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Cruiser's Dictionary

By
Jeanne Pockel

A dictionary for boaters.



CRUISING DICTIONARY
By Jeanne Pockel (JeanneP)

This extremely useful cruising dictionary has been compiled over a period of 17 years from personal cruising experience on their sailing yacht **Watermelon** and from various other qualified sources. The author, Jeanne Pockel, and her husband Peter left Boston to cruise for a couple of years aboard their **Jeanneau Sun Fizz**. Seventeen years later they are still "cruising for a couple of years" and Jeanne has graciously offered her gold mine of information to assist fellow cruisers as well as those planning to follow in their wake.

If you cannot find what you're looking for in Jeanne's DICTIONARY then please go to her very comprehensive online CRUISING FAQ database (<http://www.cruiser.co.za/faq.asp>). Questions from visitors to her site as well as the answers are posted on the "Q & A Database" page.

This cruising dictionary will always be a "work in progress" and this ebook will be updated from time to time. Should you wish to be notified when an update is available, kindly contact Jeanne at watermelonjp@aol.com with "Ebook updates" as the subject of your email.

Visit JeanneP's websites:

Sailing Yacht Watermelon <http://www.cruiser.co.za/hostmelon.asp>

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A

ACETIC ACID - Essentially, what makes vinegar sour. If you can obtain acetic acid, which is diluted 1:25 with water to make "artificial vinegar", you can have a year's supply in a litre bottle, cheaply and compactly. Flavor it with wine, apple cider, herbs, and it's a reasonable substitute for fermented "gourmet" wine or cider vinegar. Try a Chemist (Pharmacy), or in some countries, an industrial chemicals supplier. Chemical symbol for Acetic Acid: CH₃COOH (See "*Vinegar*")

ACETOMINOPHYN - (For example, Tylenol®). In Australia, NZ, is called Paracetamol. Same thing, different name. The only painkiller that should be used if Dengue Fever is suspected. Liver damage can occur if taken in too great quantities, or with alcohol.

ACID - Various types of acid are useful on a boat, and we probably carry all of them. Always dilute acid by pouring the acid slowly into water, not by putting water into acid. (See "*Acetic*", "*Citric*", "*Hydrofluoric*", "*Muriatic*", "*Phosphoric*", "*Oxalic*", "*Tartaric*" acids, "*Stain Remover*", "*Vinegar*", "*Heads*").

ALLERGIES - Some marine toxins, such as from jellyfish, cause extreme allergic reactions. Our doctor recommended that we carry at least one type of liquid antihistamine (such as Children's Benadryl) as well as antihistamine pills as a preventive measure against reactions to new substances. In the event of a severe allergic reaction you may not have time to reach professional medical help. The liquid is faster-acting than the pill form and is more easily swallowed, which can be important if reaction causes swelling of throat and airway passages. If you carry Children's Benadryl, be sure you adjust the dosage for an adult. Better yet would be an "Epi-Pen" which is a premeasured dose of injectable epinephrine. It is most commonly provided to people with severe allergies (such as to bee stings, peanuts, fish, etc.) (See "*Charcoal Tablets*"; "*Scombroid Poisoning*")

ALGAECIDE - Algae in your fuel tank will break down diesel and deposit water. In the tropics it can form quickly and clog fuel filters. Many marina fuel docks in the tropics sell an additive to handle algae. It is worth carrying. For potable water, Sodium Metabisulphide, the bactericide that is used to "pickle" the PUR desalinator membrane, is a good water tank algaecide, though the taste is dreadful. (See "*Water Filter*")

ALUMINUM - Extremely vulnerable to electrolysis. We do not recommend for cooking utensils, or storage containers. (See "*Rust*")

ANCHOR - be sure anchor is locked securely before making any passage (we secure ours in chain locker so there is nothing on deck to be caught by green water). In foul anchorages, it is helpful to buoy the anchor with a trip line. In very deep foul anchorages it may be necessary to buoy the anchor rode to prevent it from so tangling with the rock and/or coral on the bottom that it is hopelessly fouled. (Danger in areas with heavy swells is that rode fouls straight down leaving no catenary - has broken rode or bow stem of a number of boats. (See also, "*Fenders*"; "*Fouling*"; "*Recycling*")

ANCHOR LIGHT - The April 1998 SSCA bulletin had two do-it-yourself automatic anchor lights, to turn on at sunset, off at sunrise.

ANGIOSTRONGYLIASIS - ("heart-lung worm") is a relatively rare but serious parasite that comes from locally grown lettuce or Bak Choy, but is prevalent in Fiji, Tonga, Hawaii, Tahiti; reported in Puerto Rico. The parasite's eggs are deposited by land snails that crawl and feed on the leafy vegetables - are found in shrimps, crabs, fish. Care must be taken to wash thoroughly, although does not always eliminate infective larvae. For shellfish, boiling for 3-5 minutes, or freezing for 24 hours will kill the larvae. (Source: "Control of Communicable Diseases in Man", 1990, An official report of the American Public Health Association.)

ANTIBACTERIAL SOAP - Such as Softsoap™ (and Softsoap Hypoallergenic works in salt water), excellent for bathing and for first cleansing of cuts and abrasions. This is not the same thing as PhisoHex Facial Wash (which is for acne). When we ran out of, and could not get in Australia or Western Pacific islands, got the first Staph Infection in nine years. Any Pacific Island nation where they keep pigs, particularly French Polynesia, you would be wise to carefully disinfect all insect bites, especially the sand flea ("*no-see-ums*") bites, or they will become infected, and we have seen lots of nasty scars from them. N.B. Treat cuts and scratches aggressively in the tropics.

ANTIBACTERIAL TABLETS - Water purification tablets: Milton's (mfr'd. by Proctor & Gamble in England for Aust. consumption. AUD\$6.85 for 30 tablets). Also in Australia, AMCAL, AUD\$4.95 for 30 tabs. Also made in England. As are AquaTabs sold in West Marine for a lot more money. You can also find them in the baby bottle section of stores in Malaysia, Thailand, and Singapore, various labels.

Another option is sodium metabisulphide, used in Australia (and other places) to sterilize home beer-making bottles and equipment. It works, and is the same stuff that is used to "pickle" the membrane in small water desalinators. But it smells, and water treated with it needs to be filtered through a charcoal filter. (See *water filters*)

"ARMOR-ALL™" - We have heard reports that it should not be used on rubber dinghies because the silicone eventually migrates through the fabric and loosens the glue, letting go of the seams, which are then unrepairable because of the silicone.

ASPIRIN - Although aspirin is my pain tablet of choice, it is important to note that if Dengue Fever is suspected, do not give aspirin or Ibuprofen. Only acetaminophen (or Paracetamol in Australia, NZ) is safe.

ATMOSPHERIC PRESSURE - The United States' insistence on giving barometric readings in inches of mercury seems, to my mind, to be quite silly. Less than two-tenths of an inch of mercury is the difference between low pressure and standard atmospheric pressure. So out of my own personal need, I've drawn up a small conversion table for atmospheric pressure in inches of mercury and in hectopascals (or millibars). You will find it easier to keep track of weather patterns when you only have to keep track of whole numbers. A low pressure system at 29.77 inches of mercury doesn't seem that much different from a high pressure system at

30.59 inches. For me, a gradient of 1006 to 1036 seems to be easier to recognize and understand. So, for what it's worth, here are the two tables.

Inches of Mercury	Millibars or Hectopascals	Millibars or Hectopascals	Inches of Mercury
29.2	988.8	1004	29.65
29.3	992.2	1006	29.71
29.4	995.6	1008	29.77
29.5	999.0	1010	29.83
29.6	1,002.4	1012	29.88
29.7	1,005.8	1014	29.94
29.8	1,009.1	1016	30.00
29.9	1,012.5	1018	30.06
30.0	1,015.9	1020	30.12
30.1	1,019.3	1022	30.18
30.2	1,022.7	1024	30.24
30.24	1,024.0	1026	30.30
30.3	1,026.1	1028	30.36
30.4	1,029.5	1030	30.42
30.5	1,032.8	1032	30.47
30.6	1,036.2	1034	30.53
30.7	1,039.6	1036	30.59
30.8	1,043.0	1038	30.65

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BACKPACK - Don't carry money in pack - use fanny pack or money belt (back pack is too easily picked). On busses or trains, watch out for thieves who help you put your backpack onto the rack directly over your head, only to loot it while you are riding. At the risk of sounding too cynical, very helpful locals sometimes have ulterior motives.

BAMBOO SKEWERS - More useful than we ever expected. Useful as a disposable stirring stick for small amounts of epoxy; as filler in stripped wooden screw holes; for cleaning out small diameter tubing; etc., etc. We even use them for cooking at beach barbecues.

BIMINI - Sailing in the tropics won't be very much fun if you can't get out of the sun during the day while sailing. Fitted with PVC gutters, makes a good passive rain catcher as well.

BLACK MARKET MONEY CHANGING - We have never encountered or tried this, but have been warned by others that one runs the risk of being short-changed. If you decide to risk changing money on the black market, do not hand over your money until you have personally counted the local currency given to you. Smarter people than us have been cheated badly.

BODY ODOR - A landlubber friend of ours, a travel agent, commented once to us how so many yachties have terrible B.O. Our first reaction was "not Americans!", but then we smelled a few. Occasionally we get to smelling a bit ripe, and have found that usually a bathing with Selsun Blue Shampoo, or more drastically, with *Selsun Concentrated* (in yellow bottle) and then continuing with antibacterial soap solves the problem. In the tropics, the constant moisture on the skin as the body pumps out perspiration to cool itself is a perfect breeding ground for bacteria and fungi, which lead to smelly bodies. Most people don't realize when they start offending, so it's better to err on the side of caution. It's healthier, too. Cuts don't infect as often, or as severely, if the skin is kept relatively bacteria-free.

BOOKS - Useful books:

- "[DUTTON'S NAVIGATION AND PILOTING](#)" by Elbert S. Maloney, Naval Institute Press, Annapolis, MD (Even after all our years of cruising we continue to check information in here; one of the appendices is translations of foreign chart symbols and notations - most languages of the world, most useful);
- "[HEAVY WEATHER SAILING](#)", by K. Adlard Coles, Peter Bruce, Intl. Marine Pub. ;
- "[HEAVY WEATHER GUIDE](#)" by Rear Admiral William J. Kotsch, USN (Ret.) and Richard Henderson. Naval Institute Press, Annapolis, MD;
- "[THE OFFSHORE DOCTOR](#)" by Dr. Michael H. Beilan. Dodd, Mead & Co., New York (paperback);
- "WHERE THERE IS NO DOCTOR" by David Werner. The Hesperian Foundation, P.O. Box 1692, Palo Alto, CA 93402 (website: <http://www.hesperian.org/>); (please support this worthy cause)
- "[PUTTING FOOD BY](#)", Janet C. Greene, Penguin USA (Paper);

- "SITTING DUCKS" (author unknown, about Caribbean misadventures);
- "[WORLD CRUISING ROUTES](#)" by Jimmy Cornell;

A good World Atlas; an almanac.

To keep books mildew-free, see "*Mildew*".

[More books here...](#)

BOTULISM - The most terrifying food poisoning, because it is usually fatal within minutes of ingesting the toxin, and an incredibly tiny amount is all that is needed to fell an army. Poorly processed home-canned meats and vegetables, cans damaged by dents or rust so that the botulin spores can get in and grow, are the most common sources of botulism. Discard bulging cans. If the lid on a "pop-top" has popped, discard the contents. These are telltales of the bacteria growing in the container. However, the toxin is easily destroyed by heat, 5 minutes of boiling food in an open pan destroys the toxin, so one should be careful to adequately heat all canned foods before eating, just to be safe. The spores, however, are a different matter. To destroy, for canning meats, for example, requires processing in a pressure cooker at under 10 lbs. pressure for 75 minutes (for pints) to 90 minutes (for quarts).

BURGLAR ALARM - We have rarely locked our boat while we are away from it for a day and have had no problems. However, we have built an alarm system with which we are comfortable. We did not want a motion-detector system because there are too many things that can set off a false alarm; we wanted a system that would work even if we were on the boat or anytime we left the boat leaving the hatches open, thereby eliminating magnetic contact-type sensors. The alarm therefore consists of a pressure pad that sits in the cockpit in front of the companionway hatch, a 12V exterior horn, and a time-delay relay switch. The parts are readily available from do-it-yourself electronics shops, cost under \$100, and can be tailored to the specific owner's requirements. It fits our need and philosophy of frightening away the amateur thief, or warning us of intrusion in the middle of the night should we be in a location where that is of some concern. (see "*Thieves*")

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CANNING FOODS - when we started out, we weren't going any farther than the Caribbean, where a new island (and market) is just a day sail away in most cases. I therefore didn't think that canning meats was worth the trouble of carrying the jars, lids, and going through the effort. Once leaving the Caribbean for the South Pacific, however, passages are longer, we had no freezer, and we have found great destinations where there was no civilization - indeed, wonderful anchorages where there was no land. As much as we might like fish, a little bit of beef or chicken is welcome, and the longer we do without, the more we crave it.

I preserve meatballs, stewed beef, ground beef ("mince"), and chicken. The most appreciated by Peter is the meatballs and loose ground beef. No matter how confident I am that the food is okay (opening the lid of a properly canned jar gives a resounding "pop" as the vacuum seal is broken), I still make sure that the contents are cooked/boiled for a full five minutes before consuming. And so I put up meats before any extended cruise or long passage. (See Appendix: Food Canning)

Remote destinations. In 1991 we decided to stop at Cocos Island, owned by Costa Rica and about 500 miles off its coast. Back then there were only two people living on the island - members of the Costa Rica Coast Guard, stationed there for three-month tours. Cocos Island is a national park, and we aren't sure if the two fellows were there to police the park from fishing boats, since commercial fishing was outlawed, or whether it was just to be sure that Costa Rica maintained a presence there so that squatters couldn't just move in and claim the island. Regardless, we found it to be exquisite, and wound up staying for almost two months. At this time I wasn't canning meats, and so we were eating fish, the occasional lobster, and whatever sparse stores I had in our locker. We shared the anchorage with a French boat, EOA, and found ourselves trading back and forth for items one had that the other didn't. But neither of us had meat, so we grew very inventive with preparing fish in different ways. Near the end of our stay at the island, we started getting a bit silly, looking at the sea birds walking around within neck-wringing distance from us (all the wildlife on land and in the waters of this island were unafraid of humans - not having been hunted, they didn't perceive humans as a predator), and saying, "here, chicken, chicken, chicken", though we never quite had the nerve to catch and kill one.

APPENDIX: FOOD CANNING. Although I have been conditioned my entire life to not reuse vacuum lids, I do not care to carry as many canning jars and lids as I need for a long cruise to remote places; and thus I save pint jars with "button" pop-top lids, such as spaghetti sauce, to use once more before discarding. Also, for smaller quantities, I save smaller jars, such as the jars that Salsa comes in. The risk is the rubber gasket, which is just a small thin strip in the commercial jars, becoming worn or damaged. Be sure that whatever jars and lids you use that you close them tightly before placing them in the water bath and processing, or the liquid will boil over and seep out of the jars.

Precooking meats before canning will insure that the canning broth remains clear and appealing looking. Skim off the scum and if still

unacceptably cloudy, you may wish to strain the broth through cheesecloth (or a paper coffee filter!) before covering the meat in the jars with it.

I prepare meats slightly differently than if they were being used immediately. Meatballs are better if there is little or no spices, and I do not add bread crumbs; rather than browning in a frying pan, I drop them into boiling beef broth to partially cook, then lift out with a slotted spoon, pack loosely but firmly in pint jars, use the processing broth (strained to remove scum) to cover the meat, cover, and process. Ground beef: drop loose into boiling beef broth, boil for a minute or two, lift out of broth with slotted spoon, pack into jars, cover with broth, cover and process.

