

Off into the blue

Sam Fortescue casts his eye over the latest gear out there for cruising sailors planning on making the great escape into blue water



Every year over 300 cruising boats race across the Atlantic under the auspices of the World Cruising Club's ARC event. Most of them are cruisers undertaking their first serious bluewater passage in a 'normal' sailing boat, although there are some race boats too. They have all had to wrestle with the issue of preparing themselves and their craft for the 2,700-mile crossing, weighing up comfort, safety and the budget.

So who better to ask for advice on the key gear than the WCC itself? Comms director Jeremy Wyatt gave us his list of the 10 most important gear decisions to make, and not surprisingly, safety was at the top. "A liferaft and EPIRB – these are the key items on the ARC safety equipment list and should definitely be on your bluewater boat," he says. For personal safety, he recommends an AIS beacon worn on the lifejacket. "They enable a casualty in the water to be tracked via the boat's own AIS receiver and are a real game changer for MOB equipment." Radar is also good for spotting squalls mid ocean, and making landfall, while AIS keeps you visible.

TOP: The Oyster 595, built for blue water cruising
ABOVE: The Radeau ISAF liferaft

With all the instruments and creature comforts aboard modern boats, you will need to give plenty of thought to generating and storing power. "Solar panels always get great reviews, and the new generation hydro-generators like Watt&Sea are excellent for offshore." Wind turbines are good in tradewind cruising grounds, and diesel gensets also have a place. "But make sure it is professionally installed," Wyatt counsels.

Some form of autopilot will be key – no-one these days wants to hand steer the whole way across an ocean. Make sure the autopilot is up to ocean conditions. "You may want to upgrade the drive unit, or fit a second pilot as back-up if you are double-handing. Windvanes are also a great addition to most cruising boats."

WCC advises everyone to fit satellite comms to provide basic GRIB weather files and email offshore. "We are seeing more of the Inmarsat Fleet One fitted to ARC boats due to some very competitive equipment offers recently; for not much more money than a basic Iridium it gives a significant increase in speed and us-



ability, but does come with a higher monthly charge.”

It is also worth investing in a specialist downwind sail for tradewind crossings, says Wyatt. At its most basic, this means a poled-out genoa, ranging up to North Sails’ specialist Tradewind Sail and the popular Parasail-or. “For ocean sailing you typically need smaller, more manageable headsails, especially if sailing shorthanded. Getting a number two with a high cut improves forward vision and will be a good investment. Avoid gennakers on bowsprits unless you have a fast boat and can sail gybe angles.”

Finally, the WCC says that a watermaker can be a game-changer in comfort terms. “Whilst completely possible to sail without one, they make cruising much more enjoyable and best of all, avoid the need for frequent dock visits.”

LIFEJACKET

James Hall, marketing manager Spinlock

When choosing an offshore lifejacket one of the key points is comfort, fit and adjustment. As an offshore sailor, you are likely to be wearing your lifejacket for long periods. Getting a fit that you enjoy and that you find simple to put on will make all the difference. Both 150N and 275N sizes of buoyancy come in many shapes and sizes, but all perform to the same standard, so there is a lot to be said for the lighter less bulky models 150-170N.

Take time to understand what the inflated lifejacket

ABOVE LEFT: The Spinlock Deckvest 6D lifejacket

ABOVE RIGHT:

Pick up sail by Ocean Safety

BELOW:

Jason’s Cradle

offers in features. All offshore lifejackets should include a light, sprayhood, crotch straps as standard, but many now include additional unique features such as knives, LED lights, harness release and tow systems. Take time to review these features which are well reviewed with videos.

