil's Cohasset D-42 well. Other companies joined Mobil in the search for oil off Canada's east coast, driven by the middle east crisis of 1973, which doubled oil prices.<sup>295</sup> The combination of relative stability in the Middle East and the inability of the oil cartel to prevent over production by its members led to a surplus of oil on world markets. This forced down the price of crude oil and delayed production in North America. Crude was not extracted from the Cohasset/Panuke fields until 1992.<sup>296</sup> During the intervening years while exploration was underway

---

<sup>291</sup>Conrad, George Nowlan: Maritime Conservative, p. 232.

<sup>292</sup>Chronicle Herald, 6 June 1992, p. C1.

<sup>293</sup>John Reid, "The 1970s: Sharpening the Sceptical Edge", in Forbes and Muise, The Atlantic Provinces in Confederation, p. 473.

<sup>294</sup>Chronicle Herald, 5 October 1971, p. 1.

<sup>295</sup>*Ibid.*, 6 June 1992, p. C1.

<sup>296</sup>*Ibid.*, p. 1.

investment was one-half the Canadian figure and nearly 50 percent of provincial revenues came through federal transfer payments.<sup>291</sup> Nova Scotia's offshore oil, referred to by the Chronicle Herald as "Fields of Dreams", provided hope for a brighter economic future for the province. Those dreams were enhanced in 1967 when Mobil Oil Canada spudded the "Sable Island 1", their first oil well on the Scotian Shelf.<sup>292</sup> This success was followed by Mobil's vast discovery of crude oil near Sable Island in 1971.<sup>293</sup> Nova Scotia's Premier, Gerald Regan, was pictured in the Chronicle Herald holding a bottle of crude furthering hope that Nova Scotia's "fields of dreams" were nearing production.<sup>294</sup> Speculation was increased when additional oil reserves were discovered in Mobil's Cohasset D-42 well. Other companies joined Mobil in the search for oil off Canada's east coast, driven by the middle east crisis of 1973, which doubled oil prices.<sup>295</sup> The combination of relative stability in the Middle East and the inability of the oil cartel to prevent over production by its members led to a surplus of oil on world markets. This forced down the price of crude oil and delayed production in North America. Crude was not extracted from the Cohasset/Panuke fields until 1992.<sup>296</sup> During the intervening years while exploration was underway

---

<sup>291</sup>Conrad, George Nowlan: Maritime Conservative, p. 232.

<sup>292</sup>Chronicle Herald, 6 June 1992, p. C1.

<sup>293</sup>John Reid, "The 1970s: Sharpening the Sceptical Edge", in Forbes and Muise, The Atlantic Provinces in Confederation, p. 473.

<sup>294</sup>Chronicle Herald, 5 October 1971, p. 1.

<sup>295</sup>*Ibid.*, 6 June 1992, p. C1.

<sup>296</sup>*Ibid.*, p. 1.

however, there were considerable economic benefits to Nova Scotia. As late as 1984, with drilling in decline, 150 gas and oil related industries were benefitting from the seven drill rigs operating off the province's coast.<sup>297</sup> One of the companies which benefitted from the world's search for oil in the late 1960s and throughout most of the 1970s was Halifax Shipyards, then operated by Hawker Industries, a member of the Hawker Siddeley Canada Group.

As Hawker Siddeley Canada Limited ushered Halifax Shipyards into its last decade of operation under direction of its subsidiary Hawker Industries Limited,<sup>298</sup> they moved their major hull construction emphasis away from conventional ships, concentrating almost exclusively on oil rigs and drill ship construction:

They are the tallest and strangest "ships" on the ocean. The height of a 30-storey office tower and nearly twice the area of a football field, the giant modern drilling vessels spend most of their working lives not sailing at all, but standing as still as possible in the ever-tossing sea.

Though they move easily around the world's oceans, their commerce is not on the high seas, but in intricate exploration of the oil-rich undersea shelves stretching out from the edges of the continents. These sophisticated vessels are a peculiar kind of ship. They don't conform. Their propellers, if they have any, are to help hold them on location, not drive them on voyages. Nevertheless, they are registered as ships.<sup>299</sup>

When oil exploration began off the Atlantic Coast in the 1960s, Nova Scotia, and in particular Hawker Siddeley Canada Limited (owners of the Halifax

---

<sup>297</sup> J.M. Beck, Politics of Nova Scotia, 1896-1988, Vol. II (Nova Scotia, 1988), p. 358.

<sup>298</sup> Registry of Joint Stock, Hawker Industries Limited (Halifax, 9 Jan. 1969).

<sup>299</sup> Nova Scotia Times, Vol. 3, No. 1, March 1976, p. 2.

Shipyards), became involved in the construction of drilling ships. In fact, Halifax Nova Scotia was the only location in Canada where such work was being carried out. Rigs built at the Halifax Shipyards were not just for exploration of the Atlantic Coast but for oil exploration around the world. The Southern Commonwealth Drilling Company, in 1968, engaged the Halifax Shipyards to build their first rig for the North Atlantic offshore. This was to be the first oil rig constructed by the Halifax Shipyards; the "SEDCO-H", started in 1968, was delivered in 1970.<sup>300</sup>

More than 3,400 workers were employed directly or indirectly on the rig building program. Robert Bezanson, Contracts and Engineering Manager, felt confident the Halifax Shipyards could build any type of off-shore drilling vessel. Hawker Industries Limited developed the technology for building drilling rigs gradually, to become one of the most experienced builders of oil rigs in North America. They did this by building a highly skilled workforce. The first three drilling vessels built at the Halifax Shipyards were of a triangular configuration. The SEDCO-H, SEDCO-I, and SEDCO-V were mounted on cylindrical pontoons, with a 345 foot by 382 foot main deck and accommodations for a crew of 65.<sup>301</sup> The Halifax Shipyards went on to build four semi-submersibles "SEDNETH-701", "SEDCO-704", "STADRILL-705", and "SEDCO-709". These rigs had a rectangular main deck 130 foot high mounted on twin 295 foot long hulls. Each of the semi-submersible off-shore drilling rigs are held in place with

---

<sup>300</sup>Halifax Shipyard Hull Record, Appendix No. 1.

<sup>301</sup>The Nova Scotia Times, Vol. 3, No. 1, March 1976, p. 8.

eight massive anchors and manoeuvred into place by motors totalling 8,000 horse-power driving propellers or thrusters at each end of the twin hulls. The rigs position is continually checked by satellite. The semi-submersibles, however, were restricted to drilling in approximately 1,500 feet of water because of the restrictions anchoring placed on them.<sup>302</sup>

The most advanced and final rig built by the Halifax Shipyards was the drill ship "SEDCO-471", built for British Petroleum. Where the cylindrical pontoon and semi-submersible rigs would drill efficiently in 1,500 feet of water making them ideal for drilling on the continental shelf, the drill ship was designed for a different purpose. Pressure to discover new oil resources along with improved deep water technology motivated explorers to probe deeper sea beds such as the continental slopes. The technology and equipment allowed the drill ship to operate at depths up to 6000 feet. Many parts of Nova Scotia felt the benefits of Halifax Shipyards successful operation. Hawker Siddeley's Trenton Car Works manufactured the 30 foot caissons joining the deck and hulls and then delivered them by barge to Halifax. Center sections for the twin hulls were built at Robb Engineering, a division of Dominion Bridge Company of Amherst. Other Nova Scotia suppliers to benefit from work at the Halifax Shipyards included Easteck in Truro, who manufactured control and switch gear for the rigs; MacGregor Bedding and Steel Furnishings of New Glasgow and Chebucto

---

<sup>302</sup> Halifax Shipyards Hull Record, Appendix No. 1; Nova Scotia Times, Vol. 3, No. 1, March 1976, p. 8.

