Information Division
Department of External Affairs
Ottawa Canada

Canadian Weekly Bulletin

Vol. 25, No. 5 February 4, 1970

INTERNATIONAL DEVELOPMENT RESEARCH CENTRE

The Government will provide at least $30 million to the proposed International Development Research Centre of Canada for the first five years of its operation.

In moving the second reading of the bill to establish the Centre on January 12, Mr. Mitchell Sharp, Secretary of State for External Affairs, described the measure as "one of the most promising and exciting proposals" that the House of Commons had considered for some time. "This," he declared, "can be a new and dynamic element to improve the quality of life in the less-privileged areas of the world."

Excerpts from Mr. Sharp's statement follow:

...The gap between the low-income and the wealthier nations of the world is, to a large extent, a science and technology gap. There has always been a gap between rich and poor within most societies but the massive disparities between the nations of the less-developed areas of the world and the more industrialized nations is a fairly recent phenomenon. The average inhabitant of Southeast Asia, prior to the industrial revolution, enjoyed a standard of life not so very different from his counterpart in Europe, despite the differences in their cultures and modes of life. Certainly, the vast material gulf which separates them today did not exist then.

In the last century, those nations which were in the vanguard of the industrial revolution have achieved unprecedented levels of economic activity. This has come about in large measure because of their ability to unlock the secrets of science and to develop technologies and techniques for the application of scientific knowledge to the processes of production and distribution. The burgeoning market economy of these nations continues to provide powerful incentives for the employment of our scientific and technological resources in the search for new products and processes for the affluent consumer.

GAP WIDENS

There is no similar incentive to apply science and technology to the problems of the less-developed world. The very science and technology which has provided the key to the wealth of the industrialized nations has added to the difficulties of the less-developed nations. Eradication of disease by mass immunization and the use of antibiotics has reduced death-rates in the developing countries dramatically and brought about rapid increases in population. It has proven much more difficult for these countries to develop the increased productive capacity required to provide their growing populations with the basic ingredients that enable men to live in dignity. At the same time, science has devised synthetic substitutes for many of the natural products which these countries have depended upon for most of their export earnings. Despite the fact that, in absolute terms, the less-developed nations have made a significant amount of progress in recent years, the gap between them and the wealthy industrialized nations continues to grow.

CONTENTS

A recent study indicates that some 98 per cent of all of the world's research and development expenditures continues to be made in the wealthy, industrialized nations, which already have high growth-rates. There is almost as much money spent on research and development in the less-developed world. The scientific advances and the new technologies which will shape tomorrow's world will come out of today's research and development expenditures. The relative position of the less-developed nations can only worsen if the balance in the deployment of the world's scientific and technological resources remains so heavily biased against them.

It is not likely that this bias will be rectified except by a deliberate act of policy on the part of the industrialized nations, which possess a near monopoly on the world's scientific and technological resources. A larger share of these resources must be made available to the less-developed nations. One of the most practical methods of doing this is by devoting a portion of the funds available from wealthier nations under their development aid programs to this purpose....

CANADIAN INITIATIVE

This is an area in which Canada can play an important role and it is for this purpose that we propose to establish the International Development Research Centre of Canada. This bill results from two years of careful investigation and planning by the Canadian International Development Agency with the active assistance and participation of a number of other government departments and experts outside government, particularly the Canadian universities and a number of international institutions. A great deal of care has been taken to design an instrument that will complement and supplement the work that is being carried on by others in this field. I can assure the House that Canada's initiative in creating this body is welcomed by the entire international development community.

The Centre will be basically a Canadian institution, with an important international dimension. The chairman and most of the members of the Centre's board of governors are to be Canadian, as well as the majority of its executive committee. Both the board and the staff will include specially-qualified people from various parts of the world, including the developing countries. The Centre will be structured so as to provide the best possible environment for creativity and problem-solving.

WORK OF ORGANIZATION

The Centre will identify, initiate and encourage, support and undertake research into the problems involved in the development of economically-deprived regions of the world. It will seek to develop the most effective application of the results of this research to the needs of the people of those regions. It will give high priority to programs that help the developing countries to build their own scientific and technological capabilities so that they will not be mere welfare recipients but contributors in their own right to the solution of their own problems.

