

undercurrent®

THE PRIVATE EXCLUSIVE GUIDE FOR SERIOUS DIVERS

P. O. Box 1658, Sausalito, California 94965

Cable Address: Gooddiving

Volume 11, Number 2

February 1986

St. Vincent, Grenadines, W.I.

-- Taking Diving To The EDGE

The lead island in the Grenadine chain, St. Vincent, is lush and tropical, an island with many of the forgotten virtues -- and difficulties -- of the Caribbean in the 1950s. Because its airstrip is too short to receive commercial jets, one reaches St. Vincent from Barbados or St. Lucia via LIAT airlines. And there the fun begins. It did for me. Locals say LIAT means "leave island any time" and one has to be prepared for just such a nonschedule. My plane was to depart Barbados at 8:50 P.M. It was not until 9:20 that a delay to 10:00 P.M. was announced. We boarded at 10:15, only to be asked, once our seatbelts were fastened, to deplane. We boarded another plane at 10:45. Midair the pilot announced that those passengers who were headed for Grenada, our second stop, would be returned to Barbados. The Grenada airport was closed for the evening. It's those kinds of hassles that keep impatient travelers away from the smaller Caribbean islands. And that's fine with me.

That sort of unexpected air trip may be consistent with the St. Vincent experience, unless one wishes to reside at the private Young Island and remain protected from the rest of the world. I did that five years ago (see Undercurrent, March 1981), but this time around I decided to approach St. Vincent a little differently, selecting the 15-room Mariner's Inn on Villa Beach where a few small hotels are strung out within a mile of each other. Only a couple have any semblance of a beach.

None of these mainland hotels is elaborate. But each has its own kind of quiet, old island charm, providing a return to a noncommercial Caribbean. Right across the way, no more than 200 yards, sits the pricey Young Island, where during winter season people pay as much as \$275/night, double occupancy. In early December I stayed at the Mariner: \$40 double (no meals), for a room with a large veranda on

INSIDE UNDERCURRENT

The Stress Of Scuba Diving: Part II	
-- <i>Saving Yourself In The Face Of Panic</i>	p.5
How Good Is Your Regulator?	p.6
Regulator Questionnaire	
-- <i>Readers Survey</i>	p.7
Organizing Group Travel	
-- <i>Saving Time, Money And Sweat</i>	p.9
Getting Your Discount And Commission	p.10
New Perspectives For Out Of Air Emergencies	
-- <i>And Why The Old May Not Work</i>	p.12
Dear Undercurrent	p.14

water's edge. It was a tad funky; thick dust on the ledges, one musty-smelling pillow, but its white stucco walls and overhead fan made it certainly livable.

None of these hotels has a dive shop, but each is ably served. Mariners Aquatic Sports, run by Susan Halbich, is two doors from the Mariners Inn. A mile down the road, behind CSY (Caribbean Sailing Yachts, where island-hopping boats moor and sailors overnight in pleasant second deck rooms) is Dive St. Vincent, run by Bill Tewes.

I decided to begin my diving with Bill. Having dived and written about Susan five years ago (and finding her a very capable instructor and guide), I didn't want to blow my cover. Furthermore, her diving business has less emphasis. Her shoreside home not only supports her diving charters, but also serves her husband's 45' sailboat charters as well as providing windsurfing, waterskiing and even ocean taxi service. Bill Tewes concentrates on diving and although they compete for the same business, they don't compete with one another. Both suggested I should dive with the other at least once for comparison sake and each will turn their divers over to the other if they have to scrub a dive. Yet there are differences. Let me cite them.

Susan runs a 22-foot open cabin outboard. Bill has a 27-foot cabined inboard. Both boats are fast, but Bill's is more comfortable and takes more divers. Bill runs both one and two tank trips, depending upon what his customers want; Susan runs mainly single tank afternoon dives, often only one a day. Bill's divers do little; his help carries all gear back and forth the fifty yards between the shop and the boat, hooks up tanks, and slaps them on your back while you sit on the edge of the boat; on Susan's craft, you dress yourself, although help is available if requested. They both dive the same sites, but each has different names for those locations. Bill charges \$35 for a single tank, \$50 for two tanks; Susan has the same basic rates, but she drops her prices substantially if you take several tanks with her. Both checked my C-card. Bill gives you deeper dives and more bottom time. He doesn't follow the U.S. Navy tables. He uses the EDGE meter.

Upon meeting Bill, I got the picture, from his wiry frame and unsettled beard, that he could be a 60's Berkeley burnout. He could even be a diving burnout, given a history ranging from as far and wide as guiding dives at UNEXCO in the Bahamas and starting the dive operation at Jais Iban in Papua, New Guinea. I was quick to learn that he is more gung ho about diving than are most of his customers. Not only did he take me out when I was the only diver, he informed me that he uses the EDGE meter on his dives so he can go deeper and stay longer. I could follow the meter or follow the tables. Being familiar with multilevel diving (see Undercurrent, January 1984), I opted to follow his meter, though I must admit to some trepidation when I

Copyright 1986 by Alcom Inc., Alcom Building, 2315 Broadway, New York, NY 10024. All rights reserved. *Undercurrent* (ISSN: 0192-0871) is published monthly by Alcom Inc. Copies of this guide are not available on newsstands, but are furnished directly to the diving public by mail subscription only. To maintain its independence *Undercurrent* carries no advertising. Permission to photocopy articles herein is granted by Alcom Publishers, Inc. to libraries and other users registered with the Copyright Clearance Center (CCC) for internal and personal use only at the base fee of \$10 per article plus \$1 per page paid directly to CCC, 21 Congress Street, Salem, MA 01970. Serial Fee Code: 0871/85\$10 + \$1. Other copying by any electronic

or mechanical means, including information storage and data retrieval systems, without the express written permission of the publisher are strictly forbidden. News media may use no more than one quarter page of material per issue, provided that *Undercurrent* is credited. POSTMASTER: Send address change with old label to *Undercurrent* Newsletter, 2315 Broadway, New York, NY 10024. Second Class Postage paid at New York, N.Y.