Industries in Dartmouth who specialize in supplying drilling hardware.<sup>303</sup>

All of this carried the danger, however, that Halifax Shipyards was being too specialized - they no longer built the trawlers and smaller vessels that had contributed to the yards success during the previous decade. Hawker Industries Limited appeared to become complacent with the number of forward orders on its books. For example, in 1975, Nova Scotia's shipyards had contracts for nine ships and two drilling rigs with a combined value in excess of \$133 million representing a backlog four times the industry's 1974 production. (For more specific information, see figure 4.7). To put the numbers in international perspective, Canada's orders on a whole were relatively small. Canadian Shipyards had orders in 1975 for thirty-eight ships of approximately 2000 d.w.t. Japan alone had 187 tankers on order, all of them over 200,000 d.w.t.<sup>304</sup> However, the "golden years" for shipyards around the world were coming to an end.

During the latter half of the 1970s there was shipyard overcapacity on a worldwide basis, a situation that was pronounced and prolonged. Japan's order books, for example, decreased by 32 million deadweight tons from June 1974 to June 1975. Major firms lacked new orders for large ships. This resulted in large yards taking orders for small ships or diversifying their product lines into drilling rigs, which negatively affected the competitive position of the Halifax Shipyards in obtaining forward orders for oil drilling rigs. By 1977, Hawker

---

<sup>303</sup>Nova Scotia Times, Vol. 3, No. 1, March 1976, p. 2.

<sup>304</sup>Appledore Report (1975), p. 11-87. See Figure 4.7.

Industries had no new work on its order book. Smaller shipyards in Nova Scotia were largely isolated from world market forces because they relied on the domestic market for much of their work. The shipbuilding and repair industry of Nova Scotia in 1974 was made up of fourteen firms with production value of about \$42 million. It was dominated by the Halifax Shipyards and Dartmouth Marine Slips, who employed more than half of the labour force and provided for over two-thirds of the production value.<sup>305</sup> The loss of those yards would cripple Nova Scotia's shipbuilding and the economic benefits pertaining to that industry.

Hawker Industries was so preoccupied with the construction of oil rigs that they neglected the repair markets. Halifax Shipyards could no longer remove super tankers and large cargo vessels from the water for repairs. To compete for repair work on vessels travelling the Atlantic shipping lanes during the 1970s, a floating dock of 75,000 d.w.t. would be required. During that period Halifax Shipyards had only one floating drydock, the Lionell A. Forsythe, with a capacity of 25,000 d.w.t. and the graving dock, where ships in excess of 15,000 d.w.t. were too large to enter.<sup>306</sup>

Hawker Industries' specialization in the construction of oil rigs proved to be a mistake and by the summer of 1977, employment levels declined to twelve

---

<sup>305</sup>Ibid., p. 2-4; The 4th Estate, 22 October 1970, p. 3.

<sup>306</sup>The Halship Saga: The War Effort of Halifax Shipyards Limited (Wallace Advertising Limited Halifax, 1947), Dartmouth Public Library; Appledore Report (1976), p. 11-83; See material produced by the public relations department, Dominion Steel and Coal Corporation Limited, Montreal, Quebec (Member of the A.V. Roe Canada Group).



people at the Halifax Yard. The impact of that event was felt throughout Nova Scotia. The decline was dramatic. In 1972 Halifax Shipyards had employed 1,250 workers of which 800 worked exclusively on oil rigs. The annual average payroll of Halifax Shipyards was \$10 million with another \$4 million paid out in wages to subcontractors. Both the number of employees and the shipyards annual payroll increased steadily.<sup>307</sup> A shipyard survey by Peat Marwick and Partners, and A and P Appledore completed for the provincial government and received by George M. Mitchell, Nova Scotia's Department of Development Minister, on 5 November 1975, indicated that direct output in Nova Scotia was \$43 million in 1973. Direct and indirect income totals for Nova Scotians was \$52 million, with two-thirds of that amount generated by the Halifax Shipyards.<sup>308</sup> After that the decline was precipitous. The negative impact on the economy of Halifax and Dartmouth with declining work at the Shipyard brought pressure to bear on members of the provincial legislature.

Between 5 May 1977 and August 1978, Halifax Shipyards was discussed over twenty times in the Nova Scotia Legislature. One theme evident from assembly debates and newspaper reports was that Hawker Siddeley Canada Ltd., the owners of Halifax Shipyards, would not be around to benefit from the injection of tax dollars required to make the yard a viable shipbuilding and ship

---

<sup>307</sup>Imperial Oil Review, 1972, No.4, p.9; Lloyd McKenzie, Controller, Halifax-Dartmouth Industries Limited. Interviewed by Victor L. Settle, Halifax, 1992. Transcript in files of Victor L. Settle, Kentville Nova Scotia.

<sup>308</sup>Appledore Report (1975), PANS, pp. 9-10.

As debates at the legislature wore on throughout the first quarter of 1978, Hawker Siddeley was still the owner of Halifax Shipyards and there were as of yet no definite commitments from potential purchasers. Although rumours of prospective new owners abounded for some time, it was not until the 28 April, 1978 that Premier Gerald Regan announced to the House of Assembly that Hawker Industries had granted an option to the Province of Nova Scotia to purchase the assets of the company's Halifax Shipyards Division. The province, Mr. Regan indicated, did not intend to become the new owners of the shipyards but rather took the option to facilitate proceedings leading to the actual transfer of ownership from Hawker Industries Limited to new owners.<sup>313</sup>

During the sale of the yard, the province was advised by professor Graham Day of the Canadian Marine Transport Center at Dalhousie University.<sup>314</sup> The long drawn out negotiations were completed on 31 August 1978. A Canadian Dutch consortium known as "Halifax Industries and Marine Limited" became the new owners of Halifax Shipyards. To give some indication of the difficulty in attracting new operators, Halifax Industries and Marine Limited, comprised of C.N. Marine, Hall Corporations Shipping Limited of Montreal, and RSV Limited of the Netherlands invested only \$1 million of their own money in the shipyards. The province provided \$14 million of initial financing with a promise of millions more in additional financing from the federal and provincial governments to upgrade the yard's floating drydock capacity and to modernize

---

<sup>313</sup>Assembly Debates, 28 April 1978; *Ibid.*, 5 May 1978.

<sup>314</sup>Barometer, 6 April 1978, p. 1.

