

Remote sensing basis for “Atlas of Lithologic-Paleogeographical, structural and geoecological Maps of Central Eurasia”

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Accordingly with agreement between geological organizations of Kazakhstan, China, Kyrgyzstan, Russia, Uzbekistan, Turkmenistan, Tajikistan and Azerbaijan the creation of “Atlas of Lithologic-Paleogeographical, structural and geoecological Maps of Central Eurasia, 1:2,5M”, has been started in 1997. VNIIGAM, in connection with agreement, produces multipurpose remote sensing basis over Central Eurasia area as specialized information product providing a base to study geological structure, natural resources and environment. Satellite remote sensing data acquired by Russian photographic and scanning systems with spatial resolution 170-40 m are used for this work.

VNIIGAM's specialists have developed computer-based technique aimed at production of remote sensing basis for geological maps which comprising execution of geometrical and radiometric corrections, special image processing by different operators and synthesis. Remote sensing basis is presented in electronic and analogy versions.

Produced united image of Central Eurasia earth surface allows to comprehend large tectonic structures in their natural borders and solve wide scope problems, for example, modeling of geodynamical conditions, prospective for searching of economic important objects and mineral resources, clarifying of construction of large tectonic units, metallogenic zoning, integrated evaluation of ecological situation and geological and natural dangerous processes, etc.