



# Bulletin no. 2

## February 2008

### LONG DISTANCE PROVISIONING

Maybe some offshore racers consider a big bowl filled with enough rehydrated food for all crew to share and dip into with a fork is an evening meal. But to the experienced long distance yachting a proper meal is important fuel for crew, and good provisioning is an important part of planning a long distance race.

Provisioning was the topic of the ORCV'S first Information Session for the Melbourne to Vanuatu race, held at the Royal Brighton Yacht Club on 4 February.



The evening was well attended and included many sailors with thousands of nautical miles under their belts or keels! Robyn Brooke had prepared a presentation on provisioning and bought ingredients for bread baking. George Shaw helped create the spirit of Vanuatu by handing out specially imported bottles of local beer or Bia as the locals call it!

The session took off as a very interactive, knowledge sharing evening, with Robyn beginning her presentation with the wise words of that other great Shaw—George Bernard Shaw: “If you have an idea and I have an idea and we exchange these ideas, then each of us will have two ideas.”



Following the theme that catering on board need not be boring, Robyn encouraged two volunteers— Virginia and Eric from Independent Endeavour—to demonstrate the art of baking bread at sea.

One of the first tips for the evening was to stow the pre-measured dry ingredients in a ziplock bag (keep the yeast separate - a small film canister<sup>1</sup> is useful for this) then all you do is add oil and water and massage the ingredients together in the same bag — with no mess! Once well combined, you can turn the dough out onto the salon table for your workout. If you're lucky enough to have an adjustable table you can lower it to get a better angle on the dough so there's no aching shoulders. Everyone agrees the smell of freshly baked bread is a wonderful pick-me-up and reward in itself for the hot workout 'kneaded' to bake in the tropics.

For info, tips and recipes, try an internet search. A good basic recipe can be found at [http://www.learn2dostuff.com/Articles/B\\_Bread.htm](http://www.learn2dostuff.com/Articles/B_Bread.htm) and an entertaining six minute YouTube demo worth a look is available at <http://www.youtube.com/watch?v=qeuLPuXofOw>

With the bread in the RBYC oven to bake, the information sharing session began.

Below are some of the ideas and tips that flowed from the Provisioning Information Session.

#### Planning

Planning is important for the ocean racer to minimise weight and maximize the limited space available on the yacht. You can't stop along the way, so everything, water, fuel and food, needs to be considered carefully before your trip begins, including contingency planning for refrigeration breakdowns and slower than expected passages.

There is no 'one size fits all' solution to provisioning as each boat is individually equipped. Some have microwaves, alternators and converters, some have freezers and multiple house batteries, while others have an esky! Before you head off to buy your food you need to carefully plan what will work best for you, considering your boat's fuel, water, power and fridge capacity and space availability.

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<sup>1</sup> Canisters available free from photoshops – wash and dry thoroughly before use.

Talking of space – don't forget the bilges (if you are lucky enough to have a dry one!) During the evening Rosie Colahan and David James from *Ingenue* amazed the audience with how much they fit into their bilge for their two handed race to Osaka 2007 and Vanuatu 2006.

Having a freezer on board is a luxury however as Rosie mentioned, what works well as a fridge or freezer in Port Phillip Bay on barely two hours of fuel per day may need three hours or more to maintain the same temperatures in the tropics and the additional fuel needs to be factored in. For the last M2V race, *Ocean Skins* decided on a microwave and a freezer and owner Shaz Fowler, who took on the daunting role of land-based support, pre-cooked 75 meals for their trip to Vanuatu. Read her story later in this bulletin.

Each crew member takes on a primary and secondary role on a long ocean passage. The primary role of the crew is obvious – sailing, fast. But on passage races there are secondary roles which crew slot into, such as navigator, radio operator, pbo (poor bloody owner) and ..... 'crew maintenance engineer'(CME). Having a land based support team to focus on provisioning pre-race and appointing a CME during the race will enable the race team to get on with their primary role – sailing the boat as fast as possible, without the distraction of wondering where their next meal is coming from or having spoilage due to lack of attention.