Chicken: remove bones and skin, process as for beef, but use chicken broth rather than beef broth. (Chicken bouillon cubes are fine). I also add 1 tsp. citric acid to each quart of broth.

CAUSTIC SODA - Same stuff as drain unclogger (such as "*Drano*") - useful for cleaning out the last bits of animals from seashells without harming the shell. But is nasty stuff - generates lots of heat, so add to water, not other way around; be careful of the fumes. Make up a solution, put smelly seashell in and swish around so solution goes all the way into the shell and let sit overnight. Rinse out. (Also useful when toilet in head has bits of rotting animal in it - when the smell gets too much, disconnect intake line, pump in caustic soda solution, let sit for a few hours, pump out, repeat and then flush with clear water)

CHARCOAL TABLETS - Available in most health food stores, good for absorbing ingested toxins such as Salmonella toxin from food poisoning, or for accidental overdoses of medications. It is not a medicine, but the same activated charcoal used to absorb minerals and odors from drinking water. Must be taken when symptoms first appear to have any effect. Can't hurt, often helps, and with food poisoning, helps dramatically. (see "*Allergies*", "*Botulism*", "*Salmonella*")

CHARTS - See "*Navigation Charts*"

CHOLERA - For normal healthy adults cholera is not fatal, just nasty, so one should not feel intimidated by it, nor avoid places where cholera has been reported. However, one should always take precautions against food-borne infections - very few places in the world have the same hygiene standards as in the States. As with typhoid, giardia, cryptosporidiosis, the majority of the carriers are asymptomatic - i.e., transmission is often effected by carriers who show no symptoms of the disease themselves, so the disease is transmitted by their handling of food - for this reason, even very clean restaurants can transmit various diseases if the people preparing or serving the food are unknowingly infected. We have eaten food from street vendors in cholera-endemic areas without any problems. If they are selling fried food and the food is handled with tongs and paper napkins without the vendor ever actually handling the cooked food, it is unlikely that the food is contaminated. If the vendor is dirty or the utensils are dirty, avoid it. (See also, "*Cryptosporidiosis*"; "*Giardia*"; "*Newspapers*"; "*Preserving Food - Fresh Vegetables*"; "*Rehydration*"; "*Typhoid*")

CIGARETTE LIGHTERS - Useful for searing and sealing cut ends of lines, webbing, etc.

CIGUATERA - Food poisoning from reef fish. Caused by reef fish eating a toxic dinoflagellate - doesn't hurt the fish, but the toxin builds up in its flesh and is really nasty to humans - can be fatal. Symptoms include shivering, severe flu-like symptoms, reverse sensations (hot feels cold, cold feels hot). The toxin is a nerve toxin, can suppress breathing in severe cases. The larger the fish, the more toxin it could have in its flesh. Is found in tropical reefs worldwide, though some areas are worse than others. Not caused by pollution, so do not think that just because you are far from civilization that you are safe. In the Caribbean, do not eat barracudas, and we suggest avoiding large reef fish, such as groupers. Intravenous *Mannitol* (glucose drip) has been successful in treating it, if done as soon as possible after showing symptoms. Local remedies include drinking a whole can of sweetened condensed milk.

Because the toxin builds up in the body tissues, one can eat ciguatera-infected fish without severe effect over a period of time, and then suddenly eat the one fish that puts the level in the system over the edge. It seems to take about two years for all the toxin to leave the tissues. When Peter got it, he couldn't stand the taste or smell of fish for about six months. Our island friends told us that this is not unusual. It's a scary thing and is not to be taken lightly. In many areas of the Caribbean we are so wary of it that we try to only eat pelagic fish, such as Mahi-Mahi, Wahoo, tuna; never eat any but the smallest reef fish.

CLOCK - We have a small 24-hour digital clock that also shows the date at the navstation set to Universal Coordinated Time (Greenwich Mean Time). Radio and Weatherfax schedules are usually given in UCT, and this saves trying to remember what time zone we are in.

COCKROACHES - South Pacific roaches are big enough to throw a saddle on. If you see even one roach walking around in daylight, chances are you have a severe infestation (mild to moderate infestation, you won't see one during the day). One cruiser roach treatment is boric acid mixed with sweetened condensed milk until stiff, rolled in balls and put around - especially in bilge. (This is a terrible idea if your bilge has even a little water, and if you make a lot of passages. People who found this most effective were cruisers in Baja California and dry ABC island in Caribbean. It's not worked for us). We've found bombing the boat is the only sure way to get rid of them, but it means opening all lockers and leaving the boat for the day. Best bombing was set off after dark and left for a day. Prevention is better than trying to exterminate, but they'll get on the first time you let down your guard. Do not bring store boxes onto the boat - unpack and discard before bringing stuff below. Leave stuff in sun in cockpit for an hour (if possible) before stowing it. No paper bags; even plastic bags can carry the eggs. Always keep one or two fresh roach traps around galley area. If you send your laundry out to be done by hand and it comes back the next day (as is common on some Caribbean islands), there is a possibility that there will be roaches in the clothes. Unpacking and laying out in the sun before bringing below reduces the risk. (See also "*Mildew*")

COFFEE - For those who use Melitta paper coffee filters, there is a reusable cotton alternative from: The Coffee Sock Company, P.O. Box

10023, Eugene, OR 97440. They also make hand-held coffee socks with a stainless steel frame. At \$3.95 per sock for a #6 Melitta filter, they are cheaper than the paper version, and it's less trash generation. (We bought coffee socks in a plastic hand-held-type frame in Venezuela, very cheap, and in a metal frame in Phuket, Thailand - in between, couldn't find them)

COMPUTER - Is there a cruiser nowadays that doesn't have a computer on board? Hooked up to a short-wave (HF) radio, can receive weather faxes or can send and receive e-mail, faxes. There are several worldwide perpetual tide table programs available for computers. Hints: learn how to set "sleep" or "Suspend" mode; an inverter is a boon. We believe that a 12-volt adapter is better for the computer and its internal battery than plugging it into an inverter on the boat. (see also, "*E-mail*", "*References*" [for internet sites]; "*Weather Fax*"; "*Tide Tables*")

COOKWARE - Handles on stainless steel pots & pans are usually not screwed on with stainless steel screws; they will rust and the handles fall off. If you decide to remove long handles and have ear handles welded on, do it before you leave the States. Another option: often you can buy small handles and screw them on in place of the long handles. Try Salvation Army or such for cheap pots with handles or lids you want.

Pressure cooker - a very useful pot. Good for home canning; fast preparation of meats and stews, thereby saving fuel; lock on cover, good for nasty rough passages; and is usually the largest pot carried. Have only found one model (European) that had absolutely no aluminium on it (if yours has an aluminium pressure valve, check frequently and clean oxidation off before using it or it might clog and not work properly). Be sure you carry a spare gasket for your particular model if you plan to travel far from your origin point, or you might find it impossible to replace the gasket when it fails.

Stove. - Be sure your stove has potholders to prevent pots from sliding around and jumping off the stove when cooking while under way. Not all stoves are fitted with them.

CORN

- Corn Meal is available in Australia as "Polenta".

- Real Corn Flour is nonexistent outside of US (except a few places in S. America). Most places, "Corn Flour" means cornstarch.

- Cornstarch is called Corn Flour in many places. Be careful.

COUNTRIES: We have visited the following countries: Anguilla, Antigua and Barbuda, Aruba, Australia, Bahamas, Belgium (via 747), Bonaire, British Virgin Islands, Chile (Easter Island), Colombia, Costa Rica, Curacao, Dominica, Dominican Republic, Ecuador, Fiji, France (including French Polynesia and its Caribbean islands), Grenada, Indonesia, Malaysia, Netherlands (via 747), New Caledonia, Niue, Panama, Papua New Guinea, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Singapore, Solomon Islands, Taiwan, Thailand, Tonga, Trinidad and Tobago, Vanuatu, Venezuela, Western Samoa.

CREDIT CARDS - an easier and safer way for cruisers to obtain money than traveler's checks. Little cash needs to be carried on board, very few

places where they are not accepted, and one gets a better exchange rate than either cash or traveler's checks, and they're waterproof. Contrary to information we received, we were able to obtain cash from ATM's using our US VISA and MasterCard in Indonesia, Malaysia, and Thailand.

CULTURE SHOCK - The rest of the world isn't as particular as Western Europe and the US. Sanitation, food and fuel quality, services, are not up to standards we have come to expect. In addition to a sense of humor, one must be on guard to prevent problems caused by our expectations being higher than local conditions provide.

CYBERCAFES: Clumsy and paranoid, I will not carry my precious computer ashore in the dinghy for fear of dropping it overboard. With Internet cafes becoming so prevalent, under most circumstances it is easier and safer to use their facilities rather than our own computer. To save time I write most of my messages on the computer and carry a floppy disk with me to the Internet centre, and copy messages received onto the disk for reading and replying at my leisure back at the boat.

WARNINGS: Not all cybercafes are diligent about running their antivirus software and updating it. In Malaysia, I have experienced virus-infected computers in practically every cybercafe I visited; caught another one in Maryland cybercafe. In self-defense I have taken to checking their antivirus software, and how recently it's been updated, before I download anything, though that's cumbersome. But a great many viruses hide in Microsoft Word programs, to infect your floppy disk when you open a MS Word file to copy it to your e-mail program. There are a few precautions to take that will make it a bit safer. Write protect the disk you are using to store letters you will be sending. This prevents the virus from infecting your floppy disk, but still enables you to open and read the file. You might also save your MS Word files for transfer to your e-mail at the cybercafe, in "Rich Text Format", or simply in "Text" format. When you copy files to the disk you are bringing back to the boat, save the files in ".txt" format, which has no room to hide most viruses. When you get back to the boat, scan that floppy disk for viruses before opening anything that you have downloaded. Of course, this requires that you have an antivirus program and have been diligent in updating it.

I download updates to my antivirus program frequently (every 7 to 14 days if at all possible).

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DAMP - For spices I have resorted to buying very small containers and storing them in sealed Tupperware-type containers until needed. Once the seal is broken, they seem to go bad very quickly (especially certain ground herbs). Since spices can be found everywhere, and are relatively inexpensive, it is not worth stocking up on them.

Crackers packaged in foil packs keep fresher than those packed in plastic or wax paper. Pringles never seem to get any worse than they are when bought.

Flour goes bad rather quickly in some places. The best-lasting flour was put into heated metal containers which were then placed in hot oven for about 5 minutes after filling with flour, lid placed on, and lid seam sealed with plastic mailing tape after they had cooled slightly. It was well worth the extra effort.

Electronics will suffer significantly from the damp. All too often we would find that upon turning on our GPS, or SSB radio, or whatever, after having been in an anchorage for a month or longer, would not work properly. Drove us crazy. We finally realized that the high humidity was slowly corroding the electronic connections, and we found that the easiest solution to our problem was to turn on all our gear several times a week and leave them on long enough to warm up sufficiently to dry them out. So long as we turned the equipment off again long before sunset, when the relatively cooler air caused condensation, everything stayed dry and trouble-free, and our need for repairs plummeted. Computers on a boat seem to be extremely susceptible to the humidity, probably because they are not made for the marine environment. My solution is to run the computer at least every other day. Even so, I'm on my third computer in twelve years (though I probably would have replaced them that frequently anyway).

DEHYDRATION - Severe diarrhea, vomiting, or sunstroke will dehydrate a person, throwing electrolytes out of balance. Rehydration powder is commercially available - easy to carry - packed in envelopes to treat one liter at a time.

Homemade rehydration formula: 1 liter boiled water; 1/2 tsp. each salt and baking soda, and 8 teaspoons sugar. Give person sips of this every five minutes, day and night, until he begins to urinate normally. Coconut milk is an excellent natural rehydration fluid.

DEBIT CARD - It's advantage over a credit card is that it is a direct debit from one's bank account, meaning that there are no bills to be paid, no interest charges. Some banks and most brokerage houses offer this service. The down side is that should the card be stolen, or its number only stolen, one can have one's account gutted in a short time. If you are going to be away from prompt and regular mail service, strict safeguards need to be observed. If you have a computer and regularly use it to send and receive e-mail, you might be able to obtain bank statements on-line. Merrill Lynch has such a service.

DECKS - The debate over teak decks, good or bad, goes on and on. Our input: In the tropics, the sun is incredibly strong, and is more directly overhead. As a result, dark surfaces, be they dark paint or dark wood, will

heat up more than white, which reflects all the of the light's spectrum. There has never been a time when our white fibreglass decks were too hot to walk on. This heat is transferred below, so that our interior is cooler as well. This is most important while underway when you don't have a sun canopy up. Cracks, leaks, problems are also easier to see on a white fibreglass deck.

Keeping the decks clear: We carry nothing on deck during a passage. It keeps the 'Melon looking good, and is safer - nothing to go around or trip over if one of you must go forward during a passage. Nothing to catch and offer resistance to water washing over the deck in storm conditions - yacht designers take great pains to streamline a yacht's deck as much as possible to offer the least resistance to water, so why would you want to sabotage that with clutter? All our jerry jugs are stored below, which also serves to lower the centre of gravity.

DEPTH SOUNDER: Our depth sounder transducer is mounted well forward of our fin keel, and thus we will frequently have warning (but only seconds) that we have run out of water before our keel hits. It is preferable, in our opinion, to those boats with depth sounders behind the deepest part of the keel, especially in boats with a full keel with a cutaway forefoot - where the boat can slide up onto a reef or shoal and be well and truly stuck before the depth sounder gives you any indication of a problem. If people tell you they've never run aground, chances are they haven't been anywhere.

DENTAL FLOSS - Makes a very good and strong emergency substitute for sail thread.

Caution: Because it is untwisted it frays from friction of sewing, so cannot be used in long lengths unless in a sewing awl.

DIESEL - called "Gasoil" in most Spanish-speaking countries, "Distillate" in South Pacific islands, "Solar" in Malaysia and Indonesia. (See "Fuel Filters"; "Algaecide")

DINGHIES - We never, never, never tow our dinghy if we are sailing, will tow it only if we are motoring for a very short distance in protected waters (and rarely even then). This is the result of several unpleasant experiences in our very early days of cruising. We've had dinghies try to board our stern in a following sea, scared ourselves when we put the dinghy onto a long (100' or so) painter to tow, lost a dinghy we were towing on a day sail, and found a drifting dinghy that was lost from another sailboat. And we have heard worse stories from other yachts.

Wheels on a dinghy are a great idea. If you have a RIB, or a heavy dinghy with more than a 5 HP outboard, getting the dinghy into our out of the water in places where the tide range is greater than 6 feet (2 meters) can be a real chore.

Security: From all the stories we have heard, we doubt that there is any foolproof security measures that can be taken. One tactic yachties use is to raise the dinghy out of the water each night, either onto davits or hauled up to the deck using the main halyard. In Puerto La Cruz, Venezuela, just hauling the dinghy out of the water alongside the boat on a halyard wasn't sufficient for several yachts, who lost their dinghy while they were sleeping when the halyard was cut and the dinghy set free. (our

wire halyard makes this a bit more difficult). We had two outboards stolen from the stern rail of the Watermelon. Both were secured with SS chain and padlock. The thieves used bolt cutters to cut the chain while we were sleeping. Amazing how quiet they were, since our cabins are in the stern, just a few feet from where they had to board the boat in order to cut the outboards free. Our alarm system was useless because they never stepped into the cockpit, which would have set it off. We have read of a boat whose outboard was chained to their dinghy, and while they were ashore one night the stern of the dinghy was cut off and the outboard made away with. In general, thieves want the outboards. An exception is in the Caribbean, where there is a big market in used (stolen) dinghies. Yachties, of course, are the victims, and also the market for the stolen goods (many are stolen in April and May each year when the European boat bums return to the Med, and the stolen dinghies and outboards are sold there). We have a small (4 HP) outboard, and we now take it on board and stow it in the lazarette each night (our lazarette is so big it could be a mother-in-law apartment!). We also row our dinghy when possible (not often enough, though).