If you wish to receive the accurate, inside information *Undercurrent* offers, please send your check for \$28 (U.S. funds) to *Undercurrent*, Alcom Building, 2315 Broadway, New York, NY 10024-4397, and get a valuable free gift.

considered bottom times that would extend far beyond what my PADI instructor had years ago pounded into my head.

To Wit: On one dive which Bill calls the Wall, we were instructed to become negatively buoyant at 30 feet. We then plummeted or floated straight down to 110 feet. Here was a beautiful wall, resplendent with a variety of coral bushes, some as white as snowsprayed Christmas trees, and others big, branchy and black. Gorgeous wire coral and sponges provided further decoration. Forty feet below, three big French angels ambled along. A 25-lb. snapper came from the rocks, spotted me and slipped back in. After 10 minutes, we rose to 90 feet, drifted up to 70, then eventually to 30, swimming through coral gardens with hundreds of tropicals. At 20 feet a school of squid hovered suspiciously. We eventually left the water 55 minutes after the dive began; after a surface interval of 20 minutes we took the next dive: Fifty minutes to a maximum depth of 55 feet. And we still had plenty of shallow water bottom time left.

ST. VINCENT, GRENADINES, W.I.

Diving for Beginners	★ ★ ★½
Diving for Experienced	★ ★ ★½
Beach snorkeling	★

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

Throughout each dive I often checked Bill's EDGE, not only from curiosity, but also to take responsibility for my own hide. I don't like relying on other people's gauges. On one dive in 40-foot visibility I flat-out lost sight of Bill. It was a second dive, to 100 feet, and I had not been monitoring the time at depth. Checking my fear, I began to move to a shallower depth. But Bill, with the experienced diver's second sense, appeared alongside within a minute.

I saw enough of the EDGE to want my own, but I wonder how many resorts will permit a diver to use the device? It obviously raises hell with the "throw-'em-in-the-water-and-get-them-out-as-quick-as-you-can" philosophy. On the U.S Navy tables these dives would give us 15 minutes; that extra 35 will disturb burned out guides and tight schedules. On live-aboard boats the EDGE causes no problems, but you can bet that in the next few years there'll be plenty of confrontations -- and not for valid reasons -- between divers sporting EDGES and resorts demanding table diving.

Now back to the diving. I liked it. Not great, but surely good enough. The backdrop varied from nice healthy coral and sponges (along beautiful verdant island walls), to not-so-interesting arrays of boulders and silted coral. There are a couple of sizeable wrecks to dive. And there are fish, fish, fish. Not many big ones (Bill has seen one tiny shark in 400+ dives), but great schools of brown chromis appeared on every dive, always a few spotted drum, cowfish, a small moray or two, perhaps a scorpion fish and hundreds of common reef fish. Trumpet fish were especially plentiful; because they change colors to match the background, not a color from the rainbow was missing. On two dives we spotted seahorses, on another brittle stars were wrapped around every coral head and sponge as far as I could see.

And there are old bottles to be found. Tewes took two bottle dives in the harbor to 100+ feet, in 30 to 50-foot visibility. I

picked up at least forty bottles, discarding each for being too recent. He retrieved four bottles, two more than a century old, two others turn-of-the-century vintage. I pouted. He offered me one, which I refused, saying I'd wait to find my own. As I write this, I resent my stubborn pride. How nice that old bottle would look on my bookshelf. Thanks, Bill, for the friendly offer.

For me, each dive with Bill seemed like an adventure, even if it wasn't. Experienced divers should find him to their liking. I did. Experienced divers may do what they wish with Susan, as well, and less-experienced divers, it was my observation, will feel safer and more comfortable with her. She's the more attentive of the two. For example, on one dive with Bill, a diver with half-a-dozen ocean dives ran low on air at 60 feet. Bill sent him off to the surface alone, while he and I disappeared behind a coral head. I doubt that Susan would do the same. That's another difference between the two. Pick the one you'll be most comfortable with. And if one doesn't operate one day, no doubt the other will accommodate you.

Between dives there's a lot to see on this tropical, emerald, mountainous isle. Guides can be procured for a hike to the volcano Soufriere, which erupted in 1979. One can visit botanical gardens, old forts, a busy city or mountaintops with vistas nearly the full length of the Grenadines. I enjoyed a tortuous taxi trip to the beautiful mountain gardens of Montreal. Near the hotel, my partner and I jogged a mile or two back into the countryside, past walking villagers, grazing animals and stalks of ripe bananas dangling from roadside palms. The people are just as friendly as I cared to be. We walked a fair amount, but public vans are 40 cents one way to many destinations. And there are plenty of cabs.

Curiously, I didn't eat a dinner at the Mariner's; because there were so few guests, it was just too quiet. But by balancing down the seawall out front, I was within three minutes of good pub food at the Blue Dolphin (a giant pizza with all the trimmings was \$12) and the first-rate French Restaurant, where two full meals with a bottle of wine ran \$40 to \$60. That included plates of several fresh vegetables, carefully prepared soups and salads, beautifully-sauced fish and lobster right from the tank. As I sat on their open porch on a warm December evening, watching the lights of the bobbing boats fifty yards out, I knew it was worth every last nickel. And for that kind of tariff, one can eat across the way at Young Island, which everyone gives high marks for its fine cuisine.

