undercurrent®
THE PRIVATE, EXCLUSIVE GUIDE FOR SERIOUS DIVERS

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Posada del Sol, Guanaja, Honduras

-- *Truth In Advertising? Damn Near.*

Dear Reader,

If you read any of the other diving publications, you must have seen stories about Posada del Sol, the "Spanish Villa" located on Guanaja, near Roatan, in Honduras. Since converting this once private fishing villa to a dive resort in January 1986, the owners have spent a pretty penny to get advertising and editorial coverage to attract divers. That might seem like a cost-inefficient venture for an 18-room hotel on a remote island 40 miles off the Honduran coast, but in today's fast market, it's the only way to get a competitive edge. This smart campaign has made Posada Del Sol one of the "in" places to go. So I went.

I admit up-front to one possible advantage. I was a member of a sizeable group, so we asked for -- and got -- the opportunity to dive some sites that are not regularly visited. Our leaders asked the instructors where they like to dive best, then selected those spots, perhaps using a little group power to make special arrangements. Still, I have reason to believe that if you travel only in pairs, that if you ask, you too shall receive. You see, Posada personnel made every effort to cater to the interest and experience of each diver on my trip. Indeed, even when only one person wanted to take a regularly scheduled dive, the hosts were pleased to accommodate.

That sort of service is ordered up by Posada owner George Cundiff, a professional diver who spent years in the offshore oil business. Over a few beers, he told me that years ago he and the chairman of his company booked into a Cayman dive resort. "It wasn't what they said it was. The compressor was broken, their boat was out of service. Our time was so precious, we decided to leave. We were upset, felt cheated, and lost our valuable time off." Cundiff is still angry about that experience. "People plan their whole life around one trip a year. They pay their money, go there and get (expletive deleted). I was in the offshore business and never made an excuse. If you fail to do something one time, you never get a second chance." He took that philosophy with him when he and partner John MacMillan bought and operated Grand Cayman's Spanish Cove in the early 1980s.

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And that's how he now runs Posada.

Guanaja is a beautiful island with lush tropical jungles and mountains that give way to long, narrow, sandy beaches. After landing on a dirt airstrip between two mountains, we were led by Posada staff us to boat taxis for the 20-minute trip through calm waters to the hotel. The Posada boat passes picturesque Bonacca, Guanaja's main town, built on stilts. Boat passage -- or shanks mare -- is the only form of transportation on Guanaja since it is without roads. The Bayman Bay Club, another dive resort, is also on Guanaja.

A magnificent hacienda, beautifully landscaped and impeccably clean, Posada is built into a cliff side, with thick stuccoed walls and tiered red tile roofs. And there are amenities: a fresh-water pool a little cooler than sea temperature (which in January ran 76-80o F), tennis courts, a comfortable bar and lounge. Upper deck rooms face the pool. Though occasionally infested with noise from late-night swimmers or bar patrons, these large rooms have a dressing foyer, comfortable single or double beds, and a separate bathroom and shower with ample hot water (unless everyone returns from a night dive and showers at once). The sea-level rooms, beneath the wooden deck of the pool, are equally comfortable and well-appointed, but less luxurious than the pool-level rooms, with their verandas and deck. But, they offer more privacy. Rooms are cooled by overhead fans, surely sufficient in my late January stay.

Guanaja's only electricity comes from fuel-powered generators. Posada's own supply 24-hour power (same current as the U.S.) with redundant systems if one breaks down. There are no telephones; short wave radio provides the link to Miami and emergency sources.

Upon my arrival, manager Melissa Langham provided a brief orientation while complimentary drinks were served. Some people fretted because their dive gear didn't

Travel To Honduras?

In many parts of the world, especially many adventure destinations, political instability and guerilla warfare are a fact of life. From Grenada to Nicaragua and Panama, to the Red Sea and the Philippines, events occur that capture headlines. More often than not, political turmoil is contained within the boundaries of a small area of the country and the only way tourists are affected is if they choose to put themselves smack in the middle of it.

The day after headlines in U.S. newspapers proclaimed our troops had landed, it was business as usual in Honduras, according to their representatives to the United Nations. The discos were open, the airlines flew their regularly scheduled flights and the Hondurans, it seems, wondered what all the fuss was about.

Guanaja and the Bay Islands of Honduras are far removed from the densely jungled area of Olancho Province, where border activities between Contra forces and Nicaraguan troops were reported. In the 300-mile buffer between La Ceiba, where one lands to change planes for Guanaja and Olancho, there are no connecting roads, only high mountains and jungle. The Honduran Information Service responded to *Undercurrent's* inquiry by saying that the airports used by tourists at La Ceiba, San Pedro Sula, Tegucigalpa and, of course, Guanaja, are just not involved. Honduras has always had its own air force planes stationed at La Ceiba.

U.S. troops use Palmerola, an air base about 1½ hours by road from Tegucigalpa, nowhere near tourist areas of the Bay Islands.

Yesterday's newspapers are today's fish wrap. The U.S. State Department, which keeps tabs on trouble spots for American tourists, has posted no warning and no travel advisories for Americans traveling to Honduras. Events change, so anyone wanting updated information about Honduras (for current events as well as general hotel and tourist information) can contact the Honduras Information Service, 501 5th Avenue, New York, NY 10017, Suite 1611, or telephone 202/647-5225 for the United States, State Department.

Getting There

Traveling to the Bay Islands is often an adventure. It's not uncommon for flights to fail to connect, to cancel or postpone, or to have baggage show up late -- if at all. If you must keep a perfect schedule, you probably ought to skip Honduras.