Emergency kit - fine sandpaper to clean spark plug contacts; spare shear pins; spare cotter pins; wrench; screwdriver, duct tape or other very sticky waterproof tape for emergency leak repairs. (see "Armor-All"; "Fouling")

St. Martin is definitely getting too crowded. Two severe accidents involving dinghies in the lagoon - two American tourists from Pelican Key were seriously hurt when their dinghy ran into an anchored sailboat; and a German fellow who worked at Pelican Key was killed when a larger dinghy ran into his at night (neither dinghy was running with any lights). The only dinghy we're using now is so slow it can't get out of anybody's way, and as a result I've gotten paranoid and won't go into the lagoon at all in it, and won't let Peter go out at night anymore, even though we always carry a light. (Peter and Irv share the same philosophy, I think - "*I can take care of myself, it's the other guy I have to watch*"). When he went over to see Sally and Tony at Pelican I was a nervous wreck until he got back. Poor Peter, it means we've given up our jaunts over to Pizza Hut for dinner. It's not only in St. Martin - the problem is so serious in the U.S. Virgins that the Coast Guard there is now inspecting dinghies and prohibiting them from running at night if they don't have running lights. (They patrol the dinghy docks just before sunset and "ground" anyone with a dinghy without lights. We were inspected when we were there in January. Good for them - I wish there were someone on St. Martin to do the same thing).

DISHES - Dinner plates with a moderate rim keep juices and sauces from spilling all over the place while under way. (We eat a lot of meals from deep soup bowls). (See "Non-skid")

DOCTOR - The best friend a cruiser can have in preparing for his cruise is a doctor who treats him as the intelligent person he really is. This means accepting that the cruiser must take primary responsibility for his own health and well-being. The best doctors I have met were themselves sailors, more familiar with the peculiar circumstances in which we travel. The worst doctors were those who told us to never mind carrying all those antibiotics, just go to a doctor if we felt sick (tough to do seven or more days from any land whatsoever, with just a minimally-trained public

health nurse at the end of the passage). "The Offshore Doctor" (see "Books") includes a good listing of medications, which should be included in a cruiser's first aid kit, and should be brought with you to your doctor's office. "Where There Is No Doctor" (see "Books") is another excellent book to help with medical problems encountered. Do not let a doctor put you off carrying whatever you feel is necessary - find another doctor if the first one proves intractable.

(Quoting from our insurance co. newsletter): "...in the majority of airports all over the world, one is in good hands..... which include ambulance support... an ambulance will arrive [at an airport] quicker than if called outside an airport... many airports have their doctors or other medical personnel available - the doctor's job is primarily to treat passengers who become ill during a flight as well as to ensure that incoming passengers with contagious diseases are examined before they get permission to enter the country." The upshot of this is that, in an emergency, you might find your best medical care at the nearest international airport. Worth a try.

[Note - new Dec 98] We might take a long time to make up our minds about where we're heading, but once we decide we pursue it with single-minded doggedness. We have had all our shots for our trip to Papua New Guinea, Solomon Isls., etc. Poor Peter was sick for about three days from the shots, but since I suffered not at all I wasn't particularly sympathetic (but he had a lump on his butt the size of a grapefruit from one of the shots probably the tetanus - looked nasty). Hepatitis is a disease to be concerned about out here, so we got immunized for that (according to an Australian doctor who is an expert on hepatitis, it should be of more concern to people everywhere nowadays, and the immunization is so simple and painless it's silly not to get it). We got polio booster immunizations because there is apparently a lot of polio in Asia (?!); tetanus because our last shots were so long ago and again it's a concern for us yachties; and typhoid because it's worth getting. Elsbeth said that after traveling through the Asian countries they are convinced that any and all precautions taken are necessary. We have an advantage over a tourist who is forced to eat and drink the local food and water, though - we can draw on our own resources. Jean-Paul, as a chef, said that the worst problem they had with food-borne illness was in a very good, clean, and expensive touristy restaurant where they hadn't expected it, although this didn't surprise us after we had been educated on the pathology and spread of typhoid and cholera, etc. But in any case, we have the most astounding collection of drugs now to protect us against, or treat us for: amoebic dysentery, bacillary dysentery, malaria, thrush, staph, streptococcus, anaphylactic shock. Cost a bundle, but gives some peace of mind. We even got a prescription for morphine, although I recently learned about a non-narcotic pain drug called *Toradol* which is supposed to be as effective as morphine, so we're carrying the *Toradol*; but I had to inform the doctor of its existence so we could get a prescription for it. Annoying, this requirement that prescriptions for antibiotics, etc. be given by a doctor - in Latin America you can buy anything you want except for narcotics without a prescription which makes the cost for drugs much, much lower than in the States or here in Australia. Also, for knowledgeable cruisers, it frees one from the ignorance of a bad doctor. Our doctor experiences belong in a letter to SSCA, and I will probably write one soon. Bad advice from a doctor can be dangerous!

DRIED VEGETABLES - When I can get them, I prefer them to canned vegetables - saves weight, space, and they taste better. Canned vegetables contain a lot of salt as a preservative and flavor enhancer for flavors lost in the canning process. Peter and I are very sensitive to this added salt, and even though I rinse canned vegetables with fresh water before heating, there is usually still too much salt for our tastes. Australia and New Zealand have excellent dried vegetables, which can be rehydrated while being cooked, or can be rehydrated in advance in just water and then used in stir-fried meals with almost the same texture as fresh vegetables. Dried beans require more time, since they should be soaked, usually overnight, before being cooked, but not only do they taste better, but they will not contain as much salt.

DROGUE: When we set out cruising we did not carry a drogue, thinking that trailing a rope warp with weight on the end would suffice in an emergency. Several rather nasty storms made us reconsider this idea, and when our friends survived the Queen's Birthday Storm sailing between New Zealand and Tonga with much thanks to their drogue, we started looking for something better. A careful reading of Tony Farrington's "Rescue in the Pacific" made us doubt that the traditional parachute anchor or parachute drogue was what we wanted. Around the same time we had read in the SSCA (Seven Seas Cruising Association) Commodore's Bulletin of a **Jordan Series Drogue**, and the more we read about it, the more we believed that this was the right gear to carry. We made our own from scrap sailcloth out of the local sail maker's scrap box. The pattern can be bought from the SSCA as an Extra Publication.

A few comments about our experiences and our rejection of a parachute-type drogue or anchor:

Deploying a sea anchor under the philosophy of keeping the bows to the seas where they will break with relatively little stress ignores the stresses on a boat taking on large seas on a regular basis. The most serious problem is that hanging on a sea anchor means that the boat is going backwards, albeit very slowly. Each time a wave boards the boat, it is being thrust backwards, placing severe strain on the rudder, which is not designed to take stress from that direction. No amount of lashing is going to secure the rudder sufficiently.

In K. Adlard Cole's book, "Heavy Weather Sailing" (see "*Books*"), which I think is a must read for anybody going offshore, he recounts, and advocates, running with a storm whenever possible. There will be fewer collisions with waves as the boat presents a moving target and is usually lifted with the wave and rides it out. But here is where one needs a device to slow the boat down so that it doesn't go careening down the face of the wave at surfing speeds, risking pitch-poling or broaching. A drogue will slow the boat significantly and evenly - the Jordan Series Drogue that we carry consists of many (over 100) small "*droguelets*" or small cones, spaced about 18" apart. In this way the drogue is always exerting constant pressure on the stern of the boat. The parachute-type drogues (and sea anchors) are deployed with a long line, and when the parachute is on one side of a wave and the boat on the other, the line will fall slack, to tighten with a sudden jerk as the boat accelerates. The series drogue never allows that acceleration.

It seems to be a rule of cruising that as soon as you acquire a piece of emergency gear the emergency never arises again. We have deployed the drogue only once and that was to test it more than because we needed it. But as I've said to others: if you cross oceans carrying a drogue and never have to use it, good for you! If you do not have one and are unlucky enough to be in the path of one of those big storms, good luck!

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E

EMAIL - It almost need not be mentioned, it is so prevalent in the cruising community now.

Some hints: Internet cafés make it easy to check in on your e-mail without lugging your computer ashore in the dinghy (*this is Miss Paranoid talking*). Learn how to type your messages in e-mail text format and carry them ashore on a floppy disk to save time in sending messages from an Internet Cafe. Learn how to Save your messages on disk so you can bring them back to your own computer to read at your leisure. Saves time and money in the Cafe. But be sure that you have a good anti-virus program that you update regularly if you use Internet cafes. I've had floppy disks infected with viruses from three different Cyber-cafes in three different cities.

EGGS - if bought unrefrigerated, will stay fresh unrefrigerated for weeks. I've found that *Vaseline*[™] (petroleum jelly) does keep them fresh longer. They should be turned over every three to four days to keep yolk from sinking and attaching to the shell and thereby going bad. To tell if an egg is spoiled, place it in a cup of fresh water. If it floats high out of the water it's bad, if it sinks, it's okay. (I still break an egg into a separate dish rather than mixing bowl, just in case).

Substitute for baking: in recipe calling for 1/3 cup oil + 2 eggs, can substitute 1/2 cup mayonnaise + 1 tablespoon cornstarch. Texture will be less firm than using fresh eggs, but will hold together better than with no egg product at all. Be careful, some mayonnaise includes mustard, and some Australian and New Zealand mayonnaise is so sweet that you might be advised to reduce sugar somewhat. But this substitution is a great use of that awful Australian mayonnaise that you bought by mistake and can't stomach.

ELECTRICAL CONNECTIONS - We have seen a million-dollar boat fitted out by the dealer using crimp connectors - guaranteed to start failing shortly after setting sail. All connections should be soldered; tinned wire is now readily available in the US and should be used everywhere on the boat.

ELECTRICITY - See "*Polarity*", "*Electrolysis*",

ELECTROLYSIS - In our opinion, a bonding system for a cruising boat is essential. Some locations have such electrolysis problems that frequent inspection of zincs is necessary. Electrolysis is not restricted to through-hulls and electronics on board. Also affects canned food, juices, and soft drinks. Some anchorages, if there is a lot of debris (such as old steel boats, batteries, other metal garbage) on the bottom, will also create electrolysis problems. When at anchor, or at a marina, it is prudent to attach a special zinc to the boat for extra protection. (see also, "*Polarity*"; "*Zincs*")

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F

FANNY PACK - See *Money Belt*.

FAX - Some SSB and ham radios can be equipped with a modem to send faxes from a computer. If fast accurate communication is important to you, this is worthwhile investigating. The wonders of modern communication via FAX have reached the most unlikely places in the world, and are a reliable and fast method of long-distance communication. Where long distance telephone calls are used to subsidize local rates, the information transmitted by FAX or e-mail for a few dollars can cost \$50 to \$100 by telephone (!!)

FENDERS - Good for buoying a trip line for one's anchor, or for buoying one's anchor rode in foul anchorages. (see "*Fouling*"; "*Recycling*")

Story about Verity: Our friends Rich and Pam, new to cruising, had just recently arrived in the Caribbean when they came to Sint Maarten. Simpson Bay was so roly that they went into the lagoon when the bridge opened that afternoon. As they were making their way to a suitable anchorage Pam noticed a mooring buoy, and decided to pick it up rather than go through the effort of anchoring. So she brought out their trusty boat hook and pulled up the ball, looking for the mooring line attached. A loud shout from a nearby boat caught their attention as the man yelled angrily, "That's my anchor float you've just picked up!" Oops!!

FIRST AID - the following things we have used and found successful for tropical problems not usually found in first aid books. (see also, "*Acetic Acid*"; "*Books*"; "*Vinegar*")

Bug bites:

- **Ants & bees:** Venom is acid, so apply Bicarbonate of Soda (Baking Soda) to neutralize the venom. (NS 16Sept00)
- **Wasps:** Venom is alkaline, so apply vinegar (NS 16Sept00).
- **Centipede stings:** (unconfirmed) Extremely painful sting, apply water as hot as you can tolerate.
- **Coral cuts:** Wash with vinegar immediately, then treat as for any cut or abrasion. NOTE: I have experimented with treatments for coral cuts many times. All cuts treated with vinegar have healed faster and more effectively than cuts left untreated or treated with standard antibiotic soaps and creams (*Neosporin*[™], for example, was practically useless).

- **Cuts:** A chef's trick to stop minor cuts from bleeding is to sprinkle a little turmeric (in your spice cabinet) on them. Not suggested for large cuts that might need stitching.

- **Jellyfish stings:** Do not try to brush the tentacles off or they will continue to sting you. Vinegar applied to the tentacles clinging to the skin will stop the nematocysts from injecting their toxin, after which they can be removed. Papain (in Adolph's Meat Tenderizer or papaya skins, or the sap from its leaves) is said to neutralize the toxin (stingray toxin is also a protein, and therefore the papain should neutralize it also, although I have not had occasion to try it). Take an antihistamine. (see "*Allergies*")

- **Sea Anemones:** Vinegar (again) will stop the burning, and usually reduce the swelling within several hours.
- **Sea Urchins:** Ammonia (or urine) will stop the pain immediately (you can try a paste of Bicarbonate of Soda [Baking Soda], it worked once for me). Lamp Oil (kerosene) or limejuice will dissolve the spines embedded in the skin (as gritty as they feel, the spines are protein, not calcium). Do not try to dig the spines out - they won't hurt you, but the removal process will.
- **Stonefish:** Incredibly painful poison. Immerse wound in hottest water the body can stand.

FIRST AID KIT - Good first aid list is given in "The Offshore Doctor" (see "Books").

Additional suggestions: antihistamine (two: pill, liquid); charcoal tablets; fabric Band-Aids (in our experience plastic strips don't stay stuck); Selsun™. (see: "Charcoal Tablets"; "Fungus Infections"; "Staph Infections"; "Allergies"; "Salmonella")

FLAG ETIQUETTE: Once you have cleared into a country and lowered the yellow "Q" flag, it is a matter of courtesy to fly the flag of the host country (the French demand this courtesy, so be aware). It should be flown at your starboard spreader, and no flag should be flown higher than the host country's flag.

For U.S. vessels, the only national flag that should be flown is the national ensign ("Stars & Stripes"). The yacht ensign (13 stars surrounding a fouled anchor in the blue field) is proper to be flown only within the U.S.

We have seen yachts with several nationalities on board who all want to display their country's flags. Properly, only the host country flag and the vessel's national ensign should be flown, but sometimes in a foreign port the flying of other flags can be a practical method for advertising "(*) language spoken here", "books on board" "member of **"). In those instances, these informational flags would be flown from the port spreader, remembering that it (they) must not be flown higher than the host country's flag. Some local customs might differ from the above, so keep an eye out when you arrive at a new port to see what is being done.

For more information on flag etiquette, you can refer to the U.S. Power Squadron website, <http://www.usps.org/>

FLOUR - goes bad rather quickly in some places (see "Damp"). Specialty flours (such as rye flour, graham flour) are difficult to obtain outside the US. (see "Provisioning"; "Weevils"; "Rice Flour")

FOOD (Cheap, i.e., restaurants) - SSCA suggestion: ask person recommending a good, cheap place (a) what do they usually spend in the States for a good meal, and (b) do they like McDonald's? We have been disappointed by other people's recommendations because their idea of cheap and ours were quite different (we appreciate inexpensive, but have yet to eat in a good "cheap" place).

