

The following are our original requirements as defined for Carl Schumacher in 1994. Carl's insights and consultation resulted in the quest for the optimum catamaran design (whereas we started out on this project thinking 50-ish monohull). Carl lead us to select Morrelli & Melvin as Naval Architects.

Crew Size

1. Couple (+ autopilot)
2. Luxury accomodations for 2 guests + 2 crew or children

Safety

1. Collision survivability (containers, deadheads, ...)
2. Watertight integrity under breaking seas or rollovers
3. See - Anchoring Package
4. See - Drag Devices
5. Well behaved steering characteristics
 - E.g., quartering seas
 - E.g., autopilot can handle severe sea state
6. The boat must be able to "take care of herself" if the crew is exhausted or injured
7. Working on deck
 - Clear deck routes with clean jackline leads
 - Should never have to leave a real handhold
 - Nothing underfoot
8. MOB recovery "easy" in big seas
9. Reliability
 - Steering system
 - See - Sail Handling
 - Electrical system & engine still OK with water over the floors
 - Damage control pumping capacity
10. Everything stays safely in place when capsized
11. Minimum thru-hulls below the waterline
12. No fire (flammables storage, plumbing, etc.)
13. Draft shallow enough to access safe anchorages
14. Lightning strikes handled without major problems
15. Warm, rested crew makes fewer (big) mistakes

Anchoring package

1. Safe on the primary anchor in 60' over most bottoms
2. 100.00% reliable up/down - no chain wars!
3. Practical anchor up if power windlass fails
4. Practical washdown of incoming chain & rode

Drag Devices

1. For both parachute sea anchor and serial drogue systems:
2. Simple, easy rigging and deployment from purpose-designed storage (similarly for retrieval)
3. Easy adjustment of scope on sea anchor
4. Properly engineered bridle attachment point and fairleads - minimum chafing problems

Maintainability

1. Direct access to all systems
 - We are happy to do PM and repairs - but NOT upside down & sweaty
 - No disassembly required to allow access for normal maintenance & repairs
 - No engine/systems projects in the living quarters
2. Safe grounding on a tidal grid

Sail Handling

1. See - Crew Size
2. Failure of any sail handling aids must not compromise safety
3. Max weight of any bag we have to haul around is XX (= 75?) except light air sails
4. Removable staysail stay or bullet-proof method for changing down to storm jib

Under Power

1. Really good maneuverability, esp w/ unfavorable wind, backs down "straight" at less than hull-speed
2. Powering range
 - 1500+nm flat seas at 1.0 times Speed-to-length
 - 500+nm upwind in 20kn breeze at .80 times Speed-to-length
3. Truly quiet, no-vibration, no-stink powering

Comfort-Livability

1. We really don't like living in a cave
2. Ventilation
 - No "mildew cows" anywhere in the boat
 - Good airflow in the rain and/or with green water on deck
3. Warm, dry in the north
4. Cool, dry in the south
5. Protected, comfortable watch standing/steering. Sure would like to be able to navigate/pilot from a pilot house configuration.
6. Hot freshwater showers daily
7. Wet weather gear - practical place to hang and to dress
8. Space, amp-hours, charging capacity for the "essential life-support"
 - Fridge, freezer, microwave, A/C
 - Compact washer/dryer
 - Where it's safe to do so, the boat can be left for a week on DC only to support refrigeration
9. Insects - effective screening allowing quick hatch adjustments (rain squalls, etc.)
10. Effective office utilization of the nav station (computer, printer, filing, etc.)

Storage

1. Adequate direct-access daily frequency storage + the weekly, monthly locations
2. Proper ventilation in all storage areas
3. SCUBA tanks - easy deployment

Performance

1. Realistic 200 mile days
2. Excellent upwind performance

Tender

1. Realistic capacity - 4 adults
2. Easy launch/retrieve - both tender and either of large/small outboards
3. Safe and "easy" to handle in seas and surf
4. Speed/range for exploring, commuting
5. Adaptable for skiing(!)