

2010 SHTP Weather Discussion by Skip Allen aka sleddog

Weather/Tactics Discussion (Intro)

2010 SHTP Bug Lighters:

In tribute to WILDFLOWER, my partner in the 1978 and 2008 SHTP's, over the next few weeks I will be posting a multi-part weather/tactical discussion based on first-hand experience in 28 West Coast-Hawaiian Races since 1961. I would welcome other's experiences and questions. All courses noted are given in magnetic degrees.

PRE RACE WX/TACTICAL PREP

Though the main goal of racing SHTP is the challenge of making a safe and fun ocean crossing, much of the pleasure of the SHTP is arriving at Hanalei in a timely manner. Reunions with family, friends, and competitors, Tree Time, and enjoying the pleasures of tropical Kauai are all incentives for a fast passage. Not to mention the Race deadline of 21 days.

SHTP requires a basic understanding of weather conditions from start to finish, and how best to use them to advantage. An excellent overall view is Stan Honey's "Slotcars to Hawaii," available online. Jim Corenman's treatise in the Pacific Cup Handbook is also an excellent resource. Firsthand SHTP weather stories, such as related in the Crawford's BLACK FEATHERS, as well as past Forum posts and logs from previous SHTP's can be mined for information..

The most thorough understanding of SHTP weather, and relevant tactics, is only as valuable as the route chosen. A simple but comprehensive GAME PLAN is invaluable. The GAME PLAN is based on forecasts and real time observations before leaving the dock. A skipper with a GAME PLAN will arrive sooner than one zig-zagging down the "race track," sailing extra miles. The GAME PLAN is not set in cement, but can and should be adjusted daily according to such variables as: movement of the EPAC (Eastern PACific) High, tropical waves passing to the south, and other competitors positions and weather.

The Great Circle (GC) to Hanalei, as shown on your GPS, is the shortest course. But the GC is rarely the fastest. The GC takes one north into the calms of the EPAC High. If the GC were flipped upside down, the resulting "Reverse S" course, pioneered in the '49 San Pedro to Honolulu Transpac, would more likely approximate a successful route, at least for the first half of the SHTP.

The GAME PLAN can be broken into sub-plans: #1 Exiting SF Bay. #2 Across the Gulf of the Farallones to the "weather mark." an imaginary point abeam and south of the

Farallones. #3 The "Windy Reach" to "Pt. A," an adjustable waypoint on the SE lobe of the EPAC High along 130 W longitude, #4 The "Slotcars," or the desired course around the southern perimeter of the EPAC High to "Pt. B," a waypoint 100 miles upwind of Hanalei at 23N x158W. #5 Sprint to the finish and entry into Hanalei, depending on time of day/night arrival.

The GAME PLAN should also take into account possible variations and anomalies, such as: a "Southerly Surge" at the start (as in '06 and '08). Gale conditions on the Windy Reach (prevalent about 25% of the time in June.) An EPAC High that is MIA, not yet formed, or to the West of the Dateline. Tropical Waves and remnants of Tropical Storms from Mexico traveling W or NW. And of course squall management that will likely affect the downwind portion of the race, especially at night. (These will be discussed in later chapters.)

For this year's 2010 SHTP, there is a weakening El Nino. This El Nino should become "neutral" by June/July. A non-existent El Nino means late spring storms should track further N, and likely not have as much potential influence on the SHTP course as during an El Nino year. In non El Nino years, the EPAC High becomes the predominant weather feature of the EPAC in early July, two weeks after this year's start.

2010 competitors can thank SSS Commodore Bill Merrick and SHTP RC Co-chair Bob Johnston for scheduling this year's SHTP for maximum moon, something the Pacific Cuppers three weeks later will not have in their favor. Full moon is June 26th, or about halfway. Bug Lighters are blessed, as a bright moon makes the passage infinitely more enjoyable. And safe.

Nevertheless, there will be dark nights. For apparent wind direction, nothing beats an aft facing Windex at the masthead, lit by a tri-color light. Also, white nylon spinnaker cloth telltales, hot knifed into 1"x16" strips from sailmaker's scraps, and lit by a flashlight or headlamp, serve much better than wet or dark yarn. Even toilet paper taped to the weather shrouds makes an inexpensive night (or light air) wind instrument.

I like to tape over the steaming light, leaving just a slit to light the fore triangle during dark squalls. A dimmer switch on the steaming light is a more hi-tech alternative. For those relying on wind instruments, two thoughts: Wind instruments are only as good as the calibration and lighting. When sailing off the wind, if the instrument wand is facing forward, it may suffer directional interference from the masthead and/or spinnaker upwash.

Word to the Wise: The compass light will fail at some point. Take a couple of spares that can be easily plugged in. And when the compass light does fail, don't place a flashlight near the compass.

Further Thoughts on Prep:

COLD: If the hardest part of the SHTP is untying the docklines, the second hardest is the

first night at sea. Prepare for cold, wet, and rough the first couple of nights, with thermals, fleece, good foulies, and clothing redundancies. Decisions made when wet, tired, or seasick can be compromised, and errors compounded. Cloud cover out to 135 degrees W is the rule, not the exception. In the '08 SHTP we did not see the sun until Day 8.

DRY: Importance should be given to having a dry and dedicated weather/nav area. This can be as simple as a portable lap board. Readily accessible, besides the SF-Hawaii chart, cut/ folded to cover the course, is a second chart with winning tracks from previous SHTP's, and Pacific Cups. In absence of a chart plotter, a pad of plotting sheets (available for less than \$10) is good value. Plotting sheets can be lined at the appropriate latitude, and 10 degree increments of longitude. Call me old fashioned, but on a small boat with limited electrics and a vulnerable and power hungry computer, I use plotting sheets to plot my course, positions of fellow competitors, note sail changes, barometer readings, plot downwind jibe angles, etc. Ultimately, these plotting sheets, 4 or 5 for the course, act as my hard copy log of the Race for current and future review.

HOT: As the fleet passes halfway and sails SW into summer, the sun will be almost directly overhead at Local Apparent Noon (LAN). Being on deck without shade can be debilitating. A umbrella clamped to a stanchion or small awning/bimini, a good sun hat, a fan over the bunk, and a flower misting squirt bottle all become invaluable. For the second half of the SHTP, consuming 1 gallon of water/day was my norm to stay hydrated.

SLOW: From the start out 200 miles to 125 W, loose kelp, and to lesser extent kelp paddies, can hang up on keels, rudders, props and struts, causing degradation of speed. Further W, out past 135 W, and increasing approaching Hawaiian waters, all manner of plastic debris, monofilament nets, net islands, and polypro rope become obstacles. 25-50% of SHTP competitors will likely snag something, and may not realize the problem, especially if an autopilot or windvane is steering.

