



AHPC Viper

Jeremy Evans tests the Viper, a 16ft rocketship designed and built in Australia, with catsailing legend and multiple world champion **Darren Bundock**...

Unfortunately, we didn't fly to Australia to test the Viper – brown murky water and grey skies are a giveaway – it's the Thames Estuary on a Force 6 day! What's more the wind was gusty, blowing cross-offshore from the Whitstable shoreline with the tide helping to create a lumpy sea. Darren Bundock and his partner Carolijn Brouwer had come for the Forts Race, an annual long distance catamaran challenge organised by Whitstable YC.

'Bundy' is a legend who has won more international cat events than any other sailor, while Carolijn is without doubt the world's fastest lady on a cat and races on equal terms with the fastest men. The lack of cat class in the 2012 Olympics prompted Darren and Carolijn to set up 2B Sailing, a new business to market the new Formula 18 C2 and Formula 16 Viper in Europe. Both cats are produced by Australian High Performance Catamarans,

run by the father and son team of Greg and Brett Goodall who design and build the whole package, including rig and sails, as well as racing their own designs at top level.

Design and build

The Viper was designed to fit the Formula 16 measurement rule, a scaled-down version of Formula 18 with more liberal attitudes to lightweight construction. Unlike F18, which has been a massive success, F16 has never caught on in a big way and the best future for the Viper is as a 16ft one-design. Sales have taken off this year, with more than 100 Vipers sold across four continents, helped by 2B selling 26 new boats in France and hoping to make the Viper a major European class with ISAF recognition. Looking further ahead, Carolijn believes the Viper would make a perfect Olympic cat for women, as well as being a great ISAF multihull youth class

Specifications

Design:	Greg Goodall
Builder:	Australian High Performance Catamarans
Construction:	Epoxy foam sandwich hulls, aluminium beams
Length:	5m
Beam:	2.5m
Weight:	129kg sloop; 125kg uni
Sail area:	Mainsail: 15sq m Jib: 3.7sq m Spinnaker: 17.5sq m
SCHRS:	1.035 sloop; 1.007 uni.
Price:	£14,050 (€16,500)

for both sexes. Put simply, they have big aspirations for the Viper.

The Viper is smaller and considerably lighter than a Formula 18. Two adults can lift and carry the boat for a short distance, it takes less space to park and is that much easier to launch and retrieve from the water. Rigging the mast is also easier, because it's shorter and lighter, as is pulling up sails. All this makes for a user-friendly boat, particularly well suited to lighter weight crews.

AHPC have a reputation for excellent construction and well-sorted boats. Hulls are epoxy foam sandwich, which helps provide the best compromise between long-term durability and light weight. The

only carbon is tiller extension, rudder blades and foils using the same section as the C2, with aluminium rotating mast, main and spinnaker boom and beams. Chris Sproat, a highly experienced cat racer who bought the first Viper into the UK, is delighted with his new boat. It was ready-to-race from the first day, though rudder angles needed tweaking and he changed to a continuous control line layout under the trampoline, with both modifications now standard on production boats. Above all, he rates the Viper as very robust when you consider its 130kg sailing weight.

On the water

We sailed the Viper in challenging conditions. A sailor of Darren's calibre only capsizes once in a blue moon, but this happened during the same session when the C2 flew off a wave on a rogue gust and parted company from its crew. The Viper stayed upright, but was eventually forced to retire when Bryony flew around the bow and bent the

spinnaker pole – it is an easy and relatively cheap part of the boat to replace.

The Viper is designed for lightweight crews, up to about 140kgs, making it just right for a slim couple, two girls or even two teenagers who have the necessary funds. It's also incredibly quick. Darren told me the Viper is faster than an F18 on flat water and really smokes upwind, an opinion seconded by Chris Sproat who rates it is 'ridiculously fast upwind', especially in light or strong conditions, and just a tad slower than an F18 downhill.

The Goodall rig is very flexible with automatic response providing maximum gust control, allowing the Viper to accelerate instead of heeling, but does require some tweaking expertise for maximum potential. 2B provide expert assistance on tuning and managing your boat, via their website or in the boat park. Unlike F18, sheet loads on the Viper are light and you don't need big muscles to enjoy the boat. But like any high performance machine, you do need to be



reasonably fit and nimble on your feet. Bryony, who is accustomed to crewing an RS800, found the hull flying and speed of the Viper took a bit of getting used to, not least staying connected when bounding across waves with the spinnaker and trapezing off the back of the windward hull. Cat crews also trapeze lower than on skiffs, with an optimum position below perpendicular on a beat to compensate for heeling angle, which makes it that much more difficult to stay glued to the boat in maxed-out weather. Getting out on the wire at the same angle as the trampoline requires commitment and feels very different from walking out on a skiff. If it feels uncomfortable, the solution is to set the trapeze rings higher until you feel more relaxed.

