

Rum Cay, Bahamas

—Keeping An Eye On The Tour Operator

When New Englander David Melville decided to build a dive resort on Rum Cay, two of his stated goals were to assist the local Bahamian economy and to provide a fine operation for serious divers. That he has accomplished the former is fairly obvious, for many of the islanders are employed at the hotel and in the dive operation. Probably as a result, the Bahamians welcome guests with genuine interest. With the recent addition of rooms and new equipment, Melville is within a hair's-breadth of accomplishing his latter goal.

First, some facts. Rum Cay is a small island in the Southeastern Bahamas, between San Salvador and Long Island. When it was a British Colony, its town of Port Nelson was a bustling harbor. More than 3,000 residents raised pineapple, cattle and salt for export. The decaying colonial homes are picturesque ruins today, gradually being covered by underbrush, and Port Nelson is a small, native village of 80 inhabitants with a church, a school and a small general store. The only other cluster of buildings is the Rum Cay resort, which can handle 32 guests. Saturday flights depart from Fort Lauderdale for the 3-hour trip (which includes a stop in Eleuthera to clear customs). The \$995/week tab (per person, double occupancy) includes the room, three squares a day, three boat dives, and the round-trip flight.

To begin my journey to Rum Cay, the 3-engine Tri-Star departed later than 8 am scheduled time, arriving at Rum Cay's 2,400 foot sand airstrip just before noon. As we deplaned we were greeted by owner Melville and several young men, bronzed and smiling, who introduced themselves as staff and handed us rum punches. We stood around for 15 minutes in the hot sun drinking complimentary rum punches and getting giddy and gregarious before the tram arrived for the short shuttle to the hotel. In Ft. Lauderdale we had been given luggage tags (on which we wrote our names) and our pre-assigned room numbers. We were told that this would enable our luggage to find its way, "miraculously" to our rooms. Once at Rum Cay, the baggage made it as far as the walkway. We carried on from there.

Lunch awaited us. Cold seafood salad, mixed green salad, hot, steamed grouper fresh rolls and desserts. Those who wanted to dive were given an hour to get it

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all together--to orient themselves and to get the bugs out of their gear. We dove at the nearby "Sea Gardens," a lovely site but my heart sank as I noticed few fish, even though there were nice shallow canyons and attractive elkhorn and pillar coral. Would there be fish here? I damn well hoped so.

Before every dive, the "diving gong" clangs loudly to announce that the tram is preparing to make the round of the rooms to pick up the first half of the divers for the half-mile ride to the dock. The second tramload and second dive boat leaves a half-hour later and goes to a different dive site. Generally, these times are reversed each day so everyone gets an even break on sleep. The trams leave at 8:30 and 9:00 each morning for two dives, and at 2:00 and 2:30 each afternoon for a single-tank dive.

The two dive boats are Trimaran Flattops, each of which were loaded with a maximum of 16 divers, and often less. Benches, tank racks and camera boxes make for easy and efficient gearing up. Before each dive, the dive masters gave us brief yet solid description of the area, depth and time limit. Under water they stayed nearby, but did not "hover" or lead the dive--unless so requested. (As an experienced diver, I liked that.) Nor did they rush to help any divers on with their tanks...but are more-than-willing to help, if asked. Even though nearly all dives were less than a ten minute trip from the dock, I never felt rushed.

During the week, we were offered 19 dives at nearly as many sites. From the outset I must say that the fish life on the remainder of the dives was never so sparse as on the introductory dive, yet Bahamas diving--and Rum Cay is no exception--is not noted for its rich or unique fish life. Nevertheless, population and variety seemed better here than at most other Bahamian spots, and a real plus are the canyons and coral and drop-offs which create underwater scenery not found at most Bahamian outposts. So that you may get a more accurate picture, let me describe a few dives.

At a site named The Chimney, I jumped into a clear, calm sea and swam down to the reef at 75 feet. There, just as the divemaster had promised, was a large tunnel in the wall. Halfway through the tunnel, at 100 feet, I entered (with some apprehension) a black hole in the tunnel wall. As I turned into the dark, light filtered through from above. Looking up, I could see a chimney, 30 or 40 feet high, leading back up to the top of the reef. It was quite narrow, so I ascended carefully to avoid hitting the chimney wall with my fins or camera gear. This is part of a beautiful network of tunnels and caves, with fine photographic opportunities for silhouettes. Black coral, curling tendrils and feathery, cave-type growths here will highlight any shot.

On another dive I entered a wide opening on top of the reef at 70 feet at Dynamite Wall. Staying near the ceiling of the tunnel, I emerged over the drop-off at 100 feet, where two magnificent leopard rays greeted me.

Jewfish Wall is a maze of tunnels with such a complex of "rooms" and corridors that I found myself imagining that Neptune's architect had designed them. Some of the rooms in this submarine mansion were large enough for grotesque coral statuary whose surrealism was magnified by the clear, deep blue water visible through the distant openings.

Pinder's Pinnacle would be ideal for several dives. I regret having only one

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here. At 110 feet a massive pinnacle, alive with life, rises about 60 feet from the white sand bottom. As I circled the pinnacle, two hammerheads cruised by, a large school of horse-eye jacks wove in and out among the divers and two great amber-jacks came almost close enough to touch.

One day each week is devoted to an all-day excursion with a 3-hour beach interlude, including snorkeling, napping, beachcombing, windsurfing and a delectable barbecued-fish picnic with all the trimmings. In the afternoon we dived at the Snowfields where I shot a roll of film so quickly that I came back to the boat for another roll. Stark, white sand covers the entire area, with low, shallow coral ridges, many nudibranches, every color anemone, cleaning stations everywhere. Unfortunately, near the end of the dive a careless diver kicked up the sand, killing visibility.

At Elkhorn Gardens, acres and acres of elkhorn formed dark ledges and caves below for sleeping nurse sharks. From below, the elkhorn made beautiful silhouettes against the blue surface and midday sun. Schools and schools of grunts, yellowtails and goatfish formed curtains of glitter for as far as I could see, and varieties of parrot fish wove color in and out among them. The surge here was fairly strong; I was sorry I hadn't worn protective clothing.

At the Fish Factory, divers engage in a most unusual experience, yet an experience which leaves me troubled. Here, half-a-dozen sizeable groupers (up to 75 lbs.) perform all sorts of antics. Several followed me around, posing as though they understood camera angles and composition, and then looked startled when I laughed out loud. They not only permit divers to feed them, but they allow themselves to be touched and held! I'm concerned, because a few didn't look healthy. They had sores on their skin which, I surmised, could be related to their mucous coat being disturbed by the unnatural handling by humans. Two marine biologist friends were somewhat doubtful that this handling could cause problems for the groupers, due to fast regeneration of the coating. But they're not certain.

