

Catamarans ^{Cats} Catamarangs Multihulls

..... whatever you like to call them, catamarans are here to stay.



Now earning their super-yacht status coining the new phrase Super Cats with huge examples built by Sunreef yachts and Blue Coast Yachts up to 200 ft, now with Isara Yachts also producing ultimate luxury cruising catamarans, both monohull and motor yacht owners are starting to turn their heads!



Converting from power to sail?

Converting from power to sail and enjoying the massive savings in economy with a sailing boat has never been so easy, with the "one bit of string to pull" concept becoming a reality.

A Catamaran is a real motor sailor and most monohull motor sailors are neither one thing nor the other, normally being real "plodders" quite slow under sail and equally slow under power.

A catamaran however represents the best of both worlds and will normally produce around the 10 knot range under power with much smaller engines, also having a much greater range.

Under sail, that's a different story too with impressive performance far outstripping a normal motor sailor.

The reasons many power boat owners are attracted to the sailing catamarans are they are in fact a great motor sailor, and some of their owners have never even hoisted the main!

Of course, if the stick is just for show and the sails stay in the bag that's up to you but with electric winches, in boom furling systems and self tacking gib, it really can be just that one bit of string to pull!

Then there are of course power cats, sleek fast coastal cruisers or trawler style catamarans offering the incredible fuel economy in comparison to a conventional hull, without the rolling motion.



Why a catamaran?

Those that own a catamaran already do not need convincing that cats are the only way to go! Most diehard monohull sailors find it difficult to step on board a cat out of principle, without having an open mind, but most drift reluctantly over as it is the only way to get their partner out sailing with them.

Once hooked the compromise was not so difficult to bear.

It is a known fact, that very rarely will anyone who has converted to a catamaran from a monohull will ever go back to buying a monohull.

Sure, the same old objections about catamarans come up on a regular basis. Before you stand on a catamaran in front of the salesman at a boat show with the glazed look in his eyes, who is thinking "not that old chestnut" and come up with a comment linked to the "famous five" below:

1. Catamarans capsize.
2. You don't get the feel on the helm that you get with a monohull.
3. The cost of moorings is double.
4. And of course catamarans do not point well to windward.
5. They slam in big seas under the bridge deck.
6. **There isn't a 6!**

A lot of these opinions that were true to a point many years ago are based on outdated information, still haunt Multihulls to this day.

These days cruising catamarans with modern designs have well ironed out these issues beside the marina fees, but the mud has stuck unfortunately with many believing this nonsense to be the case and blindly follow like a flock of sheep the advice of a monohull sailor they met down the pub!

I, as many people have had a lot of fun on monohulls and still do, but if I get back on one these days unless it is 60ft +, I feel like I am camping!



Let's address some of these concerns, fables and take a good hard look at the advantages that a catamaran hull can offer.

1: Catamarans CAPSIZE let's take some time and get that first one out of the way first right now!

Yes, they are right, catamarans capsize, that's right they do; beach cats go over on a regular basis. So do a few racing catamarans, pushing themselves right to

their limits with too much sail area fully up in conditions to extreme to be sensible!

This is a genuine fear in people looking into catamarans for the first time, so this concern must be taken care of.

I would rather trust my life and my family on a catamaran for the following reasons. A catamaran is like a stable platform, upside down or the right way up at least it is afloat as most catamarans are unsinkable. It makes a great target from the air in any search with a good EPIRB being set off there is a much better chance of being found.

There have been several accounts of people in survival conditions having been rescued by the Coast Guard helicopter from their catamaran, which has later been found afloat when the weather has calmed down and have been able to continue their journey.

The thing is when a cat goes over there is always something to photograph with the whole crew clinging to the upturned hull waiting to be rescued. Now let's make a dramatic point here, at least there is something to photograph, meaning, how many monohulls have hit a submerged object and knocked their keel off and capsized, (remember Tony Bullymore) or worse still knock a hole in the boat no bigger than your fist, in most monohulls, there is only one way you are going and that's down!



Modern cruising catamarans would be almost impossible to capsize, but if you tried hard enough in the right conditions, beam on, in big steep seas with full sail you may just manage it, but you would have to do something really stupid. Knowing when to reef helps, as with any monohull. Pitch poling was more of a problem with catamarans than actually capsizing, with the older style catamarans. On these older designs the bridge deck was brought much

further forward, with little or no nets (trampolines). This would create a problem with too much sail up, ploughing into a big sea at speed. When going too fast and launching off the crest of a wave in to a trough and stalling at the bottom the sail would still be driving you forward and the weight of the green water on deck would literally tip you end over end! The catamarans of today have raised the bridge deck clearance to over a meter in some cases and made larger trampolines. (The trampolines are great for sunbathing and for the kids to jump up and down on). These large trampolines on modern catamarans are not just there for fun and sunbathing, they are there to evacuate green water from the decks as quickly as possible, getting rid of any excess weight on the bows to prevent pitch poling. This incidence is virtually unheard of in a modern cruising catamaran.

