

20 July 2005

HOME | NEWS | EXPLORE BY SUBJECT | LAST WORD | SUBSCRIBE | SEARCH |

BREAKING NEWS

LATEST HEADLINES

[Matrix-style 'bullet-time' in multiplayer gaming](#)

['Cosmic Botox' bashes asteroid wrinkles away](#)

[Electron timed hopping between atoms](#)

[Cocaine use prevents adaptive behaviour](#)

[Micro-menaces blown up for image awards](#)

[Augmented reality brings maps to life](#)

[New Antarctic base will ski to safety](#)

[Bizarre boulders litter Saturn moon's icy surface](#)

ALL LATEST NEWS

PRINT EDITION

Subscribe



- [Current issue](#)
- [Archive](#)
- [NS Premium Content](#)

JOBS

JOB OF THE WEEK



[Scientist- Modeller/Statistician \(2 positions\)](#)

National Institute of Water & Atmospheric Research Ltd (NIWA)
Wellington/ Auckland, NZ

The World's No.1 Science & Technology News Service

Surf's up, down at the swimming pool

30 June 2005

[NewScientist.com news service](#)

[Emma Young](#)

THE powerful, curling waves that draw surfers to the beaches of Hawaii, California and Australia will soon be breaking inland, thanks to a novel shape-shifting rubber reef that can be fitted to the floor of a swimming pool.

Wave machines, which make small, regularly shaped waves, already make pool games more fun. But until now, creating waves big enough for people to learn to surf on has been out of the question. The Versareef, developed by New Zealand companies ASR and Surf Pools, looks set to change all that.

Company directors Shaw Mead of ASR and Kerry Black of Surf Pools spent five years surveying the best reefs in the Pacific to find out which seabed characteristics generate the best surf. "Then we created computer-controlled, movable pool bottoms to mimic those characteristics and generate really powerful waves," says Black.

Their secret? Computer-controlled pneumatic jacks beneath a tough rubber mat control its shape to within centimetres. By altering the gradient of the slope and the alignment of ridges on the pool bottom, the "reef" can produce breaking waves with different characteristics.

The Versareef will generate four types of wave, named after the places in which they are typically found: Hawaii, Indonesia, California and Australia. The Hawaiian has a steep take-off leading straight into a wall of water, while the Californian is a slower, easier wave, which is better for beginners, says Black.

["The Versareef will create a ride of up to 70 metres on 3-metre-high waves"](#)

Their research showed that a great Hawaiian, such as the famous Pipeline

break in Hawaii, is generated when a wave hits a steeply inclined seabed with ridges that run at a right angles to the wave's direction.

The first three Versareef pools are to be built at the Ron Jon Surf Park in Orlando, Florida, which opens next year. The largest will create a ride of up to 70 metres on 3-metre-high waves. "This will be the biggest wave facility in the world," Black says. "I scientists will use it too."

[From issue 2506 of New Scientist magazine, 30 June 2005, page 28](#)

[Printable version](#)



[Send to a friend](#)



[RSS feed](#)

[XML](#)

Related Article

[Human-powered r](#)
23 May 2005

[Beware - shark re](#)
26 February 2005

[Amphibious car sp](#)
16 July 2001

[Search New Scier](#)
[Contact us](#)

Web Links

[ARS](#)

[Ron Jon Surf Park](#)

[Surf Parks](#)