I have said that the Centre will be "problem-oriented". A small expert headquarters group will identify specific development problems and develop programs designed to focus resources upon them. In the development and implementation of its programs, the Centre would work closely with other government departments and non-governmental institutions, particularly Canadian universities and industry. A typical project might consist of a number of programs carried out on a decentralized basis by institutions and individuals chosen for their specific capacity. The Centre will also be able to provide financial support to specific research activities of other institutions that contribute directly to its own programs and objectives....

After a project has been undertaken, the function of the headquarters group will be to oversee the programs and to audit and disseminate their results. Discussions with the OECD Development Centre, the United Nations and some of the United Nations Specialized Agencies indicate that the Centre's headquarters might also provide a centralized system for assimilating, storing, retrieving and disseminating scientific and technical data relevant to international development. In this way, the Centre would help provide an important and, at present, missing link in the co-ordination of world international development programs....

BENEFITS TO CANADA

We should not overlook the important benefits the Centre will bring to Canada. The funds provided for its support will be an addition to the funds normally available for Canadian research and development. It will create new opportunities for the use of Canadian human and institutional resources in the field of science and technology. It will help to attract to Canada highly-qualified people in various fields, including Canadians who have had to leave Canada to pursue their special interests. It will also help to keep in Canada some who might otherwise leave.

In all its programs, the Centre will provide important links between Canadian and foreign science and technology, enabling Canadian specialists to obtain international experience which could make a valuable contribution to our own development.

FINANCING

The funds needed to finance the Centre's operations and programs will come out of Canada's international development-assistance allocations. Within these allocations, the amount of funds made available to the Centre will depend upon the specific programs and activities which are developed by the Centre's board and management after it is established. The Government intends to give priority to this aspect of

(Continued on P. 6)

MESSAGE TO REUNITED NIGERIA

The Prime Minister sent the following message to Major-General Yakubu Gowon, Chief of State of Nigeria, on January 15:

In these momentous days I share with you a feeling of relief that the long struggle is over. The opportunity to build a great nation out of its diverse parts is again yours and I wish you well in what will be a challenging task. The Canadian Government and people watch developments in your country closely and sympathetically.

The attention of our people is naturally drawn to the civilians and others who have suffered as a result of the conflict which is now mercifully ended. We have taken to heart your declarations of reconciliation and I expect that our members of the international observer team which you so wisely convoked will confirm observance of your Government's directives. Our High Commissioner has been instructed to indicate our willingness to provide at the shortest notice more Canadian observers should you agree this is desirable. The observer team has been an imaginative and important factor in the world's understanding of the situation as it has developed in Nigeria.

As our High Commissioner has informed your associates, we are willing to help in the immediate relief situation in various ways including air-transport facilities and medical supplies. A compact team of Canadian officials is being sent to assist our High Commissioner in assessing how best we can help, and Major-General Arthur Wrinch, the much-respected head of the Canadian Red Cross, is coming to Lagos also to provide us with direct advice, on the basis of consultation with your officials, as to how we can best be of assistance at this stage.

The task of reconciliation and reconstruction will not be easy. As we have stated before, we are willing to assist in ways you consider appropriate. My officials are dealing with yours on the immediate problems of relief and rehabilitation. But our interest goes beyond the immediate into the broad and bright future Nigeria will have in the community of Africa and of the world. We value our relations highly and look toward intensified co-operation in many fields between Nigeria and Canada.