You can depart for Honduras from New Orleans or Houston. It's preferable to take one of the daily flights from Miami, because a daily schedule means it is easier to get home if there's a hitch in your Honduran departure flight. When you depart from your home base, do not check bags all the way through to La Ceiba. It's conceivable that your primary airline will not find the Honduran airline, TAN-SAHSA, at the transfer airport, so your bags may not get through. Though I make it a practice never to check bags all the way through, opting to carry them from baggage claim to the next check-in, even that did not make a difference. On my last trip to Honduras, TAN-SAHSA deliberately left much of our group's luggage off the flight, deferring instead to other cargo. The bags of several of our group members arrived a day or two late.

To protect yourself, hand carry anything essential for your stay: fins, mask, snorkel and regulator ... bathing suit, shorts and casual wear ... toilet goods and prescription drugs ... film and camera. There's a reasonable chance that anything you don't have in your hands when you board TAN-SAHSA, especially if you are flying on the weekend and have not persuaded the check-in employee to paste a "MUST-GO" sticker on your baggage, will arrive late ... two or three days later.

Your first destination in Honduras is usually La Ceiba, where you change planes to Guanaja or Roatan. Some flights from the US make a stop in San Pedro Sula. More than one diver has missed connections and suffered the night there.

On my trip, La Ceiba immigration personnel were noticeably courteous. After our baggage was checked, we boarded a DC-3 for the 40-minute flight to Guanaja. The DC-3, a remarkable workhorse of a plane, has legendary room for feet and legs and carry-on baggage, and you can even stand without hitting a luggage rack. The slow flying, low flying (1000 feet) aircraft, provides the perfect way to slow down and go back in time -- as one does on Guanaja.

To depart Guanaja, one is relegated to a single flight departing at 6 AM. Even so, you still may not get out of Honduras on the same day. Many *Undercurrent* readers have reported problems connecting in La Ceiba and some have waited a full 24 hours for a plane or seat back to the States. Flying, like diving, remains an adventure.

make the plane (see sidebar), but they were comforted when Posada offered substitute gear until theirs arrived. Some of the Edge-dependents moped about and refused to dive, but most people were mollified.

The welt rising on my forearm warned that it was time to unholster bug spray. The Bay Islands would be an ultimate paradise if it were not for the ferocious sand fleas ("no-see-ums") and mosquitos. They can ravage visitors, and those who react allergically to their bites will suffer much of their stay. Travelers must come prepared, and most do, wielding everything from "Cutter's" to Avon's mystical "Skin-So-Soft." If you're sensitive to bites, carry creams to kill the itch or reaction from bites. Remember, remote, tropical settings have their inconveniences.

Now, let's talk diving. For openers, the staff is indeed professional. Guatemala-born Tino Monterroso, certified as a YMCA instructor ten years ago, has for years worked on Roatan as a divemaster. He is supported by two divemasters, Hector Andrade and Raul Valle, along with other dive guides who help load the boats and assist divers on and off with gear and into and out of the water. All of these men speak English and all are excellent divemasters.

Their spacious 42-foot diesels with lots of deck room shaded by canvas tops could accommodate as many as 30 divers, but they always sent two boats to keep the crowds small. Aluminum 80 tanks were filled initially to 3000 psi, though some

cooled to 2700. Prior to the two morning dives and one afternoon dive, all tanks are loaded aboard the boats. One night boat dive is included in a week's package, and there is no charge for beach night dives.

After good briefings, the divemasters let us dive independently or follow them. Guidelines were set for depth and time. Those using decompression computers were asked to inform the divemasters. While air evacuation is possible to the nearest recompression chambers in Cayman and Panama, it's a horribly complicated, expensive and time-consuming procedure. I had no problem responding affirmatively to the divemasters' insistence on making safety stops, even if I perceived them as unnecessary. Tino reports nearly 150 decompression accidents each year among Guanaja's lobster divers and commercial spearfishers. Ignorant of safe diving skills and decompression rules, they seek to maximize their income by taking long dives to systematically sack the offshore fishing banks. It's taking a toll on the banks, as well as on the fishermen themselves. Tino has saved the lives of a number of bent divers by recompressing them in the water on pure oxygen.

Back to safe recreational diving. Posada's boats usually tie up at sites with permanent moorings to avoid coral damage. Since the sites are relatively new, I had a real sense of adventure exploring these relatively undiscovered sites. I found much of the diving similar to the better Bahamas diving -- but with more exceptional experiences possible. But there's one potential year-round downer -- unpredictable visibility, dropping during my stay as low as 30 feet, and popping up to 130 feet on the banks offshore. Some of it's due to the rain (it rained a lot during my January/February stay and it can come any season); muddy run-off made for murky diving near the reef passes or inside the lagoon. Plankton, a reason the waters are rich in marine life, can cloud up the water as well. As for fish life, at times I saw giant fish, and other times few fish, many too timid to pose. I dived nice reefs and pretty walls. I had exciting diving and commonplace diving. And, overall, good Caribbean diving.

