LETTER FROM OTTAWA

Batavia participation loses out

A Canadian contribution to the 200-GeV machine appears highly unlikely

by Warren Kornberg

Like the rich kid who owns the ball and bat, those high-energy physicists in the United States lucky enough to be playing at all will probably play with their 300-400-billion-electron-volt accelerator at Batavia, Ill., without a glove from the kids next door.

Their countrymen at the smaller accelerators around the United States are falling on increasingly hard times (SN: 3/21, p. 298). Some will win out in the competition for time on the diminishing number of machines, but many will be driven out of accelerator physics.

And the possibility that Batavia was destined to become an international laboratory to which a number of nations might contribute capital funds also seems to be fading.

The first attempt to get another nation to make a financial contribution was initiated by Canadian physicists. The Canadians had proposed, both to their own Government and to the Batavia lab managers, that they be permitted to make a hardware contribution to the giant accelerator (SN: 8/3/68). In return for this, and for some contribution to the operating costs of the accelerator, they were to be at least junior partners in the facility, with ready access to it. At the time of that proposal, it was suggested in addition that other countries, Germany among them, might be interested in participating.

None of the proposals was as serious or as far along as the Canadians'. They hoped to open the gates with a $20 million, four-year investment, backed by an operating contribution of some $1 million a year. At least that was the proposal they took to the science secretariat of their Privy Council, for inclusion in an upcoming Canadian budget.

The door has not yet been completely slammed on the proposal. But Canada is currently deeply involved in the process of establishing a national science policy, with national priorities to be established in terms of national needs, and a $20 million contribution to Batavia is falling lower and lower on the list.

The situation could change. But at this time, the capital contribution appears to be out of the question. The contribution to operating funds is still a possibility.

Canada is as deeply involved as the United States in an effort to stem inflation.

"We have had to reject proposals that cost as little as $1 million," says a Canadian science official. "A 100-bed hospital could be built with $20 million. How could we justify spending that much money to help build a laboratory in the United States?"

If it were truly an international facility anywhere but in the United States the picture might not be as bleak.

Canada feels very strongly her place as a small nation in danger of being swamped by more highly industrial nations in an increasingly technological time.

A Canadian Senate committee is on the verge of issuing Canada's first comprehensive report on the need for a national science policy. It is highly technology-oriented, and the general tenor, while not anti-scientific, is increasingly in terms of what the policy —and the investment in science it is expected to chart—will do for Canada.

The science secretariat is not considering scuttling Canada's contributions to the world of basic science. But it is thinking that perhaps the $600 million that Canada now invests in all of research and development can be more selectively spent.

For instance, if high-energy physics is important, the policy makers are asking whether Canadian physicists must do it the way the Americans do.

One alternative being seriously considered is that Canadian research in high-energy physics concentrate on auroral and cosmic-ray physics. Teams of physicists from the United States are interested in pursuing their science in the Canadian Arctic; the suggestion is that the discipline can be divided, with the Canadians doing what they can do at home while United States scientists concentrate on the accelerators. The Canadians are aware of the division of labor among Russian and American fusion physicists which is producing such dramatic results (see page 373), and wonder if this would not serve in the sister field as well.

There is, of course, always the possibility that, deprived of their access to Batavia, Canadian physicists may emigrate.

But the Canadians take comfort in the fact that the United States has a built-in barrier to emigration by Canadians: the draft.

Not only are Canadian scientists impelled to come home if they are of draft age. They are also so impelled when their sons are of draft age.

"We get a steady return of men in their 20's and men in their 40's," says an official. "I'm not worried about a brain drain."