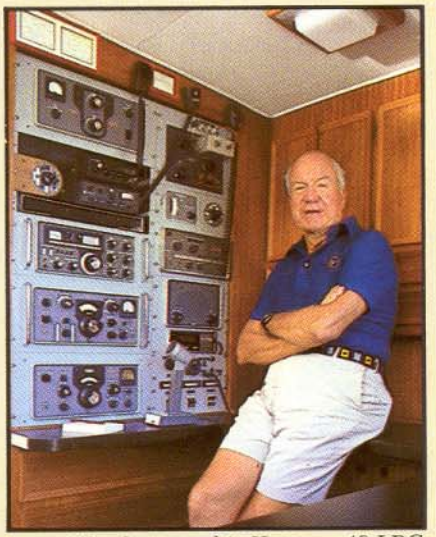
CARLETON MITCHELL

America's premier yachtsman tells why he switched to power from sail—and loves it.

"Due to skin cancer I have been advised to limit my exposure to the sun, so my hot MORC racer must go," reads a recent letter. "Besides the sun problem, I realize at my age I will have to change to power at some future date or go the paid hand route, which I do not want to do. But being a sailor all my life, I am, of course, quite apprehensive about the seagoing ability of power."

The reasons and the wording change, but the theme remains the same: what dark, unfathomed depths of ocean lie ahead of the windjammer contemplating the transition to—*ugh!*—a motor boat? Ever since I made my own escape from what I only half facetiously call "the tyranny of sail," I have received such queries. For me, cruising and living aboard a displacement vessel driven by docile slaves under hatches has been very much like cruising the sailing craft I have owned, except there is more room, less dependence on others, and a new-found leisure making it possible to enjoy more of what I think of as the fringe benefits of cruising: scuba diving, poking into gunkholes, ham radio, reading, listening to music, lolling in the sun, whomping up meals in a spacious galley, or simply taking it easy, even underway, while the autopilot does the work and the soporific hum of the engines brings into focus thoughts which never seem to take form ashore. Thus, as I have tried to say reassuringly to others, the transition can be considered a way of life, instead of only a time of life.



"Mitch" relaxes on his Hatteras 48 LRC.

Confusing to the uninitiated is the lack of a proper generic term to identify the true offshore motor boat, combining seaworthiness—in the real meaning of the

CARLETON MITCHELL

Two weeks of powering had me hooked. Being afloat was more important than the type of vessel.

word—with characteristics enabling the crew to live comfortably for extended periods in remote areas. "Trawler yacht" has been so misused as to have become almost meaningless, although nothing else seems to fit so well the concept of a pleasure version of working vessels combining carrying capacity, spaciousness, low fuel consumption, long range, and the ability to cope with rough seas.

Perhaps the term "displacement speed yacht" comes closer to the mark, although it lacks glamor. For "displacement" translates as "weight," and from weight stems most of the virtues we are seeking: meaty construction to withstand the inevitable buffeting; ample fuel and water to provide range and independence; heavy ground tackle, including a powerful windlass capable of handling a spread of anchors, at least one on 30 to 50 fathoms of chain, insuring sound sleep when port is achieved; the space and reserve buoyance to accommodate a seemingly endless accumulation of equipment, spares, personal gear and ship's gear; and, finally, consumable stores for weeks or months away from supermarkets. To say nothing of a useful dinghy, inflatable rubber raft and other survival equipment, medicines and first aid supplies, fishing tackle and/or scuba gear, books to use and amuse, and whatever else your way of life requires.

Perhaps the simplest rule of thumb to find how closely a vessel approaches the ideal is to consider her speed. It is generally conceded that a true displacement hull has a maximum efficient speed of 1.34 times the square root of the waterline. Above, greatly increased horsepower—and fuel consumption—will result only in producing larger waves astern as the stern squats, unless weight is reduced or underbody form allows lifting to a "plane" over the surface, at which point the vessel ceases to displace water commensurate with the physical dimensions of the hull. Thus a true displacement "trawler" of 36 feet on the water would be limited to a top speed of 8.04 knots ($\sqrt{36} = 6$; $6 \times 1.34 = 8.04$).

