

NDA AUI I

"Safety Through
Continuing Education"

NAUI NEWS

AUGUST 1975

NEWSLETTER OF THE NATIONAL ASSOCIATION OF UNDERWATER INSTRUCTORS
AND THE NAUI DIVING ASSOCIATION

All views expressed in articles which carry a by-line are those
of the author and do not necessarily reflect the policies of NAUI

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Publication deadline is 10th of each month.
Please credit reprints to author and NAUI NEWS.

NAUI is a tax exempt non-profit professional
organization. All proceeds are used for the operation
of the Association and the promotion of safe diving.
Contributions, requests and gifts are deductible by
the donor.

NAUI NEWS is published by the National Association
of Underwater Instructors and is distributed at no
charge to the NAUI membership. Subscriptions are
available for non-members.

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photo by Rick Frehsee

PROPOSED NAUI REORGANIZATION

by Larry Cushman, President

I. Objectives

1. To improve communications between the Association leadership and the membership.
2. To provide a method by which competent and motivated members can progress into leadership positions.
3. To improve geographical representation on the Board of Directors.
4. To improve the Association's image, visibility and individual member activity level.



Larry Cushman, President of NAUI

II. General Description

NAUI would be directed by a nine-person Board of Directors. Each board member would be elected from and by the instructors in one of the nine regions (branches). These regions are defined as follows:

1. *South Atlantic* (Florida, Alabama, Georgia, South Carolina and the Caribbean)
2. *Mid Atlantic* (Pennsylvania, New Jersey, Delaware, Maryland, Washington D.C., Virginia, West Virginia, Ohio, Kentucky, Tennessee and North Carolina)
3. *North Atlantic* (Maine, New Hampshire, Vermont, New York, Massachusetts, Connecticut, Rhode Island and Europe)

4. *Mid America* (North Dakota, Minnesota, Wisconsin, South Dakota, Nebraska, Iowa, Illinois, Missouri, Kansas and Michigan)

5. *North Pacific* (Washington, Oregon, Idaho, Montana, Wyoming and Alaska)

6. *Mid Pacific* (Northern California, Nevada and Utah)

7. *Pacific* (Southern California and Arizona)

8. *Southwest* (Texas, Louisiana, Mississippi, Arkansas, Oklahoma, Colorado, New Mexico, Mexico and South America)

9. *West Pacific* (Hawaii and Pacific Islands)

Each board member would also serve as a Regional Director, and be responsible for the administration of the region from which elected. Each would also serve as a member of the NAUI Diving Association (NDA) Board of Governors.

One or more Council Chairman could be appointed by each Regional Director to administer areas (councils) of high diver population density or specialization (e.g., cave diving area) within a region. The Council Chairmen are responsible for the formation and administration of Chapters within their areas. Initially, fourteen councils would be created, as follows:

REGION	COUNCILS
1. South Atlantic	1. North Florida area 2. South Florida/Caribbean area
2. Mid Atlantic	3. New Jersey/Virginia/Delaware area 4. Ohio/Pennsylvania area
3. North Atlantic	5. New York area 6. Massachusetts area
4. Mid America	7. Minnesota area 8. Illinois area
5. North Pacific	9. Washington area
6. Mid Pacific	10. Northern California area
7. Pacific	11. Los Angeles area 12. San Diego area
8. Southwest	13. Texas area
9. West Pacific	14. Hawaii

New councils could be organized and Council Chairmen appointed as the instructor population density increased in any relatively isolated or specialized area within a region. All

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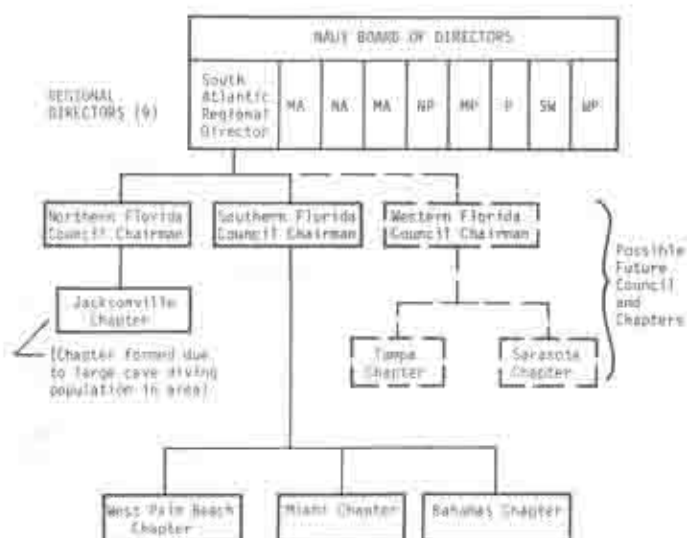
PROPOSED REORGANIZATION . . . Cont.

Council Chairmen would be members of the NAUI Advisory Committee. This Committee would function as an advisory group to the NAUI Board of Directors.

Chapters would be formed within the Councils under the guidance of the Council Chairman and with the approval of the Board of Directors. A Chapter is essentially a club or fraternity of NAUI instructors who want to accomplish projects that cannot be done by individuals. Any NAUI instructor can form a Chapter, provided support and participation of at least nine other active NAUI instructors who wish to become members of the Chapter can be obtained. The primary function of the Chapter is to produce local programs, instructor dialogs and related functions. Chapters would have elected officers (i.e., President, Vice President, Secretary and Treasurer) and will be financially self-supporting through local fund-raising programs and Chapter dues assessments that are non-obligatory (i.e., the payment of Chapter dues must be voluntary).

Board members (Regional Directors) may not serve as Council Chairmen or Chapter officers. Council Chairmen may not serve as Chapter officers.

The proposed organizational structure is shown below, using the South Atlantic Region as an example.



Chapters would be formed where there are many instructors, or where there are more than ten instructors who are in an area where a specialized type of diving is done. Council Chairmen would be appointed to administer areas which are composed of Chapters and instructors with similar interests or other things in common, such as geographic proximity and/or similar diving conditions.

The most important function of the Council Chairman is to maintain person-to-person communications with the Chapters in his area, by means of periodic meetings. For this reason, it is important that only Council Chairmen who are willing and able to travel and meet with their Chapters regularly be appointed. The Council Chairman is the key element in the new organizational structure.

III. Organization Elements

A. REGIONAL DIRECTOR (Nine Positions)

STATUS: Member of NAUI Board of Directors, NDA Board of Governors and Director of one of nine geographic NAUI regions (three year term, eligible for re-election). Eligible after first year for election by the Board members to a board officer position (one year term).

METHOD: Elected by majority vote of instructors in region where nominee resides.

PRIMARY RESPONSIBILITIES: (1) The planning and direction of the Association's business. Policy development which leads to the achievement of the Association's goals. (2) Overall direction and support of the region, including instructor development programs, communication with Council Chairmen, Chapters and the general membership. (3) Periodic in-person Council Chairman and Chapter officer meetings (policy/procedure interpretation). (4) Regional Ethics/Awards. (5) Legislation tracking/reporting. (6) Regional NAUI internal and external promotion and public relations.

COMMITTEES: (1) Ethics/Awards Committee. (2) Legislation Committee. (3) Others as required (no BOD approval required).

FINANCES: Direct expenses repaid by NAUI.

RESTRICTIONS: May not serve simultaneously as Council Chairman or Chapter officer. Must reside within the region represented.

B. COUNCIL CHAIRMAN (14 Positions)

STATUS: Administrator / advisor of Chapters within Council area. Member, NAUI Advisory Committee.

METHOD: Appointed by Regional Director.

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PRIMARY RESPONSIBILITIES:

(1) Chapter formation and administration. (2) Policy/procedure information dissemination through quarterly Chapter officer meetings and periodic Council (area) meetings. (3) Council area NAUI internal and external promotion and public relations. (4) Council programs/functions. (5) Council awards program. (6) Safety/accident reporting program. (7) Quarterly status reporting to Regional Director.

NOTE: As a member of the NAUI Advisory Committee, the Council Chairman is responsible for keeping the Regional Director aware of important situations and potential problems that may arise within his geographic area. Council Chairmen would be called upon to review NAUI policy and procedure proposals that may affect their diving populations. They will serve as information sources and advisors on their area to the Regional Director and the Board members.

FINANCES: Direct expenses repaid by NAUI.

COMMITTEES: As required and approved by the Regional Director.

RESTRICTIONS: May not serve simultaneously as Board member or Chapter officer.



Current Branches would be slightly revised into regional areas.

C. CHAPTER

FUNCTION: Chapters would provide a means by which NAUI instructor-members could meet in community groups to discuss and pursue matters that relate to themselves, their area, the Association, the other members of the diving community and the public. Each Chapter is a geographic entity sufficiently restricted in area to allow members to meet conveniently with each other on a regular basis.

The Chapter can be a major source of new NAUI instructor-members by creating interest in the Association through local activities, educational programs and social functions.

The chapter would serve as the end link in the in-person communications chain to and from the Board of Directors through the Council Chairman and Regional Director.

FORMATION: A Chapter could be formed by ten NAUI instructors with approval of the Regional Director and recommendation of the Council Chairman. Sustaining NAUI instructors could be Chapter members, but at least ten active (teaching) instructors would be required to form and maintain a Chapter. Chapters would be named by city or specific geographic area in which located. Chapter officers include a president, a vice president, a secretary and a treasurer, elected by majority vote of the Chapter membership. Officers' terms would be one year. Officers could serve consecutive terms if reelected.

PRIMARY ACTIVITIES: (1) Monthly Chapter meetings. (2) Chapter programs, seminars, workshops, weekends, social functions. (3) Policy/procedure information dissemination. (4) New member acquisition. (5) Chapter newsletter (monthly).

CHAPTER COMMITTEES: As required and approved by the Chapter officers. Chapter committees would be formed to carry out the business of the respective Chapter only. Committees which may involve or affect members of other Chapters or other individual NAUI instructors would require Council Chairman approval prior to formation.

FINANCES: Self-supporting through non-obligatory dues assessment (amount to be determined by Chapter membership agreement) and local fund-raising programs.

RESTRICTIONS: (1) Chapter membership would be granted only to certified NAUI instructors. Chapter meetings, programs and other functions would, however, be open to the public unless designated otherwise for a specific reason by the Chapter officers. (2) Chapter officers could not serve as Council Chairmen or Regional Directors.

