

## Lahaina, Island of Maui, Hawaii:

### *Whales, Sharks, Porpoises, and Pulchritude*

I must admit to a certain prejudice. I love Lahaina. It's such an extraordinary town that each time my stay is over I nearly call the airlines to tell them to give my seat to San Francisco to someone from Kansas City and never return.

Located on the overdeveloping island of Maui, Lahaina (pronounced Lā-hī-nā) was a booming whaling town in the mid 1800's when as many as fifty ships would be in port on a single day. Whales can still be sighted headed northward in early spring, often sounding just a short distance from dive boats traveling to the outer islands. Today, Lahaina (pop. 3000 plus) seems a curious combination of New Orleans and New England. It's full flavor can be found in the Pioneer Inn, where whaling ship hardware hangs from the walls, overhead fans beat slowly to keep the tradewinds moving through, Portuguese sausage, eggs, and steaming Kona coffee is served on the wooden porch at sunrise, and at night a honky tonk piano player pounds the ivory while locals and travelers in the 50 room hotel drink San Miguel beer and speak of the winds and water.

For one who loves the sea, Lahaina is homeport. The small moorage is filled with schooners and sloops which have sailed over from the mainland. Fishing boats journey out daily to give tourists a chance at big game fish or to bring home the main course for local restaurants. Surfers sit in the harbor waiting for the big wave, find it and ride it to the breakwater. Most of all Lahaina is a diver's town.

Half the boats moored seem to have some connection with diving. Of course there are the charters, and many private boats are rigged for diving. Beneath glass bottom boats \$3/hour divers clip coral for the benefit of \$5 customers above. A favorite trick is for one diver to sneak up on his buddy while he concentrates on breaking off a big coral head. The sneaker sinks his finger nails into his buddy's thighs and, as you can imagine, scares the bejesus out of him. All for the benefit of the tourists above.

Black coral divers head out to harvest their crop for local jewelry makers. They work from 200 to 260 feet, use two tanks on a single dive and may gather up to fifty pounds. At \$10/pound it sounds lucrative, but there are a lot of cripples in Lahaina. Last year, one black coral diver, while starting to decompress,

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was faced with a clear choice. One shark in a group had just bumped him and others began to frenzy. He could risk the attack or risk the bends. He chose the latter course and died before he could reach the decompression chamber in Pearl Harbor, two hours away.

I've always had first rate dives on interisland charter boats out of Lahaina. Visibility is usually 100 feet or more, although on this trip it ranged between 50 and 90. Regardless, the scenery was incredible.

Enormous curtains of yellow butterfly fish drape over undersea walls. They often swim parallel to the sides, entering caves upside down along the ceiling. Pairs of clown butterflies and trios of Moorish Idols flit about, while hundreds of false Moorish Idols, and pyramid, racoon, teardrop and thredfin butterflies weave together. Triggers in all varieties and large parrotfish are regular visitors, and on every dive a couple of 10-40 pound game fish always swim by.

Infrequently sharks are seen, but in Hawaiian waters they are well-mannered. Only 15 attacks have been recorded since the turn-of-the-century, although daily thousands of people swim, surf and dive. The real treat for divers is at Molokini, a small island an hour's boat trip from Lahaina. Two 7 foot whitetips and their offspring live in a cave 120 feet below the surface. Two babies were born this summer and occasionally their older siblings, now about 5 feet, visit. Divers drop by daily and the sharks have yet to mind photographers who get as close as six feet. If not in the mood for stardom, they simply swim away. Occasionally the family moves to another shelter in 40 feet of water, or ventures off, but of the six dives I've had at Molokini, I've seen at least one family member four times.

Porpoises often play alongside boats running to the outer islands. On a day when I chose to dive with another shop, Central Pacific stopped in a school of 200 porpoises to let the divers frolic among them. Oh, had I been there with my camera! I drowned my sorrows in Mai-tais at the Pioneer Inn.

