



The Révolution 22. Designed by David Raison, these aluminium-hulled and scow-bowed cruisers look like nothing else afloat. Internal volume – thanks to ‘that’ bow – is astonishing in both the 22 and the 29

# Mini Transat-inspired boats



The Mini Transat race has been at the cutting edge of boat design since its inception in 1977. Peter K Poland discusses the influence the event’s ‘flying machines’ have exerted on ocean racers and modern production yachts alike

**E**very two years, many sailors (mostly young) set sail from the French coast in high-performance 6.50m yachts to race single-handed to the Canaries and then on across the Atlantic. Some people reckon they are loonies. Others – myself included – believe they are the

maritime equivalent of ‘those magnificent men (and women) and their flying machines’. Over the years, many of these intrepid Mini Transat sailors have gone on to become international sailing superstars, while the unfettered development of their ‘flying machines’ has exerted a major and ongoing influence on modern production yachts and ocean racers of all sizes.

And fly these machines do. In the 2015 Mini Transat, Julien Pulvé managed a day’s run of 278.7NM at an average speed of 11.6 knots in his Ofcet 6.50 production (Series) class yacht, while overall winner of the Proto Class Ian Lipinski covered 3,285 miles at an average of 9.25 knots. Out of the 2015 entry of 72 boats (26 Proto and 46 Series), only two needed external assistance due to damage. All the others made port under their own steam, proving that these Mini Transat 6.50s have come a long way since the hairy early days when some sailors lost their boats and others their lives.

Like the original OSTAR (Observer Single-Handed

Transatlantic Race), invented by former Cockleshell Hero Blondie Hasler and first won by Sir Francis Chichester, and the first non-stop solo Round the World race – the Sunday Times Golden Globe, won by Robin Knox-Johnson – the Mini Transatlantic race was also dreamt up by a Brit. We have always had an aptitude for inventing things, be they the computer, the jet engine, the internet or single-handed yacht races: we just don’t seem to be so adept at cashing in on them.

## Early entrants

Bob Salmon invented the Mini Transat in 1977, aiming to bring trans-ocean solo sailing back

### ABOUT THE AUTHOR

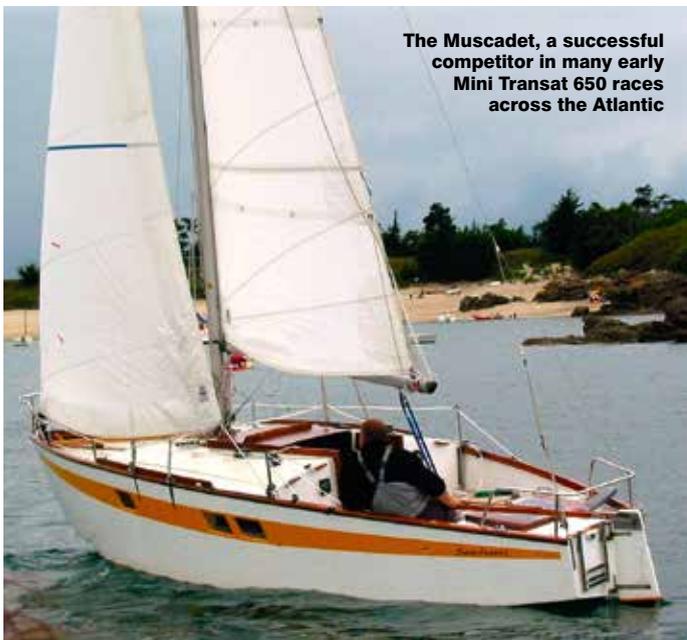


Peter K Poland crossed the Atlantic in a 7.6m (25ft) Wind Elf in 1968 and later spent 30 years as co-owner of Hunter Boats. He is now a freelance journalist.



**A typical production Mini 650 interior... plenty of space, but not a lot of creature comforts. The lighter they are, the faster they go!**

Peter K Poland



**The Muscadet, a successful competitor in many early Mini Transat 650 races across the Atlantic**

Peter K Poland

prototypes from crossing the Channel. So they had to sneak across unobserved.

