Canada’s Arctic waters in international law
Studies in Polar Research
This series of publications reflects the growth of research activity in and about the polar regions, and provides a means of disseminating the results. Coverage is international and interdisciplinary: the books will be relatively short (about 200 pages), but fully illustrated. Most will be surveys of the present state of knowledge in a given subject rather than research reports, conference proceedings or collected papers. The scope of the series is wide and will include studies in all the biological, physical and social sciences.

Editorial Board
R. J. Adie, British Antarctic Survey, Cambridge
T. E. Armstrong, Scott Polar Research Institute, Cambridge
D. J. Drewry, Scott Polar Research Institute, Cambridge
B. Stonehouse, Scott Polar Research Institute, Cambridge
P. Wadhams, Scott Polar Research Institute, Cambridge
D. W. Walton, British Antarctic Survey, Cambridge
I. Whittaker, Department of Anthropology, Simon Fraser University,
        British Columbia

Other titles in this series:
The Antarctic Circumpolar Ocean
Sir George Deacon
The Living Tundra
Yu. I. Chernov, transl. D. Love
Transit Management in the Northwest Passage
edited by C. Lamson and D. Vanderwaag
Arctic Air Pollution
Edited by B. Stonehouse
The Antarctic Treaty Regime
Edited by Gillian D. Triggs
Canada’s Arctic waters in international law

DONAT PHARAND, Q.C., F.R.S.C.

Professor of Law, University of Ottawa
To MICHEL
    and
    BERNARD
    and
    GISÈLE
Contents

Figures x
Tables x
Foreword xi
Preface xiii
Acknowledgements xvi

Part 1 The Waters of the Canadian Arctic Archipelago and the Sector Theory 1

1 The origins of the sector theory 3
1.1 Papal Bull (1493) and early treaties (1494 and 1529) 3
1.2 Joint address from Canada to Great Britain (1878) 4
1.3 Description of Franklin District (1897) 4
1.4 Maps of exploration (1904) and territorial divisions (1906) 5
1.5 Senator Poirier’s motion on the sector theory (1907) 8
1.6 Summary 11

2 Boundary treaties as a legal basis for the sector theory 12
2.1 Main proponents of boundary treaties 12
  David Hunter Miller 12
  W. L. Lakhtine 14
2.2 The 1825 Boundary Treaty 17
  Meaning of ‘jusque’ 18
  Meaning of ‘Mer Glaciale’ 20
  Meaning of ‘ligne de démarcation’ 21
  Meaning of possessions 21
2.3 The 1867 Boundary Treaty 22
  Meaning of ‘territories and dominion’ 23
  Meaning of ‘meridian which passes midway between the islands’ 23
  Meaning of ‘without limitation’ 24
  Meaning of ‘Frozen Ocean’ 25
2.4 Summary 26

3 Contiguity as a basis for the sector theory 28
3.1 Contiguity in State practice 28
## Contents

3.2 Contiguity in international decisions 31  
*Contiguity of lands and islands* 31  
*Contiguity of the continental shelf* 36  
3.3 Appraisal of contiguity as a legal basis for the sector theory 38  
*State practice* 38  
*International decisions* 38  
*Doctrinal opinion* 40  
3.4 Summary 42  

4 Customary law as a basis for the sector theory 44  
4.1 Requirements of customary law 45  
4.2 State practice in the Arctic 46  
*State practice of Canada* 46  
*State practice of the Soviet Union* 64  
*State practice of Norway* 67  
*State practice of Denmark* 67  
*State practice of the United States* 68  
4.3 State practice in the Antarctic 70  
*The seven claimant States* 70  
*The five non-claimant States* 74  
4.4 Appraisal of customary law as a basis for the sector theory 76  
Notes 80  

Part 2 The Waters of the Canadian Arctic Archipelago as Historic Waters 89  
5 The basic characteristics of historic waters 91  
5.1 Origin and recognition of historic waters 91  
5.2 Legal status of historic waters 92  
5.3 Present role of historic waters 94  
5.4 Historic waters and other related doctrines 95  
5.5 Summary 96  

