

Travel Reports From Our Readers: Part I

-- Coral, Caves, Critters, And Crowds

Dear Reader:

Every 18 months or so we publish a series of readers comments about their diving trips, giving us all the chance to see what our fellow sport divers have to say about diving from Anguilla to Zanzibar.

It's my job to sort through the hundreds upon hundreds of questionnaires and letters we receive and present them in a readable fashion. Though I strive for objectivity, it's difficult at times. I can smell the odor of sour grapes in a letter; but if more letters arrive complaining about the same spot, then those deserve attention -- and publication. I can also spot a campaign put on by a resort: while I may get only a couple of letters a year on some Bahamas out island resort, my antennae rise when half a dozen well written letters -- or xeroxed questionnaires -- show up during a two week period.

The perception of our readers is based not only on their experience, but what happens during the particular week they dive. One who has dived extensively in the South Pacific will have a different view of Grand Cayman than someone whose only tropical diving has been in Pensacola. So in making judgments about what comments to include, I make some judgment about who's commenting -- from the experience indicated and the nature of the comments. Having not met many of you folks, it's only a best guess.

So those are my disclaimers. On the other hand, I think the totality of these comments represent the best assessment of the quality of diving published anywhere. After all, who's to know better about a liveboard or a resort than a seasoned diver who has paid his own hard-earned money to sign up. I get scores of letters commenting about the accuracy of our readers' views, and only now and then does someone have a substantially different experience -- and that can often be attributed to changes in weather or changes in resort or boat staff or management. Having been to dozens of these destinations myself, I have

INSIDE UNDERCURRENT

Indonesian Intrigue	3
Can Nikon Service The Nikonos?	5
Why Divers Die: Part I -- An Analysis Of 98 Fatalities	8
More About The Navy Regulator Tests	10
Did I Fail My Test?	12

pretty good benchmarks for sorting fact from fantasy.

I take a great deal of pride in your willingness to report on your trips, in the time you take to provide us with accurate information. You can be assured that your fellow divers appreciate that as well.

Now here is the first of several installments of reader feedback. In the forthcoming issues, full travel reviews will be included as well.

C.C., travel editor

ARUBA: Well, we never hear much about this close neighbor to Bonaire, and what we have heard hasn't been all that positive about the diving. I mean, Divi has a hotel there -- but Peter Hughes doesn't have a dive shop! Bob and Ellie Ackley (Dayton, OH) dived with the Pelican Divers (so far as I know, the only dive shop located at the Holiday Inn) in early April and they report: "We have been to a lot of good dive sites (Cozumel, Bahamas, Bonaire) and Aruba is significantly underappreciated as a dive location. It may not be diving oriented enough for experienced divers (5 out of 5 stars for beginners, but only 3 for experienced divers) but it was a wonderful week's vacation -- and prices are cheaper than anyplace we've been except Mexico."

ANGUILLA: In the Caribbean, a short hop from St. Marten, Anguilla is beginning to attract a few divers, due to several exceptional hotels, great sandy beaches, and a well regarded dive shop. Peter Parsons (Seattle), there last September, writes that "Tamaraian Watersports" staff deserve top marks for friendliness, service and safety. The operation runs a sturdy Anguillan-made boat which will carry ten divers. The underwater scene was like St. John, but better. Lots of gorgonia, hard corals and a better cross section of critters. Conservation measures taken by the government are beginning to show dividends underwater. I photographed a Southern stingray that must have had a five-foot wingspan. My mate had a porpoise join in a dive. On a night dive, we encountered barracuda, squid, lobsters (spiny and slipper), eels and the best solo performance by an octopus this side of Jules Verne. Incredible beaches, a good dive operation and credible diving." Geoffrey Peterson (Washington, DC) writes about his April trip: "While diving is not spectacular, Tamaraian Divers is topnotch. Ian Grummitt makes every dive a pleasure. He is careful with novices, provides good direction and still expects good sense & responsibility on the part of the old-timers like me. No big fish. All fished out. Reasonably interesting reefs." (809/497-2020 at the Mariners Hotel)

ANTIGUA: I myself visited here four years ago and found the diving along the southern side quite boring. But Antigua (pronounced An-tee-gah) is as fine a Caribbean island as there is and I was pleasantly impressed with the island's dive guru, Big John Birk (and big he is, or at least he was then). W. Carlson (Washington, D.C.) writes of an April trip to the Anchorage Hotel: "Dive Antigua", under the management of John Birk, now operates exclusively out of facilities on Dickenson Bay (northwest coast). Birk has a fast new dive boat, new detailed charts of Antiguan waters, and a penchant for exploring virgin

Copyright 1988 by Atcom, Inc., Atcom Publishing, 2315 Broadway, New York, NY 10024. All rights reserved. *Undercurrent* (ISSN: 0192-0871) is published monthly by Atcom, Inc. Copies of this guide are not available on newsstands, but are furnished directly to the diving public by mail subscriptions only. To maintain its independence *Undercurrent* carries no advertising. Permission to photocopy articles herein is granted by Atcom 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: 0192-0871/RRS10 + \$1. Other copying by any

electronic or mechanical means, including information storage and data retrieval systems, without the expressed 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 by *Undercurrent* Newsletter, 2315 Broadway, New York, NY 10024. Second Class Postage paid at New York, N.Y.

To receive the accurate, inside diving information *Undercurrent* offers, send \$45 (U.S. funds only) for a one year subscription to *Undercurrent*, Atcom Publishing, 2315 Broadway, New York, NY 10024-4297 and get a valuable FREE gift.

