



Artist's concept of RADARSAT spacecraft.

SPAR Aerospace Limited

The Government of Manitoba has embarked on a digital base mapping program and is studying the development of a province-wide land-related information system. A report by the Association of Manitoba Land Surveyors identifies the property parcel as an important building block in developing a provincial land information system and suggests that the surveying profession can make a significant contribution to the building of the system by connecting legal surveys to the geodetic survey framework.

Saskatchewan's Central Survey and Mapping Agency (CSMA) leads that province's geomatics activities, particularly user co-ordination and data generation. A strategic GIS plan that sets out products, procedures, scheduling and costs associated with the GIS model that best suits Saskatchewan's situation has recently been formulated.

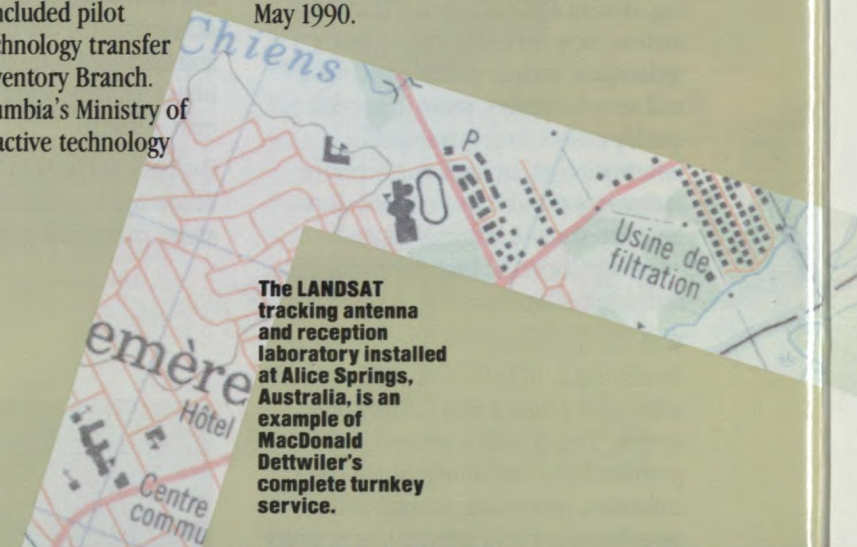
Alberta's survey control network has been completed. All but nine municipalities with a population over 2 500 fall under the province's Integrated Surveying and Mapping Program. The provincial digital base mapping program, accomplished in partnership with the Alberta mapping industry, is nearing completion now. Major Alberta programs in support of provincial natural resource management include resource inventory and analysis, thematic mapping and geoprocessing. In co-operation with the Canada Centre for Remote Sensing, the

province is also working under the Technology Enhancement Program on a variety of projects to demonstrate the application of remote sensing techniques to resource management and monitoring. An automated database is under development to support the Alberta Vegetation Inventory Project. Other accomplishments include land classification projects, climatic data collection and wildlife habitat mapping.

In British Columbia, the private sector in partnership with the provincial government is undertaking a digital base mapping program. The province's Ministry of Forests has set up an ambitious GIS remote sensing program. In co-operation with the Canada Centre for Remote Sensing (CCRS) and local industry, the ministry's Inventory Branch has pioneered the monitoring of forest depletions by integrating GIS and satellite image analysis techniques. This co-operative work has included pilot projects involving technology transfer from CCRS to the Inventory Branch. Likewise, British Columbia's Ministry of Crown Lands has an active technology transfer program.

Ontario, Quebec, Alberta, Saskatchewan and Manitoba have also been actively involved in developing a broad range of applications of remote sensing, mapping and geographic information systems for non-renewable and renewable resource monitoring. Applications cover such areas as civil engineering, range management, agricultural crop monitoring, land use changes, forest depletion mapping, environmental monitoring, and mineral and oil exploration.

The Yukon and the Northwest Territories serve as active test sites for the development of economic, large-area mapping methods. The two territories participate in remote sensing monitoring of such diverse phenomena as offshore ice, placer gold mining, and wildlife habitats. The Northwest Territories was chosen as the host for the first circumpolar conference on remote sensing held in May 1990.



The LANDSAT tracking antenna and reception laboratory installed at Alice Springs, Australia, is an example of MacDonald Dettwiler's complete turnkey service.



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