Seeking dinner often provided adventure on a par with flying LIAT. I drove to two restaurants in town, highly recommended by Fodor's Travel Guide. Both were closed on a Saturday night. I had an excellent dinner at CSY, but when I asked what the Chef's special was the waiter told me that only the chef knew and I would have to order it to find out. And he was serious. I went to a tiny little restaurant in Georgetown; the proprietor said she had no food, although someone else was eating. I said I'd have what he had, but the proprietor said it was only beans and rice. I said I'd take it. When the plate arrived there was chicken on it. I tried dinner at the Ocean View (near CSY) one night, but it was locked tight. From below emerged Raymond Clarke, a shirtless and woolly St. Vincentian, who said he was closed but he'd shop and cook for us tomorrow night. The next night my partner and I were the only diners in a defunct disco, soundproofed with fluorescent

egg cartons on the ceiling and black light drawings on the wall. Acker Bilk was the background music, (don't fret if you don't recognize the name). We moved to his little bar, watched him cook up fresh marinated chicken, soup, and vegetables and rice, had a couple of rums and a great conversation. He charged \$10 for his trouble.

One need not lead this sort of adventurous life to enjoy St. Vincent. The motel-like Sunset Shores, not far from the Mariners, may not have many more guests in the off season, but it does have a beach. Young Island, a beautiful hotel, with superb food, and a gracious and helpful staff, is as romantic as can be. Both dive shops pick up divers (read my March 1981 review, or ask any travel agent for details).

I'll return to St. Vincent again, but not as the Undercurrent writer. As I got ready to dive with Susan, she said: "you look awfully familiar. Have you been here before?" I told her I'd been to St. Vincent, but not to dive, a little fib, of course. "You kind of look like a writer who was from Underwater Currents years ago. They sneak around, you know. I don't remember names, I do well with faces. You look like him." "Not me," I said. She shrugged her shoulders. "What did he write?" I asked. "Well, he gave us a good write-up."

He still does.

Divers Compass: Both Bill and Susan offer resort courses and certification ... There's not much in the way of beach snorkeling... negotiate all cab rides by first asking the price, then offering 25%-35% less ... Bill Tewes has put together package deals with hotels which he'll send you if you request (Box 864, St. Vincent, West Indies; 809/458-4714) ... to contact Susan Halbich: Box 639, St. Vincent, W.I.; 809/458-4824 ... I recommend using travel agents for hotel reservations rather than calling direct, since phone calls provide no written confirmation; if you insist, these are some numbers: Young Island (809/458-4826) ... Coconut Beach Hotel (809/458-4231); Mariner's Inn (809/458-4287); Sunset Shores (809/458-4411) ... Thanks to subscriber Betty Oxford of Brandon, Mississippi, who wrote us about St. Vincent in November and jogged my memory enough to cause me to return to write this review.

C C, travel editor

The Stress Of Scuba Diving: Part II

-- Saving Yourself In The Face Of Panic

This is the second of a two part article on stress, by Dr. Tom Griffiths, the Director of Aquatics at Indiana State University.

★ ★ ★ ★ ★

Excessive stress distracts a diver from concentrating on the specifics of the dive. If a diver displays the physiological or behavioral stress symptoms before the dive, the dive should be delayed or canceled. The stressed diver should be counseled with the aim of decreasing stress and increasing concentra-

tion on the task at hand. Several methods may be used to help a highly stressed diver.

Talk: Taking the time to explain all the dive procedures in detail is perhaps the easiest and most efficient way to help. One should not draw attention to the diver's nervousness. The dialogue should be friendly, informative and full of encouragement.

Accentuate the Positive: Highly stressed divers often dwell on the negative aspects of the dive. To combat this, focus verbally on all the positive facets

of the dive (for example, the good weather, the unusually good visibility and the warm water temperature) while deemphasizing the negative aspects.

Fight Distraction with Distractions: Excessive stress distracts the diver from functioning properly underwater. Giving the diver something to do while diving will keep him occupied and distracted from his nervousness. Some examples are helping to collect samples, identifying certain forms of marine life and keeping track of depth and time. The diver must not, however, be overburdened with too many tasks.

Buddy-up Weak with Strong: A stressful diver should pair up with a strong, confident diver, preferably a talkative, helpful and responsible person. However, if in diver training, the weaker diver must be given progressively more responsibility to prevent him from becoming a dependent diver.

Use a Buddy-Line: Even in clear water, a buddy-line can help to reduce stress by increasing contact and communication with the dive partner.

Offer Praise and Encouragement: One might help the extremely stressed diver by continually offering praise and encouragement, even when the diver makes mistakes.

Practice the Calming Response: A deep-breathing exercise promotes relaxation and enhances respiratory efficiency in a matter of minutes. It is easy to learn and practice and may be used on land prior to the dive or underwater. Called the Calming Response, it combines yogic breathing (diaphragmatic or stomach breathing) with autogenic phrases. As the diver inhales deeply, the stomach (not the chest) is pushed out and then drawn in during exhalation. During the slow, deep inhalation, the diver mentally says, "I feel calm." During the slow, full exhalation, the diver mentally says, "I feel warm."

The dive partner should be friendly and encouraging while attempting to help a nervous diver. Partners who are unable to help a diver cope with excessive stress prior to the first dive must have enough courage to tell the diver not to dive.

Perhaps the most efficient way to combat excessive stress while the diver is in the water is to remove the victim slowly and carefully from the situation.

Once on the surface, the victim should be made positively buoyant (as discretely as possible, in order to avoid additional stress) by dropping the weight belt and/or inflating the B.C. At this time, the victim may be treated for stress in the same fashion as during the pre-dive state. Verbal reassurance, encouragement and accentuating the positive while minimizing the negative aspects of the dive will reduce stress.

Prevention and Control: The Diver's Areas Of Responsibility

If three general areas of responsibility are attended

How Good Is Your Regulator

We have published a number of studies of regulators when they're fresh off the shelf, but we've never seen any systematic review of regulators once divers have put them to the test. Do the regulators of some manufacturers hold up better than others? Are there any systematic problems in single models? Are there problems we divers should know about?