Indonesian Intrigue

Just about the time you're reading this -- late July, if I meet my deadline -- three Australians and a Brit will be going on trial in Jakarta, Indonesia.

The men, all scuba divers, were arrested on March 22 and accused of illegally seeking treasure in Indonesian waters in an area that contains at least six 18th century galleons. If found guilty, each could be fined up to \$250,000 (but sentence would not require jail time). Indonesian officials seem interested in sending a clear signal to other divers who might seek treasures in Indonesian waters, so they seem to be protracting the proceedings and detaining the divers.

But for Americans, the real story is that six Californians were arrested along with the others. They were not jailed, but detained on their boat and later moved to a hotel. In late May, four of the men escaped, stole a boat, and found their way to Singapore. The remaining two, twin brothers Bob and Bruce Lanham, escaped by similar means in late June.

Now I've been following stories about these divers in the international wire services and find the circumstances curious. Apparently the Americans and Australians chartered a boat -- the *Budi Indah* -- in Singapore and shipped out for a "diving holiday." About 25 miles out to sea, in a narrow strait between Singapore and the Indonesian island of Riau, armed Indonesian officials came aboard and arrested them.

The men not only pleaded innocent of all charges, but during their detention the twins

engaged in a hunger strike to publicize their plight. One of the escaped divers, Cliff Craft, a building inspector from Whittier, California, was quoted as saying that he and the others were on a two-week diving holiday in international waters and they were not acting illegally when they used sophisticated gear -- a sidescan sonar -- to locate a reef and drop a buoy. Peter Howes, an Australian electrical technician who arranged the charter, said "we never even got in the water and we weren't looking for old wrecks."

Indonesian officials bought none of that, believing that the men were indeed looking for sunken treasure that lies in waters Indonesia declares as an "Economic Zone." The Indonesians are bent on keeping hunters away from these wrecks after two years ago accusing a British treasure hunter from pillaging \$15 million from a wreck sunk in 1752.

As a fellow diver, I'm pleased the Californians are home. Hopefully, those still detained will get a fair and speedy hearing.

But, there's still a matter left to be cleared up. A Ventura County, California, district attorney reported to the Associated Press that before Cliff Craft departed for Singapore and his pleasure diving trip, he had been charged with pillaging an underwater wreck off California's Channel Island National Park. Craft, and most of the other Americans, were identified by the *Los Angeles Times* as members of the "California Wreck Divers Club."

Ben Davison

sites. He places service and safety and marine conservation at the top of his priority list" (809/462-0267). . . . At the hotel which would be my personal pick, the Galley Bay, Susan Cowen, (N. Stonington, CT), says "a dive boat would pick us up at the beach. Some decent diving could be found with a variety of sea life." . . . Ken Perrine says that his dives at the Hawksbill Resort last August provided "lots of fish, a few 'cuda, (no other large ones), good coral. Sites were generally good but no walls; some valleys & caves. Depths 30-80 feet on first tank, shallow on 2nd, back by noon. Excellent snorkeling 40 feet off hotel beach" (809/462-8256). . . . Apparently spearfishers are welcome at the Hotel Blue Heron about which R.L. Lesnick (West Paterson, NJ) says "quaint and laid back. No air conditioning. Chef would cook up our conch or speared grouper. Very accommodating.... Joe Ruf (Vineland) says last year that "only the Runaway Beach shop would dive on Sunday (called every shop on island). Saw lots of dead coral." (809/462-1318)

AUSTRALIA: I spent most of our words on good deals and good Australian boat diving in our March, 1988 issue; if you're traveling there, get that issue for a mere \$5 from our publisher, ATCOM (800/521-7004). But there is still a bit more to report. Keep in mind that the Great Barrier Reef is 1200 miles long, that the

better diving is to the north, and Heron Island is to the south and not everyone leaves happy. Take Alan Bloom (Boulder, CO) who was there last October: "Thousands of birds! All the time! Some nights were pretty loud. Diving was 30-60 feet, but great fish & coral. This was the time the sea turtles came on shore to lay eggs. Saw 2-3 large turtles on every dive. Diving geared more for the novice. Next time I'll opt for a liveboard". . . .and K.R. Jeffreys, London, says: "Very overrated. Worth two days to see the turtles, but don't believe all those wonderful stories about the best diving in the world! We visited in November, the beginning of summer, and found the water 77o on average. Their attitude to diving computers and state-of-the-art equipment is very backward ... organized rather like a school camp. Not recommended for experienced divers." (415/442-0799 or 415/339-2550)

Further north at the pricey Lizard Island hostel Len Mink (Fairfield, OH) said that last year "local shoreline diving from outboard dinghies was superb. Lots of walls (average 30-50 feet), caves, nooks, crannies. Profuse sea life. Cod Hole, Cormorant Pass great, but enjoyed guided dinghy diving more." G.R. Wilson (Wayne, NJ) went there in April and said "Expensive luxury resort, but excellent value. Diving is beautiful. The guides are very helpful. The amount of diving was limited mainly by bottom time (four tanks one day, two tanks the next). Cod Hole is magnificent." (415/339-2550 or 415/442-0799)

If one wishes to make day trips to the GBR, reader Charles A. Garber (West Chester, PA) says to bed down at the Sheraton Hotel, 60km north of Cairns at Port Douglas "a charming town, just on the edge of the Daintree rain forest. Property is one of the most beautiful I've seen. The MV Quicksilver, large, spacious and first class, gets to the GBR in 1-1/2 hours; during the trip out are lectures and videos of the GBR. At the outer reef, there is a large floating dock. Divers depart on a small "tender" for a short run to the diving sites. Nondivers can snorkel, ride in "submarines" and observe the coral reef first hand without getting wet, and a hearty luncheon is served." All for roughly \$30 a day. Contact Keith Forester, Sport & Dive Center, Box 105, Port Douglas, Queensland 4871, AUS.

