

A Critique of World-wide Diving: Part I:

A summary of readers' experiences.

During the last year, Undercurrent readers have completed nearly 800 questionnaires evaluating their dive trips to scores of tropical areas. We ourselves have traveled extensively during the last several years and have talked with scores of divers about their diving and lodging experiences. In this and the following issue we will summarize this information to help our readers plan future dive vacations. Although the comments are clearly impressionistic, they are supported by data gathered on hundreds of dives of Undercurrent staff. If we have failed to mention all areas, it is because our data is insufficient. Rather than lead a reader astray, we've opted to show our own ignorance. The reviews will become an occasional but continuing feature of Undercurrent and we will update the information when appropriate. In reading our comments, please keep these points in mind.

1. Diving conditions in any spot change daily, weekly, monthly and yearly. One area might have 130 foot visibility and plenty of fish 51 weeks a year, but on your trip conditions stink. A good rainstorm, high winds, a few locals with dynamite, a group of marauding tourists, dredging for development, or industrial pollution can obviously change conditions rapidly.

2. Hotel and dive shop management changes, and guides at any given resort not only differ from one another but also come and go with frequency. One year (or one week) the guides might be barely able to get it together for a two tank dive, and once they do you might find yourself cruising a common reef 100 yards from the hotel beach. Next time, gung-ho guides take you five miles down the coast to a reef no one visits regularly and your eyes pop out. Sometimes it's because there's a new boat and sometimes it's simply because of an attitude change by the staff. There's inconsistency galore among many operations, particularly the smaller ones, and that means they're unpredictable. If your view of the places about which we comment is significantly different, that may be the reason. Where critical comments show up repeatedly, even though a majority believe the resort to be among the best anywhere, we indicate the reviews are mixed and we ourselves are uncertain.

3. An Undercurrent Axiom: The better the diving, the more remote the location. To the traveler, that means primitive living conditions. Electricity may come from a generator, the generator may go out, and you may not get a repair for a day or two. Hot water might be lukewarm, it might be cold. Cockroaches will

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probe your suitcase at night. Sheets may not be changed daily. Food may often not be fresh and on some islands it may never be fresh. If the single dive boat breaks down during your stay it may not be repaired before you leave. It may be impossible to get parts needed for equipment repair, batteries, film, insect repellent, a swimsuit or even aspirin--not to mention your favorite brand of liquor. Other than diving, swimming and sunning, there may be absolutely nothing else for a pastime. What sightseeing is available may require car rental. Nondivers might simply get bored--bored silly. If these possibilities bother you, then select the U.S. Virgins or Hawaii. Both have good diving--Hawaii excellent diving--and are accompanied with all the amenities of home for the nondiver.

4. It usually takes a full day to get to your destination and probably a full day to return--unless you live nearby or can take one plane. If your time is tight, heading to the more remote Caribbean or Central American spots is risky because the airlines are unreliable. Close connections often don't connect. Don't plan to dive on the day of arrival or departure--you won't have the time. If you do have time on the day of departure, still forego diving. Consider what might happen to your body, loaded with the nitrogen from a dive four hours earlier, if your plane loses pressurization at 35,000 feet.

5. English is spoken throughout the Caribbean and in Central America. No second language is necessary. Tourists report limited hostility toward Americans in a few places, but unlike the latter 60's and early 70's there seem to be few if any unpleasant incidents.

6. Nearly all places we've listed rent tanks, weightbelts and backpacks. No need to tote your own unless you are headed to a particularly remote area where you'll need your own compressor. In nearly all resorts, mask, fins and snorkels are available, but resorts may be low on supply or have too many broken straps, so avid snorkelers should bring their own. Trusting resorts for BC rental or regulator rental is not a good idea, nor is expecting any repair capability. Serious divers bring everything they need, plus a kit for emergency repairs. See Undercurrent, December 1975, for a sample travel repair kit. Throughout the Caribbean most tourists prefer diving with a wetsuit top. Protection against coral can be achieved by wearing a sweatshirt and long pants, which also increases warmth.

Now, a look, alphabetically, at many areas around the world where there are guides, or air, and places to stay. It's not a complete list, but the comments accurately reflect the opinions of divers who have gone before.

ANTIGUA, BRITISH WEST INDIES: Inadequate information, but apparently only average Caribbean diving. Dive operation and good snorkeling at Long Bay Hotel, 12 miles from town. Island interesting for tourists.

ARUBA, NETHERLANDS, ANTILLES: Not impressive. Most people dive the Holiday Inn shop and find the guides acceptable, but the guides can't do much about the quality of the reef. Unless you're heading there for a convention or stopover on your way to Bonaire, steer clear of the trip just for diving.

AUSTRALIA: Of course among the very best. Diving can be organized from any of the cities, but package deals sponsored by Bay Travel or See and Sea to the Great Barrier Reef are a good way to travel. See and Sea's well publicized annual trips to photograph the Great White Shark have been cancelled, due in part to local fears (however unfounded) that the forays attracted sharks to the beaches of Australia. The Great Barrier Reef runs from the northern-most tip of Australia, southward nearly to Brisbane. Perhaps the best diving is on Heron Island. It's

run by Walt and Jean Deas, famed Australian underwater photographers. An infinite variety of fish, coral, anemones, nudibranch, etc., makes this about the best diving anywhere. Diving at Lizard Island, at the north end of the reef would be excellent, but last word was that only a hookah is available. There's a major diving convention in Australia in September. Bay Travel will provide the information.

