

# **Shark-spotting sonar technology put to the test**

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Sonar technology is being used to detect great white sharks. Credit: J.Gilligan

Primary Industries Minister Niall Blair has announced the NSW Government is collaborating with UTS researchers to assess the capabilities of the Clever Buoy shark-spotting sonar technology off Port

Stephens, as part of the \$16 million Shark Management Strategy. The collaboration also involves the developers of Clever Buoy, Shark Mitigation Systems.

"The NSW Government's Shark Management Strategy is a scientifically-driven program integrating some of the world's most advanced shark mitigation techniques," Minister Blair said.

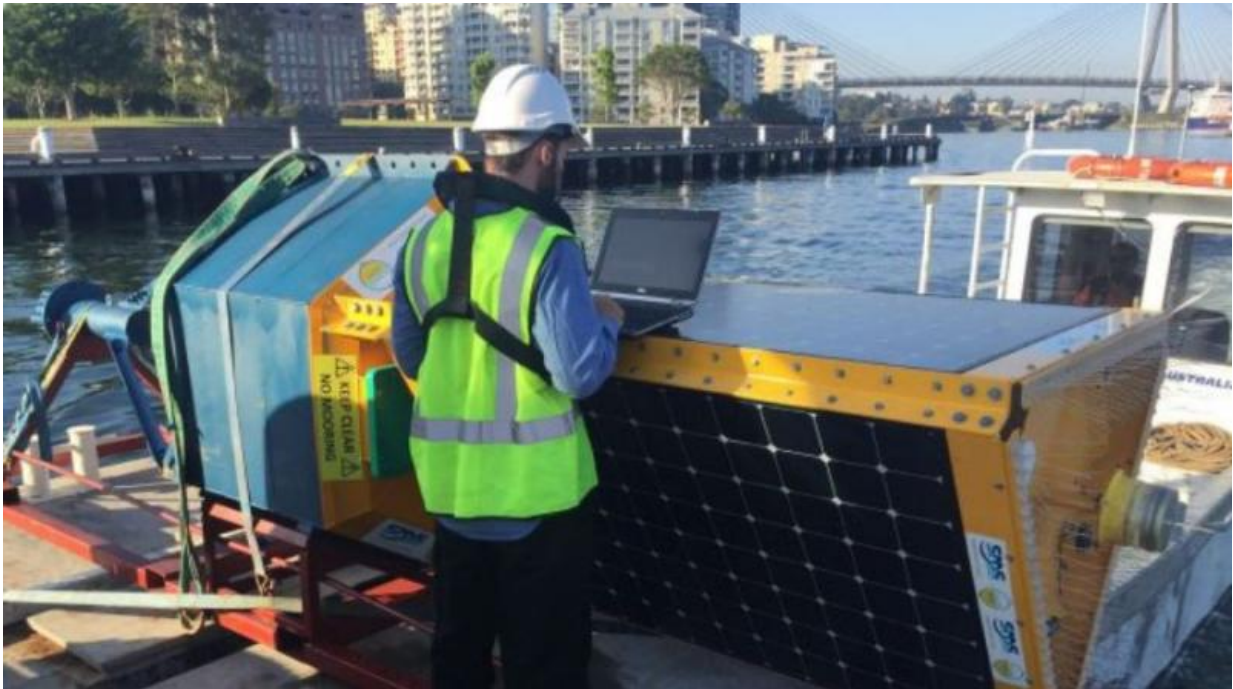
"In conjunction with increased aerial surveillance, drone surveillance, shark tagging and detection, and the SharkSmart app, the Clever Buoy technology can help us manage and mitigate the risk of shark bites on the NSW coast."

Clever Buoys, developed by Shark Mitigation Systems, use sonar to detect the distinctive movement patterns made by sharks and transmit a signal to alert lifeguards to raise the alarm.

The collaborative research will use a Clever Buoy that is situated about 1km offshore in about 10m of water, near Hawks Nest on the State's mid North Coast.

An array of underwater stereo video cameras in the vicinity of the Clever Buoy will record for up to five hours each day, and images captured will be compared to the information received from the Clever Buoy to visually verify shark detections.

The Clever Buoy will also have a VR2 receiver fitted, which will record information about any sharks nearby which have been previously tagged as part of the Shark Management Strategy.



Clever Buoy technology being used to detect sharks. Credit: University of Technology, Sydney

The visual verification trial follows a six-week trial of the sonar technology conducted by the DPI at Bondi Beach earlier this year.

"This collaborative research will rigorously and independently test the capabilities of the Clever Buoy system to detect sharks under real-world conditions off an ocean beach" Professor Gladstone said.

"We know from our previous research using aerial surveys that the Hawks Nest area is a nursery for juvenile white sharks. This presents us with a perfect opportunity to test the performance of the Clever Buoy in detecting white sharks, as well as the other species of sharks that occur there," Professor Gladstone said.

Minister Blair said the trial would help the DPI better understand the potential advantages the Clever Buoy system could offer.

"The way Clever Buoys are deployed as part of the Shark Management Strategy will depend in part on the nature of the beach and conditions in each locality," he said.

"The information gathered from this trial will help us understand how the technology reacts to a given environment, and how we can use it to give NSW beachgoers the best available protection."

The trial will run for six weeks.

Provided by University of Technology, Sydney

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