Amongst the inaugural 1977 Mini Transat fleet were many slightly modified production boats that still give good service today. An early Finot-designed *Rêve de Mer* took third, a Dufour-designed *Sylphe* did well and the Harlé-designed hard-chine plywood 'boîte' better known as the Muscadet enhanced its name with five finishers, two of which were in the top 10.

The second Mini Transat in 1979 saw the first prototype yacht built specifically for the race: and it wasn't French! American Norton Smith commissioned *American Express* as a downwind flyer with broad beam, special running sails and twin water ballast tanks, and duly showed the French the way home. More interesting was the new Gros Plant design developed by Philippe Harlé, based on his mighty Muscadet. Still with a hard chine plywood hull, the Gros Plant boasted many new features including a considerably wider stern. Jean-Luc Van Den Heede piloted one to second overall and designer Harlé took the helm of another, coming fourth. This race also saw Bénéteau enter the fray with a couple of modified First 22s.

Further down the fleet, the Brit John Tomlinson put up a fine performance in a modified Julian Everitt-designed E-Boat, *Smiling Tree*. A slightly shortened stem, extra laminate, beefed-up rig and

heavy-duty rudder were the main changes. John gave a lucid description of what it was like to undertake a Mini Transat in those early days, writing: 'In the week before the start, the other boats begin to arrive. With only three main rules (the boats must be 6.5m maximum length, be self-righting and carry no more than six sails) there is a great diversity of designs, from Norton Smith's *American Express* to Margaret Hicks' Hurlay 22 *Anonymous Bay*, with the E-Boat coming halfway along the scale in terms of speed and weight.

'It is obvious that I am not going to win the race. Just one look at the assembled machinery makes that absolutely clear, but to do well amongst the production boats would be an achievement. We manage to pass scrutineering OK, which is more than can be said for some of the others. *Smiling Tree* is well prepared. There are one or two boats here that I wouldn't take for a trip on the River Thames. It is difficult enough being only 6.5m long and having 4,000 miles of ocean in front of you: but to build and rig your chosen steed like an Osprey dinghy, as some of these guys have, is asking a bit too much of lady luck. You have to try to stack the cards in your favour, even if you don't know how they will be dealt.'

He describes events shortly after the start, saying; 'Enda O'Coineen is just behind me in the Limbo 6.6 *Kilcullen 2*. The next day, in light winds, I cross tacks with Bob

within the budget of 'ordinary' sailors. Ignoring detractors and prophets of doom, he completed the inaugural race from the Penzance Sailing Club to Antigua in an Anderson 22. Having suffered rudder failure just outside English Harbour, drifted onto a reef, been towed clear and then sculled by Salmon across the line, *Anderson Affair* was the first British entry home.

Predictably, a large French contingent took part. Since Eric Tabarly had become a national hero after winning the second OSTAR in 1964, his countrymen took to long-distance solo sailing with a vengeance. It was no surprise, therefore, that the first Mini Transat was won by a Frenchman – Daniel Gilard in a Serpentaire class cruiser. Ironically, the major problem for many of the French competitors was just getting to Penzance to start the race, because the Affaires Maritimes forbade



**Jeanneau's Sun 2000, and some smaller Firsts, show a Mini Transat influence with their upright stems and sleek lines**

Peter K Poland

Salmon's *Anderson Adventurer*, but he is not on deck so he does not see me. It is a good job someone is awake around here.

'Middle of the night, October 6. The wind is up to full gale plus a bit, from the south. I have three reefs in the main and no jib on at all. Heading west at about four knots on the log, the noise down below is ear-splitting, with the flat-bottomed bow slamming into every breaking wave. I cannot sleep or cook any food. I am living on GORP (good old raisins and peanuts). It is very uncomfortable.'

Later, he writes: 'A horrible black morning... squally, wet and windy. Then a real gale, then flat calm again. Very frustrating, and not much progress. Changing rig continuously all day. Up spinnaker. Only for a few hours, though. Drop the kite, sheets in again. So it goes on, day after day. Feeling a need now for fellow human beings.'