Please help with our survey by completing the questionnaire on the adjacent page. Be as thorough as possible and please highlight any problems you have experienced. Return your questionnaire to:

Ben Davison
Undercurrent
Post Office Box 1658
Sausalito, CA 94966

We'll publish the results in an upcoming issue.

to by each diver, stress levels can be kept under control.

Water Conditions

A diver should not engage in a dive for which he has had no specific training. Each diver should know the conditions of the water prior to entering it. The unknown or unexpected easily breeds apprehension. Each diver should consider the wave action, weather conditions, visibility, dangerous marine life, entry conditions, bottom conditions and dive conditions specific to the environment (e.g., cave, lake, ocean).

Equipment

Not only must all gear be in good working order, but the diver must also be familiar with the specific gear to be used. New or unfamiliar gear should be tried first in a swimming pool, not in open water. All scuba equipment should be overhauled or serviced by a certified scuba specialist at least once a year. Additionally, divers should understand the basic mechanical principles of the scuba equipment.

Perhaps the most important area of responsibility is the physical and psychological well-being of the diver about to enter the water. To avoid excessive stress the diver should maintain physical fitness, overlearn skills through practice and repetition, know his physical limitations and practice buddy-ship.

Responding to a Problem

When faced with a problem underwater, a diver

REGULATOR QUESTIONNAIRE

READER SURVEY

INSTRUCTIONS

Please, if you have two or more regulators, copy the questionnaire... Do not put answers for more than one regulator on each form.

1. What brand of regulator do you own? (Write in brand name. That is the manufacturer's name.)

2. What is the model number/name of that regulator? (Write in)

3. What year was the regulator purchased? _____
4. Did you purchase it
New 1
or Used 2
5. Number of dives per year, using that regulator? _____
6. How often do you have that regulator serviced?
Semi-annually (every six months) 1
Annually 2
Other (Write in) _____
7. Do you have an Octopus set up?
Yes 1
No 2 (Skip to Q.8)
- 7a. What brand and model number/name is the redundant second stage regulator? (Write In) _____

- 7b. How frequently do you have the redundant second stage serviced?
At same time primary is serviced 1
Annually 2
Other (Write In) _____
8. Do you use a power inflator for your B.C.?
Yes 1
No 2
9. Do you use any other air powered accessories that are attached to the first stage of your regulator?
No 1 (Skip to Q. 10)
Yes 2
- 9a. If you use any air powered accessories, other than a power inflator, please list them. _____

10. What is there about your regulator that you particularly LIKE? (Write in and be as specific as possible.)

11. What, if anything, do you DISLIKE about your regulator? (Write In and be as specific as possible.)

12. If you could change your regulator in any way, what would you change? (Write In.) _____

IF YOU HAVE EVER HAD A PROBLEM WITH YOUR REGULATOR PLEASE CIRCLE THE APPROPRIATE NUMBER ASSOCIATED WITH THAT PROBLEM.

13. Problem areas:

- | | | | |
|----------------------------------|----|--|----|
| Free Flowing | 1 | Hose too long | 15 |
| Hard breathing | 2 | Low Pressure Hoses: | |
| Did not deliver air | 3 | Hose burst | 16 |
| Wet breathing | 4 | Hose bubbled | 17 |
| Bubbles in face | 5 | Hose too short | 18 |
| Freeze up... (free flow) | 6 | Hose too long | 19 |
| Freeze up... (air cut off) | 7 | Service Problems: | |
| Mouth piece fell off | 8 | Repairs took too long (over two weeks) | 20 |
| Exhaust piece(s) fell off | 9 | Parts not available | 21 |
| Purge valve stuck | 10 | Charged too much (over \$40 for regulator) | 22 |
| Purge valve did not work | 11 | Dealer refused to service unit | 23 |
| High Pressure Hoses: | | No local service | 24 |
| Hose burst | 12 | Didn't work as well after servicing | |
| Hose bubbled | 13 | as it did before servicing | 25 |
| Hose too short | 14 | Do my own servicing | 26 |

14. Have you ever returned a regulator because of warranty problems?

- No.....1.....(Skip to Q. 15)
 Yes.....2

14a. (IF YES) What was the problem? _____

14b. Did you return the regulator to.....
 The Dealer.....1
 The Manufacturer.....2

14c. How long did it take to get your regulator back? _____

14d. Was the warranty problem handled to your satisfaction?
 Yes.....1
 No.....2

(IF NO, PLEASE EXPLAIN.) _____

15. Would you recommend your regulator to a friend?
 Yes.....1
 No.....2

(IF NO, WHY NOT?) _____

OPTIONAL INFORMATION:

The following information is optional on your part. However, if you have had problems which do not fit on the questionnaire or the answers are not complete enough it would be a help to be able to contact you in some manner.

Name: _____
 Address: _____
 Ph. No. _____
 Sex: Male.....1 Female.....2
 Age: _____
 Number of years diving _____
 Average number of dives per year _____

PLEASE RETURN TO UNDERCURRENT: POST OFFICE BOX 1658, SAUSALITO, CA 94965.

may have three possible reactions:

1. The diver can react quickly to the problem and attempt to correct it immediately. However, quick action is not always the best action because it often leads to mistakes or errors in the corrective procedures.

2. The diver can totally ignore the problem or rationalize and judge the crisis as insignificant. Eventually, this uncorrected problem will add additional stress to the diver.

3. The diver can stop immediately, doing nothing to interrupt the chain of events. Doing nothing at all is preferred to acting rashly underwater. After stopping all swimming activity in the face of an underwater crisis, the diver should immediately practice slow, controlled, deep breathing. After breath control is achieved, the diver should think rationally about the problem. While thinking of the correct course of action to remedy the situation, rhythmic breathing should be continued. Corrective action should not be taken until an itemized plan is formulated and slow breathing restored.