As debates at the legislature wore on throughout the first quarter of 1978, Hawker Siddeley was still the owner of Halifax Shipyards and there were as of yet no definite commitments from potential purchasers. Although rumours of prospective new owners abounded for some time, it was not until the 28 April, 1978 that Premier Gerald Regan announced to the House of Assembly that Hawker Industries had granted an option to the Province of Nova Scotia to purchase the assets of the company's Halifax Shipyards Division. The province, Mr. Regan indicated, did not intend to become the new owners of the shipyards but rather took the option to facilitate proceedings leading to the actual transfer of ownership from Hawker Industries Limited to new owners.<sup>313</sup>

During the sale of the yard, the province was advised by professor Graham Day of the Canadian Marine Transport Center at Dalhousie University.<sup>314</sup> The long drawn out negotiations were completed on 31 August 1978. A Canadian Dutch consortium known as "Halifax Industries and Marine Limited" became the new owners of Halifax Shipyards. To give some indication of the difficulty in attracting new operators, Halifax Industries and Marine Limited, comprised of C.N. Marine, Hall Corporations Shipping Limited of Montreal, and RSV Limited of the Netherlands invested only \$1 million of their own money in the shipyards. The province provided \$14 million of initial financing with a promise of millions more in additional financing from the federal and provincial governments to upgrade the yard's floating drydock capacity and to modernize

---

<sup>313</sup>Assembly Debates, 28 April 1978; Ibid., 5 May 1978.

<sup>314</sup>Barometer, 6 April 1978, p. 1.

the Halifax Shipyards' facilities.<sup>315</sup> The John Buchanan government, which came to power on 5 October 1978, was critical of the deal reached by former Premier Gerald Regan and his government. By December 1978, Nova Scotia had invested \$23 million in the operation.<sup>316</sup> Regardless of the arguments, "Halifax Industrial and Marine Limited" would guide Halifax Shipyards into a new phase of its history. Many workers connected with the "golden decade" of oil rig construction followed the events with some feeling of loss, as the new consortium took control of the shipyard on 30 August, 1978. Many felt that they had witnessed the passing of an era. Hawker Siddeley, on the other hand, was pleased to take the \$5.4 million it received for the sale of the yard and leave Halifax.<sup>317</sup>

### Conclusion

If the management of Hawker Industries had followed another path, one that would not have tied the Halifax Shipyards exclusively to oil rig construction, the company could have maintained its position in the construction of small and medium size ships to 25,000 d.w.t. The Halifax Shipyards is located adjacent to some of the most active trade routes in the world and they had demonstrated their expertise in being technically and commercially competitive in hull

---

<sup>315</sup>Chronicle Herald, 21 July 1978, p. 1-2; *Ibid.*, 31 July 1978, pp.1-2; Assembly Debates, 5 May 1978.

<sup>316</sup>Assembly Debates, 19 December 1978.

<sup>317</sup>Chronicle Herald, 31 August 1978, p. 1.

construction of naval vessels, fishing trawlers and oil rigs. But the will was not there.

In the mid 1970s the yard was asked by the Canadian government to tender for two icebreakers; the Shipyards did not even submit a bid on the jobs. The same was true with respect to ship repair contracts. The multi-ship refit program for the navy was awarded to Vickers of Montreal, the only yard which bid on the project.<sup>318</sup> Hawker Industries ignored the possibility of employment for up to 300 people by failing to pursue these jobs. The optimism of Hawker Industries management in the mid-1970s was undoubtedly bolstered by forward orders on its books which at the time included "STADRILL-705" being built for Shell and scheduled for delivery in 1975, "SEDCO-709" scheduled for delivery in 1976 and the drill ship "SEDCO-471" scheduled for delivery in May of 1977, which was actually delivered in February 1978. The total value of the forward orders in the mid-seventies was \$102 million.<sup>319</sup>

Halifax Shipyards' management either did not understand the magnitude of the competition it would encounter from major firms in Japan and Great Britain and the United States in obtaining future oil rig construction projects, or their collapse could have been a result of not pursuing ship repair and shipbuilding contracts on the domestic and world-wide market.<sup>320</sup> There is, however, a third possibility and that is that Hawker Siddeley was a poor corporate citizen

---

<sup>318</sup> Appledore Report (1975), p. II-85.

<sup>319</sup> Ibid.; Halifax Shipyard Hull Record, Appendix No.1.

<sup>320</sup> The Fourth Estate, Halifax, 22 October 1970, p. 3.

that took out the easy profits and left the province. To support my argument that Hawker Siddeley planned to leave the province as soon as the oil rig boom construction program was over, consider the poor state of repair of the shipyard when the company ceased operation in 1978. It invested very little of its profits in building and maintaining an ongoing operation. Consider as well the company's abrupt departure from their coal and steel operations in Nova Scotia.<sup>321</sup> The legacy of the Hawker Industries operation was an end to ship construction at the yard for sixteen years.

Following Hawker Siddeley's departure from shipbuilding in Nova Scotia, the Halifax and Dartmouth shipyards were purchased by "Halifax Industries Limited."<sup>322</sup> The name was changed on 5 December 1978 to "Halifax Industrial and Marine Limited",<sup>323</sup> but there was no change in ownership. Over the next five years the company's performance was less than satisfactory to government, labour leaders and employees. By the summer of 1983 the Halifax yard was operating with a skeleton crew of 50.<sup>324</sup> Hopes soared when AMAC International of Montreal purchased one-third partnership in Halifax Industrial and Marine Limited. AMCA's prime objective in joining the Halifax operation was to benefit from work relating to off-shore oil and gas exploration and recovery. With the down-turn in Nova Scotia's off-shore oil exploration and a loss of \$7.6 million

---

<sup>321</sup>Bruce, The Story of R.A. Jodrey, pp. 297-298.

<sup>322</sup>Registry of Joint Stock, Registration No. 1123888, Halifax, 23 August 1978.

<sup>323</sup>Ibid., 5 December 1978.

<sup>324</sup>Halifax Chronicle Herald, 4 August 1983, p. 1.

in 1984, Halifax Industrial and Marine Limited went into receivership.<sup>325</sup>

A group of predominately Nova Scotian entrepreneurs purchased the shipyards. The new company, known as "Halifax-Dartmouth Industries Limited", was incorporated at the Registry of Joint Stock in Halifax on 17 September 1985. Under direction of President and CEO Andrew McArthur the company won significant contracts in the ship repair and construction fields, however, employment levels of the "golden decades" were never attained. With Halifax-Dartmouth Industries Limited in possession of a contract to build 12 coastal patrol vessels the value of H-DIL was at its highest level since it was purchased in 1985, an advantageous time to sell the shipyards.<sup>326</sup>

On 22 February 1994, H-DIL's operations in Halifax and Dartmouth were purchased by the Irving-owned Saint John Shipbuilding Limited, creating Canada's largest shipbuilding company.<sup>327</sup> It is well within the realm of possibility during the next decade that the federal government will contract to private shipyards work normally undertaken at their naval dockyards and sell those facilities. Irving would be in a position to purchase the dockyards adjacent to their Halifax facility, creating one of the largest deep-water shipyards in Canada.

---

<sup>325</sup>*Ibid.*, 14 February 1985.

<sup>326</sup>Owners of H-DIL, Hector McInnes, T.G. Merrian, Derek Oland, J.E.A. Nickerson, John Lindsey (all of Nova Scotia) and R. Shae of Boston. Information from Registry of Joint Stock, Halifax.

<sup>327</sup>Halifax Mail Star, 22 February 1994, p. 1.

## CONCLUSION

Over the past century, no other single company has impacted as greatly on the City of Halifax and Province of Nova Scotia as Halifax Shipyards Limited. The harbour on which it is located was recognized for centuries as a prime location for shipping. It has a sheltered, ice-free, deep-water harbour adjacent to the most active shipping lanes in the world. It was the prime location in the Maritimes to build a ship repair facility. Horace J. Crandall, a New England engineer, built the first modern marine railway capable of removing large vessels from Halifax Harbour. It began operation in 1860. The Dartmouth Marine Railway was taken over in 1890 by the Halifax Graving Dock Company, a British backed enterprise led by Halifax industrialist Samuel Brookfield. Following the explosion of 1917 the graving dock was expropriated by the Canadian government and turned over to a group led by Roy Wolvin and Joseph Norcross as the site to commence steel-hulled shipbuilding in Halifax.