Then, approaching Tenerife: 'I have to scull the last two miles in the dark. Elapsed time is 16 days, 12 hours, 42 minutes. Too long, really: however, only 12 boats are in before me so I am not the slowest. *American Express* arrived first, nearly four days ago, followed by a bunch of the French boys.'

From Tenerife to Antigua, John took 25 days. He writes: 'I am just a few short steps from my first Planters Punch. A lot of the other boats are in and the welcome is beautiful. I only manage to finish 19th on this leg but hold my 13th place overall, which is about fourth production boat. I feel quite pleased with myself. I have sailed over 4,200 miles, single-handed, in an overgrown Enterprise dinghy, at an average speed of just under 5 knots – and that's not slow by any standards.' All of which sums up the highs and lows of Mini Transat racing.

### Exciting innovations

In the next Mini Transat (1981), Brian Sanders took *Smiling Tree* (renamed *Age of Steam*) on a second successful jaunt, joined by Ian McDonald who raced another E-Boat called *Ocean Delivery* across. And this was no mean feat, because cyclone Irene wreaked havoc on the first leg of the race, with only 13 of the 29 entries completing the course. The overall winner was a prototype designed by the young Jean Berret.

In 1985, the French took over the race. Founder Bob Salmon



**Coco class Mini Transat yachts before the start of the Vannes-Azores-Vannes race in the 1990s**

had followed his dreams and – against all the odds – established an event that had become a success. But now he felt it was time to hand over the reins, and journalist Jean-Luc Garnier set about convincing the establishment that the event was well founded. He obtained the support of the town of Brest, and the Mini Transat rules became tighter – including 'unsinkability' and specifying compulsory safety equipment. Yves Parlier won overall, becoming the first sailor to use a carbon mast: an innovation that soon became commonplace on leading race boats around the world.

The 1987 event saw another breakthrough. Coming second overall and first production boat, the new Harlé-designed Coco class, sailed by the great Laurent Bourgnon, had a pronounced rounded bow.

Since the very first Mini Transat in 1977, many of the boats had adaptations that were way ahead of the times. This largely trade wind race encouraged the use of features such as twin rudders, twin daggerboards and movable ballast. In 1991 Michel Desjoyeaux pioneered the use of asymmetric spinnakers set on a long bowsprit on a Fauroux-designed Mini that also featured a canting keel and pivoting carbon mast.

However, the 6.50 class now realised that there was a risk attached to all these exciting yet high-cost innovations. There was a chance that the boats could become so expensive that 'normal' sailors would become excluded, so the Minis were divided into Prototype (Protos) and Production (Series) classes. The Protos are custom-built while the Series class is for production boats, featuring a simpler 'box rule' that stipulates alloy spars,



**The Yaka 650, an example of a neat twin-keel French cruiser developed from a Mini Transat 6.50 racer**

GRP or wood (no carbon) construction, fixed keels, less draught and shorter rigs etc. Put simply, the Protos now represent the cutting edge of innovation while the Series boats have wider appeal. Indeed, there are now several new Series designs that are not only much cheaper than Protos but also boast desirable modern design features – and several of these boats give the exotic Protos a real run for their money.

### Adventure and intensity

So, are any Brits making names for themselves in these remarkable little yachts these days? The two most famous in recent years have both been female. Back in 1997, a very young Ellen MacArthur took her first step on the ladder of international solo-sailing fame by coming a creditable 17th in a Mini called *Le Poisson* that she bought second-hand then refitted herself



**British sailor Nikki Curwen and her Proto Mini 650**



David Raison's revolutionary *TeamWork Evolution* ran away with the 2011 race

Bruno BOUVRY/TeamWork

manoeuvrable with an outboard engine, the sails are light and can be carried around on board and ashore by one person, the boat can be towed... I can't really think of any boat more fun than a Mini for a weekend blast on the water.'

### Massive changes

To get an idea of what goes into a modern Mini, I spoke to designer Simon Rogers. He has made a name for himself on the Mini, Class 40 and fast superyacht circuits. 'Proto Minis,' he said, 'are like rally cars. Fast, rugged yet light. On the top Protos, scantlings can be so light that only tight-weave carbon fibre keeps the water out. Designers have free rein with Protos and can try just about anything; canting keels, daggerboards, foils, square-topped mainsails et al. Minis have also brought massive changes to power generating with improved solar panels and batteries. This is essential for autopilots that become ever more sophisticated and effective.'