Star Chart:
Based On Other Caribbean Choices

Diving for Beginners	★ ★ ★ ★
Divng for Experienced	★ ★ ★ ★
Beach Snorkeling	★ ★
Accommodations	★ ★ ★ ★ ★
Food	★ ★ ★½
Money's Worth	★ ★ ★ ★ ★

★ poor, ★ ★ fair, ★ ★ ★ average, ★ ★ ★ ★ good, ★ ★ ★ ★ ★ excellent

A recent article about Posada, the sort of thing that happens when a resort pumps a lot of loot into promotion, suggested that a regular feature is to visit sleeping blacktip and bull sharks in "Blacktip Slumberland." The claim didn't make Tino Monterroso all that happy. "I don't want people coming down here and not finding these sharks. In the summer, I see sharks in there maybe three out of ten dives. I tell people we are going to look and see. We can't guarantee they'll see mating groupers or sleeping sharks," he emphasized. I didn't see the sleeping blacktips -- but I did see resting nurse sharks a couple of times.

Last year Tino discovered great numbers of Nassau groupers mating six miles offshore on the banks at a spot he named Caldera del Diablo. At seamounts rising from the 130 bottom to 80 feet, the groupers come together during the full moon in January and February. And we lucked out. Not on my first dive, amidst a strong current and problems of divers drifting away in difficult seas. The groupers just weren't there. But the second day, we were in luck. Hundreds of groupers lethargically moved about while blacktip and bull sharks cruised the reef. Experienced tourists, capable of handling 120 feet, sometimes in a current, then decompressing, were given several opportunities to make this exceptional dive. The dive boat follows the bubbles to pick up divers as they surface.

The Jado Trader, an old cargo ship that was an annoyance and "mysteriously

sank," lies on its side at 110 feet. It's too new to have much growth, so I found the nearby coral reef at about 60 feet, with a cavern to explore, a good way to finish off the dive. I found a small wreck off Posada's boat house a decent beach night dive, but it's easily silted up.

At Jim's "Silverlode," Tino and Hector have trained a resident barracuda to take food from their mouths -- and from tourists' hands. Since I work with my hands at the word processor, I politely declined. With sardines, the divemaster coaxed out an overstuffed green moray which made a few nice twists and twirls for my lens. Plenty of greedy groupers added zest to this dive. A cave here leading down to the wall provided a wonderful setting for pictures, walled with silversides and groupers. Visibility ranged again from excellent to poor.

Once a week, conditions permitting, the boats take an hour's run to superb diving at the Volcano Caves. After diving, we anchored in a beautiful cove at Michael's Rock, in a setting right out of Robinson Crusoe. Barbecued lunch is served on the beach. Those who want to do more diving can, or take a lovely snorkel in the cove, or a beautiful hike up slippery rocks through lush tropical foliage toward the top of Guanaja's tallest peak where fresh water careens down forty feet into a pool. A dip in the cold, fresh water is a wonderful reward before the climb back down. The hike takes about an hour each way.

Some dives in Guanaja are as good as any in the Caribbean. Many sites are within a half-hour's boat trip from Posada. Visibility and fish life depends on the day. Some days our group saw eagle rays, octopus, a small turtle, nurse sharks and many medium-size reef fish and lots of small fish. Other days, the same site was barely populated. But that's diving. Summer months are calmer. Remember: Guanaja diving, especially the visibility, is unpredictable -- even though Posada Del Sol is itself predictable and quite civilized.

Improvements are still underway at Posada, and E6 processing and the hiring of a photo-pro are high on the wish list. While simple underwater cameras were available for rental (but the rental video cameras were not working) a serious photographer should come fully prepared.

As an undemanding tourist, I found all of Guanaja a pleasure, whether taking an arduous climb up the mountain behind the Posada to watch the sunset or ambling among the stilt houses of Bonacca town. I encountered nothing but friendly folk, and kids galore delighted to pose for pictures. My spanish came in handy, but the Bay Islands were settled by the English, so some villages have blond-haired and blue-eyed inhabitants who speak only English.

For Sale: $2.75 Million

As the owner of Posada del Sol, George Cundiff, tells it, "I'm a 3-5 year guy. I like to get things started, make 'em work, and move on."

And so, 2 years after he got Posada del Sol up and running, Cundiff has put it on the market for $2.75 million, with the basic terms beginning at 50% down. But, he says he's open to any sort of creative offer, and might even be willing to hang on to a piece of it.

"I'm not going to abandon it," Cundiff told *Undercurrent* in a telephone interview in late March. "And I'm in no hurry to sell it. I'll work with the next owner for 6 months or a year, train him, help him out any way he wants. And I think the current managers will be willing to stay right on."

Nor is Cundiff going to abandon Guanaja. He has bought a mile of gorgeous white sand beach front at Michael's Rock, where he plans to subdivide the property into lots for eighteen private homes, a marina, and a dive business. "If people want to live in their homes a few weeks a year and rent them out the rest of the time, we'll take care of that," he says.

If you have a cool million in cash, you can pick up the phone and call George at Posada's reservation number, 305/848-3483. He answered the phone the day I called and we had a nice folksy chat about his plans. If I had a million bucks, I bet he could talk me out of it in no time.

I also found great pleasure remaining ensconced at Posada. It suited me just fine, given the amenities and the friendly staff, whether the gardener, the cook, or the owner. The food -- well, it's pretty good, with two full meals at lunch and dinner. Breakfast consists of almost anything one wants to order plus fresh tropical fruit. Meals are often fish, shrimp or lobster, with surprises of king crab and coconut grouper. If fish is not your fare or if you have special dietary requirements, tell Posada when you book and alert Melissa when you arrive so you get what you want.

For most folk, me included, bedtime came early. With three and sometimes four dives a day (the first begins at 8:30 a.m. although group power can dictate the time, within reason), my evenings usually consisted of a game of darts, conversation, a night dive, or viewing videos shot that morning.