Unfortunately Roy Wolvin did not direct his energy towards shipbuilding and repair. Wolvin used Halifax Shipyards, his influence with government and his stature in the business community to promote the creation of BESCO. Although Wolvin understood shipbuilding and shipyard workers, the same was not true of the coal and steel industries. He neither understood the businesses of coal or steel per se or the men who worked these industries. This ultimately led to bitter disputes between BESCO and the unions, which, in the end, cost Wolvin the presidency of the corporation and led in turn to the demise of the British Empire Steel Corporation. No one can dispute the fact that Wolvin was



a powerful entrepreneur; historians can only speculate at the size and greatness of Halifax Shipyards today had he channelled those energies expended in the creation and operation of BESCO into the expansion of the Halifax Shipyards.

Halifax Shipyards remained a profitable component of BESCO throughout the corporation's years of struggle. The success of the yard carried over into the DOSCO era, encompassing the period from 1928 to 1957. The yard survived the depression of the 1930s, showing a profit throughout the period, and made seaworthy 7145 vessels during World War II. Under DOSCO, Halifax Shipyards led the way in employing women as skilled tradespeople, which might have been more significant if company leaders had retained those women who wished to pursue a career in trades following the war. Although women were treated unfairly in the post-war era, the Halifax Shipyards made a significant contribution to the lives of thousand of workers employed at the yards on both sides of the harbour. For many it was the opportunity to leave the meagre existence of rural living, to purchase homes and provide luxuries for their families.

As Halifax Shipyards moved into the 1950s the effects of C.D. Howe's neglect of the yard during the war and after became evident. While many of the country's major shipyards were upgraded to meet the demands of servicing supertankers and large transport vessels, Halifax Shipyards was neglected. Halifax Shipyards drydocking capacity throughout the 1950s was limited to the Graving Dock and the 25,000 d.w.t. Lionel Forsythe floating drydock. What was required to remove the large vessels from the water for repairs was a dock capable of lifting 75,000 d.w.t. As the DOSCO era neared an end it appeared

that the corporation had fallen from the graces of the federal government, many observers saw DOSCO's aging directors as lacking in the skill or interest to put the corporation on a sound financial footing. Considerable optimism thus accompanied Hawker Siddeley's acquisition of controlling interest in DOSCO in 1957.

Under Hawker Siddeley management Halifax Shipyard experienced both its most prosperous and its darkest days. The first of the "Golden Decades", 1958-1968, brought with it all the promise that government leaders and the general public had anticipated. The second decade, 1968-1978, promised even greater prosperity for the shipyard. The optimism seemed fulfilled when Hawker Siddeley announced the construction of oil drilling rigs at Halifax Shipyards, commencing a decade that brought prosperity and notoriety to the City of Halifax. During the latter half of the 1970s, however, it became apparent that Hawker Siddeley's oil rig construction program was in trouble. With a blank order book, due to a slow down in drilling activity and competition from off-shore shipyards, the Halifax facility virtually shut down. It was apparent that the company had no plans to re-establish shipbuilding and repair at the Halifax yard. When Hawker Siddeley sold the shipyards and departed Halifax after twenty years of operation, the drydocking capacity of the yard remained at 25,000 d.w.t. and the state of repair within the shipyard was in disarray.

Halifax Shipyards, that great institution of enterprise and industry, would undoubtedly be a more prosperous industry today had many of the missed opportunities been seized. If Roy Wolvin had directed his energies and

expertise towards building Halifax Shipyards into a world-class facility; had C.D. Howe upgraded the yard's drydocking capacity during the war and retooled its plate fabrication shop; had Hawker Siddeley made a greater effort to pursue shipbuilding during its last decade of operation. However, this was not to be. Now more than a century after the graving dock was built, Halifax Shipyards struggles to rebuild from the devastation suffered during Hawker Siddeley's obvious mismanagement.

# APPENDIX NO. 1

## HALIFAX SHIPYARDS HULL RECORD

<u>HULL NO.</u>	<u>SHIP'S NAME</u>	<u>TYPE</u>	<u>YEAR BUILT</u>
H-1	CGM Boats - Mariner	Freighter	1921
H-2	- Cruiser	"	
H-3	- Constructor	"	1924
H-4	- Explorer	"	
H-5	N.B. McLean	Ice Breaker	1930
H-6		Target Barge	1940
H-7		" "	1941
H-8		" "	1941
H-9		" "	1941
H-10		Ammo Lighter	
H-11		" "	
H-12	H.M.C.S. Micmac	Tribal Destroyer	1945
H-13	H.M.C.S Nootka	" "	1946
H-14	H.M.C.S. Cayuga	" "	1947
H-15	H.M.C.S. Athabaskin	" "	1947

<u>HULL NO.</u>	<u>SHIP'S NAME</u>	<u>TYPE</u>	<u>YEAR BUILT</u>
H-16	Bahia Aguirre	Transp.	1950
H-17	Bahia Buen Suceso	Transp.	1950
H-18	Bahia Thetis	Transp.	1950
H-19	H.M.C.S. Saguenay	D.D.E.	1956
H-20	H.M.C.S. Margaree	D.D.E.	1957
H-21	H.M.C.S. Chaudiere	D.D.E.	1959
H-22	Sir William Alexander	D.O.T.	1959
H-23	Calibration Barge	C.B.	1959
H-24	D.P.W. No. 141	W.B.	1959
H-25	HSL Work Boat	W.B.	1959
H-26	D.P.W. No. 16	W.B.	1960
H-27	H.M.C.S. Annapolis	D.E.	1964
H-28	Confederation	Ferry	1962
H-29	Maxwell	D.O.T.	1962
H-30	Cape Freels	D.O.T.	1962
H-31	Cape Anne	Trawler	1964
H-32	Cape Royal	"	1964

<u>HULL NO.</u>	<u>SHIP'S NAME</u>	<u>TYPE</u>	<u>YEAR BUILT</u>
H-33	Cape Norman	"	1964
H-34	Brandl	"	1965
H-35	Atkinson	"	1965
H-36	Kenney	"	1966
H-37	Cape Nova	"	1966
H-38	Cape Morrow	"	1966
H-39	Cape Pictou	"	1966
H-40	Haida Brave	Tug	1966
H-41	Cape Scotia	Trawler	1966
H-42	Cape Nelson	"	1966
H-43	Cape Alert	"	1966
H-44	Cape Keltic	"	1967
H-45	Cape Rouge	"	1967
H-46	J.B. Nickerson	"	1967
H-47	R.D. Evans	"	1967
H-48	Newfoundland Eagle	"	1967
H-49	Newfoundland Falcon	"	1967

<u>HULL NO.</u>	<u>SHIP'S NAME</u>	<u>TYPE</u>	<u>YEAR BUILT</u>
H-50	Newfoundland Hawk	"	1967
H-51	Newfoundland Kestrel	"	1967
H-52	Cape Argos	"	1968
H-53	Cape John	"	1968
H-54	Cape Bauld	"	1968
H-55	Cape York	"	1968
H-56	Cape Howe	"	1968
H-57	Cape Charles	"	1968
H-58	"Sedco-H"	Oil Rig	1970
H-59	"Sedco-I"	" "	1970
H-60	Railcar	Peru Ferry	1971
H-61	"Sedco-J"	Oil Rig	1972
H-62	Cape Fox	Trawler	1972
H-63	Cape Smoke	"	1972
H-64	"Sedneth 701"	Oil Rig	1973
H-65	"Sedco-704"	" "	1974
H-66	Stadrill-705	" "	1975

<u>HULL NO.</u>	<u>SHIP'S NAME</u>	<u>TYPE</u>	<u>YEAR BUILT</u>
H-67	Sedco-709	" "	1977
H-68	Sedco-471	Drillship	1978

Information from Controller (H-DIL), Halifax Dartmouth Industries.



