

# WHAT IS CLEVER BUOY?



## Clever Buoy is a near shore shark detection system developed by Shark Mitigation Systems (SMS).

The system uses state of the art sonar and identification software to detect sharks and relay accurate, real-time data to the authorities responsible for beach safety.

The detection system is deployed beyond the surf zone and uses multibeam sonar transducers that are mounted on the ocean floor, along with newly developed detection software to scan for marine life.

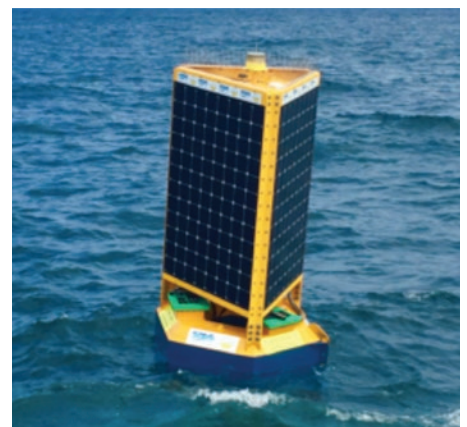
Once detected, the software interrogates the object's swimming pattern to determine the occurrence of a shark. If a shark is detected, the message is then instantly relayed to lifeguards on the beach, so they can raise the alarm. The information includes both the target and location.

Clever Buoy is commercially available following three years of research and development that culminated in a long-term deployment at Bondi Beach, New South Wales in early 2016.

## WHAT ARE THE BENEFITS OF THE SYSTEM?

Clever Buoy is unique in the market as a viable, commercially available shark mitigation solution.

- **Non-invasive technology** that is suitable to protect beaches by creating a virtual shark net to detect sharks and alert authorities.
- There is **no by catch or impact to marine life** from the Clever Buoy system.
- Sonar **detects all marine life** in the water column, therefore allowing Clever Buoy to detect all sharks in the coverage area including those that have not been tagged.
- Suitable to **protect high intensity surf zones**, with the ability to deploy immediately behind the surf zone in often extreme conditions.
- The cost structure is **economical and competitive** with alternative options on the market.



SHARK MITIGATION SYSTEMS

[www.sharkmitigation.com](http://www.sharkmitigation.com)

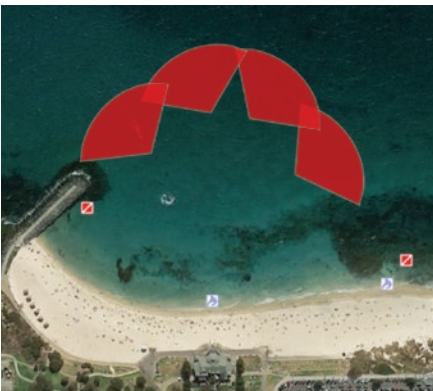
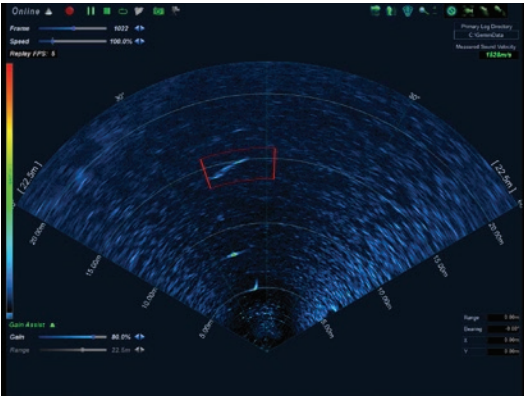


## THE TECHNOLOGY

### Shark Detection Hardware and Software

Clever Buoy uses the latest generation of multibeam imaging sonars which provide a real-time, high frequency imaging solution. This high tech sonar is combined with SharkTec, the state-of-the-art shark detection software and processing electronics.

The Clever Buoy system interrogates sonar images to match the swim pattern and shape of objects in order to differentiate between marine animals.



### Fully Customised Beach Protection Solution

Every beach is unique and Clever Buoy has been designed to be easily customised for all locations with modular sonar deployments.

### Short or Long Term Deployment

Clever Buoy has been designed for short term, semi-permanent and permanent installations using a variety of methods to ensure the right solution is deployed for each location.

Clever Buoy is endorsed by the Australian Professional Ocean Lifeguard Association (APOLA) and Surfing Western Australia.

For further information please contact the SMS team directly.



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