FIRST CANADA-U.S. HISTORIC PARK

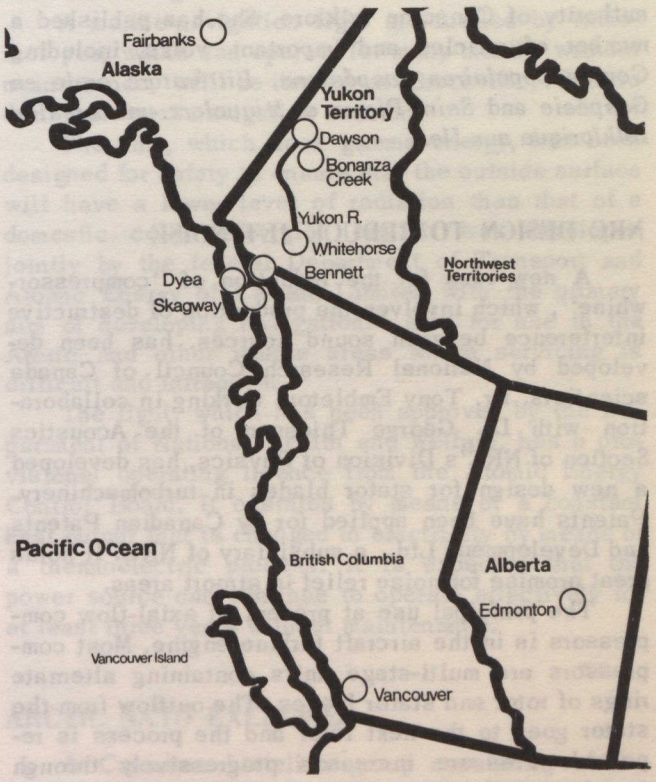
An international historic park is being planned by Canada and the United States to recall the Klondike Gold Rush of 1898. Mr. Jean Chrétien, the Minister of Indian Affairs and Northern Development, described discussions between the two countries as "a unique opportunity for the first integrated park program by Canada and the United States for historical development and preservation".

The present plan involves parts of Alaska, British Columbia and the Yukon.

Mr. Chrétien recently announced a major program of historic preservation that would be focused on Dawson City, Bonanza Creek in the Klondike Valley (where the first gold strike was made), Whitehorse in the Yukon and Bennett, B.C., which will be the main Canadian elements in the proposed international park. The U.S. historical development would be centered on the Skagway-Dyea area of Alaska.

A significant feature of the Klondike Gold Rush International Historic Park will be the joint development and interpretation by both countries of the storied Chilkoot and White Pass Trails from Dyea and Skagway to Bennett. Also under consideration is the establishment of a Yukon Historic Waterway, including the water route to Dawson City and designed to preserve the historical environment of its more significant features.

Also recommended are a standard sign and marking system for use in both countries and a joint series of maps and guides to the Park.



GOLD RUSH STORY

From 1897 to 1905, thousands of miners and treasure-seekers from the United States, Canada and Western Europe came up the West Coast to Skagway. Tent camps, which soon became bustling cities, sprang up

(Over)

at Skagway and Dyea. The newcomers fought their way over the Chilkoot and White Pass Trails to Lake Bennett, where they built boats for the rush down the chain of waterways leading to Dawson City. Hundreds died along the way.

By the spring of 1898, thousands more thronged over the newly-opened Brackett Route. On May 28, when the ice broke on Lake Bennett, more than 7,000 small craft cast off for Dawson.

To cross the rugged coastal mountains and tap the riches of the north country, construction of the White Pass and Yukon Railroad was begun at Skagway in May 1898. By July of 1899, the track was opened to Lake Bennett – but a year later the rush to the Klondike began to subside as gold strikes at Nome and Lake Atlin diverted attention to those districts.

ANTHROPOLOGIST HONORED

Dr. Carmen Roy, chief of the Folklore Division of the National Museum of Man, National Museums of Canada, since 1957, has been designated a fellow of the American Anthropological Association, which includes in its membership some of the world's outstanding anthropologists.

A graduate of the Sorbonne, Paris, in 1953, Dr. Roy has become known as a leading international authority of Canadian folklore. She has published a number of articles and important works, including *Contes populaires gaspésiens, Littérature orale en Gaspésie* and *Saint-Pierre et Miquelon: une mission folklorique aux Iles.*

NRC DESIGN TO REDUCE JET NOISE

A new idea for the reduction of "compressor-whine", which involves the production of destructive interference between sound sources, has been developed by National Research Council of Canada scientists. Dr. Tony Embleton, working in collaboration with Dr. George Thiessen of the Acoustics Section of NRC's Division of Physics, has developed a new design for stator blades in turbomachinery. Patents have been applied for by Canadian Patents and Development Ltd., a subsidiary of NRC. It holds great promise for noise relief in airport areas.

