



AEROYACHT CONCEPT & DESIGN BRIEF:

Conceived from the ground up the advanced Aeroyacht 110' luxury catamaran is today's most innovative performance yacht. As one of the largest composite catamarans in the world she is the first model and part of a sleek, new range (A95', A110' and A125') representing the ultimate high-performance, supremely styled - 21'st century world traveler.

Designed by Gregor Tarjan - founder and president of Aeroyacht in collaboration with the renown multihull-naval-architect team of Morrelli & Melvin and Paul "Whirly" Van Dyke of Steve Fossett's "Playstation" fame, the 35 knot capable Aeroyacht 110' luxury catamaran characterizes the "next generation" of high-performance sailing vessels. No compromise has been made to create the fastest and most beautiful yacht afloat. The international press calls the A110' the "Wally" of catamarans as her striking styling and a top class finish set her apart from the crowd. Recently voted by French magazine Design @ Home - famed designer Ora-Ito's all-time favorite boat is our own Aeroyacht 110 catamaran.

Special emphasis on self sufficiency and ecological consciousness has been incorporated into conceiving this landmark vessel. A huge array of deck mounted solar panels, optional wind turbines and environmentally friendly building materials have been utilized to make this ultra-luxury yacht in tune with our times.

One of the most unique features of this super-shallow-draft cat is the fact that as part of the optional equipment, the A110 can be equipped with a personal exploration airplane. The 2 seater Icon-A5 amphibian sports-plane can be housed across a specially built aft beam platform and be used for sightseeing, shuttling guests to the yacht or in case of medical emergencies. Aeroyacht's innovations include many firsts in the world of luxury catamarans such as a Grand Prix style performance rig, semi-flybridge-style twin cockpits, hammerhead -reverse bows and an optional Traxon light wall system.

AEROYACHT INNOVATION CENTRE:

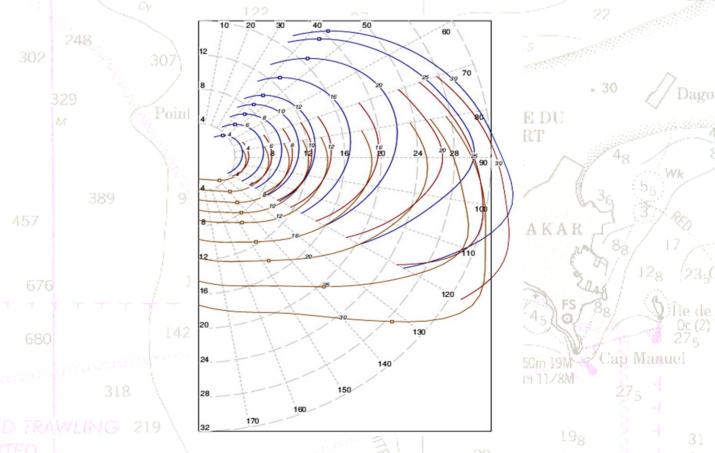
- -NASA inspired structural FEA engineering yielding the strongest possible composite
- solar roof for vessel autonomy with optional twin wind turbines hidden in fwd. deck arms) A K A
- CFD design (Computational Fluid Dynamic design) applied to main and headsail shapes
- competition Grand Prix wing-rig providing optimum efficiency and performance
- NORTH design square-top America's Cup style main sail
- race inspired asymmetric dagger boards for supreme speed
- aft center of gravity design effectively lifting the bows out of the water
- reverse "Hammerhead Style" bows preventing down-force and pitch reduction
- carbon shrouds providing stronger and lighter staying of mast
- smart weight management concept of centering heavy items such as tanks and engines



