

6. OFFSHORE PASSAGE TIPS

This section contains practical suggestions for undertaking a long passage, with a focus on 'life onboard'.

Included are tips for provisioning (providing food), and ensuring that water and fuel quantities are appropriate, daily checks to keep the boat sailing, and dealing with breakages.



Useful Pre-Departure Checklist

Questions	Notes
Are you happy with the quantity of fuel you will carry? See page 72-73	
Are you happy with the quantity of water you will carry? See page 74	
Have you got a provisioning plan? See page 75	
Do all the crew know how to deal with garbage/rubbish? See page 78	
Have you decided on a watch keeping schedule? See page 98-99	
Have you practised at-sea rigging checks, and do the crew understand the importance of these? See page 82-84	
Do you have a sail plan for all conditions, including downwind sailing and strong winds? Have you tried-out different sail plans to see what works on your boat? See page 91-95	
Do you have a strong-winds strategy? Have you tested your reefing system? Have you tested your storm sail options? See page 91	
Are you going to try to catch fish to supplement your food? See page 96 for tips	
Have you practiced emergency drills with your crew?	
Questions for the week of departure	
Have you prepared a passage plan? Legal requirement under SOLAS Reg 34	
Have you completed the Pre-departure briefing with your crew? See page 39 - you will be asked to confirm this in writing	
Are fuel, water and gas/propane tanks full?	
Have you got all provisions/food and water onboard?	
Monitor weather patterns	
Final pre-start checks: <ul style="list-style-type: none">• Safety equipment all set-up and ready• Spares• Rig and sails• Navigation and communication equipment	
Begin taking sea-sickness medication at least 24 hours before planned departure	

Fuel and Water Planning

These fuel and water planning top tips come from Rick and Julie Palm, circumnavigators, experienced cruisers and past managers for the ARC Caribbean 1500 rally.

The amount of fuel and water that you will carry will depend on the length of the passage, the tank capacities of your boat, the equipment you have onboard, how many crew you have onboard, and how you run your boat on passage.

This chapter sets out some simple hints to help you plan.

Prudent Planning

Distance

While the rhumb line distance of any passage can be calculated by a quick look at the chart, it is unlikely that you will actually sail this distance. With wind shifts, tacking upwind or sailing the angles downwind, you will certainly sail much further. 15% further is realistic, and 20% further is prudent.

Adding 20% to the calculated passage distance will give you a cushion when planning. This cushion should enable you to carry enough fuel to charge the batteries, motor (for a period) if the winds fall light, and have enough to motor into the harbour.

Boat Speed

Be realistic when determining the number of miles your boat will cover in an average day. It is unlikely that you will be sailing at theoretical hull speed. You may not want to push your boat hard for the entire trip (it's hard on the boat and crew), or you may experience conditions that reduce your boat speed, like a difficult wave pattern.

Days on Passage

Estimated passage time = Distance (including 20% cushion) ÷ realistic boat speed

This may be longer than you first thought!



Fuel Planning

To develop a fuel management strategy, you must quantify the 'usable' fuel capacity of the boat, and understand the rate at which fuel is consumed by the engine in cruising conditions. This information is not in the manual, it comes from experience with your boat.

Usable fuel

Your boat specification will include the capacity of the fuel tanks, but depending upon where the exit hose is located, the usable capacity may be 15% less. To calculate the usable capacity of the tanks, run each tank down until it is close to empty (or until the engine shuts down, if you are happy to bleed the fuel system). When you refill the tank, note the exact amount of fuel that can be added – this may be the same or less than the manufacturer's capacity. This is your 'usable' fuel. Have a spare fuel filter ready after this!

Efficient engine operation

To determine the most efficient speed to run your engine when the boat is equipped and loaded for extended cruising, calculate your boat speed at various RPMs.

1. With a correctly calibrated speed log and on a calm day with flat seas, motor at the lowest recommended operating RPM for your engine. Note your boat speed once the boat has stabilised. Increase your RPM by 250 RPM and note the speed again. Repeat until you reach the maximum recommended RPM.
2. Next, add fuel consumption to the matrix, using the information provided in the engine manual. Using the speed and fuel consumption information, you will be able to calculate the engine speed/RPM at which you can motor the greatest distance on a quantity (litre/gallon) of fuel, and the amount of fuel that will be consumed for any given RPM and boat speed.
3. Verify your assumptions by starting with a full tank and running the engine at cruising RPM for several hours. At the end of the run, refill the tank and note the quantity of fuel used. Divide the quantity of fuel used by motoring time to give usage per hour, and compare with the earlier calculations. Repeat, using different RPMs.

4. You will be able to create a table showing the RPM with boat speed, estimated fuel used, actual fuel used and miles per litre/gallon for each 250RPM increment.

Motoring range

Using the data you have collected, you can calculate the motoring range at the most efficient speed for the quantity of fuel carried. Many cruisers extend their range by carrying extra fuel in containers.

Fuel Management on Passage

Review fuel usage and motoring time every day. Some hints for adjusting your strategy:

- Have you motored for more than your calculated allowable daily motoring distance in the past 24 hours?
- Based on the forecast conditions, do you anticipate motoring more than your daily motoring distance in the next 24 hours?
- Are you powering into waves, using more fuel than motoring in flat seas?
- Are you running the generator more or less than you planned?
- Have you saved fuel in the past 24 hours by not using the motor as much as planned?

Based on your answers, you can recalculate your fuel requirements to meet your actual situation. For example, you can answer questions such as:

- Can I afford to motor at 6 knots at a higher RPM for 4 hours to get into port before dark?
- Should I use less fuel and slow down, waiting to enter port in the morning?
- If I lower my engine speed by 500 RPM and have to motor for 24 hours, what will be the impact on my fuel consumption, and how far will I travel?

If you are concerned about your fuel level, transfer the fuel needed for the generator to a separate tank.

Practice restarting the engine if it runs dry – manually priming an engine offshore can be difficult.

If you run your tank right down, have a spare fuel filter ready, as the old one will get very dirty.



Sample fuel management plan

Useable tank capacity	600 litres	
Extra fuel in containers	100 litres	
Total fuel onboard		700 litres
Reserve for emergencies	10%	70 litres
Calculated length of passage	10 days	
Generator required	2 hours per day	
Total generator hours	days x generator hours	20 hours
Generator fuel use	2 litres per hour	
Generator fuel requirement estimate	hours x fuel use	40 litres
Fuel for propulsion	total - reserve - generator	590 litres
Fuel use at efficient RPM	5 litres/hour	
Total number motoring hours possible at efficient RPM	fuel for propulsion ÷ fuel usage	118 hours
Boat speed at efficient RPM	5 knots	
Estimated range at efficient RPM	speed x motoring hours possible	590 miles
Average allowable motoring distance per day	Estimated range ÷ length of passage	59 miles

Water Planning

Water is the most critical element of passage planning. If you run out of water you may face a life-threatening situation. Good drinking water is vital for health.

A recommended minimum for drinking water is 2 litres per person per day, rising to 3.5 litre per person per day in the tropics/hot weather, or where the crew are seasick or physically labouring hard.

This doesn't include fresh water used for washing or other domestic chores.

You may choose to carry a large number of water bottles and soft drinks to make up a majority of the drinking water requirements. This provides a buffer if you are unable to use your watermaker, or if the water in the tanks is undrinkable or tainted. Most cruising boats can accommodate large numbers of bottles under bunks or under the floorboards.

Having a large proportion of your water requirement in bottled form makes auditing usage easier, whether you are trying to encourage your crew to drink more, or keeping tabs on a dwindling supply. Use large bottles with a hand pump.



Water management tips

- **Educate your crew** in water saving techniques for personal washing – such as using a mug of water to brush your teeth and a wash cloth to clean your face
- **Fit foot pumps** in the heads/bathroom and galley and switch off the pressure water system. This stops water going straight down the drain
- **Fit a salt water pump** in the galley, or use a bucket, and wash the dishes in salt water, finishing with a fresh water rinse
- **Limit the number of showers** taken – ration people to 1 shower every X days (you decide!)
- Alternatively, **shower in salt water** with special soaps and shampoos, and finish with a quick fresh water rinse.
- Talk to your watermaker manufacturer about the most efficient way to build water capacity
- Remember that if you rely on a watermaker, it may break down. You also need fuel to run the watermaker
- Consider how you could **capture rainwater** for showers, or for refilling the tanks. Beware not to contaminate the tanks with salty run-off water.

Sample water management plan

Drinking water: 2 litres minimum per person per day	Number of people x 2 litres (minimum)	Total
Fresh water shower: estimate 8 litres per shower	Number of scheduled showers x 8 litres	
Fresh water washing for people and dishes: estimate 5 litres per person	Number of people x 5 litres	
Total estimated water consumption	Sum above	
Add safety factor of 10%		
Total water requirement	Sum above	
Water tank capacity		
Extra water to be carried in bottles		
Extra water to be carried in jerry cans		
Total water capacity	sum above	
Total water capacity - total water requirement	If this is negative, you have a problem!	

Provisioning

The countries visited on World Cruising Club rallies all have populations that sustain themselves and eat well. If you are considering long term independent cruising, you may find that this isn't always the case.

The range and price of available food supplies does vary from country to country, and some ports will be better than others for major reprovisioning. It is a case of buying what is for sale, and then menu planning accordingly. A visit to the local produce market is always worthwhile, and often an opportunity to try new ingredients and recipes.

As well as availability and price, transport is an important issue when provisioning. A small foldable cart/trolley will help in transporting heavy items like bottles of water, and sometimes local traders are happy to deliver to the dock if this is arranged in advance.

Provisioning away from home should be fun!

Rather than treat it as a chore, provisioning is an ideal opportunity to explore a port, to meet the local people in the market and shops, and to have a go with the local language.

As you relax into the bluewater sailing routine, you will think and worry about accurate provisioning less and less. You will learn what is important, and how to make-do without specific foodstuffs. However, it is a good idea before every long passage to get the crew together to discuss and plan menus. A well-fed crew is a happy and efficient crew!



