

THE LOSS OF RAMPRASAD

Sam Coles

(Sam bought Ramprasad, a 37ft 6in ferro-cement Hartley Golden Cowrie, as an unfinished project in 1985 and finally launched her at Shoreham, England, eleven years later. He crossed the Atlantic four times between 1998 and 2001, then after a further five transatlantic passages headed through into the Pacific in 2008.

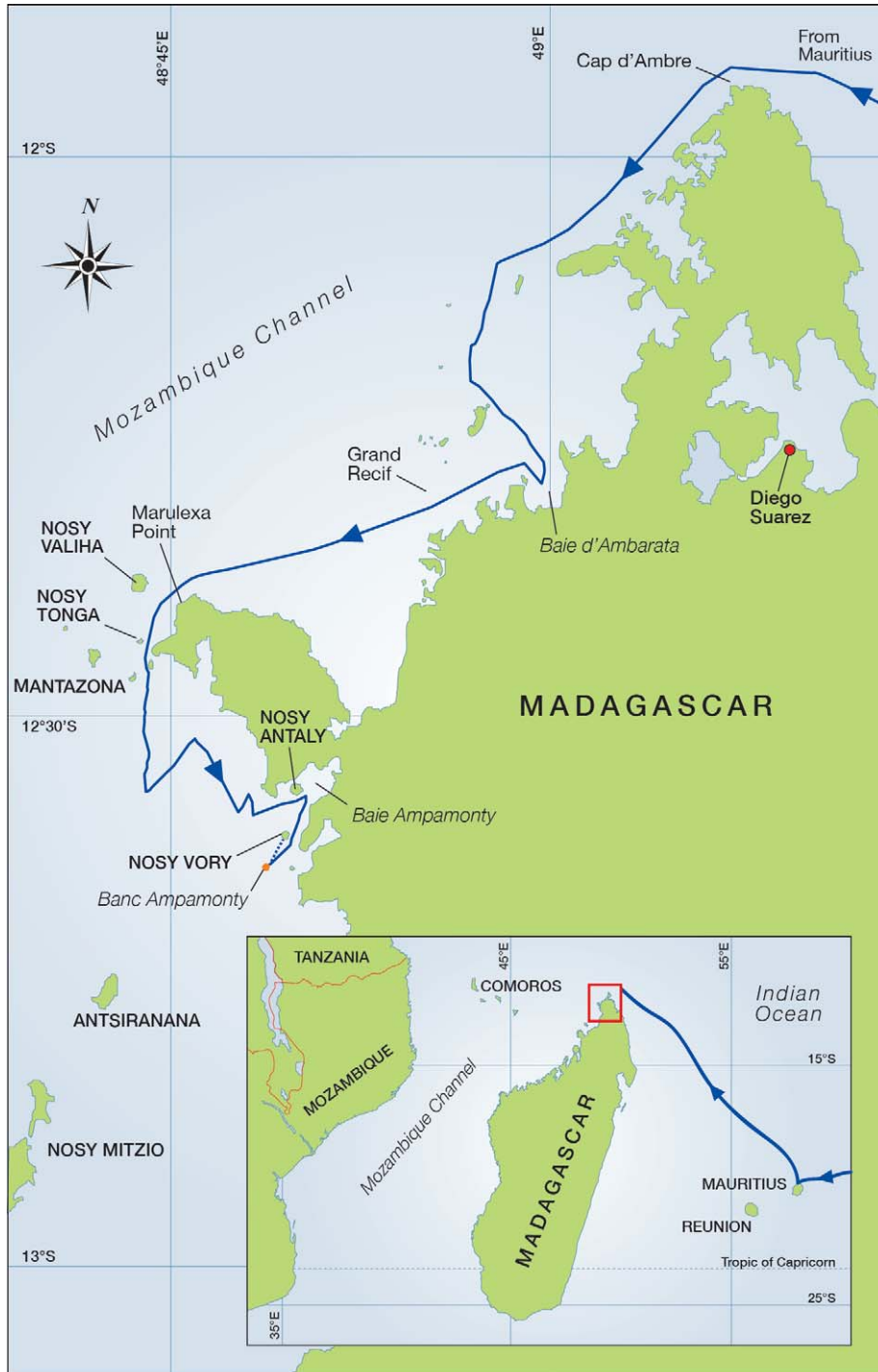
Sam's first major sailing exploit, in 1980/2, had been very different – sailing an old Indian fishing boat from Diu on the northwest coast of India to Darwin, Australia via Thailand, Singapore and Indonesia. The passage, nearly all of which was sailed singlehanded, covered more than 4500 miles.)