BAHAMAS: Best thing going for the Bahamas is that it's easily accessible from the east coast and has a decent variety of diving. Remember that winter water temperature can hover in the ultra low 70's; that can mean a full wet suit. At Small Hope Bay Lodge on Andros, thankfully little has changed since I visited ten years ago. Writes Milton D. Rosenau, Jr. (LA) of his trip last year "it's a "small, intimate operation, very low key. Mindless, safe diving, very good operation. Excellent undersea life. Typical week includes one night dive, one 185-foot dive (with 85-foot option)". . . .(809/368-2014;305/463-9130;800/223-6961)

Bimini has 3-4 days of good diving, including a wall. Neal Watson has sold out to Bill & Nowdla Keefe who Bill Deane (NYC) calls "just great. Because I was flying in the late afternoon, they took me out alone in the early morning so I could get another dive in." William E. McCullough, Jr. (Irmo, SC), says "many marsh sharks, dolphins, lobster, etc. While Cayman Brac and Cozumel have more spectacular reefs, Bimini had more fish." (800/327-8150;305/763-2188). Our readers still complain about Brown's hotel, the rooms and the food. And you will too. Spend the extra bucks to lodge at the Big Game Club.

Several years ago we gave good marks to Chub Cay diving in the Berry Islands (see Undercurrent July, 1981) and now under the tutelage of Neal Watson. Readers continue to enjoy it. Says S. Feldman (Houston) of his trip last year: "Great

coral formations, loads of fish, especially grouper, eagle rays, swarms of grunts, snappers & blue chromis. Food & hotel were above average. Compared to Cozumel or the Bay Islands -- doesn't have the vertical walls & geological formations, but has a lot more tropicals and much better shallow diving." Michael W. Zehender (Crosby, TX) visited in April: "Plenty of shallow dives for maximum time. Also excellent wall dives. Divemaster Kevin very helpful and friendly. The boat layout was excellent." And a whole bunch of readers from Algonquin, IL said "even our more experienced divers who have been to various Pacific and Caribbean sites were impressed with the quality of diving. Marine life included large pelagics and colorful reef fish. First-class operation." (800/327-8150;305/463-9130;809/325-1490

At Freeport, on Grand Bahama Island, Nick Rolle (Sunn Odyssey, The Emperor Hotel, 809/373-1053; PO Box F-4166, Freeport G.B.I.) has replaced the venerable UNEXSO as our readers' first choice. They like his attitude and say he provides better dives. Harvey Eastman (Cincinnati) says "Nick, a Bahamian, is an excellent diver; last September he provided us with diving experiences beyond our expectations. The first two outings we saw nurse sharks and the last outing we observed reef sharks in the sand at 40 feet and roaming the alleys and arches at 80 feet. We also saw large sea turtles, played with an octopus in daylight and observed southern stingray and squid." UNEXSO, which ought to be well-regarded, gets more than its share of complaints each year from experienced divers. A typical comment comes from W.M. Bethea (Norfolk): "The use of 72 cf steel tanks with 2000 psi average is ridiculous. Amazed to see that no one stayed on boat during dives, even though multiple nonguided groups in water." Alan Crosby, who was there last month, has another take: "So far this was the most organized and professional operation I've dived with (Cozumel, Hawaii, Thailand); everyone had a pool checkout before diving and some individuals did not pass." Maybe that's why some divers don't like it -- they must prove they know the basics before they get to dive.

Can Nikon Service The Nikonos?

Dear *Undercurrent*,

I believe that you should be aware of the inability of Nikon to service their Nikonos V cameras. I used mine for approximately 20 dives, then realized that there was a problem with the camera and forwarded it to the Nikonos repair center in Norcross, Georgia. A month later I received a notice that it would cost \$159 to repair my camera, claiming that it had been flooded. I forwarded them a check and approximately a month and a half later I received a notice to indicate that the parts to repair the camera were on back order.

I've called the repair center on numerous occasions and was told I would have to wait 3-4 months for the return of the camera. Customer service in California has provided no help.

It is inconceivable to me that Nikon cannot service their cameras. I believe that your readers should be aware of this.

*Henry V. Lynch
Attorney at Law
Greenwood Lakes, NY*

We called Norcross and spoke with Reid Risner, Nikon Service manager, who told us that Nikon in Japan produces cameras and parts in cycles, producing enough cameras to meet what they believe will satisfy the demand, then switching to part production. Risner said that "unfortunately, the demand for parts has exceeded the supply on hand, and we have to wait for more parts from Japan."

In checking out Lynch's claim, Risner said that they received his authorization for repair on March 3, "at the very end of our supply, and we had to wait until the parts came in. Normally, however, we try to get our repairs out in 3-4 weeks."

