

# ViDAR on UAS

Lost at Sea  
Found in Seconds



## ViDAR is the world's first Optical Radar

Designed for use in applications including counter narcotics and maritime surveillance operations, ViDAR provides:

- ❑ Real-time analysis
- ❑ Autonomous detection
- ❑ Passive detection
- ❑ Wide Area optical search capability

ViDAR enables UASs to search more than 300x the coverage of existing EO/IR systems.

It utilizes ultra-high definition video to scan the ocean surrounding an aircraft. Any data captured is automatically extracted and transferred to a mapping system, where it displays coordinates and a thumbnail image of what has been found to the operator.

### Applications

- ❑ Search and Rescue
- Surveillance missions, including:
- ❑ Anti-Piracy
  - ❑ Counter Narcotics
  - ❑ Fisheries monitoring
  - ❑ Debris detection
  - ❑ Maritime Security

### The challenge

Conducting search and rescue or covert surveillance operations in such a turbulent environment as the ocean is a challenge for existing technologies on the market. Traditional radar is not reliably effective at finding typical SAR or surveillance targets and has a narrow field of view.

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## Specifications

- ❑ Passive sensor - ViDAR emits nothing thus avoiding detection on covert missions
- ❑ 20Nm search swath and 180 degree field of view
- ❑ Over 13,360 Nm of ocean coverage in 12 hrs at 60kts
- ❑ Proven to work up to sea state 6
- ❑ Low Size Weight and Power (SWaP) system that doesn't affect the operation of small or tactical UASs
- ❑ Finds non transmitting and non-reflective targets
- ❑ Greater than 90% Probability of Detection

## The solution

ViDAR is a game changer in maritime surveillance operations.

Its unmatched capability, speed and efficiency reduces the time your aircraft is in the air, decreasing risk to your operators and lowering your running costs.



*Sentient develops and deploys computer vision technology with a focus on the development of automated detection software for EO/IR imagery. With over 3,000 systems deployed, Sentient's solutions enhance the performance of EO/IR operations for many agencies and forces worldwide. Sentient is a trusted partner of the Australian Department of Defence.*

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