

Coming of age

As the ORC's mid-sized box rule approaches its second birthday Dobbs Davis and Danilo Fabbroni take a look at the GP42 Class

The racing debut of the GP42 Class last year sparked a long-overdue exploration of box rule development in a package that is more accessible than the larger and vastly more expensive TP52, yet is almost as fast. In its first year the class launched several new boats from an impressively varied array of designers and builders, all keen to explore the box for the area that would yield the most pace given the mixed racing intended for the class. Early excitement over the speed potential of these boats was quickly realised once racing began in the 2007 season, and the fleet grew apace into two distinct groups: the commercially backed programmes from Spain and the privately owned yachts from Italy and elsewhere.



The class

The generous title sponsorship this year from the Spanish-based clothing company Quebramar has also helped propel activity to the forefront of the Med-based scene, with most class events incorporated into larger established regattas, such as the Copa del Rey, to get maximum media exposure. But unlike the TP52 scene, with container camps, huge RIBs, coaches and the like, the support apparatus for the 42s is decidedly more reasonable, consisting usually of one small RIB and a van. Nevertheless, most teams are now professionally managed and the GP42s are crewed by a healthy sampling of AC, Olympic and World Match Racing Tour talent.

The GP42 class itself is also managed professionally by Paolo Massarini, whose previous job was shore manager for the Mascalzone Latino team in Valencia. Paolo has that delicate yet critical role of being both the defender of class interests with event organisers, yet also deferential to the needs of owners, sponsors, and the media, and is saddled with the unenviable task of trying to keep all these parties happy! And while the class rules are prescribed by ORC, it often falls on Paolo to make calls on what is allowed and not allowed, and up to him to keep nudging owners towards collective yet beneficial decisions on the future of the class.

On this Paolo says, 'The owners in this class get along really well, so it's important to keep that balance of congeniality and competitiveness.' *Roma 02* owner Filippo Faruffini echoes this: 'The competition is just incredible, at a very high level. But

while it's great to try new design ideas with new boats, you don't need one to win – look at [2008 champion] *Desafio*: they are now two years old!'

The designs

Several designers are represented among the 15 boats built so far: Farr Yacht Design, Botín & Carkeek, Reichel-Pugh, Cognit and Felci Yacht Design.

Umberto Felci, who produced Roberto Monti's *Airis*, immaculately built last winter by Decision, was a consultant to ORC in the creation of the new box rule in 2005, and so became very familiar with what should and should not work within the rule when it was introduced a year later. He describes the influences used in the *Airis* design: 'The typology of a GP42 is quite different from an IMS or an IRC design or even a fast cruiser, but the approach needed can be considered similar. In our case we were fortunate to have access to a substantial CFD budget, and this really accelerated development.

'After a statistical analysis of the wind conditions of the venues for the 2008 series we decided to target *Airis* around 12kt true wind speed, with the ability to shift this target up a little by varying our weight configurations. We tried to make a hull that worked for all purposes, avoiding any extreme shapes, a hull that was well-balanced upwind and downwind when VMG sailing especially. Only the appendage package was narrowed down by the 12kt focus, especially taking account of the need to get to target speed quickly after the starts and after tacking.'

According to Jim Schmicker of Farr

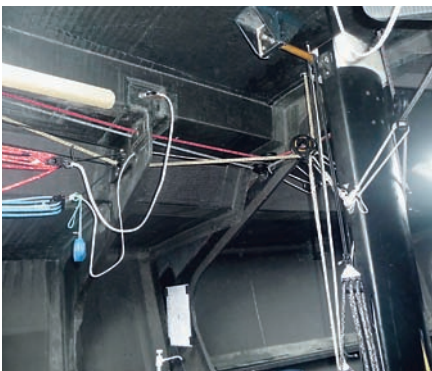
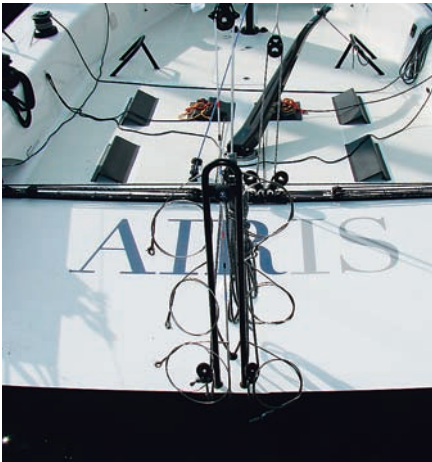
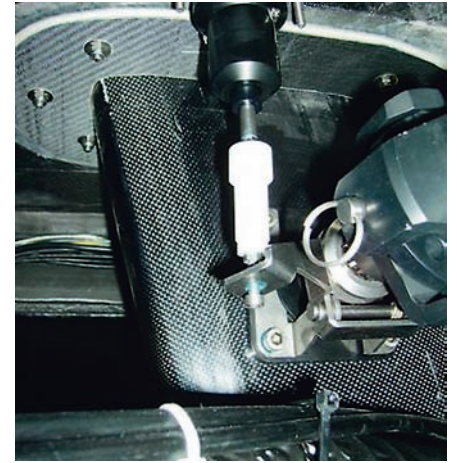
Yacht Design the two newest 2008 Farr designs, *Roma 02* and Franck Noel's *Near-Miss*, two sisterships built at Latini Marine in Rome, were in contrast to *Airis*, optimised for breeze, with stern sections 120mm wider than the first-generation *Roma*, launched in 2006. The build on these two boats was also meticulous in terms of minimum weight, windage and CofG, with both carrying the maximum allowed corrector weight onboard. Sailing on the breezy practice days before the Cascais GP42 regatta, the two Farr designs were clearly class of the field, upwind and down; but in the light they often struggled to hold their lanes upwind against the slippery-looking *Airis*.

