



# SAMS

## Maritime Situational Awareness & Surveillance



C2I



Communications



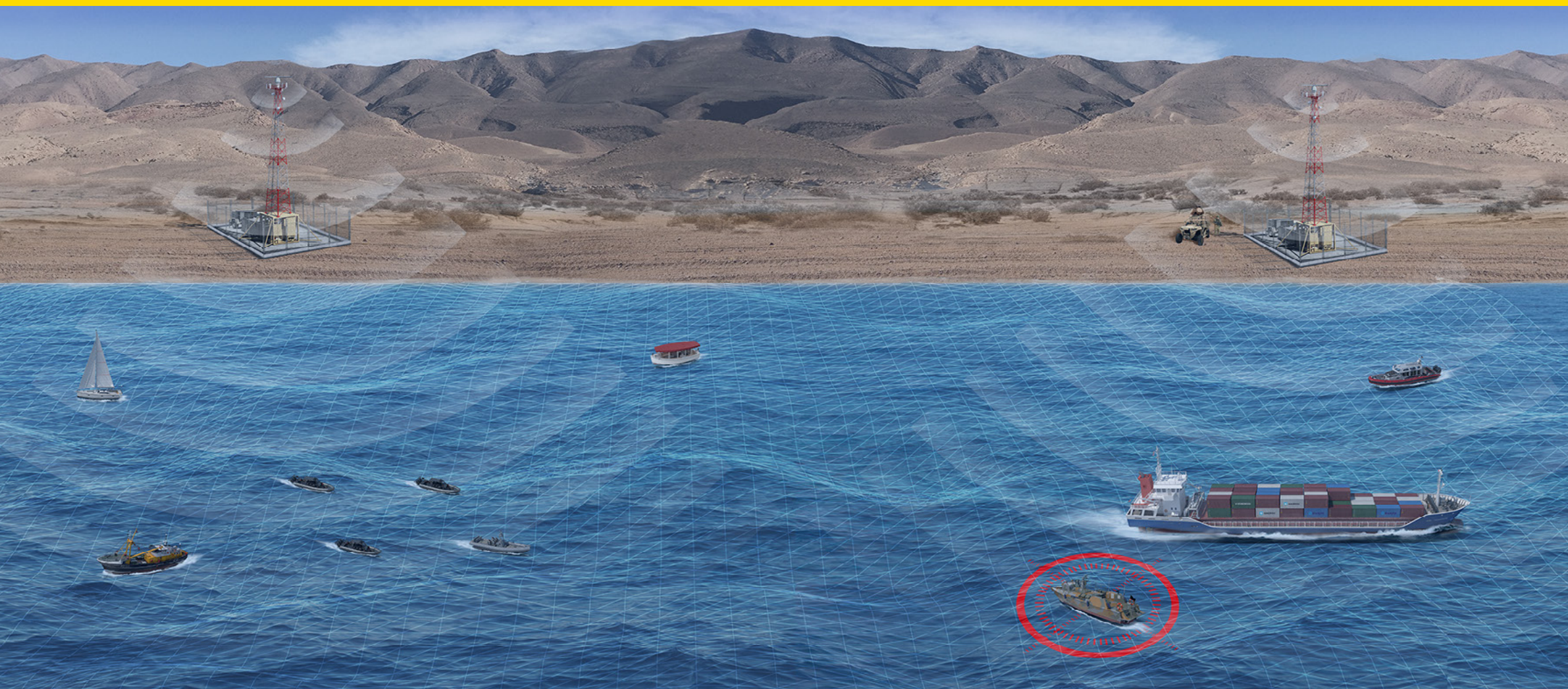
Cyber



Specialist RF



# Distinguish the extraordinary from the everyday.

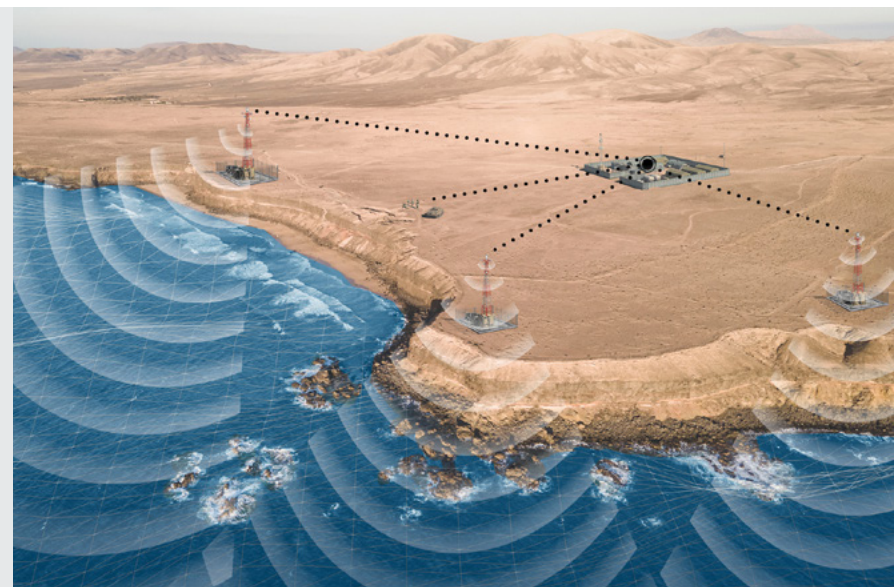


## SAMS Features

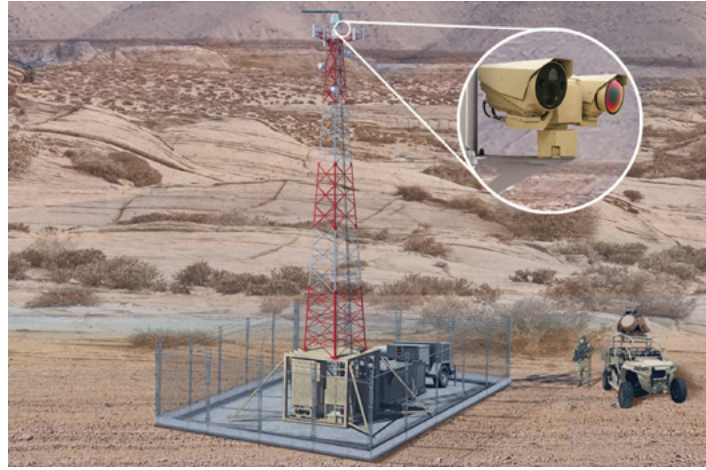
- **Multi-zone and scalable:** Fully scalable with a modular architecture allows easy upgrades on the fly to accommodate any number of sensors and zones
- **Virtually limitless tracks:** SAMS can manage thousands of sensor tracks simultaneously
- **Open standards-based:** Integrate SAMS with high-fidelity COTS sensors using open protocols
- **Smart algorithms and rules:** Sophisticated radar tracking system algorithms give optimal tracking over the entire coverage area in all weather conditions without any operator intervention
- **Sensor data fusion & correlation:** Data fusion engine correlates sensor inputs so that vessels being tracked by multiple sensors (radar, AIS, GPS) are presented to operators as single vessels with multiple data layers
- **Sensor management** 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
- **Decision support utilities:** Decision support tools aid operators to work in unison in making an informed and timely response to threats and alarms
- **Multiple map formats:** Wide support for industry-leading 2D and 3D map formats

## Overview

Ultra Situational Awareness Management System (SAMS) is an advanced software platform for coastal surveillance and port security. Sophisticated radar tracking system algorithms give optimal tracking over the entire coverage area 24/7, 365 days per year in all weather conditions. SAMS provides operators with the information they need to make quick, informed decisions to ensure the security of the people and critical assets the system is protecting.



## Detect and identify air, surface and underwater objects, effortlessly.



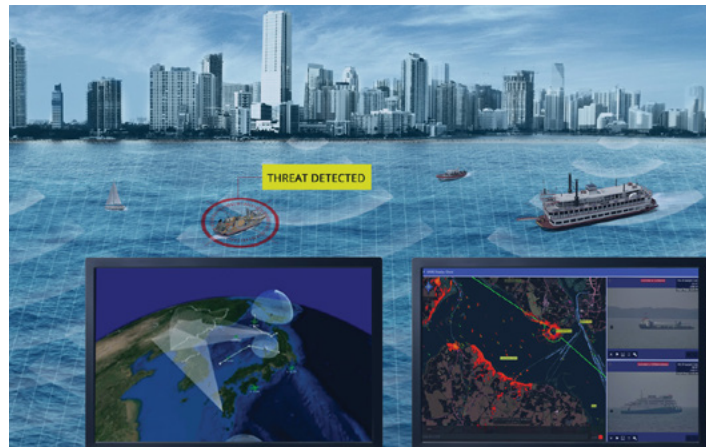
SAMS collects data from a flexibly-sized array of sensors and can fuse data from up to 16,000 tracks simultaneously. The solution integrates with industry-leading sensors, offering a complete and powerful end-to-end solution. This broad efficiency provides certainty that no one and nothing can slip past sovereign borders and pose a threat to national security or CNI. SAMS detects air, surface, and underwater objects using radar, sonar, AIS, ADS-B and transponder sensors and then integrates them into a common operating picture.