Planning How Much to Take

- Don't forget propane/gas and water supplies when planning menus. If you are low on gas, don't use the oven or boil large pans of water.
- Ask crew if they have dietary requirements, likes, dislikes or allergies.

- Be prepared for fridge/freezer breakdown and include canned and dried foods.
- Make a menu plan for 3 meals each day based on your estimated days at sea, and allow 20% extra for a slow passage. Take into account climate changes during the trip and therefore the type of food you want to eat.
- Work out quantities per person multiplied by the number of crew: eg 250g (½lb) of meat per person per meal, 500g (1lb) of pasta/rice/couscous for 6 people, 1 tomato per person per day) etc.
- Allow at least 2 litres (2 quarts) of drinking water per person per day. In reality however you will probably consume as much as 3.5 litres of liquids per person per day, especially if temperatures are high, the weather is bad and physical demands are greater, or if dehydrated as a result of seasickness. Water, tea, coffee and soft drinks are all included in this total.
- Don't forget to budget for snacks, fruit, cookies, tea bags, coffee and condiments.
- Don't rely on catching fish unless you have successful fishermen onboard. Count fresh fish as 'extra' meals that save you from dipping into the freezer or can store.

Storage

- Work out a stowage system and stick to it! Bear in mind that most places on a boat may get wet at some time.
- Use water-tight containers whenever possible - ziplock bags and plastic containers in place of store packaging. No cardboard - it can contain cockroach eggs. Stick labels on all re-packaged foods and drinks.
- Allocate specific lockers and under-floor areas for particular items (label the doors if it helps) and draw a plan, so everyone on board knows where to find things.
- Prevent movement, abrasion and noise by using pieces of foam, plastic bags, paper towel, cloths or plastic bottles to jam between packages, cans and glass jars. Pack paper towel between cooking pans to prevent rattling on passage and damage to non-stick.
- Do not take delivery of cardboard boxes on deck (they carry cockroach eggs) and get rid of any cartons, drinks trays, and excess

cardboard packaging ashore.

- Carefully wash and dry fruit and vegetables before stowing to remove bugs.
- Overhead nets (soft mesh) are great for hard fruit and vegetables - apples, oranges etc.
- Folding plastic storage crates in dark well-aired lockers work well for soft fruit and vegetables. Stop bruising by packing tightly, and put paper towel between layers.
- Check fruit and vegetables daily, remove and use mouldy or overripe stock.
- A snack basket with enough fruit, chocolate, cookies etc for one watch at a time will help ration treats.
- Vacuum pack fresh meat to increase its keeping time. Small domestic machines cost around US\$100, or ask the store.
- Wash and dry eggs and stow in plastic egg crates. No need to refrigerate or varnish; normally last 3 to 4 weeks. Test eggs by sniffing the shell. Avoid cardboard egg boxes.



Fridges and freezers

- Assume your fridge or freezer will break down!
- Help it to work efficiently by keeping the door open for as short a time as possible.
- Don't overwork it by adding lots of warm items at once. For example, try to eat immediately most of any fresh fish caught, rather than chilling or freezing it.
- A fridge, freezer or coolbox will work more efficiently if it is full. Pack with bottles of water or even empty cartons if necessary.
- Organise the fridge with baskets for each meal: a breakfast basket containing milk, yogurts, eggs, bacon; a sandwich basket containing bread, butter, cold meat, cheese; a condiments basket and so on. This saves time and mess as crew can simply take out the basket they need.

- Organize frozen meat or meals in colour coded bags: yellow = chicken, red = beef, green = curry etc, and clearly label.
- Lots of items we refrigerate at home don't really need chilling: Ketchup, mustard, jam, peanut butter, hard cheese, eggs, dried meats will be OK if stored in a locker and checked carefully before use.

Cooking

- Don't forget propane/gas and water supplies when planning menus. If you are low on gas, don't use the oven or boil large pans of water.
- If you have a strict menu plan make sure that everyone knows, otherwise a volunteer cook may use more than one meal's rations.
- The cook's job can be a chore; some boats rotate the role with all taking a turn.
- If you have access to lots of electricity onboard then a microwave, breadmaker or electric cooker/oven like a Remoska can be a quicker and more efficient way to cook. These aren't designed to be used on a rolling boat; put them somewhere where they can't tip-over or spill.
- A pressure cooker is a quicker way to cook than open pans. It will save a lot of gas, and use less fresh water.
- Cup measures are easiest to use on a boat. Find a suitable recipe book and baking recipes.
- Check more than one pan will fit on the stove top at a time, otherwise change your recipes!



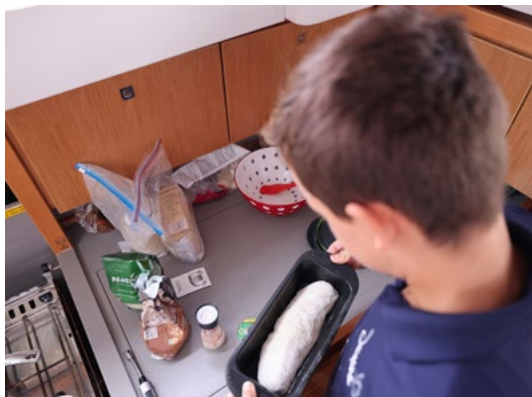
Hot spills can cause serious burns!

- If you have to cook hot food in rough conditions, wear waterproof trousers and boots to protect from hot spills.
- Secure pans to the stove with pot holders/clamps.
- Buy an oven shelf with a retainer bar to stop hot pans falling out when the door is opened.
- Pressure cookers are safer to use in rough conditions, as the tight-fitting lid stops spills.
- Feed the crew in batches, rather than trying to handle large, hot pans.

02. Rally Preparations

Shopping

- There are shops everywhere so don't stock up for a year. Experiment with local food - it should be part of the fun!
- On arrival at a new port, check the local shops and markets, and find out if any of them like to receive orders in advance. Warn them of your departure date.
- Try before you buy; there is nothing worse than buying quantities of something you have never tried and find you don't like.
- Whole grain bread lasts well, as does partially baked bread. Or consider flatbread/tortilla wraps instead as they last well and take up less space.
- Plan meals with couscous or rice to save boiling lots of water.
- Don't forget to buy some special things for onboard celebrations like 'half way' or 'land ahoy' parties.
- **Fresh produce rough guide:**
 - Will last 3 weeks:** potatoes, onions, garlic, squash, cabbage, beets. Apples, oranges, lemons, limes
 - Will last 2 weeks:** carrots, cucumber, zucchini, pineapple, pears, grapefruit
 - Will last 1 week:** avocado, hard lettuces (iceberg, romaine), eggplant/aubergine, peppers, tomatoes, cauliflower, broccoli. Bananas, melon.
- **Measures rough guide:**
 - 1kg (1000g) is just over 2lbs (actually 2.2lbs).
 - 1 litre (1000ml or 100cl) is about a US quart.
 - There are 4 litres to 1 US gallon (4.5 litres to an Imperial gallon).



Pre-departure Preparations

- Three days before departure make sure you have enough propane/butane for cooking. A spring balance is useful for checking cylinders.
- Three or four days before departure buy all non-perishable foods (cans, bottles, and dried goods); label and stow.
- Do your big fresh shop one or two days before departure. If possible, avoid chilled fruit and vegetables unless you have space to keep it cool in your fridge.
- Prepare and freeze as many meals as you can before you leave the dock. Include rough-weather one-dish meals that can be eaten from a 'doggy' bowl with just a fork or spoon. Freeze individually in bags - these will stack easily.
- To save time and water, cook pasta, drain and add a tablespoon of olive oil before freezing - just add to stews.
- Prepare snack bags for each crew member in advance, allowing a mixture of snacks for night watch during the passage. This helps rationing.
- The day of departure, prepare easy meals like sandwiches or hot soup in flasks, so that your first day/night at sea is easy.

Useful Galley Items

- Plastic/styrofoam egg boxes.
- A chopping board that fits into the sink.
- Special green plastic bags for keeping vegetables and fruit fresh in the fridge.
- Overhead netting (small, soft mesh hammocks) for fruit and vegetables.
- Non-skid matting to stop plates from slipping.
- Large plastic 'doggy bowls'. Easy eating with no spills in rough weather.
- Thermal mugs for keeping drinks hot or cold.
- Salt water pump for rinsing dirty pans.
- Vacuum/Thermos flasks for hot drinks for the night watch - this saves noise below when the off-watch is sleeping.
- Lots of paper towels for mopping kitchen and engine spills, and for stopping pots rattling.
- Steriliser fluid/tablets for ensuring drinkable tank water and deep cleaning the galley.

Disposal of Rubbish/ Garbage at Sea

Cooking will probably create more waste on a cruise than any other activity. Dealing with packaging and food waste is an issue on long passages, especially in hot weather.

Remove as much packaging as possible before bringing food onboard. Lots of foodstuffs have extra packaging that has no function and can be removed and left ashore. Cardboard can also hide cockroach eggs.

Modern packaging materials can take years to breakdown in seawater and create both visual pollution and a serious danger to sea life.

Turtles, dolphins, fish and sea birds die when they mistake our rubbish for a meal, or become entangled in discarded plastic bags.

Drinks cans take 100 years to breakdown, plastic bottles and bags take 450 years, fishing line and electrical (cable) ties take over 500 years and even orange peel takes 2 years.

Wash dirty food packaging in seawater, crush it as small as possible and store in plastic crates in a deck locker. Make a can-crusher from two pieces of wood. Well-rinsed rubbish should not smell!



Home made can crusher

All marinas and boatyards have garbage disposal facilities and many now have recycling facilities. Ask about the local recycling arrangements and use these whenever possible. Don't forget that very small communities may have limited resources to handle volumes of rubbish, so it may be better to carry it a bit further until you reach somewhere with better facilities. If your rubbish is going to be buried or burned on a beach, maybe you could live with it a bit longer?

Most cruising destinations take great pride in the quality of their local environment and may have laws restricting garbage disposal at sea. If in doubt – don't do it! For information on general advice see www.thegreenblue.org.uk and on local restrictions visit www.noonsite.com

What goes over the side...

