

EARTH OBSERVATION SYMPOSIUM (B1)  
Earth Observation Applications and Economic Benefits (5)

Author: Dr. Alchin Shirin-zada  
National Aerospace Agency (NASA) of Azerbaijan Republic, Azerbaijan

ENSURING THE ECOLOGICAL SAFETY OF TRANSPORTATION OF ENERGY CARRIERS ON  
THE MAIN PIPELINES (MP) ON THE BASIS OF AEROSPACE MONITORING

**Abstract**

Ensuring the ecological safety of transportation of energy carriers on the main pipelines (mp) on the basis of Aerospace monitoring

A.A. Shirin-zada, R.M. Rahimov, J.G. Daryabarijavad National Aerospace Agency, Azerbaijan e-mail: a.shirin-zadeh@box.az

Now, when the Republic aims to reach strategic position in system of the International power security, the factor of ensuring stable and safe work of oil and gas transport system of the Country increases more and more. Novelty and advantage of an offered method of diagnostics of a state of MOGP is that processes of interpretation and analytical processing are based on the modern technology basis of which is made by information model of main pipelines. The offered method of Geotechnical diagnostics allows to solve the following problems: - definition of the actual position of the main oil and gas pipelines; - identification and monitoring of potentially dangerous sites caused by the influence of the surface water ; - monitoring of geodynamic processes (mudflows, landslides, earthquake, etc.); - identification and control of negative activity of groundwater; - assessment of negative influence of technogenic factors. The offered technique of technical diagnostics can become a component of three-tier system of diagnostics of a state of MOGP which is including: - intra-pipe diagnostics; - geotechnical diagnostics on the basis of interpretation of satellite images ; - land (tool) diagnostics. It will allow significantly to improve characteristics of complex system of diagnostics due to use of advantages of the GTD method such as: - informational content (accounting natural and technogenic factors); - efficiency (high speed of information processing); - the visibility provided with a big strip of capture of space shooting ; - map of graphicness (presentation of information as computer electronic cards with a coordinate binding).