

undercurrent®

THE PRIVATE, EXCLUSIVE GUIDE FOR SERIOUS DIVERS

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Bora, Bora; Turks & Caicos

—A Brief Review And An Update

As I peered down upon romantic Bora Bora from the window of the Air Polynesian F-27, I could not wait to get in the water. The clear blue water revealed patches of coral reef and then the great barrier reef which could only be a diver's delight. I could not imagine a more beautiful picture, anywhere.

Edwin Christian, a photographer of some note, owns the only compressor on Bora Bora. During my visit he was aboard an interisland charter, so I did my diving with his assistant Frank, a French expatriate, and two Polynesian aides. My excitement was quickly iced, however, when I learned the shop offered but one tank per day, and although I protested this was a long way to come for a single daily dive, my words went unheard. And, at \$50 for a single dive (the round trip lasted about two hours), I would observe firsthand the prerogatives of a monopoly. Furthermore, because the operation serves any diver on the island, including the rookies who fumble with unfamiliar equipment or need drills in hand signals, it was clear I would not be embarking on a great diving adventure.

Each day we would load the 16-foot Boston whaler (or a smaller craft), pick up divers at the Hotel Bora Bora, then head to our site. Though dives inside the reef are offered at \$40, we were told the currents were too great and the visibility too low to dive there. Four days in a row I took a single tank outside the reef, but we visited only two sites. Visibility ran about 50 feet on the first two days, but increased to 100 feet by the fourth. Water temperature was a tepid 80°. The reef descended gradually from 25 feet to the depths. Most of the floor was covered with broken coral; until 75 feet I found the bottom relatively routine, even monotonous, although the fish life was plentiful. Butterflies, snappers, and a variety of Pacific reef fish darted about, but perhaps more interesting were the jacks, groupers, large parrots, and an occasional small white tip reef shark. I was especially delighted with the abundance of shells, both live and dead, including a number of large seven finger shells, intricate

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spider shells, and delicate South Pacific relatives of the sand dollar. No where have I seen more shells ripe for plucking.

On the three days of diving, we were joined by Polynesian guide Christian, while his sidekick followed our bubbles from a small boat above. Once Frank joined us to spearfish, but paid so little attention to us paying divers that while stuffing a grouper into his goodybag he stabbed an unsuspecting tourist in the back with his spearpoint. Luckily, a thick wet suit prevented any serious injury.

Although I found the diving uninteresting by the fourth day, I found the snorkeling in front of my rented condominium excellent. Here, among undisturbed and colorful coral, were enormous schools of silvery baitfish, yellowtails, large morays, enormous mussels--some three feet across--growing out of the sand, and large clams in rainbow hues. And of course, shells everywhere. Though I cannot recommend a trip to Bora Bora for serious divers, I can offer a hearty recommendation for those who take pleasure in snorkeling. Bora Bora is a beautiful island. The water is warm, the beachcombing terrific, the locals friendly, the landscape romantic and the five island restaurants, which combine Polynesian fish and French sauces, superb. But the prices are high everywhere. The spartan bungalows of the Bora Bora Yacht Club are the most economical bests at \$80 double, including breakfast and dinner. The posh Hotel Bora Bora runs from \$70-\$250. My two bedroom condominium, at \$150/day, included a driver to take me about the island and a well-utensiled kitchen for preparing meals when I and my guests cared not to eat out.

Should you decide to vacation in Bora Bora, let me offer one caution. Be certain you have reconfirmed your flight reservations well in advance of departure. A friend recently ignored that admonition and spent a week waiting for the next available flight. I would be delighted to be stranded for a week in Paradise, but if the only vacant room were \$250/day, I could never pay for that next flight.

Update: The Turks And Caicos

As you might imagine, our positive reports of diving at three of the Turks and Caicos islands have substantially increased tourist travel to this virgin diving destination. And, when we found management problems at one of the operations we had previously touted, our reports, we believe, stimulated the management of that operation to hasten its efforts to return to their previously high standards. We have no need, now, to offer a full review of these operations, but an Undercurrent correspondent traveled to the three islands in June for another look. He found smoothly run operations, new operations being planned, and though the diving remains virgin, the beginning signs of growth and better air service from Air Florida suggests that in a few years the islands may become just another example of Paradise Lost. Our correspondent had been to Turks and Caicos previously, but had not reported to Undercurrent. When we learned that our original reviewer had been "discovered" (and that our reviewer's traveling companion was also suspect), we sent our new correspondent directly on the heels of that traveling companion to cover our tracks. This is his brief report.