On 27 September 2015 *Ramprasad* grounded on a reef in northern Madagascar. She became badly holed within a couple of minutes, was taking in water at an uncontrollable rate from a 6in diameter hole about 3ft below the waterline midships on the starboard side, and filled within half an hour or so. The circumstances which led to the grounding may be of interest to members.

We had arrived in the waters of northern Madagascar two days earlier from Mauritius, rounding Cap d'Ambre at about 0830 on 25 September. I had checked in with the 6646kHz yachtsman's net run by Kerstin Siebrech aboard *Lopto* and that night anchored in the Baie d'Ambarata, at 12°17'9S 49°4'E. This is an area of many islands and reefs,

***Ramprasad* before departure from the Customs Steps, Port Louis, Mauritius**





and it was during a period of quite strong southeasterly winds in the morning (typically southeast force 6–7) which moderated to variable northwesterlies in the afternoon.

I was navigating principally with Navionics charts running on an iPad, making use of the iPad's GPS to plot our position – a method which I had been using for about five years and which is quite similar to using a chart-plotter. On the iPad one can change the scale in which the vector charts are displayed seamlessly by stretching and squeezing with finger and thumb, and it depends on the scale in use as to how much detail is displayed. The other electronic navigation system which I used was displaying C-Map charts on a PC laptop using the Cmwfw program, but was only indirectly linked to a GPS via paper and pencil. I had largely discontinued my use of paper charts due to the better detail available with the electronic systems, especially in remote areas. Both of these systems rely on the accuracy of the electronic charts, but at least they are from independent sources.

Next day, 26 September, we left Baie d'Ambarata in a good breeze – about force 6 from south-southeast – unrolled a bit of genoa, turned off the engine and hoisted the mainsail with three reefs. We had shoals to avoid extending out from the land on our port side, and then the large Grand Recif and a couple of smaller ones south of it on our starboard side. By this stage we had the earlier-than-expected wind change to northwest 2–3, so I turned the engine back on and rolled up the genoa, and we motor-sailed to pass inside Nosy Valiha off Marulexa Point. Here my hitherto totally reliable new Yanmar failed, so we unrolled the genoa and hoisted full main to pass inside both Nosy Tonga and Mantazona. The new engine had done only 300 hours, but though I had done engine oil and oil filter changes I had neglected to change the fuel filters, and it was these that I suspected to be the cause of the engine failure.

After passing inside Mantazona island we were going slow, so I restarted the engine. Then we had another wind change to south-southeast force 4, and with Nosy

Mitzio too far away to reach in daylight I decided we should head for Baie Ampamonty under double-reefed main and partially rolled genoa. The engine stopped again so we did a bit of tacking with various sail



