
Richard Thomas Haworth (Canada and United Kingdom of Great Britain and Northern Ireland)

[Original: English and French]

B.Sc. (Hons, Durham), Ph.D. (Cambridge), FGS, C. Geol

Year of Birth: 1944

Place of Birth: Derbyshire, United Kingdom

Languages: English (native tongue); French (officially bilingual)

Academic qualifications

Chartered Geologist — Geological Society of London, United Kingdom

Ph.D. Geophysics (Gravity Measurements at Sea), Cambridge University, United Kingdom (Shell Postgraduate Scholarship in Geophysics), 1968

Ph.D. Geophysics (Gravity Measurements at Sea), Cambridge University, United Kingdom (Shell Postgraduate Scholarship in Geophysics), 1968

Career summary

Oct 2003-present:

Independent consultant specializing in continental shelf delineation, as Principal of RTH Consultants, Wolfville, Nova Scotia, Canada

Adjunct Professor, School of Public Administration, Faculty of Management
Dalhousie University, Halifax, Nova Scotia, Canada

2000-Oct 2003:

Assistant Deputy Minister, Minerals and Metals Sector, Natural Resources Canada,
Government of Canada, Ottawa

1990-2000:

Director General, Sedimentary and Marine Geoscience Branch, Geological Survey
of Canada, Earth Sciences Sector, Natural Resources Canada, Government of
Canada, Ottawa

1983-1990:

Chief Geophysicist, British Geological Survey, Natural Environment Research
Council, UK

1968-1983:

Positions with progressively increasing managerial responsibilities from Research
Scientist to Research Manager at the Bedford Institute of Oceanography (BIO),
Dartmouth, Nova Scotia — currently the Geological Survey of Canada (Atlantic)

Professional associations

- Geological Society of London, Fellow (1983-present), Council (1985-1988), Vice-President (1986-1988), Advisory Editor of the Journal of the Geological Society (1985-2000)
- Geological Association of Canada, Fellow (1974-present)
- Geological Society of America, Fellow (1982-present)
- American Geophysical Union, Member (1969-1977; 1981-present)
- Royal Astronomical Society, Fellow (1966-1975; 1983-2000)

Principal activities relevant to continental shelf delineation (1993-present):

Canadian representative on the International Group of Experts convened by the United Nations Division for Oceans Affairs and the Law of the Sea in March 1993 and September 1995 to assess the technical implications of applying article 76 of the United Nations Convention on the Law of the Sea to define the limits of the continental shelf.

Contracted by the United Nations Division for Oceans Affairs and the Law of the Sea to draft the Provisional Scientific and Technical Guidelines of the Commission on the Limits of the Continental Shelf and chaired the meeting of the International Group of Experts in September 1995 to consider this draft.

Supervised preparation of “Canada and Article 76 of the Law of the Sea: Defining the Limits of Canadian Resource Jurisdiction Beyond 200 nautical miles in the Atlantic and Arctic Oceans”, Geological Survey of Canada Open File Report 3209, Macnab, R.F. (editor), 1994.

Supervised preparation of “Canada and Article 76 of the Law of the Sea: Defining the Limits of Canadian Resource Jurisdiction Beyond 200 nautical miles in the Atlantic and Arctic Oceans”, Geological Survey of Canada Open File Report 3209, Macnab, R.F. (editor), 1994.

Supervised preparation of “Canada and Article 76 of the Law of the Sea: Defining the Limits of Canadian Resource Jurisdiction Beyond 200 nautical miles in the Atlantic and Arctic Oceans”, Geological Survey of Canada Open File Report 3209, Macnab, R.F. (editor), 1994.

Conducted the final quality control revision and editing of the submission to the Commission on the Limits of the Continental Shelf by the Government of Nigeria, under contract to Seaforth Engineering Group Inc.

Invited participation and contributions to national and international conferences and symposia (1993-present)

- Invited participation and contributions to national and international conferences and symposia (1993-present)
- Sixth International Conference on Arctic Margins, Alaska, USA, 2011
- Extended Continental Shelf Panel, Geological Association of Canada, Ottawa, Canada, 2011, with a contribution (co-authored) entitled: “Defining the Limits of the Continental Shelf: Interplay of Science and Law”

