MONITORING SYSTEM FOR GEOPHYSICAL AND CLIMATE FIELDS IN BULGARIA AND BLACK SEA REGION

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Abstract: The proposed report is part of Bulgarian team development of COST Action ES 1301 “Impact of fluid circulation in old Oceanic lithosphere on the seismicity of transform-type plate boundaries: new solutions for early seismic monitoring of major Europe seismic zones (FLOWS)”. The main objective of the COST Action ES 1301 is to coordinate multidisciplinary knowledge on: 1) How the fluid seeping (bio-geo-chemistry sensor indication method of approach) relates to the seismicity of oceanic transform zones. 2) To support the development of deep-ocean physico-chemical seismic sensors. This knowledge can be used for development of monitoring system for geophysical and climate fields in Bulgaria and Black sea region [1-38].

Key words: Monitoring system, FEM, Geophysical and Climate Fields.

The main objective of the proposed report is developed monitoring system for geophysical and climate fields in Bulgaria and Black sea region. The monitoring system consist of four high mountain meteorology observatories (fig.3-6), one environmental high mountain observatory (fig.2) , one sea side environmental observatory (fig.1) and central computer complex. The main aim of the monitoring system is developing of ideologically solution for a new generation net for geophysical and climate fields observations in Bulgaria and Black Sea region.

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Fig.1.a. Bulgaria National Oceanographic Data Center
Fig.1.b. Sea side environmental observatory Varna-scientific ship Academic.

Fig.2 Environmental high mountain observatory “Mussala”.
Fig. 3 High mountain observatory “Murgash”.

Fig. 4 High mountain observatory “Black Peak”.
Fig. 5 High mountain observatory “Botev Peak”

Fig. 6 High mountain observatory “Mussala Peak”

Some applications of proposed monitoring system for geophysical and climate fields in Bulgaria and Black sea region in the architecture, art history and urban planning are presented in [15, 17, 19, 20, 21, 22, 24, 37, 38].

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