The money spent to publicize Posada del Sol is bringing it prosperity. And most of what you have read elsewhere, you can believe. The diving rates right up there in the top quartile of Caribbean diving. Considering the beauty of Guanaja, the friendly people, and the determination of the management to keep the lodge personal and professional, Posada del Sol is fine choice for a diving vacation. It's no-nonsense, no-excuses attitude insures people get what they paid for -- unlike during the owner's fateful trip years ago. The people of Guanaja, the entire staff, from gardener and cook to the owner himself, not only made welcome, but made me feel like I was part of a family of friends.

Divers Compass: A passport is required for traveling to Honduras, but no visa is necessary; call 212/490-4766 for information .... For information or reservations for Posada del Sol 1-800/642-DIVE (3483) or in Florida, 305/848-DIVE (3483); write Posada del Sol, 171 W. Blue Heron Blvd., Riviera Beach, FL 33404; summer rates are $660/per person, double occupancy ($900 for a single), for seven nights, which includes three meals and three tanks a day for six days .... deepsea fishing ($200-$500/day), windsurfing and waterskiing lessons are available ... take old tennis shoes for hiking, especially for the trip to the Indian ruins near Savannah Bight ... bring your C-cards ... resort courses and certification courses are available ... bring all the film you'll need and a good supply of insect repellent ... a wet suit top generally increases comfort in water less than 80°F.

-- *And A Word About The Bayman Bay Club*

Around the island from Posada del Sol is nestled the 12-year-old hillside Bayman Bay Club, a more rustic, less-luxurious retreat which for years had offered the only serious diving on the island. We wrote a full review of the Bayman Bay Club in 1985, (you may order it for $5) in which our reviewer reported "most of our dives were quite decent, the highlight being plentiful and healthy hard and soft corals ... a lovely setting and friendly people." Club owners have nowhere near the money being pumped into Posada, so it seems to run just above the margin, perhaps as a tropical outpost should. Many of our readers who deign more developed resorts like Posada, find the less-maintained Bayman Bay Club to their liking.

A representative comment from our readers comes from Marcia J. Vaile of Winter Haven, Florida who writes of her trip last August. "I loved the tropical jungle around the Bayman Bay Club. The view of sunset from the front porch was spectacular. Individual cabins were private, clean, comfortable -- plenty of hot water and fresh linens and towels. Nice to have such comforts in rather primitive surroundings. Potties worked. Good food-buffet style, although one gal scoffed up all the avocados from the salad every day. Diving easy and excellent; Guide relaxed, competent and informative and adhered to schedules daily. Overall, the place was extremely pleasant and hospitable."

Our resort of choice on Guanaja is Posada del Sol. If you wish to live more rustically in a tropical environment without a swimming pool and E-6 processing, and don't put a white glove test to a jungle resort, you might find the Bayman Bay Club just your cup of tea. And don't forget the bug spray; they're vicious here as well and will find their way into your rooms no matter what you do. Summer rates, 7 nights, $575 per person, single or double occupancy, which includes 2 boat dives a day, and beachfront dives if you desire. Bayman Bay Club, 1 Isle of Venice -- 206, Ft. Lauderdale, FL 33301 (800/5240-1823; 305/525-8413).

The Challenges Of Cave Diving, Part II

-- *Danglies In The Dark*

In the previous issue, we ran the first part of our article on the challenges and dangers of cave diving. Here is the concluding segment.

★ ★ ★ ★ ★

The floors of the majority of underwater caves are covered with loose sediment of varying degrees of density, which is easily disturbed by moderate fin strokes even five to ten feet above. In a small passageway, careless swimming can cause visibility to drop from 100+ feet to practically zero in a matter of a few seconds. The diver literally can't see his hand in front of his face. If the silt is fine-grained and dark colored, and therefore very light absorbent, the diver may not even be able to see a powerful light shone directly in his eyes only inches away from his face.

In some cave systems with no flow, it can take days or even weeks for the sediment to settle down and visibility to be restored. In some systems, silt is also on the walls, ledges, and ceilings, and is unavoidably disturbed by exhaust bubbles, no matter how carefully the diver swims.

All too often an untrained diver doesn't even know that he is stirring up silt until he turns to leave. If he doesn't have a continuous guideline to open water and isn't trained to follow the line in total darkness or zero visibility, chances are he won't be able to find his way out before he runs out of air.

The trained cave diver has several techniques at hand to save himself from the silt. First, he has been trained in anti-silt propulsion techniques, which include special modified kicks, ceiling push-offs, pulling along the walls or floor with the hands, and even swimming upside-down and pulling along the ceiling.

Second, he always uses a continuous guideline to open water -- his single most important navigation and orientation tool. As visibility starts to deteriorate, he moves closer to the line, to within arm's reach. If necessary, he makes an "O" around the line with his finger and thumb, and tactilely follows the line out of the cave. Cave classes routinely include several variations of line drills to include all possible scenarios of air sharing and blind line following. And trained cave divers frequently practice these skills with their buddies in order to keep them sharp. Should the cave divers inadvertently stray from the line and lose it, they carry small "gap" reels that they can tie off on a rock or projection to use as a starting point to search for the line, so at least they don't run the risk of getting even more lost.

Of course, the line is not without its own hazards. Lines are famous for reaching out and grabbing "danglies" and other stray pieces of gear such as tank valves, unsecured fin straps, and useless snorkels. There has been more than one recorded instance of an open-water diver dying in a cave because he could not reach his macho dive knife on his leg in order to cut himself free. (Cave divers attach their small cutting knives somewhere closer to their hands, either on their forearms, BCs, or tank harnesses.)

