



Sailing in a Fog

by Sean Mulligan

The foghorns continued. My stress level rose. ... Then an odd thing happened. The flat seas decided to heave a little, no, more than a little. I felt the boat climbing a big rolling swell, the tone of the outboard labored as it pushed 5500 pounds to the top and then sped up as we slid down the backside.

Recently I achieved a goal I've had for many years. My wife 'Jo and I joined a group of other trailersailors for a voyage to Catalina Island, 26 miles off the coast of Southern California. Catalina was everything I expected. The trip across the channel, it turned out, offered a little more than expected and was a real learning experience.

We trailered across the desert from Arizona to join the other sailors from California, Utah, and Washington. All had agreed to make the trip through postings on an internet sailing page. The 13 trailersailors, ranging in size from 14 feet to our 23, rendezvoused in Alamitos Bay. On the much anticipated morning the group, consisting of old friends and newcomers, gathered for a quick skippers' meeting prior to the 6 a.m. departure.

Alamitos Bay is part of the greater Los Angeles harbor. Any type of boat from a kayak to the largest container ship can be seen here. It is one of the largest and busiest commercial ports in the world. It was mid June, a time of year Southern Californians call "The June Gloom," when fog along the coast is a common occurrence.

Sure enough, the forecast was for "patchy morning fog" and light wind. Members who had made this trip before assured us "newbies" that this was par for the course. If we did hit some patchy fog, it'd most likely burn off within a couple hours and usually wasn't very thick. The crossing was expected to take

around six hours, and we wouldn't hit the north/south shipping lanes until well into the trip, after the fog had burnt off. They said the prevailing breezes were usually on the nose en-route to the island and as a rule did not pick up until well into the trip.

Since we all were in sailboats and presumably here to sail, the plan was to make an offset waypoint about 2/3rds of the way across the channel that we'd head for first before altering course back for the island. This "dogleg" would hopefully allow us to crack-off a bit and enjoy a close reach into the island when the breezes picked up. Until then, we'd be motoring. So that everyone would have the same waypoints to navigate to, we were all given a small aerial photo with course lines depicted and the longitude and latitude of the departure point, offset waypoint, and destination printed on the photo.

Knowing that fog would be a definite possibility I had spent some time studying the charts trying to prepare for it before heading over. Living in southwestern Arizona had not given me much opportunity to sail in fog. In fact, I had no experience in it. I feel pretty confident in my navigation skills, though, as I have an aviation background and am used to navigating with charts and plotters. Additionally, my lovely bride had given me a state of the art Garmin chart plotting GPS for Christmas to replace my 10-year old handheld. Between using my GPS and backing it up with traditional navigation dead reckoning I was



PREVIOUS PAGE—Only the dinghy was visible. *Photo Sean Mulligan.* ABOVE—Two boats entering the fog. *Photo by Gary Hyde*

pretty confident that I could deal with some fog if I had to. This was not our first coastal excursion, although it would be the farthest offshore I'd taken the boat.

As we slipped the dock lines and headed out into the harbor visibility was good. The sky was overcast, and a heavy dew covered everything. The breeze was nonexistent, just like the veterans of this trip had promised. "Motor for three or four hours then enjoy a great reach to Paradise!" While my co-skipper for the trip, Gary, manned the tiller, I input the coordinates for the offset waypoint into the GPS as we left the L.A. breakwater behind. After entering the digits I told the little plastic box to take me there. A quick push of the "GOTO" function and ... "Huh? That's not right—is it? No. No way—we're not going there!" I looked at Gary and laughed. "Hmm.....something's not right here." The chart plotting feature of this new GPS made it obvious that the waypoint I just entered was nowhere near where we wanted to go. I suspected from previous experience with GPS's that there was probably some sort of "operator error" here. I assumed I'd entered the coordinates either with transposed numbers or in the wrong format. About then the VHF radio came alive with other crews experiencing the same issue. We soon figured out the coordinates on the supplied photo were correct, but in a format of Degrees/Decimals of a degree, rather than Degrees/Minutes/Seconds, or Degrees/Minutes/Decimals of minutes. As soon as the correct format was selected on the GPS, and the coordinates re-input, everything looked good.