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- "open plan" ergonomics designed around a flexible and client orientated space management system 194
- unobstructed 58'x28' open plan "gallery-passage" from cockpit to forward loggia with all teak soles on one level
- modular mold construction for high quality, cost efficient production
- 36" draft for restrictive harbor access and safety
- low profile "semi-fly" bridge for supreme vessel command and esthetics
- fold-down low-profile instrument pods on fly-bridge
- "beach-club" platforms aft which fold outboard out of hull-transoms
- Paparazzi safe "privacy loggia" keeps guests away from cameras
- specially designed hatch-modules for both intake and exhaust air-circulation
- Kevlar/Carbon composite yields bulletproof hulls with optional full armor "safe room"
- retrieval and deployment of optional ICON A5, a twin-seat amphibian aircraft from aft deck via boom lift
- an optional "spa-bar" (jacuzzi/cocktail bar) is situated in the forward loggia
- removable entertainment/pop-up TV cabinet module in saloon
- optional push button Lantic system controlling entertainment, cabin and on-board information
- optional Traxon creative LED light system walls to modulate color shades and render saloon windows and walls opaque and change from "family" mood to "night club" mode





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AEROYACHT 110 CATAMARAN - PRELIMINARY CONSTRUCTION SPECIFICATIONS

A. HULL AND DECK

- 1. Composite sandwich construction, post-cured in oven, for maximum strength
- 2. Vacuum-bagged, epoxy, Nomex/foam sandwich construction with carbon fiber/biaxial fiber E-glass/Kevlar hybrid outer skins, and carbon fiber inner skins.
- 3. Additional reinforcing in highly loaded areas
- 4. Kevlar impact laminate on hull bottoms
- 5. Carbon fiber/Nomex honeycomb bulkheads and internal structures 146
- 6. Carbon fiber crossbeams, pelican striker and longeron
- 7. Sacrificial foam and biaxial glass 'false' bow and forefoot in case of impact
- 8. Watertight bulkheads to seal off bow and stern compartments
- 9. Additional water tight compartments in each hull
- 10. Structural composite hull soles to save weight and add stiffness
- 11. Kevlar impact strapping laminated around daggerboard trunks and rudder bearings for impact absorption
- 12. Daggerboards with carbon structural beam and Kevlar reinforced leading edges
- 13. Carbon fiber chain plates
- 14. Lifting platform for tender storage
- 15. Spacious aft deck cockpit with tackle storage, dining and lounge areas.
- 16. Molded cockpit seats with overboard draining storage beneath for propane and spare gas tank storage
- 17. Cockpit cushions reticulated foam with Sunbrella covers
- 18. 2 x 60 " swim ladders
- 19. Molded transom steps with lockers for snorkels, fins and swim ladders
- 20. Dual upper steering and sail handling cockpits
- 21. Wheels with double wide padded helm seats. Covers for electronics consoles.
- 22. Integrated line storage adjacent to cockpit winches
- 23. Conduits to lead lines from mast and bow aft under deck to helm stations or aft cockpits
- 24. Cockpits self draining
- 25. Positive traction nonskid on deck surface. 6-8mm teak in aft cockpit and transom stairs.
- 26. Flush deck hatches like Lewmar, Marten Marine, Rondal, or custom construction
- 27. Lewmar size 44 escape hatches in hull sides (4)
- 28. AES 1000 mm fiberglass race stanchions with Spectra lifelines
- 29. Loggia deck and seating forward of mast
- 30. Linear polyurethane coating system on hulls and decks
- 31. 3 coats ablative anti-fouling paint system

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Running Rigging

- 1. Control lines led to P&S upper helm cockpits
- 2. High modulus fiber running rigging including:
- 3. Hydraulic mainsheet system
- 4. Hydraulic traveler system
- 5. Reef Lines (3) lead to upper helm winches
- 6. Self tacking jib sheet lead to upper helm cockpits
- 7. Reacher and asymmetrical spinnaker sheets (2) lead to aft working cockpits
- 8. Main halyard lead to upper helm winch
- 9. Jib halyard lead to upper helm winch
- 10. 2:1 Reacher halyard with lock lead to upper helm winch