Attorney Lynch received his repaired Nikonos from Norcross during the last week in May, nearly two months after Nikon received his authorization and check to proceed, but *more than four months after he originally sent them the camera.*

Needless to say, once a diver discovers a problem with the Nikonos, he ought to get it out for repair immediately -- otherwise, take the risk that it will not be back in time for his next trip.

Ben Davison

Georgetown, Exumas, is where Carl Mintz (Washington, DC) went out with the Exuma Divers in December. "Because of wind, we only once dove outside the reef where the "good" diving is. Aside from the Blue Hole, the diving inside the reef is lousy. The dive boat is horrible -- no tank storage; no water; no cover; hard for beginners to get into water; & very hard to get back into boat. Though divemaster Wendell was good around the water & helpful to beginner divers, his helpers were just horrible and, when in charge, were a danger to novice divers, staying in the boat and not guiding divers to "good" spots." (809/336-2600; 800/327-0787)

Green Turtle Cay Brendal's Dive Shop: Carl A. Mintz (Washington, D.C.) says he "was impressed with Brendal Stevens (809/367-2572). He filled his aluminum tanks to 2800 psi and generally runs one A.M. dive and another after lunch. A NAUI instructor, he has found a number of interesting dive sites within a 15-20 minute boat ride. He is friendly and helpful, and will show new divers around and watch over them without being overly protective. For experienced divers (in his eyes, not yours), there are few restrictions. The underwater life is as good as anywhere in the Bahamas." Reviewers speak highly of the pleasant accommodations and other amenities of the Green Turtle Club, located in the Abaco's.

Harbour Island and the Romora Bay Club, says Bill Laws (Brunswick, GA), "are beautiful -- much prettier than most Bahama Islands. Friendly people, great service. Divemaster and co-owner very friendly & helpful, but not too accommodating in reaching better dive sites in windy weather. Overall diving average -- patchy reefs. Few tunnels & caves. Two spots -- Plateau & Yep Reef above average. Good place to relax and do a little diving." (800/327-8286; 809/333-2385)

Nassau diving seldom gets reader accolades, but occasionally someone provides a positive report. For example, Dr. Barry H. Galison (Bloomfield, MI.) went out with Dive Dive Dive Ltd. and says "Crystal clear water. We saw James Bond wreck, no big deal. Great wall dive. Best dive shop in town, as I was told by other divers. Good dive boat." (809/326-1143; 800/328-8029). . . Divi Hotels and Peter Hughes Diving has taken over the South Ocean Beach Club, about 30 minutes from Nassau: Jack Aftanis (Cape May, NJ) who was there in May writes "the newest addition to the Divi chain is outstanding; staff was friendly, cordial, helpful; meals excellent. However, would not want to spend more than three days diving since their sites are a copy of each other." Most likely, this will remain a destination for casual, less adventuresome divers -- even families -- who might want to go 18 on the adjacent golf course (800/367-3484). . . Ken Stewart (Sedro Woolley, WA [no doubt, one of the great names for a little town]) had his first tropical diving experience with Coral Harbor Divers, located at the Orange Hill Beach Hotel: "Shop personnel were friendly and helpful, however we sometimes felt rushed to finish our dives so they could get back and pick up more divers. The wall was nice and coral abundant although after a week diving seemed repetitious. Night dive not worth the extra money. Hotel homey, informal, relaxed and not fancy (809/326-4171). . . Douglas Kirby (Plantation, FL) dived with Stuart Cove's Undersea Adventures on his first trip out of Florida and stayed at Casuarinas Beach, which he says "was far below par." The dive sites were great, but the boat operators worried me. Example: bringing a small boat alongside the dive boat to pickup empty tanks with divers below, and moving the dive boat with divers below on what was an anchor dive." (809/326-4171; 800/327-0010; 800/432-5034 (Fl)).

Rum Cay generally gets good reports. Says Rita & Bob Shapiro (Sacramento) of a visit last year: "We were pampered and treated graciously. Any request was "no problem" to the staff -- everyone from owner David Melville to the divemasters to the barkeep wanted to please. Fish life was sparse though we did

see good variety. Interesting dive geography from ledges, walls, tunnels (Pinders' Pinnacle a 5* treat) to shallow spur & groove sites. Shower water is brackish." Patrick Dooley of Dallas says: "Excellent for getting away from commercialism to enjoy a slow pace without any hassle or rip-offs. Comfortable place with professional standards, proper attention to guests while diving and on land. High standards for preservation of dive sites. Great for families and certifications." Duncan Putnam (Bloomington, MN) reports his April visit: "Excellent dive master and boat operators -- helpful and safety-conscious. Meals very good. Quarters large with two double beds. Beaches good; snorkeling limited as to inshore sea life." E.C. Rise (Knoxville), says "rules depend on divemaster; computers OK for depth, not time. Best deal for \$ I've found. Saw almost every kind of fish in book." But one long time visitor who wishes to remain anonymous is nostalgic for days past. "I have visited Rum Cay several times and very much like it, but was disappointed with this year's stay. Their staff has been cut back, which meant grouping a lot of resort-course divers with the rest of us, which made for some poor diving in the shallow dive sites. The food was not as good as other years. No-see-ums have always been bad, as are the mosquitos. Photo shop was closed two weeks as divemaster was on vacation." Sorry to report that Rum Cay has gone down hill a bit, but I'm afraid it is true." I suppose that when it comes to diving quality, most every place goes down hill once the tourists discover it. (305/467-8355; 809/332-2103)

