

## **Fish farms detection in Chile using high resolution satellite radar imagery**

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More than 300 fish farms are scattered in Southern coastal Chilean waters near Chiloe Island (ie. Roughly between S41°30' and S45°30'). These fish farms shall be deployed in restricted areas.

The area to survey is vaste and is characterized by a complex network of islands, channels and fjords. Furthermore, it suffers from an important rate of cloud cover. As a result, visual inspection using aerial surveillance leads to prohibitive costs for the administration in charge of law enforcement regarding the deployment of fish farms in restricted areas. In addition, the use of satellite optical means reveals to be inefficient for a systematic and regular monitoring of fish farms location.

CLS has defined and developed a detection and monitoring service of fish farms in Southern coastal Chilean waters. The service is based on regular monitoring of the area of interest with high resolution satellite radar imagery in order to deliver updated maps of fish farms locations to the customer. This service will be presented in terms of satellite tasking strategy, detection and characterization outputs of fish farms. Preliminary results will be discussed.