THE AERIAL PHOTOS TO DETECT CHANGES IN THE LANDSCAPE AFFECTED BY BLACK COAL DEEP MINING

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ABSTRACT:

Aerial photos are the suitable data source for monitoring landscape changes. The black coal deep mining shows specific way in the landscape. During the coal extraction there is an anthropogenic transformation of surface. The anthropogenic forms of relief rise: waste banks, tailings ponds, handling areas, etc. A large influence on the relief changes has also undermining, which the images show in particular the emergence of the submerged ground subsidences and decrease buildings. As a result, there is a significant change in the land cover of the area. The study deals with the symptoms of the black coal deep mining on the aerial photos. Changes in the landscape due to underground black coal mining are presented on the example of the central part of the Ostrava-Karviná Mining District (Czech Republic). As the data sources were used archival black and white aerial photos and contemporary color aerial photos from the period from the year 1947 to the year 2003.

TOPIC: Change detection and process modelling
ALTERNATIVE TOPIC: Remote sensing applications