Integrated Offshore Safety & Environmental Management System (IOSSE)

Overview
We are a leading supplier of fully automatic Radar Early Warning Safety and Security systems to offshore Oil & Gas Markets globally. Our capabilities allow the integration of multiple sensors and data streams in highly challenging environments.

System Benefits
- Collision Management
- Monitoring and protection of sub-sea assets and pipelines
- Safety Case performance monitoring
- Effective in field asset management
- Encrypted meta-data
- Man Overboard (MOB) and emergency co-ordination
- Reduced training & support costs

Subsystem Integration
- Automatic Radar Tracking
- EO/IR Camera Control
- Video Image Tracking
- Underwater Detection Systems
- ROV/UAV Video Feed Integration
- Oil Spill Detection Systems
- Weather Monitoring Systems
- Flare Stack Monitoring Systems
- Integrated Communications
- Zone 1 Wifi Networks/Tablets
- Access Control Systems
Integrated Offshore Safety and Security & Environmental Management System

- Data integration of multiple subsystems into a common management architecture
- Provides benefits across all assets and locations including offshore installations, marine service vessels and onshore control and co-ordination centres
- Sensor agnostic, scalable, modular, multi sensor integration and data distribution.
- Provides a distributed, coordinated overview of the maritime domain and vessels operating in the field
- Automatic and fully configurable alarms / alerts conforming to IEC-62682
- Multi platform user interfaces including pc workstations, Zone 1 tablets and control center video walls
- Configurable workstations individually optimised to the specific requirements of an operating position
- Access and control SSE subsystems via a common management system interface
- Generation of synchronised recording of data, video & voice for faithful post event reconstruction
- Integration of subsystems under one management system in conjunction with common configurable workstation allows for a common training set and reduced training burden
- Utilising our market leading ‘SAMS’ Command & Control software providing maritime domain awareness
Onshore Control Centre

Safety & Security

- RFID
- CCTV
- Muster

Access Control & Personnel Tracking

- REWS

- RADAR
- LRAH
- ROV Video
- Sonar
- Search lights
- VOIP/ROIP
- LREO
- UAV Video

Platform Comms

- Sat
- ROIP
- Mesh Radio

Vessel Comms

- Sat
- ROIP
- Mesh Radio

Cloud Services Data

IOSSE Tracks

Personnel Tracking

Vessel Data

VOIP / ROIP

Camera Video

3rd Party Stakeholders
## SAMS - Situational Awareness Management Software

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
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<tr>
<td><strong>Track Management</strong></td>
<td>Multiple sensors can be correlated to provide a fused track picture for a region and distributed to all displays within a region. Track data can be distributed via a network or radio link to local and remote control room displays as well as company operated vessels and support craft.</td>
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<td><strong>Sensor Management</strong></td>
<td>Camera systems can be integrated and cued by radar tracks to follow targets of interest. The camera systems can also be used to acquire and then automatically track vessels as allocated by an operator. Other sensor data such as AIS track information, DF, ADS-B, Sonar, ID transponders, alarms, video derived from an ROV/USV/UAV, asset transponders and VDR data can be managed and distributed over a company WAN as required.</td>
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<td><strong>Command &amp; Control</strong></td>
<td>Our Display client is able to provide a fully correlated track picture showing tracks and data from multiple sources on a wide variety of chart formats as well as multiple video streams and camera controls.</td>
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<td><strong>Integrated Communications</strong></td>
<td>The radio wall module allows the full integration and control of local and remote communications, thus enabling onshore control centres to communicate with both the platform and vessels within radio range of the platform utilising Radio over IP.</td>
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<td><strong>Logistics Planning</strong></td>
<td>The planning tool allows the operator to configure safety criteria associated with company assets such as RIBs, helicopters, daughter craft and standby vessels and thus monitor compliance with a platform or field operating safety case. Automatic alerts can be configured to warn when compliance is at risk using a RAG notation. The planning tool can also be used to achieve commercial savings through effective use of company assets and their positioning.</td>
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<td><strong>Man Overboard Recovery</strong></td>
<td>Our MOB system detects the activation of a PLB and automatically raises a distributed MOB alarm. The GPS position of the PLB is represented as a ‘MOB track’ on all chart displays to enable a coordinated recovery.</td>
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At Ultra, we have over 25 years’ experience supplying safety and security systems to the upstream Oil & Gas industry. Our systems provide effective offshore platform protection to major operators worldwide.

In addition to these our systems also help to monitor safety and security systems for LNG terminals, ports, jetties, FPSOs and monobuoys.

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**Surveillance & Security Systems**  
**Ultra Intelligence & Communications**  
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