NOTE: An objective of the Chapter method of organization for NAUI is the formation of a single unified group of local instructors in each dense instructor population area. The creation of multiple Chapters in a single population area should be avoided, except in cases where the population is so large that meeting distances are excessive or impractical. The basic consideration for Chapter formation is geographical. The Chapter members must be able to meet together

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regularly and conveniently. On the other hand, it must be recognized that a ten-member Chapter will not be able to support programs as effectively as one with 50 members. An example of an ideal Chapter situation is Honolulu, where over 100 NAUI instructors are located within convenient driving distance of each other in a city that is relatively small in area.

IV. Headquarters Modifications

NAUI Headquarters would continue to carry out the business of the Association. The major modifications to the Headquarters operation are as follows:

A. HEADQUARTERS/BRANCH MANAGER RELATIONSHIP

The present system, in which Branch Managers function as employees of the NAUI General Manager, would be dissolved. Chapter officers would be responsible to Council Chairmen, and Council Chairmen would, in turn, be responsible to Regional Directors. Regional Directors would be responsible to the combined Board of Directors.

B. MANAGEMENT RESPONSIBILITY

The General Manager would serve in a staff capacity under the direction of the combined Board of Directors. The General Manager would be responsible to the Board of Directors for the management of the Headquarters operation. The Regional Directors would be responsible for the day-to-day management of their respective regions and, like the General Manager, would be responsible to the combined Board of Directors.

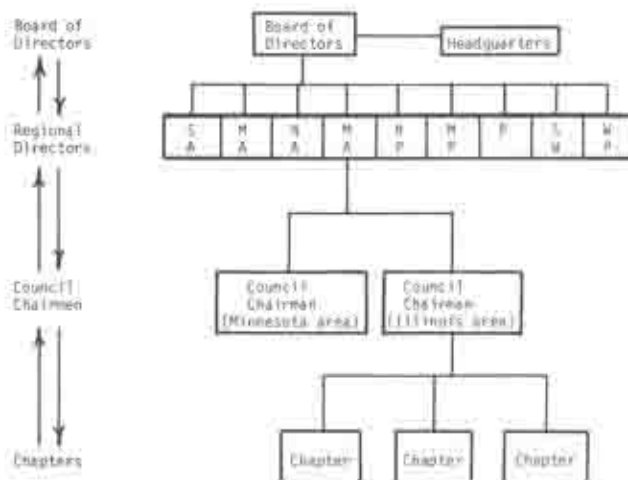
C. FINANCIAL RESPONSIBILITY

The fiscal control of the Association as a whole would be the responsibility of the combined Board of Directors under the advisement and recommendations of the General Manager.

D. MISCELLANEOUS

Headquarters would no longer have responsibility for Ethics Committee actions, Regional Director (BOD) meetings, or the bulk of the General instructor correspondence. The latter change is particularly important, since it would minimize the large quantity of instructor mail received at Headquarters and spread it out over the Regional Directors. Instructors in the field would be directed to submit all general correspondence to their Council Chairman or Regional Director.

A functional diagram of the organization would be as follows:



V. SUMMARY

The major changes in the management of the Association which would result from the reorganization described above are: (1) Board members (Regional Directors) would become active day-to-day managers of their regions. They would be responsible for implementing BOD decisions and communicating with their instructors. (2) Council Chairmen would provide the continuity in the organizational structure that is needed to develop a strong communications network and a means of providing leadership opportunities. (3) Activity would increase at the local (Chapter) level. Instructors would have opportunities to participate in programs and projects other than instructor training courses, and would be recognized for their participation. Strong leaders could make themselves visible and start moving into more important positions.

There it is. Your experience, your intuition, and your knowledge are now needed to identify the problems we overlooked and provide better solutions than we could find.

Please work hard and carefully when you review this material. Try to analyze the impact the changes might have on our people and programs. What could go wrong? What may be impractical? Why? Is there a better way?

Keep the basic objectives in mind when you work on this. We need improved communications, more leadership opportunities, better geographic representation and more instructor participation at all levels. We need these things badly, and we need them now.

Please send your comments to me at the address below.

Sincerely, Larry Cushman, President
Oceaneering International, Inc.
9219 Katy Freeway, Suite 200
Houston, Texas 77024

-NN-

PHYSICAL CONDITIONING IS A WASTE OF TIME

by Steve Barsky, NAUI 2076

Blasphemy

A very, wise instructor once told me, "Most of the mistakes you will make in teaching will be on the first night of a new class." I took his statement to heart and it hasn't failed me yet. What he meant of course, is that many diving instructors accept students for training who should not be in the water. A diver should be in very good to excellent physical condition *at the start* of a diving course.

Physical conditioning is important but not in a diving class.

It seems that instructors seem to be on one of two tracks—(A) you don't need to know how to swim to dive, or (B) condition "the hell out of 'em." Statement A belongs to the push button divers—those capable of making vertical descents and ascents but no horizontal movement in the water column. Statement B is also subscribed to by many instructors—those with the UDT training program approach. For some applications, conditioning is appropriate, for others, it is not. The question we're really dealing with is this: is there adequate time in your program to devote to conditioning?

The Body Reacts

When you begin to exercise, there are a number of immediate reactions the body exhibits—high heart rate, forced respiratory movements, redistribution of blood flow to muscles, etc. What is important in an aerobic conditioning program are the long term effects—increased red blood cell count, increased hemoglobin, increased blood volume, decreased heart rate, and faster recovery rate. What we're attempting to do is to decrease the demands placed on the heart so that we tax it less. We accomplish this in two ways; (1) by conditioning the heart itself and (2) by increasing our oxygen uptake capability so the heart doesn't have to circulate a small amount of blood many times in order to supply the body with sufficient O₂.

For the body to make the aforementioned adjustments takes time, a long time. In fact, with optimal training (20-30 minutes of vigorous exercise, 5X a week), at the end of the first four weeks the red blood cell count drops!



Steve Barsky

It is not until approximately the ninth week that we begin to recognize the benefits of decreased heart rate, and increased red blood cell count, hemoglobin and blood volume.



Implications for Diving Instructors

What does this mean to you, the people instructor? Remember, we teach *people* to scuba dive. It all depends on the duration of the course you're teaching. It means, if you're teaching the average four to five week diving course, you're wasting your time and your student's time if you spend any time on physical conditioning. Obviously, if you teach a ten or twenty week course at a college or university, the implications are different. Still, unless your students meet with you at least several times a week, you would be best not to spend any time on conditioning at all.

Goals vs. Criteria

I suggest this—rather than make a certain fitness level a goal, make it a criterion. Do not accept a student for training unless he or she can already demonstrate a reasonable fitness level. Personally, for anything other than swimming pools I consider a four hundred yard swim a minimum.

When you make fitness a criterion rather than a goal you save valuable class time. Let's face it, we never seem to be able to give our students all that we would like to anyway. When you spend time conditioning, you not only lose teaching time, but you make class a drudgery. A dive class should be an enjoyable experience. People want to experience all of the excitement diving has to offer. You as a diving/people instructor owe your students that excitement. You can give it to them if they are ready to handle it.

Evaluate your students carefully at the start of your next class. Do they have the basic watermanship and physical conditioning to safely enjoy diving? Don't make a mistake that first night.

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DROPOUT COPOUT

by Ed Carwithen, NAUI 3268

How many of you instructors have something like this as a part of your first lecture . . . "you are wise to take a course in scuba diving in order to learn to dive safely" . . . and at the end of your course something like the following . . . "Of course your basic card will permit you to buy air, but to be a really safe diver you should plan on continuing with the advanced diver program which will begin in three weeks."

To be honest, in this approach your first lecture should say . . . "Welcome to the first in a series of 3 - 4 - or 5 courses which will cost X number of dollars in the long run, and finally you may feel confident in the water if you stick it out through Advanced, Senior, Master, Superior Diver Supreme."

Let's go farther with the honesty bit. Most of us got advanced certificates not because we felt inadequate and wanted to improve our skills, but rather because we loved diving and wanted to do more of it . . . to advance ourselves in an area in which we felt comfortable, and in which we probably already excelled. Are our students so different than ourselves? Let's put ourselves in our student's places a minute. If you are dropout material, do you want to spend more time, more effort and many more dollars on something which (a) bores, (b) frightens, (c) intimidates (choose one or more and/or add your own) you?

Face it. Advanced dive courses attract good students not potential dropouts.

Be honest one more time. Don't you feel a bit like a con man having contracted to teach someone to do a skill, and then asking for more money to assure completion of his objective of safe diving through advanced training? I do.

These thoughts have plagued me for some time. I have developed an approach that may be a solution I would like to share. It works well for me, and I have not seen any articles which take this approach. My solution is simplicity itself. I take them diving.

Please let me explain. I remember my first series of dives. Out of the first ten, about seven were major or minor disasters. Mask leaks, ear clearing problems, unsure of myself, afraid to do something that would make me look foolish in the eyes of the more experienced members of the club. In talking with other divers, and in watching my new students, I know that this is not an uncommon experience, and so do you. This is, I believe, at the root of the diver dropout problem. They can't get over the "first-ten-dive syndrome." We discuss this

problem in class. "Your first ten dives will only be 25% successful. The second ten will be 75% successful. However, starting with your third ten dives you will find that any dive which is not thoroughly enjoyable is very rare indeed."

Stop reading now, and think a minute. Does what you have read so far follow your own experience or not? If it does then please read on.



Ed Carwithen is one of a very few NAUI instructors located in the Canal Zone. With all the problems of equipment and compressors there, if he can run multiple open water diving sessions for students, other NAUI instructors in the U.S. can follow the example.

Aren't your basic graduates eager to dive? Then why don't they? Why do they quit? Because the transition from class to setting up and carrying through dives on their own is a hurdle they can't handle. Solution: sponsor post graduate dives.

These dives should be easy access, low cost to the student, semi-training types of dives, where the instructor is merely along for assistance, or to answer questions, and to give asked for advice, and to act as safety diver or dive master. The reason for easy access is so the divers can return on their own. They won't mind the modest administrative fee that you will charge because they will be diving in a comfortable situation, putting into practice those things learned in your course. Experienced divers too will want to come along on these dives for the sake of experience, to practice dive master techniques, and because you are the most preferred dive buddy in town.