All in all, I was pleased with the dives and diving...as you no doubt can tell. During my May trip, visibility was generally around 100 feet (although we scratched one dive because of horrible visibility), and the water temperature was in the mid-to-high 70's (wet suit top water for most divers). The divemasters were very attentive to beginning divers or those who needed assistance, and head divemaster Mike Woodward was especially helpful. His photographic skills drew my unbounded admiration. His evening slide show was poetic and unusual, demonstrating exceptional composition, enhanced by his artistic use of lighting. Slides of the simplest and most common subjects often brought gasps of admiration from his audience.

Unlike many dive operations, where one returns year after year to enjoy the same guides, Rum Cay has a high rate of turnover. One might wrongfully surmise the reason is poor management or bad working conditions. I saw no evidence of either, although the divemasters were always busy, and one seemed eternally tired from late night photo work. The reason for high turnover may be more associated with Melville's personal beliefs. Most dive guides are young bucks, as anyone who has traveled can readily see. But, a swinging life-style doesn't go down here, I was told, because Melville does not permit his staff to have "mates" out of wedlock.

RUM CAY THE BAHAMAS

Diving for Beginning Divers	★★★★½
Diving for Experienced Divers	★★★★
Hotel Accommodations	★★★★
Hotel Food	★★★★
Hotel Otherwise	★★★★
Beach Snorkeling	★★★★
Moneysworth	★★★★½

(with reservations about
tour sponsor)

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

I can assure you that the same rule does not apply to his guests, for my buddy and I did not have common surnames. (I remember 15 years ago on Grand Cayman being turned away from a diving hotel because my partner and I were not married yet requested to share the same room!)

Until recently, Rum Cay could only handle 18 divers. Last year three new buildings were built, each with four rooms. Added as well was a main building with a long porch overhanging the sea. Inside is a bar, a library, an area occasionally used for dining and a TV-video and sitting area, with large, comfortable couches. A wonderful, outdoor jacuzzi easily handles 6 at a time, but legend has it that 18 people managed to jacuzzi all at once, on one wild and wooly occasion!

Although the new buildings appear barracks-like and sterile, the new rooms are unusually spacious and attractive. Pretty rattan furniture, with ample shelf and closet space plus roomy alcoves containing a light-box and magnifying loupe, make for comforts and extras not usually found at dive resorts. Each room has a table with two comfortable chairs, and a seaside veranda, a tub and shower, and two double beds. Ceiling fans move the humid air, though the fine cross breezes often made the fans unnecessary.

Most of the old rooms are now used by the staff, but three--fairly spacious and certainly adequate--are still guest rooms. One could feel cheated if assigned to one of those instead of the new accommodations. In addition, the "Great House," an old residence away from the resort, is used for overflow. It is not "great." It is the pits! Insist on being elsewhere...or demand a big discount off the package price.

Though not "gourmet," the meals are well-prepared, varied, abundant and fresh, and some are more delightfully exotic than you would expect to find at this type of resort. Personally, I miss having more native, Bahamian dishes, but perhaps I'm in the minority. Breakfast and lunch are buffet style and most dinners are served at the tables. There are delicious hot soups every noon and evening, and conch fritters after the night dives.

Non-divers will find a windsurfer, a Hobie 16, Aqua-cats, bicycles and electric cars for short excursions. The hotel grounds are scrubby and barren, but the beach itself is beautiful; pure white, talc-fine sand, radiating out from an unusual shoreline of gnarled tree trunks and roots and sculpted lava rock (but no palm trees). One can walk for miles without seeing another soul--or any signs of civilization.

No doubt, Rum Cay rates among the best of the Bahamas. The diving is well above par, the accommodations good, the people fine, the experience pleasant. Many wholesalers are now packaging trips to Rum Cay, and although individuals can travel on their own, group rates may be less. In fact, I selected a trip organized by Helix (a Chicago retail camera outfit and trip sponsor) for \$895. Though they performed reasonably well, I have my complaints.

Paul Schutt, its personable President, didn't mingle much, seeming to prefer friends from former trips. His girlfriend was always permitted to stay underwater an hour or more than everyone else. Not only was she excused from the time limit rules laid down for everyone else, which was very inconsiderate, but everyone had to wait for her on a rocking boat. Someone should have told her to buzz off.

Several new divers and some photographers on one of the boats preferred to eliminate all wall dives, in favor of shallower dives. Helix conceded at the expense of other dissenting divers. This could have been avoided by having divers alternate boats, instead of strict assignments to the same boat for the whole

trip--or by asking those who didn't want wall dives to skip those dives, since there are always two shallower dives scheduled every day. Some divers went home angry.

The Helix trip was well-run with thorough, pre-trip correspondence, and several "extras," including a free T-shirt and a \$100 reduction on the usual package price. Best of all, Helix has a large inventory of photo equipment, which we were all encouraged to use, at no charge. This included cameras, lenses, housings, housed cameras, strobes, close-up kits, etc. And Helix staff members were most helpful. However, they also claim they include a set of at least 25 slides documenting your trip--I saw three of four. The tab was to include all gratuities. At the end of the trip, Schutt suggested voluntary contributions of \$25. In my book, that means gratuities were not included. The \$25 tip was well deserved and no big deal, but how about a little truth in advertising!

I would therefore advise David Melville, whom I liked very much, to be wary of how sloppiness from tour operators can bring unnecessary and invalid criticism to his own operation. Melville has pumped a lot of money in Rum Cay recently and he'll need repeat guests to ensure that his investment remains secure. Indeed, Rum Cay is a resort I would have no hesitancy about visiting again, and now that the proprietor is achieving his two goals, he must keep his eye on the traveling tour operators as well as his guides and staff.

Divers Compass: The no-see-ums are vicious; take plenty of repellent, and spray yourself for cocktail hour A new building containing a darkroom, photolab, classroom and a larger dive shack has recently been completed; E-6 overnight processing is available for photo buffs. . . . One may leave all dive gear on the boats overnight, as well as leave the rooms unlocked; it's a safe, safe, place (unless the guests themselves are hooligans). . . .Water in the rooms is brackish; fresh water gear tubs are for rinsing camera equipment only. . . . For your flight take ear plugs or a Walkman; the roar of engines and the beat of cacophonous, piped-in disco music made conversation virtually inaudible. . . .Nice snorkeling can be found at one coral head off the beach (it's a long swim) and a ways down the beachFor reservations call collect: 617/894-8084; for more information write Rum Cay, 30 Colpits Road, Weston, MA 02193.

Cocos Island, Costa Rica: Adventurers Only

There are few true diving adventures left for the average, run-of-the-mill, sport diver, but I've discovered a trip to Cocos Island, 300 miles south of the Costa Rican port city of Puntarenas, that is indeed high adventure. One reaches Cocos only by boat, and the charters require at least two full days to make the journey in each direction. Nonetheless, it is quite an unusual experience.

Cocos, a 3x6 mile island, is carpeted with a nearly impenetrable rain forest, fed with a staggering 240 annual inches of precipitation. Sheer cliffs, several hundreds of feet high, interspersed with short, rocky beaches and waterfalls dropping into the sea, provide an unimaginable setting. Inland, one may find lakes and streams and rivulets and the undaunted beauty of a jungle, rife with tropical birds--but no people, because there is not a single inhabitant of this Costa Rican national park.

