

in 1930. Hamilton, Ontario was the host city of the spectacle, now regarded as the first of its kind. The Games continued on a four-year cycle until the Second World War interrupted. They resumed in 1954, when Commonwealth athletes met in Vancouver, British Columbia.

The 1978 Commonwealth Games will feature cycling, weight-lifting, badminton, wrestling, boxing, swimming, shooting, bowls, and track and field, including a marathon, which could turn out to be quite a challenge for competitors who may have to run against a brisk prairie wind. Canada, which had an opportunity to choose a tenth sport for 1978, selected gymnastics. There will also be a demonstration of lacrosse.

Badminton, pictured on the 30-cent stamp, and bowls are the only two sports in the Commonwealth Games that are not included in the Olympics. Badminton, which derives its name from the residence of the Duke of Beaufort in Gloucestershire, evolved in the nineteenth century from an ancient children's game. In the 1890s military personnel in Vancouver introduced Canadians to the pastime, but it spread to the East only after the Second World War. A British team toured the country in 1925, greatly increasing the popularity of the sport. Since then Canadian players have triumphed in the women's singles at the 1939 All-England Championships, and in the men's singles at the 1970 Commonwealth Games.

Space waste

The disintegration of the Soviet *Cosmos 954* satellite in Northern Canada in January has focused attention on just how crowded the outer atmosphere is with man-made material.

Twenty-one years after the launch of the satellite which inaugurated the space age, NORAD headquarters in Colorado Springs in the United States reported early in April that there were 4,578 objects in space.

The first man-made satellite, a 23-inch aluminum sphere called *Sputnik 1*, was rocketed into orbit by the U.S.S.R. on October 4, 1957. It came down three months later. Since then 10,744 space objects — instrumented payloads, rocket motors and debris fragments — have been detected and catalogued. Since the space age began, at least 6,000 satellite and space probe pieces of debris have decayed,

the majority disintegrating after entering the earth's dense atmosphere.

There are 948 earth satellite vehicles and 56 space probes still functioning. The U.S.S.R. has 450, followed by the United States with 400. Canada has eight.

Radar, optical and radio-energy sensors at various locations round the globe are used in the space detection and tracking system, sending some 20,000 observations daily to NORAD's control facility. Two optical sensors — Baker-Nunn cameras — are in Canada at CFB Cold Lake, Alberta, and at 21 Radar Squadron, St. Margaret's, near Chatham, New Brunswick. Others are in Korea, New Zealand, Italy and the United States.

Canada a lost leader in jet flying

Marcus Van Steen, writing in *Canadian Scene*, notes that it is not generally remembered that Canada built the first commercial jet airliner in North America. In fact, says Van Steen, the Canadian jetliner was almost the first in the world, making its maiden flight on August 10, 1949, just two weeks after the British had flown their *Comet* jetliner. Unlike the *Comet*, however, which went on to make its contribution to aviation history, the Canadian jetliner was broken up for scrap.

The story started in the last year of the Second World War, when the Government decided that the Victory Aircraft plant at Malton, Ontario, should be turned over to peacetime production. At that time the plant, which had a work force of more than 10,000, had been turning out one *Lancaster* bomber a week for use by the allied armed forces.

C.D. Howe, who was minister in charge of production in the Cabinet of Prime Minister Mackenzie King, arranged for the British aircraft company, A.V. Roe, to take over the plant on the strength of the company's plan to produce a commercial airliner using jet propulsion. The British company, enthusiastic about the working conditions and the work force at the Malton plant, sent over a brilliant young designer, James Floyd, to work on the jetliner project.

The plans called for a medium-range plane capable of carrying 50 people at speeds in excess of 400 miles an hour at an altitude of 40,000 feet. In other words, it was not too different from the *Boeing 737* in use today.

Trans-Canada Airlines (as Air Canada

was then called) backed the project with an order for 30 planes; several U.S. airlines were also interested. Hopes were understandably high at Malton when the prototype made its first flight in 1949. It flew from Toronto to New York in half the usual time, and went on to Chicago, making the trip from New York in one-and-a-half hours, much the same as today's scheduled flight time. The U.S. newspapers went wild with praise, and the U.S. Society of Aviation Designers bestowed its highest award, the Wright Medal, on James Floyd.

Despite this, the Government told Trans-Canada Airlines to cancel its order and later, when the Korean War broke out in June 1950, Mr. Howe told Avro to abandon the plane and to concentrate on producing fighters for the war. On November 23, 1956, the Avro jetliner prototype was broken up on Government orders.

Marcus Van Steen says there is little doubt that this was mainly a political decision, but it will not be known what lay behind it until Mr. Howe's papers are made public, in due course. Meanwhile we have this comment from *American Aviation*: "The jetliner operated for seven years without a trace of trouble. Nothing like it appeared until ten years later, when the French introduced the *Caravelle*. There is no doubt that for at least that period, the Avro jetliner would have had the jet market very much to itself, and could have sold hundreds of planes around the world."

It is worth noting that Sud Aviation, the manufacturers of the *Caravelle*, now has the largest aircraft plant in Europe, and produces the French version of the *Concorde*. One of the leading members of the *Concorde*'s design team was James Floyd, who returned to Britain from Canada after the destruction of his jetliner.

Solar energy institute proposed

A bill to establish the Canadian Solar Energy Institute passed first reading in the House of Commons on March 13.

The Institute would play a key role in the establishment of a Canadian solar-equipment industry, leading to the creation of new jobs. It would encourage and promote the use of renewable energy resources and help to reduce dependence on non-renewable sources of energy.