FOOD (*Preparing underway*) - Some substitutes that have made things a bit easier:

- **Ramen Noodles** (found everywhere we've been, under various names) - 2- or 3-minute noodles, safer and easier than any other pasta or rice (unless you like Minute Rice, which you aren't going to find many places in the Pacific or SE Asia).
- **Rice Noodles** (Mie Hoon, Mee Hoon, Bee Hoon, Long Rice are various names for them), available in Chinatowns worldwide, we think - just pour boiling water over them and let sit for a few minutes, then toss with vegetables, meat, maybe some sauce, you have a quick but filling meal. But try these before you set out - don't buy a lot on my say-so.
- **Breakfast Bars** - quick energy when one or both of you need energy, and it's just too dreadful to go below and make something.
- **Vacuum Thermos & Carafes** for hot water, tea, coffee; they hold a liter of water or coffee, so you always have something hot, but don't have to boil water too frequently; we carry two carafes, boil water in a two-liter tea kettle and fill them.

FOOD POISONING - SEE: "*Botulism*"; "*Charcoal Tablets*" (*very important*); "*Salmonella*"; "*Scombroid Poisoning*"

FOREIGN LANGUAGES - "*Dutton's Navigation and Piloting*" (see "*Books*") has English translations of foreign terms found on nautical charts - most languages - very, very useful. See "*Books*", "*Charts*"

You do not need to learn a foreign language to travel since English is so prevalent everywhere, but you will have an easier time if you learn a few words of the local language. "Hello", "good-bye", "please", "thank you", and "how much?" are universally appreciated. "Where is" plus a note or map will get you directed to the approximate destination cheerfully (caution - our experience leads us to believe that very few people in the world know how to read a map - place names and addresses are more useful). Learn how to count in the language - it will save you a lot of money when the local says fifteen and it sounds like fifty and you pay it! Also, in some places, especially where they see a lot of Americans and/or Australians, the locals will refer to their currency as Dollars, even if it isn't called Dollars - so be careful and always assume they mean their own currency - again, it will save you money. Even if you speak the local language, don't be annoyed if nobody understands you. Aside from the fact that Americans tend to butcher languages; local accents and dialects can render the version you were taught unintelligible. If the local language is some form of English, you might be wise to treat it as a foreign language anyway. And remember, wherever you are, you are the foreigner, not the locals.

Another hint. We have found a lot of misunderstandings where the locals think that they understand English well. We will say something like: "I would like to go to Ban Nit, because I'm staying there, not in Ao Chalong where I was last week" - the poor taxi driver hears and understands only "Ban Nit" and "Ao Chalong" - since he's not sure what else you said, he's as likely to take you to Ao Chalong as to Ban Nit. It is wise to keep all your discussions and instructions as simple and as positive as possible - leave out the extraneous, forget about telling them what not to do because they will probably understand only half of what you're saying, and "no" and "not" are not universally understood.

We sailed from Cocos Island, off the coast of Costa Rica, to Salinas, Ecuador in 1991, arriving the first week of December. Checking in, we paid the annual light fees that are assessed to vessels, be they commercial liners or private yachts, based on tonnage, - for WATERMELON, a bit less than \$40.00. Salinas is a small village, and very few cruising yachts come there - for almost the entire three months we were there, only our friends on the yacht **OBSESSION**, and **WATERMELON**, were at anchor, and so the Port office has no trouble recognizing each of us. Peter quite obviously couldn't speak Spanish, though they knew that I could, since I had done the checking in. On a Saturday near the end of January a small speedboat came by the 'Melon. Two bathing-suited couples were in the boat, and they called to Peter, saying something he clearly couldn't understand, but telling him nonetheless. Peter shrugged his shoulders, looked blank, and they went on out to **OBSESSION**, where our friend Gary was able to understand them.

That afternoon Gary came by to tell Peter that the fellows were from the Port Captain's office, and that we had to go in and pay the current year's light fees. Peter of course objected, since we had, after all, already paid for a year's worth of light fees. No, Gary patiently explained, the light fees we had paid were for last year. It was now a new year, we needed to pay new light fees. Peter argued that there weren't any lights, so paying one set of light fees was a bit much, two sets of light fees in two months was ridiculous (why Peter was arguing with Gary, another foreign cruiser, I don't know, but I think it was because Peter just had to argue with somebody, and the local officials couldn't understand a word he said, so poor Gary had to be the goat). Gary sensibly said, "whatever", and left. Now, Peter had no intention of paying for this second assessment, and so he ignored the entire issue.

The following weekend the fellows came out again when I wasn't there. Peter had his strategy all thought out. As they came alongside the boat, Peter smiled, and shouted, "that's it, no more *cerveza* [beer], you've had enough, no more *cerveza*!" The men tried to talk to him, but Peter of course couldn't understand Spanish and was certainly having too much fun not understanding it. They couldn't speak a word of English, and so there they were, trying to explain to him that the Port Captain wanted to see him, and Peter shouting "No more *cerveza*!" Again they left, slightly frustrated. We never did pay the second light fee assessment, and that's another story.

FOULING

Anchors: See "Anchor"; "Recycling" for anchor rode in foul anchorages. "Chain fouling" can occur in areas of light wind and strong tidal currents. The anchor rode lies in a pool directly under the boat and can wrap around the anchor as the boat turns with changing tides or currents. If a squall hits tightening the anchor rode, the loops around the anchor can close into a noose, fouling the anchor and the boat goes walkabout.

Dinghies: To treat the bottom of the dinghy to slow algae and barnacle growth, wax to which a few drops of an algaecide designed to be added to house paint works reasonably well. In some countries one can find liquid tributyl tin, which is excellent (but illegal in the US) - but be careful, it's

toxic to humans too, so use rubber gloves. Must be reapplied periodically. (see "Armor-All")

Water tanks: Rainwater can be fouled by passing birds, algae, dust. We run our water tanks out periodically to purge silt that collects in the bottom of the tank. Water purification tablets are a good idea to carry: they are sodium dichloroisocyanurate, sold by West Marine as AQUATABS (made in England, as most of them seem to be, under different brand names). Once you reach the middle of the Pacific, you will find that they can be obtained under the following brand names, at about half the price of Aquatabs from West: AMCAL; Steadiflow Antibacterial Tablets; Milton's; Boots ...(imported from England) - much cheaper, can be found in Pharmacies/Chemists in baby care section, as "Feeding Bottle Steriliser Tablets", or "Antibacterial Tablets". This will also slow down, or prevent, algae from growing in tanks. Remember that the locals are acclimated to their water, so what is safe for them is not necessarily safe for you. These tablets, essentially chlorine, will not kill the spores of the parasites that cause Giardia, Cryptosporidium, or Amebic Dysentery. (see also "Giardia", "Cholera", "Water Purification")

FUEL - See "Diesel", "Gasoline", "Fuel Filters"

FUEL FILTERS - We have discovered that in many places in the world the fuel pumps are unfiltered. For various parts of the world (Bahamas out-islands, Latin America, Mexico) it is useful to have what is called a "Baja Filter" for pre-filtering diesel before it goes into the tank. In addition, in the tropics, algae can grow in the fuel tank, depositing water in the fuel. All the "gunk" sits in the bottom of the fuel tank until a rough passage, when it is stirred up and taken up in the fuel line, precisely when one is least desirous of having the engine stall. After having had this happen to us twice in uncomfortable conditions, we clean the fuel tank periodically to remove as much sediment and water as possible. There are sponges that can be inserted into the fuel tank to remove water, leaving the diesel, which is a simple precautionary measure that can be taken frequently with little effort. Most boats have found that two in-line fuel filters are necessary for high-performance diesel engines. (See also "Algaecide")

FUNGUS INFECTIONS - "White spots" on your skin, or itching areas, or rough patches that don't respond to moisturizer, or patchy skin discoloration, could be fungus infections. Common in the tropics. **Selsun**[™] (Gold, not the shampoo), is an effective treatment, and **Selsun Blue** shampoo used regularly is an effective preventative. Boric Acid (quite toxic, it also kills cockroaches) solution (1 tbs.. to 1 litre sterile water) is also a topical fungicide; read directions carefully. (see also, "Ringworm", "Staph Infections")

FUSING TAPE - The nylon mesh-type strips used for non-sewn seams, etc. Handy for quick repairs, reinforcing raveling seams. If no steam iron on board, steam from whistling teakettle will work to activate fusing tape though not as effectively. [NOTE: experiment with heated pot as iron.]

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G

GASOIL - See "*Diesel*"

GASOLINE - Called "Petrol" where British influence.

GIARDIA - Parasite found in fresh-water streams into which local sewage is dumped. Although infection is usually without symptoms, sometimes it is manifested by such intestinal symptoms as chronic diarrhea, abdominal cramps, bloating, frequent loose and pale greasy stools, fatigue and weight loss.

Water from such sources must be heated to 131 degrees Fahrenheit, 55 degrees Celsius , or passed through a filter of no greater than one micron - chemical treatment is less reliable.

Chemical treatment: 0.1 to 0.2 ml (2 to 4 drops) household bleach or 0.5 ml of 2% tincture of iodine per liter of water, let stand for 20 minutes (longer if water is cold or turbid) [ref.: CC DISEASES]. Do not swim in fresh-water streams in the Caribbean islands - almost all are infested with Giardia. (See "*Intestinal infections/parasites*"). In all cases, 1.0 micron filter will remove cysts - Amebic dysentery, Cryptosporidium, Giardia. Chlorine treatment unreliable, iodine a bit better. See above.

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H

HAM RADIO - See "*Shortwave Radio*"

HEADS - Calcium precipitating out of salt water will build up in waste line, eventually clogging it. Daily squirt of vinegar left in head overnight will slow this process. We tried putting a little oil in the head every few days as was suggested by some cruisers - we found significant calcium buildup after six months, so have gone back to the vinegar treatment. Clearing head and lines of calcium, you can use phosphoric acid or dilute muriatic (hydrochloric) acid, but be very, very careful.

Our procedure: jammed a plastic hose into the outlet through-hull to bring outlet above sea level, flushed dilute **muriatic** acid through with fresh water, and let it sit in the line for about an hour, then flushed through after removing the hose. It is very satisfying to see all the junk that flushes out. (see "*Acids*")

HEPATITIS - It is worthwhile to be immunized against hepatitis, both strains A and B. They are becoming a menace just about everywhere in the world. (We have recently read reports in Australia of people contracting Hepatitis B through contact with contaminated eating utensils and dishes, which we had previously been told was highly unlikely). The new Hepatitis A vaccine (as a course 2-4 weeks apart) gives long term protection, doing away with repeated gamma globulin injections. Booster at 6 or 12 months. (See Medical College of Wisconsin website: <http://www.intmed.mcw.edu/ITC/Health.html/>)

HOSE CLAMPS - See "*Rust*"

HOSPITALS - If you need medical care outside of Western Europe, US, Australia, NZ, we strongly urge that you do not go to the local hospital. In major towns and cities find the private clinic that treats the *well-to-do* (applies to every South American country, every Caribbean island, and most Pacific islands). If you can find it, read a book called "*Sitting Ducks*" (see "*Books*").

HYDROFLUORIC ACID - In weak solution, a rust stain remover for clothing. Sold in US in hardware stores, in Australia in pharmacies when available. Be very careful when using it and wear rubber gloves - it does not burn the skin, but will go through the skin and burn the nerves. Used carefully it's great stuff, but it requires more care than other acids because its burning effects are not so obvious. It also etches glass, so don't put in a glass or glazed china container.

HYPODERMIC NEEDLES - Warning about unsafe hypodermic injections. Please be alert, and make sure that the injection you receive in some out-of-the-way place is done with a new disposable needle. You might want to take your own with you when you go to a hospital for emergency medical treatment.

- **See the following:**

* "In the Far East, South Asia, Africa and parts of Eastern Europe, unsafe injections cause between 10 and 20 million hepatitis B and C infections every year. The 20-year time lag between infection and terminal liver

disease means that the true cost of dirty needles is only emerging now. Children are particularly vulnerable: around 80 per cent infected with hepatitis B can't shake off the virus, and 20 per cent will eventually die from liver disease.

* In the Pakistani city of Karachi, dozens of unqualified health workers sell sick people "curative" injections. *"These places have to be seen to be believed,"* says Hutin. The injections are usually worthless as well as passing on viral infections, says epidemiologist Arshad Altaf of the Aga Khan University in Karachi. *"Formal and informal healthcare advisers are in the habit of providing unnecessary injections. Usually they're just water and vitamins. Sometimes they contain antibiotics."*

* *"If we don't control this, I think the problem will increase tenfold in the next 10 years. There's a dearth of data, but what we have suggests that between 2.5 to 10 per cent of the population have hepatitis B or C. The situation will be horrendous. Hospitals are already seeing a big rise in people with liver disease."*

* *"If you look at hospitals in Europe and, I suspect, around the world, more and more people are coming down with end-stage liver disease,"* says Steve Luby, of the US Centers for Disease Control and Prevention in Atlanta, who spent five years in Pakistan studying the problem.

Excerpted from New Scientist magazine, 21 October 2000.

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I

INTESTINAL INFECTIONS/PARASITES:

Amebic dysentery, cryptosporidiasis, giardiasis - these are parasites, all caused by contaminated water, all found worldwide. In developed countries, control in public water supply is through filtration. Chlorination is not considered completely effective, iodine treatment is preferred, though also not necessarily effective. Where iodine is used, a waiting period of between 10 and 30 minutes (longer if water is cold) is recommended before drinking. Most effective treatment of water is filtration through a 1.0 micron (or smaller) pore filter. Further information, see "CC DISEASES". Cryptosporidiasis and giardiasis infections, although they may show symptoms of intestinal upset, diarrhea, etc., is frequently without symptoms. (See "*Preserving Food*",)

INVERTER - Alternating current (AC) is necessary to run certain appliances, so an inverter is a good idea to have. Evaluate voltage needs before installing, or you may have one too small or too large for your regular needs. Here is where one needs more information than this database is designed to provide. Many inverters provide a "square wave" rather than a true "sine wave". Our sources indicate that a true "sine wave" inverter is far better for your equipment. You will pay more for it.

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JKL

LAUNDRY - High on my list of wants is a washing machine. Since it isn't going to make the list of items we have, laundry is done in 5-gallon buckets. A toilet plunger makes a good agitator. Liquid laundry detergent and non-chlorine bleach (difficult to find outside the US) is easier to use in a bucket of cold water than powdered, though it does increase the weight of your stores.

LAUNDRY BLEACH - Carrying bottles of laundry bleach, like *Clorox*, has become too much of a nuisance. Can be bought in most places in the world, so there is no need to stock. When you run out of chlorine bleach, use one or two water purification tablets ("*Steadiflow*", "*Milton's*", "*Boots*") dissolved in 1/2 litre of water - works almost as well, although not as strong.

LAUNDRY MARKER (INDELIBLE) - Invaluable for labeling plastic and glass containers into which strange substances have been transferred (*honey and hydraulic oil look the same in a bottle, but salad dressing made with hydraulic oil just doesn't taste the same*). Be careful, the newer ones we've found use alcohol as the solvent (label says "Alcohol-based, Xylene free), and I have found that they are not really indelible. Most annoying.

LEMON JUICE - Good substitute for fresh lemon juice is ***Kool-Aid*** Unsweetened Lemonade mix (in the tiny envelopes). Add to 1 cup of water, can be substituted in any recipe calling for lemon juice - almost indistinguishable from fresh. Will make ceviche (*poisson-cru*) or non-cook lemon meringue pie exactly the same as fresh lemon juice.