At San Salvador's Riding Rock Inn, says Charlotte Mitchell, (Stratford, CT) are "very dramatic drop-offs and beautiful vistas. The dive operation was totally professional, courteous and knowledgeable." Edward Leibowitz (Jersey City, NJ), there last year says "for a once-a-year diver, I felt that diving group was too spread out under-water. If problem occurred, diver may not be able to get help. Should have been more than one divemaster for group of 11. Resort uses 71.4 cu. ft. tanks. Garron G. Weiker, (Seven Hills, OH): "A great place for real divers, but not for casual divers as there are no other activities. The wall is beautiful." (800/272-1492; 305/761-1492)

At Walker's Cay Resort, in the Abaco's the diving gets mild praise, such as this from Stan Pratt (Honesdale, PA). "In twenty years of diving I've never visited a better run, more-helpful-without-getting-in-the-way operation -- food is fantastic. Diving is not challenging but safe. Coral caves are everywhere -- filled with silversides. Depths around 40 feet are the rule. Beautiful canyons," Carl Mintz (Washington, DC), after returning from his fourth trip in 10 years wrote to say that "unfortunately the sea life has declined in that period. Walker's is known for its fishing & I am afraid that because of that, the diving has suffered. Used to be a great many more fish and they were friendlier. They have found few new dive spots and the old ones show signs of abuse. However, I still enjoy Walker's. The dive boat is good, the diver personnel definitely above average. Snorkeling on the southeast side of the island is superb." (800/327-3714; 305/522-0010)

Bottom Time II which departs from Fort Lauderdale to ply the waters of the Bahamas gets good reviews from our readers, but two report substantially different experiences. Dr. Chas. K. Botz (London, Ontario, Canada) says of his December trip: "Having been on a number of live-aboards, the living conditions (cabin space, fresh water, equipment storage and gearing-up area) compare favorably. Food was exceptional. Our trip was supposed to go to the Berry Islands, but for six days we never left the Bimini/Cay area. The dive sites were mediocre by land-based standards and very poor by live-aboard standards. The owner, who was onboard, explained that the prevailing winds out of the northeast were too brisk to go to the Berries -- I have been on another Bahamian live-aboard when the weather was considerably worse but did not prevent us from diving Chub Cay and Nassau." Of his February trip, a Del Ray Beach, Florida reader

says: "I have been on a number of dive boats in the Caribbean, Florida, and Truk, and the Bottom Time II is one of the best. AJ and Ron go out of their way to give you the best diving in the area. You can count on 3-5 dives per day on a very fast and comfortable dive boat. They're offering the best diving around and at a fair price." (305/561-0111)

Blackbeard's Cruises are for serious party people, rather than serious divers (see Undercurrent, October, 1984). David Ginsberg (Germantown, TN) says of his May trip, "Compared to my earlier experience with Blackbeard's, nondiving aspects remained excellent, however diving and safety were below earlier standards. This seems due to company policy not a failure of the particular crew involved." Spencer Weersing (Montague, MI), who went last year said: "we did all that was promised: free booze & beer, out island night life, dives day & night (totaled 15), lobstering, beach parties, clients could sail." Advice: don't dive hungover. (800/327-9600; 305/888-1226)

Next issue: Belize, et. al.

Why Divers Die: Part I

-- *An Analysis Of 98 Fatalities*

The National Underwater Accident Data Center at the University of Rhode Island acquires, investigates and analyzes the data of all U.S. citizen diving fatalities, not only in this country, but worldwide. The NUADC began in 1969 with the support of several federal agencies. Due to extensive federal budget cuts, by 1985 only NOAA was able to provide partial funding. Today DEMA (the Diving Equipment Manufacturers Association) and PADI, with NOAA matching, are the primary source of funds. PADI is the only training agency which contributes financial aid.

Following is an edited version of the 1985 diving fatality statistics, which NUADC released this January. We report several cases in detail, to underline the variety of accidents that can happen at any time. The safe diver must carefully plan his dive, know when to abort it, and pay attention throughout.

The 1985 Statistics

Dozens of federal agencies, as well as several hundred state and local agencies, contribute to NUADC statistics. NUADC has 250 contacts in the Caribbean, as well as sources around the Mediterranean, the Red Sea, the South Pacific, and Europe and receives information from certification agencies, individual instructors, dive shops, private correspondents and professional clipping services, which have provided information on 68% of our 1985 cases.

For the 1985 study the NUADC has investigated 98 underwater diving fatalities. The nonoccupational -- i.e., sport diving -- fatalities totaled 76, while oc-

cupational diving fatalities totaled 14. We also recorded 8 skin diving fatalities for 1985.

Each year NUADC estimates the U.S. population of active divers (one who makes at least 3 dives per year). As a result of a review of previous estimates, the NUADC has discovered some small errors which require a downward adjustment of our 1985 estimate of the U.S. diver population from 2.9 to 2.6 million. This allows for drop-outs, cross certifications, advanced and specialty certifications. It does not, however, include introductory resort certifications, estimated between 300,000-400,000 per year.

The peak year for sport diving fatalities was 1976, in which NUADC recorded 147 deaths. This equates to an 8.62 per 100,000 fatality rate. The 1985 total of 76 fatalities indicates a fatality rate of 2.6 to 2.9 per 100,000 active divers. These figures continue to support the notion sport diving is becoming safer.