APPENDIX NO. 2

PROVINCE OF NOVA SCOTIA

DEPARTMENT OF EDUCATION

TECHNICAL EDUCATION BRANCH

To Jacoby W. Kinsler

---

In connection with your application for mechanical training for war industries, would you please report for an interview at 7:30 am. o'clock on Tues. Apr 6 at Geological Lab. N.S. Technical College

Any travelling expenses incurred by you in connection with this interview will not be paid by the government.

Yours truly,

A. C. Cooke

Director of Selection

APPENDIX NO. 3

Miss Dorothy M. Gendreau  
Dartmouth

Dear Sir:

This is your notice to report for a course in  
Electric Welding commencing Apr. 12.

You are accepted on probation for a period of three weeks to see whether or not you have the natural abilities for this particular type of work. If, at the end of that time, your instructor feels that you would be unsuccessful you will be supplied with transportation to your home.

Your employment has been arranged with \_\_\_\_\_  
Halifax Shipyards, and you will be expected to work for that firm when you complete your three months' training period.

If you are employed it will be necessary for you to give your employer seven days' notice in writing. Under the new National Selective Service Regulations all trainees must obtain a permit to undergo training, that is, a permit to seek employment to be issued by the National Selective Service Officer. Therefore, I suggest that you clear yourself at your local National Selective Service Office and when you arrive at the Training Centre you can obtain a permit to seek employment. The permit must be restricted to employment with the sponsored company which in this case is \_\_\_\_\_

Halifax Shipyards.

You should be prepared to pay two weeks board in advance. This is necessary because you will not receive your first allowance cheque until the end of your second week of training. Your allowance starts from the day you start training but there is some delay in making arrangements for your first cheque. Your living allowance will be \$9.00 per week.

We are unable to guarantee room and board in Halifax due to the overcrowded condition of the City, but upon your arrival we shall try to find you living accommodation.

Attached to this letter you will find a statement dealing with the probationary period. Will you please sign this statement and mail it to my office in the N.S. Technical College, Halifax. We are also attaching a transportation warrant which may be exchanged for a railway ticket from your home to the training centre. If you decide not to take the course please return the transportation warrant.

Yours truly,

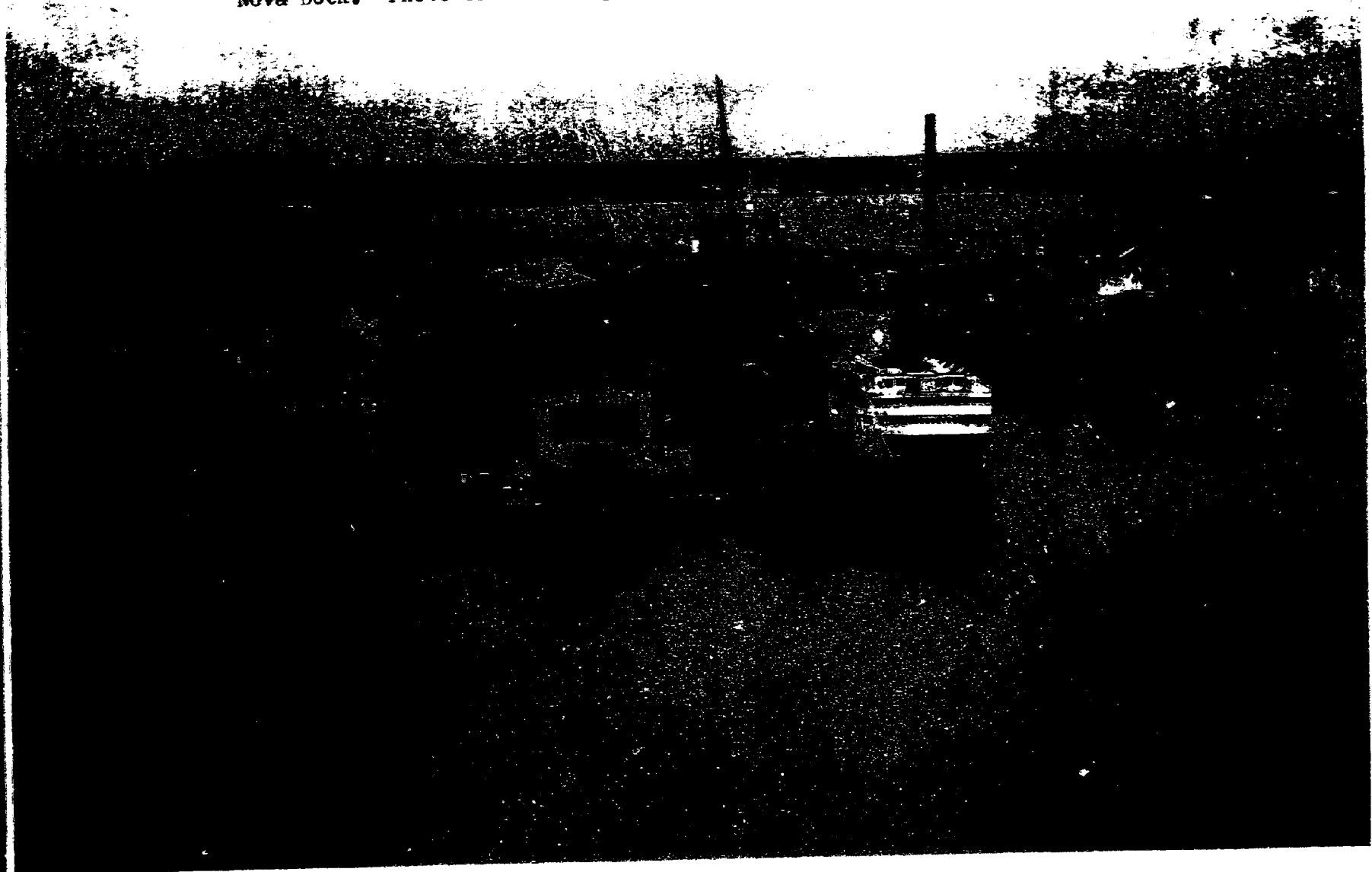
R. S. Cochran  
Selection & Placement Officer