How do you set up such a series? Simplicity itself. At the end of the course when you hand out the certificates, announce a dive to a local dive spot . . . "Now that you are a basic diver graduate LET'S GO DIVING. I have a boat available on Saturday the _____, the cost of the trip will be \$_____, and we will leave the _____ yacht club at 8 a.m. There is only room for 10 divers, so let me know tonight if possible if you want to reserve a place on this trip. For those of you who can't make it this time we will have another dive

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DROPOUT COPOUT . . . Cont.

on_____. Incidentally, for those of you who are interested in eventually working on a sport scuba or advanced scuba certification, be sure to keep a log of all of these dives as they are applicable toward the requirements of these courses." Simple isn't it!

If I may digress for a minute, I am not advocating this in place of the class open water experiences. My classes make five open water dives during the course. I found that when they were only making two scuba dives in the course I had fewer participants on the graduate dives than now when they make five. The more they dive, the more they want to dive.

Jack Drake photo



The advantages are:

- Timid divers will work out their problems in a "quasi-class" situation. That is, you are there for moral support, which is all most of them need.

- After a couple of post graduate dives, where they are able just to dive for enjoyment and not skill advancement, they will start to assume the responsibility for diving on their own.

- As you are going to make the cost of the dive enough to make it worth your while to sponsor the dives, in effect you will be sport diving for a profit.

- The diving dropout rate will reverse itself. This is not conjecture, it is fact.

- Due to the increased number of active divers from your classes who are having a good time diving, the eligible candidates for your advanced classes will quadruple in number, and the quality of applicants will be much higher. You won't have to coax anyone to take an advanced course. Your former students will be begging you to teach them what you know about the more advanced aspects of the sport.

- Best of all there will be no apologetic feeling because they didn't learn enough in a basic course. **THEY DO LEARN ENOUGH IF YOU KNOW YOUR STUFF.** All they need to do is to apply it.

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POOL USE OR POOL ABUSE?

by Bob White, NAUI 1926

Dear Sir:

I hope you find this letter to be of importance to the present and the upcoming instructors, whether they be NAUI, YMCA or what ever.

This problem that I wish to speak on, has been in our company since lessons were first formally presented. This has to deal with swimming pools, indoor or outdoor, whether they are owned publicly or private.

If a survey were to be taken I think we would find that many a pool in the area is out of bounds to the scuba instructor simply because of the abuse they have suffered at the hands of an instructor, again whether they are NAUI, YMCA or others. I conducted a phone survey, while searching for a pool to instruct students for scuba lessons and was quite surprised at the number of refusals due to the damage caused by tanks and weight belts. I never thought anything about this problem while teaching for about ten years at one pool until it burned down, (would you believe that). But now having to relocate, I run into a stiff opposition. They have a point due to damage to tile, or chipped concrete from carelessness on the part of the instructor whether using it or renting the pool.

I would like to make a few recommendations for present and future instructors hoping to nullify the damage done by the few old instructors. First, make sure all tanks to be used in the pool have good quality tank boots. This will help to avoid chipped tile and concrete. Second, weight belts if needed can be purchased with a vinyl covering or better yet, rubberized weights, (lead shot loaded). Third, the investment for a good quality canvas to drape over the edge for the entry point will prove and show the owners you do care. Fourth, avoid the dropping of unprotected weight belts into the pool area for retrieval; a solid rubber weight can be purchased for this exercise. Fifth, you as the instructor should make the students aware as to the damage that can be caused. Relate it to them in such a way as to be part of the lesson plan in the care and treatment of their own pool or boat. Sixth, treat the pool you are now using, or you will be using, like it is your own personal pool. Make others treat it like it belongs to you and you will find a beautiful bond of business between you and the owners.

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BUDDIES, WHO NEEDS THEM?

by Melinda McCully, YMCA Instructor

You have witnessed instructors whose philosophy played to the tune of "do as I say, not as I do." Recounting one instance, two instructors loaded their equipment into their craft, and headed to their favorite fishing cove. Once the boat was anchored, the divers rolled into the water, and did not see one another until they had exhausted their air supplies and returned to their boat.

One of the main objectives of scuba courses across our nation is to develop safe divers. The "buddy system" is made reference to throughout the basic course plus it is emphasized that no scuba diver has ever been or should consider to be a completely self-sufficient, self-sustaining individual. If you are to develop safe divers, you, as instructors, must set the example by teaching the buddy system and by making it the rule in all diving activities including wet sessions with your classes and open water training dives.



Melinda McCully

The buddy system I endorse begins prior to the dive and ends when both divers are safely ashore at the completion of the dive. Quite simply the buddy system means that no individual scuba diver, regardless of proficiency or experience, should ever undertake a scuba dive alone. Every diver should be accompanied by another qualified scuba diver who has acknowledged and accepted the responsibility for the safety of his partner under any circumstances requiring mutual assistance. Utmost confidence in each other's knowledge, ability, and judgment exists between the members of the diving team. Rules of conduct and underwater communications have been established prior to the dive and these are adhered to during the dive. Together the divers



check every piece of equipment from snorkel to fins (head to toe!) to make sure both sets of equipment are in full working order. Once at the dive site, readings are taken to double check air supplies. After donning equipment the divers familiarize themselves with the location of quick releases of weight belts, harness straps, and filling procedures of life vests and buoyancy compensators. When both divers are ready, the team simultaneously enters the water. If spearfishing is the objective of the dive, the divers surface. One diver secures the spear gun, the buddy carries the stringer and possibly the diving flag shot line if it is to be located above them during the dive. Submerging, the divers find a suitable spot to chum for rough fish. Here the gun is loaded, but the safety remains intact until a likely target swims into range. The buddy is directly behind the diver with the spear gun. In this way, it is impossible to become the victim of a spear shaft. As their air supplies diminish, the spear gun is disengaged, and the team returns to the surface. Returning to shore, all equipment is washed and left to dry. The dive has ended and then too, the buddy system.

Whatever your experience may be, keep in mind an old Navy slogan: "There are old divers and there are bold divers, but there are no old, bold divers."¹

¹Deuker, Christopher, *Medical Aspects of Sport Diving*, p. 145, April 1973.

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GETTING INVOLVED WITH PRESSURE

Part of a "How to Teach" Series *by John Wozny, NAUI 1442*

You are at the side of a swimming pool near the ladder at the deep end of the pool talking to a student in the water. You give the following



photos by Ed Johnson

instructions. "I want you to slowly work your way down into the water using the ladder for help if you need it, all the time breathing normally. You are not to try to be a hero, but just realize that we are giving you an experience that few people ever have. As soon as you feel uncomfortable, regardless of the depth, you are to surface." Sure enough, the student starts down and you listen to the breathing. Very soon the breathing becomes labored, and then it stops. Immediately the student surfaces, and with eyes as large as saucers, can only say in a rather hushed tone "Wow." That is complete involvement. That is complete participation. That is learning. This has been an experience!



John Wozny

Today we finish our discussion of Pressure in Diving Physics with a real mind blower. We move from passive involvement of the lecture, through the vicarious involvement of the

demonstration, to the active involvement of complete participation by taking part in the experience.

Have one of the students come up to the front of the room and using the torso of the student determine the approximate area of the lungs. I usually use very easy numbers. For instance I say from top to bottom will measure around 12 inches, while the distance around is about 36 inches. When these numbers are multiplied the area is an easy 432 square inches. Then with some more skillful leading by the instructor it is determined that .445 pounds per square inch each foot down in salt water is almost half a pound so that for each two feet a diver descends in salt water the pressure increases by about a pound on every square inch of his lung area. This is like having a person who weighs 432 pounds sitting on your chest when you are only two feet down in the water. This still doesn't mean anything to the students because they still can't feel anything. But all that will change in a few minutes. Wait till you get them in the pool!

Before we get them in the pool tho, a short word about the student as a teaching aid. When I first started teaching this subject I used a poster of a human torso showing the lung area and all the terrible things that could happen to a diver if he held his breath while ascending on scuba. I think the original idea for the poster came out of the New Science of Skin and Scuba. In a very short time I realized that the students could not identify with a chart and again there was very little involvement. When a student is used as the teaching aid you have the attention of everybody in the room. In fact they usually fight for the chance to get into the act. You have their attention, and learning can take place.

Now back to the pool. At poolside you have one of the most dramatic teaching aids ever used. A very simple snorkel four feet long! Mine is made of plastic PVC underground tubing 3/4 inches in diameter. It is very simple to make and mine cost less than one dollar. Pick one of your better students, or the loudest, to be first with this experience. Give him the directions we started out with and be very matter of fact about the whole thing. You simply point out that this is an experience which they will not soon forget which will help them appreciate the pressures involved in the underwater world. As the students descend into the depths they very quickly feel the increase in pressure on their

CONT NEXT PAGE

GETTING INVOLVED WITH PRESSURE [Cont.]

bodies. The average student goes down about two feet and while this is happening, I am at the top of the ladder at poolside listening to them breath. It is easy to tell by the sound, the lack of sound, when they have reached their limit. What makes this such a startling experience is that all their lives these young people have breathed without much effort or resistance, and suddenly there is this tremendous irresistible force preventing them from inhaling. There is no place to go but up. Could you have more active participation and involvement than this? For the



first time in their lives they have experienced unbalanced forces and pressures and have learned the true strength of Mother Nature. This helps develop appreciation and respect for water pressure. I have never had a student hurt by this experience but many have benefited by the learning and understanding that has taken place.

The most simple snorkel to make will cost less than a dollar. Any hardware store can supply a piece of PVC plastic tubing around 50 inches long for a few cents. For a few cents more an L can be purchased and the deed is done. Cut off a two inch length from the long tube. Stick the L on one end of the long tube and the short length in the other end of the L and it is finished, except for an old snorkel mouth-piece fastened on the short length. To make them more dramatic starting at the top use black electricians tape to mark every foot, and you have one of the most dramatic teaching aids ever used. Instead of marking my one foot

lengths with tape, I cut my tubing in one foot lengths and joined them with round couplings of different color. This makes the long snorkel much easier to transport. You don't even need glue to join the sections.

If you want your course to be interesting and exciting. If you want your students to sell your course to all their friends, then get them involved. Get them involved both in the classroom and in the pool. Grab hold of their imaginations and fire them up! You can do it. We can all do it. Creating and using training aids can take a lot of time and effort, but the rewards are more than worth it. Our students don't deserve adequate teachers, they deserve inspirational teachers, and NAUI has them here and now.

—NN—

THE SUPER TEACHING AID

by Ron Bangasser, NAUI 3909

Have you ever wanted a teaching aid that would keep those posters from falling down, that could be written on with chalk, that could stand as tall as you but still be portable enough to fit into your trunk with room to spare, and still cost less than \$20.