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- 11. 1:1 Spinnaker halyard lead to upper helm winch
- 12. 2:1 Staysail halyard with lock lead to upper helm winch
- 13. Reacher/spinnaker tack line lead to forward beam
- 14. Daggerboard control lines lead to aft working cockpits
- 15. Lashings for all blocks in lieu of shackles where possible
- C. DECK HARDWARE Deck layout optimized for shorthanded sailing
- 1. 4 x aluminum 3 speed Harken TBD hydraulic self-tailing winches with button controls for all lines on mast
- 2. 4 x aluminum 2 speed TBD hydraulic winches for Reacher and Spinnaker sheets and other control lines in aft working cockpit, inboard and outboard side
- 3. 10 " aluminum winch handles with holders (4 forward, 4 aft)
- 4. Locks on mast for:
- a) Main halyard
- b) Jib halyard
- c) Reacher halyard
- d) Staysail halyard
- 5. Spinlock clutches for:
- a) 1 Jib sheet
- b) 1 jib traveler control
- c) 1 spinnaker halyard
- d) 4 daggerboard controls
- e) 5 davits control lines
- 6. Mainsheet system: TBD hydraulic ram inside boom
- 7. Self-tacking 4:1 jib sheet system consisting of:
- a) Curved jib track
- b) Harken ball bearing traveler car
- c) Harken blocks on traveler car
- d) Sheet leads from 2:1 off car to clew, up to mast sheave, then internally to single block, splitting P&S down to mast base, lead aft to upper helm cockpits to Spinlock clutch and then to winch
- 8. Reacher and Spinnaker sheets lead to aft turning blocks to outboard aft cockpit winches
- 9. Spectra knotless forward trampolines, with Spectra border line, lashed individually every 6" for maximum safety
- 10. Provision for second dinghy storage on forward trampoline (or custom fit under forward longeron)
- 11. Four mooring cleats distributed along hull length, port and starboard sides



D. DOCKING AND ANCHORING

- 1. 6 x 70 ' X 1.25 " Mega Braid dock lines
- 2. 12 " X 36 " fenders (inflatable 18 " X 60 " fenders optional)
- 3. 2 anchors -TBD to MCA specifications
- 4. Anchor rodes: TBD to MCA specifications
- 5. Bridle for anchor or mooring lines
- 6. Anchor rollers, one under forward beam and conduit at forward end of deck, and one on top of forward beam on opposite side of forestay
- 7. TBD windlass system mounted in forward under wing compartment; integral anchor rode conduit and roller
- 8. Rope/chain automatic gypsy sized for G4 chain and 3-strand nylon anchor rode
- 9. Optional hydraulic bow thruster TBD Maxpower or equivalent

E. SAILS - All sails designed and built by North Sails or owners ' choice

- 1. Main fully battened Spectra-Carbon, North Marathon 3DL, or equivalent. 3 reef points with Harken, Antal, or Ronstan battcar system, custom sail cover.
- 2. Solent Roller furling with battens parallel to luff.
- 3. Reacher Torsional internal forestay with furling system, attached to sprit
- 4. Staysail/Storm jib set on integral torsional stay with furler system lie de You
- 5. Asymmetrical nylon spinnaker to be tacked to end of longeron (sprit) for reaching, and tacked to windward bow for downwind passages.

F. PROPULSION - to MCA class

- 1. 2 approx 300 440 hp diesels. Yanmar 6LY or Fiat N60 400
- 2. 2 standard reduction gears, counter rotating
- 3. Bruntons or equivalent 4-blade folding props for minimum drag
- 4. Electronic display tachometer, fuel, hours, temperature, oil pressure, amp gauges
- 5. Gear box alarm, pre-warning
- 6. Water temperature and oil pressure audio alarms
- 7. Morse type engine throttle control/gear shift control head mounted at P&S helm stations. Twin Disc or ZF electronic controls
- 8. Engine room ventilation blower with 4 " ventilation hoses to MCA regulations
- 9. Engine silencer muffler

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- 10. Intake air ducting sound insulation
- 11. Oil changers plumbed for engine and transmission in each engine room
- 12. 2 x 425 gallon epoxy diesel fuel tanks integral in hull with cleanout ports and baffles every 16 "
- 13. 2 dual Racor turbine fuel and water separators w/changeover valve for fuel system
- 14. Fuel gauge and shut-off valve on fuel tanks
- 15. Sound proofing on forward bulkhead and decks
- 16. Fire proofing to MCA regulations
- 17. Automatic fire extinguishing system
- 18. Double seawater filtration system

G. STEERING

- 1. Lewmar "Mamba" mechanical steering
- 2. 900-910mm Edson or equivalent carbon fiber race boat steering wheels
- 3. Spade rudders with carbon fiber stocks. JP3 or Jefa rudder bearings. Watertight bearing tube with shelf well above waterline.

