MARITIME SITUATIONAL AWARENESS SYSTEM (MSAS)

Safeguarding territorial waters with actionable maritime intelligence
Through smart mobility tracking, data fusion and behavioural analytics of our Maritime Situational Awareness Solution (MSAS), we are obsessed with a deep sense of purpose to enhance maritime security in real-time, maximise surveillance capabilities and increase operational efficiencies.

For every security solution engineered, AGIL, our unique solution’s approach, acts as the heart of our conscious innovation. We constantly ask and challenge if each is incisive, inventive and intuitive to help solve real-world problems. With artificial intelligence and experiential thinking, we have effected several maritime and coastal environments globally.

MSAS detects small, fast-moving vessels in highly cluttered environments proven difficult for most maritime trackers, maximising assets through enhancing existing conventional radars into surveillance-capable radars.

The data processing and fusion of multiple radar tracks, automatic identification system (AIS), cameras and other sensors information put together an integrated platform of actionable surveillance intelligence. Upon target identification, automatic activation, recording and playback of radar tracks and camera footages allow for post-event investigation.
**DEPLOYMENTS**

Navies, Coast Guards, Maritime Police Vessels

Navies, Coast Guards, Maritime Police Command and Control Centre (C2)

Ports, Harbours and Terminals

**APPLICATIONS**

Border security and control

Area and vessel monitoring

Assist in search and rescue

Assist in detection of illegal activities such as smuggling, trafficking, illegal immigration, illegal fishing

**KEY BENEFITS**

**AT A GLANCE**

Heighten situational awareness and surveillance capability

Allow for top-level decision making and communications

Increase response time with better-directed actionable intelligence

Post-event incident reporting and investigation

Lean and optimised manpower deployment
SINGLE INTEGRATED UNIFIED PLATFORM ACROSS COMMAND AND CONTROL CENTRE (C2), COASTAL AND MOBILE STATIONS

**Coastal & Mobile Stations**

MSAS can be installed across all radar and surveillance systems on coastal stations and patrol vessels.

- Navigation Radar
- AIS & Sensors Proxy
- Surveillance Camera
- Satellite Compass

- Shipboard Application Display (local display)
- Mobile Application Display (tablet)

**Command And Control Centre**

- Front-end Application Display

- 4G Network

**Plug-and-play modules in MSAS:**

**Mission Handling Module**
Command And Control Centre

**Traffic Analysis System (TAS)**
Monitor and regulate traffic rules in area of interest.

**Behavioural Analysis Module**
Automatically identify collision risks or suspicious vessels

**Video Management System**
Management of CCTV footages for post-event investigation

**Commercial Vessel**
Track
NEXT-GENERATION TECHNOLOGY FOR MARITIME SITUATIONAL AWARENESS

Integrated surveillance information provides a full seamless picture of situational awareness, enabling fast instruction and information exchange between C2 centres, coastal sites and patrol vessels for timely mission handling.

- **Enhanced Maritime Radar**: Conventional coastal and shipborne radars are enhanced to detect small targets of interests.
- **Behavioural Analysis**: Suspicous activities identified trigger alerts at C2 centre, patrol vessels and even on hand-held tablets.
- **Data Fusion of Multiple Sensors**: Coastal and shipborne radars, satellite compass, AIS and cameras information are fused at C2 centre.
- **Camera Tracking**: Integration with cameras allows automatic recording and playback of footages for evidence and investigation.
- **Mission Handling**: Dispatch mobile vessels to a specific location to accomplish missions.
- **Traffic Analysis**: Monitor and track vessel movements and safeguard sensitive sites.
- **Alerts**: C2 centres, patrol vessels and interceptors/fast crafts receive alerts at the same time.