Third, the trained cave diver, with appropriate air supply, usually has the luxury of time. If he's in a system with even moderate flow, he can wait calmly if he wishes some of the silt to settle out or be swept away. He may have to wait as much as five or ten minutes, but the improved visibility will greatly increase his ability to navigate and to communicate with his buddy.

Five Star Deaths

In every single case of a cave fatality, the victims either:

1) were not trained for the level of cavern- or cave-diving activity attempted

2) did not have a continuous guideline to open water

3) did not plan their air according to the Rule of Thirds

4) didn't have adequate lights, or

5) went below the recommended sport diver maximum of 130 feet -- or some combination of these, or even all -- a "five-star" drowning.

(The few cave-diving fatalities involving experienced cave divers almost all occurred below 200 feet.)

This is not to say that if you follow these five rules you will surely survive; it is to illustrate the consequences of a lack of proper equipment and training -- and the consequences of moronic, hubristic stupidity.

Often the "victim" divers signed a waiver either with the cave owners or park rangers saying that they understood and agreed to abide by the rules prohibiting cave diving by untrained personnel -- and then proceeded deliberately to violate them.

Or they ignored large warning signs posted both above-ground and in the caves, which pleaded with them not to go farther if untrained in cave diving and specified minimum gear requirements.

"One instructor's last words to these untrained divers were, 'Don't make us come in and have to do a body recovery.' Forty-five minutes later that's exactly what they were doing."

Or, as in a drowning a couple of years ago in Florida, they ignored the warnings of two extremely experienced cave-diving instructors who tried to dissuade them from diving the cave and even offered to escort them around the cavern if they were hell-bent on going in, and ignored all the cave-diving instructors' attempts to try to get them to formulate a sensible dive plan. In fact, one instructor's last words to these untrained divers were, "Don't make us come in and have to do a body recovery." Forty-five minutes later that's exactly what they were doing.

More Reasons to be Prepared

Underwater caves were not designed with humans in mind. They have no respect for the size of the human body, temperature requirements, or the problems associated with diving on air below 130 feet. Caves just blithely wander off beyond the safe limitations for nitrogen narcosis, oxygen toxicity, and decompression. Almost all exploration cave dives of any decent length and duration involve some kind of decompression. The more popular systems in Florida and the Bahamas range anywhere from 70 feet to 150 feet in depth. A generous sight-seeing tour in one of these systems or a traverse from one cave entrance to another will rack up a significant decompression penalty.

Exploration dives beyond the air-rule limitations of a set of doubles involve the use of "stage" bottles, sets of single or double tanks that are planted, or "staged," in the cave at various distances, to extend penetration. Such dive profiles move the cave divers beyond the parameters of the U.S. Navy's repetitive dive tables and into the extreme-exposure realm. Oxygen is frequently used instead of air during the 10-foot and 20-foot stops to enhance off-gassing efficiency. Some cave divers make it a rule of thumb to routinely use oxygen during decompression from any dive over, say, 150 feet in depth (or whatever their personal limit is). Some cave divers have also experimented with beverages or foods during decompression to combat fatigue and dehydration, and thus enhance decompression safety. And there have recently been some deep cave-diving explorations using mixed gas.

The use of drysuits to prevent hypothermia is also widespread in cave diving throughout North America, even though typical Florida springs are 72-74 degrees year-round, and caves in the Bahamas and Mexico are even warmer. And the latest Rube Goldberg invention is a small, two-person underwater habitat made out of a cattle water-trough. (Although the divers must breathe off a regulator, they float on inner tubes, read books, eat, drink, and are otherwise insufferably pleased with themselves.)

Unfortunately, it is impossible to terminate a dive whenever a physiological problem occurs. You can't just say, "I don't want to be here anymore," and surface immediately. Chances are you're committed to at least a good half-hour's swim out -- which will not be very entertaining with a leg cramp. The cave configuration may even make it impossible to ascend immediately (in fact, you may have to descend before you ascend) to counteract nitrogen narcosis or "depth blackout," a phenomenon occasionally reported on cave dives below 150 feet. A diver simply blacks out from unknown causes and is restored to consciousness only if taken to a shallower depth by a buddy; researchers speculate that the additional stress of being in the cave environment actually accelerates the physiological effects of depth.

The diver may encounter significant water flow through a restricted, narrow portion of a passageway and have to struggle against it in order to exit the cave, resulting in hyperventilation. Ocean caves in the Bahamas, called blue holes, are fiercely tidal, reversing their flow every six hours from a simple spring to a treacherous syphon. If the divers miscalculate the tides and end up having to combat syphon flow on their way out, they simply may not be able to pull or swim against the full force of the sun and moon on the Atlantic Ocean -- no matter how hard they try.

Sneaking a Peek

For those scuba divers wishing to "sneak a peek" into an underwater cave, the following rule is endorsed by several cave-diving resorts and Florida State Parks: Don't take any artificial lights with you. The diminution of surface light will almost invariably

tend to limit your penetration of the cave to a safe distance.

For too many people, their relationship with an underwater cave has been a fatal attraction. There's no need for it. For those with the burning desire to go exploring, training is readily available and there is good equipment to assist the journey.

For those without the training, however, their attraction, if pursued, can be fatal.