6 Requirements of historic waters 97  
6.1 Exclusive exercise of State authority 97  
6.2 Long usage and passage of time 98  
6.3 Acquiescence by foreign States 98  
6.4 The legal effect of protest 100  
6.5 Vital interests of the coastal State 102  
6.6 Burden of proof of historic waters 103  
6.7 Summary 105  

7 State practice of Arctic states on historic waters 106  
7.1 State practice of Norway 106  
7.2 State practice of Denmark 106  
7.3 State practice of the United States 107  
7.4 State practice of the Soviet Union 107
Contents

7.5 State practice of Canada  110
7.6 Summary  112

8 Historic waters applied to the Canadian Arctic Archipelago  113
8.1 State activities of Great Britain before the transfer in 1880  113
8.2 State activities of Canada after the transfer in 1880  114
8.3 Appraisal of Canada’s claim of historic waters  121
Notes  126

Part 3 The Waters of the Canadian Arctic Archipelago and Straight Baselines  131

9 The law on straight baselines for coastal Archipelagos  133
9.1 Geographical requirements for a coastal Archipelago  133
9.2 Legal nature of straight baselines  134
9.3 Mode of application of straight baselines  135
  General direction of the coast  136
  Close link between land and sea  137
  Regional economic interests evidenced by long usage  137
9.4 Length of straight baselines  138
9.5 Consolidation of title  139
  Nature of consolidation of title  139
  Requirements of consolidation of title  142
9.6 Summary  144

10 State practice on the use of straight baselines  147
10.1 State practice in general  147
10.2 State practice in the Arctic  147
  Norway  147
  Denmark  150
  United States  151
  Soviet Union  152
  Canada  155
10.3 Summary  155

11 Straight baselines applied to the Canadian Arctic Archipelago  159
11.1 The geography of the Canadian Arctic Archipelago  159
11.2 Straight baselines for the Canadian Arctic Archipelago  162
  General direction of the coast  162
  Close link between land and sea  163
  Regional economic interests evidenced by long usage  163
11.3 Consolidation of title to Lancaster Sound, Barrow Strait and Amundsen Gulf  167
  Exercise of State authority  168
  Long usage or passage of time  173
  General toleration of States  174
  Vital interests of Canada as coastal State  175
11.4 Summary  177
Notes  180
Contents

Part 4 The Waters of the Canadian Arctic Archipelago and the Northwest Passage 185

12 Description of the Northwest Passage 187
12.1 Approaches to the Northwest Passage 187
   Eastern approaches 187
   Western approaches 188
12.2 Main routes of the Northwest Passage 189
   Route 1, through Prince of Wales Strait 189
   Route 2, through M’Clure Strait 194
   Route 3, through Peel Sound and Victoria Strait 195
   Route 3A, through Peel Sound and James Ross Strait 197
   Route 4, through Prince Regent Inlet 198
   Route 5, through Fury and Hecla Strait 199
   Route 5A, through Fury and Hecla Strait and Prince Regent Inlet 200
12.3 Summary 201

13 Use of the Northwest Passage 202
13.1 Past use of the Northwest Passage 202
   Use of the Northwest Passage before 1945 202
   Use of the Northwest Passage since 1945 204
13.2 Future use of the Northwest Passage 208
   Resource potential in areas adjacent to the Northwest Passage 208
   Projected marine traffic in the Northwest Passage 211

14 Legal status of the Northwest Passage 215
14.1 Definition and classification of international straits 215
   Definition of an international strait 216
   Classification of international straits 221
14.2 Legal status of the Northwest Passage 223
   Is the Northwest Passage an international strait? 223
   Was there a right of passage before the straight baselines? 225
   Is there a right of passage since the straight baselines? 228
14.3 Internationalization of the Northwest Passage 229
   Could the Northwest Passage be internationalized? 230
   What right of passage would apply after internationalization? 230
   Measures to prevent the internationalization of the Passage 234
   Notes 245