## Data collection and fusion allows you to reduce operators while expanding capability.



SAMS allows governments to safely reduce the number of people who monitor coastal borders by providing a central point of information gathering for rapid and sound decision-making. A data fusion engine correlates sensor inputs so that vessels being tracked by multiple sensors (radar, AIS, GPS) are presented to operators as single vessels with multiple underlying data layers. The resulting real time track picture contributes to the Common Operating Picture presented to operators. The UAE trusts SAMS to protect its entire 700-mile coastline.

## Make the complicated simple with a Common Operating Picture.



The system generates a real time data-set of relevant, accurate and timely situational awareness information shared with operators as a Common Operating Picture (COP). SAMS provides controlled access to the system with login permissions so that operators receive only access suitable for their operational role within a chain of command. Complex scenarios can be handled by partitioning COP data so that different teams manage multiple concurrent incidents.

## Quickly classify threats and generate appropriate warnings.



The SAMS threat and alarm management system provides vital support to operators by warning them of situations that need their attention and thus has an important function in preventing, controlling and mitigating abnormal conditions. Software algorithms evaluate and analyze track behavior patterns to automatically identify and classify tracks. Threat evaluation algorithms automatically rank potential threats and raise alarms for high priority threats. EO/IR PTZ cameras enable operators to identify threats by automatic or manual slew-to-cue of a camera to a track of interest.

## React accordingly when every second counts with tools for threat and alarm response.



Once a threat has been detected, SAMS allows users to proactively search out and deal with potential threats with greater efficiency. Decision support tools aid operators to work in unison in making an informed and timely response to threats and alarms. The system guides operators through a pre-defined response plan as the mechanism to plan and carry out actions in response to threat incidents. This can include automatic deployment of deterrents such as slew-to-cue of searchlights or loudhailers.



## About Ultra C2I

Ultra possesses more than 30 years of experience developing field proven C2 and situational awareness system solutions for multi-domain operations. We deliver information advantage across the operating environment, when and where it's needed, enhanced by the application of bleeding-edge artificial intelligence (AI), machine learning (ML) and cross-domain intelligence capabilities. As a primary data-forwarding solutions provider between tactical networks, our systems and personnel have supported every major conflict for over 30 years, with fielded solutions operating in 20 countries.

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