*Dao at the
Customs Steps,
Port Louis,
Mauritius*



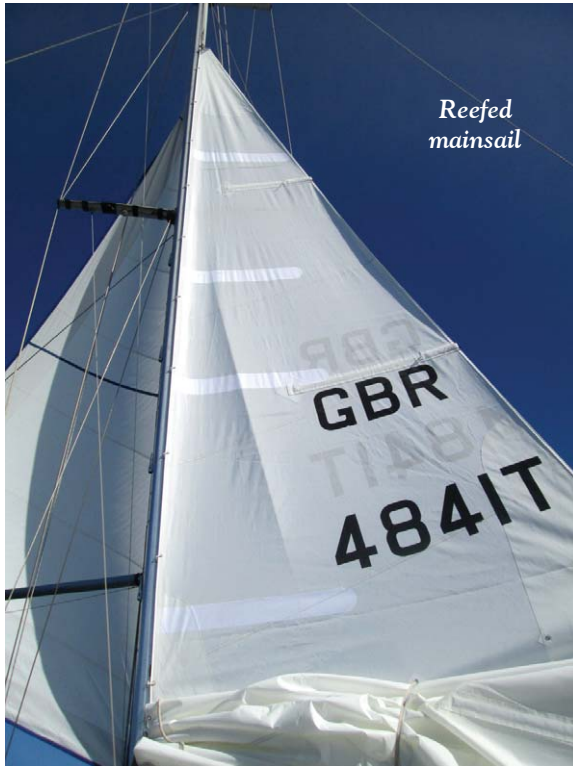
Sam in the cockpit

combinations, then motor-sailed inshore, where the engine stopped again. After more tacking off the bay as it got dark I judged that we had a clear run in, and that sufficient time had passed for enough fuel to get through the blocked filters, so restarted the engine and rolled up the genoa. We motored in avoiding rocks and reef, to anchor in a well-sheltered position and good depth at 12°34'2S 48°51'7E, next to Nosy Antaly. I find this kind of sailing more tiring than passage making. Dao made supper and we slept well.

In the morning I changed the fuel filters and, after doing the rather simple bleeding routine, started the engine and raised the anchor, Dao steering to my directions as I operated the manual windlass on the foredeck. With the usual strong morning breeze (east-southeast force 6–7) we got the mainsail up with two reefs and unrolled a bit of genoa to less than working jib size. I turned off the engine, applied the prop-shaft brake, and took a turn at steering to get us safely past Nosy Vory – it was hard to get the Wind-Pilot to steer in such gusty conditions.

I had the iPad running the Navionics chart positioned above the companionway in its usual position for pilotage, but remembered that there was an island – Antsiranana – on the way to Nosy Mitzio, so told Dao to steer for it. I had no recollection of any dangerous reef on the way. I went below to do some tidying, since a few things had fallen out of their places in the lively sailing so far, then returned to the cockpit and almost immediately we hit the reef!

Dao was steering for Antsiranana as instructed, and hadn't noticed the reef, Banc Ampamonty, which the Navionics chart showed as land and NOT as reef – I looked at the iPad chart and realised the error. I tried to steer downwind to



get off it, but we bumped some more and then stopped. I went down below, but within a minute or two a serious hole opened about midships on *Ramprasad's* starboard side, a fountain of water breaking the storeroom door off its hinges. I put out a distress call on VHF 'MAYDAY MAYDAY MAYDAY!' but got no answer – the water had flooded the batteries, beneath the cabin sole on either side of the engine – so I put on my lifejacket and made sure Dao had hers. The position where we had struck the reef was close to 12°38'·1S 48°49'·5E.

The partially-deflated dinghy was on the foredeck, so we turned it over and found the pump in the lazarette. I set Dao to pumping while I tried to launch the liferaft, but it was out of service and did not work. We

launched the dinghy – by this stage the foredeck was almost awash – and gathered a few things from the cabin – passports, EPIRB, dinghy anchor ... anything that floated up. I put some petrol into the outboard and fitted it to the dinghy – there was more petrol under the cockpit aft but by now this was inaccessible. We put the stuff into the dinghy plus some water cans from the cockpit – by this stage waves were breaking over the foredeck and the cabin was easily 5ft deep, so I judged any attempt to rescue stuff from inside to be perilous. We got into the dinghy, after several attempts I got the outboard running, and we let go – all within about half an hour of hitting the reef. We hadn't got much petrol in the outboard and I didn't know how far it would get us. I didn't get one or two of the waves quite right and on at least one occasion we came close to capsizing.

As we got close to Nosy Vory we could see that the beach didn't look very nice – black boulders a bit bigger than footballs – but with the fuel situation as it was we went for it, and successfully landed and unloaded the dinghy and pulled it up a bit. There were oyster shells on the rocks, and Dao had no shoes and me just one. Then we spotted a fishing boat and I got Dao to wave a yellow jacket at them. They saw us and came closer. Two of the fishermen jumped out and swam ashore, and we walked with them along the beach to their fishing camp – a few thatched huts. Their boat was a heavily-built carvel open boat about 30ft long with 15hp outboard, short mast and lateen sail. They must have been to our wreck shortly after we left, and had salvaged four solar panels, the kedge anchor, the spare outboard, the liferaft and three cans of diesel. I spoke to them in French and they asked me if there was an echo sounder (yes) and would I like to go back to the wreck (yes).

