

SATELLITE TECHNOLOGY FOR MONITORING CONTROL IN THE MEDITERRANEAN SEA

Laura Fontan Bouzas and M Gross

Oxford, UK

This study presents a general evaluation of Monitoring Control and Surveillance of vessels (MCS) in the Mediterranean Sea. The MCS, with satellite technology, was applied to the Mediterranean, in order to achieve a comprehensive picture of the maritime traffic and presence of fishing vessels over a one-year period. Satellite data, as AIS (Automatic Identification System), was reviewed for the entire Mediterranean Sea for the period between 1st Apr' 2015 to the 1st Apr' 2016. Information concerning vessels, IUU lists and other fisheries regulations obtained from updated databases completed the analysis. Enforcement and regulatory expertise together with machine learning, 3D gaming and cyber security were used to empower fisheries enforcement and compliance. Maps are presented using QGIS software. As a result of the analysis, a total of 41,519 unique AIS vessel ID's were detected in the Mediterranean area of interest during the review period. An intense traffic area, with shipping lanes running across the Western Mediterranean from the Strait of Gibraltar to Italy, South of Italy and Greece, and between Italy and Egypt were identified. Another area of intense traffic was detected between Greece and Turkey. AIS activity specifically identifying fishing vessels suggested that these commonly transit the area to fish on the coastal areas surrounding the Adriatic, Spanish coast, South Sicily and Greece. Results highlight that satellite monitoring technology can drastically reduce the time and cost associated with traditional means of surveillance at sea. It significantly improves the chances of detecting illegal fishing and serves to supplement patrol activities, through planning recommendations, based on the identification of targets and areas of investigation.

Biography

Laura Fontan Bouzas has completed an International MSc in Fisheries Management from Alicante University and a Degree in Oceanography from the University of Vigo. Her experience includes over 10 years in fisheries and a deep knowledge of fisheries law enforcement, illegal fishing/satellite technology and the application of the ecosystem approach to fisheries. She has academic and professional consultancy expertise at international level and has also worked aboard a variety of oceanographic vessels. She has held several lectures at international events covering her areas of expertise.

laurafonbo@gmail.com