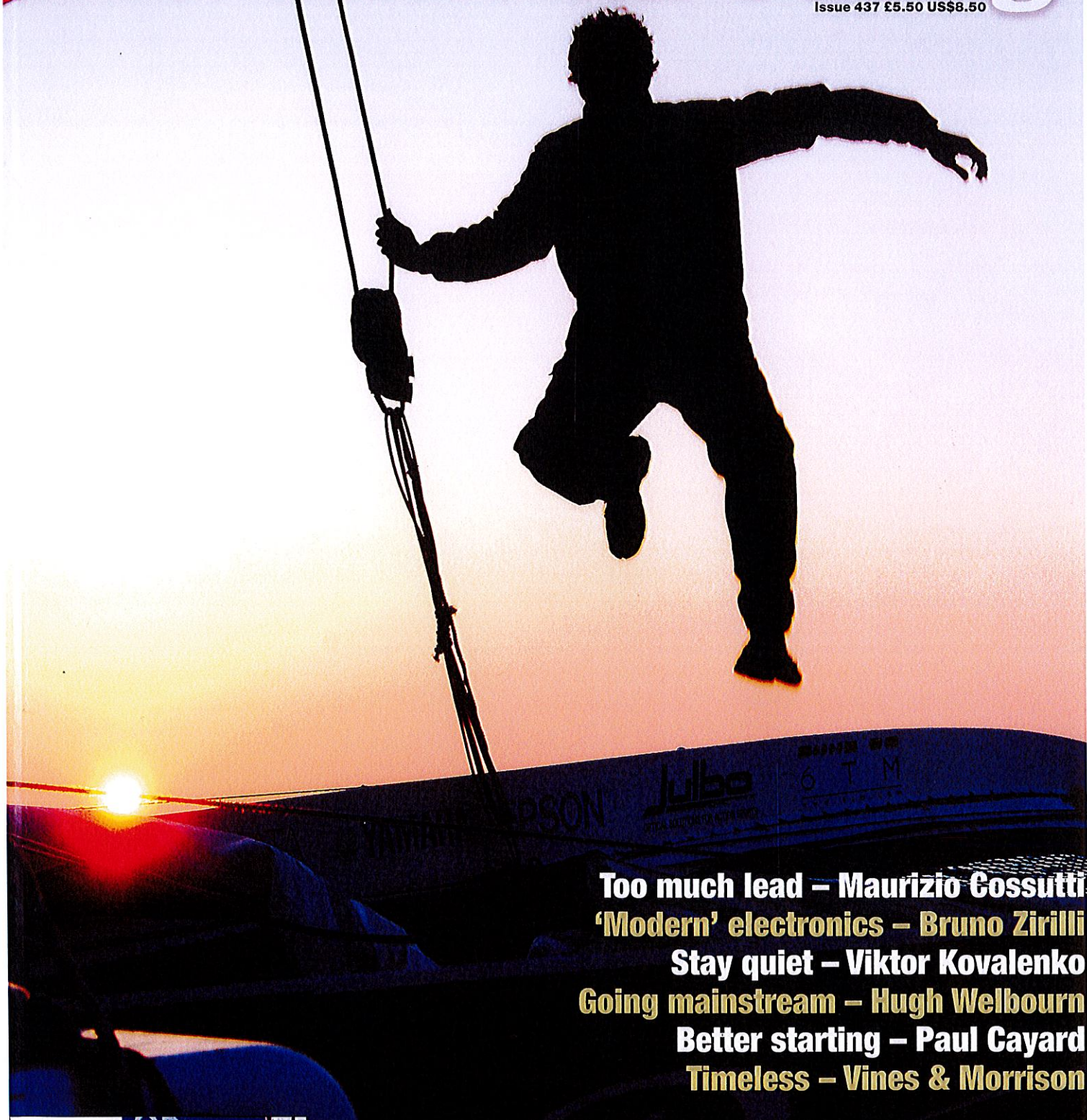


Seahorse

International Sailing

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Too much lead – Maurizio Cossutti
'Modern' electronics – Bruno Zirilli
Stay quiet – Viktor Kovalenko
Going mainstream – Hugh Welbourn
Better starting – Paul Cayard
Timeless – Vines & Morrison



Back in the game
– Phil Sharp

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One for the warriors

Akihiro Kanai founded ACT Technologies after working in the design team of the Nippon America's Cup challenge. More recently Kanai has teamed up with Pauger Carbon in Hungary to produce this tidy 36-footer, with one boat launched and two more on order

K36-SAMURAI

Samurai is the image of our boat. A Samurai has traditionally been a person who serves a respected leader and has Bushido spirit, meaning that they will fight to the last drop of blood and effort.

The K36 is a new lightweight, all-carbon design which we optimised using the best available science involving our own rigorously developed performance tools. We believe that by teaming up, ACT, SDK Structures and Pauger Carbon have achieved Bushido spirit!

This new boat is designed to be equally suitable for both inshore around-the-buoys and offshore races, the design being targeted at the racing-oriented owner who wants to enjoy fast and exciting sailing but at a more reasonable cost than with a larger 40ft race yacht.

There are many aspects in the design of a light and fast boat of this type: hull shape optimisation for less drag and more dynamic stability, thorough VPP work, deck arrangement for crew ergonomics, structural engineering for a light and stiff boat etc. There are more radical options available for a high-performance boat but we stayed relatively 'middle-of-the-road' for what is our first series-built performance design.

To achieve best performance an intensive hull shape optimisation in both static and wave conditions was applied based on our longterm experience using CFD for racing yachts and also for commercial ships. The hull shape choice of course revolves around wind range, and generally if the hull shape is optimised in light winds it is not as good in heavy air.