LIGHTS - Dinghy navigation lights are a good idea in busy harbors. US Coast Guard requires them in US waters, should be required elsewhere. Personally know of one dinghy accident resulting in a death that would have been avoided had either or both dinghies had lights.

- ***Waterproof flashlights*** - a necessity. Carry a small one with you all the time - those paths to the dinghy dock don't look so treacherous in daylight, but can be frightening to reach in the dark.

LYSOL™ - One of those products for which no comparable substitute seems to exist. Used by the *Center for Disease Control* in Atlanta to wash and disinfect scientists working in the extremely dangerous virus section (where they study Ebola Virus, for example), so it must be pretty good. Kills mould, mildew, bacteria; acts as a mildew preventive if a mild solution is allowed to dry on surfaces. Difficult to find outside the US.

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M

MAIL - In sixteen years of cruising, we have had mail forwarded to practically every country/island nation that we have visited, and only once in all this time has our mail been lost. Only two or three times has the mail taken more than two weeks to reach us (and that usually in the month of December, when the U.S. postal system is deluged with holiday mail). In the Caribbean mail usually arrives within 10 days of its being sent from the States. In Southeast Asia and Australia it will take approximately two weeks. Singapore - six to eight days. It is better to have a mail address that is not *Poste Restante* (or General Delivery). French Island post offices return unclaimed mail after two weeks ("it's the law"). (The French will drive you crazy - another silliness - if the envelope is addressed to "John and Jane Cruiser", the postal employee will often insist that both people be there to receive the mail (!!)) We present our calling card to the postal employee rather than try to get them to understand our spoken words, in some places they will demand to see your passport. After the terrible mess that we have seen in too many post offices, we suggest that you have mail addressed to your surname only (including first names seems to mean that there are a few more letters under which they can file your mail), and your boat name. Boat name because if you are forced to have another yacht pick up the mail, they are more likely to remember your boat name than your surname.

Try not to have mail included with parcels that will have to go through customs (for that matter, be sure that any parcels will be sent only to the least problematical countries). Latin America has been a problem, various other places are at various times - other cruisers will be your best source of information. Large packets of mail may be in the parcel section of the post office, so you would be wise to check both areas. We have our mail forwarder put our mail into distinctive, easily-recognized envelopes as multiple smaller parcels rather than one large packet that will draw the attention of Customs (or sticky-fingered postal employees), and to note on multiple packets of mail "1 of __, 2 of __, " etc. On three occasions, in three different countries, this notation was the only way we got parcels 1, 3, and 4 - only "2 of 4" was given to us the first try. On two occasions the post office involved had placed the parcels in different locations, and only the notation on the label that it was only one of the four parcels sent convinced the postal employees to look for the other ones (that, and my nagging insistence that they had the mail - one must be polite, but firm).

When we were in the Caribbean we heard of a couple who generously offered to pick up another yacht's mail from the post office to bring it to them down the line. They were arrested - the mail packet had contained ammunition - smuggling guns or ammunition is frowned upon. Being a good sport is wonderful, but we suggest that you know the people you are doing favors for.

- **Nuatoputapu, Tonga:** The reason we can't mail anything from here is that the Post Office has sold all its stamps to another yacht, and "who knows when there will be more". This island of about 1500 people has a "doctor", a nurse, Immigration Officer, Customs Officer, Agriculture Officer, and a Post Office. The five boats here all agree that these people don't have a clue as to what they're doing.

- **Several examples:** John and Petra, the yachties who bought out all the stamps needed more than they bought, so the postmaster pulled out an envelope with about \$10.00 worth of uncanceled stamps on it, addressed to some place in France, said that it had arrived on the plane that day, and gave it to John. John said that that wasn't right, somebody had mailed it - the postmaster said that it was okay, because there wasn't any letter or anything in the envelope, so there was no reason to send it on. Since the postmaster had made a gift of the envelope to John and Petra, they had to accept it, and will now have to mail it from Neiafu for the poor fellow. Since the postmaster opened it to prove there was no letter in it, they plan to include a letter explaining why the stamp collector is not getting an envelope postmarked from Niuatoputapu, as he had obviously wanted, because the postmaster doesn't understand stamp collectors, just envelopes with something inside them.

MALARIA - After reading lots of conflicting information regarding malaria, as well as getting misinformation from medical doctors who were unfamiliar with it, we have come to the conclusion that a tropical disease specialist, with access to up-to-date information from the World Health Organization, is most important. This is a disease that is too serious for its prevention or treatment to be left to the advice of other cruisers or inexperienced medical practitioners. Because the parasite mutates, effective prophylaxis or treatment regimes one year may not be effective twelve months later. Tropical disease centres in conjunction with WHO publish current information on the best prophylaxis and treatment, as well as alternative medications. I caught malaria in the Solomon Islands, and the local doctor blamed it on the fact that the Australian travel medicine that the doctor prescribed is an inappropriate prophylaxis regime for their area. (see also, "*Doctor*")

MARINAS - See "*Polarity*", "*Zincs*", "*Electrolysis*"

MAYONNAISE - Non-U.S. produced mayonnaise is very different from stateside mayo, even if it carries a US brand name. Unless you like Miracle Whip, mayonnaise in the South Pacific does not appeal to US tastes (too much sugar in Australian and NZ brands, even with a US brand name). And for you Aussies and Kiwis, US mayonnaise, or that produced in most other countries, is too sour for your tastes. (See also "*Eggs*")

MEAT GRINDER - Small, plastic meat grinder is very helpful in places where quality of the meat or sanitation is questionable. Whole roasts are safer than ground meat - beef roast is very dense and relatively low in moisture content, and thus if you cut off the outside layer, the inner meat is uncontaminated (to a point - rotten meat is rotten meat).

MEDICAL INFORMATION - See Allergies, Angiostrongyliasis; Botulism; Charcoal Tablets; Cholera; Doctor; First Aid; Fungus Infections; Giardia; Hepatitis; Hospitals; Hypodermic Needles; Intestinal infections/parasites; Malaria; Pharmaceuticals; Prescription Drugs; Rehydration; Ringworm; Salmonella; Scombroid Poisoning; Staph Infections; Typhoid; Water Purification.

METAL WAX - Our latest discovery and "*best thing since sliced bread*". Protects stainless steel and aluminum from salt-induced corrosion better than the metal polishes we used to use. Metal polish is still useful for

removing heavy corrosion on stainless and brass, but if **Metal Wax** is applied after polishing, the metal stays corrosion free longer. Excellent on aluminum, which metal polish does not seem to help.

- **Note:** MDR makes a true "metal wax", while others are a metal polisher with a wax additive - not the same thing, because it often contains an abrasive.

MILDEW - Conventional wisdom states that to prevent mildew one need only provide sufficient ventilation in the boat. **Balony!** In Costa Rica during the rainy season the sun canopy mildewed on the shaded side, grew green algae on the sunny side. Since only direct sunlight actually inhibits mildew (and encourages algae), one tries all kinds of stuff to inhibit it. Lysol, vinegar, or chlorine bleach seem to work equally well (but vinegar and chlorine are harsh on stainless steel, and both vinegar and chlorine bleach attack dacron sails).

To keep books mildew-free, gently wipe them with a rag soaked in undiluted Lysol (covers, inside and out, page edges), let them dry without rinsing. So long as they don't get wet, a semi-annual repeat of this treatment works very well (one of the active ingredients in Lysol is the same as in the Mildew Preventive Spray that chandleries sell at an exorbitant price). But it will turn the edges of the book brown.

Mothballs (naphtha) in clothes lockers will also keep mildew at bay (but it taints all food not in cans - even glass jars don't seem to be impervious to the fumes, though maybe I just imagined the nasty taste). In the States one can buy "clothes hearts" which are a perfumed, mild naphtha and work well in clothes lockers without the nauseating smell, but are not strong enough for use in the open spaces of the boat when it is closed up and left for any amount of time. Be careful with mothballs - I developed a nasty allergy to them after returning to the boat after it had sat for ten months with mothballs everywhere. The boat was remarkably mildew-free, and also finally cockroach free after a severe infestation, but the fumes from unevaporated mothballs did not dissipate quickly enough even with the hatches open and the resulting allergic reaction was a problem for several weeks (until we hunted down and disposed of every single naphtha crystal).

MISINFORMATION - *Tides decrease the closer you get to the equator.* This is a surprisingly prevalent idea that is completely and incredibly wrong. On the Atlantic side of the Panama Canal, tides are minuscule, 1 foot, more or less; on the Pacific side of the Panama Canal, tides are 12 to 15 feet. Closer to home, the tides in South Carolina and Georgia are significantly higher than those in the bracketing states of North Carolina or Florida.

You can outrun a hurricane; hurricanes in the northern hemisphere always travel in a northwesterly direction; southwesterly direction in the southern hemisphere. These are such dangerous misconceptions that I will devote more time to them than you might want.

- **Examples.** Hurricane Klaus, 1981 (?) in St. Martin. It hit the Virgin Islands, then turned around, went almost due East, and hit Sint Maarten/Saint Martin.

Hurricane Gilbert in 1988, traveled unswervingly due West, over Trinidad, along the coast of Venezuela, over Bonaire, tearing off their airport roof, slammed smack dab into the Yucatan peninsula.

These two hurricanes surprised a whole lot of people. Had you tried to sail to the "safe semicircle", you would have sailed right into the path of the hurricane. The average cruising yacht cannot outrun a hurricane traveling at 15-20 knots. And if you have ever seen the incredible seas that a hurricane raises several hundred miles from the winds, I don't think you would want to be at sea in a small boat during that. In Saint Maarten in 1989, two hurricanes before Hurricane Hugo passed the island without any wind hitting the island. But the sea swell was so severe that it damaged the cruise ship jetty in Philipsburg, and destroyed the fuel dock at Chesterfield's. It lifted huge boulders, weighing tons, as if they were fish floats.

Wow! The most graphic information on tropical storms of all kinds that I have found appears in: "Heavy Weather Guide" by Rear Admiral William J. Kotsch (see "Books").

MONEY - (Watermelon's opinion). We always use local currency. Playing games with U.S. dollars has gotten a lot of people into trouble. I can think of very few places (the Caribbean island of Saint Maarten/St. Martin is one) where U.S. dollars are accepted as payment with no penalty to the tourist. We have been shortchanged in Grenada and Fiji when we tried to use U.S. dollars, and haven't tried anywhere else. We have been able to get money from ATMs or as cash advances on our credit card in every country we have visited (34 at last count).

Nowadays you can even charge groceries, so there is little need to carry large amounts of cash of any kind except in unusual circumstances. If you do find yourself with too much currency, you can always exchange it in the next country you visit. But you cannot exchange coins, so do spend them first.

We have a credit card that is automatically paid each month through our cash management account – it is, to our minds, the best of both worlds. We can get money from ATMs or as cash advances on our credit card from banks where there are no ATMs or the available ATMs do not handle foreign bank cards. Because it is a credit card, the bill is presented once a month and is paid; we therefore enjoy the credit card "float" on our money, and yet do not have to worry about interest charges or late payment fees. We get a more favorable exchange rate than for cash (which is the least favorable exchange rate offered) or traveler's checks. The reason, of course, is that the credit card is electronic movement of money – no actual currency or paper needs to be handled.

In most places (Australia and the U.S. are notable exceptions), banks require a picture I.D. before advancing cash on your credit/debit card. It is also a regulation in Australia for sums in excess of a certain amount, but the bank tellers usually don't know that and so pass out lots and lots of money on just your signature. The U.S. is just as bad - two countries to worry about your money.

It is helpful to have both a MasterCard and a VISA card - in some places one works, the other doesn't; or one works better than the other; or the distance to go for a MasterCard is hours away from the closest VISA place (or vice versa). Establish a good filing system right away to keep track of your charges because banks make mistakes.

Several years ago a yacht reported in the SSCA Commodore's bulletin that they had not worried about getting their mail while they were cruising from South America up to Central America, and when they finally received their mail they discovered that somebody had manufactured counterfeit credit cards using their number and had looted their debit card account of something in the range of \$19,000. Because of the fact that their cards had not been stolen they were unaware of the problem until months after the bulk of the charges against their account were made, and at the time of their letter they were doubtful of recovering almost half of that amount. I asked Merrill Lynch if this could happen to us, and they replied that we had a year to report fraudulent activity on our account without penalty. (See "*Countries*" for a list of countries that we have visited so far)

MONEY BELT - or, fanny pack. Cannot be picked the way a wallet in a pocket can be, leaves one's hands free. Can be hidden underneath a loose shirt making it unobtrusive. A two or three-compartment one is better - transfer small amount of money to front compartment, carry bulk of money in other compartment - transfer occasionally out of sight of nosy thieves. Needs to be big enough to carry passport. (see also, "*Passport*", "*Thieves*")

MOSCARPONE CHEESE - 1 Litre double cream (heavy, 35% fat, cream) (note: Nestlé makes a tinned cream that works well. I have also used UHT cream), heated to 70° C (158°F). Mix ½ cup of hot cream with ½ teaspoon tartaric acid, whisking until dissolved. Pour in rest of hot cream and set aside to set. After 10-15 minutes, when beginning to set, pour in muslin bag (or paper coffee filter) and place in colander over a bowl to catch water, refrigerate for at least 12 hours. Must be used within 2 days as fresh, or use in cooking after that. If used to make Boursin cheese, fresh onions and garlic will inhibit bacterial growth and it will keep longer refrigerated. If you can't get Cream Cheese, this will work.

MOSQUITOES - They transmit Malaria, Dengue Fever and other nasty diseases. One cannot carry too many defenses against them. (see "*Mosquito Repellent*")

MOSQUITO REPELLENT - Those containing "Deet" have worked best for us. Best we ever found was sold in Sint Maarten (and the island of Phi Phi Don, Thailand!): "Mosquito Milk" in a roll-on-applicator. Have reused applicator with other repellents - roll-on is good, repellent not as great. The roll-on applicator is good because "Deet" dissolves many plastics, so plastic glasses, etc. will show your fingerprints if you touch them after applying repellent by hand. Have bought a mosquito screen treatment in Australia that is a contact poison for mosquitoes. Can also treat clothing when one is going ashore. According to tropical medicine information from Australia, mosquito coils and "Vap-mat" electrical fumicide is good; ultrasonic buzzers do not work against malaria-carrying mosquitoes. There is a 12-volt Vap-Mat. If you use kerosene lamps, consider carrying Citronella Oil for it, which repels mosquitoes and sand fleas. You can buy small containers of pure citronella oil and add a small bit to regular lamp oil, and to skin moisturizer to make your own repellent. (see also "*Recycling*")

MURIATIC ACID - (Hydrochloric acid) - Fastest acid for removing calcium from hoses, etc., cleaning seashells, but very active and quite dangerous if not used with care. Must be diluted significantly before using

(always pour small amount of acid into larger amount of water to dilute, not other way around). Start with very mild solution to be sure you can control reaction. Recommend using with rubber gloves. (see "Acid")

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PERSONAL NOTES

N

NAVIGATION CHARTS - it seems as if only the U.S. charts are not copyrighted, and thus can be photocopied legally. So if you see "Not a chart, not to be used for navigation" on a photocopy of a chart, it is most likely stamped on there to protect the copier from prosecution for infringing copyright laws. Photocopies have a few drawbacks. The black toner will leave the copy and adhere to the plastic envelopes that are available to store charts flat. The paper is lighter and absorbs water more easily. But they are cheap. ([Used charts](#))

NEWSPAPERS - Local newspapers will give you vital information about conditions on land that you should know. It was through a local newspaper that we learned that there was a typhoid epidemic in Western Samoa while we were there (not something that was discussed with the tourists by the locals, naturally). Same for cholera in Ecuador (where the local guide told us there was not cholera in that particular area). We have found English-language newspapers in most countries we have visited - you often have to look hard for them, but ask around.