- 6th Biennial ABLOS Conference, Contentious Issues in UNCLOS — Surely Not?, International Hydrographic Bureau, Monaco, 2010
- International Symposium on Scientific and Legal Aspects of the Regimes of the Continental Shelf and the Area, Beijing, China, 2010, with a contribution entitled: “Complexities Associated with Article 76 of UNCLOS and its Implementation”
- Legal and Scientific Aspects of Continental Shelf Limits, Reykjavik, Iceland, 2003, with a contribution entitled: “Determination of the Foot of the Continental Shelf by Means of Evidence to the Contrary to the General Rule”
- Continental Shelf Workshop, Buenos Aires, Argentina, 2000, with a contribution entitled: “Characteristics of the Continental Margins”
- Defining the Outer Limits of the Continental Shelf, International Boundaries Research Unit, Durham, UK, 1999, with contributions entitled: “Characteristics of Continental Margins”, and “Preparing a Submission to the Commission”
- Oceans Policy: New Institutions, Challenges and Opportunities, Centre for Oceans Law and Policy 22nd Annual Seminar, Montego Bay, Jamaica, 1998, with a contribution entitled: “The Commission on the Limits of the Continental Shelf”
- Mapping the Continental Shelf Limit: Legal/Technical Interface, University of New Brunswick, Canada, 1994, with contribution entitled: “Geological Requirements Arising from the Treaty”

Publication activity

- Author of approximately 100 scientific articles in national and international journals, including on matters related to geological and geophysical characteristics of continental margins around the world
- Refereed an average of 12 publications and research grant applications per year from 1983-2000

Selected publications (particularly relevant to continental shelf delineation)

Haworth, R.T. 2004. Determination of the Foot of the Continental Slope by Means of Evidence to the Contrary to the General Rule. In *Legal and Scientific Aspects of Continental shelf Limits*, edited by M.H. Nordquist, J.N. Moore and T.H. Heidar, Martinus Nijhoff Publishers, p.121-137.

Macnab, R. and Haworth, R. 2001. Earth Science and the Law of the Sea: Keys to Canada’s Offshore Energy and Mineral Resources beyond 200 Nautical Miles. *Geoscience Canada*, Vol.28, No. 2, p.79-86.

Harworth, R.T. 2000. *Continental Shelf Limits: The Scientific and Legal Interface*, edited by P.J. Cook and C.M. Carleton, Oxford University Press (Editorial Board and contributor)

Haworth, R.T. 1999. The Continental Shelf Commission. In *Oceans Policy: New Institutions, Challenges and Opportunities*, edited by M.H. Nordquist and J.N. Moore, Martinus Nijhoff Publishers, p. 147-169.

Haworth, R., Macnab, R. and Monahan, D. 1996. Hydrographic and Geological Considerations for Implementing Article 76 off the Arctic and Atlantic Coasts of Canada: A Case Study. Proceedings of the Second International Conference on Geodetic Aspects of Law of the Sea (GALOS), p. 379-397.

Haworth, R., Macnab, R. and Monahan, D. 1996. UNCLOS: Challenge of the Decade for Marine Geoscience? Canadian Geophysical Union Annual Meeting, Calgary.

Haworth, R., Macnab, R. and Monahan, D. 1995. Effects of Observational and Interpretive Uncertainties in Determining the Outer Limit of the Continental Shelf According to Article 76 of the Law of the Sea. International Union of Geodesy and Geophysics, General Assembly, 1995, Vol. 21, Week B, p.58 (Paper GB42B-10).

United Nations, 1993. *The Law of the Sea — Definition of the Continental Shelf: An Examination of the Relevant Provisions of the United Nations Convention on the Law of the Sea*. United Nations Publication E.93.V.16, New York (contributor).

Leadership and management of resource-related projects, marine surveys, geophysical and marine science

- Led Canadian delegations regarding resource-based sustainable development, notably to South Africa for the establishment of the African Mining Partnership as a contribution to New Partnerships for African Development (NEPAD), and to Chile on the “Safe Use Principle” in the export of minerals (2000-2003).
- Managed a comprehensive program of hydrocarbon resource assessment, geophysical, terrain science and hazard mapping of the whole of Canada, and the marine geoscience of Canada’s offshore areas, and directed Natural Resources Canada’s contribution to the federal responsibilities under Canada’s Oceans Act (1990-2000).
- Managed the development and conduct of the entire geophysical program of the British Geological Survey (BGS), including the professional development of the 150 geophysical and data management staff of BGS (1983-1990).
- Coordinated international geophysical contributions to the Appalachian/Caledonide project of the International Geological Correlation Program (IGCP Project 26) including co-authorship of the geophysical maps of the Canadian Appalachians (onshore and offshore) and their interpretation (1974-1987).
- Managed the Geological Survey of Canada’s marine geophysical survey program of the Atlantic continental margin, including personal participation in the surveys, subsequent data compilation and map publication (1969-1983).