

CANADA

Canada

Canada is the largest country in the western hemisphere and the second largest in the world. Its territory is diverse, ranging from wide fertile prairies and farmlands, great areas of mountains, rivers and lakes to northern wilderness and Arctic tundra. The greatest north-south distance is 4,634 km; the greatest east-west distance is 5,514 km.

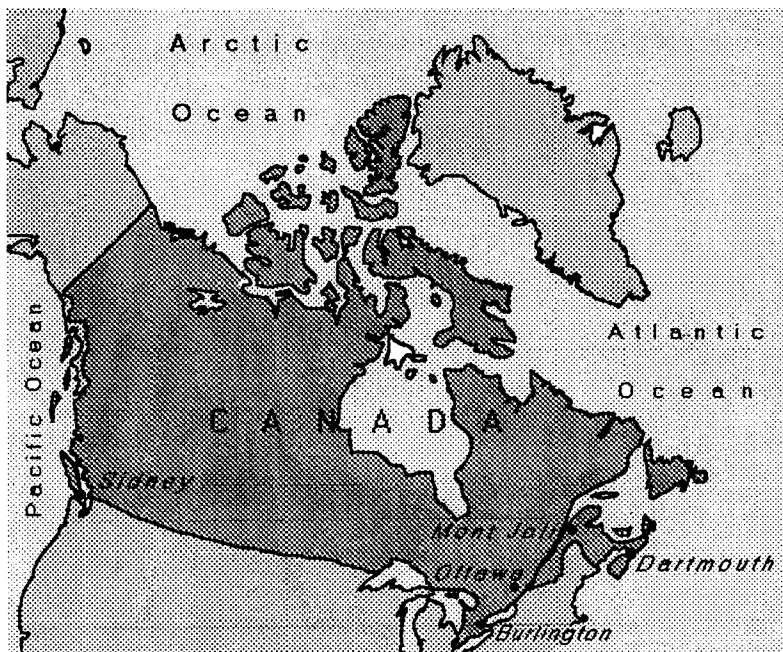


FIG. 1.- Canada.

The total area of Canada is 9,970,610 km² of which 9,215,430 km² is land and 755,180 km² is freshwater. Canada's continental margin covers over 6,500,000 km², an area equivalent to more than 60 percent of Canada's total onshore area. The length of the coastlines 243,792 km. On 1 July 1996, Canada's population was 30 million. Ottawa, the capital city, is also the seat of the federal Government.

The Canadian Federal State of 10 provinces and two territories had its foundation in an Act of the British Parliament, the British North America Act, 1867,

renamed the Constitution Act, 1867 by the Constitution Act, 1982. The Constitution Act, 1867, not only established the institutions through which legislative, executive and judicial powers are exercised but also established a federal form of Government. The federal Government has legislative jurisdiction over matters of national concern and over those matters not assigned to the provinces.

Canada has two official languages - English and French.

