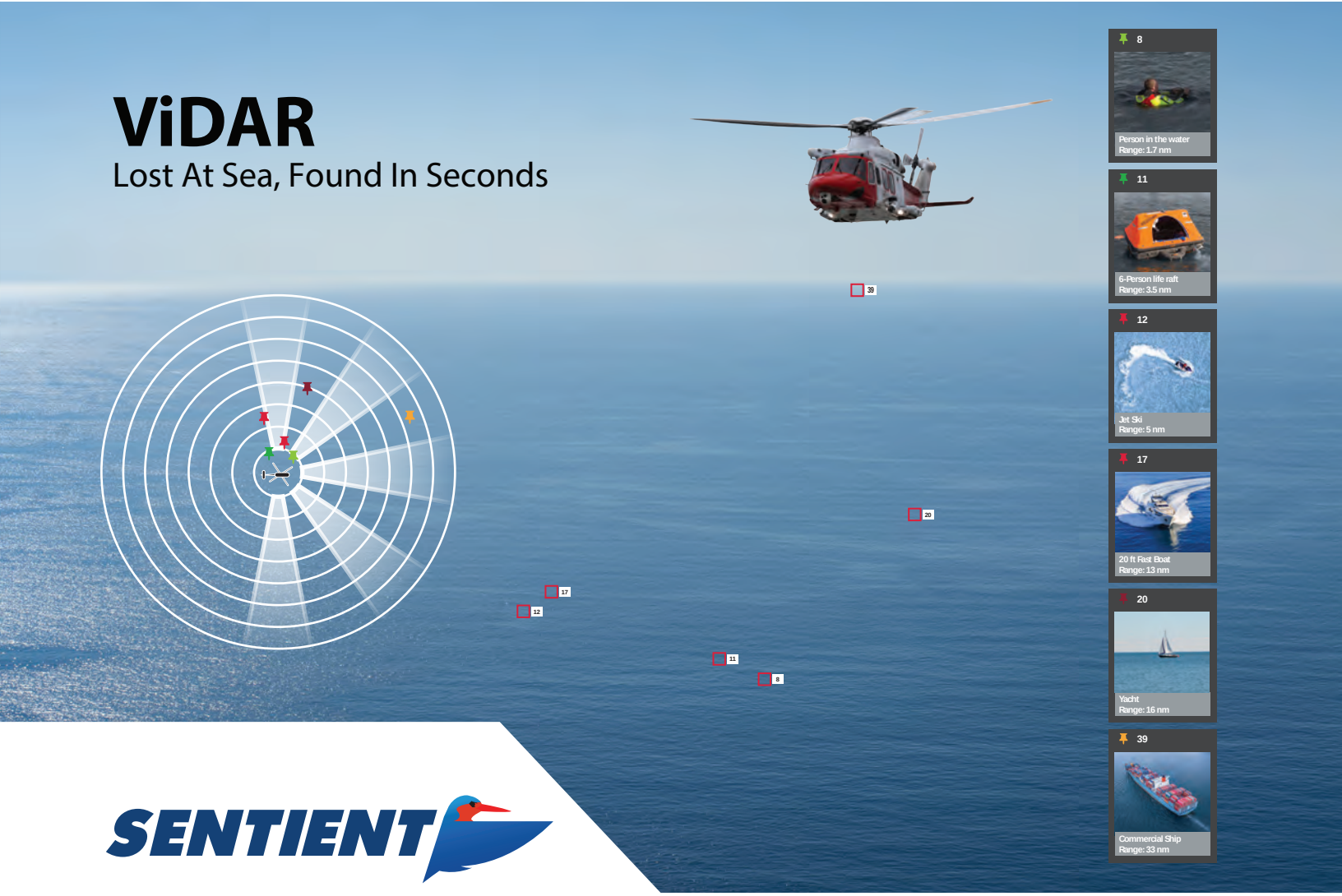
ViDAR

Lost At Sea, Found In Seconds



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ViDAR™ is the world's first Optical Radar

Maritime search and surveillance operations are challenging for existing technologies. Radars often miss the detection of important targets during maritime SAR or surveillance operations, but ViDAR is capable of detecting them using advanced artificial intelligence (A.I.).

ViDAR is a persistent wide area maritime optical search solution proven in operations since 2015.