Grand Turk: Phil Pruss's Pepcor is an efficient operation. Bernard, the boatman, is an excellent guide, and the equipment is in A-1 shape. This has been

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Undercurrent's first choice to get to the best diving on Grand Turk, but when Pruss got bent, the operation lost some of its consistency. It's now back on track. Underwater Research, captained by Mike Spillar, is running well, attracting repeat business and is also a good choice. Spillar operates out of the Kittina Hotel, comfortable but not as charming as the other choices, though he takes divers from any hotel, as does Pruss. Don't believe the hotel managers or travel agents which try to tell you anything different. . . . The Salt Raker, the place to meet after dinner, is being refurbished. . . . Some improvements have been made in the Turks Head, a beautiful old inn with the best meals. Beach cottages here offer more seclusion for romantics.

Providenciales: The March, 1980 report is still on the mark. At Grouper Hole I discovered large grouper tame enough to be fed by hand, turtles and sleeping sharks. Art Pickering runs the dive operation out of the fine Third Turtle Inn. . . . Above the inn rests the Erebus Inn, where guests reside in small but nicely designed and furnished cabins, only a short walk from the dive operation. . . . The Island Princess, just constructed, has opened on beautiful Grace Bay with its own dive operation. . . . Club Med will soon open on Provo.

North Caicos: The Prospect of Whitby and the Seaquatic Divers are in sync again. The hotel is attractive and comfortable, my only criticism being that the meals are served too late for hungry divers, causing the staff to rush its diving guests to clear the table and get home. . . . Local dive guide, Junior Delancy keeps track of dive sites when old divemasters depart. . . . New divemaster Wayne Schuster is due soon. Apparently spearfishing has been stopped. . . . I learned of a couple that had two days of dives inadvertently canceled, and Seaquatic voluntarily refunded the money. . . . Once again, this operation joins the list of highly recommended dive destinations. Diving is beautiful here, quite different from the drop-offs of Grand Turk and Provo, but every bit as virgin.

Back Issues: Undercurrent has reviewed Phil Pruss's operation on Grand Turk (April, 1978), Admiral Arms, South Caicos (October, 1978), the Prospect of Whitby, North Caicos (July, 1979) and The Third Turtle Inn, Providenciales (March, 1980). The reviews may be ordered for \$2.50 each from our publisher's office: Undercurrent, Atcom Building, 2315 Broadway, New York, NY 10024.

Dacor BC6

An Ounce Of Safety For A Pound Of Pleasure

A major complaint about wrap-around (and back-mounted) BC's is that it is impossible to dump the tank without dropping the flotation device too. A complaint from snorkelers is that when they stop swimming, the units tend to pull them upright, making it a chore to stay in a snorkeling position.

To overcome these and other complaints, Dacor has produced the BC6, a relatively complicated device which does what it is supposed to, our divers found, but indeed with difficulty.

The BC6 is best described as a front-back inflated BC, with separate buoyancy compartments. The back-bag is inflated either orally or with the power inflator. The front compartment is meant to be inflated with the CO₂ cartridge in emergencies, but can be inflated orally through a small diameter Mae-West hose, which must be depressed with either hand or mouth before it can be

used. The design intentionally makes it difficult to breathe from the compartment that might contain CO₂ from the cartridge.

Once the unit is set up, there is a proliferation of straps, hoses, pull rings and lanyards: an oral hose runs from the upper left side down the front with a whistle attached to the hose; a pull ring activates the dump valve; below the pull ring is a large chest pocket with a plastic zipper and a pull ring to open it; just below the pocket is a lanyard for activating the CO₂ unit; the overpressure valve is located just above the pocket on the right side; at the top right is a venting hose for the front flotation section; straps go over the shoulder to hold the tank and around the waist to keep the device in position. The tank is released by popping the quick release buckle on the shoulder strap, thereby dropping the tank while retaining the flotation device.



Dacor BC6 - Back View



Dacor BC6 - Front View

In underwater testing, we experienced some difficulty in orally inflating the back jacket, but learned. When inflated with power, our divers found themselves at the surface face down, but could right themselves either by orally inflating (with difficulty) the front section or pulling the CO₂ inflator cord. The unit performed well underwater, with no noticeable shifts of air from built-up air pockets.

Nevertheless, this is the kind of device that leads Lou Fead to write about the joys of diving without a BC. It is cumbersome and complicated, not unlike wearing

both a horsecollar and a back-mounted BC at the same time. Indeed it works, but the BC6 is a bit too much for most divers, especially experienced divers who can take care of themselves. It is difficult for our safety-minded publication not to recommend heartily a device which adds to safety, but then diving must also be fun and somehow the Dacor BC6, regardless of the manufacturer's good intentions, might just take a pound of pleasure from the sport, while returning only an ounce of safety.

Never Dive Without A BC

—A Rule Ready To Be Broken

Fred Good, proprietor of St. George's Lodge, quietly pokes fun at divers who show up with stiff new \$200 buoyancy compensators for warm-water Caribbean diving. (See *Undercurrent*, August, 1980.) And he's not the only pro who considers a BC to be an occa-

"...there are plenty of situations where the complexity of a buoyancy compensator not only detracts from the joy and freedom of a dive but doesn't necessarily add much to safety."

sional drag. Although scuba instructors drum it into

our heads that a buoyancy compensator is a must, that's not always the case. In fact, there are plenty of situations where the complexity of a buoyancy compensator not only detracts from the joy and freedom of a dive but doesn't necessarily add much to safety. Here are just a few examples where divers find a BC to be excess baggage.