US Federal law covers disposal of waste in US territorial waters. This is a good guide for boats operating anywhere in the world, where no other specific regulations exist.

Less than 3M offshore	<i>only fresh fish/parts, grey water (not black or toilet water)</i>
3-12M offshore	<i>only trash ground to less than 1 inch - no plastics or packaging</i>
12-25M offshore	<i>no plastics or packaging</i>
More than 25M offshore	<i>no plastics</i>

Managing Sea Sickness

Sea sickness is no joke; some people suffer really badly, unable to stand a watch or rise from their bunks. These people are at risk of dehydration and should be helped with sips of water or rehydration fluids.

Seasickness can leave your crew depleted, so encourage everyone to take precautions - find out which remedies suit you before departing on a long passage.

It takes most people around three days to acclimatise to life onboard, so take it easy for the first few days. You're on holiday!

- Avoid alcohol and fatty foods the day before departure.
- Start anti-seasick medicines 24 hours before departure, and continue as prescribed until you have acclimatised.
- Plan plain meals for the first few days at sea.
- Dehydration can be a real problem in hot climates and also on long passages. Treat with plain water or rehydration fluids.
- Sugar and salt are important – boiled sweets, some salty crisps (potato chips), or add sugar to plain water. Fresh ginger in hot sugar water, or ginger cookies are also good for settling the stomach and cleaning the palate.

Pre-Passage Checks

Recommended by Professional Yacht Deliveries Ltd
www.pydww.co.uk



Based on the experience of many hundreds of yacht deliveries worldwide, pyd professional skippers adhere to a simple but systematic checking system that can easily be applied by cruising yachtsmen.

Read this in conjunction with the rigging checklist for a thorough pre-departure check.

On Deck

Start at the stem and work aft, checking the following items thoroughly:

- **Bow rollers** rotate freely, rubber not damaged or split. Stem plate is fitted securely to bow, with no cracks or signs of movement. Anchor lock pin is not bent and locks correctly in place, preventing forward motion of anchor on bow roller. Pin must be secured to the stem plate by a captive chain or lanyard.
- **Anchor** is of correct size for the boat and serviceable – not bent or cracked. Anti-kink rotating shackle at head fitted securely to chain and properly seized with wire. Anchor rode (chain/nylon) is depth marked and properly secured to hard fitting in the chain locker – pull it out and check! Ensure that the drains in chain locker are free of rubbish, so you're not carrying an extra ton of water at the bow in a seaway (it happens all too often). Check the chain locker bulkhead is watertight and not cracked at hull joints.
- Check function of **anchor windlass** in both directions – does the chain actually fit the windlass? Are the deck switches or hand-held control box serviceable and water tight? Remember to turn the circuit breaker off when not in use – the windlass can remove fingers in a moment if carelessly left active.
- **Pulpit rails** are securely fitted to the bow and not bent or weakened.
- All **deck cleats** and **fairleads** in good order.
- Examine **roller furling drum** for salt corrosion and check it operates correctly in unfurling and furling the foresail. Check the furling line is attached securely to drum and not chafed at any point in its run.
- Check the **foresail** tack is fitted securely to the furler drum and any webbing straps are sound and not worn or likely to fail. Unfurl the sail and check condition of luff, leach and foot, followed by tack, head and clew, then the leach tension line and clamp. Are the tell-tales all there and visible from the cockpit? Is the UV sacrificial strip in good order – be honest, does it need to be replaced?
- Are the **foresail sheets** properly attached, free of chafe and long enough for downwind work? If stiffened by age and salt, do they need to be washed, or should they be replaced?
- Check that the bases of all **stanchions** are securely pinned and stanchions themselves are not bent and weakened. Ensure that all **guardrails/safety lines** are properly secured at both ends, bearing in mind that the aft end usually terminates in a lashing. Any access points should be closed with the correct folding clips at all levels.
- All **deck hatches** and **port lights** must close tightly against their seals and be lockable from within. Carry out water integrity test with a direct hose – are you prepared to put up with wet upholstery and bedding on a long ocean passage? If not, sort out that faulty seal now!
- Ensure for safety of the crew that port and starboard **jackstays/jacklines** are fitted that run to the extremities of the yacht, fore and aft. Replace any jackstay that looks perished or UV degraded and replace their terminal fittings if in any doubt at all – it's your life and others that rely on them.
- Check that deck **dorade vents** are screwed onto their mounts properly and you have blanking caps available on board to seal them, if necessary.
- At the **mast**, check function and security of all fittings, winches, boom gooseneck and reefing controls. All rollers within the boom should spin freely and all reefing lines

must run correctly. Check the mast gaiter is watertight and not damaged and all electrical cables have watertight grommets where they go through the deck.

- Check all **halyards** and the topping lift are correctly reeved to minimise friction and chafe. Are the lines in good condition and attached securely to their sails or the boom, as appropriate? Where led aft to the cockpit, are the lines arranged logically on their brakes and labelled clearly?
- Examine the **boom vang/kicker** tackle for function and security. If the vang is hydraulic, check there is no fluid leakage from the seal – does it need to be replaced? Check the boom condition over its whole length and security of the topping lift. Check all lazy jacks and mainsail stack pack are correctly set up and all lines are free of chafe.
- Hoist or unfurl the **mainsail** – check condition of luff, leach and foot, followed by tack, head and clew, then the leach tension line and clamp. Check all battens are fitted, not cracked or broken and correctly secured in their pockets. Are there any spare battens aboard? Check reefing system functions as it should, without undue effort in operation. If it's stiff in operation, track down the source of friction and try to adjust the lead by moving the turning blocks, if possible. Remember: friction = chafe = gear failure!
- Bring all other **sails** on deck, take out of their bags and check them for condition, cleanliness, correct fittings (blocks, sheets etc) then re-stow ready for use. This applies to all sails from cruising chutes and spinnakers down to the smallest trysail.
- Check all **water** and **fuel tank filler caps** are fitted with a captive chain and achieve a tight seal when screwed down.
- Check the **backstay** adjustment system.
- Check the function of all **winches** and ensure their caps are secure. Check power winches work under power and manually. Consider the wisdom of turning the winch power supply off at night, to avoid inadvertent winding on the wrong winch and ripping a sail to shreds as a result. Again, it happens all too often, so please be warned.
- Switch on all **cockpit instruments** and confirm they function correctly in all modes, particularly the log, depth and wind speed/direction readouts. Do all the instrument lights work and dim as they should?
- Check the main **steering compass** carefully for working condition: is the glass clear and free of scratches and no air bubble within? Does the light work? Check for any gross error with a hand bearing compass. Has the compass been swung, and is there such a thing as a deviation card?
- Run the **engine** up to working temperature – it should start easily and not belch black smoke, other than a blue wisp on start up. Is coolant water egressing steadily from the exhaust (unless a dry exhaust system is fitted)? Does the gearbox engage smoothly into forward and reverse without a jarring clunk? Do the temperature gauge and rev counter both function correctly? Does the decompression toggle (or other engine kill switch) stop the engine without over-run?
- Is the **steering wheel** secure on its spindle, without excessive play? Do you know the number of turns lock-to-lock and is the central position marked by a lashing on the wheel? Does the wheel lock or clamp work when required and does the autopilot engage and disengage instantly?
- Check all **man overboard recovery systems** are correctly fitted and serviceable (see pages 14-20 for safety equipment regulations). Is there a well-rehearsed and practical system for getting the MOB back aboard? (see page 34)
- Clear out unnecessary items from the deck **lockers** to make more space – do you really need 3 deck brushes?
- Check all GPS sensors, **antennas** and other communication equipment are secure.
- Check that bow and stern **navigation lights** function correctly and are secure and not obscured by a dinghy or other equipment. Check the masthead light and steaming lights and replace any bulbs while still moored up. Check there are no obviously corroded wires or terminals – worth a quick spray with WD40. Lenses should be clear and free of cracks.

Below Decks

Again, start at the bow and work aft, checking the following items thoroughly:

- No obvious **leaks** from the chain locker bulkhead or deck hatches / port lights.
- All **seacocks** are identified and operate freely. A tapered softwood bung/plug should be attached close to each seacock for use in sealing the hole in an emergency
- Lift the **speed log** and check the impeller is clean, and ensure it spins freely. Re-fit the log and check that the blank is secured nearby.
- Check the **depth gauge** transponder is fitted securely and all cables are secure and free from corrosion.
- Lift the **floorboards** and check condition of all bilges – are the limber holes clear, preferably with a through chain fitted for clearing debris (the inevitable match sticks and sweet wrappers)?
- Does the **heads/toilet** pump operate correctly and flush the bowl without back flow? Are all the crew well versed in its use?
- Check that all **fire extinguishers** are in-date and of the correct type for their application. A fire blanket should also be mounted close to the cooker in the galley area.
- Check the integrity of the **gas** supply piping from cylinder to cooker and that all solenoids and cut-offs function correctly. Ensure the crew know the correct sequence for switching the stove on and off, so gas is burnt off and not left in the pipes to leak into the bilges to possibly explode.
- Check all **navigation instruments** at the chart table are operating correctly and the main chart plotter has the correct cartridge and the passage waypoints are entered in advance and checked. While alongside, check that the chart plotter shows the exact position on the berth as a confidence measure. Do you have all the necessary electronic charts, paper charts and pilot books for the whole passage? If radar is fitted, does it display correctly on the plotter and overlay as necessary? Check the AIS settings are at the appropriate level – just the relative speed, course and separation.

- Do one **VHF radio** check and then accept that it works. Check that the MOB function works on the radio, if integrated with GPS. Is your VHF callsign clearly displayed on a label for all users to see? Is there a script for the MAYDAY message readily available, if required?
- Check the **engine** and its systems thoroughly – when was it last serviced? Are all oil and fluid levels correct and clean? Is there sufficient spare oil, hydraulic fluid, grease etc? Are the spare water pump impellers, belts, fuses, fuel and oil filters correct for the engine type?
- Check the engine and domestic **batteries** are stowed securely and terminals are greased and not corroded. If they are not the gel type, ensure you have a supply of distilled water for topping up the batteries. Do they hold a healthy charge or are they tired and need replacement (the alternative is having the engine running for hours every day to keep enough juice in the batteries for the navigation lights and instruments).