Absent bottom windows, kelp cutters or an expensive and fragile endoscope, there are several clues that something has hung up: 1) By disconnecting the windvane/AP and hand steering once/hour, one is more likely to feel vibration caused by snagged debris. 2) By charting hourly average speed and distance, it is more likely to notice a slowing in boatspeed. 3) By heeling or broaching the boat and hanging over the side, sometimes trailing debris can be visually seen.

As preventive maintenance, at noon every day, I would back down WILDFLOWER. The peace of mind was worth the approx. two minutes lost to perform this maneuver, which usually involved dropping the jib, twins, or spinnaker, and backing the main with a preventer.

The other "in extremis" alternative, not recommended for solo sailors, entails "parking" the boat by lowering all sails, deploying a drogue, using a long tether and swim ladder, and donning mask and fins.

PRESSURE: A calibrated barometer, even wrist watch style, is a must for the SHTP, and return passage. Calibrate to Oakland airport reading prior to start. Save time: rather than recalibrating, simply note error on the barometer, to be added or subtracted when logged. Pressure readings, logged at four or six hour intervals, can be a significant tool in reconciling observed weather with weather fax charts, GRIB files, WWV reports, approaching tropicals, etc. Most importantly, the barometer gives confidence in routing around the EPAC High.

GUEST NAVIGATOR: The choice of a "Guest Navigator" (or navigators) can and should be made by each competitor. After the SHTP start, NO WEATHER or ROUTING INFO may be relayed from wives, friends or weather routing sources. However, competitor's ROLL CALL POSITIONS, COURSE and SPEED only, may be relayed from shore stations via e-mail/ Sat Com voice, or SSB/ham

Wind/sea reports can be exchanged between competitors via VHF or SSB public channels.

There is no shame in pre-identifying experienced Transpac competitors and keying off their daily roll call positions and courses. This is your "Guest Navigator." In 2008, I chose ALCHERA, POLAR BEAR, and HAULBACK as WILDFLOWER's "Guest Navigators." All three had strong SSB signals, and two were previous SHTP overall winners. Not by accident, POLAR BEAR and WILDFLOWER's tracks were ultimately similar. Though POLAR BEAR was over 100 miles ahead at halfway, it was a confidence builder running in Eric's wake, knowing he was sailing in good wind. ALCHERA, ahead and initially on a more northerly track, was my "probe" for wind conditions closer to the EPAC High.

PART 1: EXITING SF BAY

Wi-Fi Internet access is available in the vicinity of Corinthian Yacht Club, an invaluable tool for pre-race GAME PLANNING.

PassageWeather.com gives winds, sea, and pressure forecast charts in vivid color out to 7 days, (remember to subtract 7 hours from UTC for local time.) The Farallon Islands have a webcam which also gives current wind speed (add 7 knts.) and direction. With many weather tools available, and pre-race distractions walking the CYC docks, GAME PLANNING can become overwhelming. The key is keeping it simple, writing in a notebook, and not getting too far ahead.

Weather forecasts, quite reliable inside 72 hours, begin to degrade in reliability outside 3-5 days. Routing programs and suggested courses from professional services, though helpful in seeing the big picture, can be misleading and take competitors too close to the

EPAC High.

With prop shafts sealed, CYC graciously offers towing to all boats the morning of SHTP start. Smaller boats may choose to sail off the dock. Starts will be on an ebb tide, three hours before slack current at GG bridge (1410), and six hours before max flood (1715). This tide cycle nicely avoids beating into a building flood tide in late afternoon.

SHTP competitors unfamiliar with the race course from the CYC start as far as Mile Rock/Pt. Bonita, should practice navigating that area. Clearing SF Bay and its obstructions, traffic, wind and tidal zones is not trivial. Equally important, a small separation of boats in the first 10 miles can accordion into hours, even days of advantage at the Finish. Not being clear of land by nightfall can make for a long first night at sea as the afternoon seabreeze dies at sunset near shore, and fades westward into the Gulf of the Farallones by midnight.

There is significant snow melt runoff this year. This freshwater runoff increases the surface ebb tide, and delays the flood tide. The fastest outgoing (and most favorable) tide will be in the choppiest and muddiest (brown) water, in contrast to flood tide, which is more green/blue ocean water.

Deeper water will have more favorable ebb current until at least 1430 hours. A depth sounder is a good tactical tool early in the Race. Visually, tide lines can be quite distinct. Race day's ebb tide will have the effect of increasing apparent wind by several knots as boats are set westward.

Inside SF Bay, the SW-W seabreeze begins to build by 1100., reaching max velocity of 20-25 knots or greater between 1300-1600 hours. The most wind will be just E of the GG Bridge where land narrows the channel and funnels the wind and current.

Outside SF Bay, the afternoon sea breeze builds a little later and can often be seen as a whitecapped windline approaching from the NW. The seabreeze veers from SW to W during the afternoon, favoring boats north of the Bar Channel on the inside of the lift.

Although June can be the windiest month inside SF Bay, the inboard (N) end of the CYC start line lies in the lee of Belvedere Peninsula, resulting in light and swirling winds in this area. Consider starting near the outboard (southerly) end of the line, which is closer to the building windline funneling in through the Golden Gate, and in more favorable tide.

Due to the ebb tide, if it is light wind at the start, racers run the risk of being swept across the line early. Be sure to make a pre-start current check at the outboard end inflatable starting buoy. A range transit on the CYC flagpole and clubhouse in the background can be used effectively to tell when one is near or on the start line.

Just south of the start line, Angel Island is steep-to on its north and western shores. Lighter winds and starboard tack headers are found close aboard Angel Island as the

westerly seabreeze lifts up over Angel.

From the Start, if not laying Angel Island on starboard tack, would suggest sailing closehauled up to Pt. Stuart before tacking to port. This has the benefit of catching the (ebb) tidal race in this vicinity and being set boldly to windward. Again, practice will pay dividends. Especially if practice sails are made during similar tidal cycles to the morning/afternoon of June 19.

Crossing SF Bay, the wind is likely to make up quickly, catching the unaware with the wrong sail combo. The first jib change/reef, shortly after the start, with the lee rail awash and spectator traffic photographing from close aboard, is not a pleasant prospect. But should be anticipated.

Outside the GG there is often less wind, more lump, more low clouds and fog, and lower visibility, leaving competitors initially overdressed and underpowered. A friend with a cell phone, stationed on the Marin Headlands or Lands End, can give wind, sea, and visibility reports to competitors before the preparatory signal. Again, no private weather info may be received from shore after racing commences, not even "Honey, its windy out here, I'm freezing, and I can't see you!"