BAHAMAS: With over 700 islands, there's plenty of places to dive; air is available in two dozen locations, including Freeport, Eleuthera and North Eleuthera, Nassau, Abaco, Bimini, Exumas, Harbour Island, Long Island and San Salvador. Good diving year round. Apparently visibility is best in summer, but summer rains or an occasional hurricane might spoil a vacation. Locals slightly hostile toward Americans on some islands. A fine diving brochure is available from Bahama Tourist Office, 1701 First National Bank Building, Miami, Florida 33131.

Andros: Small Hope Bay is the divers overwhelming choice here. Most report plenty of fish and coral, 900 foot or more visibility, good guides with more freedom for advanced divers than usual, and a wall for deep diving. Isolated with nothing other to do than dive and relax, the Lodge is a little less expensive than many other Bahamas resorts. No beach diving.

Bimini: Readers reports on the quality of diving out of Browns Marina and South Bimini Yacht Club are mixed. The guides don't seem always to find the divers much in the way of coral or fish, but they may be saving the best spots for themselves. Teach/Tour is apparently opening a new program here soon, which will either find tourists the better spots or attempt to capitalize on the popularity of Bimini, which is sure to develop from the movie Islands in the Stream. Right now we would recommend waiting for more information before you travel here.

Current Club, North Eleuthera: (Reviewed by Undercurrent, December 1975). A small, isolated resort, which has one solid advantage over its average-plus diving. A short way away is a cut between two islands through which the tide roars; a 4-7 knot ride through the cut is an unparalleled thrill. One problem about which we get frequent reports is that the guides often are reluctant to dive the cut, and offer excuses; but the tourists believe they simply don't want to put the energy into the dive that's required. They're lazy. Since there's no reason to visit the Current Club other than the cut, management had better explore the validity of the claims. No beach diving or snorkeling, but plenty of small shells.

Freeport: (Reviewed by Undercurrent, May 1976). Average-plus diving in very carefully controlled circumstances by the Underwater Explorers Society, which even has its own recompression chamber. Excellent introduction to tropical waters for novices. UNEXSO is close to the Holiday Inn which also has dive tours by Scubahamas, a reasonably good operation headquartered at the Victoria Inn. There may be better diving at Freeport, but the guided trips don't always make the journey.

Nassau: Similar to Freeport and should be viewed as a stopover on the way to other islands, not as a dive vacation destination, unless the rest of the family needs plenty to keep them occupied while you dive. Underwater Tours and Bahama Divers get about equal marks for Nassau guides. Undercurrent read Harold Resnick reports finding super diving with the watersports manager from the restricted community of Lyford Cay, so if you can track him down, you might find better dive sites.

San Salvador: (Reviewed by Undercurrent, October 1976). A vast majority of divers are quite pleased with the diving, the accommodations (however isolated and small), and the ambience. Prolific fish and corals are the highlight although we receive an occasional complaint that the guides once in a while opt for the less prolific sites, a common complaint of many resorts. Due to heavy advertising campaigns, reservations are required well in advance for peak times.

Stella Maris, Long Island: Rates with the best in the Bahamas, but probably a notch below the comparable Small Hope Bay on Andros. Good fish and coral, 90 foot visibility and warm water, but no beach diving. Adequate accommodations and good food. Primarily a divers retreat with little else to do.

Elsewhere in the Bahamas: Insufficient information to be conclusive, but it looks like good diving reviews of the Cape Eleuthera Resort, mixed reviews of the Inn and the Marina Dive Shop at Treasure Cay, Abaco, and criticism of Ramora Bay on Harbour Island.

BARBADOS, BVI: Generally good diving with 90 foot visibility, but the reviews are mixed. Seems that Willies Water Sports offers the best diving at the Paradise Beach Hotel. People diving with Willies report the best underwater scenery. The island is interesting to tourists. We expect to review Barbados shortly.

BERMUDA: Awfully expensive in the summertime, when it's high season and the water is warm enough to get out of a full wetsuit. Bermuda is in the Gulf Stream, but if you check your map you'll see it's off the coast of the Carolina's about 1000 miles. Travelers report good diving, but not comparable to better Caribbean spots--at least if you must dive with the standard tour guides. The main diving operation is run out of the Sonesta Beach Hotel and is adequate, but Dave MacLeod's operation gets better marks. Better yet, Undercurrent reader Brian Frisk, a resident of Bermuda, has a tip. Upon arrival call the Bermuda Sub-Aqua Club (2-5896). Ask the diving officer for tips on places to dive. Brian says if you turn out to be a likeable chap, there's a fair-to-middlin' chance you'll be asked to join the locals for their dives. The Club also has tanks, packs and belts for rent, and pumps 3000 psi. For plenty of information on Bermuda, write the Department of Tourism, 630 Fifth Avenue, New York, NY 10020.

BELIZE: There's a lot of super diving along the Barrier Reef off Belize, but there are very mixed reviews about whether you'll see it if you stay and dive with such spas as the Paradise House Hotel or Ambergris Lodge. To tour such primitive places, your best off to join an organized group such as those sponsored by See and Sea or Go Diving, because if there are logistics problems at the resort the tour operators will have the good sense to take care of them or scrub the tour. At least one luxury dive boat is expected to begin tours of the reef this fall and others are rumored. There is, however, one resort which gets high marks, but rates among the most primitive and unpredictable anywhere:

Glover's Reef: After landing at Belize City Airport and being transported to the wharf, it's several hours by boat to this tiny atoll which is home for a 12 cabin diver's retreat. Those who have journeyed to this truly isolated diving spa have returned with eyes as large as scallops, claiming the diving is among the best anywhere. There's plenty of tropicals and big fish and the last word was that spearfishing was allowed. But it's so remote that if the generator goes haywire, or the boat breaks down. . .well. Accommodations are rustic, the food passable. There's absolutely nothing to do. But, oh dem fish!