When I looked up from punching buttons on the GPS, the visibility was deteriorating. It looked grey ahead, and I remember thinking that it was kind of cool to finally be in a little fog to see what it was like. Over the next five minutes the visibility grew worse. Eventually, of the 13 boats we were traveling in company with we could see ... none. "Wow! This is thick. Wonder how long before it'll burn off?" I said to Gary. I also remembered that if you looked straight up you could sometimes see a hint of blue. This led me to believe that the fog layer must be pretty thin and would soon burn off. Onward we went.

For the next four to five hours the fog varied from thick, to very thick. There was no wind, and the seas were pretty flat. Everything on the outside of the boat dripped with condensation. I could see on the chart and chart plotter that we were approaching the shipping lanes. Still expecting it to burn off we plowed ahead. Sporadic radio traffic between boats in the group made it obvious that everyone was experiencing the same thing we were. Most were alone visually, although position reports indicated that we were not far apart from one another. We entered the shipping lanes like a mouse trying to sneak across the living room floor.

When sailing at the coast I always hoist a radar reflector. This trip was no exception. I had taken a little good natured ribbing about it back at the ramp "Use that a lot on your Arizona lakes?" But man, was I glad we had it now. About a half-mile into the shipping lanes we started hearing fog horns. It wasn't long 'til



ABOVE—Potter 19 emerges from the fog. Photo by Captain Howie Goldbrandsen

they were on both sides of us. All I could think was let's get across here—fast. Some horns seemed to be getting faint, but others were getting louder. Squinting into the fog I couldn't tell what distance I was actually able to see. I was thinking maybe a quarter mile, but I wasn't sure. There was nothing for reference. While Gary watched the port side I watched starboard. Looking ... Looking ... FOGHORN! ... Looking ... Looking ... FOGHORN! This foghorn was from something BIG. It was deep and it was loud, but it still seemed a ways off to starboard and in front of us. Then I saw it. It was HUGE. A shape in the fog started emerging. Holy Cow! "Gary! Big ship heading right for us over here!" I was sure that this was something about the size of the *Queen Mary*, about a quarter mile away, heading right down on us. I no sooner let the words slip by my lips when it became apparent that it wasn't the *Queen Mary* about a quarter mile away ... it was a 14-foot West Wight Potter about 75 feet away. She crossed our bow safely and probably never even saw us. Three emotions ran over me immediately: Joy that it wasn't the *Queen Mary*. Embarrassment at calling out "Big Ship!" And a reality check of our true situation. Visibility was so poor that I couldn't recognize a 15 foot boat 100 feet away. What if it *had* been the *Queen Mary*? I reached over and throttled up the Yamaha a little more to lessen our time in the shipping lanes since we were beyond halfway across.

The foghorns continued. My stress level rose. A few minutes went by. I probably looked like the proverbial bug with my

wide eyes, staring into the grey, waiting for a windshield to come along. Then an odd thing happened. The flat seas decided to heave a little, no, more than a little. I felt the boat climbing a big rolling swell, the tone of the outboard labored as it pushed 5500 pounds to the top and then sped up as we slid down the backside. Just a big roller. No whitewater, and only one. "Huh, that was weird." I looked back at Gary. Then the realization hit me—that wasn't a swell. A vessel had passed in front of us and made it. It was his wake—and it was big—like his horn. The uncomfortable feeling got even a little less comfortable. I didn't verbalize my epiphany. I figured Gary already knew. It was a sobering realization. What was it? Ferry Boat? Tanker? Container Ship? We'll never know. But it was big, I'm sure. I suspect it was a container ship as we saw many later on. Their bow waves looked like Niagara Falls cascading down off their steel hulls from about the height of our mast. How far in front of us had he passed? Did he see us on his radar? Who knows? I've heard many stories that there may or may not be someone actually watching the radar and that the "gain" setting is often turned down to prevent false alarms from birds, swells, etc. An uneasy glance at the chart put us not too far from exiting the charted shipping lanes.