Consider a bikini-clad snorkeler kicking her way across marked underwater trails in the warm Caribbean. She can float and fin comfortably without a vest, as millions do each year. She can travel, rest, dive and surface without needing extra flotation. In fact, wear-

continued on p. 7

Undercurrent Travel Questionnaire

Response Requested

Have you taken a dive trip to some famous dive resort recently and found it didn't meet your expectations? Have you discovered a new dive resort or location that other divers might be interested in reading about? If you have taken any tropical trip in the last year, we'd like to hear about it. Your reports will be used to update our world-wide review of diving and appear in future issues of *Undercurrent*. Won't you take a moment and evaluate your last trip for us?

Location being evaluated _____

Date of your trip _____ Hotel _____ Dive shop _____

Would you return? _____ Did you get your money's worth? _____

fish size	<input type="checkbox"/> large ones plentiful	<input type="checkbox"/> a few big ones	<input type="checkbox"/> too small to eat
tropical fish	<input type="checkbox"/> abundant	<input type="checkbox"/> not bad	<input type="checkbox"/> sparse
kinds of tropicals	<input type="checkbox"/> impressive variety	<input type="checkbox"/> fairly interesting	<input type="checkbox"/> common ones only
coral	<input type="checkbox"/> plenty and colorful	<input type="checkbox"/> o.k.	<input type="checkbox"/> kind of a bore
hard soft coral	<input type="checkbox"/> plenty and colorful	<input type="checkbox"/> o.k.	<input type="checkbox"/> kind of a bore
sponges, gorgonia...	<input type="checkbox"/> very nice	<input type="checkbox"/> pretty average	<input type="checkbox"/> not much
caves, ledges...	<input type="checkbox"/> good variety	<input type="checkbox"/> some of interest	<input type="checkbox"/> none worth diving
wrecks	<input type="checkbox"/> exciting	<input type="checkbox"/> worth a tank or two	<input type="checkbox"/> none
sharks	<input type="checkbox"/> a couple for fun	<input type="checkbox"/> none	<input type="checkbox"/> too many
shelling	<input type="checkbox"/> excellent	<input type="checkbox"/> o.k.	<input type="checkbox"/> none or prohibited
snorkeling from beach	<input type="checkbox"/> some of the best	<input type="checkbox"/> not bad	<input type="checkbox"/> nothing to see
photography	<input type="checkbox"/> top possibilities	<input type="checkbox"/> average	<input type="checkbox"/> nearly a bust
water temperature	<input type="checkbox"/> 80°	<input type="checkbox"/> 74°-79°	<input type="checkbox"/> less than 74°
visibility	<input type="checkbox"/> 90 ft. or more	<input type="checkbox"/> 50-90 ft.	<input type="checkbox"/> less than 50 ft.
rated for advanced	<input type="checkbox"/> terrific	<input type="checkbox"/> o.k.	<input type="checkbox"/> go elsewhere
rated for beginners	<input type="checkbox"/> terrific	<input type="checkbox"/> o.k.	<input type="checkbox"/> go elsewhere

rules for experienced divers	<input type="checkbox"/> no restrictions	<input type="checkbox"/> a little tight	<input type="checkbox"/> treated as a novice
guides for new divers	<input type="checkbox"/> top-rated	<input type="checkbox"/> acceptable	<input type="checkbox"/> lousy
diving frequency	<input type="checkbox"/> 3 or more tanks/day	<input type="checkbox"/> 2 tanks per day	<input type="checkbox"/> one per day
night diving	<input type="checkbox"/> frequent	<input type="checkbox"/> 1-2 times/week	<input type="checkbox"/> none
boat diving	<input type="checkbox"/> two tanks under \$20	<input type="checkbox"/> \$20-30 for two	<input type="checkbox"/> over \$30 for two
beach diving	<input type="checkbox"/> as good as the boats	<input type="checkbox"/> fair possibilities	<input type="checkbox"/> no way
dive shop manager	<input type="checkbox"/> a great person	<input type="checkbox"/> just does the job	<input type="checkbox"/> a real bastard
air quality	<input type="checkbox"/> no problems	<input type="checkbox"/> I wondered	<input type="checkbox"/> I worried
air fills	<input type="checkbox"/> 3000 psi +	<input type="checkbox"/> 2250 psi +	<input type="checkbox"/> short-changed often
new equipment	<input type="checkbox"/> full range available	<input type="checkbox"/> limited range	<input type="checkbox"/> come fully prepared
rental gear	<input type="checkbox"/> everything you need	<input type="checkbox"/> tanks, wt. belts...	<input type="checkbox"/> bring everything
repair capability	<input type="checkbox"/> can handle anything	<input type="checkbox"/> some repair capacity	<input type="checkbox"/> pray nothing breaks