Because of marketing realities, most builders fudge a bit, perhaps putting in more powerful engines, in order to achieve another knot or two for advertising purposes. But, as invariably throttles are pulled back on long passages to a hull ratio of around 1.2, the average over the ground will probably be closer to 7.2 knots for the 36-footer on a passage from, say, Newport Beach to La Paz, or Ft. Lauderdale to St. Thomas. Lest this sound disappointing, do not forget it adds up to 172.8 nautical miles per day, or 1,209.6 in a week, a distance likely to be equalled only through ideal conditions and hard driving under sail. And, long ago, I achieved a personal philosophy for

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Carleton Mitchell, the dean of American yachtsmen, has spent more than five decades going to sea in small boats and winning unprecedented honors. He won the Bermuda Race three times in the legendary Finisterre, *took the Southern Ocean Racing Conference three times, and was awarded the prestigious Blue Water Medal of the Cruising Club of America. After racing and cruising sailboats for 40 years, he switched to powerboats for the reasons he lays out in this article.*

A ham radio enthusiast, Mitchell eliminated the standard settee in Coyaba's *wheelhouse to make room for ham equipment.*

Photographs by Sid Stapleton

any kind of cruising: "If you are happy where you are, why be in a hurry to get somewhere else?"

A sea change

My own introduction to power contained a large element of chance. After retiring the 38-foot yawl *Finisterre* from ocean racing following her third Bermuda Race victory, I spent five years living aboard and cruising, including several months gathering material in the Caribbean and Bahamas for *National Geographic* articles. Gradually there crystallized a yearning for space—for stowing gear as well as for privacy—and less effort between anchorages. I found I could charter a 36-foot Grand Banks based on St. Thomas, and two weeks of lazy meandering through the British Virgins had me hooked. The simple fact of being afloat seemed more important than the kind of vessel I was aboard.

Next step was to order a Grand Banks 42 for delivery in Florida. But *Sans Terre* made an unpremeditated detour getting there. While in Hong Kong supervising interior modifications and learning something of the care and feeding of a pair of diesels, I found myself suddenly wide awake at 4 a.m. Everything was arranged for shipment the following week. Yet as though a painted screen were being unrolled across the ceiling, I visualized the sere bold coast of Baja California, glimpsed from afar during deck chores on San Diego-Acapulco races. Each time I had promised myself to return some future day, to visit cactus rimmed bays where mountains soar from the blue Pacific to even bluer skies, and to swing at anchor off islands where seals and sea elephants glide through creaming surf as frigate birds wheel above. Now finally I had a boat with the range, the comfort, and the capacity to store supplies, spares and gear, which would make such a cruise pleasurable. So it came to pass that *Sans Terre* was offloaded in Los Angeles instead of Miami.

Thus, like learning to swim by being flung into the water, I found myself beginning an education in power with a lot of miles ahead: down Mexican and Central American shores to Costa Rica, offshore to Cocos Island and on to the Galapagos for nearly two months of exploring almost every cranny of the most forbidding but fascinating archipelago on this planet; back to transit the Panama Canal and slug along the north shore islands of South America against winter trades and the equatorial current to Grenada, and on through the Windwards and Leewards and Bahamas. The skyline of Miami finally lifted after I tarried two more winters in the Virgins and neighboring islands.

Outside advantage

This itinerary is appended to answer another question I often hear, to wit: "Would you consider going nonstop outside, which is what I do with my sailboat?" Well, my friend, there ain't no Inland Waterway nowhere along that route, nor on subsequent voyages aboard other powerboats I have owned, including the present, *Coyaba.*

Two years ago she made the passage from Florida to St. Thomas, encountering rugged conditions east of Turks and Caicos Islands—and especially crossing Mona Passage, the current-wracked channel between Hispaniola and Puerto Rico. In seas that would stop anything but the doughtiest reefed-down ocean racer, or reduce planing powerboats to wallowing along at idle, *Coyaba's* throttles were never pulled back from standard cruising rpms, and—frankly to her crew's amazement—navigational checks showed us maintaining very close to average cruising speed.