This teaching aid was developed to serve all of the above purposes. It is constructed out of slate board or masonite as a back board, several 1"x2" wood, several hinges, 4 locks, some length of chain, and some corner irons.

It is quick to build, easy to put up and take down.



For details on construction of this teaching aid, write to Ron Bangasser, NAUI 3909, 133 Rockford, Forest Park, Ill. 60130.

—NN—

IN-HOUSE NEWS

OTTO GASSER REPLACES JOHN GIMBEL AS NEW PACIFIC BRANCH MANAGER

Otto Gasser, NAUI 1953, is the new Pacific Branch Manager, replacing John Gimbel, NAUI 955. Otto, a Professor in the Physical Education Department of California State Polytechnic University in Pomona, teaches Kinesiology and Scuba Diving. His accomplishments and qualifications are most impressive. A partial diving biography of Otto includes:

1. Outstanding candidate of Los Angeles County's sixteenth Underwater Instructor Certification Course.

2. Outstanding candidate of the first Los Angeles County to NAUI Crossover Certification Course.

3. Served as Board Member, Secretary, Vice-President and President of the Los Angeles County Underwater Instructor Association.

4. Served on staff of Los Angeles County Advanced Diver Program and Instructor Certification Courses.

5. Served as staff member for the first NAUI ADP Instructor Seminar.

Additionally, Otto is involved with clubs and training programs, has received several diving awards, conducts trips to Hawaii annually and actively teaches diving at several levels of certification.



Otto Gasser



John Gimbel

NAUI appreciates the efforts and contributions made by John Gimbel since April, 1974. John will continue to be actively involved in many projects and activities within the Pacific Branch.

Otto Gasser is a spark plug of competent enthusiasm who will generate a great deal of activity in the Pacific Branch. Members in the Pacific Branch should contact Otto and lend their full support. Otto says, "Any and all suggestions are welcome and will be well received."

-NN-

MID-PACIFIC'S FINEST (Continued) by Bob Widmann, Mid-Pacific Branch Manager

Student evaluations provide invaluable insight into the quality of an instructor's course and into him/her as an individual. In the past I have submitted student testimonial as evidence that some of NAUI's finest instructors live and work in the Mid-Pacific Branch. I submit the following as additional evidence.

Gary Adams . . . "Never took us into something we couldn't handle." "Excellent knowledge of equipment and has own innovations for ease of putting on or taking off scuba equipment. Pre-scuba warm-up in water for acclimation and release of anxieties was excellent."

Frank Barry . . . "Repetitive drills on basics until safety and procedures were almost automatic reflexes."

Tom Bushy . . . "The instructor was very good in and out of the water, just a real nice man to know, and he knows what he is teaching."

Bud Davis . . . "Mr. Davis is a fine leader and teacher. His enthusiasm for diving is very contagious. He places a strong emphasis on safe diving practices."

Steve Elgren . . . "Steve maintained a level of excellence throughout the entire course."

Terry Frohm . . . "Our instructor's knowledge of physiology, physics and diving medicine was excellent, as well as his ability to relate topics in a simple, clear, direct manner. Obvious enthusiasm; ability to relate text in a discernable fashion; patience; and good humor—excellent teacher and a great guy."

Larry Jones . . . "Larry is a very aggressive, enthusiastic, fun-loving guy. It's infectious."

Jim Kennon and Steve Armentrout . . . "The ability of both instructors, Jim and Steve, to give help and self-confidence to students when needed. I think that both are outstanding as instructors and great people."

Heinz Prunsch . . . "Upon completion of the course, the instructor invited students and their wives/friends to his home for an evening of colored slides, shell collections and advice on local diving areas."



BEST FARES TO NAUI'S IQ7 AND CARIBBEAN DIVING TOO!

IQ7 is a 3-day immersion in current thought about all aspects of diving—the most intensive and broad-ranging exchange of ideas about diving available anywhere. And Miami is the gateway to the Caribbean. We are making it easy for you to combine IQ7 with outstanding diving at the lowest possible cost.

Regular coach airfare, L.A.-Miami-L.A. \$344
Best excursion fare (if you meet conditions) 258

OUR FARE FOR NAUI/NA DIVERS AND SPOUSES **\$225** TAX INCLUDED.

To qualify you must be a NAUI Diving Association member or spouse, and you must travel with the group to and from Miami. (We need 40 people to use this fare. If fewer than 40 sign up, we will use the excursion fare of \$258.)

Flight Schedule:

L.A.-Miami National #42 12:55p-8:30p Sept. 25
Miami-L.A. National #11 5:00p-7:48p Oct. 4

IQ7 meetings begin Friday a.m., Sept. 26, and end about noon on Sun., Sept. 28. Thus, on our schedule you can attend all meetings and then visit whatever grabs you in Florida or thereabouts from Sunday afternoon through the following Saturday afternoon.

And, should your mind perchance turn to diving, we have suggestions:

Grand Cayman Dive Trip: (Sept. 28-Oct. 4) accommodations at Bob Soto's Lodge and all diving services by Bob and his staff. You have surely heard about this combination of superb coral reef environment and outstanding diving operation—Cayman is on most every diver's list of "Spots I'm gonna dive someday." Cost is \$289 per person, dbl occ. Includes RT air (via Cayman Airways jet) Miami to Grand Cayman; airport transfers on Cayman; 6 nights lodging with breakfasts and dinners; 5 boat dives (2 tanks) with air, backpacks, and weight; all taxes and gratuities. Only "extra" will be airport transportation in Miami.

—or—

Dive Isle Morada in the Florida Keys: 5 nights at Coral Reef Resort, 5 boat dives arranged by the Reef Shop (2 tanks, backpacks, weight), for \$119 per person, dbl occ. Meals, local taxes, transportation to Isle Morada are *not* included.

—or—

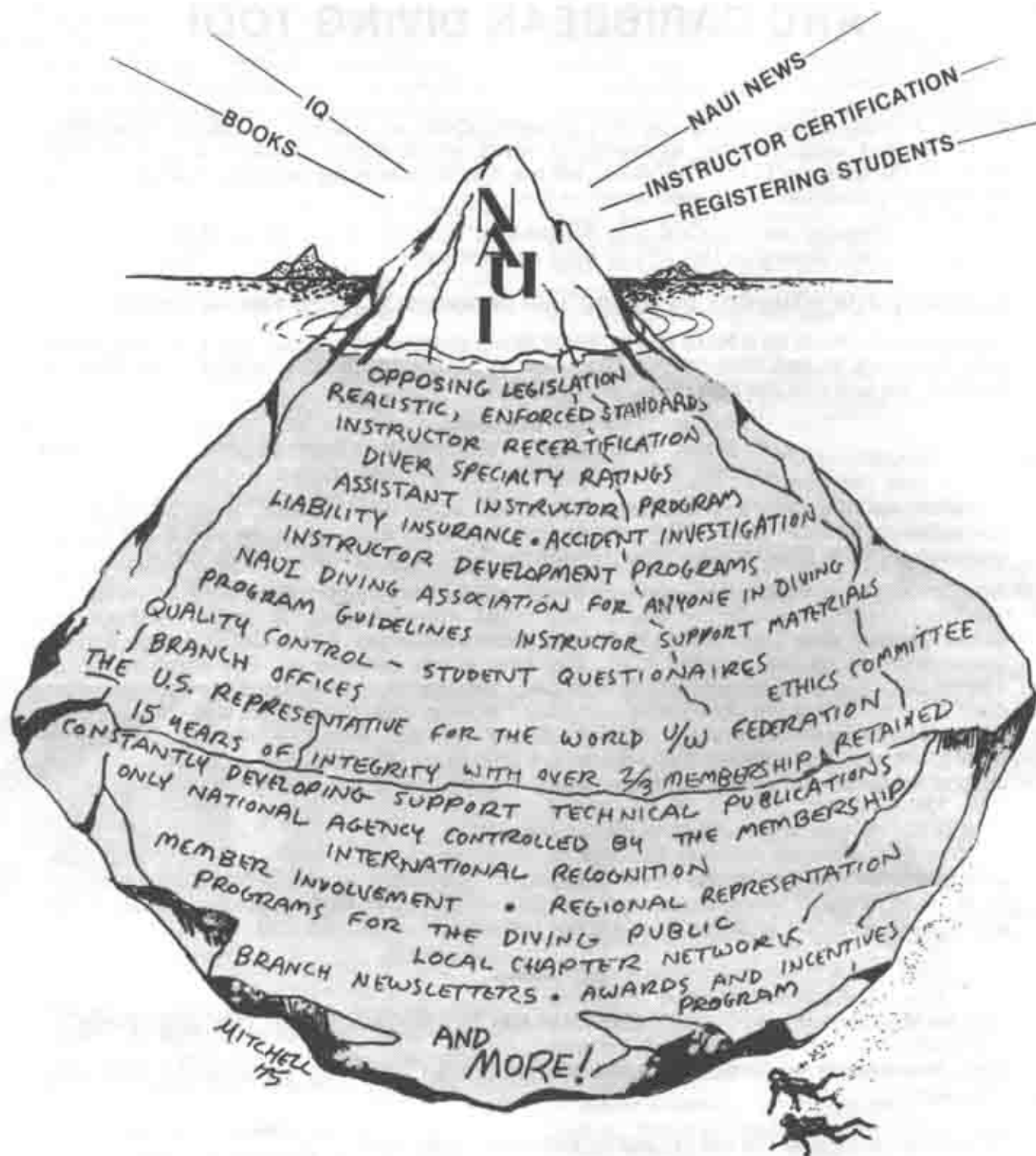
Just do your own thing . . . BUT JOIN OUR NAUI/NA DIVER GROUP FOR THE BEST FARE.

Early reservations are imperative—Many of our eastern brethren are planning dive trips after IQ7.

To be sure of getting the best group or individual fares, call:

DAMAN-NELSON TRAVEL: Los Angeles 213-386-7712
San Diego 714-235-6454
San Francisco 415-982-3307

THERE'S MORE THAN MEETS THE EYE...



When you get down to it, NAUI is beautiful!

SCUBA BRONZE LIFESAVING AWARD ADOPTED IN CANADA

The Royal Life Saving Society Canada, at their National Meeting in Halifax, Nova Scotia, May 8-11, 1975 approved the final draft of their "Scuba Bronze Award."

This award, several years in development, can be taught and examined by any Certified Scuba Instructor of a recognized instructional body who has attended a Scuba Bronze Certification Clinic approved by the Royal Life Saving Society Canada.