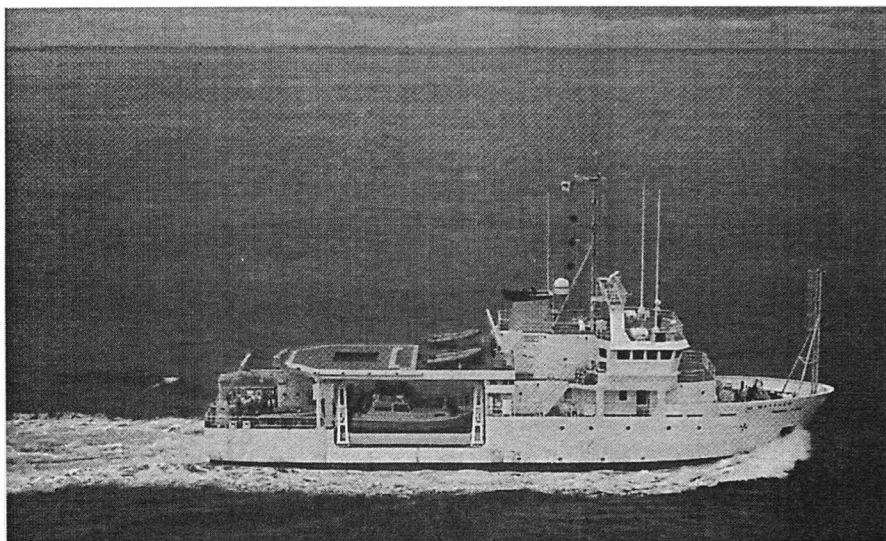


FIG. 2.- CSS MATTHEW.

The Hydrographic Service

The first charting of Canadian waters was carried out by early French and British explorers with some charting by the Portuguese and the Spanish. After Canada became a colony of Britain, detailed charting became the responsibility of the British Admiralty. The Canadian Government did not have any responsibility for hydrography until 1883, when the Georgian Bay Survey was established in order to carry out surveys on the Great Lakes. In 1904, when the Admiralty requested that self-governing former colonies assume responsibility for their coastal surveys, the Canadian Hydrographic Service (CHS) was established by an Order-in-Council.

The British Admiralty continued to maintain responsibility for the surveys on the Labrador and Newfoundland coasts until 1949, when Newfoundland and Labrador joined Confederation. Some Canadian charts of the Atlantic provinces remain as reproductions of Admiralty charts. As modern surveys are completed, the Admiralty charts and reproductions are being replaced by up-to-date Canadian charts. CHS forms part of the Science Sector of the Department of Fisheries and Oceans.

CHS first operated solely out of Ottawa with hydrographers joining chartered vessels on the coasts and in the inland waters. A seasonally staffed,

regional office of the CHS was opened in Victoria, British Columbia, in 1907 and was established on a full time basis in 1938. The region moved to Sidney, B.C. in 1977 and forms part of the Institute of Ocean Sciences. Atlantic Region was formed in 1959 in Halifax, Nova Scotia and moved to the Bedford Institute of Oceanography in Dartmouth, N.S. when it opened in 1962. On 1 April 1987, a district office of Atlantic Region opened in St. John's, Newfoundland. Central and Arctic Region was formed in Ottawa in 1964 and moved to the Canada Centre for Inland Waters in Burlington, Ontario when it opened in 1972. Quebec Region was formed in 1975 in Quebec City and in September 1986 it was moved to Mont-Joli on the Gaspé Peninsula and located in the Maurice Lamontagne Institute. All four regions have active survey and chart production programmes.

Hydrography in Canada is a national programme with priorities and activities determined on a national basis. The hydrographic management team consists of the Dominion Hydrographer and Regional and Headquarters Directors. The role of the Dominion Hydrographer and Headquarters is to ensure that all charts and associated navigational documents are available to the user on demand; to maintain national programme planning and priorities to maintain international liaison; to establish national standards and to approve all charts and publications before release.

The role of the regions is to carry out hydrographic, tidal and current surveys to meet regional and national priorities and to process survey data into New Charts, New Editions, Reprints and chart patches. In recent years, in addition to maintaining paper charts, there has been a major focus on Electronic Navigation charting with an attempt to cover all the major shipping routes with S-57 edition 3 ENCs by the end of 1997.

The Service publishes just over 1,000 nautical charts, 16 volumes of Sailing Directions, 8 Small Craft Guides and 6 volumes of Tide and Current Tables. Additionally, Territorial Sea and Fishing Zone Charts, Natural Resource Maps and charts in the General Bathymetric Chart of the Oceans (GEBCO) series are produced.

Canada became a member of the IHO on 1 April 1951. Mr. A.J. KERR, a former Director in the CHS was elected as an IHB Director in 1987 and re-elected in 1992 for a second five year term. CHS Staff are involved in many IHO Committees and Working Groups and the Canadian Hydrographic Service provides training opportunities to hydrographers and cartographers from a number of IHO Member States.