

AVALON'S TOOLBOX

Fred Hess & Jean Novotny

Screwdriver Sets- Jewelers' Phillips & slotted ; various length handles Slotted up to 1/2" blade; Phillips #1,#2,#3; 90 deg. ratchet

Open end box wrenches SAE & Metric: **Adjustable Crescent wrenches:** #6,#8, #10, 312

Adjustable channel locks: 6", 9" 15" (doubles for plumbing pliers)

Vise grips: 5" straight blade, 9" pipe, 8" welding

Pliers: linesman, diagonal, 6" long nose, long nose 90 deg. offset

Files: 1/4" & 3/16" rattail, med. flat bastard, 8"-4-part combination, , triangle,

Hammers: 12 oz. claw; ball peen

Coping saw w/ extra blades; 1" **tube cutter**

Wood chisels 1/2", 3/4", 1"; **Spatula;** 1-1/2" & 3-1/2" scraper, Sandvic's med. replaceable blade scraper

Utility knife w/ extra blades; retractable razor blade scraper

Clamps: 2" & 3" anvil, spring load hand clamps

Crimpers: ratchet and compression types

Hex Keys: metric & SAE sets, plus specific specials

Shears: 1-1/2" sheet metal: regular scissors

Socket: Metric & SAE sets, 1/4", 3/8", 1/2" drives; 3", 6", 10" extensions, various special sizes sockets inc. deep well

Soldering: sm. butane;. propane head for 14 oz. bottle, rosin core solder, copper flux

Measuring: 12', 25', 100' tapes; Calipers; ruler; pencil w/ sharpener

100' electrician's "fish" tape ;

Nail set/center punch

Rivet tool w/ assorted rivets Stainless & aluminum

Banding tool w banding material & clips

Cable/ rod cutters; 2lb. sledge **hammer with lg. drill drift**

Brush: Stainless steel wire - toothbrush size

Dental picks: sharp, 90 deg. , hook ends

Inspection mirrors- make-up mirror; magnifying glass,

Industrial tweezers: various shapes; wood clothes pin; magnetic pick-up tool

Dewalt 12v. Drill rechargeable w/ extra battery w/ Phillips & slotted drill bit & 1/4" socket sets

Milwaukee Drill rechargeable w/ 90 deg. capability

Dremel tool w/ various bits

Milwaukee reciprocating saw; **Milwaukee 1/2" drill**

12V trouble light Various length extension cords

Battery hydrometer

Multimeter

Splicing fids w/ instruction sheets & materials

Flashlights: regular, "dive" light

Vacuum- Wet/Dry

Have an inverter and the space?:

6" x 16" Bench top **lathe** w/ mill drill attachment

Expendables:

Tape: duct, masking, electrical, scotch, rigging
Drill indexes; wood spade drills; 3/4"-2" hole saws w/mandrels
Tap & drill sets w/ tap handle,
Messenger line
Goo tubes: High temp. gasket material; Silicone ; wood glue; underwater epoxy, anti-seize
Plastic compartment Bin boxes, 1-2 each: hose clamps, spare light bulbs, electrical connectors
& shrink wrap: spare screws-washers-nuts (always buy 2-3 extra to have the right ones);
cotter pins-ring pins
Boeshiel T-9 lubrication spray
Standard Batteries: all sizes in plastic wrap
Monel seizing wire
Finger nail emery boards, Fine Sandpaper
Nylon tie wraps: assorted sizes
Zip Lock plastic bags

Industrial Suppliers:

Catalogs:

Western Tool Supply: 4541 Oakport St. Oakland, & other local: 800-826-8750
local supplier more oriented to machine shop needs, catalog does not have prices
KBC Tool s & Machinery: 2152 W. Winton Ave., Hayward: 800-521-1740
general catalog, many lower cost import items
Grainger: 7801 Capwell Dr., Oakland & other local locations 510-638-1100
very general inc. automotive, heating/AC supplies
MCS Industrial Supply: New York location 800-645-7270
The most complete catalog available.
Washington / Rutland Tool Supply: several locations 800-289-0599
general catalog, many lower cost import items

Other Sources:

Best Hardware Store Tool cribs:
Pagano's Ace: 1100 Lincoln Ave. Alameda 522-1345
Orchard Supply 177 Lewelling, San Lorenzo 278-7300
Novotny Machinery: Used machinery-lathes, mills, etc.- not supplies, or hand tools-
510-639-7202

SingleHanded Farallones Safety Tips

Michael Jefferson S/N FOXXFYRE

ISSUES

Navigation
Seamanship
Personal Safety
Body Management

DO

- Wear a harness and keep it connected to the jacklines at ALL TIMES.
- Carry flares, a personal strobe, a knife, and a personal webbing boarding ladder.
- Plot courses on the chart "Gulf of the Farallones" both to and from the Farallon Islands. Note on paper the course headings at various points in the race and also the characteristics of the lights and buoys (Mile Rock, Pt. Bonita, Pilot Buoy, Approach buoys, Channel Buoys, Alcatraz, etc). Plot course headings for rounding the Island in the dark and use them. Also write down explicit directions on how to get back to the finish line and then your slip, including courses, distances, and expected lights, buoys, and obstructions. Also write down a summary of the tides and currents at various times. When you get really tired your brain will stop working efficiently, and you may not have the leisure to figure these things out later on. Do not underestimate the problems with navigation when tired, in the dark, in a lot of wind, with some fog, etc. It is MUCH HARDER than a day race in the Bay.
- Carry a Thermos of hot water/coffee/tea.
- Have food and plenty of fluid easily available in the cockpit, and eat and drink regularly. Beware dehydration! Even small amounts can have serious effects on your strength, stamina, and judgement. It is easy to prevent, harder to undo.
- Wear layers of synthetic clothing (Polarguard, Capilene, Patagonis, etc). Be prepared to endure cold wind and water. Be sure to include a warm cap; you lose about 40% of the heat through the head.
- Make sure that the boat batteries are charged.
- Check your autopilot connections and be sure it works. Have a backup (elastic and line to tie off the tiller?) in case it fails.
- Have several strong flashlights available, and spare batteries. A waterproof headlamp (REI at San Pablo and Gilman in Berkeley) can be very helpful.
- Make sure that your running lights are working, and USE THEM!
- Scan VHF channels 16, 68, and 12 during the race. Pay attention to Vessel Traffic (channel 12).

