MONITORING ILLEGAL, UNREPORTED, AND UNREGULATED FISHING IN UK OVERSEAS TERRITORIES

What it is about

Copernicus Sentinel data is being used to monitor illegal, unreported, and unregulated fishing (IUU) in UK Overseas Territories. IUU is a huge threat to marine ecosystems and is undermining efforts to conserve and manage fish stocks. A common tactic when it comes to flouting maritime laws and engaging in such illegal activities at sea involves illicit vessels switching off their automatic identification system (AIS), vessel monitoring system (VMS) or any other systems through which they can be identified. However, Sentinel data can still be used to detect vessels that are trying to evade the authorities, thereby contributing to the protection of marine resources and ecosystems.

What we found

- The UK's Blue Belt Programme aims to support sustainable fisheries management and monitor climate change impacts in UK Overseas Territories. Sentinel data is helping in achieving these goals.
- Radar data from Sentinel-1 can "illuminate" vast areas of ocean with radio waves and record the backscattered signals (i.e., echoes) to detect vessels. This is particularly effective with any vessels made of metal thanks to the strong backscatter signal response metal surfaces provide.
- The Copernicus Marine Environment Monitoring Service (CMEMS) also provides a plethora of complementary data and services which can bolster marine regulation, support the blue economy, and drive forward scientific understanding and innovation.

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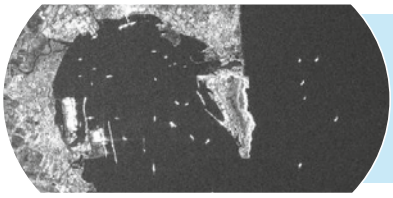
The Satellite Data

Copernicus Sentinel-1 provides free-of-charge frequent, all-weather, day-and-night C-band radar images over UK Overseas Territories and surrounding waters.

The Service Provider

OceanMind is a non-profit organisation who use satellite data, including Sentinel data, in conjunction with various sensors and artificial intelligence to analyse and understand fishing activity.



The Primary User

The Marine Management Organisation (MMO) is a UK public body whose role is to protect and enhance the marine environment and support UK economic growth through the management of sustainable marine activities.

Secondary Beneficiaries

Local fishing communities benefit from the reduced likelihood of IUU activities depleting their resources which can lead to severe economic losses and the destruction of sensitive ecosystems in surrounding waters.

End User Beneficiary

Citizens and society as a whole benefit from the Sentinel-powered monitoring of waters surrounding UK Overseas Territories as it helps to sustain marine resources and deter illegal activities.

About the project

Through a series of case studies, EARSC aims to gather quantitative evidence that the usage of Copernicus Sentinel data provides an effective and convenient support to various market applications. These studies are undertaken in the frame of the project "Showcasing the benefits brought by the usage of Sentinels data to society, environment and economy: a bottom-up assessment based on traceable impacts along selected value chains", under an assignment from the European Space Agency (ESA) funded by the European Union as part of the Copernicus Programme.

Download the full report from the project website

http://earsc.org/sebs