With such beauty on land, you wonder what beauty there is below. Let me compare it, if I may, with Hawaii diving. Perhaps the coral is a little more interest-

ing, but this is the Pacific--north of the equator--and the soft and hard corals and gorgonia are nowhere near as abundant nor as colorful as in the Caribbean. In fact, the bottom frequently is only rock and sand, at times stirred up with surge and currents; though in this January trip the visibility ran from 70 to 120 feet (and the temperature of the water, in the mid 70s, made wet-suit tops optional). Much like Hawaii, one doesn't necessarily dive for the terrain here, but rather for the fish. The marine life is so undisturbed that I had the sense that I could have been diving here centuries--or even eons--ago. Sharks are present on every dive. They are predominantly white-tips, but I saw schools of similar sized hammer-heads numbering up to ten or so. On my two trips to Cocos, I've never found aggressive sharks, but they're at all depths and even hole up in caves.

Large schools of jacks are attracted to divers, and easily captured on film. Morays, green and spotted, are everywhere. Lobsters are numerous and adorned our dinner plates each evening. Reef fish include large schools of beautiful black and yellow tanks, banded angelfish, grunts, squirrels, wrasses, blue runners, large snappers, many species of butterflies, yellow puffers, trunk fish, turtles, and, on one occasion I swam with a school of porpoises.

COCOS ISLAND COSTA RICA	
Diving for Experienced Divers	★★★★
Diving for Beginning Divers	0
Accommodations	★★★★★
Food	★★★★½
Moneysworth	★★★★★
★ poor, ★★ fair, ★★★ average, ★★★★ good, ★★★★★ excellent	

I've traveled twice to Cocos; both trips were arranged by Ocean Voyages, 1709, Bridgeway, Sausalito, California 94965, (415) 332-4681. Although I found their pre-trip communication sparse (they did not keep me informed of changes in plans or details of transportation in San Jose; I had to dig this up myself), the trips ran smoothly once under way. Their primary boat is the Victoria, a four-year-old, 82-foot sloop (operated by a Swedish crew) with excellent and spacious accommodations. She sails, but we always traveled by diesel. Even in January the nights were hot, so we normally slept on deck (there is no air conditioning). Landing through the surf on the rocky beach is tricky, and we were able to make few forays (on one trip the dinghy was swamped). The Victoria needed a better landing craft to negotiate the tough surf. Meals were excellent and, of course, the sea provided wahoo, lobster and other main courses. As for diving, we were able to make up to three dives per day.

Ocean Voyages trips are \$1495 for 12 days (seven days of diving); mid-May to mid-November are the rainy seasons. Ocean Voyages uses a network of boats, depending upon the size of the group traveling. My first trip was aboard the Sol, which was well-equipped but less comfortable. La Mer Travel (823 UN Plaza, Suite 810, NYC 10017; 212/599-0886) also offers a trip for \$2750; they have an extra day of diving and provide land accommodations for that price. As an agency, La Mer is more diver-oriented than Ocean Voyages. I doubt that makes much of a difference as long as the compressors keep pumping air. Flights to Costa Rica can be had for as little as \$295 round trip from Miami. From Los Angeles, the lowest fare I could find was \$632. Since Costa Rica is a beautiful and friendly country, I heartily recommend that you stay extra days to visit the countryside by train, or even take a river rafting trip down the Reventazon.

So, if you're an adventurous sort who would consider such a trip--before you send your money--head for your local video store to rent the film 600 Days to Cocos Island. It's a documentary about a couple who sail leisurely down the coast of the U.S. to reach Cocos, and the shots will give you a true picture of your destination.

Underwater Cinematography

—Why Not Exhume The 16mm Cadaver?

I've been into and out of movies for a long time. Right now I'm back in again. When I teach underwater photography, a portion of my course is devoted to filmmaking. The cameras I teach with are Super 8. For amateur purposes any number of relatively inexpensive cameras and film stocks make Super 8 the most practical of formats under water.

There was a time when amateur land photographers used 16 mm. With the advent of 8 mm, then Super 8 mm and the popularization of excellent cameras with professional features at reasonable prices, 16 mm for amateurs became a relic—almost.

A few amateurs persisted and recently there has been an upswing in the number of amateurs interested in shooting 16 mm underwater films. This may be the result of pro- envy, since it is not difficult to admire the work of the handful of 16 mm underwater cinematographers who travel the film festival and lecture circuit. But the renewed interest has also been prompted by a resurgent interest in film as an art form and the new popularity of film as a major in colleges and universities.

After the Super 8 revolution, cadavers of 16 mm

cameras, projectors, lenses and accouterments were everywhere. Camera stores bulged with these trade-ins. Anyone who wanted a used 16 mm had only to plunk down \$15 to \$50 to get a used Bell and Howell, Kodak or even a Bolex. Supporting the camera's habit was another thing entirely. Film and processing for 16 mm is quite expensive, and if the end product is to be used for amateur projection the extra expense between 16 and Super 8 is rarely justified.

Used 16 mm cameras are themselves still relatively inexpensive. One fellow told me a short while ago how he bought a Bolex 16 mm reflex, 3 lens turret with lenses, projector, some film and a box of accessories for \$75 at a yard sale. While used 16 mm equipment in camera stores is not quite the bargain this fellow lucked into, good values can be obtained by persistence and careful shopping. The smaller camera stores, neighborhood stores with "amateur only" clientele, are actually the best sources price-wise. These stores accept trade-ins and have no use for them. Big camera stores have a professional clientele always looking for equipment and thus the

(Continued on next page)

Harvesting Sunken Timber

—A New Gig For Working Divers

An untapped and available wood supply is waiting to be harvested. Only scuba divers can do it.

Until after the First World War, lumbering operations used any available body of water to transport virgin timber to waiting sawmills. In all those years, millions of logs sank. This sunken wood is North America's untapped source of energy.

Is sunken timber valuable? Can it be used after long periods of submergence? International Undersea Services, a marine contracting firm in Brewer, Maine, has found that the millions of logs resting in ponds, lakes, and rivers are equally as good as freshly cut stock.

Knowing that Maine was the former lumber center of the world and used the water-transportation system, the IUS initiated a research program to determine the feasibility of salvaging the millions of logs which International's divers had encountered in their work. Logs were retrieved, and samples were sent to the forest laboratory for testing. The results were astounding. Submerged logs are in a preserved state and will not deteriorate.

Sunken logs can be sawed into usable lumber for all types of building. When dried, they can be worked in the same manner as fresh-cut logs. Their capacity to hold nails and screws is the same. As fuel, submerged logs make excellent firewood, burning cleanly and smoothly.

As organization that wants and uses wood would do well to hire a scuba diver to tie up and deposit logs at a specified shore landing site. The logs can be handled from this point, trucked to a yard where they can be cut into four-foot cord-wood lengths, or 12-inch to 24-inch firewood lengths, split and dried.

