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APPLICATION OF LANDSAT DATA ON A LOW ORDER SOIL SURVEY IN SOUTH CENTRAL IDAHO

WILLIAM D. HARRISON Soil Conservation Service

Satellite imagery was obtained for approximately 1.2 million acres on the remote Great Rift Zone of the Central Snake River Plain. Using an analytical technique, large-scale land patterns were determined by cluster analysis at a scale of 1:24,000. Field examination of previously selected cluster sample points was done to obtain a correlation of soil surfaces, miscellaneous land types and vegetation species to various reflectance values recorded by the satellite camera. Upon computer analysis of the cluster point sample data, a level of similarity was determined and classes selected for the major land and vegetation patterns. This data is currently being applied to a low order standard soil survey in the area. Its usefulness as a "tool" in generating a general soils map, preliminary mapping, and mapping unit design has helped personnel map this remote area with a higher degree of accuracy and confidence.

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