Budget: £60-250

Kru Sport: oceansafety.com

Crewsaver Ergofit+: survitecgroup.com

Spinlock Deckvest 6D: spinlock.co.uk

Seago 3 Dynamic: seagoyachting.co.uk

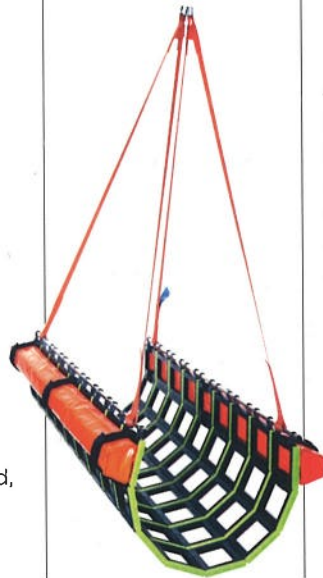
Baltic: yachtmailchandlery.com

LIFERAFT

Alistair Hackett, Ocean Safety

It goes without saying that it is essential to have a liferaft on board with sufficient capacity for all crew members. Offshore liferafts must be of high quality with the correct survival equipment pack inside for the voyage being undertaken. A typical liferaft model would be an approved ISO 9650 approved raft, available in 4 to 12 person options and equipped with a less than or greater than 24hr pack. Choose a canister or valise depending on how you are stowing it onboard.

Fitting the boat with quick-to-launch recovery dan-buoy products for retrieving a crew member from the water should be a consideration. A Jon Buoy Recovery Module, for example, is highly visible while providing flotation and support for the crew member who can then be recovered back on board.



What you need: blue water essentials

“If you need to strengthen the structure of the boat, you bought the wrong boat,” says Eddie. “You need a good platform to start with.”

- A stout rig and the good sails – easily field repairable.
- Well engineered, reliable steering - if you can’t steer, you’re just flotsam.
- Easy to maintain winches and deck hardware. e.g. Most Lewmar winches can be serviced without tools.
- Plenty of stowage space
- Good ground tackle handling gear.
- A workshop space

- A well found, ergonomic galley - food has a massive influence on morale
- High quality correctly swung compass!
- Good quality instrumentation and navigation system, including radar and AIS with a world-wide dealer network
- Communications: VHF, SSB (yes, still very useful), satcoms.
- Lithium ion batteries – expensive but pay back in quicker charge times
- Hydrogeneration and solar
- A good RIB and outboard, preferably launchable by one person.
- An efficient watermaker

- Washing machine! Not for everyone, but it’s worth considering a three-week passage with no laundry facilities
- An efficient air conditioning system. This is further down the list as it’s power-hungry hardware and only really used in marinas
- Powerful thrusters are also far down the list, as they are only of use when berthing in a marina
- The engine. Bluewater sailing yachts often have engines which are bigger, heavier and way more powerful than they need to be



It is vitally important to ensure that all your inflatable products are fully serviced and equipped by a certified service station before you leave port and that their service life will last throughout your voyage.

Budget: £1000-£2500 + £100 for >24hr pack.

Crewsaver: survitecgroup.com

Ocean Safety: oceansafety.com

Plastimo: Plastimo.com

Seago Sea Master: seagoyachting.co.uk

Lalizas: lalizas.com

MOB recovery

LifeSavers are a long floating Dyneema handle attached to your lifejacket.

Moblifesavers.com

Jonbuoy. Danbuoy, float and recovery module combined.

oceansafety.com

Jason's Cradle is a ladder and roll mat.

jasonscradle.co.uk

Australia's **SOS Marine** sells a reboarding ladder that can lift out unconscious MOB's.

Sosmarine.com

EPIRB/PLB

By Kris Nieuwenhuis, Ocean Signal

Affordable and easy to use, EPIRBs, which are registered to the vessel, and PLBs, which are worn by individuals, greatly increase chances of survival in the event of an emergency offshore. They use the Cospas-Sarsat International Satellite System and 406 MHz technology for alerting, with a GPS position and a homing frequency to summon rescue to a near exact location. We emphasise to all beacon owners to properly register and maintain their devices.

Today, Cospas-Sarsat, including the MEOSAR system, offers much faster

ABOVE LEFT:

MOB tags

ABOVE RIGHT:

Essential hand held flare



ABOVE: ACR's

GlobalFix V4 Epirb

BELOW: The Ocean

Signal 2 RescueME



detection and greater location accuracy to improve alerting for distress beacon owners in emergency situations. The current generation of satellite beacons are also incredibly compact and light, with long battery lives. For example, the Ocean Signal rescueME PLB1 – the smallest in the world – weighs just 116g and is easily attached to a life jacket or clothing. For those who want more reassurance, the ACR Electronics' new ResQLink View PLB features digital display technology showing all the beacon's activities.