NI-CAD BATTERIES - For tools, some manufacturers have a 12-volt battery charger. Some battery-operated tools have other appliances that use the same battery - neat stuff: flashlight, fluorescent light, drill, etc., all using the same battery. Fluorescent light is small and bright and great for a cockpit light when entertaining at night or to bring along to another boat. Ours is made by Makita.

NON-SKID - Easy and effective non-skid for plates and bowls: put dabs of clear silicone adhesive on the bottom of dishes (inside of bottom rim if there is one), then set down on sheets of wax paper (or "baking paper") until silicone sets, then peel off paper. The wax paper keeps silicone from adhering to your table, and placing them right side up while silicone is soft insures that dishes will sit flat and the silicone won't set in unbalanced lumps.

O

OXALIC ACID - An organic acid, good for removing rust stains. Can be obtained in powdered form from paint stores (it is used to bleach and clean raw timber). Will only dissolve completely in hot water.

- **Rehydrate** - 1 Tbsp. oxalic acid to 2 cups water. Works slowly, not as active as muriatic acid or phosphoric acid - safer on fiberglass. See "Stain Remover" for a more efficient way of using it. Store in non-metallic container.

- **Precautions**: Although the skin can be burned by the acid, this acid can also damage internal tissues through absorption through the skin without burning the skin (as does hydrofluoric acid). With no physical warning of the danger, I suggest that you use rubber gloves. We have used oxalic acid for years with no injuries or problems. Also be careful and don't inhale fumes or powder. Never boil the solution.

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P-Q

PANADOL® See "acetaminophyn"

PASSPORT - Some countries require foreigners to carry the original of their passport at all times (Ecuador, Colombia). Most countries we have visited required our passport for identification in order to get a cash advance; several asked for it to cash traveler's checks, (once) to convert cash into local currency. Be prepared.

PARACETOMOL See "acetaminophyn"

PETROL - Gasoline

PHARMACEUTICALS - "The Offshore Doctor" (see "Books") has a good list of drugs recommended for cruising yachts. For prescription antibiotics, don't let your doctor get away with not providing you with a prescription and good information on the use of them. Do not ruin your stay in a beautiful anchorage or island because of a strep infection that can't be treated locally. Lots of stories about this! In Southeast Asia, beware of counterfeit drugs in Thailand and Indonesia - a serious problem. According to a report in *TIME Magazine*, the only places in Southeast Asia where one can be sure of getting proper pharmaceuticals is in Hong Kong and Singapore. We cannot prove it, but we know of people who have found antibiotics that they bought in Malaysia to be ineffective, and there is some reason to believe that it was a counterfeit drug.

Appendix - *TIME Magazine* article on counterfeit drugs:

TIME, January 26, 1998 Vol. 151, No. 3

Swallowing Bitter Pills! Fake and adulterated medicines are posing health risks greater than the diseases they're meant to cure, By NISID HAJARI

During one of the meningitis outbreaks that periodically ravage the lands bordering the Sahara, a team of Belgian doctors trekked into Niger's remote Madoua district in 1995 to deliver a potentially life-saving vaccine. They inoculated thousands of villagers before noticing imperfections in the drug, which had been donated by neighboring Nigeria. The transparent solution did not always dissolve correctly, and strands of hair floated in several vials. "When we first received the shipment, I joked that it was probably fake," recalls group leader Dr. Ginette Marchant. Tests proved her horribly right: the "vaccine" consisted of little more than saltwater. Marchant guesses that at least 300 of the villagers who received the placebo eventually contracted meningitis and died, while an additional 60 were handicapped for life. Such tragedies have become an epidemic unto themselves.

Experts estimate that up to half the medicines now sold in sub-Saharan Africa could be fake, and the problem neither begins nor ends at that continent's shores. "Africa is a dumping ground for counterfeit drugs produced in Asia," says Dr. Harvey Bale Jr., director-general of the International Federation of Pharmaceutical Manufacturers' Association in Geneva. From Karachi to Beijing the

production and distribution of contaminated medicine has developed into a virtual shadow industry-- a network as amateurish as the individual con who refills discarded syringes with sugar water, and as professional as the massive chemical factory that labelled barrels containing deadly diethylene glycol, commonly used in lacquer and anti-freeze, as harmless glycerine. (That 1996 shipment, thought to have originated in Dalian, China, made its way into a cough syrup that killed more than 80 children in Haiti.) The region's ill are regularly faced with medicines that contain substances ranging from chalk dust to fruit peels--"cures" that can be as deadly as the disease.

The extent of the contamination remains frustratingly difficult to pin down. The most dramatic indications of the threat are anecdotal-- the Karachi woman killed by a brand-name, broad-spectrum antibiotic later found to contain talcum powder, or the Latin American man whose kidney transplant failed because the drug meant to prevent organ rejection was apparently a Chinese-made counterfeit.

Authorities in Asia's developing countries often lack the resources to track their sprawling pharmaceutical markets accurately: in India an estimated 26,000 companies produce licensed drugs. And, for their own reasons, both the larger drug companies and local governments shy away from publicizing fakes. Although Western health officials name mainland China as perhaps the world's largest producer of substandard medicines, Beijing insists that its inspectors found irregularities in only 29 out of more than 167,000 cases investigated last year.

Pakistani authorities claim that a mere 2% of the 20,000 drugs registered for sale nationwide are faulty. But private estimates are less reassuring. Dr. Kaleem Butt, head of the Pakistan Medical Association, thinks the proportion could be as high as 50%. Bale estimates that counterfeits make up at least 5% to 10% of the Asian market. Even those figures reflect only a fraction of the problem.

The definition of a counterfeit --medicine packaged to resemble a name-brand pharmaceutical-- can include both placebos and drugs deliberately made with the wrong dosage of active ingredient, as well as those that release that ingredient at the wrong rate. But the dangers that confront patients are even more varied. Across Mexico mysterious and poorly regulated generic brands fill pharmacy shelves; the companies listed as producers, using vague names like American Pharmaceutical, often turn out to be as fake as their products, and investigators suspect the drugs

PHOSPHORIC ACID - Many rust removers contain phosphoric acid. Good for removing rust stains in fibreglass (Oxalic acid is gentler). Can remove calcium build-up in water lines (but Muriatic acid is faster). (see also, "*Hydrofluoric Acid*", "*Oxalic Acid*", "*Muriatic Acid*", "*Vinegar*")

POLARITY - Reverse polarity on your shoreside power will create severe electrolysis problems. Australia and US sell polarity detectors. Australia's is great, just plug into any outlet.

Friends of ours had been tied to a dock in American Samoa for several years when we arrived. When we tied up at the dock for a few days and hooked into the power supply, Peter found that the polarity was wrong for our boat. He made some adjustments in the wiring, and things were okay. I asked Peter what would happen if he hadn't corrected the polarity. He said that because our boat had a good bonding system, not a whole lot, but we would go through our zincs really quickly as our boat behaved like a giant submerged battery. I mentioned it to our friends, but the skipper was an academic-type who hadn't the faintest idea of electricity and its quirks, so he just shrugged. Several months later, as we were sitting in Tonga, he came up on the radio to tell us that he couldn't use the engine, that his engine was leaking cooling water dramatically, and could somebody tow him into the anchorage. When he was settled in the anchorage an engine mechanic came out to look at his engine, which had its entire water pan corroded through. As they sat there, more things continued to deteriorate, and they decided to get hauled out on the railway haulout facility there. We were no longer in Tonga when they fired up their poor engine, but other friends reported on their progress in the 200 yards to the dock - "they made it to the dock just as their propeller fell off." We can't help but think that all their maintenance problems were the result of their unbonded boat suffering electrolysis from the miswired electrical supply. So beware!

PRESCRIPTION DRUGS - Some formerly British Islands in Caribbean, most Latin American countries, Malaysia, Indonesia, and Pacific Islands (except Vanuatu) do not require a doctor's prescription to sell pharmaceuticals. French countries require a doctor's prescription. Homeopathy is quite popular in France, so be forewarned that some doctors will prescribe homeopathic substances instead of antibiotics.

PRESERVING FOOD:

- **Cheese:** Hard cheeses can be waxed by dipping whole cheese in melted wax - will then not need refrigeration. Soft cheeses can be preserved for long periods by completely covering in vegetable oil and storing in sterilized glass jars. Refrigerated cheese lasts longer without mold if wrapped in a paper towel moistened with vinegar inside a container.

- **Chillies:** Whole, or chopped, with seeds removed, covered with vinegar in glass jar, will keep for 12 months or longer.

Note: do not let metal touch contents - take out whole chillies with wooden or plastic utensil.

Caution: Do not use bare hands to prepare large quantities of chillies - the oils do not wash away easily, and every time you wet your hands for days afterward they'll burn (obviously, this has happened to me!)

- **Garlic:** Will keep for months in a cool dry place if left in the bulb. Peeled and immersed in vegetable oil will keep even longer in refrigerator - oil good for cooking, salad dressings, but garlic is so universally found that this is rarely needed, unless you like the idea of garlic-flavored oil as I do.

- **Fresh fruit and vegetables:** If washed in a mild chlorine bleach or iodine solution (or use antibacterial tablets, such as Milton's, Steadiflow - which see) and allowed to dry completely before storing, will extend the life of most vegetables as well as kill *nasties* such as cholera, typhoid bacillus, and the parasite that causes amebic dysentery. To keep large

quantities of onions and potatoes from bruising and sprouting, and from spreading mold throughout the batch, store in old white cotton socks. Each sock can hold up to 2 pounds of onions or potatoes. If one is bruised or goes bad, the sock absorbs the weeping so it doesn't spread to others so quickly, and is easily identified.

Many vegetables can be kept well without refrigeration by wrapping them in newsprint. Cabbage, cauliflower, carrots, turnips are good candidates for this.

PROVISIONING - Never, ever buy in quantity anything you haven't tried and like, even if the brand is a familiar US label. Check expiration ("use by" or "best if used by") dates on packages (remember, US is virtually the only country that places its month first in dates). Also, ask around - some countries' products are so variable in quality that trying one package will not be an adequate sample. US brand names are produced locally in various countries for that country's taste and budget. Some of them are significantly different in taste and quality from those found in the States, so beware. Do try other countries' products, especially France's - many are superior to US brands in both quality and convenience.

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R

RAIN CATCHERS: Our rain catcher is a bit unique for cruisers, though about a year or so after we came up with the idea, we saw a virtually identical system illustrated in *CRUISING WORLD* Magazine. Since all our sailing is in the tropics, we have a large bimini that covers the aft end of the cockpit, protecting the helmsman from sun and rain. The Bimini is slanted slightly forward. Along the side rails of the Bimini we have attached "gutters" made of PVC pipe. The one end of the gutter is closed off; the other end has an elbow fitting to reduce pipe size to accommodate flexible hose. Water flows into the gutters from the sides of the Bimini into the hoses that are led to our tank fills, or to jerry jugs if we are away from the boat or underway. It can be risky leaving the hoses to fill water tanks unattended - a long enough absence, or a torrential downpour could result in a lot of water in the bilge once the tanks have filled to overflowing. [Photos.](#)

The advantage of this system over the usual hose fitted to a boat's sun canopy is that it can collect water even when you are sailing. It is extremely easy to set up (the gutters are in place permanently, the hoses take a few seconds to plug in), and when at anchor and the sun canopy is up the water that is caught drains onto the Bimini and thus into the tanks or jerry jugs. We can attach a filter to the hoses in anchorages where the air pollution dirties any water that we catch, and it is always instantly available no matter the conditions.

RECYCLING - Many plastic containers are convenient for use around the boat. My chemist father-in-law warned us that all plastics are not created equal. In the U.S., plastic containers that are intended to hold food are regulated by the Food & Drug Administration, and thus the quality of the plastic will be better than plastic containers that contained non-food items. This is more important than we usually give credence to - the plastic in non-food containers uses a lower quality "plasticizer", and will more readily migrate out of the plastic - nasty stuff you don't want to ingest.

- **Squeeze Mustard** (or honey, syrups) bottles - become salad dressing containers, soap dispenser for laundry & bathing off back of boat and serve as small galley containers while larger bulk container stays in locker. I have squeeze mustard bottles with permanent labels for cooking oil, salad oil, olive oil, and vinegar. I buy oils and vinegars in large quantities, gallons when possible, and thus the small bottles are more easily stored and more easily used.

- **Ocean Spray** 2 quart and gallon plastic juice bottles are excellent because they are six-sided, so store well in lockers, they are air tight with a gasketed lid, and all plastic (other companies are now also using these bottles). I use them to store rice, sugar, coffee, any granular bulk food product (each 2-quart bottle holds just grams shy of 2 kilograms). Use to make solar iced tea, store reconstituted juices. Also freeze beverages in them for backpacking excursions, cold drinks at *pot-lucks* (two bottles will just barely fit in our freezer box - Adler Barbour Cold Machine). On offshore passages we fill with fresh water for our "*abandon ship*" bag.

- **Liquid laundry** soap bottles become: dinghy bailers; anchor rode floats; anchor trip line floats. We choose laundry detergent by the color of its container.
- **Soft Soap**[™] pump bottles in galley and head for dispensing soap for washing up.
- **Small plastic bottles** with plastic lids for holding small parts (nuts, bolts, screws, etc.)
- **Roll-on deodorant bottles** are good for mosquito repellent, keeps it off your hands.
- **Old white cotton socks** that are too stretched out to wear any more are excellent for storing onions and potatoes - see "Preserving Food"

REFLECTIVE TAPE - Great for finding dinghy or boat in dark unlighted anchorage, and it is amazing how dark an island with no electricity gets on a moonless night. Intended as a way our boat can be found at night in an emergency by a rescue boat. Also a great gift for people. Makes little lights seem bigger and brighter. We also put reflective tape onto a channel marker in an uninhabited anchorage with only one exit from the reef - just in case we needed to escape in the middle of the night.

REFRIGERATION: Ours is 12-volt exclusively. It is small, but the freezer unit, about 1 square foot, is adequate (barely) for our needs. We would not want to do without refrigeration in the tropics, though we have met many a boat that has done without. Although we haven't seen as much of them recently, engine-driven holding plates were very popular about ten years ago when we were still sailing in the Caribbean. These holding plate refrigerators, we are told, are very efficient. However, we noticed that when the boat was in a marina, with unlimited electricity available, the boat still needed to be run for one or two hours every day to keep the refrigeration running. Since we have a wind generator and two solar panels, we do not feel that our refrigerator is a major drain on our resources.

REFRIGERATOR BOXES. Our refrigerator is a standard top-access box. Almost three feet deep, it used to be difficult to keep order in the box, and with the freezer (evaporator box) near the top, fresh vegetables often froze if they fell to the bottom of the box. After a lot of false starts, I've come up with a system that works for us.

The small freezer (evaporator box) is set in the back half of the box. I installed two rubber tracks along the sides of the box just forward of the freezer, which divided the box into two sections. Peter made up two 3/8" fibreglass panels to slide in the tracks. Each panel was the full width of the box and half the height of the box. The after end of the box, with the freezer box, was thus isolated from the forward section. I then had three plastic boxes made up to fill the forward section. The bottom box is where I store food and drinks that I want very cold, and things that I don't use on a daily basis. The smaller of the top boxes can hold six soft drink or beer cans. It usually holds four beer cans and a jar of jam. The larger box holds vegetables, butter, and other items that I use on a daily basis.