Drying takes about the same time as with freshcut stock, if the proper sticking is employed when piling the material.

Some states -- Ohio, Oregon, and Washington -- and some Canadian provinces have log salvage laws. Permits are issued to individuals or diving companies able to meet legal requirements. One should check with the state attorney general's office and forestry department officials for current law.

big stores keep their prices up on used 16 mm equipment.

Deciding whether to get into 16 mm cinematography should not begin with the relatively good bargains available in cameras. An overview of 16 mm cinematography with a price analysis will really answer the question. And, while plastic underwater housings are available at prices ranging from \$300 to \$500 for most 16 mm cameras, finding a more durable metal housing for a given used camera may be difficult and quite expensive. I recently got a price quote on a used Oceanic 16 mm housing made of aluminum. It was more expensive than when Oceanic manufactured them new. A question of supply and demand.

I have recently discovered a rather fine film stock for 16 mm manufactured by Agfa-Gevaert in Belgium. Kodak reversal film had been a habit. Available in many film speeds, the Kodak reversal film was processed by Kodak and the original was immediately projectable.

The 682 Gevacolor negative film has a daylight rated speed of 64 ASA with a color correcting CTO 8B filter. With 3200 K Tungsten lights, the Gevacolor film is rated at 100 ASA. Being a color negative film, the negative must be developed and then made into a work print. This work print can be used in editing, preserving the negative. Working with an original on an editing bench risks scratches and damage which will effect the final product.

The results with the Gevacolor 682 film were quite pleasing. The film has excellent resolution, fine grain which holds together on projection and a good color balance for all general applications. While the film is available in a variety of loads, the 100-foot rolls, perforated both sides, is the film I used and found to be the best-all purpose load.

Agfa 682 negative film is widely available in the U.S. The film costs about \$14 per 100-foot roll. The

Agfa 682 negative film is developed in the routine processing steps used for other popular color negative films. One of the best film labs in the country, relied on by many of the major television and studio filmmakers is Duart in New York City. The Duart prices for processing 682 film is \$0.087 per foot to develop and \$0.149 per foot for a work print. That comes to about 24¢ per foot. Thus a 100-foot roll of 16 mm color negative film and processing costs about \$38.

Movie makers know, and amateurs find out quickly that a lot of film stock is burned up to make even a five-minute film. Sixteen millimeter becomes very expensive. But when a final edited version is projected and the image fills a theatre screen from corner to corner, there is no comparison with Super 8.

If you wish more information about film and professional film lab services, here are a couple of handy addresses to write or call:

AGFA-GEVAERT MOTION PICTURE
PRODUCTS
275 North Street
Teterboro, N.J. 07608
Tele: 201-288-4100 or 212-563-5500

DUART FILM LABORATORIES
245 West 55th Street
New York, N.Y. 10019
Tele: 212-757-4580

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The author of the article above, Attorney John C. Fine, is a Master Instructor and active diver. His first book, Exploring the Sea: an introduction to marine biology and ocean science was published by Plexus Publishing in 1982. He is at work on a second.

Drysuit Questionnaire

In the June, 1983 issue we provided a questionnaire for readers asking their experiences on wet suits and dry suits. In this issue we will cover the dry suit experience, and in a forthcoming issue we will discuss what we have learned about wet suits.

We received over 200 responses from dry suit users of which we were able to tabulate 163. The figure includes 63 Unisuit users, 22 Jet Suiters, 19 owners of Hendersons, 19 Imperial users, 17 Viking owners, 13 SAS owners and 10 DUI owners. The rest were not tabulated since there were fewer than 10 responses from each. Of the respondents, 14% were female.

—Our Readers Respond

We do not consider the results of our survey to be statistically significant, however, we do believe that the impressions we have derived are highly useful and will aid a diver in determining which dry suit may be appropriate for him.

Although dry suits have their critics (people complain they are too costly, cumbersome or that they leak), we found it most revealing that 87% of the respondents indicated they would recommend their dry suit to a friend. Among our respondents, 94% of the Viking users would recommend the purchase of their suit -- the highest rate among the seven suits

we've covered. Jet Suit had the lowest recommended rate – 77% of the Jet Suit users would recommend their suit to a friend, 23% would not.

We listed a number of potential problems – fabric tearing, breaking zippers, leaks at necks, and so forth, and found that on an average each dry suit user experienced 1.5 problems. Although we had hoped to make assessments about the problem rate from suit-to-suit, the ages of the suits varied too widely and the number of dives performed from suit-to-suit varied too widely for us to correlate that with the problems.

We can say, though, that there were indeed common problems. For example, fabric tearing from striking a sharp object or tearing the neoprene while getting dressed seemed fairly common. In addition, seams separated and stitches unraveled on all suits but the Viking and the DUI; 50% of the Jet Suit users reported unraveling stitches (which can be corrected with a drop of Aquaseal or even an ordinary airplane cement). Many divers complained of tight fitting and uncomfortable necks on the dry suits, some so tight that they felt choked.

“49% of the ‘dry suit’ users experienced leaks at the neck.”

As we expected, leaks were the major problem cited. While 49% of the “dry suit” users experienced leaks at the neck, as much as 77% of the Jet Suit users had that problem; only 18% of the Viking users issued that complaint. A full 42% of our respondents experienced wrist leaks, 23% seam leaks, and 7% ankle leaks. One reason for leaks, of course, is the numbers of dives on the suit. As Mike McKinnon of Juneau Alaska writes: “As my Jet Suit got old it just got leaky; of course, 300 dives is a lot to expect from any suit!”

While leaks were indeed annoying, few divers cited major difficulties from leaks, and many found their own ways to deal with them. Ken Swanson (Astoria, Oregon) writes that he uses TEKNA watch bands on both wrists to keep his Imperial from leaking. Barbara Carson (Modesto, California) writes that she

cut the boots off her suit because the water collected there. Several people found that Aquaseal was a suitable product for repairs.

More than one diver indicated they created their own leak to solve a common problem: the hood filling with excess air. Says Margaret Prall of Oakhurst, New Jersey: “I poked a small hole in the top of the hood on my Unisuit so it will not blow up and push my mask off.”

Several people had their own ideas for leak prevention. Nelida Lopez Lucas (Grenada Hills, California) brushes “plasti-dip” on her knee pads to prevent wear and tear from photography. Eric Berg (Tacoma, Washington) wears coveralls over his Viking to prevent cuts.

Our survey found, to no surprise, that 85% of the dry suit users needed more weight than when they wore wet suits; 91% of the Unisuit users need to add more than 5 pounds over their wet suit weight, while as little as 30% of the SAS users needed that much additional weight.

There is a wide variety in weight belt usage, and some divers go as far as strapping the weight on their tank straps. Chuck Sewell (Setauket, New York) writes that he made suspenders to support the weight on his shoulders, which gives better weight distribution and prevents damage to his Unisuit.