hotel food	<input type="checkbox"/> gourmet	<input type="checkbox"/> surely acceptable	<input type="checkbox"/> lugh!
nearby restaurants	<input type="checkbox"/> must try	<input type="checkbox"/> adequate	<input type="checkbox"/> better off fasting
accommodations	<input type="checkbox"/> luxury	<input type="checkbox"/> o.k., decent	<input type="checkbox"/> far below par
car needed	<input type="checkbox"/> of no use	<input type="checkbox"/> only for touring	<input type="checkbox"/> a daily must
nightlife	<input type="checkbox"/> swinging	<input type="checkbox"/> enough	<input type="checkbox"/> dead
other divers around	<input type="checkbox"/> all over the place	<input type="checkbox"/> a few	<input type="checkbox"/> hard to find a body
locals	<input type="checkbox"/> helpful, friendly	<input type="checkbox"/> no complaints	<input type="checkbox"/> hostile
weather	<input type="checkbox"/> great every day	<input type="checkbox"/> o.k.	<input type="checkbox"/> many bad days
insects	<input type="checkbox"/> too many bites	<input type="checkbox"/> now and then	<input type="checkbox"/> none

Comments and comparison to other places visited: _____

Location being evaluated _____

Date of your trip _____ Hotel _____ Dive shop _____

Would you return? _____ Did you get your money's worth? _____

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other divers around	<input type="checkbox"/> all over the place	<input type="checkbox"/> a few	<input type="checkbox"/> hard to find a body
locals	<input type="checkbox"/> helpful, friendly	<input type="checkbox"/> no complaints	<input type="checkbox"/> hostile
weather	<input type="checkbox"/> great every day	<input type="checkbox"/> o.k.	<input type="checkbox"/> many bad days
insects	<input type="checkbox"/> too many bites	<input type="checkbox"/> now and then	<input type="checkbox"/> none

Please compare this trip to other resorts you've been to, and add any additional comments.

Comments and comparison to other places:

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Address _____

City _____ State _____

Zip _____ Tel. _____

ing a vest would make her diving less enjoyable; it would create drag besides interfering with her suntan.

Does she lose any safety by not wearing one? No. In calm waters with other snorkelers and swimmers, the margin of safety is indeed slim.

How about an experienced diver in a wet suit snorkeling in colder waters? Should he wear a vest? Not if he's comfortable and confident with his skills. He can survive and enjoy himself just like his Caribbean counterpart. In fact, he has an extra advantage in that he can drop his weights and float like a cork. She can't. She doesn't have any weights.

But, if the diver were inexperienced in cold water, he obviously ought to wear a vest for a few dives. Cold water has a way of sapping a diver's strength without warning, and resting on an inflated vest is an easy way to regain strength.

Just as some skindivers, some scuba divers don't have to wear one either. The experienced scuba diver on a dive boat who knows how to adjust her weights exactly for the depth of the dive doesn't need a vest. By being properly ballasted against the buoyancy of her wet suit top she won't have to compensate for being too heavy on the bottom, so needs no BC. Since the boat will pick her up immediately when she surfaces, she doesn't even need a vest for surface flotation and in an emergency could drop her belt.

Why BC's Are "Mandatory"

Anyone certified in the last several years surely has been instructed that a BC is an absolute must. Scuba diving texts talk about the many variations of BC's, as if they were mandatory equipment for every dive. You'll read such phrases as "an essential item for safety when skin or scuba diving," or, "an integral part of your diving equipment." One popular text even instructs you to "keep your vest at least partially inflated while on the surface." Such statements would lead you to believe you can't dive without one.

Instructors confirm that false impression by preaching "never dive without a vest." They, at least, have a good reason for requiring their students to wear a vest while in their classes: BC's make open water instructing easier and safer for the instructor. By having all students floating so high on inflated vests their heads pop out of the water like buoys, the instructor can keep the class counted and together with almost no effort. And a student floating on a vest will probably not get into trouble. If he does, he can be easily spotted.

Before the "BC Revolution" of the late sixties and early seventies, people snorkeled low in the water, watching what was going on beneath them, and they wore the appropriate amount of weights for their particular dive. For a deep dive, they wore less than for a shallow dive. For either deep or shallow, they floated to the surface—with no vest.

Most divers didn't use vests because there weren't any good ones around. The main product available, the Navy's Mae West, was meant to be worn deflated

in a crowded airplane cockpit, ready to provide instant flotation in case the pilot was forced to ditch his plane in water.