Commercial shipping, inbound or outbound, will cross the SHTP fleet at some point early in the Race. Although Bar Pilots and the Vessel Traffic Service (VTS) will be aware of the outbound SHTP Fleet, **COMMERCIAL SHIPPING HAS RIGHT-OF-WAY AND SHTP RACERS MUST STAY CLEAR.** In addition, COLREGS Rule 10 states that "so far as practicable, a vessel shall cross a traffic lane on a heading as nearly as practicable at right angles to the general direction of traffic flow."

Anticipation is key.

VHF Channel 14 is used by VTS for all commercial vessel movement within SF Bay. VHF Channel 12 is used by VTS for shipping in the three coastal traffic lanes and within a six mile radius of the "Lightship" (San Francisco Sea Buoy.)

Updates on ship movements outside SF Bay are given at 15 and 45 minutes after the hour by VTS on VHF 12. What will be heard is commercial vessel name, bearing and range from the San Francisco Sea Buoy, course and speed, and ETA information. AIS also is an invaluable tool near shore. But AIS is visual rather than audible, and likely requires going below into a darkened and bouncing cabin to see what's coming.

Inbound commercial shipping, after picking up a pilot near the "Lightship" will be coming down the narrow and buoyed Bar Channel at speeds 12-20 knots. Commercial ships passing abreast constricts the Channel further.

Inbound shipping slows to 12 knots in the vicinity of the Golden Gate Bridge and crosses under the GG Bridge near Center Span. Inbound shipping then generally stays on the City Front (SW) side of the Bay.

However, Inbound ships sometimes transit the "North Channel" between Alcatraz and Angel Is. if they are very deep draft or headed "Upriver." To see which side of the Bay inbound traffic will use, watch which way the stern is moving as the ship passes under the GG Bridge.

Outbound Shipping leaves Alcatraz to port, Harding Rock Buoy to Port, and Angel Island to starboard, before turning to port for Center Span of the GG. Outbound shipping in the Bay will be traveling at speeds to 12 knots, before accelerating to full speed once under the GG.

High speed passenger ferries and chubby Red and White tour boats have sail savvy captains, and will attempt to stay clear of SHTP racers. Tug and Tow are wildcards, often slowing to adjust towlines in SF Bay Approaches. Tugs without tow shepard all transiting tank ships, and these tugs are usually positioned close astern of the ship. Pilot Vessels are orange. Close encounters with slow moving or stationary fishing vessels should be avoided at all costs.

Suggested reading is USCG's Vessel Traffic Service San Francisco User's Manual, available at <http://www.uscg.mil/d11/vtssf/vtssfum.asp>

GAME PLAN recommendation for Exiting SF Bay on Race Day is: In ABSENCE OF SHIPPING, stay in deep water in center Channel for best ebb, and away from bays near the shoreline, where the early flood will be. IN PRESENCE OF SHIPPING, stay out of the Channel and well clear.

The start will likely be in light airs and wide variations of wind direction/speed near the start line will likely prevail. Don't be early, don't be late. Be prepared for building breeze after 1100.

And keep jib sheets clear and flaked so as not being caught aback in an unplanned tack thrown at you by the South Tower Demon, and his brother who lives over at the North Tower of the Golden Gate Bridge.

PART 2 CROSSING the GULF of the FARALLONES

With the Golden Gate astern, a line between Pt. Bonita on the N side of the Channel and Mile Rock to the S marks the entrance to the Gulf of the Farallones. Both Bonita and Mile Rock have washing machine conditions close aboard, with square waves caused by tidal rips in their vicinity. They are best left at a distance of .25 mi or more on Race Day.

However, .25 mi distance off from Bonita or Mile Rocks puts one very close to East and West Bound Traffic Lanes. And navigators must be alert for possible oncoming shipping and stay clear of whichever lane(s) is/are being transited.

The Gulf of the Farallones begins with a shoal expanse of coastal water westward to the horse-shoe shaped San Francisco Bar. The San Francisco Bar Channel (Main Ship Channel) bisects the Bar and is dredged to a control depth of 55 feet. The Bar Channel is 2000 feet wide, and marked by eight buoys, (4 red, 4 green.)

On the horseshoe shaped Bar, outside the Shipping Channel, the water depth is 20 to 30 feet less: about 25-35 feet over the North Bar, and 35 feet over the South Bar. This is shoal water indeed, and during Winter, Spring, and Fall, the SF Bar can break heavily and dangerously. Luckily for SHTP racers, the Bar rarely breaks during June-August, and can be transited with caution at any point outside the Shipping Channel, as long as the latent swell is 10 feet or less.

Unless there is zero commercial traffic in the vicinity, SHTP racers really should stay out of the Main Ship Channel as far as the " Lightship." (The Lightship is no longer a lightship, but a large red/white navigational buoy marked "SF" where the pilot vessels hang out.

Commercial shipping slows to steerage in the vicinity of the Lightship to briefly embark or disembark their pilots, using the NW, SW, or S designated traffic lanes as their approach or departure.

Experienced local racers take advantage of an ebb tide by staying in the deepest water on the edges of the Channel, just outside the Channel buoys.

If all goes well, the SHTP fleet should be in the vicinity of the Lightship, perhaps several miles south, at about 1500 hours.

West of the Lightship, the heave of the ocean swell begins to be felt. It is 26 miles, 240 degrees m from the GG Bridge to the vicinity of the SE Farallon Island

In most SHTP races, the Farallones are left to starboard at an approximate distance of 5-7 miles This is because an approximate course to Point A on the SE lobe of the EPAC High is around 225m.

For practical purposes, until the building WNW afternoon seabreeze fills and one can steer a consistent 225m, the SE Farallon should be considered the "windward mark." This is a better proposition than leaving SF Bay, turning left at Lands End, setting the self steering, and languishing in lighter airs near Pt. Montara overnight.

Fog and low clouds predominate in the Gulf of the Farallones in June. The SE Farallon may not even be sighted. Bird and sealife in the area is plentiful. In the '08 SHTP a sealion came aboard FERAL for a visit, and Tom had to discourage the pinniped and defend his ship by snapping a foulie jacket.

In the Gulf of the Farallones, ocean swells are topped with short steep wind chop any

time the wind gets above 16-18 knots. If all goes well, the majority of the SHTP fleet should be south of the Farallones by dark, on starboard tack, with sheets beginning to be eased on a close reach., as they head for Pt. A, 450 miles, and 3-4 days to the SW.

But not quite so fast. 25% of races from SF to Hawaii experience a "Southerly Surge" or reversal of the predominant NW wind in near shore waters. A "Southerly Surge" is a weather phenomenon that begins in Southern California, usually at the end of a heat wave, and migrates up the California Coast at a speed of 15-20 knots. It is characterized by stratus, low clouds, fog, and light winds from the SW through SE.