One overall impression that rings loud and clear from the survey is that although dry suits make cold water diving more comfortable, many people say they're barely worth the hassle. Barbara Carson says its “too much of a hassle to get my suit on and off. Diving should be easy and fun, not a struggle.” And Janet Donovan (Madison, Wisconsin), whose family has four Unisuits, writes “I hate cold water diving; it's too much work!”

Table A shows how divers rate their dry suits. A 4.0 rating is excellent, a 3.0 rating is good, and so on. (If you are referring to the original questionnaire, you will note that we have reversed the numerical order here.) Although this rating is not statistically significant, it does give some indication of diver perceptions and preferences. In the last column, “Would you recommend your suit to a friend?”... the percentage of divers indicating “yes” is provided.

TABLE A
READER RATING OF DRYSUITS
(4.0 is perfect)

COMFORT	WARMTH	DURABILITY	WORKMANSHIP	WOULD YOU RECOMMEND
Viking (3.64)	Imperial (3.95)	Henderson (3.63)	Viking (3.71)	Viking (94%)
DUI (3.50)	DUI (3.90)	Viking (3.53)	Uni Suit (3.42)	DUI (90%)
SAS (3.38)	Uni Suit (3.78)	DUI (3.50)	SAS (3.38)	Uni Suit (86%)
Uni Suit (3.19)	Jet Suit (3.63)	SAS (3.46)	DUI (3.30)	SAS (85%)
Jet Suit (3.18)	SAS (3.62)	Uni Suit (3.27)	Imperial (3.26)	Henderson (84%)
Imperial (3.05)	Viking (3.59)	Imperial (3.10)	Henderson (3.21)	Imperial (84%)
Henderson (2.84)	Henderson (3.63)	Jet Suit (3.04)	Jet Suit (2.91)	Jet Suit (77%)

Drysuits In Depth

—Tips On Buying, Wearing And Caring

"But I won't be able to pee in my suit anymore!"

"They're soooo expensive."

"They'll hang you upside down when air gets in the legs."

"They don't last as long."

These are the common objections to "drysuits." Indeed, these myths keep many people from trying one, but if you don't have a drysuit now, it's just a matter of time. And the generally favorable results from our questionnaire support that.

So let's dispel the myths, and give you the benefit of our experience and that of hundreds of Undercurrent readers.

First, however, let's properly describe the product. While every diver calls it a "drysuit," note that none of the manufacturers do! They don't want to give the impression that these suits are, or are supposed to be perfectly dry. A seal may leak, or an urchin might make a pinhole prick, but barring any major catastrophe, even with a minor leak, these suits are far warmer and more comfortable than their wetter counterparts. So...while you and I call it a "drysuit," catalogs name them "Comfort Suit," "Jetsuit," "Bubble Suit," "Inflatable Suit," etc. Don't expect them to be perfectly dry, (as our survey showed), just warmer!

"Ten minutes into every dive I have to...well...relieve myself; so the drysuit is not for me."

Wrong: Let's examine what happens with a wet-suited diver. First the suit lets in a small amount of cold water, which chills the skin. Sensing this, the body automatically shunts off some blood to prevent cooling the vital organs; the body may restrict flow even more if your arms and legs get cold (this depends on how tight the wetsuit is, and how cold the water is). A few minutes later the body senses an excess of fluid in the trunk area, and about ten minutes into the dive you get this "urge." Most divers—strict advocates of being comfortable in the water—activate their "submersible, hydraulic, thermal device and feel the warm glow" about the center point of your suit.

"With a drysuit, the water never touches your skin, so there is no pooling of fluids, no automatic urge!"

With a drysuit, the water never touches your skin, so there is no pooling of fluids, no automatic urge! Of course if you drank too much coffee...well, that's a standard body function, which by now you should have learned to control. At least you're not

into the uncontrolled sequence of events of the wet-suited diver.

Expense? As wetsuits are getting more expensive, drysuits seem to be coming down in price—or at least staying the same. Nonetheless, comfort in the water must be your prime consideration. If you are really comfortable in your wetsuit (and many are), fine. But if you often get cold, or chilled to the bone, then you would be wise to invest in a drysuit.

A stock drysuit will run \$380 to \$500; a custom \$40 to \$100 more. Most divers do not need a custom, for the drysuit need not fit as snug and perfect as the wetsuit. In fact, you should look for a reasonable snug fit from the hips down, but keep it loose on your upper torso. Because of this, most companies offer only unisex styling.

One Piece Suit?

Attached hood, boots, or gloves? These are up to individual preference. For some, it's a fine feeling after a great dive to remove the hood and feel the freedom and refreshing air. Between dives an attached hood can be uncomfortable, and the inside neck seal is often difficult to properly arrange. Nevertheless, some divers believe that the attached hood increases the warmth of the suit. The data from our survey did not reveal an answer.

While it is true that your feet stay drier and a little warmer with attached boots, separate ones offer two advantages: first, you can easily replace worn boots with new ones without great expense; second, you won't get stuck in an upside down uncontrolled ascent if you have no boots attached to trap the air. If you are wearing boots and become inverted, excessive air pressure on the ankle seals will simply go "slurrrp" and the air will gush past the seal, into and out of your boots. Your legs will fall, but there will be no interruption to your dive. After returning to the horizontal, or upright position, simply add more air.

Should you be wearing attached boots and become inverted, (filling your legs with air) and start ascending inadvertently, *immediately* tuck (bring your knees toward your chin), and roll to one side. As you regain a normal attitude straighten out, release air to stop your ascent.

The best procedure is to get the air out of the suit before going upside down. Just before closing the zipper completely, squat down and attempt to squeeze out all the air from the suit—or as much as possible. Some divers add half-inch rings cut from an innertube just above the knee to prevent air from

free-flowing to the lower leg area when inverted. Of course the rings should not be so tight as to affect circulation. Ankle weights of two to three pounds are also used by some divers to prevent inversion.

As for attached gloves, well, only perhaps for waters colder than 40°F. Gloves wear out so quickly it can be expensive and time-consuming to keep replacing attached ones.

Weight Requirements

How much weight to use with a drysuit varies with each brand. Bulky suits such as the Unisuit require as much as 40 to 50 pounds; whereas closer fitting suits need only 20 to 30 pounds. This is a very important consideration. Many feel that since neutral buoyancy can be trimmed in the water, the weight really doesn't matter...*au contraire!* The more mass and more drag, the more effort is required. You'll find yourself swimming slower, and more tired, albeit warmer, with the bulkier suits.

With a snug drysuit like the Sea Suits, Sub Aquatics Systems, Bareskin, and Fathom, you may be able to dive with *less* weight than a standard ¼" farmer john wetsuit. If your experience differs, then perhaps you aren't using your suit properly, so read carefully.

The buoyancy of a suit is relative to the amount of neoprene used in its construction. Since a farmer john suit has two layers of neoprene on the upper torso, it has more inherent buoyancy than a comparable sized ¼" drysuit. However, most drysuit users do not evacuate all the air in their suits, trapping an extra 5 to 10 pounds buoyancy, which must be made up by a heavier weight belt.

