

Fleet (Fort Erie) as a supplier of structures to Hughes. Bristol reflects a notable capability in upper atmosphere rockets and propulsion.

Underscoring this is the technological triumph of the CanadArm and Canada's highly publicized involvement with the Space Shuttle Program. Against this, the cost of the industry must be reckoned, with Government expenditures of \$1 billion to date - excluding Telesat procurements.

The small size and limited resource depth of most of the firms which make up the industry might in some instances prove to be a factor but there is evidence of a willingness to form consortia and joint venture relationships.

A basic characteristic of this business is the high proportion of research and development costs in relationship to overall project cost totals. There is little opportunity for series production on a scale comparable with other industries. Economic returns are adversely influenced accordingly.

Unlike the remainder of aerospace, the space sub-sector does not operate either under the GPSA umbrella or the GATT Aircraft Agreement. Although Canada was prepared to consider the inclusion of space products in the MTN of 1979, neither the USA, the EEC or Japan had a mandate to pursue such negotiations. If there is to be trade liberalization in this sector, the full legislation process remains to be undertaken.

3. GOVERNMENT PROGRAMS AND POLICIES

The Government's commitment to Space has been pronounced since the establishment of Telesat and the entry of SPAR into the field of satellite component manufacture. Support to SPAR as a "chosen instrument" has been consistent over the period.

While the firms have availed themselves of all appropriate support programs, it has been under the aegis of 'national interest' that the major funding contributions have been made.

It is in this sub-sector, that non-commercial benefits rank prominently aside from conventional economic measurements, given the obvious social and strategic considerations that communications and remote sensing evoke.

Over the fifteen year history of the Canadian Space industry, Government expenditures have totalled about one half the overall revenues. Administration of these allotments has been through twelve different departments, past and present, dominant among these being the Dept. of Communications and the National Research Council.