Not until 22 miles into the trip and only 4.5 from the Island, did the fog finally start breaking up. The grey water turned blue, and we were greeted by a 15-minute bow-riding Pacific white-sided dolphin show that was indescribable. I forgot all about



ABOVE—Return trip home was clear as a bell, but no wind. Photo by Captain Howie Goldbrandsen

the fog behind us as the dolphins played in our bow wake. It felt great to arrive at the paradise of Two Harbors, Catalina Island. We got our mooring assignment and tied up. Behind us, others from our group began arriving and tying up. Everyone started swapping their stories about the fog, shipping traffic, and dolphins. We were all excited and having a great time. After all, we were in for a great couple of days. Everything was beautiful. The scenery, tropical. Palm trees in the breeze, island music, dinghies being inflated for shore excursions. Why the crew of the *Minnow* wanted off Gilligan's Island I'll never know. Within an hour 12 boats were tied up safely. Twelve boats. Not 13. Slowly, the mood changed.

After a little while, and some unsuccessful attempts to contact number 13, feelings of exhilaration were being replaced with dread. The last skippers in contact with 13 said that shortly after losing sight of the other boats in the fog, they had an encounter with a large vessel. They were not sure how close they were, but it was too close for comfort. No one had heard from 13 since. This was all the way on the other side of the channel not far out of the LA breakwater, and over 20 miles from our present location. It was now around three in the afternoon. Boat 13 should have arrived around noon. He'd made this trip numerous times in the past, in the same boat, and was a competent navigator (a commercial flight instructor). We tried the VHF again with no success. It was time to get help.

Two Harbors has an L.A. Lifeguard boat stationed at the main pier. I dinghied over and explained our concerns, not really knowing what kind of reaction to expect. We didn't know

if 13 was in trouble for sure, but we were concerned. The "Bay-watch" guys (yes, just like the TV show except... well, they were all guys!) were great. They decided that we needed to contact the Coast Guard out of the LA area since the last known position of 13 was on that side of the channel. Again, the US Coast Guard representative, Mr. Needle, was first-class. He listened to our story, asked the right questions to gather information, and began attempting to locate 13.

Unfortunately, I did not have some of the info they needed. The group we were sailing with is a loosely associated internet group with a common interest in sailing. Locations and times of get-togethers are posted on the internet, and we all show up, sail, usually eat, hang out, lie about what great sailors we are, and then head for home. One thing we hadn't done was to share or gather information on each other in case something like this happened. "What's 13's address?" "Uh... well I don't know."

"Phone number?"

"Uh, I don't know."

"Registration numbers on his vessel? What type of vehicle did he have at the boat ramp?"

"Don't know" was my reply to each question. I had only basic information for Mr. Needle to work with, yet he never expressed frustration, only professionalism and a desire to help. After he'd gathered all the info he could pry out of me, he indicated they would start by attempting to locate 13's tow vehicle at the ramp to make sure he hadn't turned back and gone home, then go from there. Over the next two hours no less than five phone calls from Mr. Needle told us of their progress and requested

additional information.

By 5 p.m. our concerns had really risen. The Coast Guard had located 13's vehicle still at the ramp, so he hadn't turned back. The sinking feeling sunk some more. An urgent notice to mariner's broadcast was made on the VHF with a description of his vessel, in the hopes that someone would call back with info on his whereabouts. Although we were in the sunshine at the island, the thick fog had still not cleared from the Catalina Channel, making an air search impossible. The sun was getting lower, and the fog was forecast to become more dense and move all the way to the island after dark.

Again the cell phone rang and it was Mr. Needle. This time I could detect a positive tone in his voice. "I've got good news and bad news," he said. "The good news is we've located your buddy and he's safe. Now the bad news. He's 26 miles northwest of the island."

Boat 13 was way off course. Consider this: When we had departed L.A. at 6 a.m., we were about 25 miles Northeast of the Island. He had put the coordinates in for the dogleg waypoint just as we had—but he never realized that he was in the wrong Lat/Long format.