The drysuit hose is usually at chest height, leaving air to be trapped in the upper shoulder and neck region. *The secret to drysuit use* is to lean back in the water and slightly pull up on the hose, making sure the hose/suit fitting is the highest part of the suit, allowing *all* the air to be removed! (Don't pull on the hose too hard.) The Unisuit and Viking suits do not allow this because their evacuation buttons require pushing down instead of pulling up.

Another trick can eliminate that spray of water that comes in when the air runs out. Think about the mouthpiece, and the water it traps near the oral inflate/deflate valve. If you simply raise the hose, all this water will rush down the hose, and it's yaaa-haaa time! (Wear a sweatshirt with the sleeves cut off; it helps.)

To avoid most of this water, when you raise the hose to empty the air in the suit, simply make a "U" shape with the hose, so the valve points down instead of up. This traps air in the hose and prevents the water from chilling that left nipple! You can use this trick under water too, when you want to eliminate

some air during a rise in depth. Simply stay horizontal, roll ¼ left, pull hose up slightly, make the "U" and let the air out. With a little practice this will become second nature.

The Need For A BC

Many divers believe they can balance the cost of the drysuit against the belief that they won't need a BC. That's not true. Your buoyancy device is probably the most important piece of safety equipment you wear. A drysuit (except perhaps the Unisuit and Viking, which are more heavily constructed and designed for buoyancy use) does not have heavy duty seals and fabric like a BC does. Imagine forty pounds of lift in the suit, all pushing up on that neck seal. It's uncomfortable, and a slight tear in that seal and you've lost your "BC."

The common "horsecollar," BC is indeed uncomfortable with any type suit and has been superseded by the newer buoyancy jackets and back-inflation devices. The horseshoe-shaped back-inflation unit around the back pack can be easily balanced with a little air in the drysuit. Most divers, however, like the secure feeling of wrap-around buoyancy that the new jacket type BCs offer.

Adding an auto-inflator to the drysuit is recommended, as long as another BC is still used. Some auto-inflators have too light a spring tension on the deflate valve, however, and activating the inflate button sucks this valve open, drawing water in with the incoming air, for another "yaaa-haaa!"

There are two possible solutions: 1) have your dive store adjust the nut on the spring, making it tighter; or 2) some auto-inflators can be separated between power inflate and deflate valves; move the power inflate to the top of the hose, against the suit, leaving the deflate portion alone on the bottom of the hose. This last solution results in the driest inflation method.

Another trick for you oral inflators...note the small purge holes under the deflate button (some don't have them); simply use the first fraction of *each* breath into the suit to purge the water out, then push the button, allowing air to enter the suit.

If you have an auto-inflator, use it—always. The old myth of breathing the air first before inflating the suit (or BC) to conserve air is actually false economy. First, it may take several seconds to do the inflation, instead of one easy, two-second button push. Second, by blowing you will wind up breathing slightly harder for the next minute or two, actually using more air than had you pushed your button. Also, it is best to leave your regulator in your mouth. Removing it means one more opportunity for a problem.

One other safety tip, especially for newer divers: upon ascent, when reaching the surface do not at-

tempt oral inflation by grabbing a breath of surface air and blowing in your suit or BC. Use the same method you would under water...either auto-inflate, or take a hit off the regulator, then blow in the oral inflator. Keep this up until positive buoyancy is well established. Many a diver has barely risen to the surface, tried to gasp a breath of surface air, and inhaled salt water instead. This can start a very undesirable chain reaction.

"Very few wet or dry suits are good for more than four hundred hours of dive time, regardless of outside appearance."

The durability of your drysuit is directly proportional to your own care of it. Fingernails can gouge the thin rubber seals. Carefully remove the suit, don't stand on it to stretch the legs off. Maintain it as detailed below and your suit will last for 300 dives. By the way, very few wet or dry suits are good for more than four hundred hours of dive time, regardless of outside appearance. Each dive breaks down several cells of the "closed cell neoprene," until your suit is like a sponge. The deeper the dive, the more the damage. (That's why you get colder—you're not just getting older.) Even if the exterior of the suit is good, there is often so much cell damage that the suit is no longer a good insulator (beware the used suit).

Care And Maintenance

Maintenance of your drysuit is relatively easy. Rinsing with fresh water is very important. Sharp salt crystals will form, cutting microscopic tears into the suit if all salt water is not thoroughly washed away. "Armor-All" is great on the exposed neoprene seals and neoprene parts of the zipper. It can even help on the nylon to prevent the suit from sun fading.

If your suit starts to smell from body bacteria, prepare a 30% alcohol and water tub and immerse the suit in it. Do not rinse, simply hang in the shade to dry. The alcohol smell will disappear, leaving the suit fresh.

Repair any damage quickly. The product "Aqua Seal" is excellent for both seams and minor holes.

For extended storage, wrap the suit in plastic with as few folds as possible (or leave on a wide hangar in a suit bag), and fog silicone spray into the bag before sealing tight.

The gas-tight zipper on drysuits is obviously critical and requires extra care. Carefully lubricate with silicone spray along the outside of the zipper, under the metal guide track; very lightly spray the inside of the zipper where the teeth mesh (too much can result in zipper separation). Although some divers, even manufacturers, recommend a wax-like stick lubricant or silicone grease, sand and debris may adhere to the lubricant.

Animal Attacks On Divers: Frightening Fables From Florida

We like to think diving is a relatively safe sport and that whatever problems we face come from ourselves, not from creatures below. This summer, however, two divers have different stories to tell.

Shark attacks on scuba divers are as rare as a Mexican dive guide who accompanies his paying customers. When shark attacks do occur, the victims are usually on the surface, as snorkelers or surfers, or spearing fish below. In mid-August, Jackie Lynn was diving with her buddy, Tim Hampson, near West Sambo Light off Islamorada, Florida. No sooner did Sampson spear a hogfish, than out of nowhere came a seven-foot bull shark to attack Ms. Lynn. She survived, thankfully, but only after extensive surgery on her right leg. A sheriff on the scene was quoted as saying that "the shark was apparently attracted by the wounded hogfish, but the girl was the first thing he hit instead of the hogfish."

If the idea of a shark attack doesn't give you the wilies, how about an alligator attack? Fifty-year-old Charles Day of Short Hills, New Jersey, was scuba diving in a natural spring at a Northern Florida fish camp during the latter part of August. An eleven-foot alligator slipped into the water and bit Day on the face, neck and shoulders. After the initial attack, the gator kept trying to bite Day, even though his 13-year-old son used the boat to get between Day and the gator. The boy pulled his father to safety. Luckily Day suffered only puncture wounds and did not require hospitalization. The gator wasn't so lucky. Florida officials shot the creature. Bill King of the Florida Game and Freshwater Fish Commission said that once an alligator attacks a human he no longer fears him. King speculates that the gator will now attack another diver or swimmer.

