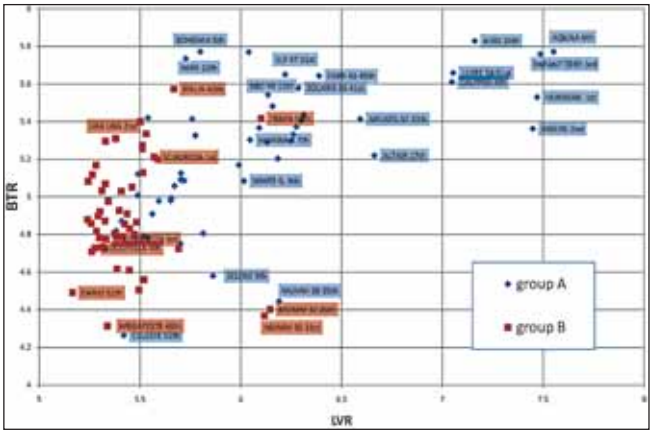
So is it working?



***Top right*: a plot of the main protagonists at this year's ORCi worlds in Ancona with length to volume plotted on the x-axis and beam to volume on the y-axis. Meanwhile, testing continues apace (*above*) in Milan to refine the ORC's downwind aero model**

Not many offshore racing events can afford to be picky about who and how many come to the party. Yet at the Adria Ferries ORCi world championship in Ancona organisers were turning teams away to keep to their limit of 110 entries... It seems the attraction of a world championship is still quite strong. This large event with its diverse array of boat types and excellent race management also presented a perfect opportunity to gauge how well the 2013 VPP is working.

Analysing the two 50+ boat classes, it was the larger and faster Group A that showed the widest variety of boat type. This varied from lightweight high-performance TP52s with fixed keels, a GP42 and a Cookson 50 with its canting keel, to heavier series-produced cruiser-racers and older IMS-era boxy designs. Most of the top contenders had been through some sort of optimisation work, although for the 52s this included being slowed down to meet a 450 sec/mi GPH entry limit imposed by the organisers.

The Group B fleet featured much more uniform design characteristics, being mostly series-produced cruiser-racers of medium to heavy configuration. A summary of all these designs is plotted in the graphic (*above right*), with boat name and score shown for each plot. The boat types matching their names are as follows for Group A – TP52: *Hurakan*, *Aniene*, *Enfant Terrible* and *Aquila*; GP42: *Airis*; Cookson 50: *Calypso*; Felci IRC 50: *Altair*; GS42R: *Bohemia* and *MAN*; GS56: *Marina*. For Group B – Cossutti-designed NM38: *Scugnizza*; Comet 38S: *Uka Uka*; First 35: *South Kensington*; First 34.7: *Goodfellas*.

In this graph it can be seen that Group A boats are almost all lighter relatively than Group B, and the boxy boats (eg GS42Rs) have BTR values similar to TP52s but with more weight, and therefore lower LVR values. The remaining fleet lies in between, apart from a few cases discussed below. It is interesting to note that there is no clear correlation between boat type and results, with the top-scoring boats grouped in the upper right corner (lighter and beamier) for Class A mixed in with some very poor performers.

The plot also shows that 90% or more of Group B boats are all inside the 5.2-5.5 LVR and 4.5-5.4 BTR ranges – meaning that the new Residuary Resistance formulation is treating fairly the high-scoring boats that were given designer optimisations (eg *Scugnizza*). One peculiarity is the Farr 30 with a GPH that was very close to the 605 sec/mi border between the two classes with poor results in both groups – but their characteristics were very far away from the average of both divisions as well.

In fact, it was the top teams in both groups that had the most talented crews, new sails and other performance optimisations that did well, not a bias in typeform. Moreover, compared to results run for the same boats using the 2012 VPP, we see an average decrease of 20% in corrected time among the top 10 finishers in Group A, and a 15% average decrease in corrected time among the top 10 finishers in Group B.

So what may be needed to refine the competitive level even more would be – as always – to get more classes and therefore even tighter groupings... But this is a political battle, not an organisational challenge.

Designer Jason Ker was on hand in Ancona observing his first ORC championship, and commented, 'There is really some great racing here; this event should be moved around the globe so that everyone has a chance at competing at this level.'

All in all this event was the best-ever world championship offered by ORC, and congratulations to manager Paolo Massarini and his team for pulling it off.

The task continues

At the end of July in the wind tunnel facility at the Politecnico Campus Bovisa in Milan the ITC tested a new series of configurations with asymmetric sails on a bowsprit with the aim of improving the downwind aero model.

Two mainsails with different roaches (one with typical IMS girths and a second with a square top) were tested in conjunction with two asymmetric spinnakers of different sizes, one maximised for the foretriangle dimensions and the second designed as the smallest that could fly in the same foretriangle (about 87% of the larger one). The range of AWA tested was very wide – from 50° when the chute collapses to 150° – with wider angles impossible to test due to instability of the spinnaker.

The sails themselves were designed and prepared thanks to the support of North Sails Italy in Carasco. This set of tests will allow the ITC to assess this kind of configuration better as advanced sail design could have created a typeforming for fast and light boats that to date may have been underestimated by the VPP.

Dobbs Davis ❑