Sails

The annual sail limit of two mains, six jibs, one staysail and six kites is generous enough that new ideas can be tested in competition rather than through an exhaustive sail development programme. The limit is also generous enough to strike that critical balance between trying out a few new ideas while still retaining some slots for fresh copies of proven performers. And while most sails in the class still come from North, it is also refreshing to see a variety of other brands represented – Quantum, Banks, One Sails, and *Airis*' Valeria Montefusco – which like the diversity in boats reflects a spectrum of ideas in sail design too.

Spars

Current composite rig suppliers in the class are King Composites, Hall and Southern Spars. Standing rigging except the topmast backstay is limited to Nitronic, so the main



Clockwise from top left: the latest Farr GP42s are characterised by a focus on weight and simplicity, headsail sheeting being via single point eyes which are adjustable vertically, with any rail or barber-hauling done using temporary strops – rarely necessary as this fleet is effectively inshore only; by contrast other designers have retained lateral tracks, similar to the current fashion on the larger TP52s (albeit the bigger boats also race coastal courses). Note also the stepped TP52-style coachroof and the lightweight reaching strut; some of the elegant underdeck machinery for the cross-linked primaries on *Near-Miss* – a double chain inside the latest Harken pedestal allows an instant ‘overboost’ to a 3:1 ratio for rapid trimming of A-sails during gybes... one turn on the handles producing three complete drum rotations; large lightweight custom hatches are steadily replacing conventional foredeck openings to permit faster spinnaker retrievals; *Airis* – the interiors of some of these inshore racers are now mirroring much smaller one designs like Dragons and 6-Metres, with everything led and cascaded internally and even the mast gate position being adjustable on a screw thread in true 505 style! *Airis* features lateral jib tracks plus this full-length mainsheet traveller; while on *Near-Miss* Farr’s focus on weight saving is evidenced by the abbreviated mainsheet traveller track. Note also the angled topmast backstay winches

variations here are in details such as internal jacks, chainplate set-up, partner and butt movement and so on.

Some boats have gone up one size in headstay to -22 from -17 because the newer spars are tending to be much stiffer, and the smaller rod is prone to stretch (the difference is 0.000237mm/1,000kg, but it’s still stretch...). There is also some variation in tip cup details, from adjusting the D2 at its top near the spar, or at the spreader end where there’s more weight and windage but adjustment is slightly easier.

There has also been a recent proposal to go to a retractable bowsprit rather than the conventional pole now used, as the pole is rarely squared more than 1m off the headstay anyway. While a sprit would eliminate at least one crew position on the boat, there is concern among some designers that the change may still be enough to influence boat design and therefore pose a potential risk of rendering some older designs obsolete.

On deck

There is a definite trend towards simplification from the older to the newer boats, with the older in general having more complex and heavier adjustment systems. Take jib tracks, for example: the B&C and Felci boats have an athwartship traveller adjustment apparatus for the jib clew, but the later Farr boats have only a single point that can adjust up and down – a more sensible arrangement given the lack of offshore racing in the class. The mainsheet travellers on some boats also appear over-long for inshore sailing and, by reducing such unnecessary lengths, blocks, padeyes, and other fittings, the Farr boats have shaved valuable kilos off the deck. Being wider in the stern, they are also able to get away with not needing reaching struts for the brace, which saves a few more kilos.

The pit is another area for creative thinking, with some boats having a conventional arrangement of clutch and

winch on the coachroof, while others are able to route their kite halyard to the windward primary. *Airis* has her halyards kept internally, a novel interpretation of a class rule that prohibits all but control lines passing into the coachroof volume.

Foredeck hatches vary from the conventional aluminum-framed hatch to a simple and lightweight composite sliding panel – the former would probably seal out the green water (rare in this fleet) but the latter better accommodates getting the huge kites safely up and down.

At the back of the bus, the new Farr boats have angled bases for the topmast winches so that they can be adjusted more readily from the hiked position. In the middle there are a variety of winch pedestal and drive ratio solutions, with the most aggressive being a Harken AC-style double-chain pedestal with a 3:1 gear ratio output on *Near-Miss*, allowing for faster A-sail gybes. □