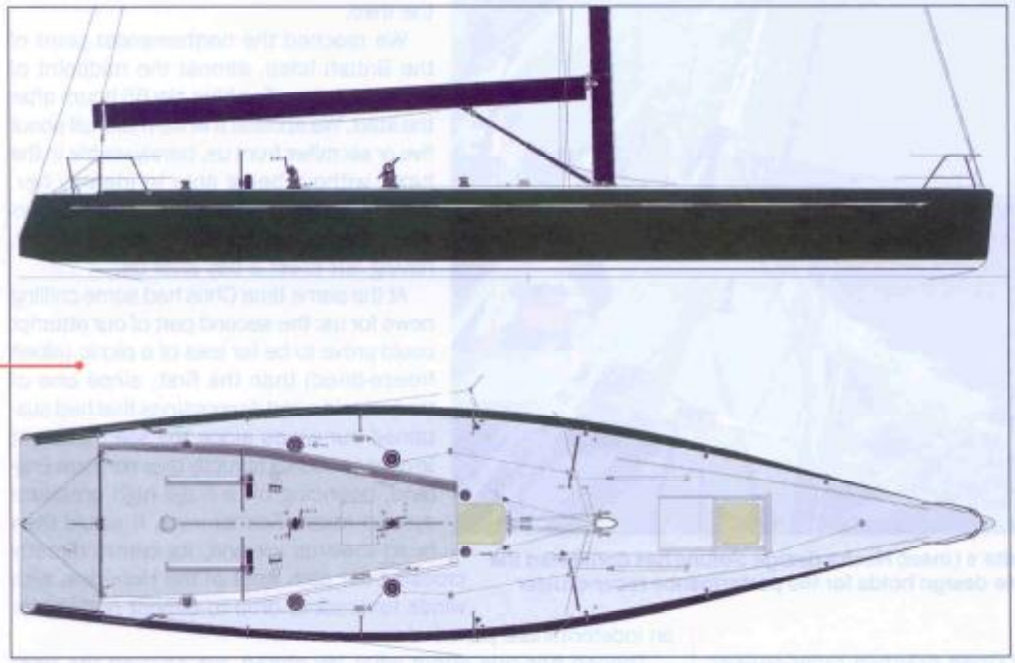
An important commission

After a period of dominance by first Judel-Vrolijk, and more recently by numerous successful Botin & Carkeek designs, the Farr office will be fighting back hard on the Mediterranean IMS circuit in 2004 with its new 56-footer *CAM*. Dobbs Davis talked to design co-ordinator Jim Schmickers



Farr Yacht Design (FYD) was commissioned by CAM (Caja de Ahorros del Mediterráneo) to design a new IMS yacht to meet the demands of the extremely competitive IMS racing circuit in the Mediterranean and to build on the success of their previous 2001 World Champion Farr 51 named *CAM*. Construction has been carried out at Torres in Spain under the direction of Richard Gillies, builder of Oracle BMW's ACC challengers as well as many other top racers, in carbon laminates over a SAN foam core. Female tooling and application of CNC machining methods were used extensively in the building process.

LOA	16.64m
DWL	14.56m
Beam	4.02m
Draft	3.30m
DSPL	13,650kg
Ballast	10,300kg
IM:	22.17m
J:	6.33m
P:	23.49m
E:	8.38m

Jim Schmicker of FYD was design co-ordinator on the project: 'This design is a significant step forward from our past IMS projects. The distinctive hull shape was developed using our extensive suite of research tools combined with a comprehensive knowledge of the IMS rule and its recent changes.

'The resulting hull has powerful ends that will handicap very well, with excellent performance in the relatively flat water of the Mediterranean. The stern is long for optimal speed in the heeled condition, yet still maintains the overall balance of the hull as heel angle increases. The straight and level sheer shape and height have been tailored to get the maximum advantage from recent changes in the IMS. The topsides sport the maximum permitted tumblehome giving the boat a curiously distinctive appearance.

'The deck geometry starts with a moderate camber that carries its curvature relatively far outboard. This outboard loaded camber shape is combined with a large sheer radius to soften the edge of the deck and improve upwind aerodynamics.'

For this new design the runnerless rig plan has a bigger fore triangle and smaller mainsail in keeping with changes to the 2004 IMS rule. A tall spar carries ample sail area to promote good speed off crowded starting lines and on the all-important first windward leg. The rig is two-spreader, 7/8th style fractional in carbon with swept spreaders and non-overlapping headsail, while the spreader envelope has been widened relative to the deck beam to reduce overall loading. This combination of curved spreaders and diagonals located well aft maximises jib LPs.

According to Schmickers, '*CAM*'s appendages are designed to achieve the correct balance between their size, rig size and keel weight while ensuring the keel, rudder and hull always operate well together.

'Appendage area is generous (as is currently typical under IMS) allowing a correspondingly large sailplan for good acceleration off the starting line. And for different venues, the keel is designed to permit quick changes in the amount of weight carried within it and hence in the stability of the boat.'

The interior is typical, modern-day IMS racer in style, meeting the minimum IMS interior regulations and providing clear, open space for storing sails. The bunk arrangement includes two mandatory 'hard' bottom berths as well as the two required 'soft' bottom berths. Additional bunks may be added in different configurations to suit various venues.

An interesting aspect of the interior is the ability to position crew below in 'hiking seats' where they will produce an equal if not higher righting moment than crew on the rail [*tell that to the helmsman – ed.*]. These seats are effectively angled benches that allow three crewmembers to sit comfortably (sic) on the windward side, which should also be helpful when packing sails.

On deck the cockpit is shaped to suit the narrow deck beam while keeping the helmsman positioned as far outboard as possible. The edge of the working deck is truncated aft, behind the afterguard, to shorten the required lifeline surround. Pedestal grinders are positioned for maximum efficiency at both primary and mainsheet winches. All of the principal trimmer's control lines are led aft for easy adjustment. Topmast backstay winches are positioned aft of the helmsman and outboard for easy adjustment by the afterguard. ❐