referred to as the Canadian Arctic archipelago; those in the extreme north – lying north of the M'Clure Strait - Viscount Melville Sound - Barrow Strait - Lancaster Sound water passage – are known as the Queen Elizabeth Islands.

On the west coast, Vancouver Island and the Queen Charlotte Islands are the largest and the most important but the coastal waters are studded with many small rocky islands.

The island of Newfoundland forming part of the province of Newfoundland, the province of Prince Edward Island, Cape Breton Island forming part of the province of Nova Scotia, Grand Manan and Campobello Islands forming part of the province of New Brunswick, and Anticosti Island and the Magdalen group included in the province of Quebec are the largest islands off the east coast.

Notable islands of the inland waters include Manitoulin Island (1,068 sq miles in area) lying in Lake Huron, the so-called Thirty Thousand Islands of Georgian Bay and the Thousand Islands in the outlet from Lake Ontario into the St. Lawrence River.

The areas of principal islands by region are given in Table 1.6.

1.1.5 Surveying and mapping

The needs for maps and surveys of Canada are met mainly by the Department of Energy, Mines and Resources. Although not all branches of this Department make surveys and compile maps, many of them are involved in such work either wholly or partly. They compile topographical, geological and aeromagnetic maps, aeronautical charts and specialized maps showing electoral district boundaries, land use and other features. In carrying out these tasks, the Department is guided partly by long-range plans based on general national needs and partly by requests from other government agencies and private enterprise. Some types of maps and surveys are also produced by provincial and private agencies and, to avoid duplication, the Department co-ordinates its work with these bodies. Other types – such as aeronautical charts – are produced exclusively by the Department. Of the various branches, the following are particularly concerned with surveying and mapping: Surveys and Mapping Branch (geodetic and topographic surveys, legal surveys of Canada lands, geographical atlases, electoral maps and aeronautical charts); Geological Survey of Canada (geological features); and Earth Physics Branch (geophysical maps).

Types of surveys. In the field of geodesy, the Geodetic Survey maintains a network of horizontal and vertical control points across Canada. Much of its present activity is centred on achieving greater density of control and closing gaps in southern Canada. The ultimate goal is the establishment of at least one horizontal and vertical control point within ten miles of any point in established and economically important areas.

The Topographical Survey is proceeding with the compilation of topographical maps. The mapping of Canada at the scale of four miles to one inch is complete; this series will be revised and updated from time to time. On the scale of one mile to one and a quarter inches, 5,000 map sheets are available of a planned 13,150. Sheets published to date cover most of the settled areas of Canada and certain wilderness areas of interest because of resources or defence requirements. On the relatively large scale of one mile to two and a half inches, 800 maps are available, covering all major cities and their suburbs. Wide acceptance has been found for photomaps, a relatively new map-type made possible by advances in air photography and photogrammetry.

The Legal Surveys Divison is responsible for the technical management of legal surveys of land under federal jurisdiction, such as the northern Territories, national parks and Indian reserves. It also executes such surveys on behalf of administering departments, collaborates in the demarcation of provincial boundaries, prepares descriptions of electoral districts and generally provides land-surveying services to other departments.

The Surveys and Mapping Branch is the major agency in Canada for the preparation of aeronautical charts showing airports, airways and radio and other aids necessary for air navigation. As a service to map-makers, prospectors, engineers, foresters, town planners and others interested in that field, the Department maintains a National Air Photo Library in Ottawa containing a collection of all air photographs taken by or for the federal government – about 4 million black-and-white and colour prints. During the course of a year, the Library may receive requests for more than 1 million copies of such prints. The Library is also responsible for the storage, documentation and handling of airborne remote sensing