

## Faster faster

In the hunt for a universal rating solution there must first be an assessment of how the current paradigms are doing. While ORC rating science is based on research provided by the ITC, rulemakers must also look to design trends and how to rate the latest boats fairly against the existing fleet. With few custom designs built to date, the ORC rule has not yet been tested as hard as IRC in terms of typeforming... however, a few new ORC projects are now about to start to explore this important area.

Judel-Vrolijk's 42-footer for Christian Plump (*Seahorse*, June 2011) will shortly make its racing debut in Germany, boasting a thoroughly modern and uncompromising look. It is not a carbon boat, yet is light compared to a similarly sized IRC 'weapon'. It will also have to race in some very diverse cruiser-racer fleets during its first events in the Baltic.

Meanwhile, down in the Med there are already a handful of higher-performance boats racing in mixed ORC fleets. Early results



**Top:** the turbo NM38 to be raced at the ORC worlds by match racer Paolo Cian features a more powerful sailplan than the standard boat plus various other rating plays. **Above:** the boat that may at last properly 'lean on' and so test the ORC rating system, Christian Plumb's new Judel-Vrolijk 42 recently began racing in the Baltic

show them doing quite well, with the real test about to start at the ORC Worlds in Cres – for which entries have passed 120 boats.

Maurizio Cossutti is a designer active in the ORC arena, and his M-37s have been perennial winners in ORC in Class B, combining reasonable performance with some modest creature comforts. His latest NM38, however, is offered in a non-standard version with more horsepower to interest the performance-conscious customer; though it has a higher rating, Cossutti believes

that this design trend is sustainable in the current ORC system.

Cossutti's new Bonin 36, built in Trieste, has more cruising amenities but retains a bias towards performance: a very narrow waterline, modest weight (3,950kg), rounded sections to minimise wetted area and a huge TP52-like stern for maximum power. Cossutti concedes this may not be an easy boat to drive... but thinks it should be super-competitive in light winds and downwind. Here Cossutti shares some views on the current ORC programme.

**SH:** There seems to be a small if encouraging trend in ORC design towards faster boats...

**Maurizio Cossutti:** The path towards faster and more enjoyable boats now seems better defined. There are two aspects to this. One is to race newer boats like the TP52 which are becoming more competitive under ORCi; the other is to turbocharge traditional boats and try to beat your handicap! At the heart of this improvement is the removal of the benefit that ORC once gave to less stable boats, encouraging more power in the sailplan and/or the hull. This is certainly a good thing for the sailors. The problem now could be of not treating these lighter boats too favourably versus the genuine racer-cruisers – if we do want to keep a mixed fleet. But perhaps these higher-performance boats will become so popular that in future there will be room to recreate pure racer classes under ORC and split them out...

**SH:** Given a blank sheet of paper, what is your ideal ORC boat?

**MC:** It's not easy to decide where to start. To design a Grand Prix boat, with no compromises to accommodation, but still trying to 'work' the rule is the more exciting approach. But trying to develop a competitive boat from a production design without making a completely different boat is also a nice challenge – for example, our NM38 has a sophisticated construction that allows us to increase performance on the race version by simplifying the interior. With this boat we are also pushing at the possibilities offered by the rule: one NM38 (to be raced by Paolo Cian, *left*) has a huge square-top main and quasi-masthead kites, accepting a higher rating, while Paolo Montefusco's stock NM38 *Rewind* opted for the standard configuration. The rigs will also be different, with Cian's boat rating-optimised with an alloy mast, carbon boom, boomerang spreaders and composite rigging, while *Rewind* has a small-section carbon mast with rod rigging.

The difference in GPH between the two is 625.5 versus 615.1 sec/mi, equivalent to a TMF of 1.037 and 1.022 respectively. But apply the ORC VPP at 14kt TWS and the predicted difference in VMG is just 0.02kt upwind and 0.15kt downwind! We believe this under-prediction in ORC performance is now quite common for the lighter boats... but it may still be preferable to IRC's looser estimation – a trial IRC certificate gave us a TCF of 1.055.

**SH:** What about ORC scoring...

**MC:** Generally in the Mediterranean we race under PCS, with different handicaps for each wind strength. Theoretically the system is clever, but it requires race managers who can use it correctly... The main complaint is that the system is not easy to understand and opens the way to disputes and protests. Like everyone else, I prefer to know the result straight after the finish, like in the good IOR times, and also with IRC.

ORCi does offer a simpler option using just three wind bands; and on balance I think this is probably the best choice.

**SH:** Any predictions on what will happen with the diverse fleet in Cres?

**MC:** I expect the fleet to be divided at a GPH of 600sec/mi. The smaller class is pretty homogeneous, with 37-40ft boats of generally similar racer-cruiser concept. But in the big boat class we have a CBTF 66, a Cookson 50, a very light Felci 50-footer, plus a modified Grand Soleil 56R, a couple of TP52s, GP42s and some smaller but very competitive designs like the GS42R. So a big but very nice 'mess'. However, the lessons we will learn about how the ORCi system performs are going to be very valuable.

*Dobbs Davis* □