Pulchritude! Lahaina is filled with beautiful young women and handsome young men who come from the mainland to wait tables or dive for \$3/hour just to enjoy the island's pleasures. For our single female divers, you can't help but keep occupied. For our single male divers, the view is eye-popping, but unless you're a local you might have to hope your dive boat is well endowed. Mine was.

Central Pacific Divers (780 Front St., Lahaina, Maui, Hawaii, 96761; 661-4661) This is a professional shop. They run their charters with the greatest of skill and although they are light on equipment stock (for example, I couldn't get straps for my rocket fins) they have most basics and are quick to handle any repairs. Owners Pete and Dale Huddleston charge \$30 for their daily two tank interisland trip (the price includes tanks, pack, and weights) or you can rent a tank, pack and belt for \$5/day and follow their free map for very adequate beach diving. To ensure space make reservations 2-3 days ahead (or write). For the 8am dive arrive no later than 7:45 or you'll be left at the dock holding your snorkel.

For the dive I chose to review, winds and current had reduced the number of accessible spots, so Dale charted a trip to the far side of Lanai, about 75 minutes away. Dale, who has the ability to don a full wet suit and all his gear in less than 60 seconds, tends to make divers feel a little hurried, but there's no penalty for taking your own time. It's your responsibility to handle all your gear, but

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you'll get help if you ask. After describing the dive plan, Dale told the three experienced divers to hang together while he coached the three newly certified divers making their first ocean venture. Once these divers felt comfortable, he said, we would join together. As it turned out, the divers never felt comfortable, left the water quickly, and refused to return for a second dive. Somewhere there's brand new equipment for sale. Cheap.

Visibility ranged from 50 to 90 feet, although I have been in the same spot when it was 120. As I have come to expect, butterfly fish, varieties of surgeons and tangs (including an occasional unicorn tang), wrasses and parrotfish were everywhere. Dale snatched a black trigger and handed to a lady diver for photos. The abundance and variety of fish nicely compensate for the average coral landscape and the lack of large gorgonia or basket and tube sponges.

On the next dive in a new area we found an 18-inch Triton's Trumpet and several cowries, all of which were left live on the ocean floor--a wise Central Pacific policy. To explore the many caves, the guide always brings a light. Dale caught a lobster, which we watched jerk away, and we spotted other cave creatures, but failed to locate any beautiful lionfish, which we normally do in the caves.

Central Pacific is developing two packages: 6 half-days of diving, and a 6 full-day package. Write for rates; you'll save about 10% on your dives. They also offer a rigorous five day NAUI certification course that is just perfect for the diver whose spouse wants to learn. Both Dale and Pete are exceptional guides in whose hands one will always feel quite safe. Along with their addition of a second boat they've added a new guide with whom I have never dove, but I can only assume he meets the high standards already established by Central Pacific.

Lahaina Dive Shop (Front Street, Lahaina).... This is an attractive shop in the best location in town. Having reservations for the morning dive, I arrived to learn that they had cancelled the trip because the skipper "wasn't feeling well." (I heard the cause had been a party the night before.) They quickly found another boat, the Maui Sun Divers, which I'll review later.

I signed up for an afternoon dive later in the week only to have that dive cancelled too; four others failed to show. I did get to meet the skipper, a surfer-type in his mid-20's, and his even younger bikini-clad assistant. I was impressed with their adolescence, but nothing else. I learned from unimpeachable sources that they had both been certified just this summer.

The Lahaina Dive Shop has a poor reputation locally and it's easy to tell why. The staff seems unconcerned, inexperienced, and unknowledgeable. Other touring divers I met had the same impression. It's unfortunate. They have such an excellent location and great potential. Regardless, I find the whole operation a bummer.

