Dear SSCA,

On August 2002, cruisers anchored in the harbor met at Puerto Blanco Marina, in Luperón, on the north coast of the Dominican Republic. Based on their experiences, they pooled ideas about how best to prepare boats in anticipation of a hurricane. These are the notes from that meeting. At the same time, the group initiated a collaborative process to ensure an orderly and mutually supportive response among the cruisers in such an event.

General Advice

- The worst part of a hurricane is cleaning up afterwards.
- Luperón is the safest harbor in the North Caribbean the only thing that will sink a boat here is another boat.
- Secure your own boat first, and then help your neighbors. Keep busy, and sober!
- Don't expect the DR government to provide any assistance. It will have its hands full responding to land emergencies. There will be no services after a hurricane, so you will be on your own for food, water, fuel, communications and power.
- If the eye passes over you, the back eye-wall will hit like a freight train, with no build up.
- Make your own decisions don't go with the herd.
- Expect that cruising and fishing boats from 100 miles away will come to Luperón for shelter in the days before a hurricane.
- You must figure out where the winds will be coming from, and position your boat and mooring lines accordingly. Moor your boat in stages, as the probable wind direction(s) become more certain.
- Position your primary/storm anchor well ahead so it has plenty of time to set.
- Spread out hurricane preparations. It is extremely physically and emotionally demanding to have to do all in a highly anxious state in the few days before a hurricane hits.
- A hurricane can show up with very little warning, don't count on having four or five days notice. Also, it can be very squally for the 48 hours prior to a hurricane's arrival; don't expect you'll be able to do your preparations then. A hurricane crossing mountains will dissipate somewhat, but it may spawn tornados.
- To join lines, use double sheet bends, not bowlines they'll chafe. Tie onto mangrove trunks with double clove hitches, not bowlines they'll chafe. Put a stopper knot behind the clove hitches so they can't tug loose. Use nylon or polypropylene lines for mooring, Dacron doesn't have enough stretch and will break without a snubber. Don't use chain or wire around mangroves.
- Tie low down on older mangrove trunks on roots that are two or three stands in from the shore. Don't tie onto a mangrove that already has another boat's line attached to it. You can drive aground nose into the mangroves, but you risk damage if another boat does likewise close (less than 15') to you. It may be safer to tie on sideways. Your boat will not get hurt by the mangroves. It may get dirty, but it will clean up after.
- If you crawl off your boat into the mangroves in the middle of a hurricane, keep your head down or you may get hurt.
- Ordinary fenders will do little to help fend off other boats in a hurricane. Consider filling your inflatable with water and tying it to your boat as a giant fender.
- Lines can chafe through rapidly. If you don't have other chafing gear, use plastic grocery bags they're slippery and they work!
- Let your family know well ahead of time how you will contact them in the event of a hurricane.
- Always keep your boat ready to go to sea. Don't have a stowage system for being at sea and a separate one while in harbor.

Hurricane Preparation Tasks

- Remove all sails, flake and stow below.
- Remove all deck canvas (awnings, biminis, dodgers, weather cloths, etc.) from frames and stow below. Tie down frames for dodger, bimini, etc. securely.
- Remove downwind poles from mast and lash to deck
- Tape snap shackles with duct tape and pull to top of mast, leaving one so you can retrieve the rest.
- Lash all halyard falls to mast, and make sure no other lines are left on deck to whip in the wind.
- Take undeployed anchors off bow roller and lash on deck ready for use.
- Cap all ventilators.
- Stow below everything that is on deck. If it can get loose and cause damage, it will.
- Remove wind generator and wind vane blades.
- Make sure below-deck stowage is secured and can't fly loose and hurt you.
- Make sure your cockpit drains are clear.
- Do not rely on the windlass for securing anchor rode.

- Review all your spare chain and lines, put them where you can easily get them, and make sure you know how long and what type each line is. Prepare snubbers. Even if you don't need all your lines for your own boat, they may well be needed to keep another one off you.
- Fill water and fuel tanks and jerry cans.
- Charge your handheld VHF
- Charge your boat batteries.
- Prepare your ditch bag with cash, documents, food, clean/dry towels and toilet paper.
- Have a supply of bleach on hand to clean up afterwards and sterilize water.
- If you leave your boat, leave the key in the ignition and tape starting instructions nearby.
- If you leave your boat, notify someone where you'll be, but don't announce it on the VHF.
- If you stay on your boat rig jacklines and have at hand your life vest, snorkel, mask, harness, strobe, flashlights and spare batteries, serrated knife, marlinspike or rigging tool and bolt cutters.
- Wear deck shoes all the time the storm is in progress.
- After your boat is ready, help your neighbors.
- Get another pair of eyes to look your boat over for readiness.

Hurricane Preparation Supplies

- Spare galvanized shackles to match your rodes
- Seizing wire
- Extra 50-foot lengths of chain
- Extra heavy-duty nylon line in 100- and 200-foot lengths
- Heavy-duty galvanized or stainless steel thimbles
- Plenty of line to lash things down
- Handheld VHF and battery-powered AM/FM radio
- Handheld depth-sounder or lead line
- Sheepsfoot®, Leatherman®, or Swiss Army® knives

- Masks, snorkels, fins and filled SCUBA tanks
- Recording barometer
- Lots of towels and chafing gear
- Ventilator caps for all vents and dorades
- Rolls of duct tape
- Dacron sticky-back tape for sail repair
- Anchor weights and snubbers
- Spare flashlight batteries
- Bleach to clean things and to purify water
- Food, water and fuel
- Spare cash

After a Hurricane

- Dive down and check bottom, rudder and prop before you attempt to move your boat.
- Help your neighbors as well as yourself.
- Notify your relatives that you are safe.

Storm Anchoring Techniques

Summarized from *The Complete Book of Anchoring and Mooring* by Earl Hinz. Copies (autographed) are available from the author (contact <u>E Hinz@msn.com</u>).

Ground tackle must have three essential elements: (1) anchor(s) suited to the seabed; (2) an elastic rode; and (3) chafe protection. Each element must be equally strong, including eye splices, shackles and shackle pins. Set your primary/storm anchor as far in advance as possible. Have all your other anchors prepared and ready to deploy prior to the storms arrival. An all chain rode does not have sufficient elasticity to ride out a storm. Best is half chain and half 3-strand nylon, firmly joined and secured to the boat. Excessive scope is not necessary, and if the water depth increases, more scope can be used. Chafe is the primary adversary in storm anchoring. Main chafe points are joins in the rode and where the rode passes onto the boat. It is extremely difficult and dangerous to try to wrap chafing gear around rode while a storm is in progress. Even with chafing gear in place, be prepared to reposition the chafe points by frequently paying out a bit more rode frequently as the storm progresses. Chafe occurs as the boat sheers from side to side ("horses") on the anchor rode and up and down on the waves. Position the boat in the anchorage and deploy ground tackle so as to minimize sheering motions as much as possible.

Consider setting dual bow anchors. (1) If you deploy a second anchor prior to the storm's arrival, set the second anchor in the direction you anticipate the wind will change to, at an angle of no more than 45 degrees to the first anchor. The use of a swivel to join these two rodes is not recommended since it is a weak link. (2) If you wait to deploy a second anchor until after the storm starts, use a hammerlock moor to minimize horsing. This is a second bow anchor dropped under the bow on a short scope at the limit of the boat's sideways movement. This "hammerlock" snubs the boat's horsing considerably. The main wind load is still on the primary anchor. If the wind direction changes, the snubbing anchor will drag into a new position, still providing additional security.

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