

Image Processing

In the upper photo, GeoSpectra image processing specialists are working on a TOPOIMAGE™, a highly accurate topographical map developed from a new GeoSpectra computer program. At right below is Dr. Robert K. Vincent, founder and president of GeoSpectra Corporation, Ann Arbor, Michigan, a company formed specifically to transfer NASA-developed remote sensing technology to natural resource companies.

Vincent, once a principal investigator on NASA's Landsat 1 resources survey satellite, wrote his Ph.D. thesis on multispectral scanning and later—in March 1974—founded GeoSpectra with \$1,100 borrowed from a credit union. Today, GeoSpectra is a highly successful firm offering many types of image products, usually with interpretive geological exploration studies, to petroleum and mining companies. The company has accomplished a wide range of survey programs for such companies as ARCO, Bendix, Coastal Oil and Gas, Exxon, Getty Oil, Phillips Petroleum, Sun Oil, Texaco and Total Petroleum.



A new spinoff product derived from the company's expertise in processing Landsat data in a software package called ATOM™—for Automatic Topographic Mapping—which is capable of digitally extracting elevation information from stereo photos taken by airborne or spaceborne cameras. ATOM, says the company, offers a new dimension of realism in applications involving terrain simulations; it produces extremely precise maps of an area's elevations in less time and at less cost than traditional methods. ATOM has a number of applications in defense training simulations and also offers utility in architecture, urban planning, forestry, petroleum and mineral exploration. GeoSpectra has concluded an agreement with Litton Industries, one of the



largest aerospace companies, for joint marketing of ATOM and ATOM-related products for non-civil applications. ▲

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