I returned with them, leaving Dao in charge of drying things out. By this stage the deck was about 6ft under the waves but the sails were still set – perhaps the boat was still bumping to a deeper part of the reef. We picked up a long mooring line and two of them jumped in, wanting to drop the sails to stop the wreck's progress into deeper water. They succeeded with the mainsail but not with the unrolled genoa – the foredeck was too far under to pull on the sail from the right angle. They swam to the chart table and recovered two drowned GPS sets, the Nasamarine barograph, two drowned mobile phones and two bottles – it was a bit hard to direct their efforts and I decided it would be ineffective and dangerous for me to jump in to try to help.

We returned to the fishing camp, ate some rice and boiled fish, and then began our journey with them to civilisation. After a couple of stops we arrived next morning at their fishing village in Baie d'Ambarata – we hadn't spotted it from our anchorage of a couple of nights earlier since it is well hidden by the mangroves. They unloaded the boat as the tide ebbed and prepared a meal – rice and fish again. We were led to expect that a taxi might come, but it did not arrive so we started to walk with Rousi and his brother and discovered why there was no taxi – there's no road for the first half of the hour-long walk to the village. Clearly this was a more important place, as Rousi and his brother made a report about us to two ladies in uniform in an office next to the *Mairie* (village hall). Then we got into a waiting *taxi brousse* – a covered pick-up – which got ridiculously crowded and over-loaded as it made its journey along bumpy roads to Diego Suarez. We arrived in the early afternoon and were met by Rousi's father, who took us by *tuk-tuk* taxi to a bank so I could get money from the ATM.



Next we attempted to check in with the Immigration Police. Our arrival in the country was, of course, rather unorthodox, so the procedure was not straightforward. The officials we saw that afternoon kept our passports and told us which hotel they wanted us to stay in. At least my iPad still had some charge, and I was able to use the hotel wifi to inform friends and family of our safety, the loss of *Ramprasad* and the dangers of Banc Ampamonty. Next morning I met the policemen detailed to look after us, but Dao stayed at the hotel since she'd lost all her clothes apart from a nightdress and a jacket – what she'd been wearing the previous day. I accompanied the policemen to an office, where one of them typed a report based on what I told him (there was a computer in the office but it didn't work!) and that afternoon we got our passports back with 15 day permits to stay in Madagascar. I also gave Rousi's brother and father money to pay for 100 litres of petrol, to replace the fuel that they used while helping us.

That was not the end of our dealings with local bureaucracy, however. We were taken by the policemen to make a report to the Harbour Master's department in the person of M Jaona Ramanantsoa, Maritime Inspector of Antsiranana, who spoke very good English. He criticised the fact that we did not have seaman's books, to which I replied that I had never been required to have a seaman's book* despite having travelled on my yacht to many countries. M Jaona then took our passports and filed them with some Seaman's books which he had shown us, but when I protested that we had only just got our passports back from the Immigration Police he returned them to us, saying that he'd put them in his filing cabinet as an oversight. I had not brought my iPad to this meeting, assuming that I'd provided sufficient explanation to the officers that morning, but I agreed to provide M Jaona with a written report next day. Then we were free to go.

I have written this account of our unorthodox arrival in Madagascar partly for me, and partly to share what I learned with others and allow them to learn from mistakes that I may have made.

- I would strongly encourage navigators to prepare a proper pilotage plan, and to be aware of any dangers in their vicinity and their anticipated vicinities. I would encourage them to check this plan against an independent navigational source – had I looked on my C-Map charts I might well have noticed the discrepancy between the two charts and the dangerous nature of Banc Ampamonty.
- In these days of electronic navigation I would like to make navigators aware of the risks involved in seamless scale-changing, as I am used to doing on the vector charts that I display on my iPad.
- Some years earlier I had enquired about servicing the liferaft, but I had had it serviced twice before and it seemed that I would have to buy a new one – something which at that time I could barely afford. In this situation we were almost certainly better off in the dinghy.