French makers NKE and British B&G seem to lead the field at this level of high-speed sailing. Sophisticated modern autopilots have revolutionised solo racing. 2015 Mini Transat winner Frederic Dennis described night sailing in heavy winds: 'I went upstream of the fleet, which was a lot of work for the autopilot (NKE). At that time, the autopilot was better at the helm than me, handling the power and acceleration of the boat. I really increased the gap in the race.' And that's how you win.

Simon Rogers is also impressed by the latest 'scow bows' and fuller forward sections, saying: 'Short fat hulls tend to stand on their diagonal and bury the bow. →



Lizzie Foreman on her *Pogo 2 Hudson Wight* at the start of the 2014 Royal Southern YC cross-Channel Mini race

Peter K Poland

ground, Lizzie moved to Brittany to train with Lorient Grand Large and lived in her van (and the boat) to compete on the circuit. Much as Ellen MacArthur and Sam Davies before her, she went native to hone her solo sailing skills in France. 'I love Mini racing because it's so pure. We have the bare basics for communication and navigation – just a radio and a GPS, with no cartography allowed. This means you have to plan well for the offshore races, creating quick reference cards and lots of waypoints to minimise the amount of chartwork during the race.'

'The solitude is a challenge at first, but I'm now accustomed to spending 10 days or more at sea without making any contact with land or other boats. Heavily over-canvased, Minis surf like skiffs and require constant attention to stay upright! Less adventurous sailors who like speed should try a Mini – you don't need to cross the Atlantic solo to enjoy one. They are easily

in a French boatyard, later saying: 'It is this race that gave me the taste for offshore racing. I will never forget it.' Then in the 2001 edition Sam Davies came 11th, saying: 'This is a very difficult race, but it is awesome. The atmosphere and the spirit of this race really made a deep impression on me. Even if you're a foreigner, everyone helps you and everyone supports everyone. We all share the same wish and the same motivation.'

In the 2015 race, two more British women joined the fray. Nikki Curwen, 27, is a 'chip off the old block' Mini sailor: her father Simon finished second overall in the 2001 race. She entered her *Go Ape! Live Life Adventurously* and finished a creditable 12th in a very hot fleet. When I asked what appealed most about Mini sailing, she replied: 'I love the adventure and intensity of the racing, and the boats are incredible to sail. I much prefer the long-distance races to the Azores, Caribbean etc. I've owned the Mini since the beginning of 2014 and sailed around 12,000 miles in her, with a mix of races and deliveries. The

Mini is the most enjoyable boat I've ever sailed: so responsive but also stable, you can really push the limits. I will admit upwind in a bit of chop isn't ideal, but then it isn't for any boat, really! Minis are just giant surfboards, 3m wide, 6.5m long. They are designed to surf down the waves, and can reach speeds exceeding 20 knots. What's not to love?

'Almost everything in the boat can be controlled from the cockpit. With a reefable main and jib they are very manageable, even in heavy weather. While they are tiny, and people say I'm crazy to cross the Atlantic in such a small boat, I can honestly say the Mini is the safest and most robust boat I've ever sailed.'

Lizzie Foreman joined the 2015 Mini Transat fray in the Series division, sailing the borrowed 10-year-old *Pogo 2, Hudson Wight*. She told me: 'I didn't get into Mini sailing until I was 22, helping out with the Artemis Academy's *Pogo 2*,' adding: 'The Artemis Offshore Academy really is the place to gain solo offshore racing experience.'

To get her Mini campaign off the



*Nautipark* (Frederic Denis) wins in the Proto class in 2015. Note the daggerboards, canting keel, chine, flat bottom and twin rudders

Fuller and “scow bows” put volume forward and move the bow waterplane further outboard, making the boat more stable and level fore and aft. They are also good upwind because the waterplane moves out and the bow doesn't bury. Off the wind they generate extra lift and earlier planing. They also add greatly to interior volume.'