As already mentioned, one of the most important elements of the planning process is water—how much to take and where to store it. There are Yachting Australia racing rules requirements to remember when it comes to water. Rule 3.18.2 of the Racing Rules for Category 1 say at least 2.5 litres of fresh water per crew member per 100 nautical miles of the course to be sailed shall be carried at the start of each race. Robin Hewitt and Rosie both agreed that in the tropics more is required. The Rules also refer to emergency drinking water and liferaft specifications (see attached).

There are many ways water can be stored and several ideas were put forward at the Information Session.

One suggestion was to recycle wine bladders and put water inside. The bladders make great flexible containers for water that can be stored anywhere in the boat as the bag assumes the shape of the storage space available. However, to save you drinking too much wine before you head off, you can also buy the water already in soft bladder-like containers or source the bags. A quick search on the web gave me [Entapack in Dandenong](http://www.entapack.com.au/index.htm) (<http://www.entapack.com.au/index.htm>) where both bags and a wall unit appear to be available.

Another suggestion was to carry the regulation water in bottles. As with the bladders, in this way you protect your supply in the event of contamination and if anything were to happen to your tanks, you will still have enough water for the crew to drink.

Five litre square containers were mentioned as good strong water storage containers – and they can be kept in the bilge without spoiling! It was also pointed out that when in the Pacific, they are very valuable to locals. However, some said they preferred the smaller 500ml bottles. Again these can be stored in the bilges when they are empty. One suggestion was to put water in a ten litre jerry can each day, to regulate your crew water usage.

Don't forget when planning water consumption that you will need additional water if you are including dehydrated meals as part of your catering (or emergency rations) - any shortcuts can have serious consequences when eating the food.

Quite a few members recalled stories of yachts losing water by simple accidents, a water pump left on and a tap open or a popped hose fitting. If crew are new to a boat it is important to teach them how to protect your water supply and highlight simple mistakes that could lead to water loss. You could even restrict the use of the electric water pump to the CME and insist all other crew use the hand pump or pre-filled bottles. Anything to avoid the frustration and embarrassment of pulling out of a race because the water supply ended up in the bilge!

Yachts should also note, that even if they have a water maker on board it is still necessary to carry the required water requirements at the start of the race.



A last word on water. Although not a reliable source, rain showers are certainly a welcome opportunity in the tropics and you are well advised to give some thought to how you might harvest this glorious gift while underway. Planning for this can avoid distractions to the helm at a critical time when wind shifts are likely and valuable gains can be made.

*Waterfall at Asanvari, Vanuatu*

Another important part of planning is thinking of how much gas you will need for the trip. And of course with that you need to consider the specific safety requirements for storage. It's no good having plans to be a creative cook if you run out of gas!

Robyn recalled that *BOOTS* used almost 2 x 4.5 kilo bottles of gas to get to Osaka (6 weeks) while Robin on *YOKO* needed only five litres of metho for the race to Vanuatu last year (2 weeks).

## Catering

The consensus from everyone was that catering did not need to be boring and you can be as creative as you want if you bring the right equipment and provisions with you.

Along with baking your own bread on board, a yoghurt maker was an optional extra. Only \$20 from Coles for the 'Easy Yo' yoghurt making kit. It does take up the space of a large thermos flask but if you have the space, "It's the best thing since sliced bread," agreed Robyn and Rosie, which of course you'll be having too!

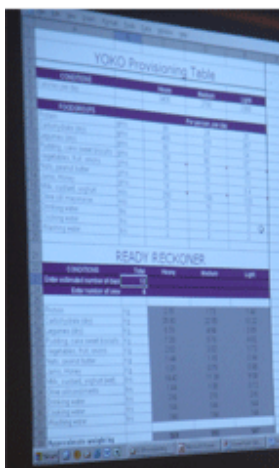
Pre-packaging meals in a ziplock can significantly reduce the frustration of trying to get into difficult to access places in a bucking boat, while crew are sleeping, to pull together the various ingredients needed for a meal. Again, herbs and spices can all be pre-measured into a film canister and a note in permanent marking pen on the front tells what else needs to be added from the fridge or vegetable stores.