Southerly Surges are very visible on satellite photos before the start. They are also characterized by rapid reversal of wind direction, from NW to S at coastal and near shore weather buoys.

Southerly Surges were experienced at the starts of the '06 and '08 SHTP, making for light airs, even drifting as the fleet crossed the Gulf of the Farallones and beyond.

The problem with a Southerly Surge event is Hawaii is dead to windward. Port tack takes you in the direction of Alaska, and starboard towards Mexico. Some racers in Southerly Surges have passed Pt. Reyes close aboard. Others have seen the lights of Half Moon Bay.

The influence of a Southerly Surge can be felt for several hundred miles, as far west as 124-125 W, where a transition to the normal NW gradient wind from the NW is made.

What to do if a Southerly Surge is occurring or in the forecast?

First, know that your race will be slowed by 1-2 days at the outset, and shipping extra water before leaving the dock may be a prudent call.

Second, put on your light air thinking cap, toilet paper telltales, and hand steer as much as you can. Because most autopilots and windvanes will not respond well to the light and variable winds of a Southerly Surge.

Lastly, get West as fast as possible, because a Southerly Surge will eventually dissipate, usually beginning from the north and extending to the south. Boats positioned to the north and west usually will get the new wind first.

GAME PLAN for crossing the Gulf of the Farallones: When leaving the Golden Gate, consider the SE Farallon Island the windward mark until such time as a course of 225m can be made. If the forecast is for NW winds 10-20, or 15-25, initially be on the north side of the Main Shipping Channel to meet this wind first. Be alert for shipping in the Gulf of the Farallones. If a Southerly Surge event is occurring, all bets are off and timing is going to be delayed.

PART 3: ACROSS THE WINDY REACH

West of the Gulf of the Farallones lies the “WINDY REACH.” In late June, early July, the EPAC High is centered 80% of the time north of 28N and west of 133W. Between the EPAC High, and Low pressure inland over Southern CA/Arizona flows a cool NWerly breeze from 310 m called the WINDY REACH.

Crossing the WINDY REACH, we steer for a critical waypoint I like to call "Pt. A." This mythical Pt. A lies somewhere on a north/south line along longitude 130W. The reason Pt.A is such a critical point is that in a typical year, Pt. A lies on or near the SE RIDGE or lobe of the EPAC High. Once you cross this RIDGE of lighter winds, barometric pressure stops its slow rise, the wind comes aft and builds, and the NE Trades fill in south of 29N x135W.

To paraphrase Stan Honey,

"As you left the Coast you made your decision where you wanted to cross the RIDGE (130W), you sailed there, and now you have to live with it for four or five days. If you are too far to the north, you will be slowly destroyed by the yachts to the south of you, and there is nothing that you can do about it..."

Stan goes on to say: "The central question concerning course selection is: how close to sail to the High, or how many extra miles to sail to get farther from the High. In years when the Pacific High is weak or weakening (<1026 mb) and positioned well south, there can be strikingly more wind to the south. This condition can persist for the entire middle third of the race. Occasionally, however, the Pacific High will be strong or strengthening (>1032 mb), and located far to the north. In these conditions, it IS possible to be too far south. The boats that sail closer to the high will not only get more wind, but will sail the shorter distance.

If you are racing a light displacement boat, it is likely worth sailing extra miles to the south to cross the WINDY REACH on a broader point of sail. Then after crossing the RIDGE, a ULDB may well have more wind to the south to mitigate the extra miles sailed.

On the other hand, a heavier displacement boat that reaches hull speed sooner may not need to reach to the south to find a better wind angle and/or more wind. The average speed of a displacement hull will likely not pay for extra distance sailed to the south.

Thus the axiom has grown over the years that for the SHTP, heavier displacement boats can sail closer to the EPAC High and plod down the Rhumb Line at hull speed, sailing minimum extra miles, while the ULDB's burn up the ocean further south, sailing several hundred miles more.

Whether this axiom is true depends, like most everything else in this race, on the location

of the center of the EPAC High.

Crossing the WINDY REACH, the barometer will slowly rise from approximately 1015 mb. near San Francisco to near or slightly above 1020 mb. at Pt. A. It is best to maintain a distance of at least 7-8 millibars from the center of a moderate strength EPAC High (1026-1032 mb.) In other words, if the EPAC High center is forecast to be 1028 millibars at position 38N x 145W, a safe place to cross Pt.A would be near the 1020 or 1021 isobar. probably near 33N to 34N.

Keep in mind the center of the EPAC High can bounce around many hundreds of miles in just a few hours. Usually this change in position of the jello like EPAC High predominantly varies in an E/W direction, more than N/S.

Depending on the position of the High, and its circling isobars, Pt. A could be crossed as far south as 27N x 130W in an abnormal Transpac year like 1979 and 1980, especially if the High is weak and well to the south.

Or as far north as 34Nx 130W if the High is strong and anchored well to the north and east, offshore of British Columbia.

Generally, Pt. A sits somewhere in the vicinity of 31-33N x 130W. You do not have to sail directly through Pt. A. It is only a reference point to aim for. If you happen to see a buoy marked "A" near 32x130 as I once did, you might want to think about catching up on sleep.

Crossing the WINDY REACH in rough conditions, as well as ship's leeway, there is a surface current up to 1 knot flowing North to South to add to computations.

In 25 knots of NW wind, you might be sailing at a speed of 6-7 knots to the SW. But also making 1.5 knots of leeway and drift to the south. For the first three days of the SHTP, I add in 10-12 steering degrees, or 35 miles/day, of southerly set.

Just before the sun sets on the first night of the SHTP, somewhere abeam the Farallone Islands, it is time to take stock as to what sail combination will be best to wear entering the WINDY REACH. Although a half moon will be overhead this year at the start, after dark in rising wind and seas is not a good time to be experimenting with sail combinations and steering adjustments.

In a normal year, or 50% of the time, the NW GRADIENT wind will blow 20-30 knots during the WINDY REACH. A reefed or deeply reefed main is often the best choice. As is a small, or reefed headsail. Familiarity with one's boat pays dividends: The key is having an almost neutral helm. Severe weather helm will soon overwhelm an autopilot, or put the windvane into a state of rebellion.

With a 310m True Wind Direction (TWD), and a boat speed of 6-7 knots, the Apparent Wind Direction (AWD) on a course steered of 225m will be about 75 degrees from the

bow. Or a Close Reach/Beam Reach point of sail.

In 25 knots of wind, for best neutral helm, the working sail area will be concentrated forward. A #4 jib, staysail, and double reefed main was the standard combination WILDFLOWER carried crossing the WINDY REACH. In the 1978 SHTP between 0300 and 0900 hours on the first night/second day, I dropped the main altogether in 30 knots of wind, and carried on under #4 and working staysail.