No check list can be exhaustive, as all boats are different but the above list should certainly provide a good basis for a cruising skipper to build upon.

A professional delivery skipper and crew will take a full day to work through this sequence of checks at good speed, so it will probably take a full weekend for a private owner and helpers.



Troubleshooting

When systems fail offshore, look for the simplest fix first. Don't forget to take with you:

- Manuals and wiring diagrams - electronic versions downloaded from the internet.
- A good set of tools
- Spare parts (see page 63)
- Extra oil and fuel filters
- A good sail repair kit

Sails and Rigging

Before you leave the dock:

- Perform a rig inspection or have it inspected by a professional rigger (see page 83-86)
- Replace old standing rigging if necessary
- Service mast sheaves
- Check for areas where running rigging and sails will chafe
- Set up and test staysail stay and running back stays (if fitted)
- Set up and try whisker/spinnaker pole
- Tape cotter pins; wire-tie shackles
- Service all blocks and winches
- Replace sheets and halyards as necessary
- Set-up and try all reef lines

At sea:

- Look for chafe every day
- Do Jerry's daily rig check (see page 86)
- Worry about anything that ends up on deck. like bits of screw or broken pins
- Watch out for winch over-rides

Steering System

Before you leave the dock:

- Inspect the steering system
- Test the rudder bearings and check the seals
- Check and lubricate cables and pulley system
- Check autopilot electrical and mechanical connections
- Order spare parts
- Test the emergency steering system

At sea:

- Listen to your autopilot. If it is straining, balance the boat to relieve the stress on the system.

Refrigeration System

Before you leave the dock:

- Check raw water system and pumps
- If you can't keep the freezer frozen at the dock, it will never stay frozen at sea
- Check refrigerant level or have a refrigeration specialist check it for you.
- Learn how to bleed the water lines

At sea, if it stops working:

- If the raw water pump is not running, substitute another pump
- Bleed the system if you suspect an air lock
- Check the site gauge for loss of refrigerant
- If you can't fix it, keep the fridge closed as much as possible to retain the cold. Then have a huge feast!

Engine/Generator/Fuel Systems

Before you leave the dock:

- Learn how to bleed the system and change the impellor
- Clean the fuel tanks and heat exchanger
- Check and replace O rings on filler caps

At sea:

- In rough weather run the engine twice a day.
- If no fuel is getting to the engine, change the fuel filters and bleed the engine.
- If the engine is overheating, check the raw water pump and change the impellor.
- Check fuel filter and filter bowl - if the filter is dirty, change it. If there is water in the filter bowl, drain it. Refill filter assembly with clean fuel
- Check for cracks in the fuel line

Rigging Checks

Recommended by Jerry 'the rigger' Henwood, a Gosport, UK-based professional rigger with decades of experience working with ARC yachts

As Jerry 'the rigger' Henwood says: "Rigging tends to be the forgotten part of a yacht. It's made of stainless steel and aluminium, always looks the same, you have to climb it to see it all, and it just gets on with it and does its job - until the mast falls down!"

After the hull, the rig - mast, standing rigging (stays) and running rigging (halyards and lines) - is the most important part of a sailing boat. Whether you are crossing an ocean or sailing in the harbour, you need to take as much care of the rig as any other part of the boat.

Rig Planning

At the planning stage, ask yourself whether the rig is 'up for it'; is it suitable for your plans? Talk to your insurer about your sailing plans - if the mast and standing rigging is more than 10 years old, it may have to be replaced before making a major offshore passage.

Find a good rigger and pay for a rig inspection. Tell him what your plans are, and ask what changes or improvements he suggests. You can always get a second opinion. Ask the rigger lots of questions about your rig, its possible weak points, and recommended maintenance.

Three Minute Check

The three minute rig check is a great way to familiarise yourself with your rig. Do the three minute check before you leave the dock, and at every change of watch while you are sailing. Everyone on board should have a go - spread the knowledge! You need three things for the check:

- 1. Eyes:** Does everything look right? Look for split pins, cracks, rust, chafe and wear.
- 2. Fingers:** Feel for broken strands and distortion on every swage or wire-to-terminal join. Check the tension of stays.
- 3. Binoculars:** Look up the mast at spreaders, mast head, furling gear - does everything look right?

Start at the stern and walk slowly around the deck checking all bottlescrews, chain plates, clevis pins and swaged terminals - anything attached to the mast or rigging.

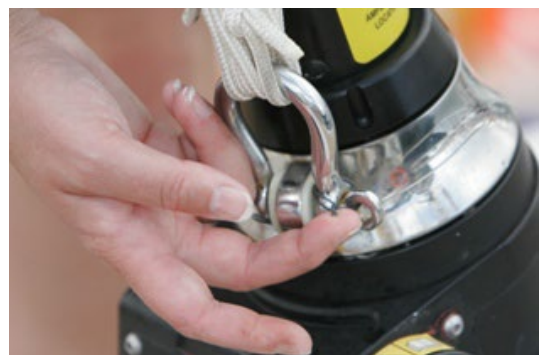
What are you looking for?



Check your standing rigging wire where it enters the swage. Is it nice and smooth? The most common place for standing rigging to break is just inside the swage. As it is inside you cannot always

see it, but you can feel it. Run your hand over the wire for about 100mm to 150mm above the swage. If you shut your eyes you remove the visual sense and increase your sense of touch. A lumpy wire at this point could indicate a broken strand. Push each strand in turn, if it moves it is broken. If you are in port have the wire and the opposite wire replaced - replace in pairs to keep the rig balance correct. If you are at sea follow the guidance in the Managing Rigging Failures section ([page 87](#)).

- Check that the 'legs' of split pins are opened at least 20 degrees each, otherwise they're not working!
- Check that key rings are taped so they can't be accidentally pulled open
- Check that shackles are seized with monel wire to stop them opening (plastic cable ties also work)



Remember, it only takes a few moments to walk from the cockpit to the shrouds so that you can feel them. These few moments could be the difference between finding a small problem that is repairable and losing the rig over the side.

Don't forget to check deck gear like sail sheet tracks, blocks, boom ends and rope lines. Once you are back to your starting point, check along the centreline. Then, using the binoculars, inspect the spreaders and mast head from every angle.

This quick check can really pay dividends: *"We have instituted a formal twice daily rigging check. This afternoon a gimlet-eyed crew member spotted that the split pin holding the clevis pin at the lower end of the forestay, although present and correct and properly splayed, was actually well on the way to wearing through (it was new with the rig 12 months ago). We changed it at sea (heart in mouth), and once extracted were able to see that it clearly would have failed at some time in the future with probably catastrophic results."*
Log from ARC2010 boat *Vulcan Spirit* Hallberg Rassy 53

Use Jerry the Rigger's check sheet on [page 86](#), or make up your own version to suit your boat.

Going Aloft



It is a good idea to climb your mast for an up-close inspection on a regular basis. Before you consider climbing the mast, check it with binoculars first. Get used to climbing the mast when tied up to the dock before trying it at sea, and try different methods until you find one that suits you and your crew. It doesn't

always make sense to send the lightest person up the mast, as they may not have the strength or skill to fix a problem.

Climbing the rig at sea is obviously potentially dangerous, and Jerry recommends wearing rubber boots for leg protection, and a climbing, bicycle or canoe helmet for head protection at sea. Wear a climbing harness or a special mast seat/harness (bosun's chair) and tie on the halyard plus a spare in case of failure.

Start at the bottom, and working up, using your eyes and fingers: check the halyard sheaves, look for chafe, split pins, cracks, rust, wear and signs of broken strands in wire rigging. Check that mast stay fittings and spreaders are correctly aligned.

Top Tips

- Consult the service schedule for your rig and speak to a professional rigging company for checks
- Check your rigging regularly – problems can occur suddenly or develop slowly.
- Even with regular inspections, it is easy to miss hidden rigging problems in swages or chain plates.
- Don't risk leaving port if you suspect a rigging issue; problems are easier to solve in port.
- Take advice from riggers and boatbuilders, but don't be afraid to get a second opinion.

Video: Rig check walk-through with Advanced Rigging



Click or scan the code

Rigging Maintenance

Lubrication

All of the moving parts should be able to move! If they don't – start with hot water. It may be just seized up by salt and general dirt. If this does not work, move onto penetrating fluids. Lastly, dismantle the item.

Service all the sheaves in the mast. If they don't turn, work out why and fix the problem. If they have developed an oval shaped center hole, renew them. Spray the bearing surfaces with a dry Teflon or Silicon spray. They should move easily when pushed by a finger.

Undo one rigging screw at a time, counting the number of turns as you go, remember to keep the top still whilst you turn the body, this will enable you to tension the rigging back to its original state. Clean the threads with a brass wire brush. Lubricate the male and female parts of the threads with 'Selden Rigging Screw Oil' before reassembly.

Winches

Winches require looking after. They take an enormous amount of strain and allow us to handle sails with ease. All the major manufacturers have booklets that can be purchased or downloaded from the internet. These give clear instructions which if followed make a task that looks difficult quite straightforward.

Dismantle the winch. Lay the parts out on a clean cloth in the order of removal. Thoroughly clean each piece. Check its condition, look for cracks and chips. Replace any part that is damaged. Paying particular attention to the springs and pawls. Smear a thin coating of 'winch or gear grease' onto all the surfaces regardless of whether they come into contact with another part. Re-assemble and then test.

When carrying out the winch service always replace the springs with new ones. Each spring is very small and only costs about 35p/50¢. Change them; it is all that makes your winch work...

The Boom

The part most often found at fault on a boom is the wear washer. This is a nylon washer that goes between the boom gooseneck toggle and the mast bracket. You may not have one, it will have worn away! Check all of the fittings that are attached to the boom.

The Spinnaker Pole

Make sure that the piston ends are freely moving. Check the trip lines for chaff. If you have a telescopic pole make certain that the telescopic section slides freely and that the locking parts are in good condition.