Florida, estimated to be the most heavily dived area in the world, recorded 25 fatalities during 1985, 9 of which occurred in caves. California had 15 fatalities, Wisconsin 4, Hawaii and Rhode Island 3 each, Washington State, Massachusetts and Michigan 2 each. Ten states reported a single death. Three U.S. citizen fatalities occurred in the Bahamas and one each occurred in Barbados, Canada, Costa Rica, the Cayman Islands, Mexico, the Red Sea and St. Vincent.

During 1985 the NUADC recorded 54 fatalities in an ocean, bay or sea. The 22 other diving fatalities occurred as follows: 4 in the Great Lakes, 8 in other lakes, 9 in caves (all in Florida), and one in a river. Thirty fatalities occurred while the victim was operating from shore or a shoreline facility. Charter boats hosted 22 fatalities, while 17 deaths occurred

from a private vessel.

In 1985, 75% of the deaths occurred in depths shallower than 90 feet. This directly refutes the inference by some life insurance companies that most diving deaths occur in water deeper than 50 feet. Many insurance companies use this misinterpretation to charge higher premiums to sport divers, raising the cost of insurance by 100%. NUADC can find no basis for such a rating procedure and suggests that sport diving is safe to 110-130 feet, the depths recognized as safe by the U.S. Navy and Coast Guard. If a sport diver seeking life insurance runs into this rating system, he should shop for other companies.

One notable aberration appears in 1985; 13 of the sport diving fatalities involved individuals over 50 years of age, almost twice the percentage found in any previous year. We will carefully watch the next few years to see if there is an indication of greater participation by those in older age groups.

Experience and Training

Eight fatalities occurred during formal scuba training; one fatality occurred while the victim was taking instruction from a friend. There were 9 cave diving deaths, including 5 single deaths and two incidents in which two persons died. In five 1985 cases, the deceased were spear fishing, while an additional three deaths occurred while the victim was either abalone, shell or lobster fishing. Four victims were wreck diving when they lost their lives.

The experience of sport diving victims is shown in Table 1. The training fatalities included:

A 60-year-old female, with some diving experience, was engaged in an advanced diving program off a beach in Washington State. Developing difficulty at 50 feet, she and her buddy ascended safely to the surface, where she complained that her wet suit was too tight and that she was having difficulty breathing. She then foamed at the mouth and passed out. Despite extensive CPR, she never regained consciousness. Her medical history indicates that she had a diabetic condition, and perhaps heart problems.

Another fatality was witnessed by several members of the University of Rhode Island diving training staff who executed the rescue and administered CPR to the victim, a 29-year-old male, who was 30 to 40 pounds overweight. The victim, in a private class not sponsored by the University, was the last in line to enter the water in a group of 13 students led by one instructor and one assistant. This was their first open water dive. About 20 feet from shore the victim attempted to descend, only to surface immediately, thrashing wildly. Two of the URI dive staff immediately assisted him to shore in an unconscious state where CPR was initiated by a third URI dive staff member. The victim's buddy, who was grossly overweight, was physically unable to assist the vic-

tim. Emergency treatment by the rescue squad was unsuccessful, and the man was pronounced dead from asphyxiation due to drowning.

A 47-year-old male traveled from Illinois to Florida with his instructor for open water certification. After diving to 50 feet, the victim signaled that he was OK. But, upon swimming to the charter boat, he suddenly rolled over on one side and collapsed. He was immediately brought to the boat, but despite CPR he never regained consciousness. The autopsy indicated that he suffered from 50% occlusion of one coronary, which may have contributed to his drowning.

In a Wisconsin lake, a 34-year-old female became entangled in the lines from a buoy and could not free herself. She ran out of air, only a few inches below the surface.

A night-time 60-foot training dive in California resulted in the death of a student. When the instructor noticed he was missing, he searched for the glow of his diving light, where he found the victim tangled in kelp with the regulator out of his mouth, the weight belt in place and his buoyancy compensator not inflated.

A 30-foot dive in the Bahamas resulted in the death of a 52-year-old male, who had surfaced several times during the dive complaining that his face mask was ill-fitting. The last time he surfaced he lost his mask and became unconscious. He died of air embolism after extensive CPR conducted on board.

In the Red Sea a 24-year-old male died of an embolism during his third controlled emergency swimming ascent, having previously accomplished it from 10 and 20 feet. This exercise was from 40 feet. Upon completing the ascent he said "I panicked," then became dizzy and unconscious. Immediate mouth-to-mouth resuscitation and continued attention by professional rescue personnel was not sufficient to save him.

An 18-year-old female died who was taking lessons from her boyfriend's brother off the coast of New Hampshire. This victim had only one previous experience with scuba in a swimming pool. During the fatal dive, she apparently panicked and refused to use her regulator.

"Of the eight formal training deaths, five victims were older than 35. Two were air embolism cases, two were complicated by heart conditions, and one involved a person with a history of diabetic problems."

Of the eight formal training deaths, five victims were older than 35. Two were air embolism cases, two were complicated by heart conditions, and one involved a person with a history of diabetic problems. The training agencies must place a heavier em-

phasis on health and physical condition screening before admitting individuals to scuba diving training.

In some training fatalities there appears to have been a lack of immediate close-by supervision or assistance by either an assistant or the instructor.

Despite extensive research indicating safe techniques for emergency swimming ascent training, the techniques are not always followed and injuries and deaths have resulted.

More About The Navy Regulator Tests

Dear *Undercurrent*:

According to the US Navy regulator tests, Tekna 2100 BX Pilot was found unsafe in 1987 and safe in 1980. It is claimed that it is "unsafe," as well as claimed that it is "safe and acceptable." I find these mixed and misleading statements.