The windward jib sheet can be led around to the leeward rail for an outboard lead that opens the slot. And provides a safety backup.

Unused working and storm sails, less spinnakers, can be securely lashed to the weather rail. Sails lashed to the weather rail help divert water on deck from gushing aft into the cockpit.

Before dark the first night on the WINDY REACH I recommend making sure all gear that can be washed overboard by a breaking wave coming from the starboard beam is well secured: safety lines on solar panels, a safety line on the above deck tiller pilot, and a line securing the windvane sail to the boat. Also, if you carry cockpit weather cloths, the leeward (port side) weather cloth should be removed. And the windward (starboard side) weather cloth secured with breakaway ties on its bottom edge.

Loose halyards are best tied off from the mast to prevent distracting slapping and chafe during the night.

All loose sheets, halyards, and reefing lines should be well stowed so their tails don't wash overboard and tangle in the prop or rudder. Through hulls closed and pressure water systems turned off. A hospital urinal serves as a pee bucket, and can be emptied out the companionway hatch.

The computer is either well secured with lid closed, or stowed out of Harm's Way altogether. And an assortment of flashlites are readily available. Including a bright spotlight for illuminating sails if oncoming commercial traffic is in the area. Ambient illumination in the cabin is provided by several glow sticks. Foam ear plugs help reduce the cacophony of sounds, but are removed at regular intervals to listen for ?. If it is really rough, I wear a bicycle helmet, or double watch caps for head protection if thrown across the cabin.

If you are sleeping to weather, a full length lee cloth 12" high above the bunk cushion, is the only thing short of seat belts that will keep you in the bunk. Alternatively, resting on spinnaker bags, pillows or a bean bag on the cabin sole is at the least point of motion, and provides ready access to the AIS and cockpit.

Handy wipes, wash cloths, and a thermos of hot water help keep facial salt encrustation at bay. At night, KGO talk radio, AM 810, can be listened to almost halfway to Hawaii.

As it begins to get dark the first night, I like to identify boats in the vicinity, enter their bearing and distance on my plotting sheet, and note their running light configuration.

Commercial shipping from Panama to Asia crosses the fleet at right angles during the WINDY REACH. Mysteriously, it seems if there is a ship in sight on the horizon, there is a 50% chance it is on a collision course.

On deck, a tether should be snugged to windward with no slack that could potentially launch the skipper across the cockpit. Just being clipped to the jackline is not sufficient in breaking seas: take a couple of wraps around a weather winch.

The WINDY REACH, the first third of the SHTP, can be exhilarating if prepared mentally and physically. Or terrifying if breaking seas are ripping gear from the boat, the cockpit is filling, and the cabin is in disarray.

If a repair or sail change is in order, consider bearing off downwind to an AWA of 165 to lessen the impact of wind and seas while on deck.

After 36 hours at sea, the wind and seas will slowly begin coming aft, the motion will steady, and maybe it's time to shake out a reef. Just don't forget the reef ties.

GAME PLAN for the WINDY REACH: Chose Pt.A based on future best estimate of position of EPAC High and the isobars on its southern perimeter. Secure all loose gear and line. Keep tether taut if rough. Stay warm. Keep the boat balanced with neutral helm.

Next up: SLOTCARS

PART 4: BUG LIGHTERS in SLOTCARS

The middle third of the SHTP has been dubbed "SLOTCARS" by former SHTP winner and SSS weather treasure Stan Honey. The reason is each Bug Lighter has chosen his/her lane to cross the RIDGE. And must now live in that lane until the "SLOTCARS" section ends. SLOTCARS ends when the wind veers far enough to the East (080m) so Hanalei is Dead Down Wind (DDW) and either jibe may be sailed.

As one nears the conclusion of the WINDY REACH and approaches Pt. A on the SE RIDGE of the EPAC High, the prevailing NW wind (310m) has slowly veered into the N (350 m -010 m). The wind is also decreasing in velocity and becoming puffy. Seas smooth, and the swell drops to 3-5 feet. Dark "cats paws" puffs can be seen approaching from windward. Sailing on starboard tack, puffs are 15 degree headers, while lifts predominate in the lighter wind between puffs.

Many miles can be won/lost as one begins SLOTCARS. Three big gainers against less aggressive sailors can create a "jump" during SLOTCARS:

1) With the wind oscillating both in strength and direction, a windvane, or AP set to AWA, will sail the boat extra miles in zig-zagging fashion. Rather than keeping one trim setting, and wandering all over the ocean, it is better to hand steer as much as possible, or set the AP to steer to a compass course, and trim the sails.

Trimming while steering means having the main and headsail sheets readily at hand. I accomplished this on WILDFLOWER by "cross sheeting" the leeward jib/spinny sheet to the windward primary winch, just forward of my helming position.

2) By setting light sails, especially a reaching spinnaker, before other competitors, 1-3 knots extra boat speed (BS) can be gained. Sailing with a heavy jib with the wind light and aft of abeam is just plain slow. The tendency is to wait too long, usually 6-12 hours, before setting light sails.

3) With the breeze going light and aft, creating apparent wind becomes critical, even in a heavy displacement vessel. When the ocean's surface is wrinkled, but the sails are hanging, head up more onto a reach, and get the boat moving. This speed creates apparent wind, which in turn creates more boat speed, and more apparent wind. SLOTCARS, more than any other part of the SHTP, is all about creating apparent wind.

Eventually in the vicinity of 135 W the wind will start to build, and patches of blue sky will begin to shine the sun's rays on distant patches of ocean, creating a wonderful lighting effect. The nearly full moon makes night time sailing delightful. The boat is slightly heeled, and water sings along the leeward rail. A bucket bath becomes a possibility as the water temp rises into the mid-60's.

If you haven't before, now is a good time to check for things stuck to the keel, rudder, and prop (see INTRO.)

Pt. A has been left astern. Pt.B is now entered in the GPS as your next waypoint, 100 miles upwind of Hanalei at 23N x 158 W. Once again, Pt. B is only a reference point. Chances are, unless flying twin jibs, you won't be steering directly for Pt. B once past the Halfway Mark at approx. 28x140.

SSB chatter begins to increase, especially just before and after Rollcall. The occasional Matson container ship from the West Coast (Oakland or LA) to/from Hono will be passing on almost a parallel course. Most Matson watch officers are avid sailors and enjoy a brief chat on the VHF.

MOKIHANA, Matson's only RO-RO ship, sails from Los Angeles for Hono on Sat. afternoons, and is especially easy to identify with a giant multi-story car garage on the after part of the ship.