THE CAYMANS: It's hard to imagine any more popular place for scuba divers, not only because of the plethora of dive operations, but also because of the first rate diving. Those who dived Grand Cayman a decade or more ago decry the decline in fish life and the quality of the reefs, yet Grand Cayman now well protects their waters and its creatures so the diving still remains better than most other places. Visibility can drop to 50-60 feet, but most people experience those 80, 100, 120 foot days. The waters are warm, the people gentle, and the weather generally good. Grand Cayman is truly a divers island and that is reason alone to travel there.

A current rate sheet for hotels, apartments and cottages on Grand Cayman can be obtained from the Cayman Department of Tourism, 250 California Avenue, Suite 604, Coral Gables, Florida 33134. There are two popular ways to accommodate oneself on Cayman. Divers on a budget stay at the \$20-\$25/day (winter rates) spots and lug their gear to a nearby shop for diving. Divers who know the island rent their own boats and head off to the reefs unguided. The more traditional way, of course, is to lodge at a diver's hotel, of which there are plenty on Cayman. At these hotels scores of divers rap on and on about their gear, their experiences, and their parties, which to some hard core divers is what a vacation is all about. From our own experiences and the well over 100 questionnaires which have recently dribbled in from divers visiting the Caymans, it looks like the Sunset House, Bob Soto's Dive Lodge, Cayman Kai, and the Spanish Bay Reef (with a reservation as indicated below) offer the best bet for good diving, acceptable food and accommodations. It's impossible to review all of the places on Grand Cayman, but these seem to be the most popular.

Spanish Bay Reef: One of the most popular dive resorts, with consistently favorable reviews both for diving and accommodations under the previous managers, Ron and Nancy Sefton. There has been some criticism of the new management, but it is too early to draw conclusions. We suspect they're just working out the lobs-ters, or is it the bugs. Many divers return to Spanish Bay yearly and we doubt they'll get their favorite retreat slip below their previously high standards.

Holiday Inn: Accommodations are fine, but travelers report great inconsistencies in food and service. Bob Soto and his enterprises run the dive shop and although the guides do a good job, from the comments we received it appears that experienced divers are more satisfied with a diver-oriented hotel. The plus is that it is located on beautiful West Bay Beach, not far from town.

Sunset House: Divers find the accommodations moderate but acceptable, but seem particularly pleased with Soto's operation here; the guides apparently take them where the fish area. Moderate prices, in Cayman terms, and close to town. About \$4 by cab.

Bob Soto's Dive Lodge: Most divers rate the guided tours here among the best on Cayman and have no problem with the accommodations, although there's an occasional complaint about the food. For nondivers, it's a long, long way to town.

Tortuga Club: The Club has possibilities as a hotel, but it is far over-priced. Divers rate the dive shop acceptable, but on the whole there is nothing at the Tortuga Club to recommend it, and its prices, over other alternatives.

Cayman Kai: Among the best for diving, the hotel is isolated and serene, with accommodations a little better than most. There are two bedroom units for families. Even the food scores higher than most others. The liability is that there is no beach diving, as with the other hotels, and being the hotel that is farthest from town, the cab fare into Georgetown runs about \$25.

CAYMAN BRAC: The little Buccaneer Inn has a number of avid supporters, but an occasional disappointed letter led us to a recent review which is forthcoming. Most divers find the accommodations and the food acceptable, and enjoy the reefs--primarily at Little Cayman. We found acceptable accommodations and average diving, although three tanks a day were permitted. The dive trips were average--not once did we visit the touted Little Cayman--and unless management gets its act together, the Buccaneer is overrated.

CURACAO: Similar to Aruba, Curacao should be viewed as a stopover, not as a destination.

FIJI: Rated by nearly everyone as one of the top spots worldwide. There's air and basic gear at the Scubahire Dive Shop, associated with the Tradewinds Hotel in Suva, with boat diving every day. A dive shop is tied in with the Travelodge on the Island of Taveuni, also. Experienced diver Zig Zighan of Mt. Kisco, New York just returned from Fiji early in April and reports that diving was "100% satisfying, absolutely excellent, and there are lots of things to do for non-divers". Hotels and diving are reasonably priced (about \$20 for two tanks), but the airfare. . .well, that's a months wages.

GALAPAGOS ISLANDS: Absolutely fascinating diving, and exploring due to the unique nature of the islands and the waters. Because of the isolation, only bona-fide tours should be taken by divers. See and Sea and Poseidon Adventures take trips, as does the Sierra Club and many conservation or study organizations.

GREECE: Many people fantasize about diving Greece, but the government, to prevent its artifacts from being ripped off, makes it nearly impossible to get guides or air. Diving is reported as occasionally interesting, but seldom excellent. Long waits are required for permission to dive and Undercurrent reader W. B. Lambert reports having to deposit \$300/tank for a dive. Unless you have legitimate archeological credentials and work out an arrangement with the Greek government prior to your departure, play out your diving fantasies elsewhere.