The RLSSC, together with Scuba Instructional Bodies, have identified the need to provide an incentive and to have each scuba student trained in basic life saving skills.

Most scuba diving is done in remote or unguarded areas and each diver, therefore, must be prepared, if the occasion arises, to render assistance or to save a partner's life.

This is a "Basic" award. It is not an attempt to train a scuba diver for every type of water environment and emergency situation but rather an attempt to offer those life saving skills related to the sport upon which the diver may make a reasonable judgment or decision in any situation.

Technical assistance and endorsement for this award has been provided by NAUI Canada, and the Association of Canadian Underwater Councils.

The first of a number of Certification Clinics for Instructors will be held commencing this summer and it is the hope of the Royal Life Saving Society Canada that this award will be included in all Basic Scuba Courses in the near future.

Mrs. Jenny Brown and Mr. Dave Addyman, NAUI 1211, both experienced divers, are responsible for the leadership of the Scuba Bronze. Their efforts to develop and finalize the material have been considerable.

For further information contact: The Royal Life Saving Society Canada, 550 Church St., Toronto, Ont. M4Y 2E1

—NN—

REPORT ON THE GUAM '75 IQC

by Jenny Garmendia, NAUI 3393

I must tell you Mitch Warner and Annette Donner are two of the finest instructors I have ever had the privilege of working with. I enjoyed assisting with some of their classes and as a result have added to my own classes. I am proud to know they are a part of NAUI.

Mostly as a result of their intense planning and work, the IQC in Guam went off beautifully. It was a learning experience for all of us involved, and I was glad to finally have a chance to staff a NAUI program. Two amusing incidents stand out in my mind that made the Guam IQC probably one of the weirdest in NAUI history. During the morning of the second day we were into the ocean work and had a team teaching/problem solving exercise going on. The candidates and staff were on the beach when suddenly shots went off around us. Someone was shooting through the trees at the beach, not knowing anyone was there. We all hit the deck as someone began to shout that there were people on the beach. But one of the candidates had the cool to continue giving his beach orientation lecture while lying in the water, explaining the hazards of hunters to divers.

The second incident occurred about an hour later when someone started a zodiac, not realizing that the engine was in gear and it roared off on its own. Because of fast action, two staff members were able to catch it from a second zodiac and luckily no one was hurt. But the sight of the zodiac racing all over was just the comedy relief needed from the tension of the testing. I remember that several candidates marked it down on their course evaluation forms as the most memorable part of the IQC!

—NN—

IN-HOUSE ONE LINERS

- NAUI Headquarters has a new mailing address: Box 630, Colton, CA 92324.

- A new Directory for the NAUI membership will be prepared after renewals for 1976 have been received.

- The Instructor Handbook has not been revised for 1975, but a major revision is planned for '76.

- If duplicate mailings are received from NAUI, please send the address labels with a note of explanation to Headquarters and the problem will be corrected.

- Dennis Murphy, NAUI Instructor 2252 in Guam, is teaching Filipinos to dive (three classes to date) through a Tagalog Interpreter.

- Mitch Warner, NAUI 2996, has been contracted to film a 30 minute documentary on the salvage operations of the Carabia—the largest passenger liner wreck in the world (715 feet in length, 348,000 gross tons).

END OF IN-HOUSE NEWS

FACTS ABOUT NAUI— HEADQUARTERS AND FINANCES

by Dennis Graver, Editor/Publisher

We are asked continually, "Why is NAUI Headquarters out in the desert?" and "Why don't you move near the ocean?" Some members are also concerned about the cost of operating Headquarters. I'd like to answer these questions and provide some information about your Headquarters and Association operation.

When NAUI centralized and Art Ullrich was the General Manager and Pacific Branch Manager, he was stationed at nearby March Air Force Base. NAUI Headquarters was first his home, then a one-room office, and then a part of the building we currently occupy. NAUI Headquarters grew up here—that's why it is in this particular location.

We currently lease about 5,000 square feet of space. With a trained staff, printing press, trade accounts and other concerns, it would be very difficult to relocate nearer the water. This does not include the financial consideration of a move which would be substantial. If the opportunity to move could ever be a reality, I can assure you there are some water-loving divers in smoggy Colton who would move instantly!

Our office is a simple, single story building, although visiting members usually look for something more impressive. As we grew, we took over various sections of the building, including a dentist's office, flower shop and a beauty parlor. We now occupy the entire structure.



The NAUI Headquarter's Office

There are currently 13 employees at Headquarters, including 4 salaried and 9 hourly personnel. The following list tells you who does what (and does it very well) around the office:

Jon Hardy	General Manager
Dennis Graver	Assistant General Manager
Arthur Ullrich	Director of Special Projects
Ramona Heath	Bookkeeper
Judy Pierce	Secretary
Barbara Graver	Memberships and Insurance
Charles Serrano	Instructor Transactions
Boni Ericson	NDA Memberships and Transactions
Jolyn Haber	Assistant Bookkeeper
Faye Gaffaney	Embosser
Teri Hansen	Packager and Mail Clerk
John Sanders	Pressman
Deana Myers	Replacement Cards, Student Questionnaires, Mailings, Filing



Headquarter's Staff—[left to right] Barbara Graver, John Sanders, Deana Myers, Faye Gaffaney, Boni Ericson, Jolyn Haber, Alice Salgado [Temporary Secretary], Charles Serrano, Teri Hansen, Ramona Heath.

All of these employees, even the non-divers, care about NAUI. It is very gratifying to see their concern and involvement with the membership. Members should take a moment now and then to thank the Headquarters employees for the service provided. It's easy to do and means so much to the people who handle hundreds of transactions every working day.

Now for some information on association finances. Branch Managers receive \$100 to \$200 a month for compensation, and Board members serve with no compensation. I can also assure you no one is getting rich working at Headquarters! The Association's annual gross income is about a half a million dollars.

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FACTS ABOUT NAUI . . . Cont.

The dues paid by the membership constitute only about 10% of the gross income of NAUI. The Association is actually subsidized by the sale of publications, products and services. As a non-profit organization, we spend every dollar received and work on a cash-flow system. There is no large capital available to invest in projects (like moving HQ!). Margin from some operations helps pay for other services which do not make a margin. Legislation alone has cost the organization a great deal. NAUI receives only enough of the insurance premium paid to cover the cost of handling. Contrary to what some members think, the rates are reasonable for the protection provided.



If you're in the area of San Bernardino or Riverside, feel welcome to visit the Headquarter's office. Please stop by to see the operation and meet the people who serve you. Please don't come by to have transactions handled while you wait, because this disrupts the work going on and slows down our operation.

This should give you more insight into the Association and the operation of NAUI Headquarters. If you have any questions, please write to me directly (note our new mailing address: Box 630, Colton, CA 92324) and I'll be glad to respond. We are in the process of implementing new systems and procedures within Headquarters and I can assure you of improved service from Colton. We have a great staff who care about their efforts. We greatly appreciate the members who support us, and look forward to doing our best to serve you for a long time to come.

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FOREIGN MEMBERS CAN RECEIVE NAUI NEWS VIA AIR MAIL

Due to continued demands to speed delivery of NAUI News to members outside the continental U.S., a service has been implemented. Persons wishing to receive the News via Air Mail may obtain that service for a \$12 yearly charge—pro rated.

If you would like NAUI News sent to you by air, please send one dollar for each month with a note of explanation to the Editor, NAUI News, NAUI Headquarters.

NOTE: This service applies to NAUI News only. Other mailings will not be air mailed.



BOD TO THE RESCUE

by Roy Damron, NAUI 207

Some of you may visualize the Board of Directors as a group of dedicated, farsighted, sincere men and women who tirelessly keep a steady hand on the NAUI ship of state as it plunges relentlessly through the troubled waters of the dive world. Perhaps I like to believe there is something to that dramatic description, because I am a member of the Board . . . I would like to take this opportunity to relate a recent incident where I sprang into action and possibly preserved the marital status of a NAUI Basic Diver. It was really nothing, all I had to do was place a patch and decal in an envelope and drop it in the mail box. You would have done the same. I imagine the conversation at the breakfast table was much more pleasant the day after my envelope arrived at the Kukahiko residence. The following letter will explain all of this . . .

Mr. Roy Damron,
NAUI Board of Directors:

My husband recently (Sept. 1, 1974) received his scuba diving certificate. At such time he was given two patches (round) which was to be ironed and sewn onto his apparel. He was quite thrilled, but I unfortunately lost these two patches and would be ever so thankful if they could be replaced. My husband, Mitchel Kukahiko, was very disappointed about this. Although it may seem small, your response would be much appreciated.

Sincerely, Carol Kukahiko

THE MEDICAL EDITOR'S COLUMN

by Dr. Charles Brown



DIVING LORE

(Reference this column,
Feb. NAUI News, page 11)

TIME TO EXPLORE SOME MORE LORE

13. A hot shower is great after a long, cold dive. Hold it. Anything that feels so good has got to be either sinful or risky. When you jump into the water and reach dive depth, your nitrogen uptake is highest at first, then tapers off with time. Your subcutaneous tissues absorb a sizable load early on. By the end of the dive, cold-induced vasoconstriction has slowed subcutaneous circulation to a trickle. With ascent, most body nitrogen is transported to the lungs and lost, but subcutaneous nitrogen is trapped. It either remains in supersaturation or forms small bubbles in blood or fat. Now take a hot shower and (1) the warmed tissues are less able to hold gas in solution whether supersaturated or not; (2) any bubbles grow a little with increased temperature; (3) the warmth causes vasodilatation, so vascular bubbles are swept into the general circulation as potential troublemakers.

14. In a medical emergency, fast action is of greatest importance. This fallacious urge to "do something quick" has done a lot of harm. Jerk the head back to resuscitate a "drowning" victim who really has a concussion and fractured neck, and you get sudden quadriplegia as the broken bones cut the spinal cord. The cardinal rule in medicine is "First, do no harm." Certainly fast action is occasionally important, but never before you've sized things up enough to know you'll be doing more good than harm.

15. As tourniquets do more harm than good, they should not be used. Nonsense. Tourniquets, airplanes, and scuba are dangerous in the hands of the ignorant, but properly handled they are safe and useful. Both training and the situation should be determining factors. If I'm bleeding to death from a shark bite, I hope anybody, trained or not, will throw on a tight constricting band in a hurry. First aid has as many rules as the shark has teeth, but the only sacred one is to use common sense.