H. ELECTRICAL - 24V DC, 220V/50Hz AC

- 1. 16 x 80 watt Shell or equiv. solar panels covering entire roof _____ lie de Yol
- 2. 2 x 20 30 KW, 230VAC/50 hz Mastervolt generators with controller. Sized to be able to run air conditioning, lighting, and galley appliances continuously. Generators located in starboard and port engine rooms. Installed per MCA regulations.
- 3. 2 high output Amp 200 amp alternators
- 4. 2000Ah @ 24VDC Lithium Iron Phosphate battery system located TBD
- 5. 2 AGM starting batteries located in engine rooms
- 6. Electrical monitoring system
- 7. Battery charge regulator
- 8. Battery charger, to supply maximum allowable charge current to batteries
- 9. 120VAC shore power with isolation transformer, AC outlets, and 50 amp shore cable
- 10. 4000 W charger/ inverter such as Victron Multi Plus or Xantrex-Trace
- 11. 230VAC deck inlet
- 12. Bonding system designed to ABYC regulation E-1
- 13. Propane electric solenoid switch
- 14. Propane solenoid warning light in galley with separate breaker on panel
- 15. Overhead red/white dome lights in engine rooms, bow lockers, and rudder compartments



J. PLUMBING AND TANKS

- 1. 2 x 275 gallon epoxy water tanks built integral to the hull, 7 coats FDA approved food grade epoxy coatings
- 2. 2 water makers. 120VAC, 75 gph each
- 3. Hot and cold pressure water system in each hull
- 4. Insulated piping for hot water
- 5. Charcoal filter system on each water circuit
- 6. Hot and cold pressure shower in port transom
- 7. 2 -30 gallon stainless steel hot water heaters w/230VAC and engine transfer
- 8. 2 fresh water system pumps to MCA specifications
- 9. Accumulator tanks
- 10. Tank level monitors tank levels for 2 water tanks and 2 fuel tanks
- 11. Fresh and salt water wash down for decks, anchor rode, and windlass
- 12. Electric bilge pumps in engine rooms to MCA specifications
- 13. Electric bilge pumps in other watertight compartments
- 14. Titan manual through-deck pumps in collision spaces to MCA specifications
- 15. Edson portable emergency bilge pump to MCA specifications
- 16. All sanitation hose odor resistant
- 17. All flush mounted thru-hull fittings below waterline
- 18. All seacocks labeled with tags
- 19. All plumbing hoses are double clamped below waterline
- 20. US approved black water holding tanks 3 x 100 gallons with gauges and sound alarms.
- 21. Black water tank drains by macerator pump to sea or by deck pump out.
- 22. Black water vents with charcoal filters
- 23. Shower sumps with electric pump out overboard or to grey water tanks
- 24. US approved grey water tanks 2 x 60 gallons

K. AIR CONDITIONING AND HEATING

- 1. Water chilled reversible A/C system, bi-compressor distributed throughout boat with independent air handlers.
- 2. Approximately 250,000 BTU 's total
- 3. Two independent compressors
- Diesel fired heaters

L. FIREFIGHTING SYSTEMS TO MCA REGULATIONS

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M. SAFETY EQUIPMENT TO MCA REGULATIONS

N. INTERIOR

To customers style requirements. Interior surfaces to be made from light weight materials such as honeycomb and foam cores and light weight facing materials, finished with paint or veneers where possible. Every attempt shall be made to use existing structural surfaces for final finished surface, and avoid adding additional layers of material or liners. Conduits will be placed in cabin top laminate and under wing laminate for routing of wires and other systems, negating the need for a headliner system or a secondary sole surface in the main salon and cockpit.