HAITI: The Witch Doctor has yet to bring fish to the reef (see Undercurrent, April 1976), but the unspoiled wall, 19 miles by boat from the Kaloa Beach Hotel, is pleasant, but not particularly prolific. Experienced divers don't find much to pique their interest and with reports of spotty dive shop management, people who visit Haiti should immerse themselves in the local culture and forget the diving.

HAWAII: Although without the lush soft coral and sponges or the marvelous coral colors of the Caribbean, Hawaiian Reefs are speckled with a glittering of fishes, perhaps more so than just about any Caribbean spot. With the right guide it's not uncommon to swim among butterflies extending as far as the 75-125+ foot visibility will let you see, or to photograph lion fish upside down in a cave. An advantage to travelers is that the accommodations and food are equivalent to whatever you wish to pay, from budget to luxury, that all diving equipment and repair needs are met, and that there's plenty to keep even the most finicky tourist happy. Best weather is mid-February to mid-December. Diving averages \$30 for two tanks.

Kauai: Diving quality is a notch or two below that of Maui and Kona and recently more than one reader has been critical of the nonchalance of the guides at the main shop, Sea Sage. Tour Kauai, but save your diving for elsewhere.

Hawaii, The Big Island: The best diving is on the Kona Coast, where a stone's throw offshore are more tropicals than you can shake your snorkel at. In Kailua-Kona, Hawaiian Divers and Tom Shockley offer the best diving. (If he's not available, look for Nick Berg running the Havaiki.) Those seeking the life of luxury and gourmet delights can settle in at the Kona Village and dive with Mike McIlvenna, one of the best resort guides you'll find anywhere. He is a diver, not a beach boy. The entire coast has plenty of fish, clear water, and overcast afternoons.

Lanai: Club Manukai, operated by diver Ron McComber, is a small diver-oriented hotel, away from the beach, but quiet and as inexpensive as anyplace you'll find. Those who go for isolation love it, and McComber has some of the best diving in Hawaii within a short shot from his boat dock.

Maui: With Central Pacific Divers, you'll experience some of the best diving with the most competent guides anywhere. They find the fish, give the experienced divers the free hand they wish, and provide TLC for those with fear in their eyes. Their one hour boat trips get to caves, untouched reefs, and a predator or two. For the for the less adventurous, dive with Bob LaFollette at the Kaanapali Beach Hotel. Their

Oahu: Diving with charters out of Honolulu is fine if you've never been in tropical waters, not so find if you've been in good water before. No shop stands out, but if you have a car try Aarons in Kailua, a half hour from Honolulu. The reefs are less picked over.

How's Your Regulator Working?

A simple test to try at home.

The entire diving industry deserves commendation for its continuing effort to persuade divers to maintain their equipment carefully. NASDS, PADI, NAUI, SDI and the YMCA continue to drill into our heads and their instructors' heads the importance of tank inspections and regular overhauls and BC maintenance. Every dive shop in the country seems to push maintenance, in part to make a buck, but more so for a deep concern for the welfare of the divers who pass through their doors. *Skin Diver Magazine* hammers maintenance into the head of the readers, almost *ad nauseum*, but Tzimoulis and his crew know that thousands of new divers are certified each month and that many of us old soaks need to read safety items half a dozen times before we finally take them to heart.

A careful diver can maintain just about every piece of his own gear with the skill of an expert.

With two exceptions. First, unless properly equipped, a diver cannot perform an adequate visual inspection of his tank and clean up the inside. That's for the experts.

Second, major regulator maintenance is a task for the trained only. It's damned rare to have a regulator fail because the manufacturer failed. It's not so rare to have it fail because it has not been recently overhauled or because the penny-wise, pound-foolish diver undertook the task himself.

When or how often should a regulator be overhauled? Yearly? Even if you only dived once? After 20 dives? Does that mean 20 tanks? Or 20 days of three tanks each? Or, what if you drop your regulator the

day after it's been made to hum by your local repair-person? Then what? Take it back? For many divers the question has a financial dimension. Just how many times can you afford to spend 10 or 20 bucks for an overhaul? What can you do to help you decide?

First, by taking a peek inside the second stage or by checking the first stage at the point of contact with your tank, you might notice some rust. Head for the shop.

Second, if you notice that your inhalation or exhalation are different from what they were the last time you used your regulator—head for the shop.

Third, if you intuitively think it's due for a check-out and overhaul—head for the shop.

Fourth, there's an excellent test we've been unaware of that surfaced in a long conversation with Dr. Glen Egstrom, the eminent dean of scuba research from UCLA. He apprised us of a simple little regulator test you can perform yourself that will indicate when the breathing characteristics of your regulator are no longer up to snuff, an indicator that means before your next dive your regulator needs work—head for the shop.

Here's how to perform the test:

1. From your junk drawer take out a 12-inch ruler, a roll of masking tape and find a board of any thickness but a foot wide and a couple of feet high.