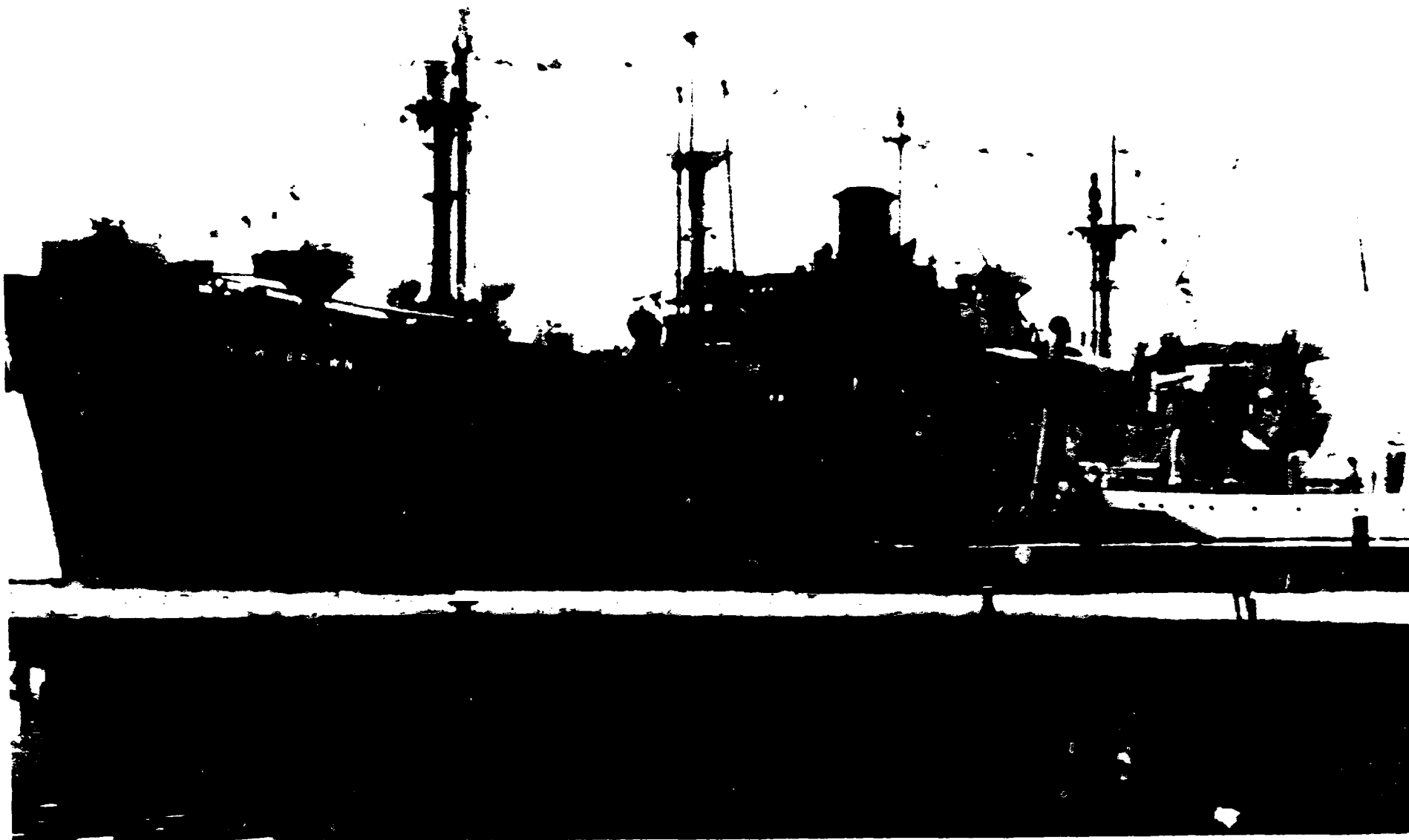
Dartmouth Marine Slips built by the Chebucto Marine Railway Company  
in 1860. Photo from H-DIL promotional literature.



1994 Dry Docking Facilities at the Halifax Shipyard including the  
Graving Dock, the 25,000 d.w.t. Scotia Dock and the 100,000 d.w.t.  
Nova Dock. Photo from H-DIL promotional literature.



One of two remaining "Liberty Ships" built by the United States Government during WWII. Photo by Janet Settle, Halifax, 1994.



## BIBLIOGRAPHY

### Primary Sources

Analysis of Purchases Geographically, 1959-1968, H-DIL Box No. 110, PANS.

Annual Report, Superintendent of Education for Nova Scotia, year ending 31 July 1941 (King's Printer, Halifax, 1942).

Assembly Debates, Nova Scotia, 1977-1978.

Barometer, 12 January 1978; 6 April 1978.

Bradfield, M., et. al., Economic Democracy in Atlantic Canada: A Discussion Paper (Saint Mary's University Economics Department, 1990).

Canadian Advisory Committee on Reconstruction, Post-War Problems of Women, 30 November 1943 (King's Printer, Ottawa, 1944).

Canadian Department of Labour, Tenth Annual Report on Labour Organizations in Canada, 1920 (Ottawa, 1921).

Canadian Legion, April 1989, p. 23.

Census of Canada, 1921, Vol. 4, pp. 386-399; 1941, Vol. 1, p. 110.

City of Halifax Annual Report, 1907-1908, PANS.

Employees Wages and Salaries, 1959-1968, H-DIL Box No. 110, PANS.

Expenditures for Utilities, 1959-1968, H-DIL Box No. 110, PANS.

Expenditures on Wages, Salaries and Fringe Benefits, 1959-1968, H-DIL Box No. 110, PANS.

Financial Records for Halifax Shipyards Ltd., H-DIL Box No. 110, PANS.

Fourth Estate, Halifax, 22 October 1970.

Halifax Chronicle Herald: 5 June 1943; 7 July 1943; 2 October 1958; 18 September 1959; 29 April 1963; 5 October 1971; 31 August 1978; 5 December 1978; 14 February 1985; 6 June 1992; 25 October 1992.

Halifax Citizen: 29 August 1919; 6 January 1920; 13 January 1920; 27 February 1920; 4 June 1920; 18 June 1920; 5 July 1940; 12 July 1940; 12 April 1941.

Halifax Daily News: 20 August 1987.

Halifax Herald: 17 March 1920; 5 July 1920; 8 July 1920; 9 July 1920; 14 July 1920; 16 July 1920; 18 February 1930; 7 February 1939; 17 July 1943; 21 July 1943.

Halifax Mail Star: 5 June 1943; 17 July 1943; 6 January 1958; 6 November 1958; 3 June 1959; 25 August 1959; 29 January 1964; 30 January 1964; 8 February 1964; 8 November 1991; 22 February 1994.

Halifax Morning Chronicle: 3 June 1918; 20 June 1918; 10 January 1919; 26 July 1919; 17 January 1920.

Halifax Reporter: 3 November 1860.

Halifax Shipyards Hull Record, from the office of Lloyd MacKenzie, Controller, Halifax/Dartmouth Industries, 1992.

The Halship Saga: The War Effort of Halifax Shipyards Limited, Wallace Advertising Ltd. (Halifax, 1947), Dartmouth Public Library closed stacks, No. 387 HAL.

Houston's, Canadian Annual Financial Review: 1922, 1929, PANS.

Hutchinson's, Business Directory of Joint Stock Companies, 1863, PANS.

Imperial Oil Review, No. 4, 1972.

Industrial Jobs: Positive Effect on 1968 Profits, H-DIL Box No. 74, PANS.

Letter, Cochrane, R.S., Selection and Placement Officer Department of Education, to Dorothy Hendsbee, 12 April 1943, Appendix No. 3.