What is unsafe on a Pilot regulator? According to my evaluation, it's unbeatable. I've owned one for three years and had 400 dives without any problems, diving mostly in the Maldives, Red Sea and the Arabic Gulf with some very strong currents. Having dived up to a depth of 225 feet with an unbelievable amount of air delivery, I never once had the feeling that I was short of air, however hard we swam or however deep we went. Therefore, I do not understand your statement.

I do admit that you have to get used to the breathing characteristic of this regulator as it is so easy to breathe. I am a PADI Open Water Instructor and find that it is not always easy for students to get used to it as they do overbreathe easily.

*Roland Lickert
Executive Chef
Bahrain Sheraton Hotel*

We called the Navy Experimental Diving Unit in Panama City, Florida, to clarify the test.

All of the regulators in the study were intended to be tested both in the laboratory and by human divers. One of the bench tests is for "work of breathing," and since the pilot regulators did not indicate any measurable "work of breathing," they could not be evaluated in the laboratory and therefore couldn't be rated.

They don't register work of breathing because, as one person suggested, "they throw air at you." The Navy spokesman told us that "Pilot regulators can stick in an open position and force air to the diver. While we have never experienced such a problem, it was considered to be a potential danger as it could cause an embolism. A pilot regulator acts almost like a positive pressure regulator and it is the potential that creates the dangers." These judgments were not made by the Navy in the 1980.

Navy divers who tested the regulator in the water gave a moderate nod of approval to the

regulator and did not consider the theoretical misgivings.

Ben Davison, editor

Dear *Undercurrent*:

You are to be commended for your help in the dissemination of the 1987 NEDU regulator tests. Although most consumers may be frightened by or intolerant of technical specifications, and would prefer to choose their systems on the basis of color, there are some of us who dive the deeper wrecks or caves to whom such information is vital.

Unfortunately you did not print the results for 300 feet. Probably one hundred divers will explore the Andrea Doria at 240 feet this July. Probably more than that visit the Wilkes-Barre at 250 feet. And many more explore caves at these or greater depths. These people are the "serious" divers who read *Undercurrent*.

These, your readers, will be misled by your truncated tables. Among the Poseidon regulators, both the Cyclone 5000 and the Thor outperform the Odin under 200 feet. But neither functions well at 300 feet with 62.5 RMV. In fact, the Thor is off the scale completely: it cannot deliver the requisite amount of air at all! Yet from your abbreviated tables it would appear to be the best. The Odin, on the other hand, does meet the .14 Kgs-M/L criterion.

So, at least for the Group A regulators, how about the full story?

*Ted Sledzinski
New York, NY*

Dear *Undercurrent*,

Thanks for the super article on regulators, but I don't believe you should publish statistics which encourage divers to go deeper than the 130 feet safe sport limits. By listing performance to 198 feet, you only encourage people to spend more money, to buy more technically advanced but unnecessary equipment, and to dive deeper.

We instructors have enough of a problem keeping track of the turkeys. Don't give them such a long leash.

*A NAUI Instructor
Honolulu*

Cave Diving

The pattern of cave diving fatalities has remained the same over the 15 reported by NUADC. It typically involves young men in their teens or early twenties who had completed an open water training program and had some diving experience, but had received absolutely no training in cave diving. In fact, the NUADC has not recorded a single cave diving fatality involving a person who was properly cave-certified. The victims in most cave diving accidents have entered the cave structure without proper equipment, such as extra lights, guide lines, reels, and extra air. They have typically lacked the ability to attain neutral buoyancy, which leads to disturbance of the bottom silt or debris from the cave roof. Such disturbances cause an immediate blackout in which even the best of lights is of no help. Under such conditions the victims may actually wander in the wrong direction and wind up deep in the bowels of the cave rather than following a proper exit route which would be accessible if permanent guidelines were available to the diver.

The only way to prevent these tragic deaths is for open water instructors to repeatedly emphasize to their students that they should not enter any cave facility without having had a full formal cave diver training course.

"The Florida underwater cave in which they met their demise was posted with a special sign warning, 'Divers Have Died Here.'"

The NUADC recorded two accidents in which two persons each lost their lives cave diving. The victims in the first case were a 29-year-old Navy man and a 28-year-old female. Both were certified advanced open water divers, but neither had received any training in cave diving. The Florida underwater cave in which they met their demise was posted with a special sign warning, "Divers Have Died Here." The victims tied off a line at the sign, and apparently proceeded about 50 feet beyond it. Upon returning, they stirred up sufficient silt to make their escape from the tunnel impossible. Both victims were found about 15 feet from the sign in the exit tunnel with the male victim's light still shining.

In the second double death in a Florida cave, two males, aged 28 and 34, slipped past a metal grate that had been specifically installed to prevent divers from entering the underground river that feeds the spring. A third diver, a friend of the two victims, remained at the grate until huge plumes of silt made his own visibility impossible. He returned to the surface for help, which, of course, arrived much too late to save the victims. Despite heroic efforts by other divers, the bodies were not recovered until the following

afternoon when expert cave diving recovery persons arrived at the scene.

Wreck Diving

Four sport scuba diving fatalities occurred during 1985 while the victims were diving on submerged wrecks.