Thus, the preferred reaction to a problem is or to for controlling any stressful situation is to

STOP BREATHE THINK BREATHE REACT

Even though a well-trained diver knows the proper action to implement in the face of danger, he should stop, think and restore controlled breathing prior to reacting to the situation. This course of action will most likely ensure that the corrective measures will be completed in a slow and deliberate fashion. *Stop, think, react* with an emphasis on deep breathing is a progression that is directly opposite to the panic reaction which incapacitates the diver. If divers would learn to *stop, think, react* when a problem occurs, the panic progression would be thwarted and ultimately the possibility of drowning would lessen. After divers *stop* and *think* clearly, then they may *react* by either correcting the problem carefully underwater, preferably with the assistance of the diving partner, or terminating the dive, at least temporarily.

Relaxation Techniques

There are many effective methods of preventing

and reducing excessive stress.

Meditation: Most meditation techniques used today are based on specific concentration and contemplation practices of ancient Yoga and Zen Buddhism. Meditation promotes relaxation and reduces stress.

Biofeedback: With biofeedback as a relaxation technique, electrical equipment monitors physiological activity to the subject and provides feedback through visual and/or audio signals to inform the subject of the activity. It is very efficient in promoting relaxation and reducing stress.

Deep-breathing Exercises: Proper breathing is the key to achieving relaxation just as it is the key to safe scuba diving. Practicing breathing calms the nerves, and ultimately promotes relaxation.

Neuromuscular Exercises: Neuromuscular relaxation reduces tension in the muscles, and because the muscles make up such a large portion of the body's mass, significant reduction in body tension results. The following ingredients are required to practice muscle relaxation exercises correctly: proper breathing pattern, a quiet room and a reclined or semi-reclined body position.

Mental Rehearsal: One method of reducing stress in diving is by rehearsing the key diving skills mentally before entering the water. Basic diving skills and emergency techniques should be mentally practiced on a regular basis. The mental scenes created by the diver should be as vivid as possible, and the diver should perform the skill perfectly in the mind. Thus, the physical skills become ingrained in the mind and stress is reduced because the diver has mentally rehearsed the proper procedure to follow in a given situation.

This article was excerpted from the book Sport Scuba Diving in Depth, by Tom Griffiths, Director of Aquatics at Indiana State University. The publisher is Princeton Book Company (PO Box 109, Princeton, NJ). The book is available in many dive shops and retailers for \$14.50.

Organizing Group Travel

-- Saving Time, Money And Sweat

Your dream is to spend a week in warm water diving. You know if you organize a trip with enough participants you can lead the group and pay nothing (or reduce everyone's share accordingly). You'd like to bring your spouse along, but the old soak has never learned to dive. So you decide to organize a divers only trip. You would like to limit the list to ex-

perienced divers only, but that's impractical because the most gung ho divers are those who have just gotten certified. So you know you'll be bringing along one couple who has just worn out their second wet suit from all their years of diving, as well as that 20 year old kid who saw his first wet suit just six weeks ago.

Getting Your Discount & Commission

You don't have to be a travel agent to get commissions or price breaks on air fares and diving hotels. All you need to do is organize a group. These are the kinds of reductions you can ask for although travel rates are in constant flux, most foreign carriers such as SAHSA (which flies to Belize) still offer the 16th person free passage if 15 passengers pay. Most domestic carriers we contacted do not and will not talk about "group rates." Delta, for example, claims that their supersaver (which has to be purchased 30 days in advance) is the cheapest fare they offer. The free market has proved so complex that travel agents must check each time a group trip is set up.

Eastern has group rates depending upon the destination and time of year. The basic minimum is 10 people. From San Francisco to Barbados, the standard air fare is \$547 each way or \$1094 plus tax round trip. With 10 or more this drops to \$600 round trip. Not all destinations in the Caribbean have such rate reductions.

Continental has no group rates to Micronesia. But groups of 10 or more traveling together are requested to book through the "group desk" so that the airline can monitor their no-show rate.

The usual practice for resorts is to permit the eleventh person free lodging. In addition, commissions from 7% to 10% of the gross may be offered. Travel representatives and booking agents cut their own deals. At Sea and See, if you have 13 paying passengers, you can take three others for nothing on their larger boats in the Caribbean.

Some resorts, such as Bonaire's Flamingo Beach and Cayman Brac's Tierra Beach have a two step incentive program. Bring one group in a calendar year and the 11th person goes free plus 10% commission is returned. If two or more groups are brought in a calendar year the 7th person is free.

Commission structure varies. Some offer 10% on everything, some offer 10% on the dive package, some offer a percentage on everything but food. Indications are that there is no "standard" commission schedule. If a group is booked through an agency doing considerable business it might be that the agency can work a group 15 rate even for a group smaller than 15. But that is something that should not be counted on. In most cases you are better off dealing directly with the hotel or boat.

Day boats in the U.S. offer deals as well. Capt. Slades Atlantis Dive Center in the Florida Keys offers a group of six divers two tanks for \$18.50 per person rather than the usual \$25 per person. With 10 divers the 11th is free. At Hall's Diving Center in the Keys, the 7th is free and there is a reduction on air and rentals, which the tour operator can treat as a commission.

The rule then is to negotiate the best deal you can. And don't be surprised if the group diving alongside you has even cut a better deal. In this market it's everyone for himself.

Where do you go? What are your options? What are your considerations?

For the purpose of this article, let's assume that you've got to pick a site and then sell it to enough people to fill the spots you'll need to reserve. That means you have got to consider the needs of your market as well as your own desire, for what you want may not be what ten or fifteen or twenty of your friends want. In defining your market, these are your considerations.

