

JAN 15 1997

RETURN TO DEPARTMENTAL LIBRARY

RETOURNER A LA BIBLIOTHÈQUE DU MINISTÈRE

eventually pay for about one-quarter of development costs. Initial funding and support is being provided by the federal government. The municipality usually provides the funds for planning. Financing for execution of specific projects is provided by SEDESOL and *Banco Nacional de Obras y Servicios Públicos* (BANOBRAS) which is the federal government's development bank. If BANOBRAS provides the funding, the plan must be prepared by a professional consultant. Initial plans typically cost between \$70,000 and \$100,000 with full implementation running in the \$3 million to \$10 million range. As of 1993, \$40 million had been spent on cadastral work, about half of it financed through BANOBRAS and the remainder financed by SEDESOL.

### OVERVIEW OF THE MEXICAN GEOMATICS SECTOR

In 1993, about 18 Mexican companies were actively engaged in the geomatics industry. Only six of them are capable of providing fully integrated services. According to industry sources, the top three companies are *Sistemas de Información Geographica S.A. de C.V.*, *Aerofota S.A.* and *Topografía y Mapas S.A.* These companies use technology from the United States, Canada and France.

There is little existing Mexican geomatics technology, although the *Fundación Arturo Rosenblueth* is developing a PC-based geographic information system. This system is oriented towards integrating information on retail store locations.

The smaller companies, numbering about 12, are mainly occupied with subcontracts from the larger companies. They typically have around 10 employees and tend to use outdated technology. Generally, the larger companies engaged to conduct the aerial surveying and mapping have control over the geomatics technology to be used.

Aerial work is restricted to Mexican companies, and Canadian companies interested in breaking into this market will have to seek out partners. There are many opportunities for technological joint ventures. It has been estimated that there are only about 10 aircraft in Mexico that are properly equipped for detailed aerial mapping.

### CUSTOMERS

The major buyers of geomatics services are municipal and state governments. They provide geographic, demographic and economic information to SEDESOL as part of the system of intergovernmental financial assistance.

Purchasing decisions are not entirely left in municipal and

state hands. SEDESOL and BANOBRAS both impose their own conditions for financial assistance and the government statistical agency, INEGI, also plays a role. The need for technological compatibility is a driving force behind purchasing decisions. The lack of such compatibility in the past is blamed for many of the shortcomings of existing data, and officials seem determined to correct these problems. For example:

- INEGI is responsible for producing all of Mexico's maps. It is presently developing an integrated national geographic information system. INEGI is using the Canadian developed SPANS system and is creating pressure for other government agencies to use systems that are compatible with SPANS.
- SEDESOL is the federal department responsible for social development, including the administration of financial assistance plans for state and municipal governments. It maintains a large database incorporating geographic, demographic and economic information. Compatibility with SEDESOL's SPANS technology is a factor in purchasing decisions.
- State and municipal governments are trying to facilitate the integration of geomatics systems and data through a committee known as *Comité*

43-278-336