Since the Mae West wasn't built for repeated immersion in water, it was unreliable. CO₂ mechanisms corroded and jammed; often they pulled out of the vest when the lanyard was jerked. Oral inflators were so small, massive lung power was required to inflate the vest. Letting out air took forever. In cold water they were difficult to operate. When the inflator wasn't being used, it was usually poking the diver in the eye or throat. Of course, if one fully inflated his vest on the bottom and took it to the surface, it would explode, just to satisfy Boyle's Law.

Regardless, scuba divers in the U.S. Navy wore the Mae West. USN regulations said they had to. Civilian divers wore them to imitate the Navy. Some sport divers used (but didn't wear) the Mae West as an inflatable float on speargun breakaway rigs, or, as handier replacements for inner tubes for carrying game bags.

Since the vest wasn't used extensively, the texts and instructors of the day considered it as an emergency device only. They said, "Wear it deflated and pop the cartridge if you have to."

That line held until innovative members of the diving industry corrected the shortcomings of the Mae West to launch the "BC Revolution." Their correction was the Buoyancy Compensator, with its large oral inflator, overpressure relief valve, crotch straps, and optional CO₂ cartridge. The BC was not only large enough to easily float game and a diver, it could be inflated underwater for buoyancy adjustment and brought to the surface without self-destructing. Within a few years, most instructors changed to teaching the concept of using a BC on every dive.

There's no doubt that the BC has brought the sport of scuba diving to many people who would not have gotten through training without it. The BC takes a lot of the effort out of our sport. It makes surface travel and rest easier, makes submerged buoyancy adjustment possible and is large enough to be a significant factor in rescue.

A BC is a useful tool in basic training and everyday diving. But, does that earn it the right to be foisted on all divers as mandatory equipment for *all* their diving? The "wear a vest all the time" rule should be rewritten to read: "A vest, like any diving equipment, should be worn when its capabilities are desired for the dive."

If you don't need a vest, don't wear one. Would you take a buddy line along in crystal clear water? Would you need a decom meter on a 20-foot deep reef?

Use a vest when you anticipate needing it to do its job: to provide controllable flotation. If the dive plan doesn't call for that kind of flotation, then a vest isn't necessary.

Permit yourself to strike the proper balance between safety and pleasure. When you do, your diving will be a lot easier and much more enjoyable.

Lou Fead, the author of *Easy Diver* and this article, is a NAUI instructor.

U.S. Navy Regulator Tests

23 Moderate Performers

Last month we reported on the seven top regulators in the recent U.S. Navy study. This month we present the performance charts of the 23 middle performance regulators, those which *meet or exceed past Navy performance standards, but do not meet or exceed the new Navy standards.*

A cursory glance at the charts shows that the best of the middle bunch are the Tekna 2100, and the U.S. Divers Aquarius. Both are close to making the top cut and, as we explained in the last issue, the 2100 may indeed perform in the top bracket. Other better than average regulators in this bunch are the Scubapro Pilot MKV (4-port swivel), and the Sherwood Selpac SRB 2100 and the SRB 3100.

It's especially important to understand the lower performers in this middle bunch. For example, look at the popular Dacor Pacer line, regulators whose advertising copy drips with adjectives about how easy breathing it is. In a May, 1980, *Skin Diver* ad, it is written that the Pacer "performs better and breathes easier under all types of diving conditions." We can only presume this means that it performs "better and breathes easier" than previous Dacor models because when one compares the Pacer test results with other regulator models, the Pacer line is well down the pack. In fact, when three of the models (the 300, 600 and 900) are subjected to a moderate workload, they are able to meet Navy standards only at 33 feet. At 66 feet and deeper or at greater workloads, the Pacers fail the test. Three Sportsways models rank at about the same place as the Pacer, as do the SAS Sub II and the Swimaster R 14 Polaris. There is indeed more to regulator performance than simply advertising copy.

We hasten to point out, however, that the comparatively low performance of these well-advertised and highly popular regulators does not necessarily mean they are bad regulators. They do indeed meet the old Navy standards and are suitable to many sport divers who remain at moderate depths in highly favorable diving conditions. But we do want to emphasize two points.

First, there are many better regulators on the market. The Navy has given seven their best rating.

Second, because sport divers in the 80s are pushing themselves deeper, are testing themselves in more extreme circumstances, and perhaps are more likely to get themselves into situations their counterparts a decade ago would have avoided, many popular regulators may not provide the last ounce of safety—the ability to deliver air at the final moment of truth.

So, we will reiterate what we have stated since we began publishing this journal five years ago. *Buy the best regulator available.*

Next issue: the worst regulators available.

These charts represent the results of regulator tests from light to an extreme workload, defined by the Navy as ranging from 22.5 RMV (respiratory minute volume in liters per minute) to 90 RMV. The supply pressure is 1000 psi and the depths range from 33 feet of sea water to 198 fsw. A solid circle (●) indicates the regulator's performance was acceptable. A semicircle (◐) indicates the regulator's performance was marginal. An empty circle (○) indicates the regulator's performance was unacceptable.

