Information for people who plan to sail oceans

Richard & Kathy Bacon – circumnavigated on "Balmacara" over a 9-year period

Our boat was a Corbin 39 named "Balmacara", hailing port Missoula MT, USA. Specifically, Balmacara was a Corbin 39, cutter-rigged pilothouse, the mk1 double spreader tall mast version with the bowsprit, hull number #043. Pictures can be seen by going to the Corbin 39 Association website, then the Boats & Owners section, then the Boat Index. (see http://corbin39.org/043-balmacara/).

Good Books

Boatowner's Mechanical and Electrical Manual. Nigel Calder

Rigger's Apprentice. Brion Toss

The Annapolis Book of Seamanship. John Rousmaniere

Communication

Sailmail. In our view this is a must have. This allows you to use your single sideband frequencies to access e mail. The radio sends and receives data on your laptop. I checked and it is still available.

The single side band radio is another must have. This allows you to communicate with other boats and services like weather forecasts that are provide from a land location. We participated in a roll call with other boats every morning during a passage. We also got weather forecasts for our passage from Russel Radio in New Zealand. We had an ICOM SSB that did an outstanding job. Don't get a cheap low end one. We had a 100 sq ft of copper foil on the inside of the hull below the water line. People used to contact us for help when they need help with a long distance SSB communication. We could reach New Zeeland from southern California.

I don't recall VHF radio brands. We had a fixed mount VHF at nav station and handheld VHF in the cockpit. We used a fairly large diameter antenna wire through the mast to the mast head antenna. This increased our range quite a bit. Get the fittings correct. We found problems at these locations when we work on other boats with a VHF problem

Navigation

We had two fixed mount GPS's at the nav station. One was for back up. They allowed us to communicate directly with our laptop. It looks like many of the GPS's today also include navigation software. ??? We also had a handheld GPS.

We used international C Map software on our laptop for navigation. It looks like it is still out there but there may be something else now. Research.

Backup paper maps are also important. Paper charts can be very expensive. We joined with a number of yachties in New Zealand to gather up the charts that we would all need and took them to a large printer at an architectural firm and got a lot of copies. We stored our charts in a PVC pipe.

We had a forward-looking sonar that saved the day for us a number of times and it was very useful when we were getting ready to anchor. I think that a through hull transducer is the way to go. Don't place the transducer where the boat lift straps are going to go.

Steering system

We had a Monitor wind vain (named Monty) that served us well. It operated very quickly when we were going down wind in big seas. I don't know if they have a wind vane that will work on a multihull.

We had an Alpha 3000 auto pilot (named Alph) that was attached to the rudder radius arm. A control box was located in the cockpit and at the nav station. Our auto pilot was independent of all other electronic equipment. People that had integrated systems got into real trouble when something failed. We knew of one couple that had to hand steer for three days. Our choice on the alpha was based on power consumption. It was extremely efficient. It used about 35 amps per day when used for 24 hr.

We also had an auto pilot that could be attached to the wheel. We used it once when we lost a hydraulic seal on Alph.

Kathy would say when she came on watch, "who is steering, Monty or Alph ?" . She did not like Monty because a wind change would create some excitement.

Rigging

Offshore insurance required us to have rigging that was less than 10 years old. You will have to show evidence to a surveyor.

I worked on a lot of our standing rigging. There is a good You Tube for this. You need to use high quality compression splice links and terminals. You will need to use two backstay insulators on one of your back stays to create the SSB antenna.

Stainless

You should use 316 stainless steel on everything. People will try to sell you items that are made of 304 stainless. You should place a small magnet on an item. If it sticks it is 304

Refrigeration

We started out with an Adler-Barbour vertical evaporator in a cooler box that was built into the boat. It used 7.5 Amp's per hour when on. It failed us in French Polynesia and we purchased one like the one we had that was French made. It used 2.5 Amp's per hour.

Engine

Some major thinking to do here if you are looking at a used boat. One will be using their engine more than they think. We had a 35 hp Perkins in our boat when we got it. We had it rebuilt so that we would be able to start with a 0 time motor. We had to have it rebuilt again when we got to Turkey. We put 4000 hours on it. We would have been money ahead if we had installed a new motor. If I had to do it today I would go with a Yanmar. People with this motor had the least amount of trouble. You will need spares for everything on the motor. We had to replace two heat exchangers. You also need to make sure that you have a good raw water intake with proper venting on shutdown so you don't fill the engine with water when it is not in use. Heat exchangers and water pumps can fail. We used our spare water pump when we were getting ready to go up the Red Sea. We had one shipped from the US. Shipping cost equaled the purchase price.

Electrical

There is a lot of homework to do here. We had two 8-D 230 AH batteries and one 75 AH starting battery. A switch was in place to select and isolate each battery. ½ of the AH are available for use. We knew what every electrical item used for power and we purchased a lot of our stuff with power consumption in mind. The LED systems are a big help now.