Maui Sun Divers (PO Box 1712, Lahaina; 661-4185).... The Maui Sun Divers, Kirk Duncan and Bob Lovellete, turned out to be a pleasant replacement for the Lahaina Dive Shop. They have no shop, but run their speedy little 20 footer every morning. We dove 200 yards off the Sheraton Hotel Beach. It was excellent for beginners. Bob brought two of his pupils (he's a NAUI instructor). The other customer aboard was a 50 year old fellow who hadn't been in the water



A member of the Molokini shark family. Divers visit here daily to observe and photograph this whitetip and its 7 foot parents. This reef is well populated with a wide variety of tropicals. Black coral begins to grow at 140 feet.



for ten years. Kirk provided very careful verbal instruction, helped him dress, then had him snorkel about for five minutes. Once comfortable, he slipped into his tanks and descended, with Kirk, to 25 feet. Both Kirk and Bob were excellent with the inexperienced divers.

On the second dive I had difficulty clearing my ears and unknowingly descended as I concentrated on squeezing my nose. To stop my descent Bob placed my arm over the anchor line, which I should have done but didn't. My problem was quickly solved. On the bottom we fed two giant morays by hand, while a striking yellow trumpet fish watched. On the first dive, in 60 foot visibility, there was a fair array of fish, but the highlight was a free swimming five foot moray which Kirk had coaxed from hiding.

Kirk and Bob offer a fine introduction for newcomers to gentle Maui waters. Two tanks are \$25. For experienced divers they make interisland trips. A two tank, overnight trip to Lanai, complete with sleeping bags--you might ask them to bring a third tank for an extra charge--is \$45, plus your share of the steaks. With libations and love it can be a fine way to cap a Maui diving holiday.

Dive Kaaupali (PO Box 98, Lahaina; 661-8100).... I called to reserve space for a morning dive and was told that I would join two other experienced divers to dive the U.S. Bluefin, a WWII submarine sitting in 130 feet of water. I arrived at the boat early, stayed late, but no one showed. I left angry. When I called later (they have no shop) I was told that the other divers had cancelled, but they were willing to take just me but because I didn't answer at the hotel they scrubbed the dive, not recalling that I had said I would meet them at the boat. Certainly an innocent mistake, but a disastrous one, since no struggling dive writer likes to be left in the lurch on a beautiful morning on his last day in town.

#### Best Bet in Lahaina....

Central Pacific in a walkaway, but if you're inexperienced you'll be wise to start with the Sun Divers.

Hotels: Pioneer Inn is \$18 to \$24 for standard rooms, and \$15-19 for community bath. Turn-of-the-century plain, yet adequate. Dinner in the lovely courtyard is inexpensive (8oz. sirloin for \$4), you cook it yourself, and includes all the baked beans and salad you can eat. It's a 50¢ bus ride to the beach. Three miles away, the Kaaupali resort area has several resort hotels in a similar price range. The Royal Lahaina is the best bet; it has the most happening and is adjacent to a pretty fair snorkeling beach. There are two golf courses and several tennis courts. Doubles are \$31 to \$41, year round.

Hawaiian Prices: Compare! Even for midwesterners and easterners, a trip to Hawaii may cost the same as a Caribbean sojourn. Hawaiian hotel rates are year round; they do not increase in the winter. Your travel agent can show you low air fare/hotel packages, including two bedroom condominiums renting for less than \$250/week with a car! Many good restaurants have \$4-8 dinners, and there are plenty of sandwich shops and a MacDonalds.

Divers Compass: All shops pick you up at your hotel, with the exception of Central Pacific...shop around at the airport for automobile rates; Robert's now offers four-door Toyotas for \$11/day and no mileage charge...Seats can be rough; bring sea sick pills...wet suit tops are important...Nagamine photoshop provides one day developing service (two days for 400 ASA) at mainland prices...may be some rain in January or February...Skin Diving Hawaii is out of business on Maui...With the exception of Central Pacific, boats don't require C-cards and take beginners...look for puka shells with a box fitted with a screen; wash sand through until the shells remain; necklaces now sell for less than \$10...gold coral jewelry is now the latest rage.

(C.C. 9/22/75)



## **Shark Repellent:** *A foolproof formula is three years away*

So far the effect of *Jaws* on our favorite sport of diving is unclear, but there is some indication that fewer people are interested in becoming certified and some experienced divers, after seeing the movie, are not as adventurous as they once were. Still, it may have an overwhelming positive effect if it stirs interest and financial support for a *startling new breakthrough* in the century-old search to discover a foolproof means to repel sharks.