Forget anything you may have heard about cats not being able to tack. The Viper tacks quickly, reliably and has the advantage of not being inclined to fall over like a dinghy. The same goes for gybes, which are easily controlled in stronger winds if you steer carefully to keep the gybe angle small and maintain speed. And if you do capsize, the Viper is small, light and not difficult to pull back upright, with less physical effort and uncertainty than righting a high performance dinghy, plus the bonus of being able to take a breather while the cat is floating on its side.

As a former top racer in the 16ft Spitfire

ABOVE The mainsail provides automatic gust response and does not require a lot of mainsheet action, with gusts driving the boat forward instead of heeling.

RIGHT The F16 Viper can sail as fast, if not faster, than an F18 upwind and almost as quick downhill, with the advantage of an SCHRS measurement handicap that means F18s must finish ahead to win.

RIGHT BELOW Darren flies a lot higher than is necessary, but demonstrates how easy it is to hold the boat on one hull. Daggerboards have the same section as the larger C2, but are shorter, while rudders are identical. The spinnaker chute attached to the pole provides an easy-to-use launch and retrieval system.



ABOVE Mainsheet tension provides a backstay to support the mast when sailing with the spinnaker, with plenty of volume low down in the bows helping to ensure the Viper flies, instead of dives, downwind.

ABOVE RIGHT The appearance of the Viper is downright simple, with no clutter to get in the way of the working area provided by trampoline and decks.

cat class, Chris Sproat draws interesting comparisons with the more modern Viper. The Spitfire feels more like a dinghy and possibly more exciting, while the Viper feels like a bigger and more predictable boat, particularly when pushing hard downwind. A fundamental advantage is that it's considerably faster with proven ability to burn off any F16, plus being a match for bigger and theoretically quicker F18s.

An additional advantage of the Viper is that it can be sailed singlehanded, which is part of the F16 rule. No crew? Just take off the jib. Darren reckons the Viper is quicker in solo mode in a light breeze, but will fall back as wind increases due to



lack of crew weight and too few hands – it will get exciting with the spinnaker! Like most owners, Chris Sproat has never sailed his Viper singlehanded and doesn't intend to, since he is too light and the rig is too powerful, although a flatter mainsail is available.

The verdict

The Viper is a great proposition for lighter weight crews who enjoy the kind of high speed sailing and racing where little, if anything, is faster on the water. Cat techniques and sailing skills are different from a dinghy, but a lot of sailors (not least Carolijn who was world champion and top Olympic racer in the Europe class) have made the transition and never looked backed, which is

possibly smoothest for skiff sailors who have the same focus on absolute speed.

Anyone who would like to sail a Viper in Britain has plenty of interesting opportunities on the UKCRA circuit including windward-leeward racing and long distance events. The French have adopted the Viper with enthusiasm, which could be the start of a big class in Europe where superb events include Eurocat at Carnac, Round Texel and a big choice of long distance races and regattas. The 2010 season included an F16 European Championship on Lake Como, dominated by Vipers and won by Jason Waterhouse and Lisa Darmanin from Australia both aged 18, ahead of a mixture of all girl, all boy and mixed crews – a multihull with multiple attractions! ■

MANY THANKS

To Whitstable YC, one of the great cat clubs, for providing facilities for this test. www.wyc.org.uk



SPITFIRE

Wonderful 16ft catamaran designed and developed by Yves Loday and Reg White in 2000 and built by White Formula in Brightlingsea. Currently on a roll with UK youth sailors who have a fast growing fleet, backed by the RYA.

Length: 5m

Sail area: Upwind 20sq m
Spinnaker 18 sq m

Weight: 160 kg



SL16

Current ISAF Youth World Championship cat for teenagers. Designed by Yves Loday as a detuned variation on the Spitfire with no daggerboards and less powerful rig. Poor choice by ISAF – not popular!

Length: 4.8 m

Sail area: Upwind 17.5sq m
Spinnaker 17sq m

Weight: 145kg

Answer Back

From Carolijn Brouwer

We see the Viper as a problem-solver, as it is the perfect high performance boat for youth, women, mixed or lighter crew weights. It's perfectly suited for teams too light for Formula 18.

The great thing is the load on the sheets is far less than the bigger boats of equal speed, as well as the sheer ease of moving the boat around the beach due to its light weight. Finally there is a challenging boat that women can compete in either as crew or helm, and equally against men for line honours. While the loads are less it's still a very exciting and challenging boat with modern wave piercing bows and very

buoyant forgiving hulls. The boat is specifically designed to fill a gap for lighter weight crews and has an ideal crew weight range of 115-145kg. However the boat can easily accommodate weights of up to 165kg and has still proven to be very competitive.

We have just finished testing the 'Viper Strike' which is designed for even lighter crew weights 90-120kg. We have reduced the mainsail from 15 to 13.5sq m and the spinnaker reduced from 17.5 to 15sq m. The mast and jib is the same. Both the mainsail and the spinnaker fits straight on to the standard Viper without having to change any settings. Now the one boat can accommodate the whole family.
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