[H.V. Grey is a Director of the Cave Diving Section of the National Speleological Society and Editor of the NSS Cave Diving Section's bimonthly journal, Underwater Speleology. *The NSS Cave Diving Section is the world's largest cave-diving certification organization, having trained more than 6,000 divers in cavern and cave diving. For more information on cavern- or cave-diving training, for publications or free safety brochures and other literature, write: NSS Cave Diving Section, P.O. Box 950, Branford, FL 32008-0950.]*

So You Think You Can Use The Tables?

-- *So Did These Seasoned Divers*

One criticism often levied at the use of decompression computers is that they make it too easy for a diver to rely on an electronic device and not his own knowledge. That argument assumes, of course, that divers know how to use the USN tables properly.

But, we've always ascertained that most divers don't know how to use the tables. Now we have some interesting supporting data from Homer Fletcher, who teaches the use of decompression tables to students in commercial diving classes. Fletcher administered a basic test to 95 certified scuba divers who were enrolled in the College of Oceaneering, a commercial diving school in Huntington Beach, California, where Fletcher teaches.

These 95 students represented a broad range of certification levels (from basic to instructor), and experience (from less than a year to 16 years).

Before we tell you how well the students did, grab your own set of tables and take the exam. You may use any of the charts based on the U.S. Navy tables, including the Nu-Way, PADI, or NAUI tables.

The Test

1. I completed a dive on Saturday at 4:00 P.M. The following day at 10:00 A.M. I leave the surface to a depth of 63 feet. My timing device indicates a bottom time of 32 minutes. The no decompression limit is ____ minutes.
2. My repetitive dive group designation (letter group) is ____.
3. I plan to leave the surface at 12:42 P.M. My repetitive dive group designation (letter group) is ____.
4. The planned depth is 55 feet. My residual nitrogen time is ____ minutes.
5. The maximum time I can stay and avoid a decompression stop is ____ minutes.
6. My actual bottom time was 20 minutes. My total bottom time, or total nitrogen time, is now ____ minutes.
7. My repetitive group designation is now ____.
8. If all of the following conditions exist, what is the proper procedure to follow (USN Dive Manual)?
   a. My actual bottom time for the repetitive in question 6 was 55 minutes.
   b. I surfaced without making a decompression stop.
   c. I have no pain, numbness or paralysis.
   d. There is no decompression chamber on site.

STOP: The answers are at the end of the article, upside down. But if you haven't taken the exam, don't kid yourself and say that you'll take it later. You won't. Let us urge you, before reading on, to take a few moments to get your set of dive tables to see how well you performed. Hopefully, it will be much better than Fletcher's students.

You see, only 18 of the 95 (19%) correctly answered all of the questions from 1 through 7. Newer divers were more likely to err.

Years Diving	Number Of Students	# With All Correct Answers	%
0-1	29	3	10
1-4	44	8	18
5-9	13	4	30
10-16	9	3	33

Diving certification level also reflects the ability to work the problems.

Level	Number Of Students	# With All Correct Answers	%
Basic	19	1	5
Open Water	41	6	14
Advanced	9	3	33
Advanced OW	7	3	43
Rescue	4	2	50
Dive Master	1	0	0
Instructor	3	1	33
No certification indicated	11	2	18

No one answered number 8 correctly, which really can't be worked without the USN Diving Manual at hand. Fletcher doesn't penalize anyone for an answer

on this question, noting that it demonstrates just how complicated the tables can be. He did mention that no one even suggested just being administered oxygen and observed, an answer that would have certainly showed an understanding of the problem.

The conclusion barely needs to be stated. Most divers are not proficient at using the tables. Where do you stand?

The Test Answers

1. I completed a dive on Saturday at 4:00 P.M. The following day at 10:00 A.M. I leave the surface to a depth of 63 feet. My timing device indicates a bottom time of 32 minutes. The no decompression limit is 50 minutes. (64% correct answers)
   2. My repetitive dive group designation (letter group) is G. (66% correct answers)
   3. I plan to leave the surface at 12:42 P.M. My repetitive dive group designation (letter group) is D. (40% correct answers)
   4. The planned depth is 55 feet. My residual nitrogen time is 24 minutes. (39% correct answers)
   5. The maximum time I can stay and avoid a decompression stop is 36 minutes. (27% correct answers)
   6. My actual bottom time was 20 minutes. My total bottom time, or total nitrogen time, is now 44 minutes. (29% correct answers)
   7. My repetitive group designation is now H. (27% correct answers)
   8. If all of the following conditions exist, what is the proper procedure to follow (USN Dive Manual)?

a. My actual bottom time for the repetitive in question 6 was 55 minutes.
b. I surfaced without making a decompression stop.
c. I have no pain, numbness or paralysis.
d. There is no decompression chamber on site.

Answer: Within one minute take the decompression stop of 2 minutes at ten feet. After one minute return to 40 feet for 1/4 of the 10 foot stop time, move to 20 feet for 1/2 of the 10 foot stop time, move to 10 feet for 1/2 of the 10 foot stop time, then surface. (No correct answers)

The Continuing Cracking Of Aluminum Tanks

-- *A Problem Which May Never Go Away*

Some aluminum scuba tanks -- the actual number or percentage has yet to be determined -- have developed or will develop cracks in their necks which eventually lead to air leakage. The cracking may occur in virtually any 6351 alloy scuba tank, whether manufactured in 1972 or 1987, and at any time in the tank's life.

So far no defective scuba tank has exploded, nor under normal conditions is one likely to explode, according to tests by Luxfer USA, the tank manufacturer. However, Dr. John Smith, of the U.S. Bureau of Standards, reports that overfilling a flawed tank can lead to an explosion.

