

Geologic Mapping and Mineral Exploration Using Remote Sensing Techniques

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The increasing costs involved in conventional geologic mapping and mineral exploration over the past 20 years has given rise to a substantial increase in the development of faster and more inexpensive data collection techniques. Airborne and satellite-borne sensors have previously, and continue to provide large volumes of geologically useful data such as spectral, magnetic, gravimetric, and gamma-ray spectrometric. Conventional analogue maps, tables, and overlays are relatively inflex-

ible and inefficient means of dealing with the large quantities of geologic information. Digital image processing techniques have significantly improved the integration and manipulation of both remotely sensed and conventional geologic data (lithological, structural, geochemical). These digital databases can provide valuable insights into the lithologic and structural relationships of an area and are useful reconnaissance tools for geologic mapping and mineral exploration programs.