Though it is noticeable that some brands are creeping forward with the bridge deck again putting in solid decks where the trampolines should be and building with a fairly narrow beam.

Most modern catamarans are practically unsinkable these days with a large amount of buoyancy, if you did manage to do the impossible and turn one upside down you can live quite comfortably in an upside down catamaran and wait to be rescued. They are even more stable upside down!



Catamarans these days are getting even more beamy, offering even greater stability being half their length or even greater in the beam. Catamarans with this kind of beam width have a static stability rating of well over 65 knots. The mast would more than likely break, well before any capsize.

It is of course important in heavy weather to slow the boat down by reducing the sail and perhaps deploy a Para anchor or drogue to

stop the cat from surfing faster than the waves, where it could fall into the trough, stall and go end over end “pitch pole” rather than capsize, if you steam ahead like you were trying to win the Americas Cup!

Do not forget that many more monohulls sink than catamarans capsize and the important point is the fact that even if they do, they are still afloat!

2: You don't get the *'feel'* on the helm with a catamaran as you do on a monohull.

Right you don't get the same feel, you get a different one. Just as driving a Ferrari or a Rolls Royce you would not get the same feel.

Catamarans accelerate from a standstill in gusts and you can feel this motion which is quite exciting. Even some of the old fashion catamarans can outperform most monohulls, so the feeling of speed is much greater, without healing over with your rail in the water.

Your worst days speed on a cat is normally the average for most monohull in terms of performance.

3: The costs of moorings are double.

You are right again in many marinas they do charge double. Let's face it you are taking up two berths in many cases, so you would expect to pay a premium! However, many marinas these days are cat friendly and many will charge you slightly more, normally based on length + beam. Also many in the Med and some in the UK will charge you on length only the same as a monohull. We are getting together a list for our clients on catamaran friendly marinas throughout the world, so if you know of one please tell us.



Where we are in Spain, marinas in Cartagena, Valencia, Alicante and St Carles de La Rapita for instance charge the same as a monohull.

While sometimes losing on the swings, when you are cruising on a cat you gain on the roundabouts by being able to anchor off and come in on a decent sized tender safely, load up with provisions and drop your hook in a nice quiet secluded bay or safe anchorage and not pay the marina fees. With the aid of a water maker on board, (which I could not do without) you can be your own island.

I know people that have been cruising on a small 35 ft catamaran around the Med for two years and only stayed in a marina for three nights in total!

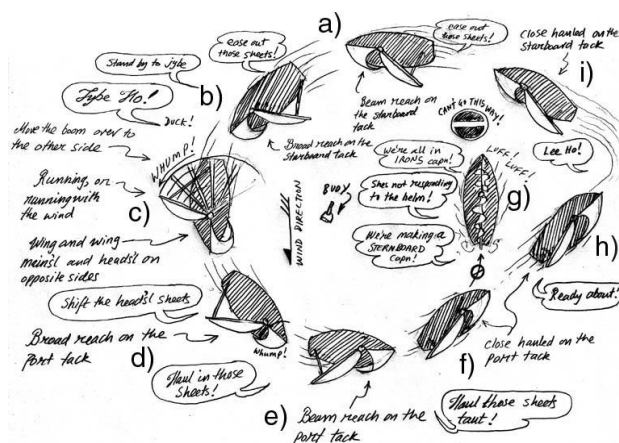
4: Catamarans do not point very well!

Rubbish!!!! These days a modern catamaran will normally point as well, if not better than most monohulls. This may have been true in days gone by, but not on today's designs. They will easily tack through 90 degrees without having to back the jib. You will slow down, however... to the same speed as a mono!

The old thing about "gentlemen do not sail to windward" is still true however, and why beat

into a head sea making yourself, your guests, wife and family suffer, when if you bare away 15 degrees you get to where ever you are going a lot quicker than anyone else anyway!!!

Dagger boards help any catamaran point without doubt aiding to windward performance, but sometimes are more trouble than they are worth.



5: They slam in heavy weather.

Your right again, they do!

