

Sentient Vision Systems, trading as Shield AI

Company Overview

Sentient Vision Systems, trading as Shield AI, specializes in passive, modular optical sensors for persistent, wide area motion imagery (WAMI). The AI-enabled onboard processed solutions better detect, track and classify small objects in real time, in land and maritime operations, day or night in one pod. With 20+ years of development in Computer Vision, AI and Deep Learning (DL) to detect objects from ground-based, maritime and airborne platforms, the solutions are actively used in the field of Intelligence, Surveillance and Reconnaissance, and Search and Rescue. These solutions enhance situational awareness and support strategic decisions, faster and more effectively.

Products

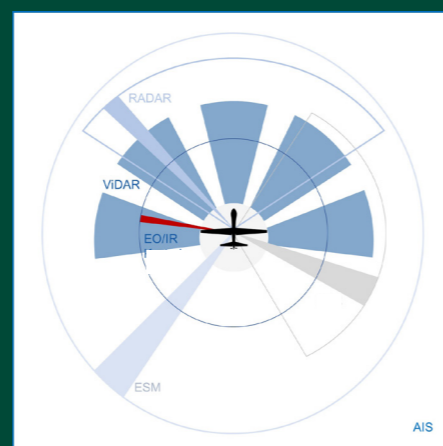
ViDAR (Visual Detection and Ranging)

ViDAR is a passive, autonomous AI-enabled multi-domain optical sensor array used to detect, identify, locate and report threats for wide area surveillance.

- AI-enabled WAMI with multispectral cameras for persistent ISR, enabling commanders to detect and see critical elements for immediate situational awareness.
- DL (Deep Learning) accelerates more accurate object detections and classification to provide a visual of relevant targets for faster, informed decisions in real time.
- Built on the success of VIDAR sensors proven in maritime Search and Rescue, VIDAR can detect and classify objects at high operating altitudes (30,000 ft) and is suitable for air, land and maritime domains.
- ViDAR has been deployed in wide area maritime search missions and is proven to find objects that are small or with low radar cross section in high sea states and complex, contested environments.
- The payloads are modular, low SWaP (Size, Weight, and Power) and is suitable for uncrewed aerial systems, aerostats, helicopters, fixed wing aircraft, and vehicles.
- Combined with radar it provides for a broader range of search capabilities. Can be used as the primary search capability where the aircraft is limited in size or budget.

Sentient Tracker

Sentient Tracker is an operationally proven software that augments full motion video to autonomously detect multiple objects of interest without losing sight of the full picture with zoom. This eliminates the “soda-straw effect”, allowing early long range, small object detection in the gimbal’s maximum field of view. Sentient Tracker assists operators to persistently track hard-to-spot moving targets with breadcrumbs and enhances sensor to soldier integration by sending targeted data location through TAK network for precise intelligence. The software enables passive detection of moving objects on land and both stationary and moving objects in maritime operations.



Discriminators

- Computer Vision and Deep learning - enabled accelerated object detection and autonomous classification with onboard processing and low data requirements for immediate situational awareness
- Extends wide area search coverage by more than 200 times compared to EO/IR alone to maximise mission success
- Passive surveillance with little/no electronic signature to avoid countermeasure when in use
- Detects, geolocates, and tracks small, hard-to-spot objects with low radar cross section and dark vessels with AIS turned off
- Operates in contested, high-threat and complex environments (up to sea state 6, urban), challenging terrains
- Low SWaP, easily adaptable to any crewed and uncrewed aircraft
- Comes with an intuitive mission management system and is also integrated into mission systems such as AIMS and Shotover, enabling a common operating picture
- Greater mission flexibility with one solution for multi-domain operations, day or night
- Proven in operations since 2016
- ITAR Free

Availability and Support

Remote support is provided globally online and/or onsite through our field integration and training team of engineers and specialists. These services incorporate hard- and software solutions and are interoperable and upgradable.

Key Customers

- United States Marine Corps
- United States Coast Guard
- Royal Australian Air Force
- Royal Australian Navy and Army
- United Kingdom Royal Navy
- Netherlands Coastguard
- Dutch Caribbean Coast Guard
- German Armed Forces

Quality Accreditations and Awards

- FCT for NAVAIR (SUAS)
- Defence Science and Technology Group (DST) – CTD Program
- IndoPacific Innovation Award
- ISO 9001

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