The principal use at present of axial-flow compressors is in the aircraft turbine engine. Most compressors are multi-stage units containing alternate rings of rotor and stator blades. The outflow from the stator goes to the next rotor and the process is repeated. Pressure increases progressively through anywhere from six to 15 such stages before the air flow enters the combustion chamber.

Conventional axial compressors have rotor and stator blades whose leading and trailing edges are essentially straight and lie along essentially radial lines. Thus the trailing edge of any rotor blade passes the leading edge of any blade in the following stator at the same instant along the entire length. Because there is a high speed air-flow coming off the rotor blade, there is a turbulent wake produced. This sweeps over the stator blade. When this moving air flow hits the stationary stator blade sound is produced. If the whole edge of the blade emits sound at the same instant, it radiates to a maximum degree. The NRC invention is a stator blade with a stepped profile along its leading edge. It provides that the sound source will not radiate all along the blade with the same phase, but parts will radiate exactly out of phase with other parts, producing destructive interference.

REDUCTION ESTIMATE

Dr. Embleton estimates that a listener on the ground hearing a plane come in for a landing using the modified stator blading would notice about a 30 percent reduction of loudness.

In the past, the aircraft industry has been reluctant to adopt certain noise-control devices because these usually have been of the "something added" type and represented an economic penalty in the form of reduced payload or reduced mechanical efficiency.

"While we were making our acoustical measurements we came across an unexpected bonus," Dr. Embleton says. "We found in some cases that the staggered stator blades made the engine perform a shade more efficiently."

Dr. Embleton believes that the time is ripe for development of the invention, which, he admits, has a long way to go before it can come to the aid of airport area residents. "What we have done at this point is invented an idea," he says. "We have not built an engine with real blades and made it fly an aircraft. The idea now has to be sold to aerodynamicists. We expect they may be able to add a fraction more to compression efficiency by redesigning blade slopes, an area we did not touch."

WORLD'S LARGEST TOMAHAWK

The community of Cut Knife, Saskatchewan, 30 miles west of North Battleford, and three neighboring Indian reserves plan to build the largest tomahawk in the world in the hope of promoting tourist trade to the site of the Battle of Cut Knife Hill.

An organization composed of both Indians and white people, which was formed to raise funds for the project, has had much success to date. The tomahawk will be 50 to 60 feet high and will cost between $12,000 and $20,000.

Dr. Mary McEwan, psychiatrist, has been installed as president of Toronto's Academy of Medicine. She is the first woman to hold this position at the Academy.

GALLERY BUYS HALS PORTRAIT

Portrait of a Seated Man, a painting of an unknown man by the Dutch seventeenth-century painter, Frans Hals, is the first work by this artist to be acquired by the National Gallery of Canada. Its recent purchase from the estate of a British private collector was announced by the Director of the National Gallery, Miss Jean Sutherland Boggs.

The National Gallery of Canada, Ottawa

Portrait of a Seated Man

Although the work is small, about 17 by 13 inches, it has recently been described by Professor Seymour Slive of Harvard University, the leading expert on Hals, as "one of the finest portraits painted by the artist during his last decades". Professor Seymour included it in the 1962 retrospective exhibition of the artist's work in Haarlem,

COMPARISON WITH WORK IN TORONTO

Miss Boggs pointed out that in Canada this painting has a particular interest because of the two portraits by Frans Hals bequeathed to the Art Gallery of Toronto by Frank P. Wood. Toronto's earlier portrait of the Dutch merchant, *Isaac Abrahamz, Massa,* is larger and more flamboyant than Ottawa's new acquisition. *Massa* is portrayed in a similar posture, but he holds a sprig of holly rather than of laurel.

These differences between the *Massa* portrait of 1626 and the anonymous portrait of 1656 is typical of the change in Hals in his later years toward a subtler and more compassionate portraiture. Toronto's other portrait represents this evolution in even more subdued form.

The Curator of European Art at the National Gallery, Mr. Gyde Shepherd, describes the new acquisition as "a subtle but directly human characterization by one of the greatest portrait painters in the history of art". He points out that, though it was formerly considered a portrait of the Dutch painter Frans Post, this attribution has recently been disproved.