If you insist on beating to windward (see above) in many cats, but these days the higher the bridge deck clearance the less chance of slamming.

As I said some of the more modern designs have clearance of over a meter, which in all fairness does make a difference.

There is a lot of absolute rubbish talked about this subject though and many buyers have been put off buying a catamaran because of the salesman say 'that the particular brand he is selling has a bridge deck clearance two inches higher than his competitor's catamaran. The sea is not going to discriminate between two inches in short, choppy conditions.

Some of the South African cats have stuck to old tried and tested designs, with low bridge deck clearance, however they are very strongly built and more than capable of handling these conditions. Some of the old Prout designs looked something like a trimaran as the bridge deck was so close to the water, but where ever you go in the world you will still see one sitting in the marina or parked next to you in some remote location, made it there from the factory under its own steam.



Some of the many benefits that catamaran has to offer over a monohull.

1: Shallow Draught

Most cats draw less than a meter and unless your monohull is equipped with a retractable or swing keel you can explore shallow coves or estuaries that many mono's will never see.

It's nice to be able to come right up and anchor in the shallows enjoying the beach.

We had a two couples visit us at the boat show who had just returned from a two week charter



in the Caribbean. The women got so tired of anchoring in the swell on the other side of the reef in the mono that they had chartered, feeling seasick and uncomfortable that they both insisted they spent the rest of their holiday in a hotel. They made the comment that they could see all of the catamarans sitting in the shallows on the other side of the reef tied to coconut palms. They said that if they ever charter again it is going to be a catamaran!

2: Stability

The fact that catamarans are so stable is another reason that attracts people to investigate them further. The fact that you can leave your gin and tonic on the saloon table and know it will be still there when you get back is a big advantage. You're not thrown about from one side of the boat to another as on a monohull, and covered in bruises, or thrown out of bed in a swell. It is rare to see gimbals on a cooker on a catamaran as they just are not required.

You are seeing these days many commercial applications for the use of catamaran hulls. Even the military are recognizing the benefits of multihull designs.

You can see the use of these purposeful multihulls on oil and gas support vessels, cranes, ferries, and even fishing boats being used in extreme conditions, where, space, speed, economy and stability are required.



A catamaran does not heel, so you are not trying to permanently keep your balance, or strapped into a lee cloth trying to sleep under way. All the power trying to send you on your ear in a monohull is driving you forward on the level so it is possible to cook a hot meal in adverse



conditions in times that you would not even consider trying on a monohull, even without gimbals.

Everything, people included on a mono are sliding to the port or to the starboard, where on a cat everything stays where you left it.

I remember sailing in the Solent in the UK on a grey cold wet day and a mono came past us on the opposite tack and all the crew were sitting on the rail in wet weather gear looking thoroughly miserable sitting on the rail heeling over. We were drinking hot soup in mugs under way warm and dry within the safe confines of the cockpit doing 11 knots.

3: Performance

Catamarans are well known for their spectacular performance, and let's face it watching The Americas Cup will be like watching paint dry, if they ever go back to mono hulls! That is the extreme of course, but even older designs can outperform most mono hulls off the wind, but these days even this has changed and cats are performing much better to windward.



A catamaran does need to be light to sail well, but even this has its exceptions providing that the boat is built within its "design weight". Of course with modern materials such as carbon fibre and using new modern manufacturing methods, such as resin infusion, help to reduce weight in the right area.

- A carbon mast is on most catamaran owners wish list. It is not only the performance, but it changes the whole balance of the catamaran.
- Dagger boards will greatly enhance upwind performance also on a catamaran, but not the best idea for long distance cruising in many instances.
- Folding or feathering props reduce drag or even some cats can lift the leg out of the water under sail eliminating drag.

Most cruisers do not want to wear Kevlar underwear and share a toothbrush with the handle cut off to save weight!

It is not all about how fast you can go and most couples enjoy cruising at a nice leisurely pace, but the performance is there when you need it.

On many catamarans you can actually passage plan on over 8 knots under sail in many circumstances.

Your worst days speed on a cat is normally the average for most monohull in terms of performance, which a cat is normally 20% or more than a comparable mono.

Any boat has its tradeoffs between, luxury, space and speed. Bigger fatter hulls give you much more space in the cabins, but will give you poor performance. Slim sharp hulls will offer terrific performance, but cramped living accommodation below decks.

Most cruising catamarans offer a happy medium giving reasonable performance, where others offer a heavy but spacious waterside apartment that sails!

4: Ease of handling for a husband and wife team.