Packing fishing equipment is also a handy tip, as there are plenty of fish along the way. According to Tony Fowler, tuna was the big catch on their trip to Vanuatu last year.

Tony used a rod and reel off the back of the boat and the ratchet was loud enough to register every strike. Ken and Wendy on Spirit Silver Edition used a bike tyre led forward to the shrouds with VB cord and a tracer attached. Hard to miss the twang of a strike when it's forward of you. Both boats had a very successful fishing race (see bulletin no. 1 for Tony's account).

So don't forget the 'crumb in one', herbs, spices and curry to prepare a variety of fish dishes. With a simple sushi mat, a tube of wasabi and a little sweet rice wine vinegar<sup>2</sup> - you can even roll away and create fresh sushi!

If you are not certain how to ensure the food you need for a long trip off shore is going to offer all the right calories and nutritional values, then check out Robin Hewitt's Provisioning Table (attached). The table includes a ready reckoner to help you calculate for the number of crew you have and your anticipated days at sea.



YOKO Provisioning Table	
Item	Quantity
...	...

READY RECKONER	
Crew	Days
...	...

The Melbourne to Hobart veteran explained that in cooler climates your body needs to consume more calories to keep warm. Then in the tropics you need less as you don't burn as much energy.

In summary, Robin said that a solo sailor would consume 5,500 calories per day in high latitudes. Around Melbourne and Tasmania this would be about 3,300

calories per day. On the coast near Sydney this would be about 2,300 calories and then 1,700 calories through the equator.

So for those planning the Vanuatu race, he suggested calculate three normal meals to Eden and then work from the Provisioning table for the rest of the trip.

A top tip from Robin was to always have an extra 3-5 kg of rice as emergency rations.



A hot topic with many sailors was how vacuum packing (cryovac) has made provisioning for long off-shore sailing so much more interesting. From olives to slabs of steak, all food groups can be sealed away and easily stored in quantities to suit your needs.

For the regular off-shore racers you could think of buying a vacuum packing machine of your own or setting up syndicate ownership. The machines can cost anything from \$250 to approximately \$700.

Otherwise, ask your butcher to vacuum pack the meat or poultry when you first buy it. If you buy your meat in the one place, they'll be interested in what you are doing so ask if you can cook the meat and bring it back to be sealed. If you have a butcher who also cooks hams, they may even do the cooking for you. When pressed for time, Robyn has her butcher undercook the roast a little, cook and slice the corned beef before bagging and she even takes him the roasted veggies to be sealed for a 50c charge per bag. These are ready to be heated up in the pressure cooker using salt water (leave in the sealed bag, though!). Remember to buy all meat off the bone—it's just extra weight and space and you can't eat it!

Not everything needs to be tinned, vacuum packed or frozen. Fresh vegetables do travel and some better than others. Pumpkin, potatoes, sweet potatoes and cabbage are good travelers.



Don't forget if you are buying tomatoes, buy them green so they can ripen on the voyage. Check out the attached information on vegetable storage.

Fruit and vegetable storage bags were given a good endorsement. And if you put paper towel around the vegetable/fruit it will stop them sweating.

With the wealth of sailing experience in the room at the Brighton Yacht Club, there were plenty of ideas flowing on how to provision and what meals are easy to cook at sea. Even with the offer of a free pen from Ron Blint,

<sup>2</sup> vinegar and sugar is an adequate substitute

members didn't need much persuasion to contribute stories and ideas!