Letter, Henley, James B., Business Manager, Local No. 56, United of Plumbing and Pipe Fitting Industries, to Victor L. Settle, 9 October 1992. Letter in files of Victor L. Settle, Kentville, Nova Scotia.

Letter, MacAulay, Donald, Registrar Nova Scotia Department of Education, to Victor L. Settle, 2 November 1992. Letter in files of Victor L. Settle, Kentville, Nova Scotia.



Letter, Nelson, Robert J.R. to Dartmouth Public Library (23 May 1947).  
Dartmouth Library closed stacks, No. 387 HAL.

Lutz (Hendsbee), Dorothy. World War II shipyard welder. Interviewed by author, Halifax 1993. Transcript in files of Victor L. Settle, Kentville, Nova Scotia.

MacKay, Keith. Brother of World War II shipyard welder, Pauline (MacKay) Burke. Interviewed by author, Dartmouth, December 1992. Transcript in files of Victor L. Settle, Kentville, Nova Scotia.

MacKenzie, Lloyd. Controller Halifax/Dartmouth Industries Limited. Interviewed by author Halifax 1991. Transcript in files of Victor L. Settle, Kentville, Nova Scotia.

MacKeigan (Roach), Bertha. World War II shipyard welder. Interviewed by author Halifax 1993. Transcript in files of Victor L. Settle, Kentville, Nova Scotia.

The Main Deck, Vol. 1, No. 1, 14 July 1943, Vancouver, British Columbia.

The Marine Worker, Vol. 2, No. 4, 11 March 1943, Halifax, Nova Scotia.

Marwick, Peat and Partners/A. and P. Appledore Report (1975). A Nova Scotia Shipyard Survey, PANS.

McAlpine's, Halifax/Dartmouth City Directory 1874-1879; 1883-1891; 1920.

Minutes, Halifax City Council: 2 July 1920.

Monetary Times: 20 May 1881.

Number of Employees by Trade, 1959-1968, H-DIL Box No. 110, PANS.

PANS, Consolidated Balance Sheets (1929), H-DIL Box No. 114.

PANS, Isaacs, I.V. (ed.), The City of Halifax: The Capital of Nova Scotia, compiled for Halifax Board of Trade (Wm. MacNab and Son Printers, Halifax 1909).

PANS, Papers, H-DIL Box No. 56.

PANS, Regan, J.W. papers. Letter, 3 May 1939, James L. Crandall to John W. Regan.

PANS, Regan, J.W. papers. Letter, 28 February 1939, James L. Crandall to W.E. Urlwin.

PANS, Regan, J. W. papers. Letter, 5 April 1939, John W. Regan to Alexander Lyle.

PANS, Ship Repair Revenues, 1939-1945, H-DIL Box. No. 114.

Pilicoski (Rice), Helen. World War II shipyard welder. Letter, Helen (Rice) Pilicoski to Victor L. Settle, 26 October 1993. In files of Victor L. Settle, Kentville, Nova Scotia.

Port and Province, Vol. 1, No. 5, April 1934; Vol. III, No. 2, July 1935; March 1937; September 1937.

Registry of Deeds, Halifax. Chebucto Marine Railway Company to Halifax Graving Dock Company, 22 August 1890.

Registry of Joint Stock, Halifax Graving Dock Company (Halifax, 1 June 1904).

Registry of Joint Stock, Halifax Shipyards Limited (Halifax, 23 May 1918).

Registry of Joint Stock, Hawker Industries Limited (Halifax, 9 January 1969).

Registry of Joint Stock, Halifax Industries Limited (Halifax, 23 August 1978; 5 December 1978).

Rhynold, John. World War II veteran and post-war shipyard worker. Interviewed by author, Antigonish, 1992. Transcript in files of Victor L. Settle, Kentville, Nova Scotia.

Summary of Forward Orders in Peat Marwick and Partners/A. and P. Appledore Report, A 1975 Nova Scotia Shipyard Survey, PANS.

Supreme Court Records: 4 June 1919 to 31 January 1921.

Truscott, Roy (ed.), The Keel Block, Halifax Shipyards Quarterly (Dartmouth Free Press, Winter 1965).

Welding Engineer: November 1937.

Zwicker, Arthur. Post World War II Halifax Shipyard worker. Interviewed by author, Kentville, 1992. Transcript in files of Victor L. Settle, Kentville, Nova Scotia.

### **Secondary Sources**

Acheson, T.W. "The Great Merchant and Economic Development in St. John 1820-1850", Acadiensis, 8:2 (Spring 1979).

Acheson, T. W. "The Maritimes and Empire Canada" in David Bercuson (ed.) Canada and the Burden of Unity (Toronto, 1977).

Acheson, T.W. "The National Policy and the Industrialization of the Maritimes, 1880-1910", Acadiensis, 1:2 (Spring 1972).

Alexander, David. "Economic Growth in the Atlantic Region, 1880 to 1940", Acadiensis, 8:1 (Autumn 1978).

Baker, William A. "The Irish Connection", Acadiensis, 12:2 (Spring 1983).

Beck, J. Murray. Politics of Nova Scotia, 1710-1896, Vol. II (Four East Publications, Halifax, 1988).

Berton, Pierre. The Last Spike: The Great Railway, 1881-1885 (McClelland Stewart, Toronto, 1971).

Bliss, J.M. (ed.). Canadian History in Documents, 1763-1966 (Ryerson Press, Toronto, 1966).

Broadfoot, Barry. Six War Years, 1939-1945: Memories of Canadians Home and Abroad (Doubleday, Toronto, 1974).

Bruce, Harry. The Story of R.A. Jodrey: Entrepreneur (McClelland and Stewart, Toronto, 1981).

Buckner, Phillip A. "The 1870s: Political Integration", in E.R. Forbes and D.A. Muise (eds.) The Atlantic Provinces In Confederation (Fredericton, 1993).

Canadian Global Almanac (Global Press, Toronto, 1992).

Cleverdon, Catherine L. The Women's Suffrage Movement in Canada (University of Toronto Press, Toronto, 1974).

- Connelly, Patricia. Last Hired First Fired: Women and the Canadian Work Force (Women's Press, Toronto, 1978).
- Conrad, Margaret. "The Re-Birth of Canada's Past: A Decade of Women's History", Acadiensis, 12:2 (Spring 1983).
- Conrad, Margaret. George Nowlan: Maritime Conservative in National Politics (University of Toronto Press, Toronto, 1986).
- Conrad, Margaret. "The 1950s: The Decade of Development", in E.R. Forbes and D.A. Muise (eds.) The Atlantic Provinces in Confederation (Fredericton, 1993).
- Creighton, Donald. John A. Macdonald: The Old Chieftain (Toronto, 1955).
- Cruikshank, Ken. "The People's Railway: The Intercolonial Railway and the Canadian Public Enterprise Experience", Acadiensis, 16:1 (Autumn 1986).
- Davies, Peter N. "The Development of Liner Trades", in Ships and Shipbuilding in the North Atlantic Region: proceedings of the Conference of the Atlantic Canada Shipping Project held in Newfoundland, 31 March - 2 April 1977. Keith Matthews and Gerald Panting (eds.) (Memorial University, 1978).
- Eagle, John A. Review of Pierre Berton's "The Last Spike: The Great Railway, 1881-1885", Acadiensis, 7:2 (Spring 1978).
- Fingard, Judith. "The 1880s: Paradoxes of Progress", in E.R. Forbes and D.A. Muise (eds.) The Atlantic Provinces in Confederation (Fredericton, 1993).
- Forbes, Elizabeth. Wild Roses at Their Feet: Pioneer Women of Vancouver Island (Evergreen Press, Vancouver, 1971).
- Forbes, E.R. "Consolidating Disparity: The Maritimes and the Industrialization of Canada During the Second World War", Acadiensis, 15:2 (Spring 1986).
- Forbes, E.R. "Misguided Symmetry: The Destruction of a Regional Transportation Policy for the Maritimes", in David Bercuson (ed.) Canada and the Burden of Unity (Toronto, 1977).