Dr. Eugenie Clark, a marine biologist with the University of Maryland has indeed located that foolproof shark repellent in a foot-long flat fish, the Moses sole (*Pardachirus marmoratus*). During the last few years Dr. Clark has undertaken a number of experiments focusing on the milk-like venom produced from poison glands along the dorsal and anal fins of the sole. The Moses sole was tethered live in a tank inhabited by a pair of voracious whitetip sharks. As the first shark approached, jaws wide-open and ready to clamp down on the unprotected little sole, the shark came to a sudden stop! Its jaws seemed to lock. It shook its head violently, then thrashed about the tank to shake loose the paralyzing effects of the powerful venom. In another experiment Dr. Clark reported that over a 17-hour period the two sharks made repeated attacks on the sole, but upon inspection the chipper little fellow showed "not a scratch."

Dr. Clark and her associates have conducted scores of additional experiments both in tanks and in the Red Sea, the habitat of the Moses sole. So far, the invisible poison has warded off all predators, including four species of sharks. Once a barracuda took a cheap shot at a Moses sole being held in a divers hand, but stopped short of the final attack, shook itself convulsively, and disappeared faster than it arrived. On all counts, it looks like Dr. Clark has made scientific history.

In mid-September, Undercurrent contacted Dr. Clark to hear of her progress. She reported that they have learned that the poison secreted by the Moses sole is a highly complex protein which acts

against both the red blood cells (hemotoxic) and against the nervous system (neurotoxic) of predators. "We don't know yet which causes the lockjaw," she said. "The poison is so complex that it will take a great deal more research to determine that."

The poison will not be usable in its natural state, which we're sure the Moses sole is pleased to hear. Dr. Clark explained that it is not heat stable and therefore quickly loses its potency, even at room temperature. It must be synthesized, and that will take time and money. Research is now being conducted by chemists and toxicologists at Hebrew University in Israel. They need funds to speed up their study of the chemical nature of the poison, to understand its effect, and to create it in the laboratory.

To demonstrate the difficulty of the task, Dr. Clark pointed out that it took 15 years to synthesize insulin, a similarly complex compound. Today we know much more about the processes of producing synthetic chemicals, so with adequate financial support the researchers may get results in roughly three years.

Once synthesized, Dr. Clark believes "It can be sprayed on wet suits and the diver will need only a thimbleful, about 2 milliliters, for 18 hours of protection." Other repellents, when dumped into the water, dilute so rapidly their effect is lost in minutes. And that's the beauty of Moses sole milk; you'll be carrying an invisible yet foolproof shield wherever you go.

Producing the synthetic repellent is now the task of scientists at Hebrew University, but Dr. Clark reports "that many people are showing interest in this country." Readers who have ideas about financial support for this important endeavor should drop a note to Undercurrent and we'll see that Dr. Clark is notified. For more information about Dr. Clark's research and a glimpse at some fascinating photographs, refer to her excellent article in the November, 1974, issue of *National Geographic*: "The Red Sea's Sharkproof Fish."

## **Nikonos Nuts:** *There are two \$3.95 manuals for you — we pick one*

For the Nikonos owner, there are two popular books on the market. Both sell for \$3.95. The more impressive of the two is *Nikonos Photography: the Camera and the System* (2nd edition), by Fred Roberts. The other is the *Nikonos Owners Handbook*, by Peter Navarro.

Roberts uses extraordinary detail to cover every conceivable facet of Nikonos construction and operation. He also provides instructions for using a variety of non-Nikon accessories with the Nikonos:

Green Things devices, Oceanic Products extension tubes, Subsea strobes and extension tubes. And, of course, he doesn't overlook the Nikon accessories. He features an excellent 5-page chart on trouble shooting. Anything you want to know about the Nikonos—and just about anything the amateur needs to know about underwater photography—is right there in Roberts' 127 information-packed pages. It's quite a book.

