

# **An Update on the Status of Canada's Administration of Its Marine Spaces**

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**Key words:** administration of marine spaces, marine cadastre, Law of the Sea, coastal zone management

## **SUMMARY**

Canada is a country of approximately 10 million Km<sup>2</sup> with a relatively small population of approximately 31.9 million persons. Canada has the longest coastline in the world (approximately 243,791 km). The coastline borders on 3 oceans: the Pacific, Arctic, and Atlantic Oceans. The country's ocean space is administered both federally and provincially depending on a number of factors including the nature of the marine activity, treaties and memoranda of understandings, traditional usage etc. The public, private citizens, private industry, and various levels of government all have rights, responsibilities, and restrictions in Canada's ocean space depending on the spatial extent in question. The provinces with ocean borders have their own relationship with the sea and traditionally supported certain activities. Upon Confederation the federal government took responsibility over certain marine activities and "Canada Lands" including portions of the seabed. Canada's ratification of UNCLOS (which presents many technical and administrative challenges), traditional and formal ocean uses, together with territorial sea recognition and administrative development at both the provincial and federal levels have all determined the current marine administrative scenario.

The country continues to pursue efficient administration of its ocean and coastal spaces. This paper will outline the challenges faced by Canada in this regard, as well as the initiatives currently in place to achieve efficient and effective administration of its marine spaces.

# **An Update on the Status of Canada's Administration of Its Marine Spaces**

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## **1. INTRODUCTION**

Canada is a country of approximately 10 million Km<sup>2</sup> with a relatively small population of approximately 31.9 million persons. With approximately 243,791 km of coastline, Canada has the longest coastline in the world. The Pacific, Arctic, and Atlantic Oceans all form parts of Canada's marine boundaries. The country's ocean space is administered both federally and provincially depending on a number of factors including the nature of the marine activity, treaties and memoranda of understandings, traditional usage etc. The public, private citizens, private industry, and various levels of government all have rights, responsibilities, and restrictions in Canada's ocean spaces. The USA, France, and Denmark (Greenland) share international marine boundaries with Canada. On November 6, 2003 Canada ratified the United Nations Convention on the Law of the Sea (UNCLOS). All of the foregoing present Canada with challenges in the administration of its marine spaces, and this paper will articulate how Canada is addressing these challenges.

## **2. FEDERAL AND PROVINCIAL ADMINISTRATION OF CANADA'S MARINE SPACES**

### **2.1 Federal Jurisdiction and Administration**

Upon Confederation (1867) the federal government took responsibility over certain marine activities and "Canada Lands". Canada Lands refer to all spatial extents that are under federal jurisdiction. This includes portions of the seabed as can be interpreted from this definition taken from the *Canada Lands Surveys Act* [1985]:

...any lands under water belonging to Her Majesty in right of Canada or in respect of any rights in which the Government of Canada has power to dispose.

In terms of activities in Canadian marine spaces over which the federal government exercise jurisdiction and administrative powers, the *Oceans Act* [1996] prescribes that the Department of Fisheries and Oceans (DFO) exercise responsibility with regard to coast guard services, marine sciences, and hydrographic services (including navigation) as well as Canadian offshore jurisdiction, ocean management strategy, marine protected areas, marine environmental quality, and integrated coastal zone management.

Other departments with responsibilities in the marine environment include (but not exclusively): tabs should start from left as below

- Parks Canada (managing marine parks etc.);
- Environment Canada (wildlife sanctuaries etc.);
- Industry Canada (eco-tourism, aquaculture, oil and gas etc.);

- National Research Council of Canada (ocean and marine science and technology);
- Natural Resources Canada (sustainable development and use of mineral and energy resources etc.);
- Transport Canada (domestic and international shipping activities etc.).