David Raison's 'scow-bowed' Magnum set the cat amongst the pigeons on the 2011 Mini Transat. His logic was that width added to the stern gives more power; so why not at the bow as well? When heeled, the hull retains the same immersed profile, the bow doesn't dig in and wetted area is reduced. His computer models showed that the concept worked better than traditional lines on all points of sailing. The proof of the pudding? Raison's *TeamWork Evolution* won by a country mile in 2011. Renamed *Prysmian* by Giancarlo Pedote for the 2013 race, it was pipped into second place but was widely felt to be faster than the well-sailed winner. Then in 2015, Davy Beaudart's *Flexirub* (a Raison-designed 'scow upgrade') won Leg 1 easily and was well ahead in Leg 2 before retiring with shredded spinnakers and a damaged transom.

Two top production models in 2015 – the new Bertrand-designed Ofcet 6.50 and Verdier-designed Pogo 3 – also feature very full bows. They're not as extreme as Raison's 'scows', but far fuller-bowed than other 'series' boats. They are fascinating, and – like the more extreme 'scows' – could have a huge influence on future designs.

Simon Rogers said: 'The Pogo 3 and Ofcet 6.50 are not "scows" but have big bow radiuses at deck level, making the waterline shorter when upright but longer when heeled. The volume of the



Jacques Vapillon

**Davy Beaudart's *Flexirub* easily won the first leg of the 2015 Mini Transat before having to retire on the second leg with shredded spinnakers and a damaged transom**



**The Django 670, a lift-keel cruiser loaded with Mini Transat genes**



**Ofcet 6.50: one of these won 2015 Mini Transat 'Series' production class. The rounded bow and chines contribute to speed and stability**

topside keeps the bow up and improves lift for early planing. The only weakness is light air speed. The extra volume is beneficial to cruising yachts, provided the aesthetics are acceptable. Clever styling helps. The chines enhance performance on light boats, but not on heavier ones. However they increase space, stability and sail carrying power on cruisers.'

### What's out there?

So, if you fancy some fast fun in a production Mini 6.50, what's out there? Regrettably, not a lot in the UK – but there's no shortage across the Channel. In addition to

the brand new Ofcet and Pogo 3 models, the slightly older Lombard-designed Argo (third in 2015), the Nacira 650 (fifth, seventh and 10th) and the evergreen Finot-designed Pogo 2 (sixth, eighth and ninth) all featured in the top 10. Edouard Golbery (aged 28), who came in sixth in his Pogo 2, said: 'I started two years ago. When I bought the boat I didn't even know how to make a tack.' Meanwhile, Thomas Guichard (aged 34), whose Pogo 2 came eighth, said: 'Two years ago, I came to cross the Atlantic and to act out my dream of adventure. This year, the sporting objective was more important: I was less inclined to contemplate the sunrises and sunsets, and it was incredible to sail the Atlantic at that speed.'

Going further back in history, the Coco, Rolland-designed Pogo 1, Super Calin, Mistral 650, Dingo, Tip Top and Dingo 2 are all great little boats. And then there are the Mini-influenced fast cruisers. French yard Marée Haute has built many twin- and lifting-keel flyers, from the Django 6.70 and 7.70 right up to a 12.70m development. Pogo Structures has also developed some exciting fast cruisers from its Mini Transat and Open 40 class racers. You may

have marvelled at the Pogo 30 and Pogo 1250 models at recent Southampton Boat Shows.

Afep Marine's new Révolution 22 and 29 models are the most dramatic Mini spin-offs. Designed by David Raison, these aluminium-hulled and scow-bowed cruisers look like nothing else afloat. Internal volume – thanks to 'that' bow – is astonishing in both the 22 and the 29. The French nautical magazines already seem impressed by the performance and potential of the 22. Raison told me the Révolution 35 project has also just started, saying: 'This is very promising. Freeboard and aluminium structure load can be better managed at this size. The boat will offer enhanced performance and comfort with light scow aesthetics, and three twin cabins.' The big question is whether people will accept these aesthetics. Only time will tell. The added accommodation is undoubtedly a bonus, and the French do have a habit of breaking with tradition and coming up with winners.



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**The Pogo 3's rounded bow is efficient upwind and downwind**