Performance at 1000 psi

Aqa Divator 324/U.S.D. Conshelf XIV

Work rate	Depth in feet of sea water					
	33	66	99	132	165	198
Light	●	●	●	●	●	●
Moderate	●	●	●	◐	○	○
Moderately Heavy	●	○	○	○	○	○
Heavy	○	○	○	○	○	○
Extreme	○	○	○	○	○	○

Dacor Pacer 150

Work rate	Depth in feet of sea water					
	33	66	99	132	165	198
Light	●	●	●	◐	○	○
Moderate	◐	○	○	○	○	○
Moderately Heavy	○	○	○	○	○	○
Heavy	○	○	○	○	○	○
Extreme	○	○	○	○	○	○

Dacor Pacer 300

Work rate	Depth in feet of sea water					
	33	66	99	132	165	198
Light	●	●	●	●	●	◐
Moderate	●	◐	○	○	○	○
Moderately Heavy	○	○	○	○	○	○
Heavy	○	○	○	○	○	○
Extreme	○	○	○	○	○	○

Dacor Pacer 600

Work rate	Depth in feet of sea water					
	33	66	99	132	165	198
Light	●	●	●	●	●	●
Moderate	●	○	○	○	○	○
Moderately Heavy	○	○	○	○	○	○
Heavy	○	○	○	○	○	○
Extreme	○	○	○	○	○	○

Dacor Pacer 900

Work rate	Depth in feet of sea water					
	33	66	99	132	165	198
Light	●	●	●	●	●	○
Moderate	●	○	○	○	○	○
Moderately Heavy	○	○	○	○	○	○
Heavy	○	○	○	○	○	○
Extreme	○	○	○	○	○	○

Jepson Model 200

Work rate	Depth in feet of sea water					
	33	66	99	132	165	198
Light	●	●	●	●	●	○
Moderate	●	●	●	●	○	○
Moderately Heavy	●	○	○	○	○	○
Heavy	○	○	○	○	○	○
Extreme	○	○	○	○	○	○

Scubapro Mark V (4-port swivel)

Work rate	Depth in feet of sea water					
	33	66	99	132	165	198
Light	●	●	●	●	●	●
Moderate	●	●	●	●	●	○
Moderately Heavy	●	○	○	○	○	○
Heavy	○	○	○	○	○	○
Extreme	○	○	○	○	○	○

Scubapro Pilot Mark V (4-port swivel)

Work rate	Depth in feet of sea water					
	33	66	99	132	165	198
Light	●	●	●	●	●	●
Moderate	●	●	●	●	○	○
Moderately Heavy	●	●	○	○	○	○
Heavy	●	○	○	○	○	○
Extreme	○	○	○	○	○	○

Scubapro Mark V (5-port swivel)

Work rate	Depth in feet of sea water					
	33	66	99	132	165	198
Light	●	●	●	●	●	●
Moderate	●	●	●	●	○	○
Moderately Heavy	●	○	○	○	○	○
Heavy	○	○	○	○	○	○
Extreme	○	○	○	○	○	○

Sherwood Selpac SRB-2000

Work rate	Depth in feet of sea water					
	33	66	99	132	165	198
Light	●	●	●	●	●	●
Moderate	●	●	●	●	●	●
Moderately Heavy	●	●	○	○	○	○
Heavy	●	○	○	○	○	○
Extreme	○	○	○	○	○	○

Sherwood Selpac SRB-3100

Work rate	Depth in feet of sea water					
	33	66	99	132	165	198
Light	●	●	●	●	●	●
Moderate	●	●	●	●	●	○
Moderately Heavy	●	●	○	○	○	○
Heavy	●	○	○	○	○	○
Extreme	○	○	○	○	○	○

Sherwood Selpac SRB-4100

Work rate	Depth in feet of sea water					
	33	66	99	132	165	198
Light	●	●	●	●	●	●
Moderate	●	●	◐	◐	○	○
Moderately Heavy	◐	○	○	○	○	○
Heavy	○	○	○	○	○	○
Extreme	○	○	○	○	○	○

Sportsways WL-200

Work rate	Depth in feet of sea water					
	33	66	99	132	165	198
Light	●	●	●	●	○	○
Moderate	◐	○	○	○	○	○
Moderately Heavy	○	○	○	○	○	○
Heavy	○	○	○	○	○	○
Extreme	○	○	○	○	○	○

Sportsways W-600 Hydronaut

Work rate	Depth in feet of sea water					
	33	66	99	132	165	198
Light	●	●	●	●	◐	◐
Moderate	◐	○	○	○	○	○
Moderately Heavy	○	○	○	○	○	○
Heavy	○	○	○	○	○	○
Extreme	○	○	○	○	○	○