The Boom Preventer

When sailing downwind there is a risk of an unintentional gybe. You should use a boom preventer line. Please notice that this line must be lead from the aft end of the boom forward, through a block and back aft – to enable quick adjustment if required. If you place the line further forward on the boom, you will break the boom if you broach. It will also help when the boat is rolling in a big swell and/or light winds.

Shackles

Extract from an ARC yacht's log: *"Over the last few days a number of shackles holding various pulleys, ropes and wires have mysteriously worked themselves loose."*

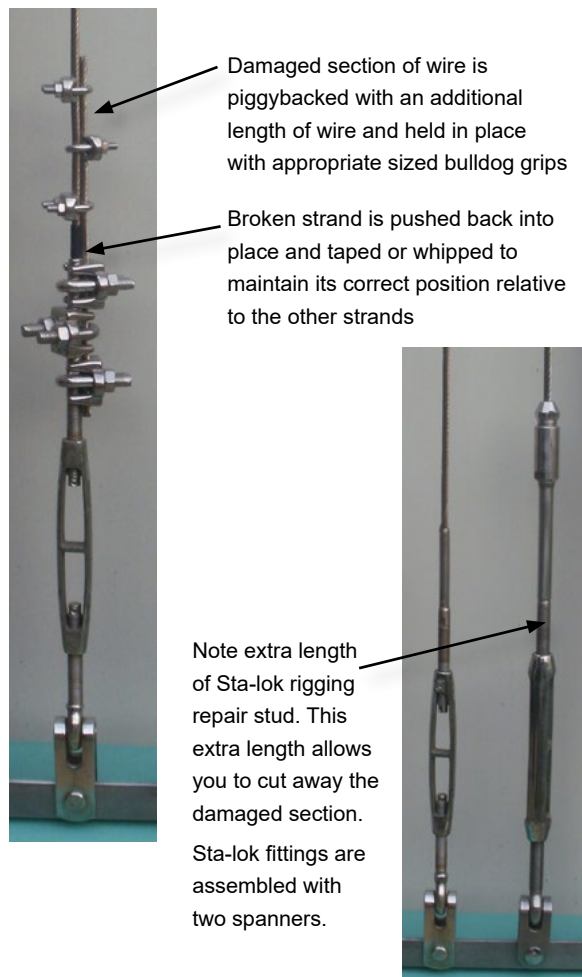
Prevention is better than cure. If you seize all of your shackles, they will not come undone. Buy yourself a couple of rolls of monel seizing wire.

Repairs At Sea

As soon as you notice a problem with the standing rigging, make the problem side the lee side of the rig. Brace the mast with spare halyards and then drop your sails. Do not let your sail flog.

There are a few methods of repair.

1. Carry a spare set of rigging.
2. Carry some lengths of wire, ratchet straps and a supply of Bulldog/cable grips. Use these to bridge the damaged area.
3. Carry a set of 'Sta-lok' rigging repair terminals. See www.stalok.com
4. Specialist rope rigging repair kit



Jerry's Rig Checklist

Date of inspection:

Boat Name:

Type:

To be checked	Check	Comments	Date Solved
1. Mast Section		Mast Make:	
2. Head Box			
3. Heel			
4. Mainsail Track			
5. Mainsail Gate			
6. Winches/Pads		Number of:- On Deck: On Mast:	
7. Cleats/Clutches			
8. Halyard Exits			
9. Spreader Brackets			
10. Spreader Tips			
11. Kicker/Vang Brackets			
12. Gooseneck			
13. Backing Plates			
14. Terminals			
15. Sheaves			
16. Spinnaker Blocks			
17. Spinnaker Pole			
18. Masthead Light			
19. Anchor Light			
20. Steaming Light			
21. Deck Light			
22. VHF Antenna			
23. Radar			
24. Radar Reflector			
25. Anemometer			
26. Furling System		Rope Size: Make:	
27. Main Furling System		Rope Size: Make:	
28. Main Boom		Make:	
29. Stemhead Fitting			

	Check	Size	Type	Age	Date Solved
30. Forestay					
31. Inner Forestay					
32. Backstay					
33. Cap Shroud					
34. Intermediate Shrouds					
35. Forward Lower					
36. Aft Lower					
37. Baby Stay					
38. Running Backstay					
39. Main Halyard					
40. Genoa Halyard					
41. Topping Lift					
42. Spinnaker Halyard					
43. Spinnaker Pole Uphaul					
44. Flag Halyard					
45. Kicker/Vang Tensioner					
46. Reefing Lines					
47. Main Outhaul					
48. Guard Wires/Lifelines					
49. Jack Stays/Lines					
50. Main Sheet System					
51. Genoa Sheets					
52. Lazy Jacks					

Managing Rigging Failures

Have you thought of plans for your own vessel should the worst happen?

Cruising yachts often experience strong winds. Minor damage to your rigging during a passage is not uncommon; extensive damage is unusual. To understand common rigging failures, we thought it might be helpful to give you some examples from rallies from the last few years. These failures can occur during normal sailing conditions, and are not necessarily the result of a sudden squall or mistake by the crew:

Spinnaker pole track

Spinnaker pole track failure is relatively common when downwind sails are being used day after day. There are huge forces at work where the pole joins the mast, and these can cause the track to shear away.

Hallberg Rassy 42E *Fenix II* was enjoying close-reaching conditions in strong winds under Parasailor – possibly the wind was too strong for the angle, but the fun of sailing was too much temptation. *“Suddenly there was a mighty bang and the spinnaker collapsed. The 32mm pole T track had peeled-off the front of the mast and was bent in a knot, with the pole pushed aft. We had to mend the track, so we carefully thought through the forces - most is simply pushing the track against the mast, but the key was stopping the track from twisting. We cut off a short piece of track and fitted it with two 1m ‘wings’ made of cut-off bits of the track and pieces of timber. The track was attached to the mast in the right position for poling the genoa. Finally we braced the ‘wing ends’ with Dyneema rope to the boom gooseneck on both sides to stop the track turning sideways.”* This temporary lash-up lasted for the remaining 6 days to Saint Lucia.



Beneteau 50.5 *Ariane* was forced to continue under reduced sail when the mast track for the whisker pole failed - overnight the pole had sheared four bolts off of the track, pushing the track 2cm out of alignment. The crew devised a solution by lashing the car to the track both fore and aft and athwartships, and were able to continue with one-third of the genoa sheeted to the now-repaired pole.

Spreaders

3 Drifters, a Beneteau Oceanis 50 suffered damage to the port upper spreader. A crewman had gone aloft to repair a spinnaker halyard, and while inspecting the rig, noticed a sizable crack at the spreader base. To support the compromised rig, a second backstay was fitted from the masthead using a spare halyard and a line led from the spreader tip to the port bow cleat.

Forestay

Moody 422 *Thor VI* was fitted with a removable inner forestay before the start of long-term cruising. The inner stay was intended to provide a dedicated stay for a storm jib or in case of problem with the furling genoa. In the south Atlantic the main forestay broke at the top terminal, possibly due to an incorrect terminal fitting being used. When the forestay broke, the inner forestay was rigged and a spare halyard taken forward to the bow roller to support the mast. Eventually the forestay and foresail were removed, and halyards used to act as temporary forestays. The boat continued for around 1800nm under this improvised rig.



Chainplates

Chainplate failure can be sudden and catastrophic. Often unseen corrosion caused by water ingress weakens the stainless steel, and the plate fails where the bolts pass through.

Sometimes substandard stainless steel is an issue. The only remedy is to replace the chainplates and bolts when the standing rigging is renewed.

Jeanneau Sun Odyssey 45 *Liberty* suffered a roller furling failure that prevented the genoa from furling. This was immediately followed by a chainplate failure of a forward lower shroud.

The broken furling drum was lashed in place with light line, duct tape and a screwdriver, thereafter forcing the crew to roll the sail by hand. A running repair was made for the shroud by lashing a spare halyard between the bow and midships cleat, creating a temporary chain-plate. The shroud was then tied down to the jury chain-plate, tensioning it with a block and tackle.



Westerly Oceanlord *Quasar IV* was mid Atlantic when the crew noticed a creaking sound from the lower aft shroud, but could see no problems. Four days later, at night, the chain plate bolts sheered with a bang, leaving the mast wobbling around. A quick solution was

needed so a short length of 10mm braid was pushed up through the hole in the deck, around the bottom of the shroud, pushed back down below with both ends then knotted. A second piece of line was attached to the shroud with 4 hose clamps run through a spare deck block and back to a winch. The aim here was to reduce the

tension on the deck loop by pulling down on the shroud. After about 6 hours the 'chainplate' rope had stretched, so it was shorted, then replaced after about 500nm. The boat managed 1200nm with the shroud held in place with rope.

Failed chainplates: When there are no suitable alternative anchor-points on the deck to which jury shrouds could be attached, one idea is to bypass the chain-plates. On a fin keel boat flake all the anchor chain on deck, cut it into two lengths and drape one length over the stern working it back to the end of the keel and one over the bow working it back to the front of the keel. With the ends brought up either side and shackled to spare wire or cord which could then be attached with respectively bulldog clips or rolling hitches.

Boom

Boom breakages are relatively common in a downwind ocean passage, sometimes caused by badly placed preventers, the boom dipping in the sea as the boat rolls, stress cracks on old sections or damage to the gooseneck fitting. A gradual crack appeared on Gib'Sea 51 *Adrienne's* boom, which worsened until the boom 'snapped'. The crew rigged the mainsail to fly loose-footed, by attaching a sheet system to the clew, with lines lead to each quarter, in the same way that a trysail would be rigged.



But don't have nightmares...

Very few yachts that have entered a World Cruising Club event have ever lost their rig, in large part due to pre-rally rig inspections and daily, routine rigging checks during the passage.

Remember the rigger's motto: Look after your rig!

Dismasting

Saving the Rig

If it is possible to save some of the rig, or the break is high enough to make a 'stump' mast, then it may be possible to make a jury rig from the remaining sections of spar, halyards and cut-down sails.