Frans Hals was born, like Rubens, Van Dyck and Jordaens, in Antwerp, but lived most of his life (1581/3-1666) in Haarlem, where he painted portraits of the burgesses, often in group portraits as members of military guilds or boards of trustees for hospitals.

He is probably best known for the *Laughing Cavalier* in the Wallace Collection, which may give a false impression of an artist who was essentially, as Ottawa's new purchase reveals, a tragedian aware of the conflict between human frailty and courage.

The acquisition of the *Portrait of a Seated Man* greatly strengthens the National Gallery's series of portraits from the Renaissance (Bronzino and the German Beham) of the nineteenth century (Degas and Cézanne).

LONG-LIFE NAVIGATION LIGHT

A marine-navigation light aid fuelled by radioisotopes, which can operate for many months without maintenance, will be tested at Brockville, Ontario during the next navigation season.

The unit, which uses gamma energy, has been designed for safety to ensure that the outside surface will have a lower level of radiation than that of a domestic color television set. It was developed jointly by the federal Department of Transport and Atomic Energy of Canada Limited with the primary aim of developing navigational aids for use in the Arctic and other remote areas where servicing is difficult and infrequent.

The light, which has been approved by the Department of National Health and Welfare, has a provisional operating licence from the Atomic Energy Control Board. It operates by means of a constant heat output that is changed to electricity by means of a thermoelectric process. It is expected that the power source can continue to operate effectively for at least three years without maintenance.

ARCTIC NATO EXERCISES

A Canadian battalion group consisting of the 1st Battalion the Queen's Own Rifles of Canada and support elements will take part in the North Atlantic Treaty Organization training exercise "Arctic Express" in Norway this month.

About 900 troops and vehicles, including armored personnel carriers and snow vehicles, will be flown

(Over)

to northern Norway by Air Transport Command *Yukon* and *Hercules* aircraft over a seven-day period beginning February 24.

Exercise Arctic Express, which will end on March 15, is designed to test the procedures for deployment of the multinational Allied Command Europe Mobile Force (Land), commanded by Major-General L.I. Gobbi of Italy. It will be held in the Bardufoss area of Troms, Norway, some 200 miles north of the Arctic Circle.

British, Italian, Norwegian and U.S. forces will also participate in the manoeuvres.

KENYA MEDICAL SCHOOL

The development of the Canadian-sponsored medical school in Nairobi, Kenya, has been very rapid since it began in July 1968, says project director Dr. Douglas Cameron.

"Seldom, if ever," says Dr. Cameron, who is also chairman of McGill University's Department of Medicine, "has this rate of development been matched by new medical schools anywhere."

Like all developing countries, Kenya suffers from an acute shortage of doctors. At present there are only about 600 doctors in Kenya, serving a population of 6.5 million. (In comparison there are 8,000 in Quebec for a population of 5.9 million.)

In July 1968, to combat this shortage, the Canadian International Development Agency negotiated a two-year contract with McGill University to train Kenyan medical students and establish departments of paediatrics and internal medicine in Nairobi.

Six doctors from McGill have been doing this for the past year as well as caring for patients and taking part in various clinics and hospital committee meetings. At present the Canadian doctors are teaching some 60 students divided into two classes. This number is expected to increase to 75 this year and to 90 by 1971, after which a freshman class of 105 will be maintained.

Postgraduate training in medicine and paediatrics is also part of the CIDA-sponsored program. Although there is a manpower shortage for this work at present, there should be none by 1972 after students graduate.

Canada is also supplying advanced training for African doctors in this country. One postdoctoral fellow in cardiology is already training at the Montreal General Hospital.

INTERNATIONAL DEVELOPMENT RESEARCH CENTRE

(Continued from P. 2)

our international development program, and I foresee the allocation of as much as 5 per cent of our total development-aid funds to the Centre. The Government is prepared to allocate a minimum of $30 million for the administration and programs of the Centre over the first five years. About one-third of this would be for the headquarters operations and the remainder for programs to be carried out outside headquarters....