General Conclusion 249

Appendix A: The 1825 Boundary Treaty, Great Britain and Russia 258

Appendix B: The 1867 Boundary Treaty, United States and Russia 265

Selected bibliography 269

Index 278
Figures and Tables

**Figures**

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Provisional Districts of Canada, 1897</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>Explorations in Northern Canada, 1904</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>Atlas of Canada, No. 1, 1906</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>Sector lines proposed by W. L. Lakhtine, 1930</td>
<td>15</td>
</tr>
<tr>
<td>5</td>
<td>Northwest Territories, 1924</td>
<td>49</td>
</tr>
<tr>
<td>6</td>
<td>Northwest Territories (Arctic Islands Preserve), 1929</td>
<td>52</td>
</tr>
<tr>
<td>7</td>
<td>Map of Canada (with sector lines), 1951</td>
<td>55</td>
</tr>
<tr>
<td>8</td>
<td>Inuvialuit settlement region, 1984</td>
<td>63</td>
</tr>
<tr>
<td>9</td>
<td>Sector and jurisdictional lines in the Arctic</td>
<td>65</td>
</tr>
<tr>
<td>10</td>
<td>Drifting ice stations of the Soviet Union (1937–73)</td>
<td>66</td>
</tr>
<tr>
<td>11</td>
<td>Sector lines of territorial claims in the Antarctic</td>
<td>71</td>
</tr>
<tr>
<td>12</td>
<td>Search for a Northwest Passage, 1576 to 1847</td>
<td>115</td>
</tr>
<tr>
<td>13</td>
<td>Search for Franklin’s expedition, 1847 to 1859</td>
<td>116</td>
</tr>
<tr>
<td>14</td>
<td>Straight baselines of Arctic Archipelagos of U.S.S.R.</td>
<td>154</td>
</tr>
<tr>
<td>15</td>
<td>Straight baselines of Canadian Arctic Archipelago</td>
<td>156</td>
</tr>
<tr>
<td>16</td>
<td>Extent of sea ice use by the Inuit</td>
<td>165</td>
</tr>
<tr>
<td>17</td>
<td>Polar bear kill locations in Barrow Strait</td>
<td>168</td>
</tr>
<tr>
<td>18</td>
<td>Shipping safety control zones</td>
<td>172</td>
</tr>
<tr>
<td>19</td>
<td>Main routes of the Northwest Passage</td>
<td>190</td>
</tr>
<tr>
<td>20</td>
<td>West Barrow Strait and Prince of Wales Strait</td>
<td>193</td>
</tr>
<tr>
<td>21</td>
<td>Two of Canada’s expeditions in the Northwest Passage: 1908–9 and 1940–4</td>
<td>203</td>
</tr>
<tr>
<td>22</td>
<td>International Straits in 1982 Law of the Sea Convention</td>
<td>222</td>
</tr>
</tbody>
</table>

**Tables**

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Maximum straight baselines</td>
<td>148</td>
</tr>
<tr>
<td>2</td>
<td>List of classes for shipping safety control zones</td>
<td>170</td>
</tr>
<tr>
<td>3</td>
<td>List of full transits of the Northwest Passage (1903–85)</td>
<td>205</td>
</tr>
<tr>
<td>4</td>
<td>Partial transits of the Northwest Passage</td>
<td>209</td>
</tr>
<tr>
<td>5</td>
<td>Scenario forecast of Arctic marine traffic</td>
<td>214</td>
</tr>
</tbody>
</table>
Foreword

In 1983 Professor Donat Pharand spent a six-month study leave with Dalhousie Ocean Studies Programme in Halifax, Nova Scotia. For many of us at D.O.S.P., and also at Dalhousie Law School, this was a period of reunion and reacquaintance with an old friend and fellow alumnus. For students it was an introduction to one of Canada’s most dynamic law teachers. For me it is a special pleasure to be asked to supply the foreword to the product of these years of labour.

There must be few readers indeed who are unaware of Professor Pharand’s work and reputation in the specialized area of Arctic Ocean law and policy. His earlier book The Law of the Sea of the Arctic (University of Ottawa Press, 1973) is, of course, still one of the standard reference works in the area, but the general law of the sea has undergone major surgery in recent years, and the policy issues associated with the Arctic Ocean have assumed a more critical significance as a result of more pressing resource and industrial demands on this remote and unique environment. One of a series of new studies by Professor Pharand, this monograph re-examines in detail the theories and practices legally relevant to the waters of the Canadian Arctic Archipelago, in light of the most up-to-date research data as well as the most relevant portions of the historical record. Scrupulously documented and strongly argued, it presents the same erudition and rigour as its predecessors.