The crew of C&N 83 *Mustang* managed to create an effective rig when their mast broke above the first spreaders, luckily leaving a good 'stump' mast and the boom intact. This rig was stayed using halyards, and a sail cut down to fit, and the boat was able to continue to Saint Lucia.



Stevens 47 *Aurora* was dismasted the first night out from land, and the crew was able to get the entire rig back onboard and then motored back to Tortola, where everything could be safely sorted out.

Cutting Away the Rig

When the worst happens, and you need to cut the rig away, you will need tools that will do the job quickly and efficiently. Remember, a mast can quickly knock a hole through the side of a yacht. Either get the mast back on deck quickly so that you can make a jury rig, or get rid of it.

Good wire cutters, not bolt croppers, are not cheap, but they are effective. Go to see your local rigger and look at his cutters. Try them out on an old piece of wire that is the same diameter as your largest wire. Then imagine that the boat is rolling violently. Are you or your crew strong enough to use them? These are not cheap to buy,

but they are an essential safety item. They are like your life raft; you hope you have wasted your money and bought something that you will never use. But, if you do need it, you are going to be really pleased that you bought quality.

A few years ago Yachting World magazine commissioned Chris Tibbs to do a test of rigging cutters. Chris, incidentally, was once dismasted in the Southern Ocean. Here's what he found:

Bolt croppers: An average (rusty!) set of bolt croppers severed 1x19 wire with great difficulty and only if you rested one handle on deck and put all your weight on the other, but they would not cut rod rigging.

Hacksaw: Hacksaw blades are effective, but it is hard to hold the rigging firm and you'd need to keep a significant number of clean new blades as they blunt quickly, but they are cheap.

Cable cutters: Felco cable cutters - These £350/\$550 cutters (the largest, the C112 would be the best) are effective, but there is a special technique of resting one handle on the deck and bouncing on the other. They left a nice neat edge that would fit a Sta-Lok or Norseman terminal, but Chris didn't feel they would work easily on a heaving deck and he didn't manage to cut through rod.

Ratchet cutters: Baudat mechanical ratchet cutters require less force to cut the wire, and can be used one-handed. Cost approx £200/\$300 for 8mm.

Other: A battery-operated angle grinder may also do the job, but could be dangerous to use in rough conditions.

The most effective options:

Hydraulic cutters: Such as those from Holmatro, price about £1000/\$1500. Chris had used hydraulic cutters to cut away his rig in the Southern Ocean. In the test it took him 8 seconds to sever 1x19 wire and 13 seconds for rod. Easy to use and a good, clean cut.

Explosive cutters: Shoot-it explosive cutters (£500/\$800) operate with cartridges that fire a piston into the wire. Very quick and effective, and very impressive with rod rigging.

Whatever device you decide will work best, ensure that it is securely attached to you with a lanyard, so it can't be lost overboard when the boat rolls.



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Strong Wind Sailing Tips

Reefing

As part of your crew training program, be sure every person on board can reef and un-reef the main, preferably by themselves. Reef early and often to achieve a more comfortable (and usually faster) ride and reduce strain on your autopilot.

When the mainsail is reefed, there will be a stress line between the tack and the clew, which will put pressure on the sail fabric. Bear in mind that your sails are not designed to withstand the constant and prolonged stress of being reefed - they will stretch, so test out reefing positions to ensure the best possible sail shape and best rope leads. Test the reefing lines to deal with potential chafing points on sails and line, as they can wear through very quickly. You may want to upgrade the reefing lines.

Trysail

In very strong winds, you may choose to set a trysail in place of a triple-reefed main. It is best if the trysail can be set on its own mast track. You may be able to set your trysail using the boom, or flying from deck blocks with the boom lashed down securely. Test it out at the dock first.

Roller Furling Foresails

Furling headsails don't work efficiently when well-reefed, and changing a roller jib at sea can be difficult and even unsafe. Having a cutter rig, or a removable inner forestay onto which a staysail can be set will help overcome the inherent problems of a single forestay and roller jib.

Traditional Foresails

Having traditional foresails in strong winds can be an advantage as they are easier to hoist and lower, however a crew member does need to be on the foredeck.

If fitted, ensure that the piston hanks are well lubricated and working. Mark the lead positions for each sail on the deck.

Storm Jibs

A storm jib needs to have sufficient shape to drive the boat forward – it's not just a piece of triangular canvas. It is a good idea to test storm

sails with other combinations of sail to see how the autopilot copes. Storm jibs usually need a different sheet lead and to be set on a tack strop - check how it sets before you really need it!

There are several ways to hoist the storm jib. If you have traditional foresails, you can simply hank the sail onto the stay above the lowered foresail or hank it onto a separate cutter forestay.

If you have furling gear then setting a storm jib is a little trickier. You can take the headsail down if the wind speed is not too strong, or you can use one of the sail systems that fit over the furled foresail. This not only acts as an easy way to attach a storm jib but it also stops the furled genoa from unfurling.

Leave the sheets attached to storm sails when stored, so they're ready to go.

Heaving-to

Heave-to when you need to settle the boat down. The boat will slow down, usually moving forward at about 1 to 2kn, but with a significant amount of drift, so be sure you have plenty of sea room. When hove-to the boat's motion is quieter and more comfortable. This is an effective technique in rough weather, but also is helpful if the crew needs more rest or if it is difficult to cook in the galley or undertake repairs. Heaving-to is a simple procedure. Practice it on a calm day first.

1. Sheet in the mainsail tightly
2. Tack the boat without releasing the jib
3. When you finish the tack, the main is set as usual, but the jib is set against the wind with its clew to windward - 'backed'
4. Lastly, turn your steering wheel all the way to windward and lock or lash it in position.



Trysail practice in the marina

Ocean Sailing Tips

Chafe

When sailing downwind the apparent wind drops so you need to increase your sail area to compensate. However, with more sail area and waves from astern, sudden forces can be exerted on the whole rig, so it is an idea to wear gloves at all times when handling ropes.



Once out at sea with 15 to 25 knots of consistent trade winds, the boat will start to roll with the waves coming on the aft quarter. This is when the chafe will begin. Chafe will occur everywhere that two items can rub together. There are potential chafe points all over the boat, but especially at the end of the spinnaker pole and at the top of the mast where halyards roll into the mast. Chafe is not just restricted to sheets; it can also occur where sail cloth rubs against any standing rigging and where sails touch other sails - a spinnaker rubbing against the furled headsail.



Spinnaker sheets: To prevent the spinnaker sheets from chafing in the end of the pole ensure that the sheets are covered with a cloth, leather or suede. Sheets should also be checked every day and if the sacrificial band is worn then replace it. It is cheaper to replace the cover than the actual line. Bear in mind if you attach your sheets to the tack rings of the spinnaker with shackles, they may wear-away the tack ring over a long passage. Tying the sheets allows worn line ends to be cut and shortened (assuming you began with long-enough sheets!)

Masthead: To keep halyard chafe at the masthead to a minimum, ensure that the halyards line up correctly with their sheaves. If they are out of alignment then the halyard will run to the side causing a chafe point.

Blocks on deck: As with the masthead, the lead of the line into the block is very important. If the line is not fed correctly then the block

cannot follow the direction of the pull and will not only chafe the line, but it will also not do its job properly.

More chafe prevention:

- Stabilize the rig and prevent movement as much as possible.
- Put the mainsheet traveller to leeward.
- Tighten the boom vang/kicker.
- Add chafe patches to the main sail, wherever it touches the rig. This should also be done for the first reef position.
- Protect any ropes at risk of chafe with a sacrificial cover, such as hose pipe.



Choosing Your Sails

When choosing what sails to use for an ocean passage, the first and most important factor to consider is the material you want them to be made from. Spectra, Kevlar

and Carbon do not like flogging (flapping), and as hard as we all try to stop this happening, it will happen at some point. This disadvantage is the same with laminated sails. If they flog they will be more likely to delaminate in patches. It is advisable to ensure that there is a good percentage of Dacron in the sail, which will ensure durability and will also make the cloth easier to handle.

Your sails will be in use for long periods. Multiply the passage time by 24 (hours), then divide by 6 (hours) to work out how many 'normal' day sailing days the passage equates to - a 10 day passage equates to 40 days of 'normal' sailing at 6 hours per day. Add in the effect of the sun, which being close to the equator is much more intense than at higher latitudes, and you can see why the wear on sails is so much greater for ocean voyaging.

UV Degradation of Sails

Many sailcloth materials are degraded by UV light, and sails that have been used for periods

Video: Downwind Sail Selection with North Sails



Click or scan the code

in the tropics, or have been left on furling gear or booms, are likely to be affected. UV degradation causes the fibres of the material to weaken, which means panels may split or stitching unravel. Check all of your sails thoroughly as part of your rally preparation.

Waves and Heeling

When reaching or running in ocean seas, you should rig a boom-end preventer (not mid-boom) in case of accidental gybe. Lead the preventer as far forward as possible and ensure that the control line and the kicker (vang) can be easily released from the cockpit if the boom end hits the water.

This also applies to the headsail if you have a pole rigged and the boat is rolling. Ease the downhaul (foreguy) and tighten the pole topping lift (uphaul) to prevent the pole from touching the water. Alternatively use higher cut headsails if you have them.

Downwind Sail Plans

Prepared by Thomas Wibberenz, professional skipper and experienced offshore sailor of both monohulls and catamarans, who has been involved with the development of the Parasailor2 spinnaker. Thomas is also an examiner with the German Sailing Association and an adviser on fitting out cruising yachts for long distance sailing. thomas@pointsofsail.de

Poled-out Genoa and Mainsail

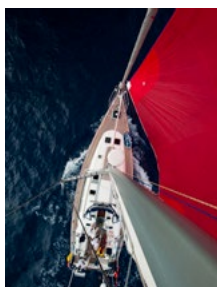


Sailing wing-on-wing is common for cruising boats sailing downwind. The furling headsail is poled-out using

a securely guyed pole fixed to the mast and the mainsail is secured by a boom-end preventer. It is often necessary to reef the mainsail to balance the forces more evenly. This combination can be quite roll-inducing as the wind force is acting in different ways on each sail.