16. A pale bluish skin rules out carbon monoxide intoxication. Negative. The blue CO₂-hemoglobin competes with the red CO-hemoglobin and O₂-hemoglobin in determining the color of the blood. A cold or shocky patient may have enough peripheral vasoconstriction to make the subcutaneous circulation very sluggish. Most of the O₂ will be removed to serve the tissue needs, and the resulting increase in CO₂-hemoglobin will add a bluish hue to the pallor of vasoconstriction. The lips, however, with their good circulation and thin skin, usually retain a tattle-tale cherry-red unless shock is profound.

To be continued

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DIABETICS, EPILEPTICS & DIVING

Over the past 9 years, I have been involved as a diving physician in examining commercial and sports divers for qualification for diving. Two of those years were spent as a diving medical officer in the U.S. Navy. In this period, I have never seen any knowledgeable physician approve an insulin dependent diabetic for diving of any type. My own policy is that ANY diabetic requiring insulin or any epileptic requiring anti-seizure drugs should not undertake diving.

These two cases, above all others can lead to serious or fatal accidents in the water since they produce rapid, unexpected unconsciousness.

No commercial diving organization, and no military diving program would consider these individuals for diving, and with either disorders the risks are no different in sport diving.

Both diabetes and epilepsy can be well controlled medically to provide individuals with these disorders a full and useful life. However, in these cases the circumstances of diving seriously jeopardize life even in the well trained diver.

I strongly suggest that instructors reject diver candidates with these disorders even if a physician clears them for diving.

—Alfred A. Bove, M.D., Ph.D.
NAUI 3055

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WHY NAUI?

Why should divers interested in underwater instruction seek certification from the National Association of Underwater Instructors? There are many reasons why NAUI is held in high regard in the diving community.

NAUI is the Training Arm of the Underwater Society of America.

NAUI standards are specified for the Presidential Sports Award for diving.

NAUI standards are specified for use in recreational diving by the United States Air Force and Navy.

NAUI is *THE* representative for the United States on the Technical Committee of the World Underwater Federation.

NAUI is the only diving instructional organization controlled by a Board of Directors elected by the membership.

NAUI assures quality by insisting on attendance at a NAUI Instructor course for certification and by sending a formal questionnaire to every student certified by NAUI Instructors.

NAUI has the greatest number of Instructor development programs for its membership.

NAUI publishes technical publications and two monthly newsletters, and distributes over 60 diving publications.

NAUI offers 19 levels of certification for diving achievement.

NAUI is the only non-profit, tax exempt, professional organization of underwater instructors.

WHY NAUI? All these reasons and more

NAUI offers its members more complete services and programs and, by all measurable standards, is the largest, most highly respected diving educational organization in the world.

NAUI's Goal: To educate and train the general public in the principles and techniques of safely participating in underwater activities.

NAUI's Motto: Safety Through Education

Why NAUI? *Because NAUI cares enough about people to do all these things. This is the NAUI way*

**National
Association
of Underwater
Instructors**



Presidential Sports Award

Presented to
[Name]
[Address]
[City, State, Zip]

For outstanding achievement in sports and physical activity.

Presented by the President of the United States
on [Date]

Signature of the President of the United States
[Signature]

Seal of the President of the United States



Make check or money order payable to "Presidential Sports Award."

CURRENT TRENDS

LOOK HOW FAR WE HAVE COME

by Jon Hardy, General Manager

The purpose of this article is to trace the contributions of the diver certifying associations and instructors for the last 20 years in the development of the safe and enjoyable sport of scuba diving. We have come a long way. From no diver certifying agencies to four excellent national agencies with rigid standards and methods of enforcement. We have done a good job and we now have a challenge to do an even better job. With the use of the "C" card and other self regulating policies developed by the instructional agencies we have been able to police our sport.



Jon Hardy

Many improvements have come about through competition among the agencies and their respective instructors striving for a degree of excellence which will bring divers and the general public to them for training. Through the recently formed National Scuba Training Council comprised of NASDS, NAUI, PADI, and the YMCA; cooperation in diver training, instructional standards and quality control is increasing safety. The goal of all of these associations is the same—to train a safe, effective diver who has fun in the open water environment through safe diving experiences. No one told us we had to do it, but look how far we have come . . .

Diver Training

In the last 20 years the length of the diver certification course has gone from approximately 12 hours to over 32 hours. In the same years, the number of open water training dives has gone from zero to three or more. A great change in emphasis has occurred in diver training—from heroic blood and guts with memorizing facts and swimming laps to practical open water skills for the whole family. Now we combine intelligence, fitness, and skills to make the safe effective diver. No one told us we had to do it, but look how far we have come . . .



Look how far we have come . . . A young Jon Hardy teaching diving at Camp Fox on Catalina in the '60's.

Instructional Standards

From a time of no standards at all to the development of complete realistic standards by each agency, we have come a long way. Each association now provides multiple progressive ratings for continuing diver education at various advanced levels. Activities with a greater than normal risk such as cave diving, ice diving, deep diving, and wreck diving are taught as specialties and not mixed with other diver training. No one told us we had to do it, but look how far we have come . . .

Quality Control

From the diver who said, "I am an Instructor"—and that was his total instructor training—to 100 hour instructor training courses with extensive prerequisites, continuing in-service training and annual recertification, we have come a long way. Each agency has developed a Code of Ethics along with instructional standards. Each has also developed enforcement procedures through student questionnaires and ethics committees. No agency boasts, but every single one has taken strong disciplinary action against instructor members. Members have been suspended, put on probation, or disbarred from the associations for misconduct. The most powerful quality control of all is the tremendous peer pressure and professional pride among the instructors who have worked long and hard to become members of their association. No one told us we had to do it, but look how far we have come . . .

CONT. NEXT PAGE

HOW FAR WE HAVE COME . . . Cont.

Contributions—Contributions

The role of the instructor in providing information on the selection of equipment is well recognized. This has helped cause many gear changes that have added to the safety and comfort of the diver. Students in a diving course are taught how to handle, wear and select their gear with intelligence. It was an instructional agency that first pioneered the internal visual inspection of tanks for diver safety.



The ragbag harness, double hose regulator, and lack of inflatable vest identify the diver of yester-year. Instructors, retailers, manufacturers and divers have worked together to develop new and safe diving equipment. No one said it had to be done, but look how far we have come.

The instructional agencies provide a great deal of support both for their instructors and the diving public. Many publications carry the word about safe enjoyable diving. Each instructional agency has a central headquarters where they maintain records as well as provide services and materials.

Many diving programs have been developed of an educational nature, all the way from international conferences to local workshops and seminars. They enhance the training and education of both divers and instructors.

Hand-in-hand with the clubs, stores, dive boats, manufacturers and magazines, the instructional agencies and their individual instructors have continued developing and promoting safe diving practices such as the diver's flag, hand signals, buddy system, diver fitness, dive planning, log book use, buoyancy control, in-water resuscitation and emergency swimming ascents. No one told us we had to do it, but look how far we have come . . . Yet there is even more we will do . . .

THE FUTURE OF DIVER TRAINING

by Dennis Graver, Editor/Publisher

Diving has had a rough time growing up. The sport was young, strong and developing when the trauma of legislation quickly brushed aside all childish tendencies and made way for maturity. There is a new sense of awareness, responsibility and cooperation in diving now that was absent until recently. Diving has now looked inward, analyzing and mapping the changes needed to become stable and mature. Diving wants to be independent, proud and free, and will take the necessary steps to assure control of the sport remains within.



In response to current needs and problems, diver training is about to embark on a new journey of improvements. Let us examine some changes which may occur in the very near future as a result of this critical analysis.

Training

The four major certifying agencies are working now to develop new and comprehensive training standards for divers and instructors. Training within the entire sport will be upgraded and strengthened as a result of this cooperative effort.

The new national standard for diver training will depart from the old method of measuring diver ability based on the number of hours of training, and instead, will measure actual knowledge and skills based on performance objectives. This will help assure competency prior to certification.

Tzimoulis photo



The diver of tomorrow will receive increased open water training, use various pieces of sophisticated equipment and find enjoyment in the coming social aspects of diving.

CONT. NEXT PAGE

FUTURE OF DIVING TRAINING . . . Cont.

A number of agencies and individuals in diving are producing modern and sophisticated diver training materials. To learn to dive in the future or to learn more about diving, students can anticipate video-tape systems, film strip-tape cassette programs, programmed learning packages, and finely detailed continuous diver education programs.

An important trend is occurring in diver training—the shift in emphasis from the classroom and pool to open water training. Already some instructors are conducting all open water courses—not just in the tropics, but in temperate areas as well. The time may be rapidly approaching when the student enrolls in a diving course, studies independently with modern self-learning techniques and equipment, and then receives all instruction in diving by actually diving in open water. A similar trend is to require a great deal more open water training prior to certification.

The requirements to become and remain a diving instructor will increase significantly. The would-be instructor will need a great deal of related training and additional qualifications before attending an extensive program or series of programs, and then will be required to serve an apprenticeship, demonstrating actual teaching ability, prior to attending a final program to obtain certification. Once certified, the instructor will need to meet annual recertification requirements based on involvement and improvement.

Finally, all diver training will take place under the sanction of the four national agencies. No other certifications will be accepted. Look how much further we will have come . . .

Side Effects of Training

Diver training will affect all divers, even those already certified. As an example, the "C" card may begin to disappear and be replaced by a much more thorough document—the diver training or qualification record. Periodic updating or re-training will be required to keep divers current in skills and knowledge. Regional orientations or even certifications will be required or encouraged prior to diving in a new area. The same concept will be applied to specialty areas such as cave, wreck and ice diving.

Very importantly, new statuses will evolve for divers with new leadership and recognition positions. A diver will be able to be recognized for excellence in a special area rather than becoming an Instructor because that's the only leadership rating attainable. Look how much further we will have come . . .

**Fun and Recognition**

Diving will become much more of a socially active sport. The industry will pool its resources to promote the sport nationally to the general public. The growth will produce many activities, competitions and events. There will be more recognition, personalities, awards, and heroes in diving. Diving will increasingly become a safe, family, lifetime sport. Look how much further we will have come . . .