Navarro's little book provides a lot of basics about



underwater photography. His description about Nikonos maintenance is excellent and much easier to follow than Roberts'. But from there on, Roberts' effort is the most comprehensive and useful. If you're a Nikonos nut and a spender, there's room for both books in your library. But you shouldn't be without

Roberts' superb publication. It's clearly the best bet.

For \$3.95 (plus 5% tax if you live in California) you may order either book from the publishers, Roberts Enterprises, P.O. Box 608, Dana Point, Ca. 92629. Peter Navarro, Navarro Nikonos Repair, P.O. Box 577, Campbell, Ca.

## Diving for Dollars: *Ten tips*

When we think about making money with our tanks on our back our first inclination is to think about working in, or owning, a dive shop or dive boat, teaching diving, publishing articles or selling photos, or running charter boats. Few of us have the time or the inclination for these demanding tasks, but still we might like to pick up a few bucks from our favorite sport. For the more clever among us, the gross income we derive from diving may not be so important as the leverage that diving income can give us in managing our income tax.

Here are ten tips for picking up extra dollars diving. For some they can mean pocket money, for others tax benefits, and for others perhaps subsistence or even a small business. The best way to get customers is to advertise under "Divers" or another appropriate title in the Yellow Pages (there's no charge for being listed if you have a business phone).

1. *Emergency Lost and Found.* Offer your services to dive for lost diamond rings, eyeglasses or whatever. Make your fee flexible, taking into account the value of the item lost and the difficulty finding it. Twenty five dollars is probably tops for finding a pair of glasses, while one hundred dollars or more is not unreasonable for locating expensive jewelry. Have a minimum charge for the dive, even if you're not successful. Credibility and honesty are important. *Don't* keep what you find and claim you were unsuccessful.

2. *Collecting for Local Aquariums.* If your local aquarium stores do not sell fish from local waters, meet with the owners and offer your local fish collection services. Be sure, however, to first check out the local waters to make certain there's adequate life to collect and sell. Charge by the fish. If, for example, the dealer is going to charge \$1.00 for a local specimen, try making your price 50¢. Don't overlook freshwater mollusks, newts, plants and saltwater anemones, and other unique creatures.

3. *Hull Cleaning.* Boats moored in salt water need periodic scraping and cleaning. The inconvenience and cost of having the boat dry-docked provides a good entre for divers. You need to know little about boats, but need a lot of elbow grease to get the job done. Depending upon the local economy you may charge from 50¢ to \$1.00 per foot. If you have access to the marina, distribute handbills to the boats and post signs where sailors and captains congregate.

4. *Collecting Local Memorabilia.* The population of antique, artifact and funky junk collectors is grow-

ing, and just about any well-encrusted bottle, rotting ship's wheel, or rusted chain with a good growth of barnacles is saleable if you find the right shop. Try the local antique shops, boutiques and funky junk shops. Don't overlook the restaurants, bars and bookshops that rely on nautical decor for their business. Try planting a few common bottles in a well hidden place in local water to learn how long it takes for them to become sufficiently encrusted to be appealing to potential purchasers. Once you've got the goods and found a local market, try starting an underwater bottle farm in your own secret spot.

5. *Bottom Survey.* Owners of small ponds often want to know what's in them and a letter to owners can stir interest. A Virginia diver wrote to several local farmers saying he would survey their pond bottoms for \$50, noting that because they were near civil war battlefields the farmers might have a few artifacts among the ooze. He received several responses, and did find an array of civil war and pre-civil war goodies in one pond. Some farmers may have other reasons to check out their ponds. Don't waste your time on ponds which are drained or dry up annually. And remember, some ponds are made by either people or beavers and may not be old enough to have anything on the bottom besides last summer's beer bottles.

6. *Boat Repair.* If you know a bit about boats, hulls and engines, you can inspect bottoms, replace props, and undertake minor underwater repairs. Charge by the job. Twenty to fifty dollars for a one tank dive is an acceptable range, depending on the severity of the repairs.