Sailing with a Gennaker

To ensure the best speed out of the gennaker (or cruising chute) downwind it should be flown high; adding a purchase at the tack will make the curve of the sail easier to control. It is also



good to lead the sheet further forward to keep the windward luff towards the middle of the boat. You could use a tacker to keep the tack close to the headsail.

Twin Poled-out Headsails



For boats with two forestays, a common downwind configuration is to pole-out two jibs, one each side of the boat.

The main is then stowed away. This gives good vision ahead and keeps the clews well clear of the water. This works best when each headsail is on

a separate stay, allowing both to be easily furled while keeping the poles firmly guyed. Try to have a gap as wide as possible between the sails in order to minimize rolling.

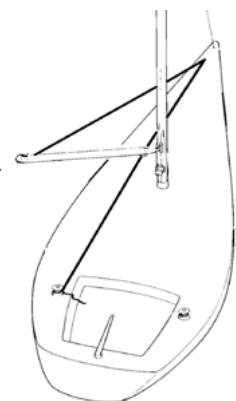
Twistle Rig

The twistle rig comprises twin high cut jibs poled-out either side of the boat. Rather than being attached to the mast, the poles are joined together at the inboard end with a universal joint, controlled by the topping lift (uphaul) and downhaul.

The poles can move with the motion of the boat, minimizing rolling for some boat designs, and the high cut jibs give excellent visibility. However, the twistle rig requires extra long poles that can be difficult to stow. The rig can also be difficult to set up in a rolling sea.

Main Boom Preventer

In downwind sailing offshore, a boom preventer should be set to avoid accidental gybes. The preventer line must run from the end of the boom forward through a block then back to the cockpit to enable quick adjustment. Fitting a two-part line, where one part stays permanently attached to the boom, makes it easier to set the preventer. Do not fit the preventer mid-way on the boom as this can cause the boom to break if dipping during a roll.



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STEERING THE DREAM

02. Rally Preparations

Setting a Pole

A pole is essential for downwind sailing, either set off the mast, or via a bowsprit for an asymmetric sail. Using a pole stowed via a mast track makes handling the pole easier, but does add weight higher up the mast. Another option is a telescopic pole which is easier to stow. Carbon poles offer very light weights making them easy to lift, but are expensive relative to metal poles. Always secure the pole with a fore-guy, an aft-guy and an uphaul. This means a headsail can be furled quickly when needed, whilst the pole left securely in place. Ensure that the sheets are pulled tight against the pole jaws to reduce chafe. Asymmetric sails used downwind tend to be flown with the tack loose, therefore a tacker may be needed to pull the sail back towards the forestay.

Spinnaker Sailing

When using a spinnaker you will only get laminar air flow from a wind angle of 140 degrees or less. With a wind angle of 140 to 180 it will be purely resistance sailing and the spinnaker will be ineffective. The spinnaker top will use the mast as a lever and will pull



the bow down and the rudder out of the water. The sheets will try to turn the boat around due to being led aft. Another disadvantage of the spinnaker when the wind is behind 140 degrees, is that the mainsail is blocking half of the sail as well as the exit for the wind out of the spinnaker. If you try to reduce this by pulling in the sail it will increase the heeling which in turn will make it harder for the helmsman.

To make spinnaker sailing more productive, let the halyard down about 1 to 3 inches to get the sail away from the main. Use the pole to lead sufficient air into the spinnaker and stabilize the sail, which can be further helped by using the topping lift (uphaul) and downhaul to their full potential. Try sailing without the mainsail with just the spinnaker up. It will be quieter, the mainsail will not be exposed to the sun or chafed, and the airflow over the boat will be better and the rig less twisted.

Some spinnakers will cause rolling because the air will try to escape from the sail and will find a side and produce an eddy which will unsettle the

sail, making the boat roll more. This may make the spinnaker collapse or even broach. A broach can sometimes be followed by a loud reopening bang and a ripped sail, or at worst a lost rig, and is therefore to be avoided at all cost.

Retrieving the Spinnaker

To get the spinnaker down is often the hardest part of flying the sail. To make it easier, use a spinnaker sock (also called a snuffer) and let the sheet go in stages until the sail flaps. When the sail flaps pull down the sock and secure the dousing line on the deck.

Not only is it under control, it is ready to use again right away.



Parasailor

The Parasailor is a spinnaker with a huge 'hole' in the upper part that means no induced rolling as the wind can escape centrally, and effectively creating a security valve for too much wind. The specially designed wing creates lift, keeping the bow up and stern down. As air is forced through the wing, it pushes out the shoulders of the sail, very much like a sail batten, keeping it flying in lulls and allowing the sail to refill slowly without the bang and jerk associated with traditional spinnakers, preventing stress on the rig and your nerves! Autopilots can work easily with the sail and it will fly from 100° to 180°. Based on technology from the sport of paragliding, it is produced to aviation standards giving a durable and UV-resistant sail that can be flown with or without a pole. The complex design does make the sail significantly more expensive than a conventional spinnaker, but the wing enables it to be flown as both a lightwind and heavy spinnaker.



Fishing

Fishing is a fun way of supplementing your diet. Buy a good how-to book that includes fish identification charts for your sailing area. Some good cookbooks may also be useful!

As well as your chosen method, you will need some cheap, strong gardening gloves for handling the line, a gaff (stick with a hook on the end), sharp filleting knives, a squeeze bottle filled with cheap rum or other alcohol, and a fish tray to keep the deck clean.



Method 1: Trolling a line

A simple system is to troll a hand line from the transom and run a piece of bungee cord from the line to the boat. When a fish strikes, the cord takes the strain. The fish fights until it is sufficiently tired for you to hand-line it into the boat. Bring in the line so that you finish up with a huge loop trailing behind you in the water. You then gaff the fish aboard, release the lure back into the water and continue to fish. If you ignore the procedure and leave the loops of line on deck, you risk becoming entangled in the line.

Method 2: Rod and reel

If you want a bit of sport, you will need a quality rod with a reel which holds at least 600m of 50lb line, a rod holder and a selection of lures.

Remember, you have no way of easily slowing down quickly to fight the fish, so if you do find a monster, don't try to fight it; give it your best and then cut the line. A large marlin and a yacht are not the best of soul mates. You may have the gear to land the fish, but anything over 200lb will have too much meat to store and take too long to eat.

The biggest mistake made by sailors is to use 100m of very heavy line - length of line is important, not the weight. A fish can do 40 knots from a standing start; couple this with a yacht doing 6 knots in the other direction and you will quickly come to the end of 100m. The speed and

power of even a 50lb fish will easily snap a 100lb line. The art is to use a much longer line with the reel set to slip at 30% of the line weight (using a 50lb line the drag should be set for no more than 16lb). The fish should be allowed to run against the drag setting - only when the fish stops taking line should the fight begin.

Getting the fish onboard

Once you have the fish within your sights you will need to get your gaff ready to hook the fish in the gills and bring it aboard. If using a rod, keep the lure and fish in the water until the fish is gaffed, or you can risk the fish getting away at the last minute.

With any luck the fish will be pretty tired by the time you are ready to haul it aboard, however don't let this fool you. Your priority will be to kill the fish as soon as possible. Land the fish in a confined space (preferably the cockpit sole) and wet the decks first to help with cleaning up.

Make the fish instantly docile by squirting cheap alcohol into its gills, then cut directly through its spine. Limit mess by using a plastic fish tray, or hang it over the back of the boat by its tail to drip overboard.

Fish will freeze well, although freshly caught fish put straight into your freezer may overload the system. Instead try ceviche, sashimi, drying, marinating and of course, eating it every night for dinner. Take a variety of recipes!

Fishing Top Tips

- **Don't fish at full moon.** Sea patterns change and it is unlikely you will catch anything three days either side of full moon.
- Two hours after sunrise and two hours before sundown is best.
- Look for **signs of birds feeding** or floating objects; both tend to mean smaller fish which in turn attract bigger fish.
- Try a **pink lure for dull days** and a **green lure on brighter days**, and bait the hook with a flying fish.
- **Don't troll the line too close** to the boat as fish don't like to go into the boat's wake.
- **Vary the length of the line according to your speed;**
5 knots = 55m line out, 7 knots = 75m

Expert fishing tips at sailboat-cruising.com/handline-fishing.html or purchase the e-book.

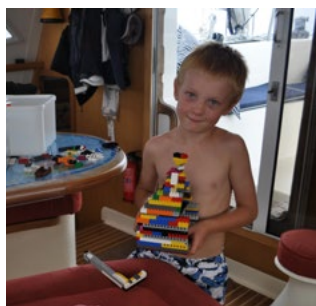
Sailing with Children

Safer at Sea

The number of small children who take part in the ARC and other rallies says a lot about the positive approach of their parents. Naturally, there will always be apprehension about the safety of taking your children across the ocean, but as long as you make sure the children understand the importance of safety, and set firm ground rules like making sure the children always have their lifejackets on, it should be a fantastic experience. As one parent from ARC2010 put it: *“To be honest, once I was happy that the boat was secure and the kids understood the importance of safety, it was probably a safer environment than on land – at least I knew where they were the whole time!”*

Children are Adaptable

Another concern prior to leaving is often whether the children will get bored with their limited space onboard. Many



parents comment that in fact, the kids adapted to the small space quicker than adults (don't forget how good it can be to make a den!) and often found them to be better behaved at sea than when in port. Leah (aged 3) on *Leahnis* (NOR), built Lego towers and got terribly irritated by the waves, which made her creations fall apart all the time. Finally she got used to it and started laughing instead of getting frustrated. Such is life on the ocean, for both adults and kids. You get used to it and make the best of it!

Tips from Parents

- **Talk to other parents when you arrive in port** to discuss your feelings and ideas – parents (and children) are usually keen to share their experiences.
- **Get them involved:** Make kids really feel they are an essential part of the crew – add their names to the watch system (even if realistically they won't be doing much), involve them in the cooking and cleaning, steering and sail changing if possible. Try to keep a good daily structure.