A Capsulation

Through training, diving is safe and will become safer with these and other improvements in the future. The diving industry has a safety record to be proud of and has attained it through self-regulation without legislation or government restriction or participation, and with no government funding. Diving will increase in safety by regulation from within, not by being inflicted with cumbersome, impractical and unnecessary laws. Legislation can ruin diving, but self-regulation can make it safer and aid in growth. Won't you do your part by complying with safe diving practices now and in the future? If you will, **LOOK HOW MUCH FURTHER WE WILL HAVE COME . . .**

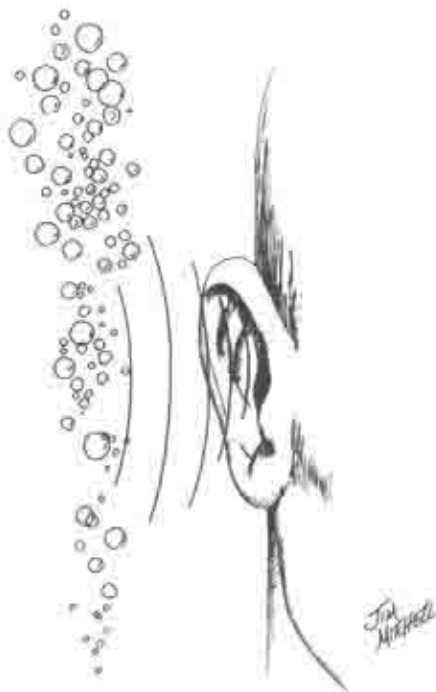
-NN-

BOGGED DOWN WITH CLOGGED UP EARS?

by Arthur Sams, NAUI 3153

Ear hygiene is something that should be important to all of us. It can reduce the rate of student drop-outs due to ear infection and save students from medical expenses, not to mention the discomfort (you can't go diving).

Wax is secreted in the ear to provide the membrane with a protective coating. Sometimes the wax collects, trapping water and building up debris. This causes irritation which may lead to infection.



Many people use Q-tips in an attempt to relieve this irritation and remove excess wax. This is not a good idea; the Q-tip tends to pack the wax against the ear drum making it even more difficult to remove. Besides, Q-tips should not be placed that far toward the inner ear. Another method is to dissolve the wax with solutions of alcohol. This removes the wax very well, but it leaves the ear too dry and prone to cracking, thereby possibly causing an infection.

What seems to work best for wax removal and the prevention of infection is a formula called DEBROX. Applying Debrox and then flushing your ears gently with warm water removes the wax and leaves a protective coating. One thing I don't like about the product is the label recommends using the drops twice a day. I feel this is excessive and expensive—especially at \$1.75 for half an ounce. Usage should depend upon the individual's wax accumulation. I usually use Debrox a few days before diving and again after diving.

Consult your physician for further questions. Debrox is sold without prescription in most drug stores.

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AIR QUALITY ASSURANCE FOR DIVERS

Contaminated air can lead to fatigue, dizziness and confusion, and can cause underwater accidents . . . Though the strong odor of nitrogen dioxide should alert the diver to an unsafe air supply, most lethal gases are completely odorless.

Now it is easy to assure diving compressors are delivering air of high quality to sport or working divers. Texas Research Institute, Inc., has started a national program for divers' air quality assurance and is seeking new subscribers for the services offered under this program.

The services include the use of TRI's novel air sampling system which is light-weight, rugged, and simple to use sampling equipment. The sample gas is collected in a small bottle and the particulates are collected in a filter which are easily transported via air mail to TRI laboratories where it is checked as soon as it arrives. If your air supply is safe, then a letter of certification should reach you within a few days. Unsafe air suppliers will receive a telephone call as soon as a problem is detected.



TRI uses Navy standards as guidelines when analyzing for CO, CO₂, methane, total hydrocarbons, oxygen and air borne contaminants such as oil mist, hydrocarbons, and small solid particles. Metal particles were recently discovered on a filter which identified a problem with piston ring wear and led to timely maintenance. This type of thorough and complete analysis can only be made with laboratory equipment.

This service is confidential and includes use of equipment, instructions, and a letter of certification. A statistical department is maintained to keep data on the performance of various compressor and air filtration types.

For further information, write or call: Texas Research Institute, Inc., 6500 Tracor Lane, Austin, Texas 78721, 512/926-8175.

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SMOKING (PLAIN POISON)

by C. V. Rolfe

The hazards from smoking have been well publicized in recent years and as it says on the cigarette (but not cigar or pipe tobacco) package, the "danger to health increases with amount smoked." These warnings are based primarily on the correlation between cigarette smoking and the occurrence of certain respiratory diseases. There is, in addition, an often overlooked, but potentially serious, safety hazard when people smoke too much. The culprit here is carbon monoxide poisoning. The incomplete combustion of any organic material, including tobacco, produces carbon monoxide (CO). We are aware from newspaper items that carbon monoxide poisoning from engine exhausts can be fatal, but we rarely give much thought to the effects of CO produced by burning tobacco. By volume up to 2.5% of cigarette smoke and up to 8% of cigar smoke is CO. This gas can be absorbed by the body through inhalation of the smoke directly or indirectly. By indirect inhalation we mean the breathing-in of tobacco smoke from the environment by other smokers or by non-smokers. In a confined space (e.g., in a closed car) tobacco smoke can produce a high concentration of CO in the air. It has been demonstrated that, with two people smoking, the CO concentration of the inside air was as high as 100 parts per million (ppm). Breathing this air with a concentration of CO of over 50 ppm may be hazardous for divers, as will be seen below.



Why is breathing CO dangerous? It is not so much the CO itself that is the problem, but rather the deficiency of oxygen which it causes. We know the oxygen (O₂) is an essential element for life, with the brain and eyes being the most sensitive to any O₂ deficiency. Oxygen is transported to wherever it is needed in the body by the hemoglobin (Hgb) in the blood. Hgb, unfortunately, has an affinity for CO of over 200 times that for O₂. That means that if CO is inhaled, the Hgb will combine with it rather than with O₂ and the blood then cannot carry enough O₂. Also the Hgb releases the CO very reluctantly and, therefore, even if more is inhaled, this Hgb is not available to carry O₂ for a significant period of time. It is estimated that it takes six hours for the blood to release one half of the CO it has taken up. Consequently, there can be significant amounts in the blood even 24 hours after very heavy smoking. To complicate the situation further, the presence of CO interferes with the delivery to the tissues of whatever O₂ is available in the blood. Carbon monoxide poisoning then is really a form of hypoxia and can have a marked effect on performance of divers, particularly at depth.

Bob Wohlers photo

It's not good
to be here
after
smoking . . .



How much CO is too much? The combination of CO and Hgb is called carboxyhemoglobin (CO Hgb) and the amount of CO absorbed is usually expressed as percent CO Hgb, i.e., the percentage of the total blood Hgb that is in the form of CO Hgb. Night vision is the first thing affected (black water diving) by oxygen lack and this occurs with a CO Hgb level of about 3%. Headaches, nausea and other symptoms of CO poisoning may not occur until about the 20% level. One cigarette can produce a CO Hgb level of about 2% and smoking cigarettes for several hours a level of 10% or higher. Cigars and pipes can produce even higher levels.

Reprinted from Hart House
Newsletter, May, 1975

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SUPPORT YOUR DIVING RETAILER

by Dennis Graver, Editor/Publisher

Your Diving retailer plays a key role in the diving industry. The store is an air station, repair facility, rental outlet, information source as well as a place to buy quality diving equipment.

Diving is not a gigantic sport, so the total market available to the diving retailer is small. Because of the limited number of customers available, competition is keen and attrition among stores is high. Dive stores going out of business is a serious problem, for the retailers are vital to the growth of diving.



How can divers and instructors provide support? First of all we must realize retailers are not overcharging divers. Store owners are trying to earn a living. Their overhead, including rent, inventory, air station, taxes, insurance, employees, business licenses and much more, is high. The overhead has to be paid before any money goes in their pocket. Divers know the mark up on gear is about 40%, so always look for discounts. This isn't done when buying other items in your day-to-day living, so why this attitude about diving equipment? You may take advantage of a sale item or a package deal, but it hurts the industry to force retailers to discount all items sold. There must be some give and take to stabilize the market, but let's be fair to the retailer.

Instructors can help dive stores through cooperation. There have been complaints and accusations for years about the retailers running sub-standard diving courses so equipment can be sold, and retailers scream loud and long about diving instructors selling equipment out of their cars and garages. Both stories are probably exaggerations of isolated

cases. The only thing that really matters is that the student receives safe, adequate training and quality equipment at a fair price. Why not accomplish this objective through cooperation? Instructors should send and take students to the local retailers for equipment and retailers should refer students to instructors. The store may run its own diver training program, but can still support the instructor by referring excess students and students for Sport, Advanced and Specialty courses, plus orientation dives, guide service, private instruction, etc.

Instructors should not compete unfairly with stores by offering a long and exotic course at a ridiculously low fee. Because the overhead is low and the instructor does not have a profit motive, courses are sometimes offered which cannot be matched by the retailer. This causes resentment and hurts diving locally. If you offer more, work out an equitable agreement with the store . . . have them send you all the students for instruction and you send them all the students for equipment. Work together to help the sport, not separately to hurt it.

There are problems created when instructors buy equipment directly from manufacturers. Here are some reasons why:

1. Full service cannot be provided. It is difficult to stand behind the equipment, make good a bad piece of equipment, or prevent ill feelings.

2. A wide variety of equipment will not be made available.

3. It may not be legal. Business licenses, taxes, resale numbers, etc., are required.

4. The instructor cannot properly care for and phase-out equipment when it gets old.

Instructors and retailers can also cooperate when the instructor works for the store. The instructor can wear two hats—one for instruction and one for sales. NAUI's equipment policy does not prevent an instructor from being the world's greatest salesman.

By working together, communicating and cooperating, retailers, manufacturers, instructors and divers can help strengthen the sport. It starts by supporting your local retailer. Retailers are the most knowledgeable about new equipment and products, and play a key role in the sport while having to deal with a small percentage of the population. Let's help them help diving.

National
Association
of Underwater
Instructors

LETTERS

Letters of interest received by NAUI Instructors, Branch Managers, Board of Directors, Headquarters and the NAUI News Editor are presented in these columns.

MAINE ENACTS DIVING ORDINANCE

Dear Fellow Divers:

On May 18th, the town of York, Maine enacted an ordinance which requires individual divers to purchase a \$25.00 license before entering the water at Nubble Light. In addition, a \$150.00 license is now required for each diving instruction group. This is the first instance of government licensing of divers in New England and is a bad omen for the future of our sport.

This dramatic development makes it all the more imperative that we band together now to deal with diving legislation . . .

*Sincerely yours,
Bay State Council of Diving Clubs, Inc.
David Clancy, Steven Bakalis,
John Conway, Paul Sebra*

COMMENTS ON FLYING AFTER DIVING

Dear Dennis:

Following are some comments on the article "Flying After Diving" which appeared in the June '75 issue of NAUI News.