2. Purchase about four feet of *clear* tubing, $3/16$ inch interior diameter, from a scientific supply house, your local druggist, or anywhere you can find it. Glass tubing can be carefully bent by heating it over a gas flame (from your stove's burner), or straight glass tub-

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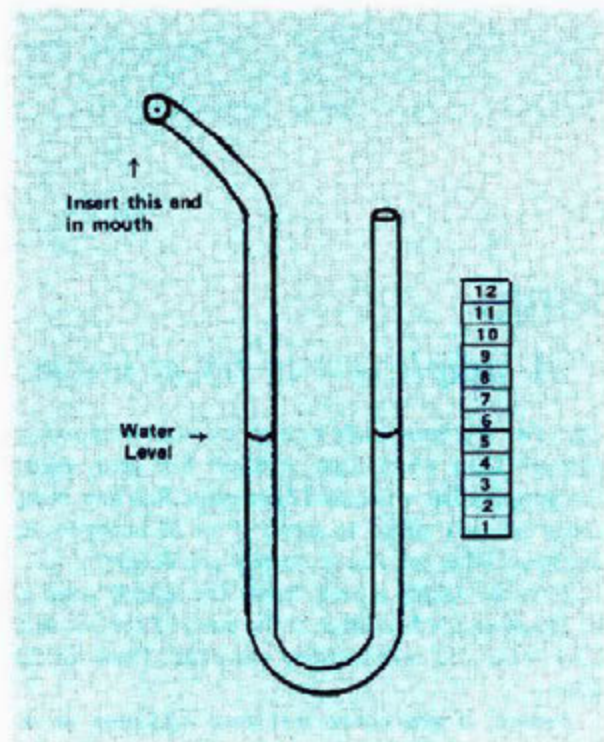
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ing can be used with 3/16" surgical tubing to form the "U".

3. Following the diagram, tape the tubing to the board in a "U" shape. One side (a) should be about 15

inches long, while the other side (b) should be at least 30 inches long. Be careful not to crimp the tubing at the curve.

4. You now have what the scientists say is a "manometer."

5. Fasten the ruler to the center of the board.

6. Pour water in the tubing until the water level on both sides comes up to 6 inches on the ruler, just as in the diagram.

7. Hook your regulator up to your tank, open the valve and put the regulator mouthpiece in your mouth.

8. Insert the long tube (b) into the corner of your mouth.

9. Breathe *normally* and watch the water level in the manometer fluctuate.

10. *If the fluctuations exceed three inches in either direction, your regulator needs an overhaul.*

One last tip: If you're a diver who wants to know all there is about regulators, then NAUI's 60-page book on regulators is just your ticket. Author Robert Gonsett has clearly written and cleverly illustrated the history, operation, maintenance and anything-else-you-need-to-know about regulators. Although it's a \$3.95 book, postage and a service charge make it \$5.40 delivered to your doorstep. Better yet, first order the free NAUI publication catalog. Then, if you order publications totaling more than \$5, you save the \$1 service charge. Either way, the address is NAUI, PO Box 630, Colton, CA 92324.

Two New Buoyancy Compensator Designs:

Kudos to Scubapro and U.S. Divers.

Scuba diving is not a sport of startling equipment innovations. Progress is forward and steady, but not radical. Manufacturers have tended to build upon existing equipment concepts rather than develop products based upon new concepts or new systems—regardless of advertising rhetoric.

Recently, Scubapro and U.S. Divers introduced buoyancy compensators which indeed represent new

concepts. Their designs are unique and meet needs previously unmet by standard BC's or backpack flotation devices. To appreciate what they have done, it is useful to understand the development of flotation devices.

A Triumph of Marketing?

Until the late 1960s, divers who used a flotation device—and that wasn't everyone, because many be-

DATE	TOPICS	NUMBER DESIRED	DATE	TOPICS	NUMBER DESIRED
Aug 75-Montego Bay, Jamaica, Triangle Air Fares		_____	Jun 76-St. Maarten, Two Novels, Nikonos Repair		_____
*Sep 75-St. Thomas, Tax Breaks for Divers		_____	Jul 76-The Kona Coast, OSHA, Why Divers Die		_____
Oct 75-Lahaina, Maui, Aluminum Tanks		_____	Aug 76-Baja I, Mexico, Bottom Timer, Travel Club		_____
Nov 75-Puerto Vallarta, Mexico, Homeswapping		_____	Sep 76-Baja II, Brawley vs. NASDS		_____
Dec 75-Current Club, Bahamas, Photo Discounts		_____	*Oct 76-San Salvador, Baja, Used Equipment		_____
Jan 76-Bonaire, BC Survey, Selling Your Photos		_____	†Nov-Dec 76-Micronesia I, Palm Beach, Florida, Wet Suit Survey		_____
Feb 76-Florida Keys I, Back Packs, Decomputer		_____	Jan 77-Micronesia II, Dry Suits, Fin Efficiencies		_____
Mar 76-Florida Keys II, Diving Stocks, Strobe Buys		_____	Feb 77-Cozumel, Current Diving, The Deep		_____
Apr 76-Haiti, SOS Decomp Meter		_____	Mar 77-Tobago, River Diving Techniques		_____
May 76-Freeport, Bahamas, Digital Depth Gauge		_____	† The cost of this issue is \$2.00.		
* Xerox copies only					

lieved that using any flotation device was cowardly—used the basic life vest now generally referred to as a “snorkeling vest.” In some respects, the development of the buoyancy compensator is more a marketing triumph than a radical product revelation because the more creative diver used the vest as a compensator. By adding an elongated inflator hose and increasing the lift capacity, however, the snorkeling vest became more suitable for the scuba diver; yet, the horsecollar design remained the same.

Useful additions have been and are continuing to be made to the horsecollar design—improved mouthpieces have been added to the hose; the device to improve inflation or deflation of the vest has been improved; an overpressure exhaust valve has been added; automatic inflator mechanisms now permit the BC to be filled from the tank; and most manufacturers are now adding a pull cord to permit the diver to dump excess air should he be rising too fast.