* Under UK law, a 'seaman's book' is required for merchant seamen and those employed aboard yachts, but not for unpaid skippers or crew.



- After the boat was holed we didn't have much time, and I think we used that time fairly effectively – some important things were saved by good luck but many things forgotten and lost, including the flares, the YB tracker (satellite communicator) and the VHF hand-held. I did remember the EPIRB, and its signal alerted Falmouth Coastguard to our situation, but since Madagascar has no lifeboat service or SAR organisation nothing could be done beyond informing my sisters in England.
- It was the fishermen who helped us reach civilisation. As they explained to me, they were quite poor, and I hope they felt suitably rewarded for their assistance. I am glad that the fellowship of seafarers still seems to count for something.

I am grateful to have been able to discuss these events with other sailing friends, and very glad that both of us came through this disastrous experience alive and uninjured – things might so easily not have turned out that way.

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Sam sent a draft copy of the above to Navionics for their response, and received the following reply from Giuseppe Carnevali, President of the company. It has been edited to omit repetition and non-relevant information, but otherwise remains unchanged.

Dear Mr Coles

First and foremost, let me thank you, as I thanked the skipper of Team Vestas (who grounded on a reef off Mauritius during the Volvo Ocean Race while using C-Map) and

others, for coming out and publicly sharing a terrible experience in order to help others avoid the same. All of us boaters and mariners must be grateful for your words, 'I have written this account ... for others to learn from mistakes that I may have made'.

From your report I understand that a series of incidents and errors combined with heavy fatigue and possibly even some panic, conjured into a perfect storm*, leading even a very expert and seasoned mariner such as you into the ultimate error of deciding that since a land area reported in the chart was not visible, it was okay to instruct your mate to navigate through it. In hindsight it is easy to criticise your obvious mistake, but, as the proverb says 'those at sea navigate while those on land judge'. It is much too easy to sit on safe land and judge, after the fact and in total calm, the actions taken during a perfect storm.

Coming to the specifics of the charts, it is important to be aware that all charts have errors, whether paper, raster or vector, independent of who published them. By common practice a product is considered very good when it has 99% accuracy. A product with 99.999% accuracy is considered closer to science fiction than to reality. With a database like Navionics', which contains over a billion objects such as rocks, navigation aids, wrecks, etc, 99.999% accuracy still leaves room for 10,000 errors! No chart, whether made by Navionics or its competitors, or any Hydrographic Office, can avoid this simple mathematical rule.

We have double checked all the official charts for the area from SHOM (the French *Service Hydrographique et Océanographique de la Marine*) and the UK and Indian Hydrographic Offices, in addition to our competitors. Our chart is a correct reproduction of the official SHOM chart, but others represent the reef as a drying area, as a rock that covers and uncovers, or as a rock surrounded by an obstruction line, while others show nothing at all. A review of the best available satellite imagery shows that without doubt there is a large reef, but whether the best way to portray it is as land, as drying land, or as a cluster of rocks, could be debatable**. From the Volvo Ocean Race incident, as an example, we have learned that it is best to 'exaggerate' hazards, lest they go unnoticed by the navigator, a practice that is routinely done by hydrographic offices, and again we have faithfully reproduced what was done by SHOM.

So I can only agree with your words that proper planning and comparison of multiple sources of information, including sonar and good lookout, would have avoided the accident, though I appreciate that this is easily said but not so easily done. I am glad that no-one was injured, and once again thank you for sharing your experience.

Giuseppe Carnevali
President, Navionics

* This does not accord with Sam's statements on page 77 that 'we slept well', and that he went below 'to do some tidying'. The reference to a 'perfect storm' is probably not intended to be taken literally, since the Beaufort Scale defines force 6-7 as a 'strong breeze'.

** Members may have their own opinions regarding this statement. A topic for the Forum, perhaps?