

Motions

Canada's precision and international co-operation, to ensure that maximum economic and social benefits are obtained from the applications of space technology, and to ensure that Canada maintains a position of excellence in the world-wide scientific exploration of space.

● (1210)

The committee endorsed the principle of a balanced and co-ordinated program—a balanced program in terms of funding between the various components and in terms of the importance ascribed to space technology as compared with other science and technology initiatives; a balance between pure research and applied research; a balance of the various components of the program.

The space program has additional components. There is the space science program and the astronaut program. This must all be kept in proper balance in order to ensure that at the right time we will have sufficient highly-qualified personnel to take advantage of the benefits which we expect to flow from the program. The regional balance and international balance of which I spoke is important.

As you know, Mr. Speaker, we are the only country outside Europe to be a member of the European Space Agency. That gives an indication that we do not intend to tie all our efforts to the United States. We have been recognized as good partners with the Swedes and even the Soviet Union. Of course, we maintain our membership in the European Space Agency to ensure that the products which will result from the research and development that is undertaken finds application and commercial use in other parts of the world as well.

There must be a proper balance between research and the transfer of technology of which I have spoken. There must be co-ordination between the various departments of government. The Department of Communications, the Department of Energy, Mines and Resources, and the Departments of Forestry, Fishery, and Agriculture all have an important stake in the benefits which can be delivered through space-related activities. The program must be balanced with the fluid international trends which we experience every day.

That is why the Government has responded in such a positive fashion to the committee's report. The report has raised some concerns about the balance of spending for space science and the transfer of technology to the space user program. I agree with those concerns. I can assure the committee, as I have to their report, that in the time leading up to the turn of the century the balance they have suggested may well be achieved.

The committee suggested that another \$200 million a year should be put into the program to help us commit to the Radarsat program. As the Hon. Member has already stated, in June of this year we announced the Radarsat program. Of course, the program still depends on our partners in that program, the United Kingdom and the United States, being able to mount the necessary commitment and provide the

resources which they would be expected to contribute. My friend has pointed out the importance of the Radarsat program to the oceans. As I said, I share his enthusiasm.

Our space effort in the past has earned us recognition and prestige throughout the world. It is a source of pride for all Canadians as they travel throughout the world to be told how much we are recognized and appreciated for our work in this critical area. It has helped us turn adversity into opportunity. I believe that whenever Canadians learn to do that, whenever we commit ourselves to building on our strengths and bridging the obstacles presented by our vast regions and intemperate climates, we will become the best in the world. Our space program has shown that. Our program for the future will keep us in the fast current which is sweeping mankind toward a new frontier and a new age.

I again thank the committee for its excellent work and the Member for bringing this matter to the attention of the House today.

Mr. Greenaway: Mr. Speaker, I want to compliment the Minister on his reply to the committee report. I, too, found the report very interesting. It proves the worth of the efforts of myself and other Members for so many years to get a full committee assigned to research and development. The report deals mainly with the space agency and that line of research and development.

Would the Minister comment on a problem which we have faced for years in Canada, that being that we cannot seem to produce enough qualified researchers in almost any field? We know that we cannot solve our R and D problems by throwing money at them because we do not have the personpower to handle the modern day problems which we are trying to tackle with regard to R and D. Could the Minister comment on what the Government is doing to try to remedy the age old problem of graduating more masters and Ph.D.s in various disciplines in Canada?

Mr. Oberle: Mr. Speaker, my hon. friend from Cariboo-Chilcotin raises a very important issue which immediately jumped out at us as we considered the longer term future of science and technology in Canada. We discovered that the pressures were so great and the challenges so immense that it will literally require a fundamental restructuring of many of our institutions and programs which are designed to keep us in the fast current.

We discovered that our educational system, not only the university system but the high schools and even the primary schools, are not properly orientated toward the new age which is now beginning—the information society, the technological revolution. It is perhaps partly a cultural problem which is providing us with the greatest obstacles in this area. There are not enough women in the natural sciences and engineering. Fifty per cent of the population is shut out. We looked into the high schools and primary schools and found that around grade