Still, the horsecollar design, a carryover from the snorkeling vest of yesteryear, remains the same. In fact, most manufacturers continue to market “all new” BC’s but with little variation from the models of other manufacturers except in workmanship and durability. The horsecollar design has worked well—it helps reduce fatigue underwater; it can be used to compensate for suit compression as a diver descends; it will bring a diver to the surface; and it will float a diver at the surface with his head out of the water, an important safety consideration.

It does have some drawbacks. It creates drag and therefore fatigue when used for long surface swims. Many models tend to press against the chest when inflated, thus reducing breathing capacity. Because the flotation is primarily around the chest area, it is difficult to rest horizontally on the surface—it hikes up and makes discrete surface movements very difficult. Although the addition of devices to the horsecollar BC surely improves its utility for the scuba diver, these do not eliminate many of the difficulties which remained as a result of borrowing the concept of the original safety vest.

Out of the desire to solve the problems of the horsecollar BC emerged the back flotation units, indeed a major equipment innovation. These units, integrated with the tank pack, reduce the number of straps needed, eliminate the chest compression of a front air pillow and allow divers to rest in a face-down position on the surface or to flip over to rest or to kick out while floating face up.

To many divers, back flotation units represent a definite improvement over the horsecollar. Other divers severely criticize their presence in the marketplace because they float an injured or unconscious diver face down, without his head being sufficiently out of the water. Furthermore, because they are attached to the tank pack, the diver cannot ditch his tank without ditching his flotation device. The advantages of comfort and ease give way to potential safety hazards.

Enter Scubapro and U.S. Divers

Both Scubapro and U.S. Divers have recently introduced revolutionary new designs in an effort to combine the strengths of both the horsecollar BC and the backpack flotation device, while eliminating each type’s disadvantages. Scubapro calls its product a *Stabilizing Jacket*; U.S. Divers’ product is the *Calypso Compensator*. We borrowed one of each and, with three experienced divers, two in swim trunks and one with a full wet suit, hood and gloves, spent a day in a pool to determine the characteristics of each unit.

Each device is based on a different design. The Scubapro unit looks like a vest with arm holes. A waist strap and a short chest strap connect the two sides of the vest in front; there is no crotch strap. There are fittings for a 38-gram CO₂ cartridge on each side of the vest. Tank inflation, oral inflation and deflation controls are on the hose on the left side and the overpressure valve with a dump cord is on the lower right hand side.

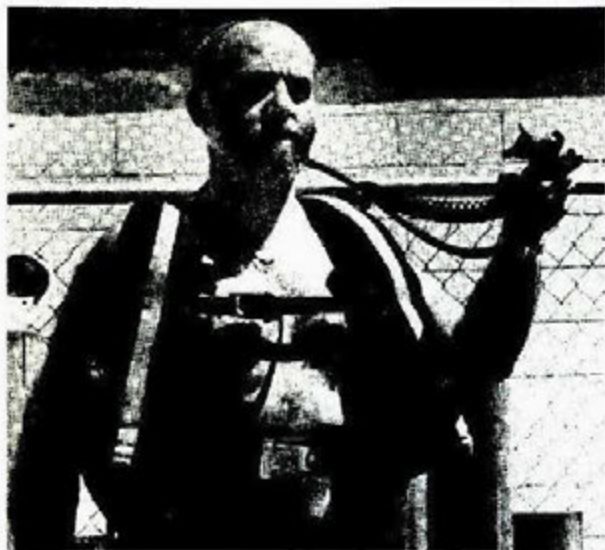
The U.S. Divers flotation system rides on the back and rises over the shoulders. It has a five-point buckle system joining the shoulder, waist and crotch straps at a mid-point on the chest. The tank inflation mechanism is located on the right side, collarbone high. The overpressure dump valve, with a long pull cord for manual release, is on top of the right shoulder. The oral inflation hose, with a mouthpiece similar to a police whistle, is located on the left side.

There are several similarities between the two. Both manufacturers attach the flotation bag to the backpack. Both units require a separate weight belt. Both provide oral inflation and tank inflation capabilities as standard equipment. Both eliminate weight support straps across the shoulders and under the arms. Both can be taken apart easily and slipped into a diver’s traveling bag.

Characteristics

Donning: We found the Scubapro unit the easier to put on. With the tank in place, simply push your arms through the holes, as you would if slipping into a man’s vest. You can use the common over-the-head method to don the vest/tank combination. Reach down through the arm holes, lift the tank and vest over your head, then let the unit slide down your back. We encountered no difficulties in donning this unit, even with gloves on.

Getting into the U.S. Divers unit is more difficult, mainly because of the complex strap-and-buckle arrangement which might make the diver feel as if he is suiting up for his first parachute drop. A buddy or a convenient place to sit is essential for dressing. Because the instruction booklet does not have a diagram of the buckling arrangement, it took several minutes to figure out how to secure the unit. We also determined that inflating the bag before putting it on can help. All straps attach to a master “key” ring and the key ring is then attached to the waist quick release buckle. It’s a



Mike Ford, owner of The Pinnacles Dive Shop in Novato, CA, tries the Scubapro Stabilizing Jacket.

two-handed operation and requires some steadying to complete it. Fastening the buckles with gloves on is more difficult, but would become easier with practice.

On the surface: We found the units to have similar performance in the water. *Both overcome the liabilities of backpack devices by floating the diver well out of the water when the bags are fully inflated.* With either unit the diver is floated in a vertical position, making surface conversation easy. Resting for a long period (for example, if waiting for rescue) would be relatively easy in either unit. A horizontal resting position can be maintained with very little fin movement. When kicking is stopped, the units tend to float the diver vertically in the water rather than in a horizontal face-down position. For long surface stays, which you hope you'll never need, it would even be possible to take a nap in this position.