Number of tanks: For the enthusiast, the dream of unlimited diving often dictates the choice of a destination. To some, unlimited diving means five or six tanks a day, to others it means three, and to others still, two tanks are plenty. Unlimited diving is possible from live-aboard boats and from hotels that have good beach front diving such as the Flamingo or the Habitat on Bonaire, and the Sunset House on Grand Cayman. Whether aboard a boat or bedded down on a beach, however, unlimited diving may not be what it's cracked up to be. On a live-aboard the

need to anchor in a safe harbor means that one might find the bottom below to be only sand -- a good live aboard has dinghies available to take divers off to better sites. At a hotel, seven days diving at the reef out front might get a little tiring. Unlimited diving does not always mean unlimited sightseeing.

Furthermore, to those people who want two tank diving, unlimited diving may be no inducement at all. On a live-aboard, unlimited diving is usually a snap; but for people who want fewer tanks and other activity, the live-aboard can become a floating prison unless the captain arranges land trips.

Varied diving: Nearly everyone seeks variety in diving, desiring to slip along a sheer wall on one dive, poke among coral heads with a macro lens on another and slide through canyons and caves or ride a current on another. Variety is found most easily by live-aboard boat. But that variety might be too threatening for a first time diver, who needs an easy start. Those dives may not be available from a live-aboard. The more inexperienced divers in a group,

the greater the need to select a destination which permits the uninitiated the kind of easy diving he needs to build his confidence and skills. A good live-aboard captain, however, will appreciate the differences in his divers and use the first couple of days to get all divers acclimated to the waters.

Price: The easiest variable to control is airfare. The farther away one travels -- or the more remote the destination -- the more costly it is to get there (both in money and time). If you're looking to save \$1000 on a trip, it will be possible only by trimming air fare or staying at your destination half as long. It's almost impossible to save that kind of money from accommodations or diving.

For example, a week aboard a good dive boat such as the *Cayman Agressor* runs about \$900. That's the rough fee for comparable boats in Australia or the South Pacific (unless you find local booking services who can book them for half). You can find less expensive boats, just as you can find accommodations less expensive than, say, Peter Island or Little Dix Bay in the British Virgins. For example, there's the Cayman Dive Lodge which has very low rates, is truly a no frills, no atmosphere hostel for divers. Price differences are usually attributable to the difference in luxury, accommodations and food, and the tropical setting. The differences are between king sized beds and bunk beds, between soft sandy beaches and rocky beaches, between hot water showers and cold showers, between a room with an ocean frontage and one on a parking lot, between fresh squeezed orange juice and Minutemaids, between the same canned milk ice cream three times a week and several dessert choices a night, between well manicured dive boats and equipment and a boat that looks like it barely survived the last hurricane. The truth is, you get what you pay for. And for many divers an operation with the latter qualities can be just as much fun as one with the former -- at a third of the price.

Keep in mind seasonal variations in hotel and airline fares. Although hotels and airlines offer fewer seasonal variations, you are usually able to get substantial savings in the Caribbean (but not Hawaii) between April 15 and December 15, the low season on this side of the equator. That's also the period of the best weather and the clearest water, save for occasional afternoon storms (and the likelihood that once each summer a hurricane will pass one or more islands).

Weather: Bad weather can spoil a trip, so one needs to research the weather beyond asking the tour agent or the manager of a dive resort -- whose primary job is to secure business. Everyone wants to leave winter behind, but the North American winter can extend into the Caribbean to produce chilling winds and rough water. The farther south you go in the winter -- e.g., Bonaire, St. Lucia -- the more like-

ly the weather will be warm. The farther north -- e.g., the Bahamas -- the more likely you'll have unpleasant days. On the other side of the equator one must contend with rainy seasons. One advantage of a well equipped live-aboard is that changes in the weather pattern can be discerned and a savvy captain can steer clear of storms. But, no matter where you go, clear skies and flat seas can never be guaranteed.

Touring and culture: Although some divers don't care, there can be more to a dive trip than sightseeing beneath the surface. It can be a great opportunity to enjoy other cultures, island touring or even night life. Many Caribbean islands are so Americanized one needs no more than a day or two for side excursions. A trip to Australia, the Phillipines or the Red Sea offers much greater possibilities. If a trip is organized to attract non-divers, it's important to select an area with more to offer than good reefs.

Length of trip: An advertised "eight-day, seven-night" trip is in reality a "six-day, seven-night" trip. The first and last days are arrival and departure days with seldom more than a couple of hours for leisure. By employing the weekends on both side of a work week, one can extend the ground stay to a more reasonable period. That may not work for chartering live-aboards, which are usually restricted to set schedules; one organizing a dive trip is not always able to manipulate those schedules.

Obviously, the closer one stays to home base, the less time is lost to travel. A seven day trip in the Caribbean provides a lot more time to dive and relax than a seven day trip half way around the world. Where diving is remote from one's home port, a day on either end of a boat dive might be lost in traveling to and from dive sites. But seven days in any one place never seems like quite enough. Then again, 14 days is for some people too much. For many people, the optimum time to settle in on one spot is usually ten days or so.

Divers demands: A good live-aboard captain lets the divers dictate the diving and site selection. That's less possible when a group houses on land, especially if other guests are present. Having a clear agreement ahead of time as to just how many boat dives a day will be taken is a must. If a bunch of novices are going, ensure that the resort has rental equipment for those who won't have their own. Isolated resorts and live-aboards usually offer nothing more than tanks, packs and weightbelts. Are the boats equipped with decompression bars? Is the diving regimented and/or group leaders permitted to set the standards? Are there dinghies to get to spots the larger craft can't reach? These are questions that need to be answered prior to sending the deposit check. And when you send that check, understand clearly the refund policy as it applies to deposit and additional money sent.

