

OCEAN SENTINEL

Smart Buoy System for Maritime Security

Advanced underwater and surface surveillance system with satellite coverage.

Comprising a customisable number of smart buoys that operate autonomously and independently, thanks to a solar power system. These buoys can automatically generate early warning alerts, operating continuously and unattended.

• Global Early Warning

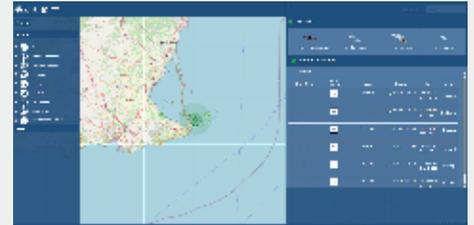
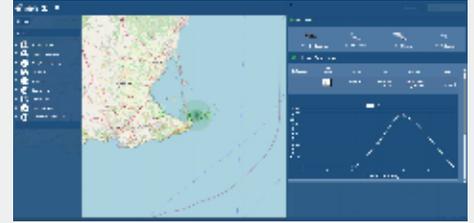
The Ocean Sentinel buoy is designed to provide early and automatic alerts without geographical restrictions, thanks to its satellite coverage.

• Compact and Reusable

The buoy can be easily deployed, relocated, and reused due to its compact and lightweight design.

• Easily Integrable

It is a solution easily integrable into a maritime surveillance system, enhancing its interoperability.



APPLICATIONS

Protection of Critical Infrastructure

A barrier of smart buoys will enable continuous protection of critical infrastructure such as ports or civilian or military maritime installations.

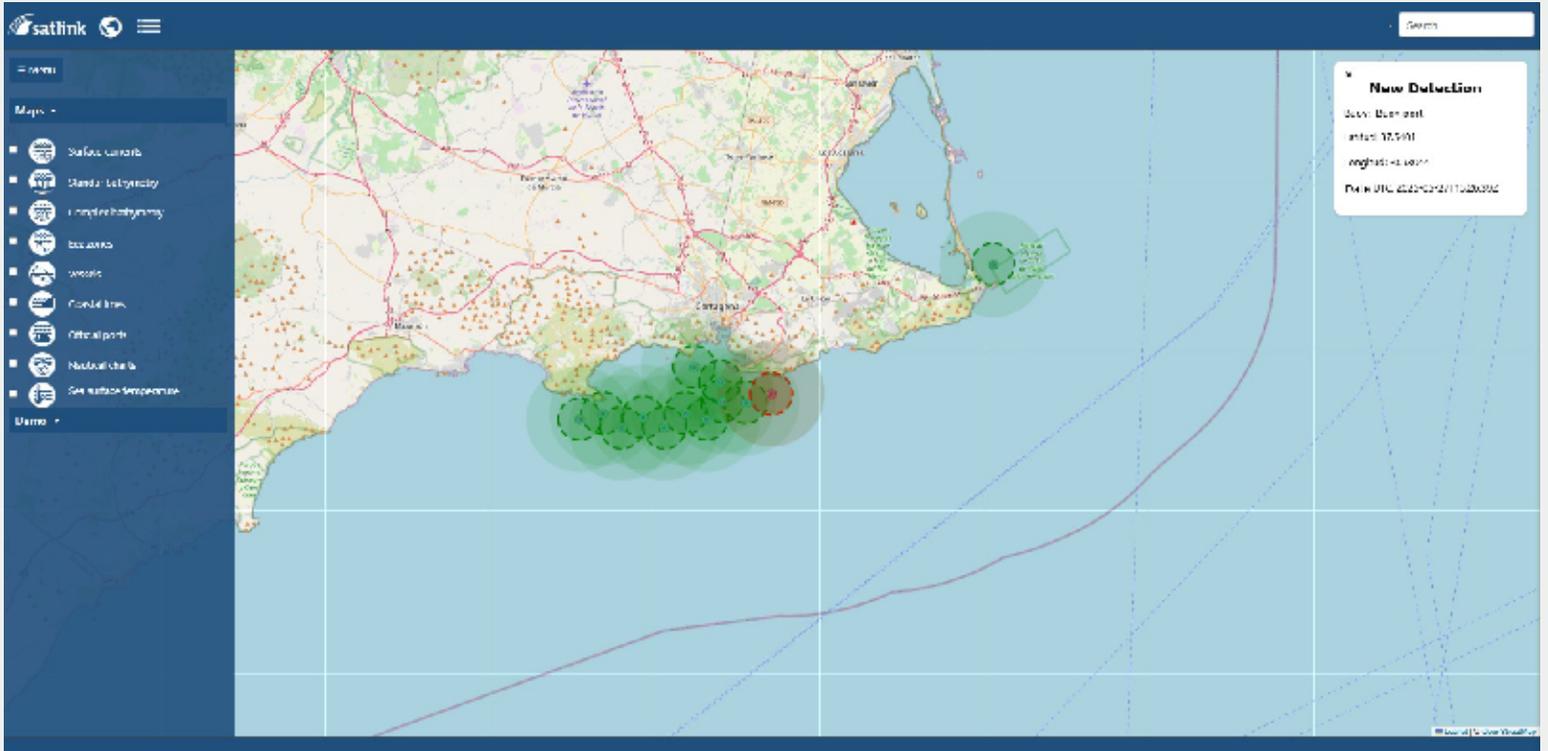
Surveillance of Strategic Areas

Ocean Sentinel allows for the detection and alert of potential unauthorised vessels within strategic geographical areas such as straits or river mouths.

Detection of Underwater Threats

They enable early detection of underwater threats and intruders such as manned or unmanned submarines.





KEY FEATURES

• Edge computing

Acoustic processing is integrated into the buoy to enable early warnings.

• Autonomy

Features an uninterrupted power system with a solar rechargeable battery.

• Coverage

Worldwide satellite coverage (IRIDIUM / INMARSAT). Possibility of including 4G coverage for coastal applications.

• Scalability

Allows for the creation of acoustic barriers with configurable numbers and arrangement of elements.

• Signature Detection

Allows configuring an acoustic signature to alert only when such contact is detected.

• GPS

GNSS technology for the permanent geolocation of each unit.

• Deployment

Smart buoys can remain adrift or anchored in a designated position.

• Monitoring

Each element can be configured and commanded remotely via satellite communication.

USE CASES

• Surveillance

Surveillance of strategic areas for the detection of threats that may compromise security.

• Maritime Drug Trafficking

Detection of drug trafficking vessels on the surface or underwater in susceptible areas to alert the competent authorities.

• Maritime Migrations

Detection of vessels on migratory routes to alert coastal authorities and protect the safety of people.

• Intruder Detection

Detection of intruders on the surface or underwater within protected areas or critical maritime infrastructures..