The fully inflated U.S. Divers bag tends to billow up on each side of the head, over the shoulders, restricting head movement. Although this is of no significant consequence to the average sport diver, it is a bit uncomfortable and annoying. An instructor might find the restriction affects his ability to turn his head rapidly from side to side in order to keep track of students on the surface. Much of the restriction can be overcome simply by reaching up and pulling down on the top of the shoulder area, which for some may also be a comfortable resting position. By turning about in the water, an easy technique, a diver can view the full 360°.

We found the Scubapro unit to cause some chest compression when fully inflated, due to the high chest strap which holds the vest together. That was not a problem with the U.S. Divers unit, but with the U.S. Divers unit, those not wearing a wet suit were bothered with the crotch strap. As we all know, crotch straps tend to be a pain in . . . well, a pain in the crotch.

Surface swimming: Once trimmed out from the fully inflated position, both units were far superior to the

standard horsecollar unit and generally as easy to swim with as is the backpack. Water pressure tended to shift the air to the back, causing both to demonstrate the characteristics of the backpack.

Free diving: By removing the flotation bag from the backpack (or even leaving the backpack intact), it can be used for free diving. In our opinion, both worked as well as or better than the standard horsecollar BC for free diving.

Underwater movement: We found it easy to adjust the buoyancy of either unit underwater. When fully deflated, the bags tend to collapse upon themselves rather than bunching up. It appeared that the construction of both results in less drag than the horsecollar, but our information here is only an impression.

The units were easily vented or dumped from a vertical position. No substantial air pockets remained to restrict movement.

Conclusion:

We believe that both units provide a substantial improvement over the horsecollar design. In many respects they offer advantages similar to the backpack flotation device while overcoming the major and serious drawback of the backpacks—their inability to keep the face of an unconscious diver out of the water. These units reviewed do keep the diver's face out of the water.



Dave Mottshaw, who has terrorized the reefs and streets of Sausalito, CA, models the U.S. Divers Calypso compensator.

In summary, both offer excellent flotation, easy resting and easier surface swimming than the horse-collar. Both minimize or eliminate chest constriction when fully inflated and permit easy surface breathing. Both perform as buoyancy compensators as well as any other device.

Both can easily be disassembled and carried in a dive bag.

The differences: The Scubapro unit is easier to put on. It does not restrict head movement. All controls are on the left side, similar to most devices.

The U.S. Divers unit is more complicated to don and buckle; it restricts head movement at the surface and has right hand controls.

Our Recommendation

Both designs offer clear advantages to the horse-collar BC. Although similar in function to the backpack, they offer a clear margin of safety. If the price were equal, we would recommend a Scubapro unit for the reasons stated in the article. But—the price is not equal. The Scubapro unit retails for about \$230, the U.S. Divers unit for roughly \$135. Scubapro, which carries the elite image in the diving industry and has developed a rabid following of divers who believe in the quality of every Scubapro product, has indeed created a fine flotation device. And, Scubapro has overpriced it. For most divers, \$95 is too great a price to pay to overcome the five-point buckling system and

the surface head restriction. It's even a bit too much for us.

Our Caveat: The survey of buoyancy compensators published in the January, 1976, issue of *Undercurrent* indicated a great variation among manufacturers in the durability of their products. We noted that many of the earlier U.S. Divers BC I's and II's had problems, and we also noted that U.S. Divers has overcome those problems as the product evolved. We also noted general satisfaction in the quality of the Scubapro B.C. We can not attest to the durability of these products; they are simply too new. After a careful inspection of the workmanship of both, we do not foresee major problems or differences in their durability. Whether there is a difference will be determined only after each has been put to the real test of actual use by sport divers under all conditions.

And, not leaving well enough alone, a final word: Unless you're in the marketplace for a new flotation device, we doubt that you should junk a perfectly good BC to buy one of these new models. They come complete with backpack and automatic inflator, so your existing inflator and backpack are rendered obsolete. Newly certified divers or divers replacing old gear ought to give serious consideration, however, to these substantial advances in diver buoyancy compensation and safety.

Our kudos to Scubapro and U.S. Divers for breaking new ground.



Forgot to mention in the Cozumel review another reason to dive with Aqua Safari—3000 psi tanks. That's a lot more air for the money. . . . When traveling outside the U.S. or Canada, avoid the premium charges on overweight baggage by telling the airlines that the excess weight consists of sporting equipment and scuba gear (including your cameras). The extra tab will be *much lower* For Mexico travelers the plague of Montezuma's Revenge can wreck a trip. University of Texas medical researchers report they have found the villain—the bacteria *escherichia coli*—and have discovered that the best cure is simply *Pepto Bismol*. They're amazed and uncertain why it works, but claim a cure in just a few hours. Once Montezuma's comes aboard, anything is worth a try.

Looking for a used Nikonos or a slightly dented Oceanic Strobe? Want to part with your old Ikelite

housing because you no longer have the camera that used to fit it? *Shutterbug Ads* is a monthly newspaper jampacked with classifieds from people parting with their used camera gear or advertising for specific items. The "Underwater Equipment" section usually has two or three items for sale and underwater photographer Joe Strykowski runs regular ads saying he'll consider buying any used underwater photography equipment. More than 1000 monthly ads provide a bountiful marketplace for the photographer. Advertisers rate their gear according to standards supplied by the editors and the publisher's printed position on honesty is encouraging. Send \$5 for a one-year third-class mail subscription (\$13 for first-class mail) to *Shutterbug Ads*, Box 730, Titusville, FL 32780. . . . If you just want to dump your old stuff, send an honest description to Joe at Box 96, Hazelhurst, WI or call 715/356-3912.