Options: For group travel, there are several options and the one most people enjoy is organizing a

group large enough to "take over" the entire live-aboard or divers' hotel. That will usually help ensure that the leader has the kind of control over the operation that he needs to ensure a good trip. Should a problem arise, he can negotiate with the manager, knowing that the manager only has to accommodate his group and not other guests as well.

The second option is integrating your group with other paying customers on a larger vessel or resort. One loses full control, although it can be enjoyable having others around (but what can be worse than being stuck with a couple of real bozos on a cozy dive boat for ten days in the Coral Sea). A number of the larger dive operations on Cayman and Bonaire, for example, may have several groups on the premises at one time. Prior arrangements can generally be made to house your group together, if that's important.

Where to go: If you are going to establish a destination first and then recruit a group, you need to consider the number of people in the pool from which you can attract (i.e., the size of the market) and the techniques and ease of attracting them. A three week trip to the Maldives won't have a lot of takers, except by wealthy retirees who can afford the time and tab. If the group from which you're going to recruit is fresh out of school, then an inexpensive week will be required. You need to understand your market before you pick the location and whether you're going to be land based or sea based.

If, on the other hand, the group is to be a bunch of

friends and acquaintances, a congenial decision making process might be implemented. The organizer will have to do a great deal of talking with people to get their ideas, then should work systematically to research the potential choices. When it's time for a decision the group should not be given unlimited possibilities. Narrow the choice to two or three and put the people in the room together until they have reached consensus. Trying to impose a choice on a group of friends can gain an apparent initial agreement, but people who went along with the pressure will drop out as the departure date nears. That can mean lost deposits and even no group.

Conclusion: It would seem, then, that the trick in picking the right destination for organized travel is to pick one that suits the needs of your market: their experience, their available time, the depth of their wallet, their diving desires, their desire to do more than dive. Furthermore, it's important to consider one other variable. When taking a seven-to-ten day live-aboard trip, everyone is in constant contact with everyone else. One incompatible person can put the damper on everyone else's tranquility and joy. It's the job of the organizer to ensure that doesn't happen, first by weeding out potential bozos and second, by dealing directly with the problem should one develop.

Now you're ready. Pick your place and get on the next plane. We've talked too long and it's time to go diving.

New Perspectives For Out Of Air Emergencies

-- And Why The Old May Not Work

What to do in an out-of-air situation has been deliberated, discussed and debated almost as long as people have been diving. Modern diving offers several options for underwater emergencies, some of which are equipment dependent, some of which are buddy dependent and all of which are skill dependent.

The controversy over which option should be preferred, required and practiced seems to intensify as time progresses. By providing a perspective on the various emergency ascent options, a new trend in the design, manufacturing, maintenance and use of equipment for emergencies will result in safer diving.

Emergency Swimming Ascent

No doubt the first out-of-air option scuba divers ever had was the Emergency Swimming Ascent, commonly referred to as a "free ascent." This is actually a misnomer. Free ascents are a Navy procedure in

which a swimmer leaves a submarine at depth and uses the buoyancy of inflated lungs to float to the surface while allowing the expanding air to escape through an open throat and mouth. The lungs are at maximum volume constantly, and the swimmer must be in complete control. If too much air is released, the ascent will be slowed or arrested; and if sufficient air is not allowed to escape, lung damage will result. The swimmer is bordering on an accident continuously.

The correct terminology is Emergency Swimming Ascent or a Controlled Emergency Swimming Ascent. Buoyancy and swimming motions propel the diver to the surface while he makes a conscious effort to expel the air which expands in the lungs as the water pressure decreases.

The prescribed means for controlling the rate of exhalation has gone through several stages of development. Initially, the glottis in the throat was to be held open and any excess air escaped of its own ac-

cord. Fear, stress and panic tend to tighten muscles, so the relaxed throat approach was not as effective as it needed to be.

"Blow and go" then became widely accepted. The concept was to exhale as much as possible at depth and then to hold the breath during the ascent. It was reasoned that if all the air was removed from the lungs on the bottom that the danger of an air expansion injury would be eliminated. This was soon proved incorrect, however, when it was discovered that residual air in the lungs can expand more than enough to tear the lung tissue before the surface is attained. And, a forceful exhalation followed by an ascent can cause air trapping in the lungs.

"Nevertheless, even though the continuous exhalation technique was executed perfectly, air embolisms during emergency ascents have occurred, however, both during training and on actual dives."

To overcome these problems the continuous exhalation method received widespread acceptance. The object is to begin exhaling at the initiation of the ascent and to expel air continuously until the surface is reached. This supposedly prevents lung damage by maintaining an open airway, which allows excess air to escape. Several variations have been recommended: Imitating whistling, emitting a continuous sound, and just plain blowing. Nevertheless, even though the continuous exhalation technique was executed perfectly, air embolisms during emergency ascents have occurred, however, both during training and on actual dives.

It was Dr. Albert Behnke who, in the 70's, discovered the physics and physiology of emergency ascents can produce air trapping in the lungs. This concept was further studied and proven by Dr. George Harpur at Tobermory, Ontario, Canada. Dr. Harpur's studies show how continuous exhalation collapses airways in the lungs and can trap air on the lung side of the closed airway. The entrapped air then expands and can rupture air sacs in the lungs even though the person is exhaling vigorously!

Prevention of air trapping is extremely simple, however. All one needs to do is reverse the exhalation process. Inhaling, or even attempting to inhale, will reopen collapsed airways and prevent air trapping. These findings have resulted in a recommendation by Dr. Harpur for divers to perform "Continuous Breathing Cycle" ascents in an emergency. In other words, the breathing pattern should be as near normal as possible. Even if the diver has no air available, the attempted inhalation will at last prevent air trapping. *Although Undercurrent wrote about this in October, 1982, this concept is not yet widely known, and I am unfamiliar with any established training procedure for it.*

The technique has several merits:

- *It does not require the learning of new skills and habits because it closely resembles a normal ascent.