Here is a summary of some of the top tips from the 4th February Information Session:

- Smoked or cured meats keep really well and can be hung from anywhere you like in the boat. South Melbourne and Vic Markets were popular choices for great deli supplies and dried goods.
- Zip lock bags—you can never have enough – all sizes!
- Baking paper is great for wrapping round cheese, bacon or other opened food when storing in the fridge, so the food doesn't sweat.
- Square plastic containers pack well. Start collecting.
- Bring extra aluminium foil for cooking the fish you catch along the way!
- Supermarket bread is full of preservatives so will last about seven days. After that wraps are great for making sandwiches as they are easy to keep and are dry.
- Don't mess with eggs. Buy good quality and freshly-laid, turn cartons twice per week and they will last you up to six weeks.
- Couscous is an easy to make meal and easy to store (although not so popular with some skippers!)
- A pepper grinder - nothing beats real black pepper.
- Fruit cake is great in rough weather.
- Wet wipes – look for the eco friendly larger wipes (*wot not* available on line) which are biodegradable and no chlorine. Also, some perfumes can really turn you off after a while so try them out before the trip.
- Check the internet for recipe ideas, eg. Campers have good tips: <http://www.scoutorama.com/recipe/>
- A pressure cooker - great as a time and gas saver, also a safe tall pot for cooking in all weather and good for cooking anything, even bread!
- Dried meals are good for emergencies but must be rehydrated adequately to avoid dehydration.
- Hungerbuster is a good source of ready-to-eat meals in a pouch: <http://www.portionpackfoods.com/products.html>
- Tinned food is great as a quick meal in rough weather. Just heat the tins up in pan of boiling (salt) water.

- Daily snack or ration packs are a great way to keep crew happy when they have the munchies. They are also a good way to stop the snack attack sneaks from taking



more than their fair share!

- Hygiene is very important at sea as germs are easily transmitted in close quarters. This will be discussed in more detail at another session.

However, a few useful tips on this topic included:

- Have individual crew water bottles with names on it. Sharing can lead to spreading germs very quickly.
- Leftovers such as rice can be risky if not cooled quickly. For more info, see the foodscience website of CSIRO: <http://www.foodscience.csiro.au/>
- Anti-bacterial handwash does the job without water (but better to have a good scrub before making bread)
- Miltons anti-bacterial tablets are handy in the first aid kit for giving drink bottles a good clean in the tropics.

Just remember as you plan your trip, good nutrition is vital to every person on board to ensure they keep healthy and make the right decisions at sea.

All the talk of good food whetted everyone's appetites for the freshly baked bread that was produced at the end of the presentation. One loaf cooked in the oven and one in the pressure cooker - both methods smelt great and tasted even better!

If the creative cuisine you plan for the race isn't enough to excite your crew, just remind them of what awaits on arrival in Vanuatu. Delicious fresh produce and friendly locals. You will be guaranteed a smile at the end of thousands of miles at sea, as the Vanuatu people were recently voted the happiest in the world!



## YOKO Provisioning Table

CONDITIONS		Heavy	Medium	Light
Calories per day		3400	2700	2300
FOODGROUPS		Per person, per day		
Protein	gms	30	24	20
Carbohydrate (dry)	gms	400	318	267
Legumes (dry)	gms	80	63	54
Pudding, cake sweet biscuits	gms	100	80	67
Vegetables, fruit, onions	gms	35	28	24
Nuts, peanut butter	gms	20	16	13
Jams, Honey	gms	14	11	9.4
Milk, custard, yoghurt	mls	200	158	133
Olive oil/ mayonaise	mls	20	15	10
Drinking water	ltrs	3	3	3
Cooking water	ltrs	2	2	2
Washing water	ltrs	2	2	2

*The file RH food table.xls incorporates a ready reckoner based on the above table.  
Use it to calculate your boat requirements*

An additional 3-5 kg rice is carried as emergency.

One can safely lose 1 kg weight per week, any faster loss represents muscle loss.