These and related Arctic issues in the law of the sea are of major interest to us at D.O.S.P. The future use of the Northwest Passage is a matter of serious and continuing concern to most Canadians. Accordingly, late in 1982, we initiated an ambitious cross-disciplinary programme of studies on the problems of ‘transit management’ in that region with a major four-year grant from the Donner Canadian Foundation. This work is the second of our own series of monographs arising from the
xii  Foreword

Canadian Northern Waters Project. At the time of writing, the transit of the Passage by a U.S. Coast Guard vessel has revived the full range of sentiments and arguments aroused by the Manhattan crossing of 1970. Whatever one’s views on these legal issues, the timeliness of the transit management debate is, once again, evident to all. We welcome this latest contribution to our series, and predict another scholarly success for its distinguished author.

Halifax, Nova Scotia

Douglas M. Johnston,
Director, Canadian Northern Waters Project,
Dalhousie Ocean Studies Programme
Preface

It is presently an opportune time to re-examine the legal regime applicable to the waters of the Canadian Arctic Archipelago. Although it is probable that Arctic hydrocarbon production and transportation will not occur before the late 1990s, the current lull in exploration activity makes appropriate planning possible.

The Arctic Pilot Project – a proposal to ship liquefied natural gas by tanker from Melville Island through the Northwest Passage to a southern Canadian port – has been rejected because of insufficient information as to markets. American developers in the Beaufort Sea have not yet found sufficient commercial reserves to warrant tanker transportation through the Northwest Passage to the American eastboard. Canadian developers – Dome, Esso and Gulf – are still in the process of assessing hydrocarbon reserves in the Beaufort Sea and, despite satisfactory results of certain well tests in 1984, commercial production has yet to begin.

In addition to the above, the Beaufort Sea Environmental Assessment Panel has recommended that government adopt a phased approach to hydrocarbon production and transportation, and has expressed a preference for initial transport of oil by a small-diameter pipeline. However, the Panel recognized that ‘certain factors may make a phased approach beginning with tanker transportation the favoured mode of oil transport.’ Indeed, in 1983, a special Senate Committee had already seen more advantages in starting with a small tanker system – particularly its flexibility to adapt to reserve levels and market demands – and had recommended that mode to the Government.

In these circumstances, the Beaufort Sea Panel also recommended that the Government approve the use of oil tankers subject to certain conditions. Because of the potential effect of year-round tanker traffic on the biological and physical environment of the waters, the approval would be
xiv     Preface

given only if ‘a comprehensive Government Research and Preparation Stage is completed by governments and industry; and a Two-Tanker stage using Class 10 oil-carrying tankers demonstrates that environmental and socio-economic effects are within acceptable limits.’\(^4\) Since these conditions would take several years to fulfil, the Government was urged to proceed immediately with the construction of an icebreaker which would meet at least Arctic Class 8 specifications to carry out some of the necessary studies and eventually support Arctic shipping.\(^5\) Indeed, a Class 10 would be necessary if Canada wishes to provide adequate ice-breaking services and exercise control over all of the waters of its Arctic Archipelago. And it is not surprising that, upon being told that ‘there are problems in the overall control and monitoring of ship vessel traffic through the Canadian Arctic’ the Panel reminded the Government that, ‘if a vessel is disabled or sinking in Arctic waters, or has encountered some other emergency, government’s responsibility must be absolute and its actions must be swift and unencumbered by jurisdictional or communications problems.’\(^6\) To this end the Panel recommended that ‘the present vessel traffic management system, NORDREG, be made mandatory for all vessels which enter Canadian Arctic waters’ and the system be extended to the Beaufort Sea.\(^7\) There can be no doubt that such a comprehensive vessel traffic management system is absolutely necessary for the protection of the sensitive marine environment of the Arctic and, now that it has been made clear that the waters of the Arctic Archipelago are internal waters of Canada, the recommendations should be implemented.