MOKIHANA's sister (without garage), MAHI MAHI, runs the same route on opposite weeks. (Oakland/LA/Hono/Oakland.) Leaving Oakland direct for Hono on opposite

weeks are the MANOA and the KAUAI.

All four Matson ships have their bridges forward, travel at 22 knots during their 4 day passages, and have excellent bridge lookouts and radar watches. During normal weather, their radar and lookouts will "see" you at approximately 12 miles.

Though not weather or tactical related, we would be remiss to ignore the Night Sky. As the low overcast, even drizzle, of the WINDY REACH gives way to more tropical conditions, big patches of night sky open. Several times/night, bright yellow green meteors ("shooting stars") may illuminate the sky with their streaks of light.

For the uninitiated, these meteors may be mistaken for flares. Enthusiastic, but false reports of flares drives the Coast Guard nuts, as they have to conduct an investigation. These reports have been a plague of past Transpacs. As a reminder, a distress flare is red and floats slowly downward on a parachute.

Offshore, Naval and Coast Guard vessels predominantly run darkened at night. (No running lights.) Sometimes these military vessels will shoot off brilliant white phosphorus flares that light the night sky for many miles as they conduct search operations.

Astern, the brilliant planet Venus rises an hour before sunrise and heralds a new day. One sleep deprived Bug Lighter once conducted a radio conversation with Venus, believing it to be the steaming light of an oncoming ship.

Lastly, I challenge all racers to identify Hokule'a (Arcturus). Just remember Hokule'a is one of the brightest stars, and can be found by using the "arc" or handle of the Big Dipper as a pointer.

Early Polynesian navigators sailing double hulled canoes from Tahiti and the Marquesas used Hokule'a, the "Star of Joy," as a navigational star, as it passes directly overhead when reaching the latitude of Hawaii. These early Hawaiians, knowing they had reached the latitude of Hawaii, would then sail west in the trade winds to their landfall.

PART 5: THE RUN.

You have weathered the WINDY REACH, passed the RIDGE, sailed under the EPAC High during SLOTCARS. And now the last third of the SHTP is the RUN.

You know that you have safely passed under the High and entered the Tradewinds when the barometer starts a gradual descent from its high of 1020-1022 mb. By Hanalei, the baro will have dropped to an average pressure of 1015 mb.

In absence of Weather Fax and/or GRIB Files, a sure way to locate the direction of the center of the EPAC High is to stand facing into the True Wind. Assuming the True Wind

is coming from 12 o'clock on a clock face, the center of the EPAC High will be to your left, at 10:30 on the clock face.

During the RUN, the wind speed and direction is generally even across the course. With the Finish DDW, you will be trying to sail the closer or favored jibe towards Hanalei. The further south and west you sail, the further the Tradewinds will veer, generally settling in from the ENE or approx 75 m.

This slow veer means the right hand side of the course is favored for the RUN, and generally you will be sailing on starboard tack more than port, even crossing north of the rhumbline during latter stages of the SHTP.

5-10 degree shifts come through on an irregular and unpredictable basis. Unless you are racing on a fully crewed boat set up to jibe frequently, these small shifts are not easy to take advantage of when solo sailing.

However, during and after squalls, the wind may shift more dramatically. If you find yourself lifted on starboard and steering DDW on a compass course of 280m or above, it is time to immediately jibe to port. Likewise, if you are steering DDW on port on a compass course of 200m or below, it is also jibe time. These are your "fences," and should be religiously minded.

Tradewind squalls, especially during the night, become a regular feature of the RUN. Generally, a squall will veer the wind 15-20 degrees to the right from the prevailing wind. The windspeed will also increase in a squall 10-15 knots for a short time.

Much has been written about squall management during Transpacs, especially aggressively jibing in front of a squall. But these articles are from the point of view of faster and fully crewed racers. For SHTP racers, if possible, it is best to avoid squalls, as the brief increase in wind can cause havoc with sails, wrapping spinnakers and setting twins aback. The wake of the squall then leaves a period of light and frustrating sailing until the squall moves on or dissipates, and the Trades fill again.

If a squall can't be avoided, it is best to sail through the squall on port jibe, and exit "stage left." The reason is a squall is moving to the right of the path of the surface wind, and port jibe lets you diverge rapidly from the light air behind a squall. Exiting "stage right" behind a squall is fraught with peril, especially near dawn, when the risk of getting becalmed increases.

In 2008, the Olson 30 POLAR BEAR had a particularly simple and successful strategy for dealing with squalls: Eric would fly his spinnaker during the day, leaving it up until the first squall hit at night. Then he would drop his chute, wing out a jib for the rest of the night, and reset at first light.

For the RUN, a favorable surface current of up to .75 knots can be expected to boost daily runs 10-15 miles

Sheet and halyard chafe can take its toll during the RUN. Chafe patrol should be ongoing. A spinnaker sheet sawing under the boom will soon wear through the cover. An "outgrabber" that pulls the spinny sheet outboard on the boom will generally do much to reduce chafe.

Halyard chafe is also a constant. Even the main halyard is not safe. If the main halyard is rope, it may lead over the sharp edge of the masthead sheave as the headboard swings to right angles on a run. Chafed rope halyards and guys can be quickly shortened using a buntline hitch. A chafed sheet can be shortened and end-for-ended multiple times.

Except for the steering gear, there is no greater strain than that put on the boom gooseneck, and on the inboard pole end mast track. Both the gooseneck and mast track take extreme side loading for which the thin wall of an aluminum mast is the weak link. Goosenecks and mast tracks fail in every race, and cannot be made too strong. A banding tool is recommended equipment.

Dipping the boom can also break the boom at the boomvang. It is good to have the boom reinforced in this area with internal or external sleeving. And to use a weak link or renewable "break away" attachment that blows before the boom breaks (3/16" line?)

Twin jibs are a boon to singlehandlers, especially those with heavier displacement boats. Twins allow sailing DDW. The tradeoff is most boats roll horribly. By reaching up slightly with twins, not only is the roll eliminated, but the main can often remain set, as it no longer blankets the leeward twin.

Poles winging out twins should each be set with a topping lift and a taut foreguy. Should the windward twin go aback without a taut foreguy, the pole may wrap around the windward shrouds.

The RUN is the most fun part of the SHTP. At some point, every racer will be surfing waves with tradewind popcorn clouds floating overhead. Over the horizon, Hanalei beckons.

GAMEPLAN for the RUN: Sail the closest jibe towards Pt. B (23N x 158W.) Exit stage left from squalls. Don't fly a chute on a squally night unless you are hand steering and ready for eventualities. Mind chafe, and keep an eye on the gooseneck and mast track.

