Telecommunications

Space Communications

As the third nation following the Soviet Union and the United States to design, build and successfully operate a space satellite, Canada is a respected member of the orbital space community. Canada's prime satellite contractor, Spar Aerospace Limited, heads up a growing list of Canadian firms involved in space communications.

Spar's noteworthy international achievements include the design and supply of the remote manipulator system (Canadarm) for the U.S. Space Shuttle program and the provision of Brazil's domestic communications satellite. The Brazilsat project forged a powerful Canadian team with Spar as lead contractor for the flight hardware and SED Systems Inc. as a major subcontractor responsible for the telemetry, tracking and control earth station.

Other world-class Canadian spacecraft equipment suppliers include Canadian Astronautics Limited, whose enormous pool of engineering talent has produced search and rescue satellite earth stations as well as scientific instrument payloads, spacecraft antennae, batteries and power conditioning equipment; and Com Dev Limited, an internationally recognized manufacturer of space qualified microwave sub-systems.

For the earth segment of a satellite system, Canada also has a number of distinguished suppliers. A rising star in this field is Microtel, whose "Spacetel" satellite communications system is ideally suited for the transmission of voice and television signals to remote locations. The Spacetel system was recently selected by the Department of National Defence for an extensive communications network in northern Canada.

This 14.2 m telemetry, tracking and control antenna is part of the ground control segment designed and built by SED Systems Inc. for the Brazilsat project. SED teamed up with prime contractor Spar Aerospace Ltd. on Brazilsat, Canada's eminently successful entry into the communication satellite systems export market.