In Canada many Federal Acts directly or indirectly impact upon the use of Canadian ocean spaces. The Federal legislations aim to regulate and manage the various and often competing social, cultural, political, and economic interests and activities occurring in Canadian ocean spaces. These include (but are not limited to):

- *Arctic Waters Pollution Prevention Act* (R.S. 1985, c. A-12)
- *Canada Customs and Revenue Agency Act* (1999, c. 17)
- *Canada Lands Surveyors Act* (1998, c. 14)
- *Canada Lands Surveys Act* (R.S. 1985, c. L-6)
- *Canada Oil and Gas Operations Act* (R.S. 1985, c. O-7)
- *Canada Petroleum Resources Act* (R.S. 1985, c. 36 (2nd Supp.))
- *Canada Water Act* (R.S. 1985, c. C-11)
- *Canada Wildlife Act* (R.S. 1985, c. W-9)
- *Canada-Newfoundland Atlantic Accord Implementation Act* (1987, c. 3)
- *Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act* (1988, c. 28)
- *Canadian Environmental Protection Act* (1999, c. 33)
- *Coastal Fisheries Protection Act* (R.S. 1985, c. C-33)
- *Customs Act* (R.S., 1985, c. 1 (2nd Supp.))
- *Customs and Excise Offshore Application Act* (R.S. 1985, c. C-53)
- *Department of Fisheries and Oceans Act* (R.S. 1985, c. F-15)
- *Department of Indian Affairs and Northern Development Act* (R.S. 1985, c. I-6)
- *Department of Natural Resources Act* (1994, c. 41)
- *Department of the Environment Act* ( R.S. 1985, c. E-10 )
- *Dominion Water Power Act* (R.S. 1985, c. W-4)
- *Federal Real Property and Federal Immovables Act* (1991, c. 50)
- *First Nations Land Management Act* (1999, c. 24)
- *Fisheries Act* (R.S. 1985, c. F-14)
- *Fishing and Recreational Harbours Act* (R.S. 1985, c. F-24)
- *Harbour Commissions Act* (R.S. 1985, c. H-1)
- *Indian Act* (R.S. 1985, c. I-5)
- *Indian Oil and Gas Act* (R.S. 1985, c. I-7)
- *International Boundary Commission Act* (R.S. 1985, c. I-16)
- *International Boundary Waters Treaty Act* (R.S. 1985, c. I-17)
- *Navigable Waters Protection Act* (R.S. 1985, c. N-22)
- *Northwest Territories Waters Act* (1992, c. 39)
- *Oceans Act* (1996, c. 31)
- *Special Areas Act* (R.S. 1985, c. S-14)
- *The Constitution Act* (1867, 30-31, Victoria, c. 3 (UK))
- *Yukon Waters Act* (1992, c. 40)

## 2.2 Provincial Jurisdiction and Administration

Canadian provinces with ocean borders have their own relationship with the sea and traditionally exercise administration over certain activities such as aquaculture. Apart from

aquaculture, these provinces have authority to enact legislation to implement governance within provincial marine boundaries over such things as provincial ecological reserves, marine wildlife, and even oil and gas exploitation under agreements with the federal government. Cooperative and collaborative governance over such activities as the designation of certain marine protected areas have been attempted by provincial and federal government agencies.

### **2.3 Federal and Provincial Uncertainty with Regards to Jurisdiction and Administration**

There is still much uncertainty in the near shore contiguous to certain provinces, with regard to provincial vs. federal jurisdiction and administration. This uncertainty was articulated by Nichols, Monahan and Sutherland [2000] who stated:

In very general terms, the federal government considers the waters (and bed) seaward from low water to be under national jurisdiction. Thus a bay closed by a baseline would fall under federal jurisdiction. Not all of the provincial counterparts would agree with this general interpretation [e.g., Beauchamp et al., 1973]. The Atlantic Provinces and Quebec, for example, have claimed or could claim an historic three nautical mile Territorial Sea from before the creation of Canada in 1867 or the inclusion of Newfoundland in Canada in 1949. Furthermore, some bays have been singled out through their inclusion in court cases or legislation [e.g., Harrison, 1979]. For example, Chaleur Bay is under the jurisdiction of Quebec and New Brunswick, Conception Bay is within Newfoundland, and the Bay of Fundy appears to be shared between New Brunswick and Nova Scotia. The British Columbia case may be even less clear. In 1967 the Supreme Court Canada determined that jurisdiction for seabed resources outside harbours, bays and estuaries were federal, and those inside provincial [*Re Offshore Mineral Rights (BC)*, 1967]. Furthermore, in 1984 the Supreme Court of Canada ruled that the Strait of Georgia is under British Columbia jurisdiction [*A.G. Can v. A.G.B.C.*, 1984]. Now, if the enclosed bay in this example is a public harbour, its bed is federal under the *Constitution Act of 1867*.

Memoranda of understanding and stakeholder agreements have been signed among federal and provincial authorities to minimize disputes and enable appropriate administration of marine-related activities.

Oil and gas exploration and exploitation in Canadian marine spaces are vital and important activities that have huge socioeconomic impact. Oil and gas leases are generally issued by the federal government but as stated by [Nichols, Monahan and Sutherland, 2000]:

... the federal provincial agreements (which include division of royalties) have changed these arrangements somewhat. *The Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act* [1988]

establishes a Board with authority to issue licenses for exploration development, production and storage of petroleum. The area in which the Board exercises authority terminates seawards at the edge of the continental shelf and landward at lines 10 km long closing off bays along the coast (different from Baselines under UNCLOS and therefore a potential conflict). The *Canada-Newfoundland Atlantic Accord Implementation Act* [1987] is very similar to the Canada- Nova Scotia Board, except its area of authority includes the bays.

## 2.4 UNCLOS

On November 6, 2003 Canada ratified the UNCLOS. Under UNCLOS many countries, including Canada, will be able to claim an extended juridical Continental Shelf. Canada's potential claim includes a very large marine spatial extent that is currently sparsely surveyed, and submission of a claim may involve the challenge of extensive collection of new data [Nichols, Monahan and Sutherland, 2000]. Efforts are currently underway to collect this necessary data.

## 2.5 Marine Cadastre

The concept of the marine cadastre, a system of records of rights relative to marine spaces, has taken root in many countries although there is now preference for the term *marine information system* since the term *cadastre* tend to cause confusion among many geomatics professionals from countries where the term has very specific and varied meanings. Canada has the challenge of managing public, private, traditional and customary rights in its marine environment and a marine cadastre/marine information system is needed to improve the governance of its marine spaces Ng'ang'a *et al.* [2004]. However, although many Canadian researchers and other geomatics professionals are strong proponents of the implementation of a Canadian marine cadastre, very little has been done in this regard.

## 2.6 The Challenge of Appropriate Governance Arrangements

A lack of capacity for horizontal and vertical integration among governance stakeholders is another obstacle to overcome. This is especially true since in Canada, as in many other parts of the world, where many organizations and stakeholders manage important marine-related information that could improve the administration of marine spaces if these information were shared. Governance research indicates that stakeholders with common interests should form relationships of information sharing (i.e. collaboration, cooperation, integration etc.) that is beneficial to all concerned [Paquet, 1999; Charette and Graham, 1999; Hoogsteden, Robertson and Benwell, 1999]. This is especially true in terms of information sharing in situations where each shareholder is in need of information held and maintained by another and each stakeholder desires the best available quality data. Beneficial also to this idea of collaborative, cooperative, or integrative governance is the establishment of appropriate laws and policies, as well as facilitative organizational structures that makes easier the sharing of

information [Trebilcock, 1999]. Canada is still faced with overcoming obstacles in this regard.

