It is, in our opinion, well worth while proceeding with the development in any case, for this is an important area of knowledge in which additional data are essential. Equally, it is an important Canadian contribution to the total range of new developments being pursued by ourselves and our allies on a mutually co-operative basis.

The increased emphasis on research and development is in fulfilment of the policy laid down in the White Paper that there would be a modest but consistent increase in these activities. The Defence Research Board has the responsibility not only of providing scientific advice to the Minister and to the Chief of Defence Staff but also of undertaking pure and applied research on behalf of the defence forces. Canada continues to enjoy a well-deserved reputation for extraordinary results in research, particularly in relation to the resources made available for that purpose.

One of the Defence Research Board's most dramatic achievments in 1965 was in the space-research field. The successful launch of Alouette II in November in an elliptical orbit was the climax of months and years of painstaking research and development. As of late January, it had completed 720 orbits about the earth, travelling 22,800,000 miles, and had executed 8,175 commands while operating six hours a day, to produce 54,000 ionagrams.

Isis "A", the Board's third satellite, is scheduled for launching next year. It will carry ten experiments and is scheduled to move in an elliptical orbit some 300 to 2,600 statute miles above the earth. As the sun's period of activity increases with more frequent and violent solar storms, this space-craft should provide most useful data.

Practical application from the data provided by Alouette I, which have been analyzed in combination with data obtained from sister satellites, may involve improved techniques for long-distance communications resulting from mitigation of interruptions caused to northern radio by solar storms and other phenomena.

The Defence Research Board's Industrial Research Assistance Programme, introduced late in 1961 to encourage industry in Canada to establish additional research facilities, has proven to be a most successful activity. Costs of projects under this programme are shared by the Defence Research Board and industry. The joint commitment at present amounts to about $41,700,000, of which DRB has committed more than $21 million, with $10,500,000 spent to date.

Of 145 projects covered by this programme, 113 are active at the present time and are being conducted by 56 Canadian industries in a variety of fields - electronics, aviation, mechanical engineering, physics, metallurgy studies, and others. A number of companies attribute a considerable increase in their business volume to the direct and indirect results of this industrial research assistance programme.

As I stated at the outset, the strength of the Canadian armed forces is in the dedication, training and professionalism of its officers and men. Just as no force, no matter how well trained, can operate effectively without good equipment, similarly no amount of modern equipment, by itself, can be effective without persons skilled and trained in its use. We have in the