These days manufacturers have realized that a catamaran has to be easily handled by a husband and wife team, when cruising. Things are getting easier and easier.

When looking at catamarans for the first time it is easy to see some people daunted by the size of any catamaran with the huge freeboard and their ability to manoeuvre it in the confines of any marina.

It is however remarkably easy to handle, in fact with the engines equally spaced on either hull, you forget

about the wheel and just use the engine controls. It is possible to spin the boat in its own length and if concerned, bow thrusters can be fitted to aid manoeuvring. You will find that once the person at the helm becomes used to handling the catamaran the bow thrusters will almost become redundant, though can be useful if you are getting blown off the dock.

You will become accustomed to getting an undeserved round of applause getting in and out of tight berths as it is easy peasy!

Things happen a lot more slowly on a cat, with no drama with accidental gybes, running around panicking, but at a nice leisurely pace. Even under sail with the fact that you do not have to leave the cockpit on most modern cats, as all the lines are lead back, with options of in boom furling systems now available and a self tacking gib.

This enables the "one bit of string to pull" idea for power boaters to enjoy the concept of sailing and for older sailors to savour their retirement rather than hang their sailing gear!

5: Space for a large tender and outboard

Most catamarans have space on board for a decent sized tender and a good sized outboard. This is great for saving money on mooring fees and anchoring and able to come in and load up with supplies, without being ripped off with marina charges. On the larger cats an even larger tender can be added with a bigger outboard or even inboard engine. This can double up as one of the "boy's toys" for water sports like waterskiing or diving.



6: Extra space



There is so much more usable space on a catamaran ideal for living on board, both inside and out.

The feeling of space alone without the cramped conditions, sometimes endured by many live a boards. Any vessel however big tends to feel smaller after a while, especially when you are living on it but there is no comparison between a mono of the same size. A 40 foot catamaran could compare with a 60 foot monohull. The space on board a cat gives plenty of room for the luxuries

and home comfort in life such as dishwashers, washer dryers, dive compressors, ice makers.

7: Comfortable and luxurious



A high degree of comfort and luxury can be enjoyed by catamaran owners. With comfortable sofas in the saloon, reclining chairs, warm accommodation in cold climates and cool air conditioned cabins in tropical regions.

On larger cats a jacuzzi in the cabin or even on the flybridge is possible. Space =

comfort. Rather than huddling around a cockpit table and having to climb down a ladder squeezing past your guests to get an extra glass (or plastic tumbler) on a mono, you have comfortable seating for 8 people at least. Many manufacturers these days offer the option of a luxuriously appointed owners three cabin version, with the whole of one hull dedicated to the owner's exclusive accommodation.

8: Great for entertaining

Again space for entertaining in the saloon, cockpit or on deck with a catamaran is ideal for entertaining friends, family or paying guests.

A galley up option is ideal for entertaining with whoever is doing the cooking being part of what's going on and forms a good relationship between the saloon and cockpit tables, without being squashed in and crowded around a mono's cockpit table.

Plenty of outside usable flat space and large areas for sunbathing and relaxing on the trampolines, seating in the cockpit and flybridge on the larger catamarans.

It is a great location on the flybridge to enjoy those warm summer nights, enjoying the scenery.

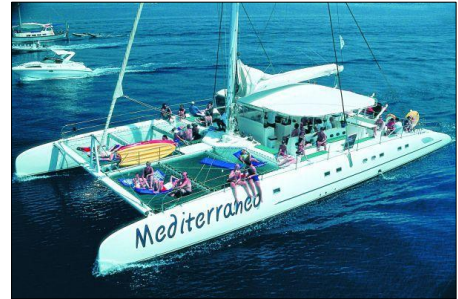


9: Ideal for charter

A catamaran makes a great charter boat wither bareboat or luxury skippered charter. A four cabin layout + forepeak cabins for the crew is an ideal money making formula with option for 8- 10 paying guests for the occasional day charter even on a 38 foot cat.

There are specially designed day charter catamarans complete with bar, BBQ with seating for a hundred people or more, designed for maximum profit.

These types of catamarans in some locations going out three times a day charging 45 Euro's per head and make a very viable business option.



10: Economical to run



Catamarans are remarkably more efficient under power than a monohull. I was with a client taking a power cat into Port Solent in the UK and after handling a conventional power boat which as soon as you throttle back the hulls resistance stops it dead in the water, not so on a power cat as we nearly went through the closed lock gates and an urgent response in reverse was required!!!

There is little resistance and this makes a cat far more economical to run and have a longer range on your fuel. With more and more catamarans offering a Hybrid option this makes things even better on fuel with many benefits besides.