We had two 120 AMP solar panels with an ammeter on the system.

A wind generator that is no longer made that could produce 17 AMP per hour with winds at 25 knots. Our friends with a multihull have two wind generators on their boat

Our Kiwi friend built a towing generator that worked very well.

Placed volt gauge and amp gauge at nav station.

Had international 220 to 240 volt battery charger and US 120 charger. You must deal with many many plug outlets, purchase before leaving the US.

We had an inverter that we used for the computer and some light weight power tools. We had one 120 power plug in the pilot house.

Quite a bit of engine time can be used when charging your batteries. The alternator amp output will drop of significantly when you are getting closer to full charge. Our New Zeeland friend installed a side circuit with a switch and red warning light that told the alternator that our batteries were 1 volt lower that they were. This kept the alternator output up and reduced our engine run time by about a ½. We would only use this system when we were onboard and we would put our hand on the alternator once in a while to see that it did not overheat. This worked well and we never had a problem.

Grounding systems need a lot of care. Some need to be isolated. Lightning, radio ground plane, Battery ground, all metal items like a fuel tank. Zinc anode setup is really important and some special things need to be done to the rudder shaft because it is isolated from engine. We used to put a grounded zinc anode over the side of the boat when we were in marinas.

Toilet

We had a holding tank with deck outlet and a manual discharge pump so we could empty the holding tank when we went to sea. You do not want to work on a toilet when you are underway. Before we departed on a passage, we took the hoses out of the system and banged them on the dock to get the calcium out of them. It was not uncommon to have less that a 1 inch hole through the 1 ½ pipe.

A direct discharge system is not legal in US water and the fine can be big time but there we many yachties that had them. If I were traveling again I would install a direct discharge with a shut off valve after I left US waters. We had a lot of trouble with the manual discharge pump.

Sewing Machine and Sewing

We had a sewing machine that payed for itself a number of times and it allowed us to help many other yachties. A local sewing machine repairman set the machine up for us. He ordered parts from Sailrite that he could use for manual operation. The machine that he sold us was half the cost of a Sailrite machine. Kathy repaired a number of sails for people but it took about three helpers to move the sail.

Kathy made most of our courtesy flags and our quarantine flag and she did a lot of upholstery work for us. She also made a full awning for our boat when we were in Southeast Asia where to sun and humidity can be terrible. A few dollars were saved.

Anchors

There is no common agreement among yachties on the best anchors. We had a 45lb CQR as our primary and it served us well for 9 years. As a backup we had a 45lb Bruce that we never used and we had two Danforth anchors. The Danforths were used a stern anchors when we needed one.

We followed the 1 to 5 or 1 to 7 rule. If we were in 35ft of water we would use 175 to 245 ft of anchor line. We place colored plastic ties in the chain at every 25 ft. We had 300 ft of high grade 5/16" chain with 200 ft of three strand attached. Lots of spare line of all kinds on board.

We fouled our anchor a number of times. Our first experience was in Canada and we had to hire a diver. After that experience we purchased a gas operated Hookah Dive system with two 35 ft hoses and always tried to anchor in 35 ft or less. We only dragged our anchor once, it pays to spend time getting it set.

Safety

Check list. Life rafts in cradle & hydrostatic release system mounted to deck. They need a service every few years and you can get burned on price. Other yachties may be able to tell you where you can get lower cost service. Inflatable life vests with harness, tether lines in cockpit and on deck to bow, Horseshoe Buoy, Overboard Pole, EPIRB, Sea Anchor, (I think that the sea anchor is very important if you are in the southern ocean headed for New Zeeland). Throw ropes, Drogue, Flares. Many of these items are required

Other

Fiberglass blistering was a major issue for a number of yachties like us. The problem appeared to occur on boats that had been built on the 1980's and earlier. The gelcoat had to be removed and the boat would have to set out in the yard for many months until the moisture meter reading got to about 12 %. Big time costs, $10,000 - $15,000. It would be good to visit with a surveyor to see if this is not a problem today

We jerry-canned our water and fuel from USA until we got to Malaysia. Most of the other yachties had water makers. Then we installed a Katadyn water maker ($4,000) that produced 1 ½ gal. per hour. We turned it on whenever the engine was on. We did not think that we would be able to find good water going up the Red Sea. A good decision.

A water filter under the sink and a very high faucet so you could get a bucket under it.

Stove with oven attached with gamble attachment.

Membership in the Seven Seas Cruising Association has some value. Take a look at their web site. It is something to think about before you get underway.

Yachties also place a high value on the " noonsite"

There was very little equipment on the boat when we got it. We spent $25-30,000 for all the stuff that you see in this document. The engine work is not included in cost.