Some additional interesting data:

Single handed allowance for sailing in the lat 50s = 5,500 calories

Allowance for sailing at the poles = 7,700

Allowance for Victoria = 2,700-3000

Allowance for tropics = 1700 calories

*The differences are what is used for body heat*



# Water - Category One

## Yachting Australia

### Racing rules of sailing 2005-2008

#### References

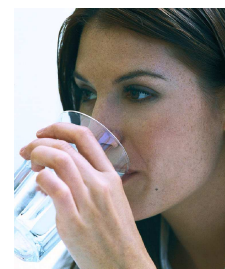
Water tanks and water	3.18
Water, drinking	3.18.1, 3.18.2, Appendix A
Water, emergency	3.18.3

3.18.1 Water tanks, permanently installed and capable of dividing the water supply into at least two compartments and discharging through a pump.

3.18.2 At least 2.5 litres of fresh water per crew member per nautical miles of the course to be sailed shall be carried at the start of the race. A leak in any one position in the fresh water system shall not result in the loss of more than two thirds of the total water supply.

3.18.3 Emergency drinking water. At least 9 litres of water in addition to that required by clauses 3.18.2 and 3.18.3 shall be carried in a dedicated container or containers.

Appendix A Liferaft specifications:  
Sufficient drinking water, giving 0.5 litres per person



# Ocean Skins

*Here is some useful additional information which came out of my interview with Tony and Shaz Fowler, Ocean Skins for the last bulletin. rb*

## **PROVISIONING**

Food is always a concern for ocean racing as you always have the dilemma of either too much or not enough. Consideration also needs to be given to the collection and storage of waste and garbage.

### **What works for Ocean Skins?**

We converted an ice box into a freezer which can hold heaps and we installed a microwave on board. I precooked all main meals and froze them in take-away containers which were washed and stacked - no space, smell or garbage issues.

I also found that doing long races the guys didn't need to bulk up with food so much, as their metabolism slows down. Lots of protein and veggies did the trick. I was able to freeze 75 meals on the boat which was perfect for seven people (and just as well as that was all the freezer could handle).

### **What was on the menu?**

- Roast meals Lamb and Beef
- Apricot chicken with rice
- Burritos
- Cottage pie
- Beef stroganoff

The crew member on stores rotated all frozen food every couple of days to ensure that nothing spoiled. Also we had packaged dry foods such as dehydrated foods, pasta, tuna, peas carrots and so on, which were light and for emergencies.



We had always considered potential delays and planned for it with four days of emergency rations of pre-packaged survival meals, purchased from Rays outdoors. One thing you have to watch is that you reconstitute it carefully or it WILL dehydrate anyone who eats it by absorbing moisture from your stomach, so I stress, please read the instructions carefully and factor in the additional water storage required.

The other thing that I did for the boys is put all breakfast and daily snacks such as SPC fruits, muesli bars, dry biscuits, etc. in daily ration bags. The crew weren't allowed to break into the next day's bag and this ensured that a) nothing became wet and unusable and b) the sneaks on board were discouraged from eating anyone else's share.

Shaz Fowler  
Ocean Skins



# Information Sessions

## M2V 2008

Monday March 3

7.00pm at Royal Brighton Yacht Club

### Category 1 preparation and crew issues

*Down to business: Checklist of essentials and other things to consider*

*Shane La Peyre (Ocean Racer of the Year) Cat 2 to Cat 1*

*Peter Clancy Radio and Life Jackets*

*Colin Miller Power Management*

*Adam Manders Charts*

*Boatbooks*

**and coming soon .....**

Monday Apr 7 at 7.00pm	Sewing & Suturing
<p><i>Hands-on Medical issues and sail repairs at sea</i>  <i>Rosie Colahan and Mark Remington</i>  <i>Location: UK Halsey sail loft, Beach Road, Sandringham</i></p>	
May 11/12 (tbc) Sat & Sun	Meteorology (2-day course)
<p><i>Including heavy weather sailing issues</i></p>	
Monday Jun 2	Protocols
<p><i>Customs, Immigration, etc.</i></p>	
Jun 15/16/17 (note the change) Sun, Mon & Tues	ORCV Sea Safety Survival Course

..... **Everyone is welcome**