PART 6: THE FINISH

The downwind sprint from Kauai Approach Point, "Pt.B" at 23N x 158W, is 100 miles at 225m to the Finish Line off Puu Poa Pt., just east of the entrance to Hanalei Bay. Land starts to become visible at about 20 miles. The island of Kauai has rugged mountains and ridges. Mt. Waialeale, at 5148 feet is one of the rainiest spots on Earth and rarely visible. Most higher elevations are obscured by tradewind clouds stacking up on windward

flanks.

At night, the loom of the main city of Lihue on the eastern shore will be visible to port, along with its rotating airport beacon. Almost dead ahead, and slightly to port will be the famous Kilauea Pt. Lighthouse, 5 miles east of the finish line. Kilauea light becomes visible at about 15 miles.*

Except for the condos on the cliffs at Princeville, the North Shore of Kauai between Kilauea and Hanalei is predominantly dark at night. The anchorage and anchor lights of boats in Hanalei Bay will not be visible until after finishing. There are no navigational aids at Hanalei. Because there is land between approaching finishers and the Race Committee stationed on the Princeville cliffs, VHF contact with RC will likely be intermittent at 10 miles and not consistent until 5 miles or less.

VHF Weather, and Channel 16 Coast Guard has good range, at up to 100 miles offshore. FM Public Radio station KKCR Hanalei is available at 90.9 and 91.9, and gives local news, weather, and surf reports.

The run to the finish is straight forward. During late night and early morning, the Tradewinds die away near land (to 5 miles offshore), and the wind shifts to a more offshore direction. The strongest wind at the finish, usually 18-20 knots from the East, will be during the afternoon. Rain squalls are frequent but short lived on the North Shore. Night time rain can be intense for short periods, but electrical storms are non-existent in summer.

If you cross the finish line on port tack, prepare to either jibe or put on the brakes, as there is not much runway ahead with reef extending north and eastward from the entrance to Hanalei. The sail into Hanalei Bay anchorage is a port tack reach during the day. And a light air beat at night. Entrance into Hanalei should be approached from the N, avoiding the reef and surfing spot east of Puu Poa Pt. You should not see less than 40 feet of water both on the approach to the finish, and on the entrance into Hanalei.

The anchorage is in 25-40 feet of water, sand and coral bits, 1/8 to 1/4 mile off the eastern shore. The buoyed lane along the beach is reserved for swimmers and canoes, and should not be anchored in.

Congratulations and Aloha Nui! You have not only completed the Single Handed Transpac. But arrived at one of the most beautiful islands and anchorages in the Pacific.

* Kilauea Light, first lit in 1913, has certainly aided many Bug Lighters in their approach to Hanalei. But it is best remembered for assisting Lieutenants Maitland and Hegenberger aboard THE BIRD OF PARADISE, an Army transport plane. Just a month after Lindberg's historic transatlantic flight, the two lieutenants set off to attempt the first successful flight from the Pacific Coast to Hawaii.

A new radio beacon had been established on Maui and was to guide the BIRD during the

flight. However, 200 miles out of Oakland the plane's radio failed, forcing Hegenberger to rely on celestial navigation and dead reckoning.

After twenty-six hours of flight, the crew was extremely fatigued. They were low on fuel and should have reached the islands by that time. In this moment of desperation, a flicker of light off the left side of the plane caught Maitland's eye. He banked left and directed the plane towards the light. After circling Kilauea Point while waiting for dawn, the plane continued on to Oahu where it touched down at Wheeler Field at 6:30 a.m. on June 29, 1927

Kilauea Light had literally saved the lives of the airmen. Had the flash of light not attracted Maitland's attention, the plane would have likely missed the islands completely and eventually plunged into the Pacific.

PART 7: TROPICALS

Hurricane Season in the EPAC, east of 140 W, begins May 15. Tropical development in the EPAC is monitored by the National Hurricane Center (NHC) in Miami, FLA.

West of 140W, to 180W, the Central Pacific (CPAC) Hurricane Season begins June 1, runs to Nov. 30, and is monitored by the Central Pacific Hurricane Center (CPHC) in Honolulu.

Both Hurricane forecast centers are under the aegis of NOAA's National Weather Service.

On average, 15 named storms form each season in the EPAC. 87% of these named storms form below latitude 20 N. I estimate less than 25% of named EPAC Tropical Storms (TS) in June cross west of longitude 140W before they are downgraded, or dissipate. Even fewer TS develop west of 140.

The formation of a Tropical Storm begins and ends with a TROPICAL WAVE. Development then may proceed to a TROPICAL DISTURBANCE, A TROPICAL DEPRESSION, A TROPICAL STORM, and finally a HURRICANE.

In 50 years of Hawaiian racing, only one Tropical Storm has crossed tracks with a Transpac Race, that being TS BERNICE in the 1965 LA-Hono Transpac on July 11-12. BERNICE, tracking NW, blew 40-50 knots with 15-20 foot following seas from the ESE for 12 hours, and propelled TICONDEROGA to break the elapsed time record in her classic race against STORMVOGEL. Both 72 footers suffered damage.

During the 1978 SHTP, Hurricane CARLOTTA passed just south of the Big Island of Hawaii, then dissipated. The fringes of CARLOTTA's remnants, a tropical depression (TD,) brought clouds and rain over the leading SHTP finishers, making an approach to Kauai using celestial navigation problematical.

Tropical Storm development requires ocean water temps warmer than 80 degrees to support formation. A TS crossing into water cooler than 80 F (27C) degrees will promote dissipation.

The current (mid-May, 2010) water temp offshore of Kauai is 74 degrees. This temperature isotherm extends all the way to near Cabo San Lucas, Mexico. The water temp near Kauai may rise to near 75 degrees by mid-July

The SHTP fleet will be sailing SW towards Hawaiian waters. This course from the NE means the SHTP fleet will be sailing in cooler waters than would support TS development. Not to say it won't happen someday: Hurricane DANIEL <http://www.solar.ifa.hawaii.edu/Trop...ve/nep2000.gif> threatened the anchored Pacific Cup fleet in Kaneohe after the 2000 Pacific Cup.

DANIEL would have been the largest "TROPICAL" to reach the Hawaii Islands since Hurricane INIKI devastated Kauai on Sept. 11, 1992. DANIEL resulted in storm warnings being hoisted for the Big Island, Maui, Lanai, and Molokai, and a tropical storm watch for Oahu and Kauai.

Honolulu West Marine sold out of anchors and chain. 24 hours before landfall, DANIEL was downgraded to a Tropical Storm, and curved onto a path north of the Islands, bringing muggy conditions and high surf to Kauai. But no wind.

