

SISTEMAS GEOGRÁFICOS DE INFORMAÇÃO
SISTEMAS GEOGRÁFICOS DE INFORMACIONES
INFORMATION GEOGRAPHICAL SYSTEMS

REMOTE SENSING AND DATA INTEGRATION:
PRACTICAL SOLUTIONS FOR RESOURCE MANAGERS

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ABSTRACT

Augmenting data bases, even in data scarce areas, is only one requirement for improved resource management decision making. Equally important is the ability to compile and integrate the particular data sets most appropriate for the resolution of an individual resource problem. This integration must furthermore be accomplished in a fashion which yields effective results within a specific set of time/cost and performance constraints.

For many applications computer-based geographical information systems can provide a desirable solution. This is particularly true for national or regional level data base management where there may be a requirement for frequent update. For many operational resource management agencies, however, the sophistication and cost of full digital data integration prevent their development and support. Increasingly, attention is being focused on finding practical solutions to the common data integration and update problems faced by such agencies.

In Canada, practical needs have contributed to the development of data integration methodologies which are a blend of digital and analog technologies. This paper describes such a system now in use in Canada. Applications of this system are presented under the constraints of operational mapping programs in agriculture, forestry, geology and in map revision.

The practical approach to data integration presented in the paper is gaining wide acceptance in Canada. Results are being provided with known reliability and at costs which are attractive to operational resource managers. Applications development scientists at the Canada Centre for Remote Sensing operate such equipment as a key element in the transfer of remote sensing from research into common use. The authors believe that the Canadian experience in this area is relevant to many remote sensing and resource management specialists in Latin America; and that the benefits of low cost, reliability and practical performance will be appreciated even more rapidly than they have been in Canada.