1. Bridge Deck Saloon (see GA drawings)

- a) Modern, light color wood and minimalist interior design.
- b) Generous settees and dining table/banquet
- c) Powder room with WC and lavatory on port side aft of settee
- d) Custom electrical panel
- e) Overhead halogen lighting throughout; LED mood lighting along companionway stairs
- f) Sliding carbon fiber framed doors to aft deck
- g) Opening sidelights on aft saloon bulkhead
- h) Cockpit refrigerator
- i) Companionway access to hulls with pivoting steps to allow access to escape hatches beneath
- i) DC outlets for portable electronic devices
- k) 360° view through large, grey acrylic windows
- 1) Solarsolve UV sunshield blinds or mesh window coverings
- m) Storage for DVD 's
- n) Wine cooler and icemaker in bar
- o) Bookshelves 389
- p) Navigation and helm station with space for electronics, ergonomic leather seat, and chart drawers
- q) Sliding carbon fiber framed doors to forward loggia with provision for storm shutters

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- r) Entertainment system with:
- s) CD
- t) DVD
- u) radio tuner
- v) 65 " HD Panasonic plasma TV
- w) 3D surround sound in salon and cockpit

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2. Galley (see GA drawings) In starboard hull aft

- a) 5 burner stainless steel stove (3 gas hobs, 2 electric hobs) with thermostat, oven, stainless safety bar, stainless steel hood and extractor fans
- b) 4 20# aluminum propane bottles in cockpit propane locker connected through solenoid shutoff switch
- c) Microwave oven
- d) Propane control and detector
- e) Ample storage cabinets above and below counters
- f) Corian or SS counters
- g) Double stainless steel sink with pull out spray faucet
- h) Built-in refrigerator and freezer heavily insulated, with conventional evaporators
- i) 2000 litre deep freeze, 750 litre refrigerator
- j) 2 Hella two-speed turbo fans
- k) Dishwasher
- 1) Washer and dryer individual units
- m) Crew lounge table and seating
- n) Pantry storage
- o) 2 AC outlets
- 3. Forward Staterooms Starboard and Port
- a) Twin berths with drawers under
- b) Center night stand/ storage cabinet
- c) Halogen lamps
- d) Floor to ceiling storage lockers
- e) Small desk inboard with drawers and chair
- f) 2 Hella two speed turbo fans
- g) Ensuite head with separate shower
- h) 1 AC outlet
- i) Clothes and towel hooks
- j) Mosquito screen on all opening ports
- k) Wiring for sound system and HDTV
- I) Flat panel TV and DVD

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4. Forward Stateroom Heads - Starboard and Port

