

Introduction

Air travel is increasing the world over. According to statistics produced by the International Civil Aviation Organization (ICAO), total world air passenger traffic has grown by about 5 per cent annually in recent years, and the trend continues. This means that by the year 2000, an estimated two billion passengers will be travelling annually, more than twice as many as at present. In the case of air cargo traffic, growth rates are even higher.

As a result of these increases, many major airports have already become saturated and their air traffic control facilities congested. In the United States, for example, landing and take-off slots must be allocated, while in Europe, air traffic control delays are common. In many less-developed areas of the world, basic airport facilities are lacking or inadequate to accommodate current or anticipated needs.

All these factors mean that the development of airports is a growth industry worldwide, as countries rush to build new facilities and expand and upgrade existing ones. Canada is actively involved in the trend and provides both technical assistance and airport equipment to customers throughout the world.

Canadian expertise in the aviation and airport industries is founded on the country's early reliance on air travel. Since the beginning of the 1930s, Canada has used air services to knit together its widely separated communities spread out over a land mass of 9 880 000 km² (3 800 000 square miles). The country's challenging climate — intense cold in winter, extreme heat in summer, snow, ice, fog, highly changeable weather — has spurred the development of new technology to ensure smooth operations in all conditions. And, because of its need to maintain travel links with all other countries, Canada has been in the forefront of the development of international air services.

This leadership role was recognized when, in 1950, Montreal became the location of the international aviation building, housing the International Air Transport Association (IATA) and the International Civil Aviation Organization (ICAO). Studies by IATA and ICAO identified a worldwide need for more aviation management training, which prompted the Government of Canada to create, in 1987, the International Aviation Management Training Institute, also located in Montreal. With these important institutions in their midst, Canadian industries have been able to stay abreast of the changes rapidly occurring in the field of aviation.

Today, Canada can offer other countries a wealth of technical expertise and high-quality products to meet the diverse needs of modern airports, wherever they are located. Canadian firms are knowledgeable about the latest aviation and airport

technology, new regulations, and all other aspects of this dynamic sector. Modern facilities and state-of-the-art equipment, including computer-aided design and manufacturing (CAD/CAM), are prominent features of Canadian industry, enabling it to supply products and services that meet the most stringent standards. A strong commitment to research and development is also common among Canadian companies, and their efforts are supported by government-sponsored research and development programs, for example, those of the National Research Council and Transport Canada (the federal department of transport).

Canada's highly advanced aerospace, telecommunications and computer industries have helped promote the growth of a wide array of electronics firms specializing in aeronautical and airport equipment. These companies are world leaders in the development of sophisticated hardware and software in such fields as radar systems, navigation and landing aids, meteorological equipment, and control tower and communication equipment. Their precision instruments and innovative systems are improving safety, efficiency and cost-effectiveness of air transportation both in Canada and abroad.

The deregulation of the airline industry in Canada has put an emphasis on reduced operating costs, which in turn has promoted the development of more efficient and less expensive passenger and cargo processing equipment. Canadian know-how is producing the most up-to-date and well-designed apron and airport terminal equipment, including passenger transport vehicles, baggage handling systems, machine readable documents and flight information display systems. A few examples of ground support equipment offered includes hangars and hangar components, air conditioners and cabin heaters, aircraft inspection systems and fuel system test equipment.

Reliable visual landing aids are crucial to safe air travel. Canadian firms supply a wide range of sophisticated lighting systems, incorporating precision optics and solid state electronics for visibility in all weather. Other visual aids offered include signs, flags and windcones, designed for durability and reliability.

The increasing emphasis on safety and security at airports has stimulated the manufacture of numerous innovative Canadian products from highly sensitive metal and explosives detectors to surveillance systems and a variety of equipment for effective crash, fire and rescue operations.

Canadian companies produce a full range of environmental control machinery to keep aircraft flying and airports open in even the toughest weather conditions. Some examples of this equipment include snowblowers, snow ploughs, deicers and runway sweepers.

Not only do Canadian manufacturers supply high-quality airport products, many also provide excellent support services such as repair and

maintenance contracts and equipment training. Some companies have international offices to serve their foreign clients; others rely on a network of distributors.

In the airport services field, Canadian firms can draw on a large pool of scientific and technological talent, including architects, engineers, financial analysts, economists and management consultants. Canadian service firms are as experienced and knowledgeable as any in the world. Some of the many services they offer include feasibility studies; inspection, testing and laboratory analysis; financial and economic analysis; facilities and operational planning; environmental impact analysis; technical assistance; facilities design; construction management and supervision; equipment procurement; equipment installation, operation and maintenance; operational training; and project monitoring and evaluation.

Canadian service firms have been involved in the planning, design and development of more than 1 500 airports in Canada, from world-class international airports, to remote airfields in isolated communities; from sensitive military installations, to offshore oil and gas exploration sites. They have tackled problems such as increasing air and ground traffic at large airports, air and noise pollution and other environmental disturbances, harsh climatic conditions, and the difficulty of moving construction equipment and personnel to remote sites.

The experience these firms have gained in Canada has enabled them to provide top-quality expertise to foreign clients. Priding themselves on delivering on time and within budget, Canadian companies have undertaken or assisted in major airport projects on every continent, from the Arctic to the Antarctic, from Asia to South America. They have worked on behalf of both public and private sector clients and international organizations such as ICAO and IATA. They have participated in numerous Canadian aid programs to developing countries and have assisted in technology transfer and training.

This publication was produced to introduce Canadian expertise and equipment to countries considering airport expansion and/or the purchase of specialized airport equipment. The more than 130 airport engineering consultants, contractors and equipment manufacturers described in the following pages are only a sample of what Canada has to offer. Its many dynamic, versatile companies can respond effectively and competitively to aviation requirements anywhere in the world.

Also included in this publication is a description of the services offered by the Canadian Export Development Corporation and the Canadian Commercial Corporation, which help finance and facilitate Canadian exports. For further information on the products or services discussed, contact the firm in question directly or your nearest Canadian government trade office.