

AUTONOMOUS TECHNOLOGIES – A NEW APPROACH TO THE DEVELOPMENT OF HYDROGRAPHY

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Abstract:

Through their role, hydrography and oceanography contribute to the safety of civilian and military vessels, by constantly monitoring routes and navigation areas and mapping the body of water's depth, the shape and patterns of the coastline, physical characteristics and possible navigational hazards posed by submerged bodies. At the same time, it plays an important role in guiding all of the important actors involved in the maritime industry, area management, coastal engineering, commercial fishing, dredging projects, and many other activities. Real-time data from sensors installed in the marine environment or obtained as a result of hydrographic surveys, represent an important support for the specific product development such as navigation charts or different types of forecasts.

In this context, hydrography through national hydrographic offices plays a key role in maritime security and operational oceanography. For the North-Western Black Sea shelf, the Romanian Maritime Hydrographic Directorate (MHD), as a national authority in oceanography and hydrography, follows the implementation of innovative procedures and techniques to increase the regional autonomous capabilities. To comply with the international regulations, MHD is permanently upgrading its infrastructure to perform the hydrographic and oceanographic surveys to provide high-resolution and quality-checked data. In addition to the use of these data in specific activities, in most cases, they could also represent a national contribution to major projects developed at the regional or global level.

Keywords: autonomous technologies, maritime security, hydrography, Romanian Maritime Hydrographic Directorate