Tom Shockley, the hang-loose guide extraordinaire of Kona's Hawaiian Divers, and his lady, Lisa, appeared in a recent issue of Japan's *Diving World*. They were featured in the centerfold—she stark naked, hanging on the side of the boat, and he, at least, with his *okole* covered.

Jean Paul Ferguson walked into a Camden, NJ hospital emergency room with a heart problem, identifying himself as a member of the Jacques Cousteau

diving team, listing his address as Casablanca and speaking several languages. Everybody quickly believed they had seen him on TV. Several days later he disappeared. A call to the Cousteau Society revealed that no one there had ever heard of him. The hospital director, left holding an unpaid \$3000 bill, experienced the first known sea-level case of rapture of the deep. He's resting not-so peacefully.

NAUI is altering the format of the IQ 9 to get into some of the heretofore hushed-up topics in diving. A giant step forward for the industry. Our best wishes and support for a smashing IQ 9 in Miami.

For new discount photo equipment, John Korn of San Rafael, CA, prefers dealing with a Hong Kong outfit that will ship you the Nikonos III with the 35mm lens for \$248 plus about \$35 for duty and air postage. Their catalog of photographic equipment and watches costs \$1. Send the greenback to A.W. White Photo Supplies, Box 6018 TST PO, Hong Kong. Caution: Photo equipment purchased outside the United States comes generally without a one-year warranty.

The state of Texas recently ruled that air fills were subject to sales tax, so Don Dibble, owner of the Dive Shop in San Marcos, said "bull bleep." Together with his attorney he appealed and beat the bureaucrats. . . Imagine! a tax on air. A penny a breath, folks. Since taxing the air we breathe might appear unconstitutional to a back porch lawyer, we recommend to our beloved officials an equally effective alternative. Since the deeper we dive the more air we consume, by taxing the depth to which we dive hard-pressed jurisdictions can raise revenue and still avoid placing a tax on air. The tax collectors could take up saturated residence in habitats at hundreds of our favorite dive sites to collect the shekles as we descend—10 cents for every atmosphere. We figure it would take \$1.7 billion to finance the collection program, including habitats, and \$33 million to administer it each year. It should collect a grand total of \$1.8 billion each year, which, if we apply normal government logic, makes the expenditure worthwhile. Now, Don Dibble, are you ready for this fight?

Hobby shops sell attractive metal neckbands—a buck upwards. Most jewelers drill holes in delicate shells for less than a buck. The result is a very nice necklace for yourself, or a very personal gift for a friend.

One Hundred Forty-one Dives in the Protected Waters of Washington and British Columbia, Betty Pratt Johnson's book, is undoubtedly the finest guidebook to local diving we have ever seen. There's incredible diving in those cold and clear waters, but even if you don't get to the Pacific Northwest, the book will whet your appetite and look good on the coffee table. A couple of hundred black-and-white photos and maps on 394 pages will tell you where to find octopus,

where to spear, where to look for wrecks and bottles, why to avoid the rattfish and how the government will string you up by your snorkel if you spear an octopus or exceed the limit of geoducks. The cost: \$11.95 postpaid, from the Writing Works, 7438 SE 40th St., Mercer Island, WA 98040.

In a number of accessible spots in Puget Sound, artificial reefs are being created in the normal way, with sunken barges and discarded tires. However, nylon stockings and pantyhose are being tied to the reefs, their toes being filled with styrofoam so the nylon floats upward. *Sports Illustrated* recently reported that the Parks and Recreation Department found squid eggs attached to the nylon within seven days. Schools of fry immediately began swimming about the nylon, followed soon by curious crabs and starfish. For those clubs planning to construct reefs, there seems to be no trick other than collecting the stockings, adding a little flotation and tying them to the reef. Where and how the garments are collected may be left up to one's imagination, but because of some of the macho bunches we've hit the water with, we suspect there'd better be some hard and fast rules.

Re: the Gaffney/Brawley article in last month's issue: John Gaffney, Executive Director of NASDS says: "Your latest issue and the comments you made are part of the reasons I don't like to make comments to you.

"I never said that we have been *working on a new manual* for 16 months. I said that we have been *putting the book together* for 16 months. We have been working on the book for four years.

"I have never taught a scuba class. I don't hold an instructor's card. My job is not teaching, but developing systems to teach. If I was [sic] an instructor, my mind would be bottled up like most instructors are. Rather, I feed systems and innovations and these are sent to our member store/schools on a trial and error basis. If they work, then we use them, not before. . ."

"Help," cries Ayris Radich of Sacramento, CA, "I've flooded my Nikonos!" It may be too late to help her this time, but next time, Ayris, take that flooded Nikonos apart and drop it into a Tupperware container filled with *fresh water* and ship it to Peter Navarro (PO Box 577, Campbell, CA 95008). Pete says the fresh water will retard corrosion and he'll take care of every little seawater problem for you. Of course, it'll cost you—but far less than a new camera might. Peter, as you recall, is that super Nikonos repairman with the reasonable prices we recommended in greater detail in the June, 1976, issue of *Undercurrent*.

Correspondents located strategically in the major diving areas of the world as well as on all coasts and major inland waters of the continental United States.

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