Kestrel Maritime is an industry leading software solution that automatically detects objects on the surface of the water within electro-optical (EO) or infrared (IR) full-motion video.

Providing dedicated modes for search and rescue or maritime surveillance, it has the detection capability to identify people and vessels even in high sea states. It highlights objects, displayed to the operator on a screen.

In real-time or forensic operations for manned aircraft and UAVs, it detects:
- Small vessels, including fishing boats, pirate boats and rubber rafts.
- Objects with a low electronic signature, such as wooden boats
- People overboard

With a technology readiness level of 9, Kestrel Maritime is proven with a wide range of manned and unmanned air platforms for search & rescue, counter narcotics and people smuggling operations.

The challenge

Search and rescue or maritime surveillance operations prove challenging in changeable sea states, especially for the human eye. Small objects and people overboard often cannot be located without the assistance of technology.
Specifications

- Technology readiness level (TRL) 9
- SAR and maritime surveillance modes
- Small object detection down to a few pixels in size
- Extractable data including size and direction of each detected object
- Geolocation meta-data compliant with STANAG 4609 and MISB 0601 in MGRS and Lat/Long
- Works with ISR systems, existing mission systems, sensors, ground control stations and RVTs
- Easy integration options include Windows application, APIs for Windows, Linux and embedded processors

The solution

Kestrel Maritime utilises passive detection to identify even small objects in high sea states. It has the ability to filter out white caps, sun glare and clouds to detect what is important to the mission. It provides visual and audio cues to counter operator fatigue. This software add-on is a cost-effective addition to SAR and maritime surveillance operations, reducing time spent in the air and increasing the likelihood of mission success.