A 37-year-old female died while diving on an artificial reef created by the submerged wreck off the coast of Florida. The victim had been certified for 18 months and had logged approximately 14 dives. The 85-foot dive was probably the deepest she had made. As she and her buddy were ascending to the surface, the buddy noted a huge bubble of air coming from the vicinity of the victim. He immediately dove down but was unable to find her. The victim's body was not recovered until the following day by county sheriff's recovery divers. An examination of the victim's equipment revealed that the buoyancy compensator manual valve was inoperable and that the BC contained about two pounds of water. A further investigation showed that the CO₂ cartridge of the BC was intact and when discharged, worked properly. However, the buoyancy compensator inflated fully and immediately deflated because of the leak in the manual inflate valve. The BC was reportedly two years old.

An 85-foot-deep wreck in Lake Michigan was the site of the fatality of a 15-year-old boy who was found inside the wreck entangled in rigging. His prime scuba tank had no air left; however, he still had a pony bottle with 1400 lbs of air. The victim had been certified for three years and had considerable experience, but not at this depth or around a sunken vessel.

While diving on a sunken WW II German submarine off the coast of Block Island, Rhode Island, a 49-year-old male who had recently undergone coronary artery bypass surgery died of a massive gas embolism. He apparently got entangled in an anchor line and then lost his weight belt, rising rapidly to the surface from a depth of about 90 feet.

A 27-year-old male lost his life off Nantucket Island, Massachusetts, on the wreck of the *Andrea Doria*. A close associate of the victim stated, "He was one of the best-qualified divers I have ever known. He had made dozens of dives to depths between 200-250 feet." On his fatal dive, the victim penetrated the wreck alone to a depth of about 206 feet where he became extensively entangled in various wires and electrical conduits. The victim's left leg was wrapped with several coils of the dangerous wire, requiring extensive cutting to free him. One piece of cable had apparently become entangled in a snap hook on the victim's weight belt, making it that much more difficult to free him.

The extensive newspaper reporting of this fatality carried claims that as many as 16 sport divers have

Did I Fail My Test?

Dear *Undercurrent*,

I'm delighted that you published Homer Fletcher's quiz (April, 1988) on the dive tables. I appreciate *Undercurrent's* desire to challenge those of us who consider ourselves serious divers. I sweated through the first seven questions, eventually getting all of them right (after getting a couple wrong the first time). However, number 8 has me stumped. I've worked it every which way but loose and I still get 7 minutes at 10 feet. Does Homer know something I don't so I'd better stop diving? Or did he goof?

Marie McIver
Des Moines, Iowa

Dear Marie,

The editor of *Undercurrent*, Ben Davison, gave me an awfully thick stack of letters questioning whether either my desk top or shoulder-supported computer had gone on the blink. Something was on the blink, because somewhere between my class -- where the answer to the problem was correct -- and the typesetter of my article, the numbers got changed. And I apologize for that.

Let me give you the correct answer to number

8, right from the June, 1985 USN Diving manual.

When no recompression facility is available, use the following in-water procedure to make up omitted decompression in asymptomatic divers for ascents from depths below 20 feet.

Recompress the diver in water as soon as possible (preferably less than a 5-min. surface interval). Keep the diver at rest, provide a standby diver, and maintain good communication and depth control. Use the following procedure with one minute between stops:

- * repeat any stops deeper than 40 feet
- * at 40 feet, remain for one-fourth of the 10-foot stop time
- * at 30 feet, remain for one-third of the 1-foot stop time
- * at 20 feet, remain for one-half of the 1-foot stop time
- * at 10 feet, remain for 1/2 times the scheduled 10-foot stop time -- or seven minutes.

So, for those readers who agreed with my answer, you had better go back to school. For those who caught the error, you can get back into the water.

Homer Fletcher

died while exploring the *Andrea Doria*. NUADC conducted an extensive investigation in the matter, concluding that only three persons have died since the 1956 sinking of the wreck. There have been several near misses and a few severe cases of decompression sickness. Nonetheless, the *Andrea Doria* dive is, in fact, one of the most dangerous known.

Night Diving

Four sport scuba fatalities occurred at night, two while the victims were hunting lobster. In the first instance, a 34-year-old male was diving in 25 feet of water in a bay off the Atlantic Ocean when he suddenly surfaced, hollered for help, then disappeared. The badly decomposed body was recovered five days later; the autopsy revealed he was heavily intoxicated.

The second night/lobster fishing death occurred off the Southern California coast where the victim was apparently thrown up onto the rocky shore and knocked unconscious before drowning.

In another night diving death, the 21-year-old male victim was operating an underwater scooter at a

depth of 75 feet when he apparently ran into some submerged object, knocking him unconscious and resulting in his drowning.

The Buddy System

It should be emphasized that several persons in the water at the same time do not constitute a buddy pair. If a one-on-one buddy pair has not been designated at the beginning of the dive, the "several others" may only lead to confusion in an emergency.

Although prior to many fatalities unsuccessful attempts were made at buddy breathing, we have no doubt that there are hundreds of instances where buddy breathing has been successful. NUADC still strongly advocates the buddy system for diving; that is, a one-on-one buddy pair, each looking after himself and being available and close enough to assist his buddy if the need arises. Sport diver deaths can be greatly reduced by more emphasis on self-rescue techniques, and more training in buddy rescue procedures.

(Continued next issue.)

Undercurrent welcomes comments, suggestions, resort/travel reports and manuscripts from readers.
Send material to our editorial offices: Undercurrent, P.O. Box 1658, Sausalito, CA 94965