Escaping air from a scuba tank is not itself inherently dangerous. Luxfer USA reports that the leaks are slow, causing loss of no more than half the air in a day or more. The remaining air escapes at a reduced rate because of the decreasing pressure. Routine monitoring of the air supply via the submersible pressure gauge is all that's required to determine the tank's pressure.

A different danger may be attributed to aluminum oxygen cylinders kept on dive boats or in resorts or dive stores. If these tanks were to lose oxygen in a closed space, a significant fire hazard would result.

Typically, cracks in a defective scuba tank will propagate from folds or flaws which develop as the cylinder head is pressure-formed. One or often two cracks, about 180 degrees apart, migrate up through the cylinder threads. The cracks may be very fine and to be viewed require a bright light to be directed at just the correct angle. The cracks also proceed through the thick but highly stressed crown to the exterior, in the vicinity of the code marks. Some cylinders have been observed during the filling process to have air bubbling out of the shoulder. Often these bubbles cause operator and customers to scatter until the pressure can be released. There is some merit to this behavior, even though an explosion is not likely.

Once, a diver complained to me that bubbles leaked from the hydro stamp placed on a newly tested 3AL 6351 tank. At first I thought it was a careless hydro facility, but now I believe that the stamp penetrated into a crack migrating through the shoulder. I must note that a hydro test does not adequately test for the cracks. In fact, I am aware of several leaking and cracked tanks which have passed hydro tests. Only a visual inspection will suffice.

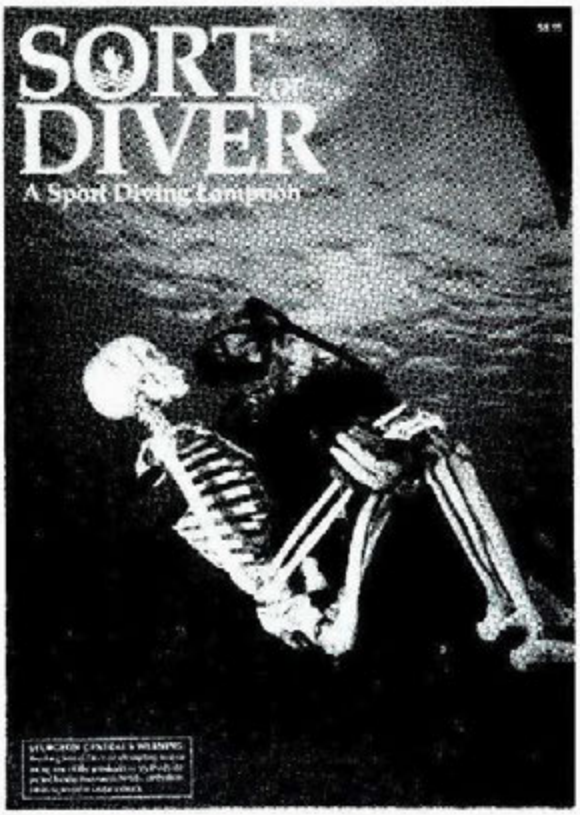
The U.S. Department of Transportation and Luxfer USA itself has been helpful in providing details about the cracking problem. Called "room temperature grain boundary creep," cracks result from several factors, particularly from the 6351 alloy used by some manufacturers. Warm weather temperatures such as those common to the subtropic Caribbean may result in more cracks than tanks used in northern states. High trace levels of naturally occurring lead in the alloy seem to increase crack frequency. The method used by Luxfer USA to swage the top closure may be a contributor. The incidence of cracks among cylinders with tapered threads is much higher, so the side stresses applied as the tapered valve is inserted contributes also.

Although some 3AL aluminum cylinders with tapered threads and high lead 6351 alloy resulted in up to 1% cracks, the least affected were 3AL cylinders having straight threads (as do diving tanks)

For Lampoon Fans Only

One industry mogul calls it "sophomoric." Another calls it "offensive." A third calls it "silly and stupid."

All three are correct, but nonetheless, more than 5000 copies have already been sold of "Sort of Diver," a realistic lampoon of *Sport Diver* magazine and other sport diving publications.



You'll recognize its approach. There's a travel review which begins: "Cinderella Tours has introduced several exciting new dive packages for the upcoming season. Highlights include a 10 day/9 night trip to the Philippines featuring daily diving on spectacular Shoe Reef. . . .the shoes, in a wide assortment of styles and colors, house an incredible array of tiny marine life specimens." Elsewhere in the magazine is a full page advertisement ("emerald green gobies gallop through the Guccis) for Cinderella tours.

You might get a kick out of the review of Slug Bay resort, featuring a photograph of the slave huts on Bonaire as resort cottages. Or an article on politics ("Conservation-minded groups have begun a lobbying effort to put an end to the common practice of divers urinating on coral reefs. The ammonia contained therein causes immediate suffocation to nearby coral.") And there's, Amazing Stories, Scuba I.Q. and the Mail box, among other items.

Of course, there are advertisements. Sea Foam, the diver's contraceptive; Stunt Diver's Academy; Coral Hatchet, a product from Reef Rapists; Leaded Bread Crumbs; Bates Motel and Diving Lodge for Sale, Golden Fin Rest Home, four pages of classifieds ... well, you get the picture.

This 64-page spoof was created with $11,000 and the creative energy of Patricia and Richard Collins, both of whom were once staffers at *Ocean Realm*. Friends and acquaintances -- Steve Blount, Ned DeLoach, and Paul Humann, among others -- joined in the fun to produce the publication.

