



THE AEROY

THE WORLD'S MOST INNO



ACHT® 110

VATIVE SUPER CATAMARAN

Aeroyacht® 110



MULTIHULL PASSIONATE AND EXPERT GREGOR TARJAN, FOUNDER OF AEROYACHT INTERNATIONAL, AND renowned designer Pete Melvin sat down together to think about what their dream luxury catamaran would be. They came out with many innovative solutions, some of them never seen on a multihull of that size. Previous innovations include the Icon A5 amphibian plane 'tender', the reverse bows, the competition wing-rig, the semi-flybridge ... Let's complete the list to show how well the Aeroyacht 110 concept was thought out.

An 'Outside-In' design process

MOST OF THE TIME yachts are designed the other way around. Large multihulls are loaded with equipment, staterooms and end up with two or three decks. Gregor says: "We first have conceptualised a pure sailing machine with a beautiful streamlined shape and then estimated the weight for a high-end, open plan luxury interior. Instead of fitting six small staterooms we prefer to offer our clients three large VIP suites in a fast sailing machine."

'Soft-chine' hulls

Multiple Chines hull can be seen on racing sailboats, fast motor yachts and tenders. They increase the yacht structure stiffness, stability, performance thanks to less wetted surface, and improve aesthetics. On the top of that Morrelli and Melvin have applied all their knowledge in fast hulls and bows out of the water design. The entire forward section of the Aeroyacht 110 hulls are forced up and will come out of the water keeping resistance to a minimum and increasing surfing capabilities.

Asymmetric dagger boards

They are seen on smaller size catamarans but never before on a 110 footer. Retractable dagger boards increase windward performance and safety at sea. In the downward position, they enable the Aeroyacht 110 to sail close to the wind. In the upward position, the boat experiences less resistance and really 'flies'. The asymmetric boards also prevent the Aeroyacht 110 from tripping over the waves since the yacht offers no resistance and can slide sideways. They are also a great feature to reduce the

draft and access really beautiful and private anchorages.

Aeronautical engineering

The design team in charge of the Aeroyacht 110 at Morrelli & Melvin is made up of aeronautical engineers and structural designers. They have made the most out of the same tools used to develop aircraft structures like complex computer programs that model Computational Fluid Dynamics (CFD) and Finite Elements Method (FEM). They succeeded in keeping the structure as light as possible, yet strong enough to face the roughest sailing conditions.

All these innovations were aimed at creating a super catamaran with a speed potential of over 32kts and effortless cruising at 20kts, in supreme yacht comfort and safety.

Gregor Tarjan

Gregor has sailed more than 80,000 miles on multihulls and monohulls, crewed with such luminaries as Dennis Conner and Yves Parlier on boats ranging from America's Cup yachts to 120' monster cats. His professional background includes a degree in Yacht Design and a career as a project manager for builders of large yachts. His 300 page best-selling book *Catamarans* is an industry reference and he is about to publish a second book titled: *Catamarans Tomorrow's Superyachts*. As a USCG-licensed captain, merchant marine officer and member of the Society of Naval Architects and Marine Engineers he is the author of numerous technical and seamanship articles. Top publishers such as McGraw Hill Companies consider him one of the world's leading experts on

catamarans. Gregor is also founder and president of Aeroyacht Ltd, an internationally recognised brokerage specialising in cruising multihulls and large luxury catamarans.

Morrelli & Melvin Design and Engineering Inc

Pete Melvin is the engineering partner in the renown US design firm of Morrelli & Melvin who designed landmark catamarans such as the America's Cup's only catamaran *Stars and Stripes* and Steve Fosset's record breaking monster catamaran *Playstation*. Holding a degree in Aerospace Engineering Pete designed aircraft at McDonnell Douglas for five years before forming Morrelli & Melvin in 1992. He has been a champion sailboat racer since his youth and has won over 25 National Championships in a wide



PRELIMINARY SPECIFICATIONS:

LOA	110.05ft / 33.55m
LWL	106.7ft / 32.52
BEAM	44.04ft / 13.68m
Draft minimum	6.4ft / 1.98m
Draft maximum	12.8ft / 3.98m
Rig	Sloop Maxi Cat racing – carbon rotating wing mast and Park Avenue style boom
Total sail area	7720ft ² / 717.71m ²
Furling systems	Reckman
Displacement	54.5 T – 120,000lbs
Engines	2x330–440hp–YANMAR 6LY or FIAT N60 400
Propeller	3 blades feathering type, 24in / 60.9cm
Speed (max/cruise)	18kt max, 15kt cruise
Fuel capacity	2 x 425 US Gal – 2 x 1610.75
Range	1200nm at 12kts
Bow thrusters	none
Generator	2 x 20 - 30Kw – 60Hz - MASTERVOLT
Watermakers	(2) Spectra
Freshwater capacity	2 x 275 US Gal - 2 x 1042.25l
Grey/Black water capacity	2x200 US Gal Gal – 2 x 758 l
Owner and guests	6
Crew	4
Tenders	16' Tender and/or Icon A5 amphibian sports-plane
Paint Awlgrip	custom metallic
Construction	Carbon/Kevlar
Classification	ABS, MCA and Bureau Veritas
Design & Conception	Gregor Tarjan, SNAME
Naval architecture	Morrelli and Melvin Design and Engineering Inc
Interior designer	Vincent Duchatelet
Builder Licensed Builders are:	CNB - Bordeaux, France, Lyman Morse Yacht builders - Maine USA or Goetz Marine Custom Builders - Rhode Island, USA



variety of dinghies, keel boats, and multihulls of all sizes. He has won three World Championships in the A Class Catamaran and competed in the 1988 Tornado Olympics. Pete also sails on larger multihulls such as the 125' *PlayStation* and 60' trimarans. He has been a crew member on five WSSRC sanctioned World Records.

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