A further development is Return Link Service (RLS) which will provide the survivor with confirmation that their signal has been received. RLS beacons have already been developed by leading manufacturers ACR Electronics and Ocean Signal and will be available soon.

Budget:

£450-£750 Epirb, £290-£330 PLB

Epirbs

RescueME Epirb 1, SafeSea Epirb 1: oceansignal.com

ACR GlobalFix V4: acrartex.com

McMurdo Smartfind G8 AIS, Kannad SafePro AIS: seasofsolutions.com

PLBs

Ocean Signal PLB1: oceansignal.com

McMurdo FastFind ReturnLink, Kannad Safelink Solo: oroliamaritime.com

ACR ResQLink View: acrartex.com

AIS beacon

AIS tags are small and broadcast and MOB's position to nearby boats when triggered.

Budget: £275

Kannad Marine R10, McMurdo Smartfind S20:

oroliamaritime.com

ACR Artex AISLink: acrartex.com

Ocean Signal MOB 1: oceansignal.com

MOB tags

Triggered when someone's electronic tag leaves the 20m Bluetooth perimeter around the boat.

Budget: £59-89

Exposure OLAS tag: alertandfind.com

Crew Watcher: arthurbeale.co.uk

Sea-tags: sea-tags.com



Drogues

Para-anchor: para-anchor.com

Yachtsman series para anchor: oceansafety.com

Sea-brake GP-30: oceanchandlery.com

Ocean Brake: oceanbrake.com

Jordan Series Drogue: jordanseriesdrogue.com

Medical kit

Anticipating injuries is a fraught business, but there are plenty of companies who can help. Medical Support Offshore offers support over the phone (msos.org.uk), as well as a range of pre-determined kits. Most brands offer a modular solution, allowing you to build a suitable medical resource according to crew numbers and cruising plans, but remember that medicines often have to be bought separately.

Oceanmedix Marine 3000: oceanmedix.com

Soft Pack C: oceansafety.com

Sailing II Ocean bag: seadoc.de

Sea Medic: bluewatersupplies.com

SOLAR PANELS

By Luca Bonci, CEO of Solbian

Solar panels are the easiest way to generate electricity on board, the required daily maintenance is minimum and once installed, they become a reliable source of clean energy.

A 500W solar system is a good starting point, as it can generate up to 2500Wh during a sunny summer day - about 200Ah for a 12V battery pack. It is advisable to slightly oversize the solar system to compensate for cloudy days or in wider terms, to bridge power gaps when the conditions are not optimal for collecting solar rays.

Bluewater sailboats can easily accommodate a solar panel system as the one aforementioned, since it requires less than 3sqm and can be placed on decks, biminis or hard-top dodgers. Marine-grade semi flexible solar panels are recommended, being easy to

ABOVE: Solara solar panels

BELOW: Watt&Sea hydrogeneration



WIND TURBINES

By Stuart James, Marlec

A well-designed product for boats will create minimal sound when running. More blades are quietest, but they produce less power typically than the three-blade types. Some manufacturers are using advanced aerodynamic profiles that give both good power performance and just a gentle swish sound when spinning.

Low windspeed start up and power performance is a must to ensure you get power generation every day. There's a range of turbine sizes out there, so choose a rotor diameter in proportion with your yacht and a generation capability that fits the battery capacity. For long-distance cruising, it is certainly worth choosing a reputable product from the market with back up for if you need it whilst cruising.

Budget: £740-£1800 plus up to £300 for charge controller

D400: eclectic-energy.co.uk

LE-300: leadingedgepower.com

Rutland 1200: marlec.co.uk

Superwind 350: mactramarine.co.uk

AIR Breeze: ecopowershop.com



install and combining high efficiency and low weight. Different PV technology offers different levels of efficiency, but a good panel should do up to 25 per cent.

Budget: £500 for a 100W panel

Sunware: marlec.co.uk

Solbian: barden-uk.com

Solara: barden-uk.com

Sunpower: ecopowershop.com

PV Logic: improducts.co.uk

HYDROGENERATION

Matthieu Michou, CEO Watt&Sea

Indispensable for ocean cruising and ocean racing, hydro-generators produce a great deal of energy by taking a fraction of the thrust from the wind, like a dynamo on a bicycle.

