## Telecommunications Satellites

System for Canada" published in 1968. This, we were told, and I think rightly so, was the guideline for the program which led to the Telesat establishment. At page 50, appears the following:

It is at this early stage of the development of a satellite communication system that Canada must decide whether to be simply a user of these new means, as they may be developed by others, or to be a leader in their development. Only the latter will permit the realization of their full benefits and opportunities for the Canadian public.

It is evident that Canada already possesses to a large degree the essential technology to determine the design and construction of its own domestic satellite system as a result of successful programs of the Department of Industry, the Defence Research Board and the Department of Transport. This is not to say that every part of the system be manufactured in Canada. Components or sub-systems may be brought from other countries when the volume might not justify Canadian development of production. When this is the case, however, effective control can only be maintained through the exercise of choice and specification. The control of specification, design, and construction, can and must be retained in Canadian hands. The development of satellite communications will employ the most advanced "state of the art" in many fields of technology. An important corollary, therefore, to the undertaking of such development by Canadian industry will be to enable it to apply the resulting skills to the development of other high technology products. The complex technology of satellite systems involving advanced techniques, new planning methods and higher standards of industrial performance will, in a few years, become the technology of many industries. It demands the rapid evolution of techniques, reliability of products, control of production, interdisciplinary development work, anticipatory research and system management, and long term program planning.

I am almost overwhelmed, Mr. Speaker, as I read this document, even at this late date. I am filled with nostalgia. At page 52, I find this:

National identification is intimately associated with technological progress. The power of programs such as this to attract and hold scientists, engineers and others, and to cause them to identify their own aims with those of Canada, cannot be ignored.

The programs, both private and public, to prepare Canadian industry for participation in space communications, have been markedly successful. The government intends to use to the full this capability in realizing a domestic satellite communication system.

I shall end the lesson there, Mr. Speaker. Then, I recall the minister of communications at that time thinking out loud. He was a very engaging minister in the House and outside and I may say that I miss him profoundly. He reflected one day that:

A 100 per cent Canadian-built satellite will come with a price tag, both in dollars and in the length of time it takes to build.

A 100 per cent foreign-built satellite will come more cheaply and more quickly, but bring with it no benefits to Canadian scientists, engineers, industries.

It boils down to deciding the price we are prepared to pay for being Canadians.

That was on January 27, 1969.

Now, Mr. Speaker, the inquiry for papers was prompted by what happened to this outburst of technological nationalism, if I may call it that. Who is constructing the satellite? Is it being built by a Montreal firm, a Toronto firm, a Brandon firm or a Charlottetown firm? The name is the Hughes Aircraft Co. of California. How much Canadian content will there be in the Canadian satellite? If you combine the bit that was given to Spar and the bit that was given to Northern Electric you get something a

little less than 20 per cent Canadian content in the satellite, the whole system of which may cost this country many, many millions of dollars.

• (5:10 p.m.)

When it was suggested that we buy off the shelf one of the American satellites and send it up at a very low price, it was said that we could not do this to our own technology and that it was worthwhile to pay a little more. However, there is surely here the fear that we have, as is so often the case, fallen between the two stools. We do not pay the price to have a purely Canadian operation, and we do not go into the market place purely on business terms and buy an American satellite.

So far, we have taken the costly road. We reached the stage where we used Hughes Aircraft Company of California. They became the principal creators of our satellite. We do not know the terms. We do not know the correspondence. We do not know what went on between the relevant department and the Canadian firms who were interested. We do not know what kind of arrangements were made for and with Hughes, yet this is one of the most costly and important developments which the Canadian government and, therefore, the Canadian people have moved into in our day and age. I resent the secrecy profoundly. There is no reason, in terms of competition on an economic or commercial basis, this information should not be revealed. It is high time someone told us the full story of our collapsed hopes in industrial nationalism as revealed by this business.

Hon. W. G. Dinsdale (Brandon-Souris): Mr. Speaker, I am pleased to have the opportunity to support my colleague who has made an eloquent presentation here this afternoon. I am sorry that the present Minister of Communications (Mr. Stanbury) is not in the House because I sometimes get the feeling that the present Minister of Communications, who inherited the mantle of his predecessor, is not fully aware of the complete background that has given rise to the motion that has been put forward here today.

I followed very closely the development of the idea of a Canadian communications satellite. In fact, I attended most of the committee meetings. Like the hon. member who has just spoken, I was impressed by the eloquence and the spirit of the white paper which was the basis upon which the Parliamentary committee conducted its deliberations. The optimism expressed in terms of the development of the Canadian satellite communications technology was one of the reasons the bill, when it came before the House in 1969, received such enthusiastic and unanimous consent. As has been pointed out, the rules have been changed in the middle of the game. We are now heading in a completely opposite direction from that which was presented to the committee and the House when the act was under consideration.

I wish to review briefly the history of Canada's participation in the satellite program. In 1962, the decision was made to proceed with the launching of our first 100 per cent Canadian satellite; that was Alouette 1. It was such an overwhelming success that Canada went on from strength to strength. I believe we now have four of the Alouette series in orbit. It was my privilege to be at the