MARITIME SAFETY & SECURITY SOLUTIONS

Improving Navigation Safety,
Enhancing Maritime Security

ST Engineering

SMART DETECTION & BEHAVIOUR ANALYTICS

For Maximum Maritime Safety & Security

Maritime transport is the lifeblood of world trade and the global economy. Risks and complexity of threats like piracy, smuggling, terrorism and accidents at the ports and high seas have risen in tandem with the growth of the maritime industry. An accurate, real-time situation picture with early warning intelligence is essential for the authorities and ship crews to make sense of the environment for timely responses.

Our extensive suite of solutions ensures a safe voyage by safeguarding global positioning information and enhancing radar performance for safe navigation and monitoring of inland waterways, coastal waters and seas.

Our solutions include:

1. Coastal Surveillance System (CSS)
2. Maritime Situational Awareness System (MSAS)
3. Maritime Collision Detection System (MCDS)
4. Maritime Anti-Piracy System (MAPS)
5. GNSS Anti-Jam Antenna & GNSS Resilient Time Source

Our Maritime solutions provide enhanced maritime and coastal domain situational awareness with smart mobility tracking, behaviour analytics and reliable performance from our proprietary Track-Before-Detect (TBD) technology.

GNSS Anti-Jam Antenna & GNSS Resilient Time Source provide assured Position, Navigation, and Timing (PNT) information for mission-critical systems in terms of improved access and integrity check to safeguard against Global Navigation Satellite System (GNSS) Jamming and Spoofing.

COASTAL SURVEILLANCE

Coastal Surveillance System (CSS) offers authorities including coast guards and navies an integrated, shore-based surveillance solution for coastal security. CSS detects very small targets in challenging and cluttered environments, achieving excellent track maintainability of highly manoeuvrable targets with minimal false alarms.

- Provide timely situational awareness for effective decision making.

LAW & REGULATIONS ENFORCEMENT

Maritime Situational Awareness System (MSAS) offers a far-reaching range of detection, tracking and surveillance solutions for authorities to secure territorial waters against illicit smuggling and trafficking activities or support search and rescue operations.

- Detects and tracks small targets for real-time situational awareness.
- Auto-recording and playback of radar tracks and camera footages for evidence and investigation.

ANTI-PIRACY

Maritime Anti-Piracy System (MAPS) is designed to protect crew and ship against heightened crimes like piracy, robbery, and terrorism. It utilises smart mobility tracking and in-depth behaviour analysis to provide early warning on suspected vessels.

- Provide accurate identification of suspicious activities using advanced behavioral analysis.
- Unmanned system can activate camera and search beam to forestall surprise attacks in real time.

COLLISION WARNING

Maritime Collision Detection System (MCDS) provides ships and vessels with a 360 degrees' surveillance of its surroundings and triggers alerts to the crew for any potential collision risks. MCDS is able to detect small boats even under challenging weather conditions.

- Pre-warning alerts significantly increases crew reaction time before collisions take place.

GNSS ANTI-JAMMING AND SPOOFING

GNSS Anti-Jam Antenna & GNSS Resilient Time Source provide assured access to Position, Navigation and Timing information to critical systems at ports and on board ocean going ships.

- GNSS Anti-Jam Antenna provides GNSS anti-jam capability under denied environment through adaptive nulling of interference sources.
- GNSS Resilient Time Source provides add-on GNSS anti-spoof capability and timing resiliency to ensure the integrity of the GNSS signals.

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