The back section, closest to the freezer box, is where I store half gallon bottles of water, wine, meat, frozen food that will be used within the next week. I can pack a frozen chicken underneath the freezer box and it will stay frozen for two or three days, and be only half-thawed after perhaps four days under there. I can keep cryo-vac'ed beef that has been frozen by the butcher for several months stacked up under the freezer box, and still have room for my bottles of water, juice, and wine alongside. I put a "cold blanket" over the after section where the freezer is, so that only the forward section with the boxes, is exposed to the air when the top is opened.

The boxes are made of thin flexible plastic - the type that is used for cutting boards. This plastic isn't glued, it's heat-bonded. I made up the patterns for the three boxes and brought them to a plastics shop to cut and make up for me.

The boxes are very strong and light. I punched holes in the sides of the top boxes to insert strong cord that is used to lift the boxes out. The series of boxes and panels enables me to find things quickly and easily, and creates temperature "zones" in the box. The refrigerator doesn't run as hard because less heat is let into the box when the lid is opened, and my vegetables, especially my precious celery and peppers, don't freeze anymore. SEE PHOTOS in "[Melon Gear album](#)"

RINGWORM - Highly infectious fungal infection, untreated leaves nasty scars. Various medications for it, worth carrying a small supply. (see also, "*Fungus Infections*", "*Staph Infections*")

RUST

- **Tools:** all your tools will rust, no matter how carefully you keep them from touching salt water. A new product that helps is Metal Wax. Also, silicone grease works.

- **Canned food:** if your food lockers are dry lockers (i.e., bilge water cannot get to them), cans will usually last without any treatment. Those people who varnished their cans told us they had lockers (or bilges) full of peeled varnish and cans just as rusty as anyone else's.

Exception: canned fruit juices, canned fruits, canned soft drinks - seem to form pinholes - some of this is electrolysis if aluminum soft drink cans are stored with food tins - the soft aluminum drink cans often form pinholes, the carbonated or acidified liquid leaks onto the tins setting up electrolysis and causes them to rust and leak (especially along the seams). After too many disasters I will not store aluminum cans with any other canned foodstuff.

- **Rust remover:** Rust Stain Magic (highly dilute Hydrofluoric acid) is good for removing rust from clothing. Phosphoric Acid or Oxalic Acid is good for removing rust stains from fibreglass. Follow directions carefully, and wear rubber gloves. Although I swear by it, hydrofluoric acid is a dangerous acid to use, so be careful.

- **See also:** *Brass Wool; Metal Wax; Oxalic Acid; Phosphoric Acid, Salt Water; Silicone Grease; Steel Wool.*

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S

SAIL CLEANING - Do not use chlorine bleach on sails, it seriously weakens Nylon® and Dacron®. Use non-chlorine bleach, or baking soda and hydrogen peroxide solution (the original Oxygen bleach).

SAIL THREAD - See "*Dental Floss*"

SALMONELLA - is the most common type of food poisoning - poorly refrigerated or stored cooked foods the most common culprit. Chicken and fish the most common meats that cause a problem. Headache, abdominal pain, nausea, diarrhea, and sometimes vomiting. Fever almost always present. If food poisoning is suspected, take two charcoal tablets (available in health food stores), then a broad-spectrum antibiotic, such as *ampicillin* or *amoxycillin* (though WHO recommends antibiotic only for infants, the elderly, and those weakened by other diseases, the head of the U.S. Army Medical Corps., for the Pacific basin told us he recommended it any time there was food poisoning). Take charcoal tablets first - they cannot hurt, so even if ineffective for your particular problem, they cannot make it worse. (See "*Charcoal Tablets*")

SALT WATER - In the tropics even the air is corrosive. The problem is that salt is everywhere, particularly on one's hands - pick something up and transfer salt to it - it then rusts, corrodes, mildews. Stainless steel fittings that never showed a spot of rust in temperate zones will quickly show rust spots in the tropics because of salt spray that dries before it has a chance to run off - even a two-day smooth and dry passage will result in salt crystals everywhere on topsides, and spots of corrosion leave pits in the stainless steel where more rust will form.

- **What we do:** Before a passage, clean all deck fittings, then apply a thin film of *Metal Wax*. In harbor after passage, wash everything one can with fresh water.

SCOMBROID POISONING (Tuna and mackerel-like fishes) - (NOTE: This is from information provided to us by a doctor, so terminology is a bit esoteric in places - sorry. I include this because a friend of ours suffered from this on a five-day passage in the Pacific, and it was diagnosed and prescribed for over the SSB radio, while she had a few very frightening hours.)

Scombroid poisoning is an allergy-like intoxication caused by the bacterial action of improperly stored tuna, skipjack, bonito, and other mackerel-like fishes which are highly esteemed as food fishes throughout the Pacific as well as in other areas. These fishes become dangerous to eat when certain strains of the bacterium, *Proteus morganii* act on a naturally-occurring substance in *scombroid* fish flesh called *histidine*. This action causes the production of histamine and a histamine-like substance called *saurine* without producing the usual signs of putrefaction. This bacterial action may be extremely rapid in warm climates if the fish is not properly refrigerated.

The histamine and saurine produced may cause a severe allergy-like reaction in man upon the ingestion of scombroid fish flesh containing these products. The presence of these toxic substances is sometimes

detected upon initial ingestion by a "sharp" or "peppery" taste. Symptoms develop within a few minutes to 3 hours and are often sudden in onset. These include erythema of the face and upper part of the body, severe headache in the back of the skull, giant hives, conjunctivitis, and periorbital edema, edema of the lips, tongue and throat, respiratory distress, tachycardia, abdominal pain, malaise, generalized weakness and giddiness. Fever and mild diarrhea occur in a few cases as does nausea, but victims rarely vomit. A few cases have been reported in which the patient has gone into shock followed by death: however, the acute symptoms usually persist for from 8 to 12 hours after which the patient experiences a rapid recovery.

The treatment recommended is immediate evacuation of the stomach contents followed by the administration of antihistaminic drugs. (See "Allergies")

SELF AMALGAMATING TAPE - Useful for: taping rigging, electrical connections, anywhere that moisture or abrasion will loosen conventional adhesive tapes.

SEWING AWL - a wooden handle, heavy-duty sewing needle (with thread hole in tip). For sail repair the awl is better than regular sail needle and sail palm because one can sew a lock stitch, and more accurately sew in the holes made by past machine zigzag stitching, thus weakening the fabric less. One can substitute a smaller sewing machine needle, doing less damage to the sail. Also, with regular heavy-duty sewing machine needle it can be used to restitch awnings or other fabric articles while *in-situ*.

SEWING MACHINE - I heartily recommend carrying one if you have the space. A zigzag machine is most useful, and no matter how confident you are in your generator, you should consider having a manual crank - there will probably be times when you need it (particularly if you have to make an emergency sail repair - the motor on the machine may not be powerful enough to drive the needle, and might drive it too fast.

Just before we left Darwin, Australia for Indonesia my computer printer died. It didn't owe me anything, though I hated to have to purchase a new printer in Australia, where almost everything is European prices, and just that much more expensive than anywhere else in the region. So Peter and I went around looking for printers. We wanted a small printer with a universal power supply (anywhere from 110-240V) and ideally also a 12V power supply, since almost all small computer printers operate on DC power (for that matter, so do many computers). We were told by one salesperson after another that we couldn't get a universal power supply in Australia, that they only imported equipment with 220-240V power supply. No matter that we saw a printer being delivered that had a universal power supply in the box (but the dealer had none in stock), when we mentioned it to another store's salesman, he telephoned the Australian distributor, who insisted that the printer only came with a 220-240V power supply. Frustration. So we finally bought a printer that we knew operated under DC power - as with all the printers we had owned on the boat (this was number 3), input was AC, through a converter to DC into the printer. The salesman had told us that it was 220-240V AC only, but we had been through this before in Australia with other equipment

and we knew better, so we ordered it, paid too much money, but at least we had a printer. And when we opened the box, there indeed was the power converter - 220-240V Input, 13.5V DC Output to the printer power plug.

While we were waiting for the printer to be delivered, Peter went to another computer store and asked about the power supply for the printers they were supplying, figuring that maybe the ignorance about power supplies was limited to the one salesman we had so far dealt with. The salesman insisted that they were only 220-240V. Peter tried to lead the fellow, saying, "but does the printer run on AC or DC power?" Only 220-240V AC power, insisted the salesman. Finally, Peter asked the fellow if he could see the power cord. So the fellow brought it out. Turned it over. There, clearly, it stated "AC Adapter Input: 100-240V AC; Output: 13.5V DC" So Peter pointed this out to the salesman, who adamantly stated that because it had an Australian 220-240V plug, it could only be used with 220-240V power!

It is not only in Australia that the salespeople are information-challenged, and thus you need to be an informed consumer before you go about buying anything, or even contracting for work. We have found that provincialism is rampant in the world - the country the service technician in is probably the only one(s) he has ever been in, and too often they think that that is the only way things are done! Usually it is just inconvenient, but it can be costly, so beware!

SHORE POWER: Except in the US, some places in the Caribbean, and some parts of S. America, most places will provide shore power in the 220-240V range, and you should have a competent marine electrician wire your boat so that you can conveniently convert to this range and properly instruct you in how it can be converted when necessary. (NOTE: Since wiring for 110V needs to be more robust than wiring for 220-240V, it is easier and less expensive to go from an already-wired-for 110V boat to 220-240V than the other way around - really only requires changing circuit breakers, wiring new outlets). Write it down; be sure you have understandable instructions and diagrams, and properly labelled parts. The code for grounding varies from one country to another; therefore, an AC polarity indicator is an absolute necessity (most marinas will supply adapters to hook up your boat, and you need to have a polarity indicator to be sure that yours and theirs are compatibly wired). We also have a marine battery charger that, with the flick of a switch, accepts either 110-120V or 220-240V. (see "*Polarity*")

SHORTWAVE RADIO - For voice transmission, computer-generated Faxes; weatherfax when linked with computer. Giant worldwide party line for keeping in touch with friends, emergency calls, passage making. Options are a Ham Radio or a Single Sideband Radio (SSB). There are many Ham nets for reporting progress while passage-making. (see *marine radio net details* <http://www.cruiser.co.za/radionet.asp>)

SILICONE GREASE - Excellent for treating metal tools, sewing needles, etc. for rust prevention (see also "*Dinghies*", "*Armor-All*", "*Metal Wax*")

SINGLE-HANDING: Peter and I haven't done any single-handed passages, and we don't care to. However, we know quite a few

experienced single-handed sailors, and I've tried to condense some of the information they have given us.

One single-hander is a German friend, another Peter, who has made five single-handed Atlantic crossings. In my opinion, his most significant comment was "it was very irresponsible of me to do that." Thinking about two other former single-handers we know, who try to sleep for no longer than 20 or 30 minutes at a time before getting up to look around, I asked Peter how he handled watches. He said he got up with the sun and went to sleep with the sun. I expressed something between amazement and horror when I said, "you mean you slept the night through?" "Yes," he said. (*So did Joshua Slocum*)

He then told me that one night during an Atlantic passage, "something" woke him in the middle of the night, and when he went up on deck to look around he saw the most incredible phosphorescent "highway" running alongside his boat. When he got over his grogginess, he realized that what he was looking at was the disturbed phosphorescent stream of a big ship that had come much too close to him as he slept. That got his attention.

With the increased automation of ships, and the relaxation of rules governing the number of crew on watch, you cannot count on a ship seeing you. The fellow (and it might be only one fellow) on watch is doing more than watching the radar, and it is very easy to be distracted for more than the 20 minutes or so that it takes a modern freighter to overtake a small sailboat from first sighting.

When we were in Western Samoa we met a fellow in his 70s who was on his third solo circumnavigation. He didn't make it, running his boat up on Australia's Great Barrier Reef, but although the boat was a total loss, he managed to escape with his life. He was headed for Papua New Guinea from New Caledonia.

He had checked his position, set his wind vane steering, and gone to sleep. He awoke to the sound of surf. While he was asleep the wind had changed, and the wind vane steered him right onto a reef. In his letter he commented that he had become too complacent. We understand complacency; it has caused us to get into a few pretty scary situations although luckily we have avoided the ultimate disastrous result this fellow had.

The second or third day out on our passage from Ecuador to Easter Island, I was on my favorite watch, 4 am to 7 am, when I saw a fishing boat on a collision course with us. We were sailing incredibly well, doing a comfortable 6.5 knots, just humming along, and so was the fishing boat, though probably at more like 10 to 12 knots. Nobody answered or acknowledged my radio hail in either English or Spanish. Finally I had to accept that the boat was not going to change course, and so I tacked out of his way, just in the nick of time. I can only assume that everybody aboard was asleep and the boat was on autopilot. We had taken on a young fellow as crew just for the Ecuador to Tahiti passage (he wanted to surf his way around the world, and we welcomed an extra pair of young hands), He had grown up on fishing boats, crewing on them from his early teens, and for at least one year skippering one. In discussing this fishing boat's behavior, he told us that we should never, ever trust a fishing boat to know or heed the *Rules of the Road*. It was he who first suggested that

everybody on the boat was asleep. Okay, you get my drift: I don't think much of singlehanding on long passages.

Some suggestions though. We have a C.A.R.D. system (*Collision Avoidance Radar Detector*). We're on our third since we first installed one in 1993. The first one was upgraded, the second one was fried in a lightning strike, the third is working wonderfully, and the service we have received from the people at the company has always been quick, cordial, and exceedingly helpful (though granted very little has been requested). It must be emphasized, however, that big ships don't always have their radar on, so this is no guarantee of adequate warning of an approaching ship.

One of the most serious problems with singlehanding is sleep deprivation. We've been told of many instances where a singlehander has made elementary errors in judgment because of sleep deprivation, even experiencing hallucinations. Joshua Slocum reported hallucinations in his book, "*Sailing Alone Around the World*", so did Dodge Morgan.

You're going to need self-steering, and I would suggest that you have both a wind vane and an autopilot. We use our wind vane a lot, but in light winds or when we're motoring, the autopilot is necessary. As most of our single-handed friends say, you spend most of your time on passages lying in your bunk reading.

Not everyone can take short naps, and when things are going well it's difficult to discipline yourself to taking naps to conserve energy just in case conditions deteriorate and full energy and alertness might be needed. But that's what you should do. I would suggest you find a timer that you can set to go off after 15 or 20 minutes and then reset to the same time - then you can go up, look around, then reset the timer to go off again in another 15/20 minutes. This is especially useful at night, when it's more difficult to maintain vigilance. The only problem with the kitchen timers that I use is that their alarm isn't very loud. It's not a real problem for me, because any sound gets my attention, but for Peter, and many others, nothing short of a cannon going off will wake them.

- **Some more suggestions**, and expansion on my comments from John, a delivery captain who has done many single-handed ocean crossings.

He acknowledges that each person has his own physical sleep pattern, and watches need to be adjusted to a person's unique physical needs. John says that he has a timer set for 20 minutes, and he stays awake through the night, partially dozing for the 20 minutes until the time goes off. He then checks the compass, takes a good look around, shines his small torch on the sails and wind vane to be sure they're doing okay, then settles down for his next 20-minute nap. He says that the trick is to never come completely awake. When the sun comes up in the morning he'll go below for an hour's sleep, to be repeated once or twice more during the day. He agrees that sleep deprivation, and physical exhaustion, are the two greatest enemies of any sailor, particularly so if he's single-handing.