Powered by over 20 years of A.I. expertise, ViDAR provides:

- 300x greater coverage than EO/IR alone
- Persistent autonomous wide area coverage
- Day and Night operation
- Night SAR detection

Applications

- Maritime Domain Awareness
- Search and Rescue
- Anti-Piracy
- Counter Narcotics
- Fisheries Monitoring
- Debris Detection
- Maritime Security

Operation

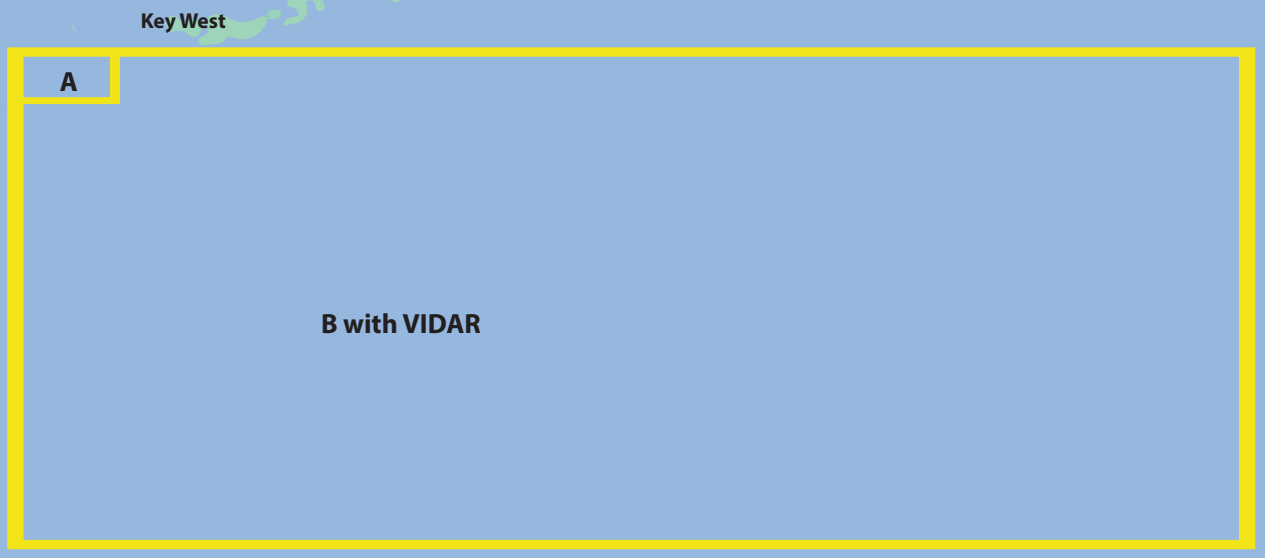
ViDAR uses ultra-high definition video to autonomously scan the ocean surrounding an aircraft. Detected objects are presented to the operator as a map location and a thumbnail image enabling detection to identification in seconds.

Unmatched capability, speed and efficiency improves mission times, increases coverage area, reduces operator fatigue and cuts operating costs.

ViDAR

Lost At Sea, Found In Seconds

ViDAR**'s** impact on Maritime Search
Same aircraft flying 60 kts for 12 hours
A: 4 deg FOV: 6.5 nm x 3.25 nm
B: 180 deg FOV: 167 nm x 80 nm



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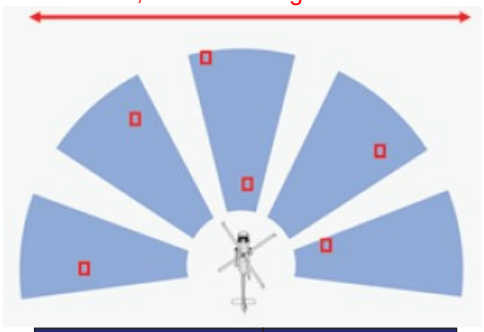
Specifications

- Passive sensor - ViDAR emits nothing thus avoiding detection
- 40 nm search swath with 180 degree field of view (FOV)
- Over 13,360 nm of ocean coverage in 4.5 hrs at 150 kts
- Proven in operations up to sea state 6
- Low Size Weight and Power (SWaP) system
- Finds non transmiting and non-reflective targets
- Greater than 90% Probability of Detection on first pass
- Flexible integration options including self contained Pods

40 nm search width with automatic detections, revolutionizing maritime search



Object	Range (Nm)
Commercial ship	33
Yacht	16
20' Fast Boat	11
Jet ski	5
6 person life raft	3.5
Person	1.7

Sentient develops and deploys computer vision technology with a focus on the development of automated detection software for EO/IR imagery. With over 3,500 systems deployed, Sentient's solutions enhance the performance of EO/IR operations for many agencies and forces worldwide.

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