7. *Placing Buoy Markers.* Hundreds of channels are filled with obstructions which hinder navigation but have not been marked. Persuade local authorities—often the coast guard—of the need to attach buoys to the underwater obstructions, and offer your services. Charge around fifty dollars for the dive, depending upon depth and conditions. If you have to shop for the buoy and line, charge an hourly rate for your time.

8. *Lectures and Slide Shows.* If you have enough top quality slides to make a good presentation, organize them in a logical arrangement under an appropriate scheme—fish of the caribbean, local underwater creatures, reef fish of the world—and prepare a good lecture by researching your topic carefully. Sprinkle your comments with plenty of



obscure but fascinating facts and as much good humor as you can muster. Announce your lecture tour by mail to local clubs and organizations. One hundred dollars is a standard fee for a 45 to 90 minute presentation. When you're just getting started you may have to settle for much less, and if you improve you may offer your services for much more.

9. *Sewer Inspection.* If you're willing to enter the tunnels beneath your city's streets to inspect cables or whatever else needs inspecting, your city may

hire you. Contact your local authorities and be sure to charge them a very healthy fee, since it could be a very unhealthy job. They won't object.

10. *Underwater Construction and Repair.* Private dock owners occasionally need someone to do minor repairs and construction. Obviously you need knowledge about construction and underwater work for big jobs, but replacing a few bolts, securing floats and cables, and inspecting for damage are tasks the inexperienced person may handle. Bid by the entire job.

## **Aluminum Tanks:** *A fine product you can do without*

Where do you get accurate, unbiased information about new equipment so that you can make the right choice? Usually, you can depend on your local dive shop for the right answers, but unfortunately not always. A reader from Alabama wrote to tell us of two local dive shops locked in combat on tank sales. One pushed aluminum tanks from a major company at reduced prices. The other, which did not sell aluminum tanks, claimed that the tanks being sold inexpensively by its competitor were not only poor quality but indeed highly dangerous.

Our reader concluded by saying "It would be good to find out if these murky clouds of accusation are just so much vested-interest, profit-oriented, bull-bleep or whether there is some merit to them." We checked out the story and, yes, it is "profit-oriented bullbleep." Still, if anyone uncovers additional information, let us hear from you.

For sometime, divers have debated between aluminum and steel. Beside aluminum tanks being just a little bit lighter than steel, there are some plusses in the quality, a possible problem with air fills, and a potential danger in the size of the tanks.

### **Corrosion and Life Span**

Contrary to popular belief, aluminum does corrode, but the rate is so slow that it is nearly insignificant. Aluminum alloys create an oxide film which is highly resistant to corrosion and, in fact, if scratched is self-repairing. Still, corrosion is possible so you should give your tank routine visual inspections of the surface, the threads (if you change the valve) and keep your eye on the area covered by the metal straps from your backpack.

Like steel tanks, the inside of the aluminum tank should be inspected annually. Because you must have the right lighting and you must also know what to look for, have your dive shop conduct the inspection. Aluminum corrosion, for example, is not "red rust" but looks more like the dry, crumbly acid that gathers at the posts of your auto battery.

Aluminum will last you a lifetime. In fact, several lifetimes. But, a well maintained steel tank can also last you for as long as you need it.

### **Metal Softness**

Some people have claimed that aluminum is so soft the tank valve is likely to have a weak hold and can be blown out. Aluminum is softer than steel, but the alloys and the heat treatment rendered make aluminum tanks about as tough. The chances that you'll blow a valve are so small they're nearly incalculable.

### **All the air you can drink. Free. Forever.**

New England Divers stores have had a creative pricing policy for several years, and other dive shops might pay a little more attention to their success. They discount most everything they carry, and although you may occasionally beat their prices shopping around for a tank, you'll look forever to beat their *free-air-for-life* policy. If you buy a tank from New England Divers you can fill it as many times as you want for as long as you own it at any of their locations. With the price of air going up as fast as the price of gasoline, we just can't imagine any better deal. The New England Divers' tank policy is what intelligent business management is all about, and that's the kind of policy that makes divers come back for more. Now, are the thousands of other dive shops out there listening?