He likes what he calls a "dog house" - i.e., a pilot house or, at the least, a hard dodger similar to what we've got on the WATERMELON, where you can be well-protected from the weather. Nothing will exhaust a sailor more than being cold and wet and stressed. He says he'll sit in the

protection of the dodger, where he can see all around him, and nap lightly, conserving his strength. From our own experience, I can agree that having the hard dodger has increased our cruising comfort immeasurably.

German Peter said that he would lose as much as 20 pounds on an Atlantic crossing. I firmly believe that the demands of passage-making require good nutrition. You should carry quick easy foods for when the weather gets rough. I personally find that instant noodles, which can be rehydrated with just immersion in boiling water for a few minutes, supplemented with canned meat and vegetables, makes a quick, easy, hearty meal. Couscous, another carbohydrate that is simply "cooked" by just pouring on boiling water to rehydrate it in a few minutes, can also be improved with various additions. There are lots of these types of foods that are easy to prepare that should be part of your provisioning and trip planning. Carbohydrates are the source of metabolic energy, both for quick bursts and for endurance. Fats are how your body stores calories it doesn't use, and it's also what your body burns for heat - so you will need more fat in the colder weather and waters of the North Atlantic than you will need in the warmer climate of the tropics. Metabolizing protein takes the greatest toll on your system, requiring large amounts of water to metabolize. That's why survival rations consist almost exclusively of carbohydrates and fat - unsalted hard tack biscuits and chocolate being the most common. I would say in these modern times that breakfast bars would be a good substitute for the old hard tack and chocolate.

In my opinion, the hardest part of a passage is landfall. Lots of hard things to run up onto, lots of boat traffic, and sometimes many hours before you are safely in port. Making landfall when you are exhausted, and then spending several hours negotiating passages and strange navigation marks, if there are any, is loaded with opportunities to make mistakes. Offshore you have lots of opportunities to let your eyes and mind wander, and to take short naps, but coastal cruising and making it into port requires pretty much full attention. If you are tired from not enough sleep, you are at risk, and there's nobody with you to offer a second pair of eyes and a second opinion on what you are seeing.

Another one of our friends was a career navy officer who spent most of his almost 30 years in the navy at sea, and then moved off the ship onto his own boat. He had no permanent partner, but he had no trouble finding people who would crew for him and pay their share of the expenses. He made 1-1/2 circumnavigations that way, and had no regrets, and claimed to have had only one unfortunate experience with crew in the five or six years he was passage-making. I think that finding crew might be a bit difficult at times, but it has its advantages, and you have somebody to share the work and the joy of cruising. And as we "older" cruisers will tell you, there's a pleasure and comfort to be sitting in the cockpit of your boat, talking with your partner/crew, and saying "*remember that sunset in Mangareva?*" Or the volcano in Tanna, or whatever.

SOAP - Joy Liquid, of course, is the most common dishwashing liquid for all-purpose use in salt water. *Dawn Liquid* is the same.

NOTE: Joy Liquid + chlorine bleach yields a strong acid that will burn holes in your clothes, not to mention what the fumes will do to your lungs. An Australian dishwashing liquid that is as good in salt water - "DOWN TO EARTH". Read labels. I discovered "Down to Earth" by noticing on the

label that it used salt as a thickener. Thus it would work in salt water. Dawn and Joy contain ethyl alcohol, which I think is the reason they work in salt water.

SOCKS - See "*Preserving Food - Fresh Vegetables*"

SODIUM METABISULPHIDE. A biocide, used to sterilize home-brewing equipment. It is also used to "pickle" the water desalinator membrane on a boat when the unit will not be used for a week or more. We discovered it also as the "power wash" additive to some mail-order stuff we got as a gift. It smells terrible, but is an excellent biocide to keep bacteria and algae from growing. You need to filter the taste out, which can be done using a charcoal filter. Friends of ours used it exclusively for their water treatment. They once had their water tanks go foul, even using this, when they filled up their tanks in Phuket Thailand for their passage across the Indian Ocean. The water they received was heavily fouled and they did not pre-filter it. It is also possible they did not use a strong enough solution for this passage. See "Water".

SOLDERING IRON(S) - Peter is adamant that all electrical connections in a boat must be soldered. Thus we carry a 12-Volt, Butane (available at most hobby shops, electronics shops), and a 240-Volt soldering iron. The 12-volt is the least efficient, the 240-volt gets the hottest, the butane is in between the two with regard to temperature, and it's other benefit is that it is infinitely portable and convenient. Peter would not give up any of them.

SPACE AND WEIGHT-SAVING SUBSTITUTES - *Kool-Aid* unsweetened Lemonade mix for lemon juice; freeze-dried fruits and vegetables (Australia and New Zealand); water purification tablets for liquid laundry bleach, acetic acid for vinegar (See "*Water purification*"; "*Acetic Acid*").

SPARE PARTS - Every cruiser could sink his boat with spare parts. Ingenuity saves space - multiple uses for any part saves space. There are no hard and fast rules - carry what you feel you need. We suggest that you give thought to those items necessary to complete a passage (such as fuel filters or alternator) or necessary in an emergency while at sea (such as heavy-duty wire cutters to cut away rigging in the event of a dismasting), and give them highest priority. While in port you can borrow or in some way obtain things you need.

Hose Clamps, even the best stainless steel, are in such a hostile environment that eventually they will rust through, so be sure to carry a goodly supply of spares of all sizes. All too often the stainless steel band is tightened with a mild steel screw assembly, so we suggest testing them with a magnet before buying, if at all possible (in most hardware stores you'll find a magnetized screwdriver you can use to do the testing). We recently tested our inventory of hose clamps, purchased at various times in various countries, and found that 25% have some component that is not stainless steel, including one that says, on the screw assembly "IDEAL - USA, ALL STAINLESS", and the screw is not stainless.

SPROUTING - For fresh vegetables easily carried, bean sprouts are handy and safe when you are in areas where sanitation is doubtful. Mung beans, lentils, wheat berries are tasty and easy to sprout, good in soups and stir-fry dishes as well as salads; alfalfa sprouts for salads.

- **Basic technique:** wash beans (eating grade) and let soak for a half hour or so in fresh water, then rinse and put in a largish jar or plastic container covered with mesh or cheesecloth and place in a dark cupboard. Twice daily rinse the bean and drain thoroughly (they will develop fungus, or rot if left to sit in water). After about three days you will have sprouts - six or more times the original volume of the seeds, so be sure the container is roomy enough.

Many health food stores sell sprouting jars. The sprouts will keep for several days to a week in the refrigerator, two or three days without refrigeration (but they'll keep growing) if they are rinsed twice daily. Alfalfa sprouts work the same way, but it's suggested that after sprouting they be put in the sun for a few hours to green them. Since they are so easy to sprout, it's not worth sprouting more than a tablespoonful or so at a time.

SSCA - SEVEN SEAS CRUISING ASSOCIATION - with over 4,000 members, one of the largest cruising associations around. Publishes a monthly Commodore's Bulletin with cruising information worldwide. We belong, find it invaluable. Periodically publish an Equipment Survey that is most helpful. Many Additional Publications include various cruising guides. Mail inquiries to: SEVEN SEAS CRUISING ASSOCIATION, INC., 1525 S. Andrews Avenue, Suite 217, Fort Lauderdale, FL 33316 USA. Web site: <http://www.ssca.org>

One can pay for membership, etc. by credit card. Look for yachts with SSCA burgee to get more information - not necessarily US boats.

STAIN REMOVER - Homemade fibreglass stain remover can be made as follows:

Combine in a stainless steel or enamelled saucepan 2 Tablespoons Oxalic Acid crystals, 2 Tablespoons Corn Starch (Corn Flour), and approximately 1 cup (250 ml) water. Heat while stirring until it thickens, just before it comes to a boil. If solution boils it will thin. If too thick, add a bit of water. Good for removing rust stains, food stains on fibreglass - the corn starch is to make it sticky and hold against the stain - easily rinses off with fresh water, but don't let it sit so long that it dries and cakes. (See also, "*Oxalic Acid*").

STAPH INFECTIONS - Some popular and heavily-populated harbors are *staph* reservoirs - Charlotte Amalie in USVI; Blue Lagoon in St. Vincent; Gulf of Paria, Trinidad; Porlamar, Margarita Isl., VZ; Pago Pago, American Samoa are some examples from our experience. If small nicks and cuts redden and fester even with good hygiene, chances are you have a *staph* infection. Prevention is important, because once it establishes itself, antibiotics must be used to cure it. Staph infection in the tropics can make you very sick. Best prevention is to clean all cuts with antibiotic (or vinegar) immediately, then paint them with Gentian Violet (Note: Gentian Violet is difficult to obtain in the US, not available anymore in Australia. If you can obtain Gentian Violet Crystals, they are excellent because they are rehydrated with water, not alcohol). Once an infection has taken hold, WATERMELON has been very successful treating *staph* infections with "co-trimoxazole (sulfamethoxazole with trimethoprim)" - familiar brand names *Bactrim*, *Septra*. Usually recommended to be taken for 10 to 14 days, but our doctor suggests, for *staph* and urinary infections taking for no more than 7 days to avoid common side effects - usually fungal infections,

Thrush. (see also "*Fungus Infections*"; "*Ringworm*"; refer to "*Where There Is No Doctor*"; "*Antibacterial Soap*")

STEEL WOOL - (or *Brillo*) Don't ever use it on your boat. The tiny iron filings will break off, remain almost invisible until you start noticing tiny rust spots. If you must use a heavy-duty abrasive, use Brass Wool. (See "*Rust*")

STRING BAG - Useful for shopping for fruits and vegetables in island markets, where one should bring own bag. String bag can be carried in pocket, expands as it is filled. Shoulder strap leaves hands free to carry other things (like a watermelon). If string bag is made of plastic, fruits & veggies can be immersed in salt water before bringing on boat, getting rid of bugs hidden in them. (see also "*Backpack*")

SUBSTITUTES - See: "*Acetic Acid*"; "*Eggs*"; "*Lemon Juice*"; "*Moscarpone Cheese*"; "*Vegetables*";

SUN CANOPY - In the tropics a sun canopy can make a 10-20° F difference in the interior temperature of the boat, not to mention the protection it affords by shading varnished or painted topside brightwork. The best canopies we have had were made with a silvered surface (one was bought through a catalog, was lightweight silvered nylon. Another was made up of ironing board cover material - it stood up longer because it was more strongly reinforced, but weighed more because it was heavier weight cloth). The next best is white. Keep in mind that the lighter the color the more of the sun's rays that are reflected off the canopy and the cooler it will be; the darker, the more that are absorbed. We may not have been as color-coordinated as some other yachts in the anchorage, but we were much cooler. The higher the canopy off the deck the easier it will be to get around on deck, and the more air circulation. We have yet to have the perfect canopy built, but believe that they need to have to be high for ease of getting around on deck, but with side panels that hang down to shade more of the boat when the sun is not directly overhead.

(Next page)

T-U-V

(Empty - nothing yet listed by JeanneP)

(Next page)

W-Z

WATER FILTER - We have a third faucet on our galley sink for filtered water. The water filter is a paper and charcoal filter, which removes silt and chlorine and other minerals from the water. It is a 1 micron filter and also removes parasites such as cryptosporidia, giardia, and the parasite that causes amoebic dysentery. We have also set up a water filtration system for pre-treated water brought to the boat in jerry jugs. We have a water filter housing, and two types of filters - the charcoal filter that removes chlorine and other chemical tastes as well as filtering out sediment, and the sediment only filter. In some places, the water is silty or so very foul that we pretreat the water with chemicals in our jerry jugs, let the silt settle, and then siphon the top 75-90% of the jug's contents through the filter into our tanks. Siphoning is only marginally slower. We then can chlorinate the water or not, and the house water filter takes care of the taste. We have a filter housing that is clear plastic so we can see the filter and better judge when to replace it. Even what looked to be quite clean water going into the filter turned out to have lots of silt remaining, turning the snow-white filter brown. (See *Water Purification Tablets*, "*Sodium Metabisulphide*"), [link](#) to choosing a water filter:

WATER PURIFICATION TABLETS - Contain Sodium Dichloroisocyanurate. "*Puritabs*" sold to campers consist of 17 mg of above. In the Pacific, usually in the baby care section of supermarkets or pharmacies, find "antibacterial tablets" or "Feeding Bottle Steriliser Tablets" (made by *Steadiflow*, *Milton's* [Australia/NZ] or *Boots* [England], Aqua Tabs) in 500 mg tablets, sufficient to treat 32 litres of water. I also found them in a store in Phuket, Thailand that sold baby gear - clothing, prams, etc., but it was difficult to recognize because it did not have the familiar brand names, and was mostly written in Thai. But it was the same stuff. Only in Singapore were they as expensive as in the U.S. (because they were imported from the U.S. and U.K.) - every place else they were 50% or more cheaper. (See *Water Filter*; *Sodium Metabisulphide*; *Laundry Bleach*)

WEEVILS - People say that freezing your flour will kill weevils and their eggs. Just refrigerating them does not work, though. Even weevil-free flour will often have weevil eggs, so this is a good preventive measure. Many cruisers put bay leaves in their flour, rice, etc. to ward off weevils, but the one time I tried this I found the taste of the bay leaves unpleasant, though I may be the only person who feels this way. If you find weevils in your grains (rice, etc.) and want to salvage, you can try putting a container of grain in the sun and flick off the weevils as they come to the top and die (my friends do this, but I'm too squeamish - I'll toss the stuff first). I sifted the rice I bought (10 kilos, just could not toss it), which sifted out the weevils, adult and larval. I then heated the rice in the oven and put it into air tight bottles. 18 months later, no weevils have reappeared in that rice (it wasn't very good rice, which is why it took me so long to use it all up). Regardless, disinfect the locker where the stuff was stored or you're going to lose everything. An Indian cook giving lessons on cooking curries said that some spices, such as Cumin, are vulnerable to weevils, and if you occasionally "sun" these spices (yes, put them out in the sun), you will kill the weevils and eggs and prevent infestation. So try with all your other items as well. They will bore through

cardboard boxes, plastic bags, whatever, to get at your flour or pasta. Nasty things (and they taste dreadful - *never mind how I know*).

HINTS & TIPS

"HOL-TITE-HANDLE". Be sure to have at least one on board. Handle with suction cups to hold you against the hull when washing the topsides from a dinghy, or when diving on the hull to clean or repair something (BOAT/US calls them "*Hol-Tite Handle*")

PLASTIC BUCKETS - Good to have plastic handles, best is when you make your own rope handle. Useful for laundry, general carry-all, emergency bailers. Keep lids. If you ever go to the San Blas Islands in Panama, you can trade 5-gallon buckets with lids to the Kuna Indians for *Molas*, but they're not interested in them if they don't have lids.

HAND PUMP. Always keep a small Hand pump - for bailing dinghy, bilge, etc.

QUICK & EASY WAY TO MAKE YOGHURT. Sometimes it helps to know where somebody is from. In the U.S. you can buy freeze-dried yoghurt culture in health food stores. Still needs refrigeration, but is easy to carry. Otherwise, use approximately 1 tablespoon cultured plain yoghurt and put it into about 2 cups scalded milk brought to room temperature. Leave overnight, then refrigerate. If you set some in a coffee sock or paper coffee filter to drain you will get a thicker yoghurt that can be substituted for sour cream, and the whey that drains can be used to make your next batch of yoghurt. The whey can be kept in the refrigerator for a day or two.

ABOUT THIS EBOOK

This ebook will always be a "work in progress". To assist all the other cruisers out there (and aspiring ones). PLEASE forward me your suggestions for both the DICTIONARY and the HINTS & TIPS sections. These will be included in the regular future editions and will include your "credits".

Fair winds and following seas.

JeanneP.

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