## 2.7 Oceans Action Plan

The federal government of Canada is however keenly aware of the importance of its marine spaces to the social, environmental, political, and economic health of the nation. Within the admirable framework of sustainable development the federal government has designed the Oceans Action Plan (OAP) [DFO, 2006]. According to DFO [2006] the OAP was designed as a response to the Throne Speech of October 2004 that in part stated that the Canadian government is committed to:

move forward on its Oceans Action Plan by maximizing the use and development of oceans technology, establishing a network of marine protected areas, implementing integrated management plans, and enhancing the enforcement of rules governing oceans and fisheries, including rules governing straddling stocks.

There are four pillars of the OAP: (1) International leadership, sovereignty and security; (2) Integrated Oceans Management for Sustainable Development; (3) Oceans Science and Technology; and (4) Health of the Oceans. The objectives of these pillars will be pursued through a phased approach. Canada is now pursuing phase I on this initiative.

### 2.7.1 Phase I

Under the International leadership, sovereignty and security pillar Canada will continue to strive for maintaining its leadership role in sustainable oceans management. Canada will continue to participate in international initiative such as UNCLOS and the Global Oceans Forum. Canada will also continue with international partnerships such as:

- A security and prosperity partnership with the USA and Mexico;
- The Arctic Marine Strategic Plan
- The Northwest Atlantic Fisheries Organization (NAFO).

The integrated oceans management for sustainable development component of the OAP will be implemented under the integrated management provisions of the *Oceans Act* [1996] and will provide for the ecosystem science to support improved management of the country's marine environment. This pillar focuses on five priority areas[DFO, 2006]:

Placentia Bay, Newfoundland and Labrador; tabs

- The Scotian Shelf;
- The Gulf of Saint Lawrence;
- The Beaufort Sea (Arctic);
- The Pacific North Coast.

An Oceans Technology Network has been formed under the Oceans Science and Technology pillar. According to DFO [2006] this network will bring together:

...ocean science researchers and technology innovators from government, industry, academia, coastal communities and regional organizations. It provides an opportunity for identifying innovative ocean science and technology in support of the Oceans Action Plan, and the commercialization of oceans technology. The Network will facilitate the sharing of oceans information, discoveries and new technologies, and promote partnerships and business plan development.

A demonstration platform has been set up in Placentia Bay to test the efficacy of Canadian modern oceans and marine science and technology in support of the OAP's integrated oceans management objectives [DFO, 2006].

The Health of the Oceans pillar of the OAP will focus, in this phase, on ecosystem overview and assessment, identification of significant ecological areas, seabed mapping, and other ecosystem objectives. This pillar will also focus on things such as marine protected areas, pollutin prevention, and wildlife protection.

### **3. DISCUSSION**

The OAP is Canada's latest attempt at sustainable use of its ocean/marine spaces that has so much positive impact upon its social, economic, environmental, and political reality. Implicit, although not explicitly stated, is the achievement of the objectives of all of the Pillars of the OAP are the management of rights in marine/ocean spaces whether those rights relate to federal, provincial, private, traditional, or customary entities. It is unwise to consider management of the oceans without considering management of the use of ocean space and implicitly the rights of the various users of those spaces. In other words, there ought also to be an explicit initiatives to implement and manage a marine cadastre or marine information system to assist in the management of those rights in a coordinated manner. As it currently stands the efforts to implement the OAP will have to rely on the distributed framework for managing rights in Canada's marine spaces. It rests on the unspoken hope that representatives of the various government and non-government stakeholders that manage the various rights will see the connection of rights management to oceans management and act in cooperative, integrative, or collaborative manners to maximise the benefits of rights management to OAP objectives.

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## **BIOGRAPHICAL NOTES**

**Michael Sutherland** holds both a Master of Science in Engineering and a Ph.D. in land information management from the Department of Geodesy and Geomatics Engineering, University of New Brunswick, Canada. He has more than 18 year's international experience in land information management. He is currently an AquaNet Post-doctoral Fellow at the University of Ottawa, Canada. Michael is a member of the Canadian Institute of Geomatics, and is Chair of FIG Commission 4's Working Group 3 (coastal zone management, ocean governance, and marine cadastre).

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