New England Divers have shops in Seattle, Miami, Los Angeles, San Diego, and Beverley, Massachusetts.

However, if you screw in the valve improperly you might strip the threads and that would increase the



chances of a blown valve. Insure yourself against the problem by having your dive shop insert a new valve. If they err, which is not likely, they'll have to accept the financial responsibility.

If you buy a new tank, you can ask the shop to check the threads before you take it home. If you inspect the threads, let the air out slowly so condensation doesn't form, and always keep at least 100 psi's in your tank to insure against corrosion.

### **A Disadvantage and a Danger**

Most aluminum tanks require 3000 psi's for a fill. Many dive boats and some dive shops don't have the capacity to pump 3000 psi's so in some places you may not be able to fill your tank. You may end up with no more bottom time with an under-filled 3000 psi aluminum tank than with a steel tank.

A potential hazard of the 80 cubic foot tank is its increased capacity. With the standard 72 cubic foot tank, it's damn tough to get bent on a single tank dive, although it's not impossible. An 80 cubic foot tank provides up to 12% more bottom time, radically increasing the chances that a single dive will require decompression. Many divers pay casual attention, if any, to the dive tables. They seem to presume that with a single tank on one dive they have nothing to worry about. If that belief carries over to the 80 ft. tank, it won't be long before the carefree diver finds himself a little bent out of shape.

80 ft. tanks are for divers who *need* more bottom time, not for people who simply want it. The highly experienced, cautious and intelligent diver can handle the added capacity. Most average sport divers shouldn't chance it. With the additional five or six minutes of air, you may have to spend ten minutes decompressing. Ask yourself about your diving. Is the extra air worth the hassle or risk?

### **U.S. Government Standards**

All tanks sold in the U.S. must meet Department of Transportation standards. Standards for aluminum tanks are more rigorous than for steel, but that is due in large part to requirements established because of the difference in metals. D.O.T. standards are very high and one should not infer that steel tanks are inferior or unsafe because of different standards.

### **Buying a tank**

Often, aluminum tanks are well discounted in dive shops. You can almost always find U.S. Divers tanks discounted in the course of a year. Coupled with their lifetime guarantee, U.S. Divers aluminum tanks are often the best bargain.

Given the qualities of aluminum, why other tank distributors don't offer the same guarantee is a mystery. In fact, all aluminum tanks sold in the U.S. are manufactured by the same company, Alcan, through an agreement with the English firm, Luxfer, which developed the aluminum tank. No matter whose tank you're buying (U.S. Divers, Voit, Dacor) you're buying the same tank. The dive companies add their paint and their name. And that's it.

If you're sold on aluminum tanks, simply look for the best price. Exterior coatings are useful but with regular inspections and maintenance you can forego the added expense. Tank liners, which are installed independently, are excess baggage for steel or aluminum.

Maintenance requirements for steel and aluminum are identical; annual internal inspections are recommended by everyone, including the manufacturers. The Department of Transportation requires a hydro-test every five years for *both* aluminum and steel.

All things considered, we believe that the average diver looking for a new tank might just as well purchase the least expensive steel tank he can find. Buy it from a legitimate dive shop or supplier and be sure to check the neck for the D.O.T. stamp. If you have a steel tank that is a little funky, but is still in good shape, avoid succumbing to Madison Avenue. Just clean up your tank, check it carefully for corrosion, perhaps paint it up, and have your dive shop give it a visual inspection.

The advertisements for aluminum tanks and the displays in dive shops make us all want to have a nice, extra large, shiny new cylinder strapped to our back. Diving is not sold as an underwater sport, but rather as a seaside fashion show. That's what advertising is supposed to do: make us discard our old, but entirely workable and safe piece of equipment, for something new. For most of us there are better ways to spend one hundred and fifty hard-earned bucks.

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*The editors welcome comments, suggestions and manuscripts from the readers of Undercurrent.*