The final clarification made by Canada as to the precise status and extent of the waters of its Archipelago was made on September 10, 1985, by the establishment of straight baselines from which Canada’s 12-mile territorial sea now extends. The announcement specified that the newly established baselines defined ‘the outer limit of Canada’s historic internal waters’.\(^8\) Presumably, this means that Canada claims to have acquired an historic title to those waters by the exercise of exclusive authority for a long period of time. If so, it is possible that it might also be relying on its long-standing practice of showing on its official maps its Arctic boundaries as extending to the North Pole, following the 141st and 60th meridians of longitude pursuant to what is commonly known as the ‘sector theory’. Any of those legal concepts could conceivably be invoked, either separately or in combination, as legal bases for the international validity for the straight baselines around the Canadian Arctic Archipelago. This study examines these three possible legal bases: the sector theory, the doctrine of historic waters, and the straight baseline system itself. These
Preface

consitute the first three parts of the book. The fourth and concluding part is devoted to an appraisal of the legal regime applicable to the Northwest Passage. This part reviews a certain number of measures which Canada has either taken already or could take in order to exercise more control over the waters of the Passage.

Ottawa, Canada

Donat Pharand

Notes to Preface

2. Ibid., at 5.
3. Report of the Special Committee on the Northern Pipeline, Marching to the Beat of the Same Drum: Transportation of Petroleum and Natural Gas North of 60° (March 1983), at 4.
4. Supra, note 1, at 70.
5. Ibid., at 97.
6. Ibid., at 96.
7. Ibid., at 97.
Acknowledgements

This book was written at the request of the directors of the Dalhousie Ocean Studies Programme and as part of the Canadian Arctic Waters Project within that Programme. During my stay with D.O.S.P. in Halifax, as senior research scholar for the first half of 1983, I benefited from the wise counsel of Professor Douglas M. Johnston, the Project Director, and received assistance from research associates David VanderZwaag and Cynthia Lamson. In the latter part of 1985, when a revision was rendered necessary because of the adoption of certain legislative measures by Canada, I also received indispensable assistance from Dongdong Huang, a doctoral student at the Faculty of Law of the University of Ottawa. I am very grateful to all those people for their valuable contribution.

A second group of people to whom I gladly acknowledge my gratitude are those who contributed to the preparation of the maps and diagrams relating to the Northwest Passage: S. B. MacPhee, the Dominion hydrographer; Richard Cashen of the Canadian Hydrographic Service, and Commander John Cooper, consultant on maritime boundary delimitation. I am also obliged to Leonard H. Legault, Legal Adviser of the Department of External Affairs, for his permission to draw upon a study I did there in 1979, during my year as academic-in-residence. In addition, I am indebted to the personnel of the Scott Polar Research Institute of the University of Cambridge, particularly Dr Terrence Armstrong, who were most helpful during my three-month research period at that Institute.

The bulk of this study was completed during my sabbatical year of 1983-4 and I am pleased to acknowledge the grant of a fellowship, during that time, from the Social Sciences and Humanities Research Council of Canada. I am also grateful to the authorities of the University of Ottawa for the award of a sabbatical year and to Dean Raymond A. Landry, of
Acknowledgements

the Civil Law Section of the Faculty of Law, for his encouragement and support.

A special word of appreciation goes to my son Michel, an instructor in the Comparative Literature Program at the Pennsylvania State University, who read all of the manuscript and made a number of suggestions (most of which I accepted) to improve the form and style. I am also greatly indebted to Professor D. M. McRae, of the University of British Columbia Law School, who took the time to read the manuscript and to make most valuable comments and suggestions.

Three persons contributed mainly to the typing of the manuscript, most of the time under pressure to meet deadlines; they are Lise Fraser, in Ottawa, and Ena Morris and Lynda Corkum, in Halifax. I am deeply grateful for their indispensable assistance.

Finally, I wish to express my appreciation to Martinus Nijhoff Publishers who permitted me to draw upon a book they published in 1984, The Northwest Passage: Arctic Straits, and which necessarily overlaps with Part IV of the present book. My wife Yolaine also deserves a very special word of gratitude; without her moral support and understanding, particularly during my rather long research periods away from home, this book would never have been completed.