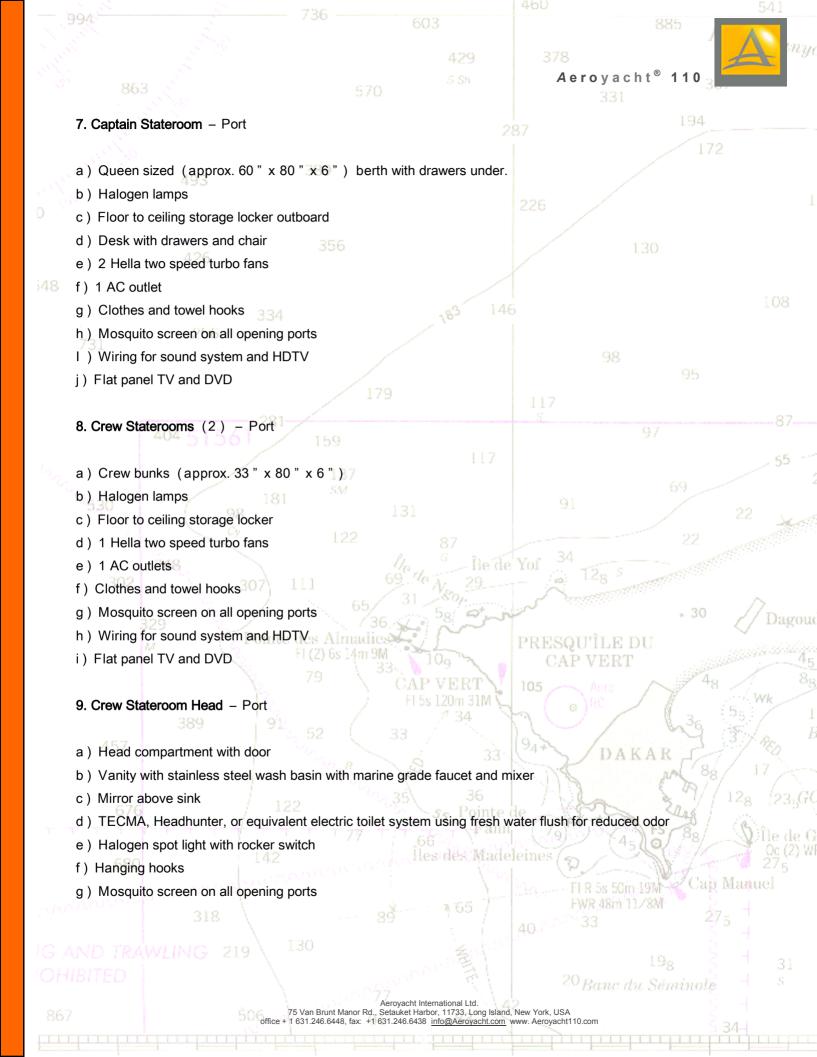
- a) Head compartment with door
- b) Vanity with stainless steel wash basins and marine grade faucet and mixer
- c) Mirror above sink
- d) TECMA, Headhunter, or equivalent electric toilet system using fresh water flush for reduced odor
- e) Separate standup shower compartment with
- f) Halogen spot light with rocker switch
- g) Wall mounted shower with marine grade mixer and thermostat valve 6
- h) Shower drain with strainer
- I) Hanging hooks

5. Aft Staterooms - Starboard and Port

- a) Approx. 71 " x 81 " x 6" berths with 3 sided access and drawers under.
- b) Halogen lamps
- c) Floor to ceiling storage lockers
- d) 2 Hella two speed turbo fans
- e) Ensuite head with separate shower
- f) 1 AC outlet 48
- g) Clothes and towel hooks
- h) Mosquito screen on all opening ports
- i) Wiring for sound system and HDTV
- j) Flat panel TV and DVD
- k) Phonic insulation on aft bulkheads

6. Aft Guest Stateroom Heads – Starboard and Port

- a) Head compartment with door
- b) Vanity with stainless steel wash basins and marine grade faucet and mixer
- c) Mirror above sink
- d) TECMA, Headhunter, or equivalent electric toilet system using fresh water flush for reduced odor
- e) Separate standup shower compartment
- f) Halogen spot light with rocker switch
- g) Wall mounted shower with marine grade mixer and thermostat valve
- h) Shower drain with strainer
- i) Hanging hooks



- a) Enormous watertight storage rooms in bows for sails, hoses, fenders, windsurfers, surfboards, etc.
- b) 2 anodized aluminum ladders mounted to bulkhead and floor
- c) 2 Lewmar size 70 hatches

13. Aft Cockpit Furnishings and Equipment

- a) Cockpit cushions with comfort cell foam
- b) b) Aft railing fitted with two fishing rod holders

O. OPTIONAL EQUIPMENT

- a.) ICON A5-amphibian aircraft (2 seat sports plane)
- b.) Jacuzzi with waterfall/ wet-bar in forward loggia
- c.) Maximum security "safe-room"
- d.) Twin air-generators located in lockers (port and starboard of forward loggia)
- e.) Push-button command system by LANTIC controlling entertainment, cabin and on-board information.

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Note: document subject to change and non-contractual.