While the first generations consisted of a propeller towed behind the boat and associated with problems of drag and ergonomics, today's products are mounted on the transom or even under the hull and generate much greater power: up to 10A at 5 knots, 18A at 6 knots, etc.

The hydro-generator works thanks to the speed of the water: this is why it must be mounted in an area



ABOVE: Icom satcom unit

without turbulence and well exposed to the current. The propeller must be adapted to the speed range of the boat: the faster the boat, the smaller the propeller.

In offshore racing, watt&sea models even use a variable pitch to accommodate large speed variations.

Budget: £2,500-£3,500 (cheaper for generic products)

Watt&Sea: foxschandlery.com

Duogen: eclectic-energy.com

Swi-tec: swi-tec.fr

Seatronic: seatronic.fr

WINDVANE STEERING

Sean Nelis, owner Aries

A boat full of wires that connect many devices to each other is like a ticking time bomb. Bring in a windvane! No stress about your batteries being charged, no leaking hydraulics, no push-button sailing, just actual sailing!

A good windvane asks for a balanced boat and a crew that understands what the boat needs in every situation. It makes every sailor more aware about the boat, the wind, the sails and the sea state.

There are dozens of accounts where sailors do not touch the helm for hundreds of miles. A few adjustments to the windvane are often enough to help you get across the pond and into the Caribbean without any issues to speak of.

Of course, there are downsides. It adds significant weight of the back of the boat and it might add some difficulty manoeuvring in tight spaces. Yet maintenance is simple and in case of a system failure on board, the windvane will carry on without any rest, chocolate or moaning.

Budget: £3,500-£5,500

Hydrovane: hydrovane.com

Aries: ariesvanegear.com

Monitor: scanmarinternational.com



ABOVE: Windvanes by Hydronevane

COMMUNICATIONS

Les Shortall, Inmarsat Maritime

Satellite connectivity is all about enhancing safety and the enjoyment of the trip. Being able to download weather reports, wherever you're sailing, is vital, as is the ability to get help in case of accident or medical emergency. On the fun side, it's great to be able to chat with friends and family, send photos and emails or even simple online browsing.

A fixed terminal like Fleet One is ideal because it is fast, reliable, easy to fit and handles both data



ABOVE: Inmarsat satcom receiver

WATERMAKERS

Riccardo Verde, MD Schenker watermakers

The main trends of the market are focused on four main features:

More compact: Units are getting smaller to allow more flexible mounting. Schenker's new Zen line produces up to 150lt/hr but is only 10cm deep.

Low power and direct battery supply: Some brands, like Spectra and Schenker, include hydraulic energy recovery systems. This can cut power consumption by 80 per cent to about 4Wh/lt.

Simplicity: Most watermakers are fitted with automatic pressure regulation systems and are less sensitive to corrosion.

Remote control and connectivity: Users like sophisticated touchscreen displays to monitor and control the main parameters, like salinity, pressure, flow etc. Ideally they are also networked with the MFD through NMEA 2000

Budget: £3,000-£5,000 (6lt-30lt/hr)

Dessalator: dessalator.fr

Rainman: thewetworks.co.uk

Schenker: mactramarine.co.uk

Spectra: gds.limited

Osmosea: sailfishmarine.co.uk

EcoSistems: improducts.co.uk



and voice and all of the above. With wifi capability, it doesn't require a handset and is always on - unlike satellite phones which may be out of battery or out of credit.

Satellite is very affordable and flexible airtime plans can prevent bill shock. For the weekend sailor, a so-called leisure plan will have predictable monthly fees, unlimited data and flexibility to use or suspend service from month to month.

To meet exponential growth in demand, operators like Inmarsat have already begun to launch new satellites that will dramatically boost bandwidth and capacity.

Budget: £2,000 SSB + £2,000 installation

£800-£1200 satellite handset

£2,700 Fleet One

Airtime: from 50p/min; data from £7/MB

inmarsat.com

iridium.com

icomuk.co.uk