Sportsways W-900 Waterlung

Work rate	Depth in feet of sea water					
	33	66	99	132	165	198
Light	●	●	●	●	●	◐
Moderate	○	○	○	○	○	○
Moderately Heavy	○	○	○	○	○	○
Heavy	○	○	○	○	○	○
Extreme	○	○	○	○	○	○

Sub Aquatic Systems Sub II

Work rate	Depth in feet of sea water					
	33	66	99	132	165	198
Light	●	●	●	●	●	○
Moderate	●	◐	○	○	○	○
Moderately Heavy	○	○	○	○	○	○
Heavy	○	○	○	○	○	○
Extreme	○	○	○	○	○	○

Sub Aquatic Systems Sub X

Work rate	Depth in feet of sea water					
	33	66	99	132	165	198
Light	●	●	●	●	●	●
Moderate	●	●	●	◐	○	○
Moderately Heavy	●	○	○	○	○	○
Heavy	○	○	○	○	○	○
Extreme	○	○	○	○	○	○

Swimaster MR12

Work rate	Depth in feet of sea water					
	33	66	99	132	165	198
Light	●	●	●	●	●	●
Moderate	●	●	◐	○	○	○
Moderately Heavy	◐	○	○	○	○	○
Heavy	○	○	○	○	○	○
Extreme	○	○	○	○	○	○

Swimaster MR12-II

Work rate	Depth in feet of sea water					
	33	66	99	132	165	198
Light	●	●	●	●	●	●
Moderate	●	●	◐	○	○	○
Moderately Heavy	◐	○	○	○	○	○
Heavy	○	○	○	○	○	○
Extreme	○	○	○	○	○	○

Swimaster R14 Polaris

Work rate	Depth in feet of sea water					
	33	66	99	132	165	198
Light	●	●	●	●	●	●
Moderate	●	●	○	○	○	○
Moderately Heavy	○	○	○	○	○	○
Heavy	○	○	○	○	○	○
Extreme	○	○	○	○	○	○

Tekna T-2100

Work rate	Depth in feet of sea water					
	33	66	99	132	165	198
Light	●	●	●	●	●	●
Moderate	●	●	●	●	●	●
Moderately Heavy	●	●	●	○	○	○
Heavy	●	●	○	○	○	○
Extreme	●	●	○	○	○	○

U.S. Divers Aquarius

Work rate	Depth in feet of sea water					
	33	66	99	132	165	198
Light	●	●	●	●	●	●
Moderate	●	●	●	●	○	○
Moderately Heavy	●	○	○	○	○	○
Heavy	●	○	○	○	○	○
Extreme	○	○	○	○	○	○

White Stag Deep V

Work rate	Depth in feet of sea water					
	33	66	99	132	165	198
Light	●	●	●	●	●	●
Moderate	●	●	○	○	○	○
Moderately Heavy	○	○	○	○	○	○
Heavy	○	○	○	○	○	○
Extreme	○	○	○	○	○	○

Lessons from the Carmel Triangle

— *Why The Locals Make It Home Alive*

Off the coast of California's Big Sur, the pristine Pacific waters are loaded with kelp beds, home to thousands-upon-thousands of bass and cod and snapper and abalone—all the underwater life imaginable. Here, most of the water is accessible only to divers who travel miles by boat. Since few people live in the mountains above, the water is virtually free of pollution and the underwater life is affected only by an occasional hook of a fisherman.

The rugged coastline softens a bit in Monterey county, especially at a scenic stretch of beach between Carmel Point and Point Lobos. From all parts of California as many as a thousand divers a weekend arrive to partake in the sensational diving which begins just a short walk across the beach from their parked cars. Yet for all its underwater beauty this area has been dubbed by local divers as the "Carmel Triangle." Since 1971, thirty lives have been lost off this short stretch of beach, and twenty-five of those who died had been scuba diving.

Curiously, not a single death of a local diver has ever been reported in the Carmel Triangle. But perhaps that should be no surprise. After a diver has driven two

hundred miles and invested his time and money, he arrives ready to dive under virtually any conditions. Although the surf may seem a little high, or the rip tides or the weather may be turning bad, a diver who has driven half the night is not often willing to sit and stare at the waves, dreaming about diving. So he tackles the surf and some who do never return.

The locals, of course, are much smarter. They see the surf, they see the tides, they see the weather and they simply go back home with their gear, deciding to return tomorrow when the water offers more sensible opportunities.

Most of us have made a dive we know we shouldn't have. After a \$1000 flight to a tropical island we'll be damned if we are going to sit out the first dive when the waves are high and our stomach is filled with butterflies or, after an all-night drive to a charter boat and a thirty-mile trip to the wreck, we'll be damned if we'll miss a dive, although we really know, inside, that we're not up to it.

Sometimes we create our own barriers to a good dive. A shoestring breaks and we get angry. Then a fin strap breaks and tension builds. We try to adjust gear

that has not been used for years and the gear fights us. Little things go wrong and the emotional edge creates a physical inability to handle our familiar diving tasks.