Burloye Carroll, owner of the Salt Springs fish camp, said it was the first attack on a human he'd seen in 45 years. He said that the alligator that attacked Day had established a domain near the headwater of the springs after it had driven another gator from the area. Apparently Day got too close to the domain, and the alligator felt it had to chase him away to maintain its territory.

Your best maintenance is to be gentle, especially when putting the suit on or pulling it off. Most zipper failures occur at the corners from stressing them too much. Have your buddy open or close the zipper, using two hands; one to grasp the zipper (without pinching you), the other to firmly pull the zipper slider with the short string paralleled to the zipper travel. In closing it remember the last quarter inch or it will leak!

All in all, drysuits can be great tools to maximize your diving enjoyment. For thin persons who have little body fat to insulate their vital organs, for petite divers, and for those who dislike any type of physical discomfort, a drysuit is the only choice when diving waters colder than 70°F. In fact, with practice you

may be able to even free dive deeper in your drysuit than in your wetsuit; you will stay warmer, have better blood circulation, and be more comfortable because it's not as tight.

This type suit alone offers an adjustment to your warmth under water. If you get chilled in a wet suit...suffer...swim a *lot* harder...or get out. In a drysuit you simply add more air to push the water away, next dive add a sweatshirt or thermal underwear.

Sometimes in summer, coastal waters are too warm (the first dive) for a drysuit, so reach under the hood, pull the neck seal, and let the cool water in—that's real liquid refreshment! The increasingly popular drysuit is indeed a suit for all seasons.

Don't Buy An Island: Build One!

—Says The Man Who Did Just That

"It's no secret that most ardent scuba divers dream of someday staking out a tropical beach, erecting a home and perhaps even a small dive operation to take care of the bills, then settling in for a life of leisure, leisure as much below water as above. Imagine yourself as proprietor of your own island, an entire island. Where the sun beats down each day. Where gentle waters lap at the shore. Where the ocean provides your dinner. And where never again do you have to handle an urgent telephone call from your boss."

I wrote those words in July, 1980, in a story we carried about how to buy and own your own private island. Surely it is my fantasy, as it is the fantasy of countless other divers. It didn't occur to me, though, that rather than discover an island, that someone might, in fact, *build* his own island. Until, that is, I met a chap with the unlikely moniker of Forbes T. Kiddoo.

Forbes, a long time Sausalito resident had a dream that extended far beyond heading off to the Pacific to buy an island. Indeed, he has built his own island.



FORBES ISLAND, SAUSALITO CA

Forbes Island, constructed from Forbes' "Ferro" cement, is 66 feet long, 37 feet wide, and 14 feet deep. Forbes launched the island in Sausalito. Skeptics said it would never float. Forbes ran a strip of masking tape around the perimeter to predict the water line. He took plenty of bets. And San Francisco Bay split that tape right through the middle.

From afar, viewers can see nothing but an island. Thirty-foot palm trees grow from the topside. A small dock extends from the island where Forbes moors his Boston Whaler, his transportation to work, and to Flynn's Landing, a local pub where Forbes regularly holds forth. The surface of the island is covered with sand; plants are abundant; a small waterfall adds to the tropical feeling, but a hot tub makes it a true California creation. And the views are all California—San Francisco, Sausalito and Mt. Tamalpais.

No more perfect mooring is imaginable. Yet, if Forbes found someone to ferry his island (it has no engine of its own), he might moor it anywhere—St. Thomas, the Seychelles or the South Pacific.

But it is not the exterior of this island that makes it worth writing about. Forbes, you see, lives inside. And inside are a dozen rooms, furnished in fine Persian carpets, polished woods, velvets and brass.

The walls, replete with polished wood stiles reminiscent of a Spanish galleon, are dotted with brass portholes, which provide both above and below water views. Brass chandeliers and light fixtures are gimble, so as to remain horizontal should the Sausalito seas swell. On one side of the main room is a 19-foot polished mahogany bar with stools rescued from a sunken schooner. On the other side is a grand piano, where Forbes will play a few bars of Mozart to welcome new guests.



FORBES IN THE MAIN SALON AT THE PIANO

Near the center of the room rests a free-standing fireplace built on a platform of rock. Opposite is a sunken organ pit, where Forbes—as did Captain Nemo—will sit to play Bach fugues while looking out the port-hole. Lately at night hundreds of fish have been illuminated by the lights, while he plays his music. As would any man of the sea, Forbes displays as much enthusiasm telling visitors about his fish as he does about the cash he has poured into the island—well over \$400,000.

Along with this outrageous splendor is a feature only for divers. Next to the wine cellar (where hundreds of bottles of fine wine are stored at the ambient temperature of the Bay) is a diving locker. One need only step inside, pull the handle to form the seal, and with the aid of a few pounds of compressed air he can enter or leave the island from below.

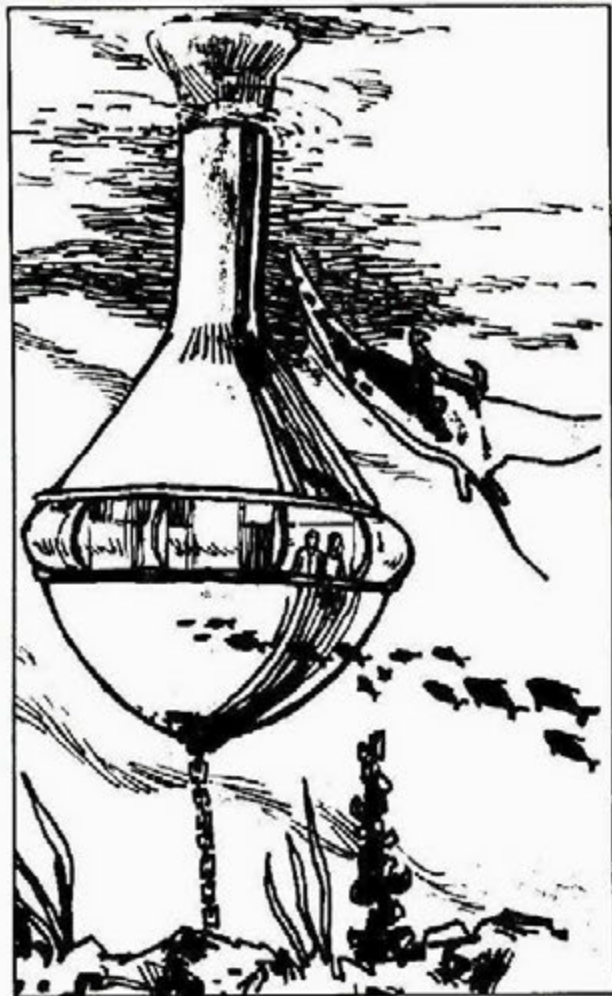


CAPT. NEMO ENTERING HIS DIVING LOCKER

Indeed, Forbes has thought of everything. He has storage in cement tanks for 6,000 gallons of fresh water. He provides electrical power with a 3-KW

single-cylinder generator. He has propane heaters fore and aft. Sewage is released into the bay, but only after it is treated and purified to standards surpassing those of any city or town which does the same. In fact, more than one government official had held out Forbes Island as an example of what can be done—i.e., what should be done—by other watercraft.

