
OPERATIONAL OCEANOGRAPHY OF THE BLACK SEA BASIN: MAJOR STEPS

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Abstract

Methods and principles of operational oceanography developed for the Black Sea basin investigations are described. The concept of a modern Black Sea observing system is presented.

Keywords : *Black Sea, Models, Remote Sensing.*

Implementation of methods and principles of operational oceanography could be considered as the dominant concept of the Black Sea basin investigations during the last 15 years. It was started by the formation of the Black Sea international oceanographic community during the realization of the HydroBlack and ComsBlack projects. Both projects were oriented to the fulfillment of the basin scale multidisciplinary surveys, which were carried out by the Black Sea riparian countries [1]. The concept of international cooperation and necessity of regular observations was recognized as the real need to meet the challenges posed by the basin degradation. The next important common efforts were done in the framework of the NATO SFS project TU Black Sea. An efficient multidisciplinary data base, which was built by the project team, was used then as the base of the multidisciplinary modeling of the Black Sea dynamics and ecosystem. The experience obtained during the HydroBlack, ComsBlack and NATO SFS projects has shown that new observational technologies should be adopted by the Black Sea oceanographic community to achieve success in the development of an efficient regional observing system. The concept of a modern Black Sea observing system was proposed as the outcome of the NATO CCMS project in the mid of 90-ies [2]. The Black Sea GOOS project was arranged then for the implementation of the elaborated strategy [3].

An initial cost-efficient operational observing system was built in the basin at the beginning of the second millennium based on space remote sensing data, measurements from surface drifting buoys and profiling floats, and a network of coastal observations [4]. The implementation of the initial observing system stimulated the development of a nowcasting and forecasting system of the Black Sea dynamics and ecosystem. A successful realization of the system and its pilot operation was carried out by the consortium of scientists of the Black Sea riparian countries in 2005 in the framework of the EC FP5 ARENA project [5]. Prof. Umit Ünlüata leaded the implementation of the oceanography principles for the Black Sea basin during many years. Now we are ready to make the next step and build an efficient tool, not only for investigation of the Black Sea basin but also for management of its resources and achieve those dreams and hopes discussed with Umit 15 years ago.

References

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