- *Lung expansion injuries are less likely to occur.

- *Many "no air" situations stem from depletion of the air supply. During ascent, additional air becomes available as ambient pressure decreases, and the air can be obtained upon demand. This is far better and safer than the outdated method of spitting out the regulator and exhaling forcefully and continuously throughout ascent.

"Hypoxia -- insufficient oxygen -- is likely to occur during emergency ascents from depths greater than 50 feet unless the ascent is aided by buoyancy."

Other findings show that hypoxia -- insufficient oxygen -- is likely to occur during emergency ascents from depths greater than 50 feet unless the ascent is aided by buoyancy. A swimming diver may use all available oxygen in the body before the surface is reached. Unconsciousness may result. For this reason, the establishment of positive buoyancy during emergency ascents from depths in excess of 40 feet is recommended.

Secondary Systems

Perhaps the finest emergency option available is the separate, secondary scuba system carried by the diver. Double tanks with separate regulators, pony bottles, and small, self-contained emergency breathing systems are some of the configurations available. The concept is excellent and increases self-reliance. But very few are actually used. They add bulk and weight to an activity which is already equipment intensive and they are expensive. This is an excellent alternative, but few divers opt for it.

Octopus Attachment

"Being equipped with an octopus does not do much for the person wearing it."

A popular alternate source of air is an extra second stage, often called an "octopus" attachment or "Safe Second." This device allows a diver to share air without giving up his or her own mouthpiece. Use of an extra second stage is recommended throughout the diving industry, but it is not the ultimate solution to out-of-air problems. Being equipped with an octopus does not do much for the person wearing it. For my own good, I would probably be better off equipping my buddy with an extra second stage than attaching one to my own regulator. Ideally, of course, both members of a dive team should have ex-

tra second stages, but a majority of divers don't carry one.

Even if the octopus were mandatory, all of the problems would not be overcome. Use of the octopus is still a dependent option -- a diver must rely on finding another diver, reaching him and obtaining the air source before reaching the respiratory breaking point. Also, an extra second stage is of no benefit if no air is available. If one diver runs out of air, his or her buddy's may be nearly depleted as well. Two divers sharing the same air supply can quickly exhaust it and double the jeopardy. An extra second stage is certainly useful, but it is not a complete solution for underwater emergencies.

Buddy Breathing

The least desirable emergency option is the sharing of air via the exchanging of a single regulator, i.e., "buddy breathing." This skill can be used effectively, but statistics frequently indicate that it is not. Buddy breathing is a complex, two-handed, two person skill requiring numerous, separate successful experiences in order to be learned. This can be overcome with effective training, but the primary problem seems to be the lack of periodic reinforcement of proficiency in the skill.

Buddy breathing is seldom practiced by divers until it is applied in an emergency. Since it is complicated

and requires coordination between two parties, no wonder the results are sometimes less than desirable. Dual fatalities occur from time to time when only one diver had a problem initially. The fact that buddy breathing does not have added costs is an advantage, but its less than satisfactory track record seems to indicate that economy should not be the primary consideration when it comes to emergency preparedness.

I believe that buddies who periodically rehearse emergency procedures could use any option successfully. It is unfortunate that, at times, the various options are not performed successfully. More than likely, this stems from insufficient practice. Despite the fact that the means are available for divers to be prepared for no-air situations, in many cases -- maybe even the majority -- they are not.

What is the solution? The requirement of periodic retraining? While a worthy ambition, it may not be feasible. To require back-up equipment? The industry has been encouraging this for years, but has convinced only a minority of divers. How about new equipment? That is a good idea, but what is it that we need?

Undercurrent will describe that in the next issue.

This article was written by Dennis Graver, the Special Projects Director of NAUI. It first appeared in the Proceedings of IQ 85, the International Conference on Underwater Education, published by NAUI.

Dear *Undercurrent*:

Our readers have their say.

One occasional criticism of *Undercurrent* is that we don't give our readers enough of a say. That's a valid criticism. So from time to time we're going to run more letters from the readers, emphasizing those that raise issue with what we have to say and those which highlight problems our readers ought to know about:

Dear *Undercurrent*:

I prepaid International Scuba Ventures in Pasadena, Texas, for a trip I took to Cozumel last year, I paid for airfare, hotel and diving. I'm sending you a letter detailing my complaints, but here is a summary:

- * the hotel had no reservations for me (or 14 others booked through the agency); I finally got a room, but it required a \$10 tip and much negotiation
- * no diving reservations had been made; no dive operation would accept the vouchers from the agency. We had to arrange our own diving, which included having to take taxis to the dive boats, and even missed a day of diving because of full boats.

There were many other problems, and what was to be my only vacation in three years was spoiled. Can you help me at least get a refund? International

Scuba Ventures has been entirely unresponsive.

Irwin Strickland, D.C.
Leesburg, FL

We've had no luck either. On our first call a woman named Sheila told us that the owner, Marsha Thompson, was handling your problem. We left our phone number and asked for a return call, collect. . . After waiting a week, we called again. We were told that neither Sheila nor Marsha was in and the receptionist did not know when they would be back. I asked once again for a return call, collect. There was none.

Since it's virtually impossible to deal with a travel outfits at such a distance from your home, you have little recourse other than to inform both the Pasadena, Texas, Chamber of Commerce, and the Pasadena Better Business Bureau. A copy of you complaint to the Pasadena District Attorney's office wouldn't hurt. Normally, one could lodge a complaint with the American Society of Travel Agents, but Scuba Ventures is not a member. Another recourse might be to discuss the problem with the airline you flew. If they put the package together and International Scuba Ventures marketed it, then you may get somewhere. Your last recourse, of course, is a law suit.

Thanks for informing us of your problem. Until we hear from International Scuba Ventures, we suggest that divers should steer clear.