Not long into the first leg of the trip, 13 decided he wasn't liking the fog at all. He opted for the shortest, most direct route to Two Harbors, so he loaded the Two Harbors waypoint from the photograph and went direct. Unfortunately, he also loaded this waypoint in the wrong format. With no visibility, he couldn't see the coast or the island to realize he was headed in the wrong direction. He didn't communicate to the group that he was diverting from the intended course, and he didn't look at the compass and verify that the new heading looked right compared to his chart. That was because he didn't bring a chart with him. His GPS was not a chart plotter type, only digital. After setting the waypoint he glanced at the distance to destination. It appeared to be about what he expected. So, he set the autopilot, kicked up the throttle, and sat back to enjoy the ride. In about five or six hours he popped out of the fog with his GPS telling him he'd reached his destination. No Island. No coastline. No other boats. No radio contact with his group. Eventually, he knew he needed some navigation assistance and put out a call to the Coast Guard on 16.

Fortunately, by this time the Coast Guard was actively looking for contact from him. Even though his handheld transmissions were extremely weak, they picked him up. He was able to give them his Lat/Long from his GPS. Unfortunately, the coordinates meant nothing to him because he had no chart to plot them on. The Coast Guard was able to assist him in getting the coordinates to Two Harbors entered in the correct format and verify the bearing and distance back to Two Harbors. The Coast Guard officer estimated that it would take 13 another 5 to 6 hours minimum to reach the Island.

Over the next few hours the Coast Guard kept tabs on 13 and advised us of his progress via cell phone.

A heavy dew settled before the sun was even down. As the sun set, the fog offshore was working its way in. Avalon, on the island's far east end, was reporting almost zero visibility. We were trying to imagine what 13 was experiencing as we waited.

Around 10 p.m. my phone rang. It was Mr. Needle again, and his voice sounded concerned. "Look, I need to know what

kind of experience your buddy has. We've lost contact with him again." We spoke for a few minutes about what I knew about 13 which didn't amount to much, except that I knew about his aviation background and that he'd made the trip many more times than I had.

"Call me back ASAP if he shows up; we may have to make some decisions if he doesn't make it soon." There was a definite note of concern in his voice. I advised I would let them know as soon as we had contact.

I got out a blanket and binoculars, stretched out in the cockpit with my back against the cabin, waited, watched, and wondered what the outcome of this was going to be. Finally around 11 p.m. I saw the 19-foot sloop come into the harbor. I called the Coast Guard, told them I had 13 in sight, and thanked them again for their help. We all breathed a collective sigh of relief.

As I watched, 13 proceeded not to the moorings as we expected, but instead to the fuel pier. Then he started circling clockwise by the pier. Each circle coming close alongside. I kept expecting him to tie up, but then the boat would continue moving forward until the bow turned away from the dock, only to make another circle. I could see 13 in the cockpit moving around. My eyes strained through the moonlight to see what the heck was going on. Another circle, then another, then the center point of the circle migrated closer to the pier. The next approach was not alongside, but was instead head-on. A huge THUD! resonated from the giant hollow fuel pier as 13's boat impacted squarely into it. The boat shuddered, then veered away starting yet another circle. Something was obviously not right. I jumped into my dinghy and rowed over to where he was circling. He had come around again and was now alongside the pier and trying to get a hold of it, but the motor was still idling in gear. The fuel pier is a giant metal barge-type affair. Its deck was almost at eye level to 13 as he stood on his deck trying to make fast. Everything was soaking wet with dew. His hands were slipping along the surface of the pier as he tried to secure his vessel, but the boat circled away from the dock yet again. I could see drag marks in the dew on the barge's surface for each successive pass he'd created with his fingers and hands. I got up on the pier and the next time he circled by got ahold of his shrouds. Now, I could clearly see the problem; 13 was still in his shorts, short sleeve shirt, and life jacket. He was wet from the dew—not damp—but wet. I was in a heavy, dry sweatshirt and I was cool. He had been going since 6 a.m. It was now after 11 p.m. He was obviously frustrated, exhausted, and cold. I don't think I would go so far as to say he was hypothermic, but it was obvious that the frustration, cold, and exhaustion were affecting his ability to perform a function that he normally would have done without a second thought.

