

*Space Agency*

western countries. In the United States, for example, NASA spends 20 per cent of its total budget on space science. It is crucial to us and to the future and success of our participation in space programs that we do the hard work that is necessary to develop that core of experience and expertise that basic research in space science provides."

There is our well publicized and important participation in the United States space station project. A number of concerns were expressed again by the Standing Committee on Research, Science and Technology, a committee whose non-existence in this House is a matter of regret for many of us.

Those concerns should be stated—the concern about possible military uses of the U.S. space station; the concern that cost overruns on the space station project on the part of Canada could result in drains on other parts of the space program budget; the concern expressed by the committee that perhaps Canada lacks some of the ability to use fully the experimental environment that will be created by the space station and for which we are paying to have access; and the possible exaggeration of industrial spin-offs that arise from this participation. There is a concern over the regional development aspects of this program.

The Minister referred to that in his speech. The objective is to create program R and D funding in the following proportions: 35 per cent to each of Ontario and Quebec; 10 per cent to each of British Columbia, the Prairies and Atlantic Canada. It is noteworthy that in the period April 1984 to March 1988 what happened was somewhat different from that. In fact, in those years Quebec received 40 per cent of the spending; Ontario, 31 per cent; British Columbia, 11 per cent; the Prairies, 14 per cent; and Atlantic Canada, 0.1 per cent. In other words, there is a lot of work to be done in order to accomplish the regional development objectives of the Government.

Committee members expressed concern about this issue, and I quote: "We question, however, if it is

practical, or at least over the short term, to attempt to distribute the limited resources of Canada's space program to areas lacking appropriate industrial infrastructure efficiently." They went on to state: "Long-term research projects which frequently are international in character must adhere to world-class standards. Short-term research must be driven by the specific requirements of the individual client." We have yet to see or hear from the Government how it intends to accomplish the objectives it has set forth.

• (1230)

Then there is the concern about people. It is concern that arises from inadequate post-secondary education funding in Canada, concern that arises from the inadequate amount spent on the program on space science, the concern that we are not building that cadre of expert and capable people to carry us forward in these projects. We know, for example, of the highly competitive nature of the employment market for space science. Even agencies such as NASA have had difficulty filling their requirements for scientists. We desperately need people.

The over-all objective of a science policy has got to be the promotion of Canada's ability to participate competitively in an international economy increasingly driven by technological innovation.

First, I believe the objective should be to enhance the climate for technological innovation in Canada. Governments should be seeking to stimulate and reward innovation and should be willing to share its cost.

Second, I believe there should be an objective of training and retraining a workforce of technologically literate workers. We require a new generation of blue and pink-collar workers whose special skills will lie in the areas of working with and applying new technologies in existing jobs and in occupations not yet thought about. High tech requires trained and skilled technicians and precision machine shops. To a great extent we lack these important skills in Canada. We must have a strategy to increase in absolute and relative terms our ongoing investment in research and technological innovation. We must use our relatively small size to our advantage by encouraging co-operation between the key players. I believe that the Centres of Excellence Program, the results of which we are eagerly awaiting, will contribute to this. But I fear that the program is underfunded and has created and will continue to create tensions and