- Forster, Ben. A Conjunction of Interests: Business, Politics and Tariffs 1825-1879 (Toronto, 1986).
- Frank, David. "The Cape Breton Coal Industry and the Rise and Fall of the British Empire Steel Corporation", Acadiensis, 7:1 (Autumn 1977).
- Frank, David. Industrialization and Underdevelopment in the Maritimes, 1880-1930 (Garamond Press, Toronto, 1986).
- Frost, James D. "The Nationalization of the Bank of Nova Scotia, 1880-1910", Acadiensis, 12:1 (Autumn 1982).
- George, Roy. A Leader and a Laggard: Manufacturing Industry in Nova Scotia, Quebec and Ontario (Toronto, 1970).
- Hardy, W.G. From Sea Unto Sea: Canada 1850 to 1910, the Road to Nationhood (New York, 1960).
- Heron, Craig. "Labourism and the Canadian Working Class", Labour/Le Travail, Vol. 13 (1984).
- Hirshfield, Deborah Scott. "Women Shipyard Workers in the Second World War", International History Review, Vol. XI, No. 3 (Simon Fraser University, August, 1989).
- Howell, Colin. "The 1900s: Industry Urbanization and Reform", in E.R. Forbes and D.A. Muise (eds.) The Atlantic Provinces in Confederation (Fredericton, 1993).
- Howell, Colin. "Nova Scotia's Protest Tradition and the Search for a Meaningful Federation", in David Bercuson (ed.) Canada and the Burden of Unity (Toronto, 1977).
- LaMarch, Judy. Memories of a Bird in a Gilded Cage (McClelland and Stewart, Toronto, 1969).
- Langhout, Rosemarie. "Developing Nova Scotia Railways and Public Account, 1848-1867", Acadiensis, 14:2 (Spring 1985).
- McCann, L.D. "The Mercantile Industrial Transition in the Metal Towns of Pictou County, 1857-1931", Acadiensis, 10:2 (Spring 1979).

- McCann, L.D. "The 1890s: Fragmentation and the New Social Order", in E.R. Forbes and D.A. Muise (eds.) The Atlantic Provinces in Confederation (Fredericton, 1993).
- McGuigan, Peter. The Irish (Four East Publication, Tantallon, Nova Scotia, 1991).
- McKay, C.R. "Investors, Government and the CMTR: A Study of Entrepreneurial Failure", Acadiensis, 9:1 (Autumn 1979).
- McKay, Ian. "Class Struggle and Mercantile Capitalism: Craftsmen and Labourers of the Halifax Waterfront", Working Men Who Got Wet: proceedings of the fourth conference of the Atlantic Canada Shipping Project held in Newfoundland, 24-26 July 1980. Rosemary Ommer and Gerald Panting (eds.) (Memorial University, 1980).
- McKay, Ian. The Craft Transformed: An Essay on the Carpenters of Halifax, 1885-1985 (Halifax, 1985).
- Metson, Graham. The Halifax Explosion: 6 December 1917 (Toronto, 1978).
- Miller, Carman. "The 1940s: War and Rehabilitation", in E.R. Forbes and D.A. Muise (eds.) The Atlantic Provinces in Confederation (Fredericton, 1993).
- Mitchinson, Wendy. The Nature of Their Bodies (University of Toronto Press, Toronto, 1991).
- Monnon, Mary Ann. Miracles and Mysteries. The Halifax Explosion, Dec. 6, 1917 (Lancelot Press, Hantsport, 1977).
- Morton, Desmond. Canada and War (Butterworths, Toronto, 1981).
- Morton, Suzanne. "Labourism and Economic Action: The Halifax Shipyards Strike of 1920", Labour/Le Travail, Vol. 22 (Fall 1988).
- Muise, D.A. "The 1860s: Forging the Bonds of Union", in E.R. Forbes and D.A. Muise (eds.) The Atlantic Provinces in Confederation (Fredericton, 1993).
- Nader, George A. Profiles of Fifteen Metropolitan Centers (MacMillan, Toronto, 1976).

- Neil, Robin F. "National Policy and Regional Development: A Footnote to the Deutsch Report on Maritime Union", Journal of Canadian Studies, 9:2 (20 May 1974).
- Newman, Peter C. Company of Adventurers (Markham, Ontario, 1985).
- Reid, John. Six Crucial Decades: Times of Change in the History of the Maritimes (Halifax, 1987).
- Reid, John. "The 1970s: Sharpening the Sceptical Edge", in E.R. Forbes and D.A. Muise (eds.) The Atlantic Provinces in Confederation (Fredericton, 1993).
- Phillips, Paul. "National Policy, Continental Economics and National Disintegration", David Bercuson (ed.) Canada and the Burden of Unity (Toronto, 1978).
- Pierson, Ruth Roach. Canadian Women and the Second World War, Canadian Historical Booklet No. 37 (Ottawa, 1983).
- Pierson, Ruth Roach. They're Still Women After All: The Second World War and Canadian Womanhood (McClelland and Stewart, Toronto, 1986).
- Portugal, Alan. Women at Work in Canada, Department of Labour (Queen's Printer, Ottawa, 1967).
- Prentice, Black et. al. Canadian Women: A History (Harcourt, Brace, Jovanovich, Toronto, 1988).
- Russell, Benjamin. Nova Scotia Blue Book Encyclopedia (Historical Association of Canada, 1932).
- Sager, Eric and Panting, Gerald. Maritime Capital: The Shipping Industry in Atlantic Canada, 1820-1914 (Montreal, 1990).
- Sangster, Joan. Dreams of Equality: Women on the Canadian Left, 1920-1950 (McClelland and Stewart, Toronto, 1989).
- Saunders, S.A. Economic History of the Maritime Provinces (Fredericton, 1984 [1939]).
- Skold, Karen. "The Job He Left Behind: American Women in the Shipyards During World War II", Berkin and Lovett (eds.) Women War and Revolution.

Stacey, P. The War Among Men and Government: The War Policies of Canada, 1939-1945 (University of Toronto Press, 1960).

Stanley, Della. "The 1960s: The Illusions and Realities of Progress", E.R. Forbes and D.A. Muise (eds.) The Atlantic Provinces in Confederation (Fredericton, 1993).

Waite, Catherine. The Longshoremen of Halifax 1900-1930: The Lives and Working Conditions, M.A. Thesis, Dalhousie University, 1977.

Waite, P.B. The Life and Times of Confederation 1864-1867 (Toronto, 1962).

Wallace, Frederick W. In the Wake of the Wind Ships (Hodder and Stoughton, London, 1927).

White, Jay. "Pulling Teeth: Striking for the Check-off in the Halifax Shipyards, 1944", Acadiensis, 19:1 (Autumn 1989).