

Autonomous Observing Systems on board Fishing and Cargo Vessels

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The large extension of the Portuguese EEZ bring many opportunities for the exploitation of marine resources and an increase in economic activities related to the sea, but also great challenges for the management, monitoring and sustainable use of these marine ecosystems, which must be supported in a deep knowledge of the whole Portuguese Sea. This knowledge will only be possible with long-term ocean observation systems, which will require great operational capacity and financial effort. We will described the development of a Autonomous Ocean Observing Systems (AOOS) to be used in Vessels of Opportunity (VOO) for collecting in situ atmospheric, oceanic and biogeochemical data. The use of AOOS can provide the opportunity for highly refined oceanographic data and improved derived data estimation, for local, regional or global scales studies. The ocean observing system will be totally autonomous and integrate several meteorological and oceanographic sensors. The system should allow high-resolution in situ monitoring and spatial coverage of the ocean and coastal areas. The data acquired from this system will support the development of new products for more safe and efficient maritime operations, to support fishing activities, and an integrated management of the marine ecosystems. This development are being made under the projects OBSERVA.FISH (PTDC/CTA-AMB/31141/2017) funded by FCT, Lisboa2020 and Algarve2020, and OBSERVA.PT (MAR-16-01-04-FMP-002) funded by the EU and the Portuguese Government under the Mar2020-Fisheries Operational Programme.