Supplementing my own experience, there are few reports of displacement power vessels coming to grief. When I last heard from Bruce Crabtree in his 56-foot Arthur DeFever designed *Crabby*, he had arrived in Pago Pago, Samoa, 11,000 miles into a no-time-limit circumnavigation which had already taken him through "too many islands to be listed properly." I'm told he is now in New Zealand. Bob and Mona Sutton poked along the Turkish coast after voyaging from California in *Mona-Mona*, designed by Robert P. Beebe, whose own *Passagemaker* probably holds the record for the most water put astern since being launched in Singapore—35,958 miles "off soundings" plus "approximately the same distance cruising other than off soundings," according to Beebe's calculations.

The San Diego-based *Viking* has ranged large segments of the Pacific, including a turn as communications and escort ship for the Honolulu Race fleet. My former *Land's End*, now owned by Brazilian Cruising Club of America member Mario Innecco is presently based on the French Riviera after exploring the Aegean, following her passage from Miami to Athens; while Percy Chubb's Olin Stephens-designed *Bird of Passage* returned last winter to her Virgin Islands mooring by way of the Canaries, after a summer under the Midnight Sun in the Norwegian fjords.

Perhaps most indicative of the potential of offshore motorboats when well handled was the passage of Sheppard Root and one companion from Hong Kong to Florida in a stock Cheoy Lee 40-foot trawler. The boat had only minor modifications to increase range, a minimum of electronics, and no stabilizers. But there was careful attention to spares and safety equipment, including Lexan storm shutters for pilothouse and cabin windows. Yet while traversing the South China Sea, the Indian Ocean, the Red Sea, the Mediterranean, the Atlantic—including a 2,200 mile jump from the Cape Verde Islands off Africa to Barbados—and across the Caribbean to Ft. Lauderdale, *China Blue* never required the storm shutters, despite a 70-knot gale in the Gulf of Suez. Shep Root looks back on 20,000 miles as "a piece of cake."

Noise control

The foregoing is only one aspect of displacement motor yachts—the ability to cover long stretches of open water en route to chosen cruising grounds. Another virtue is livability after one has arrived. Consider *Coyaba*, a Hatteras 48-foot Long Range Cruiser, modified to meet my personal notions of layout and lifestyle. The goal in planning was to provide amenities to take full advantage of marina facilities—meaning a constant source of electricity, municipal water, even telephone service—yet to be completely independent of the shore for long periods, and without listening to a generator any more than necessary.

During those periods alongside a dock, *Coyaba* provides the conveniences of a small cottage; nay, a mansion! Plugged into shore power and with a water hose connected, the dishwasher, washer/dryer, stereo system, reverse cycle air conditioner, toaster, garbage disposal, electric typewriter, hot water heater, icemaker, television, blender, a.c., electric fans, Cuisinart, two deep freezers and an ample refrigerator, plus lamps and assorted gadgetry, can all work whenever desired. (On *Coyaba* a special isolation transformer installed by Hatteras smooths out fluctuations in local power to provide constant voltage, preventing damage to motors. It also can adapt to 50 cycles for foreign systems.)

Yet when anchored in a snug cove, *Coyaba's* crew need suffer the vibration and noise of a generator no more than 2 hours in 24. The current-consuming culprits on most motor yachts are the electric stove and refrigerator; even an off-hour cup of coffee requires the generator, while the insulation on the household-

type fridge/freezer boxes usually installed as standard equipment is so thin that not only is there limited cold retention, but heating elements have to be incorporated in the walls to eliminate sweating, resulting in almost constant demand. The log of a chartered Grand Banks tells a typical story: during 17 days of cruising the Virgins, mostly short hops, the main engines ran 21 hours 40 minutes, yet the generators ground away 259 hours, an average of 16 hours out of 24! Cooking aboard *Coyaba* is by propane gas, tanks stowed on the flying bridge and further safeguarded by a remotely controlled solenoid, with red warning lights showing in the galley and pilothouse whenever the valve is open. Two freezers (a large top opening one for bulk storage and a smaller forward unit) and the fridge employ holding-plates, capable of keeping food safely up to 48 hours, if required, after the eutectic solution in the holding-plates (actually stainless steel tanks filled with a liquid that solidifies at a lower temperature than water) are frozen.

