economic development. In the 1920s the bush pilots of Canada, who flew people and cargos over rugged terrain, were matched in Brazil by air force officers who created the air postal service in a country which embraces 40 percent of the South American continent. Canadians built and sold to other developing countries their famous versions of the STOL (Short Take-Off and Landing Aircraft) for flying from rugged and impromptu frontier air strips, and named them after the animals of their forests and tundra: Otter, Beaver and Caribou. The Brazilians also produce a copycat model of the Dash-7 (the latest Canadian STOL) and understandably call it the Bandeirante.

This Brazilian and Canadian outreach of aviation technology clashed last year when Wapiti Aviation Company, a small feeder airline based in Grand Prairie, Alberta, bought a twin-engine Bandeirante from the Brazilians instead of a Canadian Dash-7. This management decision to "buy Brazilian" to meet a Canadian air transport need similar to the Brazilian, where "buy Canadian" seemed only natural, says much about Brazil's aggressive industrial expansion.

## A would-be world power

Brazil's growing diversification of manufactured exports, (for Canada they include car parts for General Motors and Volkswagen autos from the Brazilian branch plants, shoes and consumer durables), is the product of a geopolitical view of the nation which has never been part of Canadian public policy-making. Where Canada has limited herself to so-called middle power roles, Brazilians have defined a future world-power role as a major national goal. This is based on the strategy that their immense geographic presence in their own continent and their huge population base, combined with dynamic manufacturing and export sectors, will be necessary prerequisites for future "big power" status. Though it is true such geopolitical thinking is inspired by the armed forces in a country ruled by its Generals since 1964, the military now acts as a coalescing rather than a dominant element in Brazil's industrial expansion.

EMBRAER S.A. (Empresa Brasileira de Aeronáutica) or Brazilian Aviation Corporation, the civilian firm which builds the Bandeirante as a commercial jet, began as a producer of small jet trainers for the Brazilian air force. Former air force colonel and engineer, Ozires Silva, EMBRAER's president, is better-known abroad as a dynamic aircraft salesman than he is in Brazil as one of its most accomplished pilots. As a commercial venture and "lead company" in a growing aviation industry, EMBRAER functions like a Canadian crown corporation. It is already six times larger than De Havilland Aircraft of Canada Limited, its Canadian government-owned competitor. EMBRAER's civilian management is celebrating its largest European sales coup to date: all of Britain's domestic feeder airlines fly only the ubiquitous Bandeirante.

Little known in this country is the fact that between 1942 and 1945, both Brazil and Canada as World War Two allies had major expeditionary forces fighting in the Italian campaign. The Brazilian FEB, (Força Expedicionária Brasileira) of 23,000 officers and men served alongside Canadians in Italy. The Brazilians found out, perhaps more acutely than we did, how much industrial organization was needed (and which they did not have), in order to mobilize, train and transport military manpower overseas to a foreign war.

Yet Canada moved more extensively into industrial status between 1941 and 1945 than did the Brazilians. This took place because we became a major weapons supplier for the British (as well as for ourselves), by duplicating the production methods of the neighboring American and familiar British industries. The Brazilian military commanders had to rely almost totally on U.S. sources of supply for their weapons and even uniforms. They went home victorious to a truly backward industrial nation, deeply convinced that both the strategic thinking and resultant organization of resources needed in wartime, were equally necessary for peacetime growth. Three of Brazil's five successive army generals as presidents since 1964 had served as senior officers in the Italian campaign. Indeed the first of them, the late President Humberto Castello Branco (1964-67), was the FEB's Chief of Staff in Italy. The largest (and in 1945 unforeseen opportunity) of the Brazilian military to lead in this role, was to come after their military coup of April, 1964. This event ousted the previous left-wing civilian regime of former President João Goulart which had almost bankrupted this huge nation and left its emerging industries destitute. The industrial strategy which emerged in the early 1970s and included the dynamic export policy was, in the view of the military technocrats, merely an extension of the mobilization procedures they had had to learn the hard way in the early 1940s. Canada by comparison would sustain the industrialization of her wartime economy after 1945 by encouraging the expansion of U.S. branch plants in the postwar period. By 1970, about 65 percent of our manufacturing industries and 87 percent of our strategic oil and gas companies would be foreign-owned, mainly by American parent corporations. Since the 1950s exponents of an industrial strategy for Canada of the kind Brazil has achieved, would be frustrated by the reality that much of this kind of planning already had been done outside of the country in the head offices of the thousands of resident branch plants.

## A working industrial strategy

In Brazil industrial strategy came into its own in 1972 when the Brazilian government announced the country's future "lead industries," which would receive state help through subsidies and tax relief, even during a time of high domestic inflation. These include a surprisingly wide range of unrelated industries: shoes, car parts, sewing machines, medium size dry cargo ships, aircraft, frozen orange juice, petro-chemical and pulp and paper. This strategy has permitted Brazil, as the Third World's largest developing nation, to make the miraculous breakthrough of producing and exporting more manufactured goods than natural resources. By 1981 53 percent of Brazilian world exports were in manufactured goods, replacing for the first time traditional coffee and sugar shipments as the major sources of foreign income.

The record $1.2 billion, two-way trade between Canada and Brazil last year dramatically indicates the same trend. Where only 27 percent of Canadian exports to Brazil from an "old" industrial nation were fabricated goods, 45