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3D Anaglyph Imaging Technology Application in Geology and Active Tectonics Researching

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Application of Anaglyph imaging three-dimensional diagram of the production of three-dimensional topographic map is a very important and easy way. Outlined in anaglyph imaging perspective view of the principle of application of SRTM-DEM and LiDAR data produced anaglyph imaging three-dimensional topographic maps, geological map red green color three-dimensional topographic and geologic map. The visual image of the three-dimensional topographic and geologic geological mapping results is an important tool of active tectonic geomorphology.

Using 3D Anaglyph imaging with SRTM-DEM data and geologic, we obtain Topographic-geological map of the Dali region in Yunnan, Anaglyph imaging three-dimensional topographic map, clearly indicate the characteristics of the regional tectonic.

Recent obtaining high-resolution LiDAR Digital

Elevation Model(DEM) and Digital Surface Model (DSM) data in Beiya region, we integrate strata with the fine three-dimensional topography, geology image data; the activities presented based on the active tectonic topography and landscapes terrain and topography abnormal characteristics, for a clearer analysis of the tectonic topography of the Beiya area. Using 3D Anaglyph imaging with DEM and DSM data from LiDAR, we generate 3D geologic anaglyph images in Beiya area. Based on this analysis, the results may suggest some possible active fault covered by trees and soils.

Key words: 3D anaglyphic images; digital elevation model; tectonic geomorphology; three-dimensional topographic and geologic map.

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