Dual outlets—120v a.c. and 12v d.c.—are adjacent throughout the vessel, so lamps require only a change of the plug and bulb to provide the same light. Music still flows from the speakers through an alternate tuner/tape deck, 12 fans provide a breeze when necessary, one of a pair of battery-powered pumps keeps water pressure constant, while all ship's vital pilotage and operational systems—radar, anchor windlass, toilets, autopilot, depthfinders, bilge pumps, intercom, etc.—go happily along on the engine alternators if under way, or run on the batteries when required at rest. My aversion to generators even led to the installation of a 12v d.c./120v a.c. rotary converter for a few low-demand applications, like the main stereo system and typewriter.

During two winters of liveaboard cruising in the Caribbean, based mostly on St. Thomas, a fairly regular schedule evolved: two days alongside Basil Symonette's dock in The Lagoon to pick up mail, replenish fresh stores, and restock the wine cellar under the skipper's bunk; then two to three weeks swinging 'round the hook in the British Virgins.

When dockside power and fresh water were available, laundry was done, dishes came forth untouched by human hand, batteries were brought to full charge and the eutectic tanks frozen super solid. The icemaker cranked out cubes to be stowed in a freezer. Under way, the 15-kw Onan generator was run during the hour of the morning swim and breakfast; the battery charger and hot water heater were activated, and the fridge/freezer compressors ran while the juicer squeezed and the toaster toasted. I checked in with my ham radio net. Then again peace and quiet until the cocktail hour, when the 7.5-kw Onan had its turn, usually based on refrigerator use. If the door was opened often and long on a hot day, or if there had been a special drain on the batteries, perhaps running time would be an hour, but it was usually less. Then blessed stillness through the night (Unless the menu included a dish baked or roasted. Unfortunately, some U.S. government bureaucrat, in his infinite wisdom, decreed that the temperature in household-type gas ovens must be controlled electrically, and I have not been able to find an engineer who could find a way to bypass the solenoids controlling the valves).

Naturally, if any of the shoreside "conveniences" were desired, starting a generator made everything available. Occasionally a flat calm humid night in a buggy anchorage dictated battening down and enjoying air conditioning, as no-see-'ems can filter through screens; or an accumulation of laundry, or a stack of dishes following an impromptu lunch or dinner gathering, called for washer/dryer or dishwasher—the latter pair with an eye on the freshwater tanks, of course. But most of the time *Coyaba* lay sailboat quiet, without even the slapping of halyards against the mast. Once, coming into Benures Bay on Norman Island in late afternoon, I was hailed from the cockpit of a 50-foot yawl and asked how long I would run my generator. The answer was not at all, as I had charged the batteries and hold-plates while under way. Next morning, it was a sheepish windjammer who broke the silence with his generator, before sneaking out around noon.

The economy route

Displacement vessels have other virtues of increasing importance. Foremost is fuel consumption. It is doubtful if there is a more efficient means of propulsion in the world, independent of natural forces, than a displacement hull driven by a slow-turning diesel, sized and wheeled for the job, throttled down to optimum performance speed—say 1.0 to 1.2 of the square root of the waterline. Based on her log, in various conditions of wind and sea, *Coyaba's* cruising speed seems to average 8.2 knots at 1,800 rpm, when a pair of Detroit Diesel Allison 4-53 naturally aspirated diesels, fitted with 40-mm "workboat" N injectors, consume slightly under 6 gallons per hour. During trials, slowed to 1,200 rpm, *Coyaba* recorded 5.54 knots, burning one gallon per hour per engine—this pushing along 67,000 pounds of comfort, combining luxurious accommodations with virtually every aid to the good life modern man has been able to devise.

But perhaps most important of all is the sense of independence that stems from your own portable castle. In an overcrowded world, quiet sanctuaries can still be found. Waterfront property in desirable areas has become so expensive that as a retirement abode or second home, a comfortable little ship becomes a viable alternative—and if you don't like your neighbors, you can drop the lines and move on. So, my sailing friend contemplating the switch to power, don't say *ugh!* Maybe you've never had it so good. ⚓