KESTREL MARITIME
AUTOMATED OBJECT DETECTION FOR FULL MOTION VIDEO

SENTIENT

Maritime aerial surveillance is challenging. Long missions and environmental conditions such as white caps, clouds and sun glare have an impact on the probability of visual detections by human operators, and thus the success of maritime patrol and Search & Rescue (SAR) operations.

Kestrel Maritime is a software solution that automatically detects small objects in EO/IR full motion video (FMV) from manned and unmanned aerial vehicles. Optimised for the maritime environment – processing every pixel, every frame, hour after hour – Kestrel Maritime assists operators by:

☐ *Reliably detecting small objects such as fishing vessels, pirate boats and people overboard.*

☐ *Providing visual and audio cues to counter operator fatigue over long missions.*

☐ *Automatically transforming maritime FMV into actionable objet data.*

Proven on a wide range of air platforms, Kestrel Maritime is an off-the-shelf application that complements radar to provide a reliable, all-encompassing maritime surveillance solution.

APPLICATIONS

- Counter Narcotics
- Search and Rescue
- Anti-Piracy
- People Smuggling

- Fast Boats
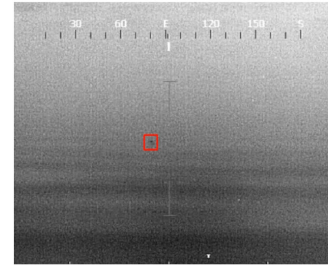- Rubber Rafts
- Person in Water

Small Object Detection

Search and Rescue

Wide Area Surveillance

Wooden Boat Detection In IR

KESTREL MARITIME CAPABILITIES

☐ **Small Object Detection**

Automatic, real-time detection of small objects, including those with low electronic signature such as wooden boats and people overboard, on the surface of the ocean.

☐ **Search and Rescue**

Detection of people in the water within a wide range of environmental conditions.

☐ **Visual and Audio Alerts**

Provision of visual and audio alerts to reduce potential operator fatigue over long missions.

☐ **Actionable Data**

Object detection data, compliant with STANAG 4609 and MISB 0601, is rapidly processed and disseminated to downstream applications.

☐ **Plug and Play**

Standard Windows, off-the-shelf software with a low training cycle. Kestrel Maritime is also available as an API for Windows and Linux that can be seamlessly inserted into ISR solutions.

Sentient develops and deploys computer vision technology for defense and civil projects. Since 1999 we have been specializing in video analytics with a strong focus on the development of automated object detection software.

Sentient is a trusted partner of the Australian Department of Defence.

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