DO

- Take your favorite seasickness medicine, starting the night before the race.
- Keep your eyes peeled for traffic, especially BEHIND you. It can sneak up on you.
- Have enough fuel onboard to get back from the Farallones to your slip in the worst case for the tidal conditions.
- Reef early! This is a distance race in the ocean. Heeling 40 degrees is NOT efficient and too much sail area can be dangerous in heavy going.
- Heave-to if you are having problems (Tack without letting out the jib, then lash the tiller to leeward). Even a few minutes respite to eat, navigate, fix a problem, or whatever, can be a lifesaver!

DON'T

- Sail through the Potato Patch if conditions are rough. It can break BIG even in light wind conditions. Use the shipping channel.
- Cut the corner when rounding the Farallones. The NW corner has a reef extending out quite a ways, and it breaks heavily even in mild conditions. Study the shape of the island on the chart. The light can be very deceptive. Plot passing courses and distances around the island, and if conditions are bad, stick to them. Also be aware of Middle Farallone Island. It is a nasty small dark rock and if you are just a little to the north, you could encounter it. Also keep in mind that the Farallones can be a lee shore for a substantial distance if the winds are from the NW or SW. Sailing in the surf could be a disaster if something goes wrong.
- Get carried away by competitive fever. This race is not the same as a Bay race, only longer. Most successful racers have become so by learning through experience. Enjoy the adventure, sail smart, be safe, come back alive.
- Push it on Port/Starboard situations. Tack or duck early. Big seas and heavy wind can make it hard to avoid a competitor (blow the MAIN to get off the wind!). A collision out there is really serious!
- Be afraid to ask for help from a fellow competitor, the race committee, or the Coast Guard if things go wrong. If it gets dark, nasty, foggy, or whatever, talk to people. Many of us have done it before. We appreciate the feelings a first timer may have! You are not alone out there.
- Bury the anchor! Be ready to anchor FAST, and also to start the engine if needed. Keep aware of lines in the water.
- Assume others see you! Have a bright spotlight to shine on the sails, etc. Be sure your horn works. Keep a good lookout, especially for competitors after rounding.
- Lose it on the way back to the slip!! You will be very tired, and the adrenaline will be gone. Tie up and sleep for a bit if you need to. Watch out for buoys, tidal sets, and other nasty things. Check for lines in the water CAREFULLY before starting the engine.

CHECKLIST

1. Synthetic (Capilene) long underwear and top, with layers of light fleece pants and tops. Shelled outer insulation layer. Warm watch cap or balaclava. Complete set of foulies and boots.
2. Complete change of clothes (or two!), including long underwear in a waterproof (kayak) bag. Also several towels, and spare underwear.
3. Sleeping bag in waterproof plastic bag onboard.
4. Harness and PFD ok and ready to use? Tethers handy?
5. Take seasickness pills.
6. Charged up handheld VHF (in reserve-use main radio for normal communication). Spare antenna and coax for big VHF aboard? Cell phone in plastic bag?
7. Spare handheld GPS with extra batteries.
8. Flares and smoke canisters accessible .
9. Personal strobe light and knife, attached to harness.
10. Webbing boarding ladder.
11. Jacklines installed on boat. Flat 1 inch tubular webbing only (REI).
12. Thermos of hot drinks in convenient location.
13. Food accessible. Also drinks (Gatorade, ginger ale, water, etc).
14. Charts preplotted for race, with GPS waypoints highlighted and named on chart. List of characteristics of lights, and bearings to/from various places on the course. Write down the tides and currents for the next 24 hours. Note bearings to finish line from bridge.
15. Race instructions. Note your start time.
16. Boat batteries charged? Engine fuel filter clean, and water free? Inspect engine and feel belts. Check oil level. Grab things on engine and push and pull. No loose alternators or manifolds?
17. Engine water seacock open, all other seacocks closed?
18. Is the bucket handy? Does it have a cord attached for retrieval?
19. Do the bilge pumps work?
20. Check running lights and radio.
21. Check autopilot, especially power connections.
22. Check shrouds and standing rigging.
23. Tape lifeline pelican hooks shut.
24. Check the anchor and rode; is it accessible and practical for an emergency?
25. Enough fuel for 60 miles of motoring at normal RPMs. Even ultralights with outboards!
26. Tools and spare parts to handle "normal" emergencies. Hacksaw and spare blades? Wire cutter for rigging failure?
27. Check reefing system. Rig third reef?
28. Check stowage below; ready for rough weather?
29. Hatches closed and dogged. Hatch boards for companionway easily accessible.
30. Sail selection: Small jib available?
31. Check the weather forecast.
32. Check in with race committee at start and finish on Channel 69.
33. Relax and get your mind and attitude set. Have FUN!