The roller furling genoa was still unfurled and the genoa flapped in the light breeze. Once I got him stopped, 13 realized that the motor was still in gear. Apparently, another motor he uses for shorter trips is a Honda 2 hp with a centrifugal clutch. Twist it to idle and the prop stops. But on this trip he had his larger outboard which must be physically shifted into to neutral. I think he was just so cold and exhausted that he just wasn't thinking straight. His brain was telling him that he had twisted the throttle to idle, so the motor should be stopped. The thrust

of the motor was just enough to prevent him from being able to get a grip on the pier.

We talked for a minute. Now that he was secured to something solid and able to relax, I could see that his body language was saying "I'm done." We've all been in stressful situations where we push our body beyond what is normal. But as soon as the brain leaves that fight or flight mode, the legs turn to jell-o, coordination takes a vacation, the thought process gets a little fuzzy, and the exhaustion demands to be respected. There is no denying it. It looked to me like he was there or at least rapidly approaching that point. His six-hour fun sail had turned into a solo 17-hour marathon.

I convinced him to let me ride with him over to his mooring, help him get settled in, and he agreed. On the way over he described a pretty rough ride back from his turnaround point. He was glad to be in. We were glad that he was in. Everyone breathed a sigh of relief. Once inside his cabin, dry and warm, 13 got some much needed sleep.

The next morning dawned with all 13 boats tied up safe and sound on the stringline mooring system just off the beach. A bunch of us ate breakfast ashore at the little café, and the topic of discussion, of course, was the events of the preceding day. When 13 showed up, everyone expressed how happy they were that he'd arrived safely, then the good natured ribbing started. He was a good sport as the teasing escalated and continued over the next three days. In fact, to his credit, he was a great sport about it. However, I think all of us realized that although 13 may have made some bad decisions, he was probably not the only one. He just got bitten by his, while the rest of us lucked out and enjoyed a trouble free ride.

I'm sure as you have been reading this you yourself have come up with some ideas of things we should have done differently. Here are some lessons I learned:

1. File a float plan. Someone needs to have all pertinent information about you to provide to the Coast Guard to get a search started should it ever become necessary.
2. Keep the appropriate chart on board.
3. Do not navigate by GPS alone. Period. Having chart, plotter, compass, and the ability to dead reckon is imperative. Best case scenario is that you will be confirming what your GPS is telling you is correct. In a worse case scenario (such as GPS failure) it may be your only means of navigation.
4. Have a complete understanding of navigating by GPS if you intend to use one. There's a little more to it than "put in the waypoint and follow the arrow." Do you know and understand the different ways that Lat/Long can be displayed, and the ramifications of entering the Lat/Long in the wrong value system? It makes a big difference. Do you know how to change the coordinates value system in your GPS? Do you know how to look at a written display of Lat/Long and how to verbally express it over the radio so that the receiver understands explicitly what value system you are operating in? How about the Chart Datum? If this all sounds like Greek to you, and you navigate by GPS, it shouldn't.

5. Fog. Our decision to proceed into "patchy morning fog" in the vicinity of one of the busiest shipping ports in the world, without radar, is questionable at best. The decision to cross a four-mile wide commercial shipping lane (again, one of the busiest in the world), 10 miles offshore, in thick fog was a bad one. We had the option to turn back at any time and probably should have. Instead, we rolled the dice in a bad display of "get there-itis." From a risk/benefit point of view, our weekend trip to the island for some R & R probably did not warrant the risk we accepted. At least not to me, looking back at it now.

6. Radar reflectors. We had one. Most of the boats did not. The level of effectiveness of reflectors always brings great debate. I am fairly sure of this, though. Having the reflector up there certainly did not diminish our echo return. In this situation I was grateful for any little help it might have given us. Was our boat being seen by the ships we could hear because of it? I don't know. But, I suspect we were a bigger target at 23 feet and having a radar reflector than some of the 14 foot boats that were with us that weren't flying one. When you are sailing in an area prone to fog, whether it's present or not at the time you depart, it seems worthwhile to me to fly the reflector. Then, if fog develops, it's already there.

