

OSIS System Description

OSIS Sensor System

The OSIS Sensor system is an efficient tool for oil spill identification, tracking and quantification. The system consists of the 5 central elements described below.



The **OSIS SensorPack** generates raw data for identification, tracking and quantification of oil spills within 2.5 nautical miles from the installation site. The SensorPack contains active and passive microwave sensors, providing data for precise surface area and thickness estimate of an oil layer on the sea. The SensorPack is linked to the Onsite Viewer as well as the Master Unit.



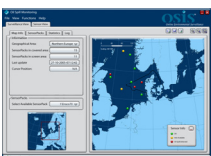
The **OSIS Onsite Data Viewer** analyses and presents the data from SensorPacks and provides users with a real-time interface to oil spill information. The Onsite Viewer can be used as a manual system or as a 24 hour automatic surveillance system set to trigger an alarm if oil is measured on the sea surface. The Onsite Viewer enables advanced report and statistical functionality.



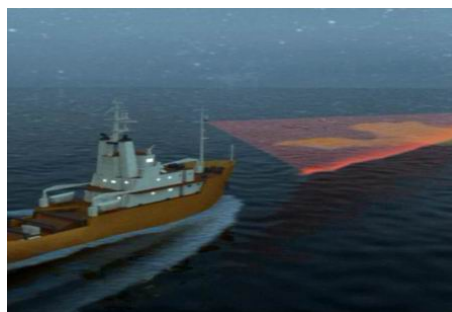
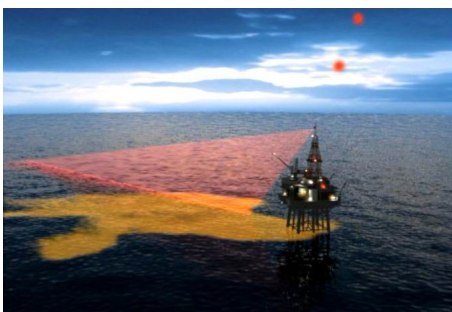
The **OSIS Master Unit** enables automatic identification, tracking and quantification of oil spills using the OSIS Oil Spill Detection software (OSD). The Master Unit is installed at the offshore location and enables local storage of sensor data, statistical analyses and distribution of sensor information to onshore users.



The **OSIS Central Server** enables onshore users to access sensor data from connected offshore Master Units. The Central Server converts data from the Master Unit into oil spill information available to Onshore Viewer clients via encrypted internet lines. The Central Server is placed at the location specified by the customer or can be hosted by OSIS.



The **OSIS Onshore Data Viewer** is a client based installation providing access to the Central Server for oil spill information from offshore SensorPacks. The Onshore Viewer is linked to the Central Server via the internet and users are automatically updated with sensor status for all sensors within designated geographic areas. The information can be displayed on a standard PC and/or a wall mounted monitor.



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System features

- 24hour oil spill monitoring and quantification
- Oil spill tracking range: 2.5NM
- Oil spill quantification range: 0.5NM
- Thickness indication: 0.1mm to 1.5mm
- Comprehensive data for corrective action
- Easy user interface
- Identification of polluting sources and protection against false claims
- Remote access to information via encrypted transmission
- Multi-user access to oil spill information – Onsite and Onshore
- Stand-alone console or integrated with standard bridge systems
- Operated as a manual system for self-monitoring and control or as an automated information system (OSD required)
- Historical Data management tool
- Advanced statistics and/or report generator for documentation purposes

Sensor modes

- 360 degree mode
- Angular mode
- Spot mode
- SensorPack operating modes can be manually specified by the user
- SensorPack operating mode is optimized automatically if connected to Master Unit with OSD module

Signal processing

- Proprietary OSIS Oil Spill Detection (OSD) module
- Oil spill volume accuracy (reference conditions): 75%

Applications

- Offshore Structures
- Loading Terminals
- Coastal Protection
- Clean-up Vessels
- Seawater Intakes
- Commercial Vessels

