

# NIGHT ViDAR

Lost at Sea

Found in Seconds



## ViDAR is the world's first optical radar

Night ViDAR is specially developed for successful performance in darkness and degraded visual environments.

Designed for applications including search and rescue and maritime surveillance operations, Night ViDAR:

- ❑ Works in real time
- ❑ Operates autonomously
- ❑ Passive
- ❑ Wide Area optical search capability
- ❑ Finds objects at sea 30x faster than existing technologies

Night ViDAR is the world's first small form factor, infra-red optical night radar. It utilises multiple high-resolution cameras to scan the ocean surface in a 180-degree arc in front of the aircraft, detecting the smallest of objects on the ocean's surface.

### The challenge

Searching such a turbulent environment as the ocean is a challenge on its own – add darkness to the scenario and it becomes increasingly more difficult, whether that's for manned aircraft or UAVs. Continuous scanning in darkness is near-impossible for most existing technologies.

# NIGHT ViDAR

Lost at Sea

Found in Seconds



## Specifications

- ❑ 30x faster than existing technologies
- ❑ Low Size Weight and Power (SWaP) system that can be integrated onto any aircraft – from a tactical class UAS to a manned aircraft or helicopter
- ❑ Superior small object detection
- ❑ Passive sensor - Night ViDAR emits nothing, avoiding detection on covert missions
- ❑ 180-degree field of view
- ❑ 24-hour capability

## The solution

Just like ViDAR, Night ViDAR is a game-changing technology. It significantly increases the search swath of an aircraft or UAV, reducing search time and operator workload while delivering a high probability of detection. It can detect even small objects, including those with non-reflective, non-transmitting features, such as a fishing vessel or life raft.

With the ability to perform in total darkness, Night ViDAR now enables 24-hour search capability to manned aircraft and UAVs.

## Applications

- ❑ Search and rescue

Surveillance missions, including:

- ❑ Anti-piracy
- ❑ Counter-narcotics
- ❑ Fisheries monitoring
- ❑ Debris detection
- ❑ Maritime security

*Sentient develops and deploys computer vision technology with a focus on the development of automated detection software for EO/IR imagery. With over 2,000 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.*

**sentientvision.com**  
**+61 (0)3 9646 3331**