7. The dogleg course. In retrospect the dogleg course we were on between LA Harbor and Catalina was a blessing. We had chosen to go to the dogleg waypoint strictly as a way of giving us a better angle to sail the expected late morning/afternoon breeze into Two Harbors. The Catalina Channel is a busy place in the summertime with a lot of powerboat and hi-speed ferry traffic between the L.A. harbor and Catalina. Think about every boat out there running the rhumb line between the same two points. GPS accuracy is so good now that it puts you on a virtual highway on the water. By stepping aside the "highway" to our offset waypoint we probably avoided numerous other encounters (both being overtaken as well as head-on) with vessels making the trip back and forth to the island. Just dumb luck this time, but I'll keep it in mind in the future when transiting directly between two busy harbors.

8. Handheld VHF's. Boat 13 only had a handheld VHF radio on board. He had limited range and, after he got separated from the main group, lost contact with us. He completely missed the discussion hashing out the Lat/Long values. Most handhelds have an output of 5 watts (vs. 25 watts for a fixed mount) and more important have a 0 decibel gain antenna at deck level. In VHF radios, antenna and antenna height are everything. Handhelds will give you a range of 1-4 miles. More often than not actual range is closer to 1 than it is to 4. Fixed mounts with mast mounted 3 decibel antennas can get up to 25 miles of range, sometimes more.

9. Batteries. The reason the Coast Guard lost contact with 13 around 10 p.m. was that his handheld batteries died. Carry extra batteries. Most handhelds have an optional tray for alkaline batteries that can be changed out if the rechargeable battery fails. Keep a dedicated pack of spare batteries for just such an emergency.

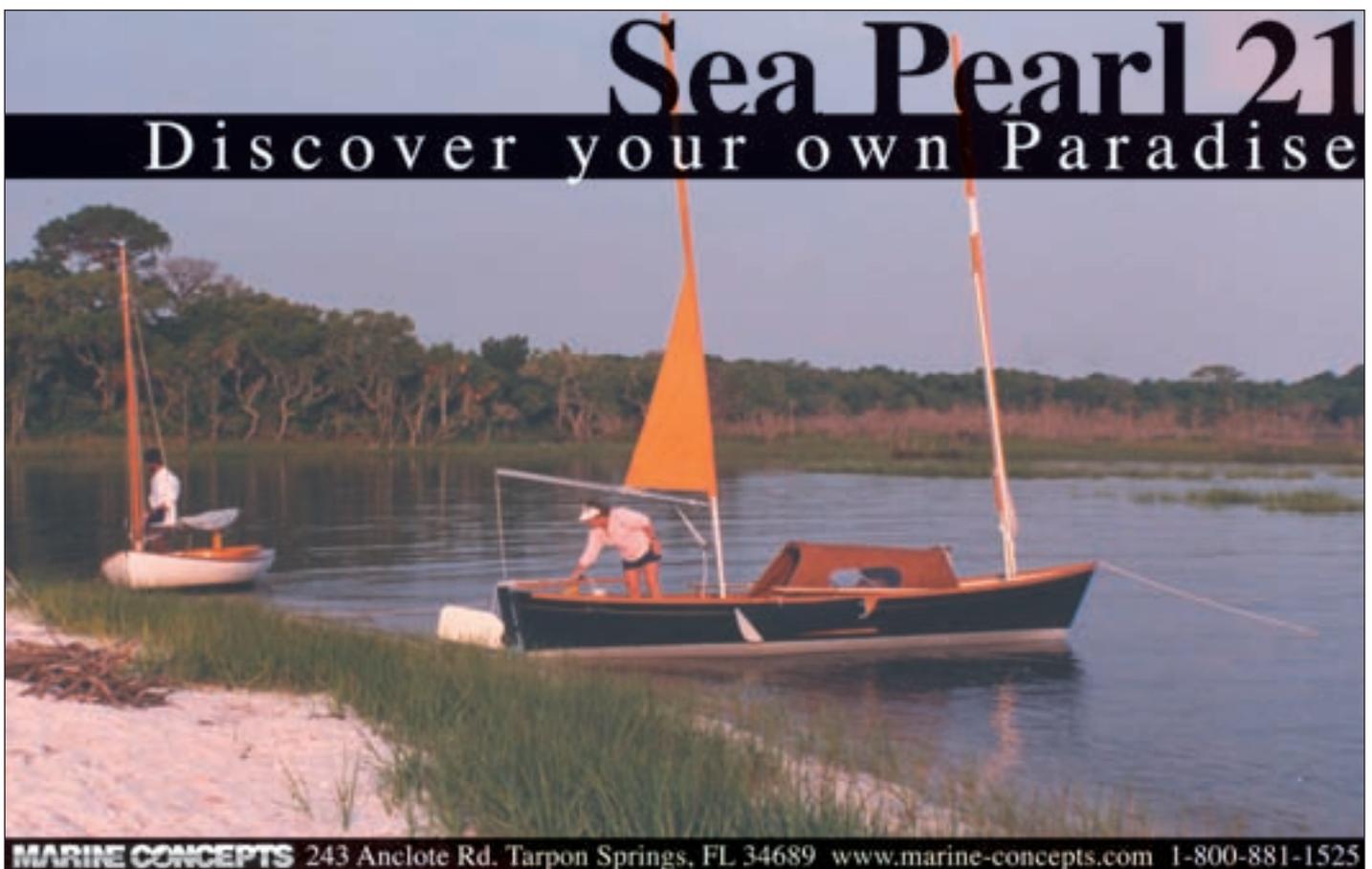
10. If you think you may need help, ask for it early. This I can relay from my personal experiences as a firefighter/EMT. Rescue personnel would rather start a search early on and be cancelled, than to wait until late in the game and then be playing catchup. There was a little bit of hesitation about the decision to start getting the Baywatch and Coast Guard involved. Don't! This is what these folks do. The experience I had interacting with both the Catalina Baywatch and the U.S. Coast Guard was first-class. They were glad we contacted them early rather than later.