11: Safety

Most cruising catamarans these days come equipped with the built in redundancy and added safety of twin engines! If one breaks down for any reason, then at least you have the spare. In fact to save fuel most owners cruise on one engine and alternate the hours. You will only lose about a knot or two by having one engine off, but will save fuel under way. The reasons many power boat owners are attracted to the sailing catamarans are they are a great motor sailor, and some owners have never even hoisted the main!



On most modern cats you do not have to leave the safety of the cockpit as all lines are led back. The boom is well out of the way, less chance of your head getting knocked off, as accidental gybes are no drama. Man overboard recovery is easier from the rear transom, and the big safety of built in redundancy of having twin engines on most cats is an important safety factor. How many times have you managed to get a lobster pot wrapped around your prop in the wrong place at the wrong time in bad weather? It's nice to know that you can continue on a single engine until you can sort it out at a safer, more convenient time



Decks are less cluttered without an obstacle course of winches, hatches, to stub your toe on. No uneven sloping decks, and a cat is a stable safe platform, unlike a mono being seemingly intent on throwing its crew into the sea like a bucking bronco.

Another important safety point is that most weather systems move between 10- 12 knots and in a catamaran it gives you a chance to run in front of a weather front, escaping bad weather in many occasions, which can be a big safety and

comfort factor, aiding to the general well being of the passengers and crew.

12: Visibility

Full 360 degrees from the saloon, and cockpit in most cats you can now helm from inside the saloon on a joystick or remote via the Autopilot and good visibility under the gib. Also these days you can see all four corners of the boat from the helm station, which is great for manoeuvring in the marina.

Seating is normally at the level where you can take advantage of the panoramic view offered in the saloon, where in a mono you can generally only see the sky or the sea. Many saloons are now on the same level as the cockpit.

If you are lucky enough to own one of the new flybridge designs this gives you a commanding view with many having all instruments repeated up there. Rather than liking it to cave dwelling having to disappear down a hole below decks, it is nice enjoying life on one level.



13: Storage space

Storage available on most catamarans is enormous, under the bunks, wardrobe space, under cockpit seating. They say that if you need any more storage than on a catamaran you should be looking for a country cottage instead!

14: Privacy

It is nice to have the space on board to allow for some privacy, with two hulls. If you have a row with your partner, it is nice to have somewhere to sulk!

With many owners versions now have a separate hull with a door for your own privacy with guests or charterers on board and en-suite facilities for each cabin.

15: Ability to dry out

In tidal waters you can save money on lift out costs even anti fouling between the tides on a slip. It is possible to dry out on stub keels scrub the bottom or attend to maintenance issues.

16: Plenty of room for toys

Room for a big tender with a decent outboard for skiing, have a windsurfer or paddle board strapped to the rail or a sea kayak.





Catamaran designs have changed radically over the last twenty years from the original Polynesian style cats designed by James Wharram still sailing all over the world today to Prout Catamarans in the UK, Catalack, Heavenly Twins, Solaris to name, but a few.



The onslaught of the French designs came into the market like Catana, Nautitech and Fountaine Pajot with their Maldives, Casamance, Fiji and Antigua models. These French designs seemed well before their time with sporty lines, minimalistic interiors, and soon grew in popularity because of their outstanding performance under sail and wash and go basic interiors and above all catamarans started to look pretty.

At this time Prout Catamarans in the UK had an enviable following throughout the world with a loyal group of clients who would buy one of the models after another.

It was a joke within the catamaran fraternity that you could chop the head off a Prout owner and he would have had Prout Catamarans written right through him like Brighton Rock! Though old fashioned in their designs now, these brands can still be found in all four corners of the globe having got there on their own backsides.

Some of the catamarans in the UK were said to be designed to go through the French canals, but I was told by one of the Designers that this was absolute nonsense as at the time. It was just the fact it was the largest beam that they could get through the factory doors, It was just lucky that it fitted in the canals!



The two big producers Lagoon and Fountaine Pajot are now the largest producers of catamarans in the world. South Africa and Australia produce their share of well built catamarans both countries having a huge following.

For years the catamaran idea was dismissed out of hand but these days yachtsmen throughout the world heads are turning towards catamarans now more and more recognising the tremendous advantages enjoyed. Even the mono racing fraternity and yacht clubs committee boat is quite often a catamaran these days!

A catamaran needs to be within its design weight to sail well and as light as possible. Though this does not mean that it cannot carry everything you need to live a comfortable lifestyle.