During the K36 optimisation we found that the best hull shape in light air demonstrated about 10% less drag at 5kt of boatspeed compared with a hull optimised for heavy winds, but it demonstrates

about 5% more drag above speeds of 12kt. The crossover was identified at around 8kt. If the boat is optimised for light winds then it should also win upwind since the maximum speed upwind is around 8kt.

This drag difference is bigger than we expected, although the final shape difference is actually quite small.

Then we move on to elapsed time around the course. Since a lightweight high-performance boat achieves much higher speeds downwind than up, then improving the upwind performance is relatively more expensive in terms of time around the course. But since the available gains in heavy winds are less than in light airs, then we must also factor in that one error in heavy air off the wind can wipe out all the design gains achieved at the expense of light-air performance... These light boats all fly downwind in a breeze – the big differences are in light air and upwind, which go together. So this is where we focused our research. Also, the popular sailing venues in Japan tend generally to feature rather light airs.

Looked at overall the differences in focusing down-range are barely visible, but we believe the end result is a very good all-round performer.

A Samurai does not follow fashion; he is only interested in results. Akihiro Kanai, Japan



Probing the lower limit for all-carbon construction to remain competitive in IRC is the new K36-Samurai

Custom builds

BOAT	LOA	DESIGNER	BUILDER	LAUNCH	COMMENTS
Mini 6.50	6.5m	Marc Lombard	François Champion	Aug 2016	First new proto for a while from Lombard. Scow influence, but this is not a scow
SuperFoil	9m	Morrelli & Melvin	SoCal (syndicated)	Sept 2016	The prototype is building in southern California with production planned to start in November
Plume	9.4m	Charles Bertrand	Tocatec (Montpellier)	Aug 2016	New DSS design with canting keel and single, central daggerboard
IRC 36	11m	Brett Bakewell-White	Confidential	Aug 2016	Stripped-out carbon IRC racer for Japan... the carbon IRC break-point creeps ever lower
Class40	12.13m	Nivelt/Mabire	Shoretteam, Caen	When we're ready...	The new <i>Campagne de France</i> is later than planned but she will be a beauty
ORC 40	12.2m	Brett Bakewell-White	TBC	2017	All-carbon flat-out ORC racer for Korean client (South Korean, we expect)
IRC44	13.36m	Humphreys Yacht Design	(Still) standing by...	Sep 2016	The latest <i>Oystercatcher</i> will be ready and waiting for the next Caribbean season
IRC 45	13.64m	Marc Lombard	CSC Composites	July 2016	Another custom IRC racer from the designer of the successful MC34
Vismara 50	15.8m	Mills Design/Vismara	Vismara Marine	July 2016	A new cruiser-racer suitable for IRC and ORC competition... and very stylish holidays
TP52	15.85m	Botin Partners	Longitud Cero	Oct 2016	The new <i>Interlodge V</i> will debut at Key West 2017... and yet more TP52s are on the way
Dayracer	16.76m	Brett Bakewell-White	Schihh...	Late 2016	Rather elegant gentleman's (large) dayracer with plenty of loud pedal
Imoca 60	18.28m	Verdier-VPLP	Persico	Maybe	Relaunch – the lack of a sponsor forced Andrea Mura to sell this boat to Mer Agilite
Chessie Racing	18.79m	Tripp Design	New England Boatworks	July 2016	Another late puppy... refined café racer from the builders of <i>Rambler88</i> and <i>Bella Mente</i>
Vismara 62	18.8m	Mills Design/Vismara	Vismara Marine	June/July 2016	A cruiser-racer and a racer-racer, both good looking and both being built by Vismara
Baltic 68 Custom	19.51m	Reichel-Pugh	Baltic Yachts	Sept 2016	Good-looking new cruiser-racer design from the California style kings
Maxi172	21.9m	Botin Partners	Premier Composites Dubai	Sep 2016	'Robertissima' Tomasini will have a glamour new boat ready for the 2016 Maxi Worlds
Maxi 100	29.76m	Brett Bakewell-White	Confidential (schh again...)	Dec 2016	Designer Brett Bakewell-White is busy busy, but submerged under a tedious pile of NDAs
WallyCento 4	30.34m	Mills Design/Pininfarina	Persico Marine	July 2017	An unprecedented effort has gone into both the look and the weight concentration on the latest WallyCento. The hull shell and deck are now complete with primary structure going in (very carefully). This will be a serious flyer
Gitana XVII	31.4m	Verdier/VPLP	Multiplast	July 2017	Séb Josse's new solo multihull will start life just outside the Ultim Class length limit
Banque Populaire IX	30.4m	VPLP	Multiplast-CDK	April 2017	And another new solo trimaran for 2016 Vendée Globe favourite Armel Le Cléac'h
Wally 110	33.51m	Frers	Performance Boats, Italy	Late 2016	Latest Wally features novel interior styling with WallyCento-style performance
Baltic 130 Custom	39.6m	Reichel-Pugh	Baltic Yachts	Late 2016	Very little from the Reichel-Pugh office ever goes slowly... or looks old
J9	41.5m	Hoek Design	Holland Jachtbouw	Late 2016	Original 1936 Frank Paine design
J8	42.64m	Hoek Design	Holland Jachtbouw	June 2016	Sea trials are now well underway
Tiger Jay	43.6m	Hoek Design	Bloemsmas Shipyard	Late 2016	Original 1937 Thore Holm design
Svea	43.6m	Hoek Design/Thore Holm	Vitters Shipyard	2017	This Thore Holm design has been 75 years in gestation... but now she is underway
Baltic 175	53.9m	Judel-Vrolijk	Baltic Yachts	2017	Big, comfy, but will be very fast for a boat of this type. Superyacht trophies await

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