My final thoughts on this situation are these: We live in a very comfortable world. In most places in this country we are only minutes from professional police, fire, rescue services. Dial 911 and they are there within minutes. Because of this, I think many folks subconsciously accept a much higher level of risk than they would if they knew that help was either not available, or going to take a long time to arrive. In this electronic day and age we feel more and more at ease slipping offshore into the ocean. GPS has revolutionized navigation. VHF radios, EPIRBs, and now personal satellite trackers like the S.P.O.T have made help/rescue just a click away ... or have they? Just because you are "only" 26 miles offshore and can get your summons for help out in an instant, you are still by yourself and will be for a significant time. Can you survive the wait for help? The reality is that the technology and skill level of the professional rescuers we come to depend on are only so good. There is no guarantee that it's going to be good enough to get you out of whatever mess you might find yourself in. We have the finest

rescue services in the world, hands down. However, sometimes all it takes is Mother Nature, a few unlucky occurrences happening simultaneously, or even our own inattention to details to make the circumstances insurmountable, even for the most seasoned rescue services. Believe me, it happens. Before anyone else can help you, you must be prepared to help yourself. And, is it really fair to depend on those rescue services to the point you take risks you could avoid? Even if you do, the rescue personnel will respond. They will do their best to assist you. Will their efforts be enough to overcome your situation and bring about a favorable ending? Maybe. Maybe not. But consider this. During the rescue you have now initiated, resources are being deployed that are not available for another rescue should one be necessary. Rescuers may be putting themselves at risk, sometimes incredible risk, to assist you. That's OK. That's why they're there. That's what they do. It's what they are trained and paid to do. It's what they love to do. Let's just make sure we take personal responsibility and do everything we can to keep them from having to do it unnecessarily. They'll do the rest.

It turned out to be a great trip. I made many new friends, including #13. I learned a lot. I was fortunate. Next year, I won't be in such a fog! *SCA*

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