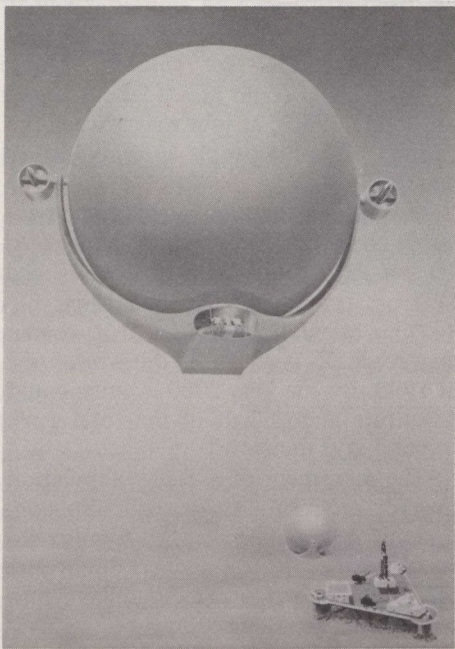

New lighter-than-air craft boon to construction industry

A Canadian company has developed what is considered to be a revolutionary lighter-than-air vehicle which could prove to be a breakthrough for the heavy construction industry, reports Kerry Diotte in the *Ottawa Journal*, March 31.

The vehicle is the *LTA 20-1*, engineered by the Van Dusen Commercial Development Corporation of Ottawa. It is a helium-filled, 48-metre (160 foot) diameter sphere that is driven by twin-engine turbines and is outfitted with a gondola.



The LTA 20-1 is designed to carry cargo and move heavy construction materials.

The craft has been designed primarily to move cargo and heavy construction materials to remote or inaccessible areas, a task now normally handled by skycrane helicopters.

All concept engineering designs have been completed for the *LTA 20-1* and the craft has three U.S. aerospace design endorsements and 15 patents.

At a projected unit cost of \$4.5 million, the *LTA 20-1* would be cheaper than both the Sikorsky and Boeing Vertol skycranes, which sell for about \$9 million and \$11 million, respectively.

Heavy loads

The craft's operating costs are estimated at about 24 cents *per* ton a mile, compared with the rival Sikorsky which costs about \$2 *per* ton a mile to operate.

The *LTA 20-1* would be able to reach altitudes of 3,000 metres (10,000 feet) and speeds of up to 130 kilometres an hour when fully loaded with 38,250 kilograms (85,000 pounds) of cargo. In contrast, the Boeing Vertol, currently the largest skycrane helicopter in the world, has a maximum payload of 12,600 kilograms.

Fred Ferguson, president of the company, said the *LTA 20-1* design overcomes two fundamental difficulties with traditional lighter-than-air vehicles.

Helium-filled

He explained that traditional blimps must carry the same weight at all times to maintain their altitude and stability. "If a craft drops off a payload of 10,000 pounds, it must then fill up with 10,000 pounds of water or lead weight before it can return for another load of materials," he said.

The Van Dusen design overcomes the problem by using high pressure helium gas contained within a sphere of specially-resistant plastic so traditional ballasting is not required.

The spherical shape of the balloon solves the "weather-vane" effect. "We've overcome the aerodynamics problem of the sphere shape by allowing it to rotate on an axis and by roughening the outside surface to give it lift. You could compare it to the design of a golfball," Mr. Ferguson said.

New gas pricing formula

Energy Minister Marc Lalonde met with U.S. Energy Secretary Charles Duncan, March 24, to discuss gas export pricing.

The meeting clarified the basis upon which export prices will change in the future, and will therefore minimize the possibility of misunderstandings, said Mr. Lalonde.

The new pricing formula will continue to be based on the substitution value concept, which links the price of Canadian gas exports to the cost of Canadian oil imports, said the Minister. A new export price will be calculated on the first of every month, and if it changes by more than 15 cents (U.S.), it will be implemented 90 days later.

The purpose of the lag is to ensure that Canadian gas will remain competitive with alternative fuels in the U.S. At the same time, Mr. Lalonde noted, the

monthly calculation will allow Canada to react immediately to changes in world oil prices. The purpose of the 15-cent trigger (which is equivalent to about 90 cents a barrel) is to eliminate administrative problems that would accompany frequent small changes in the export price.

This is a financially sound arrangement for Canada, the Minister said. It should prevent disruptions in Canadian exports, while at the same time ensuring that revenue received will offset higher oil import costs.

Afghan refugees in Pakistan

Canada will contribute \$2 million to the international appeal of the United Nations High Commissioner for Refugees (UNHCR) on behalf of the Afghan refugees in Pakistan, Secretary of State for External Affairs Mark MacGuigan has announced.

During the past year, over 680,000 refugees have fled their homeland and sought refuge in Pakistan. Since the Soviet invasion of Afghanistan in late December, the exodus has accelerated. The Government and people of Pakistan have responded to this unexpected and heavy burden in an admirable and generous way.

In addition to its own refugee assistance program, the Government of Pakistan has appealed to the international community for humanitarian assistance. In response to this appeal, the United Nations High Commissioner for Refugees and the International Committee of the Red Cross have initiated major relief programs to provide basic food rations, medical care, clothing and shelter. Canada very recently contributed \$400,000 to the Afghanistan refugee program of the International Committee of the Red Cross.

In announcing the \$2 million contribution to the UNHCR, to be drawn from the Canadian International Development Agency's funds, Dr. MacGuigan noted that, as well as being a humanitarian gesture, the contribution is part of Canada's over-all response to the Soviet invasion of Afghanistan which has been condemned by the international community. He added that Canada has joined many other countries in offering humanitarian assistance to the victims of civil strife and foreign invasion.