From the writing and creativity, to the layout, typography, printing and design, Sort of Diver is professionally produced.

If you're an avid sport diver who chuckles over a good lampoon -- whether silly or sophomoric -- you'll get your money's worth with this one.

Send $10.45 to Sort of Diver, PO Box 0367, Hallandale, FL 33009. Allow up to 6-8 weeks for delivery.

and low lead content, with a crack rate of .002%. However, DOT believes these figures are seriously understated because reporting is incomplete. For example, Professional Scuba Inspectors (PSI) has only recently reported numerous cracked scuba cylinders to the DOT and Luxfer. Also, at the time of this writing, PSI receives several calls each week from technicians discovering a cracked or leaking tank.

Luxfer USA took steps at the end of 1987 to correct the problem by using 6061 alloy to manufacture tanks. This alloy may be less corrosion resistant and not so strong as the 6351, but it has a good tank record. In addition, Luxfer has modified the head-forming process. Kidde, also manufacturer of 6351 alloy, claims not to have a cracking problem, and apparently has not changed alloys. Some reports of cracks in Walter Kidde cylinders are being currently investigated. Norris Industries (NI) only made a few 6351 alloy tanks several years ago, and at least one cracked NI tank has been discovered.

Although the recall and replacement of defective cylinders has been underway for some time, dive shops and tank owners must continue to search for defective tanks. Hopefully, the industry should be able to get virtually all 3AL 6351 tanks inspected in 1988, under the industry's annual visual inspection program.

Although Luxfer reported it changed alloys at the end of 1987, there is no way to tell whether a tank manufactured in 1987 (with a new, 1987 hydro date)

My Strobe Malfunctions!

Dear *Undercurrent*,

Two years ago I came across Oceanic's 3000 TTL strobe and the specs looked too good to be true. Maybe they were. I bought one, but soon discovered that every time I used it for more than 15 photos on a dive, it stopped working for the remainder of that dive. I sent it back after each trip and was told there was an overheating problem, but each time it was returned it still malfunctioned.

It's been frustrating, but this time it came back and I was able to get a dozen rolls on a single full charge. Can I count on this to last?

Barry Harris
Dayton, Ohio

Dear Sally,

Oceanic indeed had a systemic problem with that strobe, which they believe is now solved.

The malfunction was due to a diode in the circuit board which is designed to quench the light output, produced only by a single West German supplier. Bob Hollis, owner of Oceanic, told us that "we subjected the board to an over temperature of 150 degrees for up to 24 hours and many strobes failed. The problem was so severe that we had to stop promoting the product." Oceanic had the option of redesigning the circuit board, or finding a new diode supplier, which took many months, but they eventually did.

Hollis believes the new diode means the problem is under control. "We have a large backlog of strobes to repair, but we hope to have everything cleared out by the end of April.

Anyone owning an overheating Oceanic 3000 TTL strobe may send it (with a note describing the problem) to Oceanic, attention Darrell Morrison, Customer Service Manager, at Oceanic Products, 14275 Catalina St., San Leandro, CA 94577, (415/352-5001). There is no charge for the repair and the strobe should be returned to you within a week or two.

was manufactured with the new alloy. Therefore any Luxfer, Kidde or Norris tank manufactured in 1987 or earlier should be inspected immediately, and thereafter inspected annually because cracks may appear at any time in a tank's life. We can expect some number of tanks which show no cracks during current inspections to develop cracks in the future. Catalina tanks, all made from the 6061 alloy, are not subject to cracking.

At this time there is no reason to discard or remove all 3AL 6351 cylinders subject to cracking from service because only a few will become defective. Technical visual inspections should detect the cracks before they progress to leakage. Luxfer USA reports that cylinders with cracks progressing through two or more threads should be rejected and returned to the company by way of the distributor for free replacement.

Any diver with an aluminum tank should submit it to a certified tank inspector. Cylinder inspectors use both a magnifying dental type mirror and a handheld magnifying glass to view the entire threaded area.

Professional Scuba Instructors maintains a file on defective cylinders and forwards information to both DOT and Luxfer USA. Inspectors finding flawed tanks should send all shoulder code information to PSI, 6531 NE 198th St., Seattle, WA 98155. The full technique for inspection is described in the book *A Guide to Visual Cylinder Inspectors*, available from PSI for $16.50, postage paid.

The author, Bill High, is a marine scientist who formed Professional Scuba Inspectors (PSI) in 1982 to train technicians in the proper methods for visual cylinder inspection. A past President of NAUI, he has published more than 100 scientific and technical articles and was a major contributor to the NOAA diving manual.

Raise Hell

Once you head south from Cancun, that manufactured city on the tip of Mexico's Yucatan peninsula, you quickly enter picturesque (and poor) old Mexico, with thick jungles, a few residents fishing, hunting, and living off the land, and Mayan ruins, some seldom visited by tourists. Along the coast, diving can be quite nice, although the larger fish are disappearing. Club Akumal, about 50 miles south of Cancun, is the only dive resort. Not far away, an Alabama company is about to establish a 5000 acre quarry -- using dynamite to pulverize the limestone -- right on the shoreline, to be served by an excavated deep water port. The extent of the reef devastation may be limitless, especially since fish born and raised along the coast may find their way up to Cancun, across to Cozumel or southward to Belize. You can raise hell by writing to: Oficina del Estatal de Turismo, Av. Tulum No. 22, Gobierna del Estado, Cancun Q.R. 77500, Mexico and to Herb Skeinar, President, Vulcan Materials, POB 7497, Birmingham, AL 35253.