INTELLIGENT MARITIME OPERATIONS CENTRE
WHAT IS OVERSEE?
Oversee helps maritime agencies improve their operational efficiency and effectiveness using an integrated approach to operations management. Designed in close co-operation with maritime professionals, Oversee supports both private and public sector organisations meet their responsibilities for safety, security and environmental protection.
Oversee helps organisations meet their challenges in highly-demanding environments, where accurate and quick decision making is critical. It extracts information from a range of different data sources and presents it in a way that allows decision-makers to make rapid, informed decisions.
Oversee continuously monitors data sources to identify suspicious patterns and automatically generate alarms.

OVERSEE OFFERS THREE MAIN BENEFITS:

SEARCH AND RESCUE
A high-end Maritime Rescue Co-ordination Centre system of systems that complies with IAMSAR guidelines and maritime SAR best practice. Integration with GMDSS distress alerts, such as COSPAS-SARSAT and DSC, and other GMDSS systems (e.g. NAVTEX) and voice communications is vital to promote a quicker and more efficient response, as is the system database that includes vessel information and geographic information such as place-names and contacts.

SEA LAW ENFORCEMENT
Designed to facilitate patrol and inspection activities and combat illicit activities such as illegal fishing, drug trafficking, illegal immigration and piracy, and promote the sustainability of the ocean and its resources. It supports operations planning, abnormal behaviour detection and operations. Dedicated mobile applications can be taken on board to plan and record the outcome of inspection activities.

ENVIRONMENTAL MONITORING AND PROTECTION
Taking advantage of Oversee’s SOA architecture to integrate several sensing platforms such as in-situ buoys, autonomous vehicles and remote sensing satellite technology, this monitors the marine environment parameters of off-shore infrastructure, supports pollution incident prevention and detection, and offers response and decision support.

MAJOR BENEFITS

- Improved situational awareness
- Improved risk awareness and management
- Faster response levels
- Cost optimisation
- Better co-ordination
- Improved inter-agency co-operation
- Efficiency and effectiveness monitoring
MODULES

- Dashboard
- Integrated Maritime Picture
- Electronic Log
- Incident Management
- Resource Management
- Maritime Safety Information
- Behaviour Analysis
- Vessels Database
- Reporting
- Contacts Database
- Document Management
- Auditing

Oversee’s modules can be deployed according to clients’ needs.

DASHBOARD
Shows the overall status of operations to support briefings or shift changes. It can be customised to provide information such as summaries of ongoing incidents, resource status and warnings.

INTEGRATED MARITIME PICTURE
Provides a georeferenced display of traffic information (AIS, SAT-AIS, VMS, LRIT, and radar), GMDSS distress alerts (COSPAS-SARSAT, DSC) and METOC overlaid on cartographic and hydrographic layers customised for clients’ needs. It also provides a number of GIS operations such as ranges and bearings, and drawing areas or search patterns.

ELECTRONIC LOG
 Allows the user to keep track of all events at the maritime centre, including incoming/outgoing communications and actions and decisions taken.

INCIDENT MANAGEMENT
Records all information related to a specific incident, including analysis, response planning and execution, conclusion and post-incident follow-up (e.g., reporting, statistics and audit).

RESOURCE MANAGEMENT
Keeps track of resources, including operational status, readiness, availability, location and ETA. Resources are geo-referenced, together with their availability and operational status, allowing the user to perform actions such as measuring the distance between the resource and an incident.

MARITIME SAFETY INFORMATION
Manages navigational warnings, meteorological warnings, meteorological forecasts and other safety related messages for promulgation via NAVTEX, VHF or any other system.

BEHAVIOUR ANALYSIS
Creates and manages different alarms, based on parameters such as vessel characteristics, position and status, cartographic elements such as EEZ, SAR area, territorial waters, user-defined areas, METOC conditions and other information available within Oversee.

VESSELS DATABASE
Records all vessels known by the system together with all relevant information and supports integration with additional information retrieved from external systems.

REPORTING
Creates reports including overall view of on-going incidents, detailed incident information, tracking of maritime centre performance (KPIs), summary and statistical information for management reports, evidence for auditing and inputs for lessons learnt.

CONTACTS DATABASE
Records all individual and organisational contacts relevant to the operation of the maritime centre.

DOCUMENT MANAGEMENT
Feature-rich document management system (DMS).

AUDITING
Records additions, modifications and deletions of the information held by the system.
The Integrated Maritime Picture is an essential decision-support tool integrating traffic, GMDSS distress alerts, meteorological and oceanographic information and cartographic and hydrographic information.

Oversee provides a number of decision support tools that support risk analysis and scenario evaluation, drift calculations using online METOC, definition of search patterns and closest resources location.

Traffic data sources, such as AIS, feed into the Oversee vessel database. This information is complemented by the integration of external databases and manual updates performed during the course of operations.

Oversee records all incoming data, fusing new and existing information to develop new knowledge. Vessel positions and history can be overlaid on the Integrated Maritime Picture.

KEY FEATURES

- Integrated and consolidated visualisation of maritime traffic, GMDSS distress alerts and METOC data
- Behaviour analysis and pattern recognition
- Support for risk analysis and operations planning
- Decision support and command and control capabilities
- Secure, managed inter-agency data exchange and collaborative tools
- Supports monitoring of effectiveness and efficiency
- Easy-to-use interface, operationally validated
- Third party and legacy systems integration
- Sound governance and security principles

ABOUT CRITICAL SOFTWARE

CRITICAL Software is an international company, founded in 1998, which specialises in the delivery of reliable solutions, services and technologies for business-critical information systems.

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