Besides Hurricane INIKI, only two other hurricanes in recorded weather history have struck Kauai: Hurricane DOT on August 6, 1950, and Hurricane IWA on Nov.23, 1982. The chances of a hurricane or TS hitting Kauai or affecting the SHTP fleet are slim. About 1%. If one were to threaten, there is no safe harbor, including Port Allen and Nawiliwili, on Kauai. The best option might be putting to sea and using Kauai as a shield, staying on the opposite side of the island from the hurricane's track.

Although the chances of a hurricane or TS are remote, their influences can be felt by Transpac racers far to the North. Most EPAC hurricanes form off southern and central Mexico, and travel W or NW, usually tracking between 10-20 degrees North Latitude before falling apart east of 140W. Cross swells from the South generated by a TS can reach the SHTP fleet. The beam-to swell can make downwind steering difficult.

More importantly, a dissipating TS will result in a "TROPICAL WAVE" or "S" bend in the isobars as it passes to the south. A TROPICAL WAVE is a trough of low pressure represented on a Weather Fax map by a vertical dashed or solid line traveling E to W. In summer, TROPICAL WAVES transit the EPAC and CPAC several times/month.

Most TROPICAL WAVES pass to the south of the Hawaiian Island Chain. Some, however, pass over Hawaii or even to the north.

In 1998, while at anchor in Hanalei Bay, the remnants of Hurricane Darby passed 200

miles north on 8/1, bringing torrential rain and light shifting winds to departing Single Handers heading back for the Mainland. The Hanalei anchorage became disorganized, with wildly swinging boats. 10 days later, 8/11-8/12, the remnants of Hurricane Estelle passed 60 miles north of Hanalei, causing the Tradewinds to reverse and blow from the West for 36 hours.

With the approach of a TROPICAL WAVE, the wind will initially back into the N. After the passage of the WAVE, the wind will veer into the SE, S, or even SW. And go light. Close reaching into a Transpac finish on port tack is not as unusual as might be thought. Maybe 1 in 10 Transpacific races are at some point affected by the backside of a TROPICAL WAVE.

After INIKI's damage, the National Hurricane Center really woke up. Predictions now are timely, and accurate out to 5 days or more. Hawaiian Weather and Civil Defense are also keenly alert, and warnings can be expected well in advance of any Tropical approach.

Tropical Development should not be a big worry for SHTP racers. However, attention should be paid to the possibilities. .

Weather/Tactics (Conclusion)

Throughout its 32-year history the Singlehanded TransPac Race (SHTP) has earned many epithets - courageous, heroic, masochistic, insane. . . In 1998, after 14 days in the cramped confines of his Moore 24, Greg Morris characterized our odd contest with his own irreverent spin: "This race is like a bug light for weirdos with boats."

And overheard at Tree Time, "With all the time and money you've poured into your boat, you can't just do this Race once"

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HANALEI to KEEHI and ALA WAI Small Boat Harbors (120 miles).

Electing to ship your boat home post SHTP means crossing the Kauai Channel from Kauai to Oahu to deliver your yacht to Keehi Marine Center at Honolulu for haul out. This overnight passage is normally a rugged upwind crossing. Especially if there are Small Craft Advisories for the Kauai Channel.

Begin early morning. It is 6 miles to Kilauea Point. The wind likely will be light offshore until trades fill near shore about 10 a.m.

After passing Kilauea Light, parallel the shore (port tack) and assume a course of 115° - 120° magnetic. The tradewinds will fill and increase to 20-25 knots from 075° m. as you leave the coast of Kauai astern.

It is 93 miles from Kilauea Point to Barbers Point (approximately 20 - 24 hours). If you fall SW (to leeward) of rhumbline, no worries. You will get lifted as you approach Oahu.

Bailout is Lihue/Nawiliwili, dead downwind at 21° 57' x 159° 20' W. (bright aero beacon at Lihue Airport just North of the main harbor.). Nawiliwili Harbor has an anchorage and small boat marina inside.

As you approach Oahu and leave Kaena Point to port, the wind will fair and ease and the vociferous seas will calm in the lee of Kaena Pt. There are several brightly lit radomes on the ridges high above Kaena Pt.

Kaena Point's lee and consequent reduction of wind and seas begins when Kaena Pt. bears approx. 60 m. Although the effect of the lee of Kaena Pt and the high mountain ridges of Oahu can be felt for 20-30 miles out into the Kauai Channel, the closer to Oahu you get, the smoother the seas.

Once past Kaena Point, seas will be smooth. Afternoon seabreezes from the SW prevail in the lee of Oahu until near Barbers Pt., where the tradewind (NE) windline again kicks in.

Along the SW shore of Oahu, in flat water and light winds, you will pass the Waianae (Pokai Bay) Small Boat Harbor, then Ko Olina Harbor—both good bailout spots. Ko Olina has a full service Marina, and lies just North East of Barbers Pt.

Try to arrive at Barbers Pt after dawn. The windline begins again at Barbers Pt. Stay outside restricted oil tanker buoys, but not too far out—trades will be gusty here, but the water relatively smooth with afternoon wind chop. Little or no swell.

It is now a 16-mile beat to Keehi/Ala Wai along the South Coast of Oahu. Long port tack legs. Shorter starboard tacks into smoother water. Do not approach reef closer than 1/2 mile or depth less than 50' (light blue water).

You will pass 1) Pearl Harbor, 2) Honolulu Airport 3) Keehi Lagoon 4) Honolulu Harbor and 5) Kewalo Basin before Ala Wai. All these entrances are dredged passes through the off lying reef.

Do not attempt to enter Keehi Lagoon or Ala Wai after dark*. Lights of background are confusing. Ala Wai Channel is only 100' wide. You can sail into both Keehi and Ala Wai during daylight hours.

Entering Ala Wai, the Hawaii Y.C. is to starboard and Waikiki Y.C. is to port. HYC is always welcoming. You can tie up at guest dock for shower, ice, and good meal.

* If you arrive at Keehi or Ala Wai after dark, try to get a tow or lead into these harbors from a passing boat. Without local knowledge, the background lights and narrow, dogleg channel are too confusing and dangerous for safe entry after dark.

Waypoints

1. Kaena Point 21° 35' x 158° 17'
2. Barbers Point 21° 17' x 158° 07' W
3. Pokai Bay Small Boat Harbor 21° 27.5' x 158° 12'
4. Ko Olina Marina 21° 19.6' x 158° 07' Phone: (808) 679-1050 Harbor master
5. Lihue/Nawiliwili bailout 21° 57' x 159° 20'
6. Keehi Lagoon Entrance 21-17 x 158-53
7. Keehi Marine Center phone 808-845-6465
8. Ala Wai Harbor entrance 21° 16.58' x 157° 50.8'
9. Honolulu Coast Guard Phone: (808) 842-2640