But, is it a watercraft? It has no propulsion and is moored quietly by underwater cables (and a piling driven through a hole in the center of the island). No one knows quite what to call it, other than "Forbes Island."



FORBES'S AQUASPHERE

With the success of the island (*The Wall Street Journal* and *That's Incredible* have given it prominent play) Forbes is ready with a new idea: The Aquasphere. He has designed an underwater observation tower (i.e., a reverse tower) with 400 square feet of observation, or perhaps even living space. With an easy entrance from the surface, occupants would descend 20 feet down a spiral staircase to observe the aquatic environs.

Forbes claims he could build a prototype for half-a-million dollars and then crank out Aquaspheres at one-third the price. "I think the Aquasphere," he told me, "could be used at any clear water spot in the world as a tourist attraction. Someone could put 25 people an hour into the thing at \$10 a head, sell drinks and T-shirts, and make a killing. Like the

island, it would be environmentally clean and worthy of another spot on *That's Incredible*."

So, readers, want to buy an island? Or maybe just an Aquasphere? You can reach Forbes at P.O. Box 177, Sausalito, California 94966. Or call him in the mornings at (415) 332-1882.

-- C.C. Travel Editor

Drowned... And Yet They Lived!

—Thirty Minutes Under Water May Not Be Too Long

It's a visceral, gut-wrenching panorama, repeated all too frequently on quarries, lakes, and seaside. On shore: the police and rescue squad vehicles, the little knot of people drawn to the water's edge by life and death drama. On the water: the little boats criss-crossing, scuba-masked heads bobbing at the surface, then disappearing to search the airless depths. For a time it's almost peaceful, but the tension is unbearable.

And then, a commotion near the shore, all eyes focus on the limp form of a fellow diver so incredibly less fortunate than his buddies: a human, lifeless... breathless... suffocated by drowning. It's a scene you never forget.

About 8,000 people drown each year, according to the National Safety Council, making drowning the third leading cause of accidental death in the United States. A tragically high figure, but medical science believes the total could be much lower. Many apparently lifeless drowning victims can be revived if proper treatment is started promptly and continued aggressively, the experts say.

Research by the National Oceanographic and Atmosphere Administration (NOAA) has shown that a person who drowns in water less than 70°F may automatically shut down the flow of oxygen to all but the most vital areas, sustaining life for remarkable periods without breathing. This involuntary response, called the mammalian diving reflex, in one case permitted resuscitation of a drowning victim after more than 30 minutes under water. A number of other cases are on record in which persons have been recovered from cold water in a seemingly lifeless state and survived.

Scientists are not certain how or why this primitive reflex is touched off in the human body. It may be akin to a similar mechanism in diving mammals like whales, porpoises, and seals which are able to survive long periods under water. This is what happens: When the body comes in sudden contact with water at 70°F or below, a complex series of body responses shut off blood circulation to most parts of the body except the heart, lungs, and brain. The little oxygen remaining in the blood is transported to the brain

where it is needed most. Though there may be only a small amount of oxygen in the bloodstream, it can be enough to support life as the cooled brain requires much less oxygen than normal.

The diving reflex cannot protect everyone, of course. Studies show that survival depends on how long the victim is under water, how cold the water is, the victim's age, and how well the rescuers do their job.

The University of Michigan, a leader in studies of the mammalian diving reflex, recommends the following procedures in a cold water drowning emergency:

- ★ Clear the air passage and begin mouth to mouth rescue breathing and external heart massage (CPR) immediately. Do not worry about getting water out of the victim's lungs... the body will absorb it quickly.
- ★ Prevent the victim from losing more body heat, but do not rewarm the victim. Improper rewarming may harm the victim.
- ★ Get the victim to the nearest medical facility quickly. CPR must be continued uninterrupted until the victim is under the care of competent medical personnel.
- ★ Do not give up! Drowning victims look dead. Their skin is blue and cold to the touch. There is

FIRST AID FOR VICTIMS

Although a drowning victim may be resuscitated after being submerged for up to thirty minutes, it takes an individual well-versed in resuscitation skills to perform the feat. A pamphlet describing the techniques to employ to save a coldwater drowning victim is available for one dime from Michigan Sea Grant College Program, University of Michigan, 220 Bonisteel Blvd., Ann Arbor, Michigan 48109.

no detectable heart beat or breathing. The eyes are fixed and dilated, and there is no other sign of life. However, if the water was cold there is still a good chance of survival.

★ Children and young people are the most frequent drowning victims. However, they are also good candidates for resuscitation since they

have a more pronounced diving reflex. In research at the University of Michigan Hospital, two-thirds of the cold water drowning victims that were successfully resuscitated were 3½ years old and younger. The colder the water and the younger the victim, the better the chance for survival.



The Underwater Medical Society recently ran this excerpt from a 1905 diving manual for divers at the Naval Torpedo Stations, which admonished divers to be "cool-headed, calm, and of a phlegmatic temperament; to be in good health, have a strong constitution, and the action of the lungs to be normal; not to be short-necked, full-blooded, or with a tendency to nosebleed; not to have blood-shot eyes, or a high color on the cheeks, caused by the interlacement of numerous small but distinct blood vessels; not to be very pale, nor have lips more blue than red, nor be subject to cold hands or feet; not to perspire freely; not to be affected with cough, asthma, or catarrh; not to be subjected to headaches or dizziness, or affected with deafness; not to be hard drinkers, nor have suffered frequently or severely from venereal disease, or have had sunstroke or rheumatism; not to have been subject to palpitation of the heart or fainting spells; not at any time to have spat or coughed up blood." Furthermore, they concluded that "men

who have long trunks with well developed chests and loins generally make good divers."

In our continuing quest to find a non-irritating mask defogger, Bill Jimrell (Union City, Tennessee) says Johnson's NO TEAR Baby Shampoo is the best he has ever found. Anyone else?

Over the Labor Day weekend, one of the members of Milwaukee's Buccaneer diving club got caught up in a cable while diving a wreck. Knives didn't help cut him free, but a couple of resourceful buddies were able to free the bound diver. The Buccaneers now recommend that their divers pack wire cutters when poking around wrecks.

When we wrote about Block Island, our reporter said he'd never been hassled by sharks, but that great whites were known to frequent the area. Divers still haven't been hassled, but boats have. In August, two fishing boats were jawed by the critters, which were swarming in the area to feast on the carcass of a dead whale. Fishermen caught one of the feeders, a 16-foot great white. Between 1980 and 1982, 127 great white sightings were reported between New Jersey and Massachusetts.

The National Oceanographic and Atmospheric Administration puts out a Water Temperature Guide to Atlantic Beaches, which provides average temperatures from April through October for thirty-five East Coast beaches. You may obtain a copy by writing "Resort Guides," National Oceanographic Data Center, NOAA, Washington, D.C., 20235.

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