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## Canada/U.S. sign fisheries pact

The Secretary of State for External Affairs, Don Jamieson, and the Minister of Fisheries and the Environment, Roméo LeBlanc, announced that a Reciprocal Fisheries Agreement between Canada and the United States had been concluded on February 24, and that the following joint communiqué had been released in Ottawa and Washington, D.C., the same day.

The United States and Canada today signed in Washington a Reciprocal Fisheries Agreement to permit continuation of fishing by fishermen of each country off the coasts of the other for 1977, following extension of their respective fisheries jurisdiction to 200 miles. The agreement was signed on the Canadian side by L.H. Legault, Director General, International Directorate, Department of Fisheries and the Environment, and on the United States side by Ambassador Rozanne L. **Ridgeway**, Deputy Assistant Secretary of State for Oceans and Fisheries Affairs. The agreement will enter into force upon completion of internal proceedings by both sides.

The agreement was concluded following discussions between President Carter and Prime Minister Trudeau. The two leaders concurred that a fisheries agreement for 1977 should be concluded on the basis of the same spirit of co-operation which marked their overall discussions. They also reviewed the principles which would ensure that the interests of each in the fishing zone of the other are accommodated reciprocally for the remainder of this year.

The two sides looked forward to longer term arrangements which are yet to be negotiated. They welcomed the signature of the agreement as an important step in the evolution of their fisheries relationship and as a contribution to their close ties as neighbouring states.

## Inflatable greenhouses?

The Alberta skyline may someday include an inflatable greenhouse beside the oil well and the hay stack. Dr. Peter G. Glockner, head of the department of mechanical engineering at the University of Calgary is exploring that possibility, with the aid of a grant from Alberta Gas Trunk Line Limited.

If the idea proves to be practical, it would mean year-round supplies of Alberta-grown fresh vegetables that so far have been imported from the United States.

Professor Glockner, an expert in the field of inflatable structures, will conduct a study on the feasibility of inflating and heating polyethylene greenhouses with the exhaust from compressor stations used by AGTL to transport natural gas throughout the province.

The compressor stations that are scattered across Alberta use natural gas to fuel turbine engines that pump the gas along the pipe line. Although these engines are quite efficient compared to other combustion engines, they nevertheless waste 70 per cent or more of the energy that they produce in the form of exhaust, as do all gas turbine engines.

"It seems to be beyond our present technology to develop significantly more efficient machines, so we should be looking at ways of using the waste energy that they leave behind," states

## Blessed event at Toronto Zoo

The staff of Metro Toronto Zoo are happy to announce the birth of a whitehanded gibbon in the Indo-Malayan pavillon.

Derek and Priscilla, the parents, are doing well.

But the zoo staff is a little concerned about baby Senin (Thai word for "Monday", the day of her birth).

Mother Priscilla has a history of indifferent maternal care. She has lost several offspring for a variety of causes, mostly of neglect. For this reason, the latest arrival, Senin, was taken from her within hours of her birth and given intensive care for the first 12 days.

After a tricky first month, Senin began to thrive and, according to health unit foreman John Hulley, is now prepared to "receive a few visitors."

Gibbons are native to Indo-Malaya, and although the animals are not yet an endangered species, gibbon births in zoos are still rare occurrences. The first captive-bred gibbon in North America was born at Philadelphia in 1940. Professor Glockner.

The exhaust produced by the compressor engines would be sufficient to inflate and heat a medium-sixed polyethylene structure, says Dr. Glockner. The exhaust is also rich in carbon dioxide, which would stimulate rapid growth of the crops.

However, the exhaust also contains a poisonous gas mixture called NOx and trace amounts of other undesirable gases which must be filtered out or diluted to acceptable levels.

The first phase of the project will investigate the control of the concentration of these exhaust gases by various ventilation and inflation systems, which also regulate temperature and humidity. Structural designs and materials will be assessed, then the effects of the controlled environment on the growth of agricultural produce will be examined.

According to Dr. Glockner's calculations, each compressor station produces enough exhaust energy to heat five to ten acres of land for year-round market gardening. What remains is to find a system that will make the procedure economically feasible.

The elegant, long-armed gibbon is thought by many zoologists to be among the human's closest primate relatives. It is the only ape that always moves on two legs while walking or running.



Senin, Toronto Zoo's recent arrival, is ready to receive visitors.