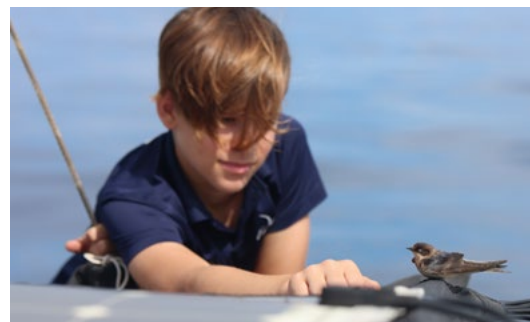
- **Don't over-estimate the amount of schooling** the kids will get done on the crossing - most complete very little if any, so if you are concerned, try to get ahead with schoolwork before you leave port. Remember that kids won't like to write if the boat is rolling.
- **Plan alternative learning activities** – teach them about the weather, the stars, fish and other sealife.
- **Take surprises and lots of games**, but remember they have to be able to be played when the boat is rolling! Plenty of DVDs are also a good idea.
- Make sure **everyone eats together** for at least the evening meal.
- Consider taking **another crew member** who is capable of doing watches on their own.
- School teachers or even friends may not understand what you are planning to do, or may have strong opinions about it. **Try to get involved with your child's school** as early as possible, so teachers and the other children know what is happening, learn the positive effects of it, and know how they can follow your journey on the rally website.
- Most importantly, **take things slowly** and be patient; trying to make a passage in the quickest possible time won't always mix well with having children onboard!
- Visit www.noonsite.com/cruising-resources/cruising-with-children for a wealth of links and advice.

Some useful books with advice on sailing with children of all ages:

Lesson Plans Ahoy ISBN 9781733667616 by Nadine Slavinski

Cruising for Cowards ISBN 9780969769064 by Liza Copeland

Where the Magic Happens ISBN 9781472949912 by Caspar Craven



Watch Keeping

Taking care of the crew and the boat on passage

If this is your first long offshore passage, it can be difficult to know where to start with devising a watch keeping schedule that will work for everyone for such a long time.

Following are some initial questions that when answered, will help shape the watch schedule:

1. Will everyone stand equal watches or will one person have other responsibilities and stand a limited schedule, such as a cook or captain?
2. Is there a regular watch pattern, such as predawn squalls, that suggests when to schedule experienced crew?
3. Do weather conditions and experience suggest single person watches or pairing up?
4. Will the crew use an autopilot or windvane, or will they hand steer, which makes it difficult to stand a watch longer than two hours?
5. Does the route come close to major shipping lanes?

Though some watch schedules are more relaxed than others, taking care of the ship and crew is always the primary responsibility. On watch this means checking the gear for wear and damage, monitoring the course, looking for other craft, navigating to avoid hazards, adjusting sails for changing conditions or anticipated shifts, knowing when to ask for help and staying alert. Off watch this means sleeping; fatigue is a dangerous affliction and can be blamed for many human errors. The off-watch crew members are responsible to sleep so they will be well rested for their watch, when called for assistance or if conditions deteriorate, necessitating shortened watches and less sleep.

It is not uncommon to have a new crew member on a passage, and since each boat has its own modus operandi, it is wise to have a written passage protocol as even regular crew will benefit from seeing their routine in writing. In addition to watch responsibilities, the passage protocol should address when harnesses should be worn, whether to wake an additional person

for sail changes, under what conditions to take in sail, under what conditions to stay in the cockpit if alone on deck and when to call the off watch crew on deck. It should also state how frequently log entries should be recorded and positions plotted.

With moderate conditions and a crew of three or more it is easy to create a schedule that keeps an alert watch on deck at all times while allotting adequate off watch time to stay well rested. Many seasoned passage makers agree that four hours is the maximum time that someone can stay alert during a night watch, and many find three hours much more manageable. It is important to also assign a standby so that the person on watch knows whom to wake if they need help.

Fixed Watch Schedule

In a fixed schedule, A would be on standby for the first two hours of B's watch and C would be on standby for the last two hours, and so forth. Usually, dinner is the only shared meal of the day as many choose to catch up on sleep through the morning.

Rotating Watch Schedule

In the rotating schedule the short watches from 1500 to 1900 alter the schedule, turning a fixed schedule into a rotating one. These short watches can also serve as a social time. The basic rotating schedule can be adjusted to incorporate different watch lengths. One variation has four-hour watches from 0600 to 2200 and two-hour watches during the darkest part of the night. A variation with longer watches has six-hour day watches and three or four hour night watches. An informal watch can also be introduced to correspond with dinner, ensuring that the whole crew get together every day, which can be a surprising rarity at sea.

Shifting Watch Schedule

Though complex at first glance, the shifting schedule is a favourite of crews that include those who like fixed watches as well as those who prefer to rotate. Each person shifts between two watches, but remains in the same half of the night and has a minimum of six hours off between watches. If a cook is on board, they can be relieved of all day watches and prepare lunch as well as dinner.

Crewed watch system ideas

	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	0100	0200	0300	0400	0500	0600	Cook	Dishes
Fixed schedule	A			B			C			A			B			C			A/B	B/C						
Rotating schedule	A			B			C		A		B			C			A			A	C					
	B			C			A		B		C			A			B			B	A					
	C			A			B		C		A			B			C			C	B					
Shifting schedule for four	A			B			C			A			B		C		D			D			D			
	B			C			D			B			A		D		C			A			A			
	A			D			C			A			B		C		D			B			B			
	B			A			D			B			A		D		C			C			C			

Watchkeeping for Doublehanders

Although three or four crew would be nice, many cruisers prefer to head offshore as a couple. With a double handed crew, it can become difficult to maintain a proper watch while avoiding fatigue and sleep deprivation. More than other crews, doublehanders need to take advantage of each other's natural cycles as some night owls have no problem staying alert in the early hours, while others naturally rise before the sun. While one person might be able to function on just five hours of sleep, but need to get it all at once, the other might need much more, but be able to get it in catnaps through the day.

Below are two examples of double-handed watch schedules. Those who like short watches and have mastered the art of catnapping swear by the three-two-one system. Longer night watches get easier with experience and some boats adopt a three-four-five schedule that they like. Many doublehanders, and some larger crews, keep an informal watch during the day, which works well if the burden does not always fall on the same diligent person.

	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	0100	0200	0300	0400	0500	0600
Three-two-one	A	B		A		B		A	B	A		B		A		B		A		B		A		
Three-four-five	A			B				A					B				A			B				

Staying Alert

In the middle of the ocean there are often days when there is little to do. However a cargo ship steaming at top speed can travel from beyond the horizon to your position in less than 20 minutes. As a result, every boat must find a balance between staying alert and relaxing.

Because of the tendency to lose track of time, many sailors regularly stand watches with egg timers, stop watches or alarms to remind them to check the horizon every 10 minutes or so.

Patented product like the Watch Commander have taken the egg timer one step further. The Watch Commander can be set from three to 27 minutes and emits a gentle beeping until the reset button is pushed. If the timer is not reset, within one minute or so the beep will become a siren, alerting the rest of the crew.

Every boat and crew will have different watch keeping procedures, and flexibility is a key to all successful systems. In developing watch keeping procedures it is important to make sure everyone knows the system, feels comfortable carrying out their watch responsibilities and can sleep well knowing their crewmates can do the same.

International Clearance

Each country has its own requirements, and it is important to get up-to-date advice. Countries visited on the rally are covered in the Local Information section, otherwise www.noonsite.com is continually updated with the latest requirements.

Port of Entry

When visiting a country for the first time, you will have to clear-in at a port of entry before going to any other locations. Flying the yellow Q flag is a request for clearance.

Customs

The Customs official will clear the boat in or out of the country, and check for duty-payable goods. They may have additional tasks such as checking for prohibited or restricted items (firearms, drugs or fruit for example). They usually have the power to confiscate any prohibited or restricted items permanently or until departure, and they may require duty-payable items (such as liquor or tobacco) to be sealed in a locker with official tape.

Customs officers will need to see your official clearance papers from your last port, plus your original boat papers and a crew list.

Immigration

Immigration officers are chiefly concerned with the clearance into and out of the country of the people onboard your boat. In some countries officials may want to meet each crew member, or to ask them to complete an arrivals card. Other countries may just require the skipper to represent all of the crew.

In countries where visas are required in advance of travel, Immigration officials will want to see each passport and visa. In countries where visas are issued on arrival, the Immigration officials will issue these. Usually each passport is stamped.

If you have crew departing the boat and travelling on by other means, take them to the Immigration official to be 'signed-off' the boat.

Quarantine

The Quarantine department protects the bio-security of the country by ensuring that inbound vessels do not import prohibited materials, which can include pets/animals, foods, plants, souvenirs or items made from natural materials. Prohibited

materials will be confiscated and usually destroyed.

Health Officer

The role of the Health Officer is to ensure that the crew is free from notifiable diseases. Where it exists, this role is often combined with that of Quarantine. A limited number of countries require the crew to be checked before being allowed ashore.

Port Officials/Harbour Master

These are concerned with clearing you boat into the port, and ensuring that the correct mooring fees, light dues and buoyage fees are paid. You may have to visit the port officials first to show that you have paid the harbour dues before Customs will clear the boat into the country.

Departure Clearance

You will usually have to revisit Customs and Immigration before departure to obtain your clearance for your next destination.

Tips for Dealing with Officials

- Almost all officials are extremely hospitable and are proud to welcome you to their country.
- Be polite; they're only doing their jobs and you are on holiday.
- Corruption is rare; assume the person you are dealing with is as honest as you are.
- Dress appropriately. It is more polite to wear a clean shirt than dirty shorts and a bare chest.
- If officials visit the boat, make them comfortable and offer them a soft drink.
- Be patient. If you are clearing in ashore you may have to visit multiple offices.
- Clearance is often a lengthy process that involves large amounts of paperwork and lots of repetition.
- Carbon paper can make completing multiple forms a lot easier, and photocopies of passports and boat papers, and extra passport photographs can smooth the process.
- A boat ink-stamp or visiting card makes a nice touch, often appreciated by officials.
- Research in advance so you know what to expect. Check www.noonsite.com, read the pilot book and ask other cruisers.