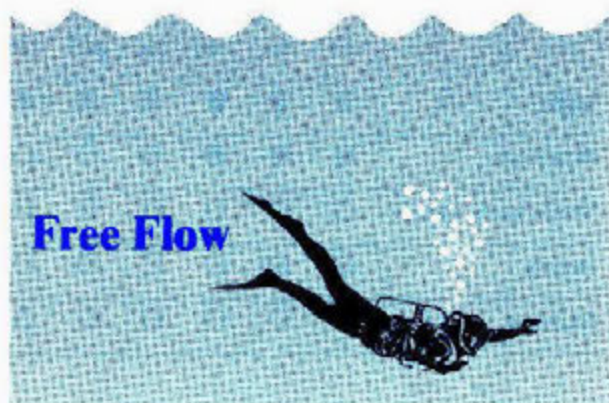
We give ourselves plenty of reasons. We don't want to be chicken. We feel compelled to dive because we set out to dive. We don't want to spoil our buddy's diving. We've come this far so we might as well go ahead. But choosing to dive under those circumstances not only jeopardizes our own life, but the life of our buddy. If a buddy isn't functioning right, the team itself does not function right and that can mean trouble.

Only you, yourself, know whether you are fit for the dive. What might be an easy surf for your buddy, might be rugged surf for you. What may be acceptable

water temperature to your buddy, may be frigid for you. While your buddy dresses up in anticipation, you may dress up in anxiety. If things aren't right—and only you know—simply don't take the risk.

But there is one option. If concerned about the dive, don all your gear except your tank and weight belt and go snorkeling. Give yourself some time to float around and get used to the water. If you feel comfortable return to the boat or shore, don your tank and get back in the water. But, if you still feel anxious, scrap the dive.

So, follow the rules of the locals from Carmel. When the surf's up, they go back home. It's only the anxious tourists who tackle the waves and, tragically, many of them never get the chance to go home again.



In April, 1976, we reported that two LA divers, Bob Meistrell and Wayne Baldwin found, in 30 feet of water, what appeared to be anchors used by Chinese sailors well before the time of Columbus. If so, the Asians beat the Europeans in the "discovery" of America. The theory gained credence recently, when Maritime Historian Fan Zhongpu determined that the 80-lb. doughnut-shaped stone discovered off Point Conception, near Santa Barbara, the so-called messenger stone, carved away inside by hand tools apparently, could have been sent sliding down an anchor chain, via the hole, to strip away accumulations of seaweed. Some scholars dispute Fan, but he says that Chinese merchant seamen had reached the Indian Ocean by the 3rd century, A.D., so it would have been quite possible to cross the Pacific by the 5th century.

Subscriber Fred Gambino (Armonk, NJ), a qualified Navy diver, points out that *Undercurrent* was in error when we reported that Navy divers dive in groups of four in our article about regulator quality (March, 1980). Gambino says that of the four-man team, two are underwater, one is a tender/timer, and one is fully suited as a standby diver. And, he adds, "regulator failure is not the only consideration for limiting Navy divers in scuba to a maximum of 130 feet. Other considerations are limited duration of air supply, nitrogen narcosis and decompression considerations."

Last month we reported on ciguatera poisoning. This month, let us note the death of 55-year-old skin diver Edward Stuby, who, after diving for abalone on the California coast, collected scallops. In the time honored tradition he served up a few raw on the half-shell, unknowing that most species of mollusks along the coast had been quarantined, an annual summer occurrence, because certain shellfish ingest microorganisms which produce a poison deadly to humans. Stuby died a few hours after the meal.

Because sport divers are ripping off abalone and lobster in record numbers off the California coast, undercover agents of the Department of Fish and Game have recently joined charter boats to observe the culprits—and arrest them. Robert Deicks of National City forfeited \$320 bail, was fined \$400, and placed on six years probation. On Deick's first dive from the San Diego charter boat *Kona Coast* he surfaced with 50 abs (four is the limit), five out of season lobster, and four speared fish. On his second dive he surfaced with 35 lobster. On his third dive he came up with 45 abs, then threw the undersized mollusks overboard (although the law requires that they be replaced by hand on rocks). Several other divers were also nabbed. This diver's take, of course, is damn disgusting. Just as troublesome is the fact the boat skipper ignored the rapacious diver, although charges have now been filed against the skipper. We hope that the long arm of the law serves as a warning to other charter boats—and other poaching divers—that there's a great cost around the corner for those who rip up the ocean bottom. Frankly, if we were the judge we'd lock up the whole scurvy lot of them for a month of Sundays.

Experience is no insurance against underwater fatalities. On September 3, an experienced diver drowned in Lake Ontario while filming for a television series on Great Lakes diving. The diver resided aboard the *Calypso* and was one of Jacques Cousteau's crew. The cause of death is yet to be determined.