



# Vudu Magic

■ by JULIE KIDMAN

A new generation of sail trainer is currently taking shape in Northland New Zealand, Vudu (pronounced Voodoo), a 3.8m hard chine, single sail, Formula 12 (F12) class catamaran. These boats are designed to take on the mono dominated classes in youth sailing and keep the Play-station generation excited about yachting.

**F**OUR Vudus are currently nearing completion. They will be the first F12s to hit the water and will launch the new class with a splash. Whilst the F12 class is currently in its formative stage the Vudus are totally compliant with the draft class rules and in line with the founding concepts.

F12 founders have agreed on a 'box rule' one-design class, like the Tornado and A Class cats. This means key dimensions; length, beam, mast height and several other aspects are defined in detail, while sail design and hull construction are unrestricted.

Fundamentally different from a single manufacturer one design class like the laser dinghy and the Hobie 16 catamaran, keeping costs down and enabling regional boat builders or even home builders to complete a boat.

This flexible approach should also enable the class to quickly gain international presence and the strategy seems to be successful. Beside the four Vudus, at least four different designs have been completed and F12 boats are under construction in Australia, England and Finland.

The F12s will be a single handed boat ideally suited to 12-16-year-olds, with a

sailing weight around 60kg. They could also be sailed by two younger children or a small adult. The Vudu construction team are toying with the idea of a second larger mainsail to enable heavier crews to play; if the kids let them.

Understanding the squeeze on leisure time and teenager's short attention spans, another key F12 concept is simplicity. Ten minutes or less has been set as a target for rigging or de-rigging. The Vudu main has a pocket luff and deck gear has been kept to a minimum. And whilst initial discussions favoured free standing masts, the class have now agreed on a stayed spar. The test-pilot sailors all



wanted to trapeze and the production team agreed it would probably make the boats more fun if the skippers can hang out on a wire rather than hike.

For transportation or long term storage the class rules dictate boats must be easily broken down, making it possible to utilise a roof rack rather than a custom trailer, minimising required shed space and opening up the number of possible sailing venues. Vudu's have removable beams, housed in sockets in each hull, ideal for international shipping to the first F12 worlds; wherever they are held.

F12s will be manageable performance multihulls. These craft will ignite enthusiasm for multihull sailing, enabling sailors to gain the skills necessary to sail the even more exhilarating high speed multihull classes. It is anticipated that class will act as a feeder for bigger cats such as the Hobie 16s, Formula 18s, Tornados and the A Class.

Bill and Graeme hold the first completed hull showing the hard chine and flat panels. (above)

Jig set up with panel templates in place. (below)

Vudus have been designed by naval architect and aeronautical designer Richard Roake. A retired geek by his own admission, he has been passionate about flying and sailing for a lifetime and has developed the F12 concept into a viable craft as a hobby.

They are a pretty radical looking boat, with reverse bows that have bemused shed visitors as to which way the hulls sit. The reverse bows draw on A class developments and will enable the boats to drive through waves efficiently rather than hobby-horsing up and down, improving the windward performance.

These first Vudus are being built by two dads. Bill Kidman, a boat-builder with



## Leading composite solution provider, High Modulus, announces the opening of its Australian operation



**Mark Clothier – Managing Director of High Modulus (Australia).**

**H**IGH Modulus is pleased to announce the opening of its new facility in Australia. With new premises, new management and new equipment, this exciting development enables the company to continue growing its presence in the Australian market.

Situated just off the M1, halfway between Brisbane and the Gold Coast, the facility incorporates offices, warehousing and production, enabling the growing team to supply a comprehensive range of composite materials, structural engineering services, and the B<sup>3</sup> SmartPac solution to customers across Australia. Customers may already have met Nick Boltar, who now takes responsibility for sales in Australia, having spent the last 18 months managing New Zealand accounts from the High Modulus head office in Auckland.

Mark Clothier has been appointed Managing Director of High Modulus (Australia), having spent the previous 10 years as Managing Director of the Australasian branch of safety and survival equipment distributor, RFD. "I am pleased to have joined High Modulus at such an exciting time in the company's development," says Clothier. "We have a 30 year history of supplying world class composite solutions to customers around the world, and I look forward to adding my experience to the team to establish a sustainable platform from which to expand our Australian business." Tony Riek, formerly of Riviera, has been commissioned to manage the set-up of the B<sup>3</sup> SmartPac production in Queensland.



The potential skippers crowd around the hulls eagerly anticipating launch day. Left to right: Klaus, Nathan, Ben and Mike. (above)

Richard explains the thinking behind the narrow foils. (above)

experience in traditional and exotic composite construction and Graeme Laurie, a 12' Skiff Interdominion Champion. Whilst these boats are being produced in foam and glass, the panel construction, and hard chine design again supports the class vision of simplicity. Boats could be built in either foam or ply. Panels can be cut to design shape then shipped flat to home builders to complete; although they would need building jigs to

support the panels as the hulls are put together. Each hull is a symmetrical arrangement of three panels duplicated. An entire boat is constructed of only 12 panels of three different shapes.

The mast will be a standard hollow, untapered aluminium tube with fittings a home builder could attach. Spreaders will be on a hinged saddle to allow slight mast rotation, although the pocket luff should also facilitate this. In keeping with the

simplicity theme the boats will be boomless with elliptical travellers. Theoretically easier to tack; less to hook-up on or get hit by. No outhaul to worry about as mainsail depth is automatically increased as the sail is eased down the traveller. Skippers can concentrate on sailing with the minimum number of controls.

The beams are also standard aluminium extrusion, rolled to create the required



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Vudu designer Richard Roake observes the foam panels being cut. (above left)

Taping the panels together. (above centre)

Boatbuilder Bill Kidman working with Nathan (14) one of the skippers keen to get his boat finished and in the water. (above right)

One hull nearing completion with young skippers Lewis and Ben alongside. (right)



curves. The boards are very small and narrow, designed for high efficiency. For the Vudu a cut down A Class foil has been used and boards are moulded in carbon and glass.

There are alternative small multihulls on the market, but most are geared toward the resort beach style summer sailing. The F12 enthusiasts are a growing bunch and hope to see the popularity of this class emulate the bigger Formula racing cats, such as the F14s and F18s. Plans are being made available directly from the designers for minimal fees and moderate class association membership. Builders with projects underway are sharing information and progress reports via a web forum.

Casual yacht club conversations seem to confirm there is a need for a boat that is fun, fast and affordable which keeps the enthusiasm for sailing alive once youths outgrow their optis or choose not to go down the formal Olympic class progression. There is a lot of excitement being generated about the class. Multihulls go fast and are generally more stable. As one young sailor who is eagerly awaiting completion of his Vudu said; "I think they will be cool. I'll get up to a lot more speed without tipping."

The Vudu team have selected the following suppliers. Adhesive Technologies for epoxies and resins, High Modulus for foam and carbon, and Ronstan NZ who will be doing the deck hardware. Sail supply is yet to be confirmed.

For more information check out; [www.catsailor.com](http://www.catsailor.com) and access the F12 Forum or email [aqua\\_house@xtra.co.nz](mailto:aqua_house@xtra.co.nz)

SPECIFICATIONS :

LOA (length overall)	3.80m
BOA (beam overall)	2m
Beach weight	50kg
Sail area	7sqm
Rig height	6.47m above DWL (Design Water Line)
Rig	Boomless/Pocket Luff