Milt Golart's article "Flying After Diving" presented a very clear and valuable method for determining the required delay at sea level before flying. I concur with his implied point that a 12 hour wait is seldom necessary and that, in fact, one or two hours is nearly always sufficient.

The table "Altitude of Dive Factor" deserves a comment, because it is these factors by Hannes Keller which form the basis of the high altitude dive tables most commonly in use today. Each factor is merely the ratio of atmospheric pressure at sea level to the pressure at the specified elevation, without regard to any difference in water density between the two diving conditions. Mr. Golart has used them correctly, as they strictly apply to dives made in sea water. When they are used to make altitude tables for fresh water diving, however, each of Dr. Keller's factors may be reduced by 2½%. If they are applied as they stand the resulting "apparent depths" are slightly conservative which, after all, isn't a bad thing.

*Sincerely,
C. L. Smith, NAUI 2299*

REGARDING LIABILITY INSURANCE

At present I am covered by another insurance carrier not available through NAUI and I would like to recommend some additional coverage features that NAUI might consider:

Presently, the NAUI policy only covers the instructor when he is engaged in teaching. This brings up the question of whether or not an instructor is "teaching" when conducting supervised dive tours or similar dive activities. Those of us in resort situations would certainly welcome an amendment to the policy that would cover us on these situations. Personally, I would be willing to pay more to obtain this coverage if it could be made available and I ask any other concerned instructors to write headquarters with your suggestions.

It really shouldn't be a greater risk to cover instructors in these situations, since the normal diver who the instructor is guiding or tour leading will already be a trained, certified, semi-experienced diver; not a basic student who would definitely seem to present more of potential risk to the carrier.

I would prefer to obtain my insurance through NAUI if an expanded policy can be worked out. Let's have some support from the members who need this type of coverage and maybe headquarters can help us out.

Best regards,
V. I. DIVERS LTD.
Bret C. Gilliam, President
NAUI Instructor 3234

MAKO COMPRESSOR STOLEN—HELP!

Dennis:

Sometime in Jan. or Feb. 1975 an 8 cu. ft. electric, Mako compressor, Model No. KA-14-85-E3, Serial No. 4-54-2, was stolen from the Black Hills Divers, Diving Club, in Rapid City, So. Dakota.

This compressor was a donation from the city of Rapid City in appreciation for work done by divers after the flood of 1973, in which over 100 persons lost their lives. Needless to say, this compressor means more to them than just air.

If anyone has any information regarding this compressor please contact or call collect: Ray Lucan, 2705 W. Omaha St., Rapid City, So. Dakota. Phone: Residence 342-9099/Office 342-2351.

Thank You.

*Yours for Safe Diving,
Dave Gaudreault, NAUI 3690*

CONT. NEXT PAGE

DIVING EMERGENCY PHONE NUMBER

Dear Dennis:

I was just reading in the March/April issue that emergency facility numbers are needed. There was recently a diving medical seminar held at Oregon State University in Corvallis, Oregon, and in the discussion with the three diving doctors (two of whom were Dr. James McMillan of 5013 SE Hawthorne, Portland, Oregon 97215; and Dr. W. T. Postles, of Milwaukie, Oregon—503-659-2622), the number of the "bends watch" at Brooks Air Force Base, San Antonio, Texas came to light. The number is: 1-512-536-3278.

The last part of the number corresponds to "LEO FAST" for easier memory. I've confirmed this number, and apparently the doctors on call can not only advise people regarding decompression sickness cases, but can also direct people to the nearest recompression chamber anywhere in the country.

Sincerely, John Ratliff, NAUI 2710

SAMUEL JACKSON COMMENDED

Dear Sir:

I would like to tell you of the excellent presentation given by one of your teachers, Mr. Samuel J. Jackson.

Recently he visited the Dialysis Unit here in our hospital to reveal some of the joys and secrets that beckon below the surfaces of our near-by bodies of water. Sam brought an informative film, pieces of his diving equipment, as well as numerous historic and fascinating artifacts, in order that the students might be free to feel and explore for themselves in a vicarious manner. The students eagerly plied Sam with questions which he patiently and carefully explained. The age range was from grade eight through grade ten, with some students not even being of an English background. There were nine students participating with Sam in some fashion. As well, there were numerous adults who keenly expressed interest in his topic.

I am appreciative of the few hours Sam gave to us because he recognized these students as needing special, caring attention.

Thank you.

Sincerely,
Mrs. Carole Collier
Toronto Board of Education Schoolroom
c/o Hospital for Sick Children
Toronto 2, Ontario

ON THE DEFINITION OF A DIVE

Dear NAUI News:

I would like to suggest that instead of defining a "dive," the definition should deal with water experience. Thus, you could define water experience to involve a multitude of components. Water experience could be defined as: number of separate days in which diving was done; number of hours in the water; number of hours under the water; variations in diving conditions (temperature, visibility, surface conditions, ocean vs. quarry, etc.). Perhaps some point system attached to each category would allow some category to be zero if another aspect were to be emphasized.

I appreciate that my idea needs refinement, but perhaps it will prove fruitful in your search for better ways to define a dive.

Sincerely
Bernard A. Schwartz, NAUI 2235

INFO REQUEST—COLLEGE ADP PROGRAMS

Dear Bob (Widmann):

I have been teaching a basic scuba program at Santa Rosa Junior College, Santa Rosa, CA for the past three years and am now attempting to incorporate an advanced course into the scuba program. In submitting a rationale to the college curriculum committee the school has requested information on equivalent courses taught in other colleges. Specifically they desire to know what frequency is the Advanced Diver Program offered at other colleges. Also what number is it assigned and what are the unit/hour requirements.

As you are well aware, teaching a scuba program within the college structure is a unique experience. I would greatly appreciate any further information you might forward on your Advanced Diver Program.

David M. Nagle, NAUI 2511

WHEN DOWN UNDER, SEE 1481

Because I feel like the "poor cousin" I am asking that any NAUI personnel intending to visit the Great Barrier Reef or arrange a tour of this area to PLEASE contact me. I can arrange for some very good boats or accommodation, or just a friendly smile.

Hoping to hear from you,

Phil Feldman, NAUI 1481
Townsville Teachers College
Box 117, Aitkenvale
Queensland 4814, Australia

P.S. Thank you for getting my June Newsletter to me in June.

NN

IQ7 DIVING TRAVEL



FLORIDA SAFARI AFTER IQ7

Florida boasts the only coral reef in the continental United States . . . that's a fact! Working with internationally known NAUI Instructor Norine Rouse, UNDERWATER SAFARIS will offer its FLORIDA SAFARI as a special 'after-the-conference-dive' (to follow the exciting International Conference on Underwater Education). We'll be diving in the Gulf Stream each day . . . each dive will be a clear-blue-tropical experience. Our home base will be Palm Beach. Each dive will take us to Florida's most incredible living reef where we'll enjoy wrecks, beautiful corals, giant schools, turtles, friendly morays, and indescribably crystal clear



water. The fee of \$150.00 for five days is based upon \$20.00 for two dives per day (morning and afternoon) with scuba tank, air, back pac, and weights provided at no additional cost, and \$10.00 per person over-night accommodations (multiple occupancy . . . two to a room). The fee may be varied by involving a compatible group of four people who would share a room at \$5.00 per person over-night accommodations . . . or by signing on for less than five days. Food as well as transportation to Palm Beach is not included in the FLORIDA SAFARI fee of \$150.00. Our home base hotel boasts efficiency apartments . . . divers aren't known for their kitchen ability, but we'd be willing to consider ruffing it food-wise if we get sufficient interest . . . who's a good cook? Drop us a line and tell us about your best meal.



photos by Paul Janosi

Where are we?

Norine Rouse SCUBA INC. site of our FLORIDA UNDERWATER SAFARI is in Palm Beach Shores about 60 miles north of Miami . . . not far from the NAUI "IQ7" conference site and is serviced by all the major airlines. Norine's at the Buccaneer Yacht Club, 142 Lake Dr., Palm Beach Shores, Fla. 33404 - (305) 844-2466.

Reservations

A deposit of \$100.00 will assure your reservation for the FLORIDA SAFARI. The balance is due 30 days before the scheduled starting date. Make application and checks payable to Fred Calhoun, P.O. Box 291, Back Bay Annex, Boston, Mass 02117.

Travel Tips for Tropic Trippers

In a word, travel 'light.' Clothing should be casual. Emphasis should be placed on providing protection from sun burning. Cosmetics, personal items, sun burn lotion, etc., may not be available . . . UNDERWATER SAFARIS participants should be sure to bring these items with them.

-NN-

AFTER IQ AT BONAIRE

The island of Bonaire's Tourist Board early this year declared 1975 to be the year dedicated to the tourist, both in attendance and activities, thus setting the Board about gathering and inventing activities solely designed for the off-island visitor.

After IQ7, Aquaventure will be at the Flamingo Airport to hand over the Symbol of "SOD" to the arriving host.

The Symbol of SOD is a virgin twig of black coral, representative of the island of Bonaire and its ecology minded people. Black coral which flourishes in water as shallow as 45 feet is well protected by law as is all the coral and inhabitants of this underwater wilderness island. Each week this symbol will be presented to the new host.

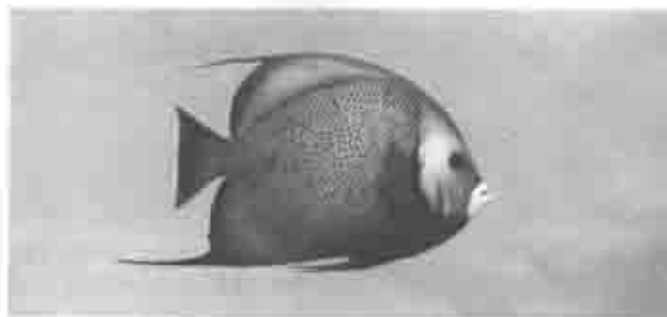


Capt'n Don

SOD, which some consider a mythical character is really the Sage of the Deep. Many friends of the Aquaventure Complex thought that fellow Neptune and his old beard, encrusted crown of gold and the trident (which to Bonairians is a symbol of destruction) just did not fit the modern diver. SOD came into being as the birth of a watery being that roams all the warm reefs of the world protecting the creatures and compressed air breathers alike. (Sort of a Doc Savage, Tarzan, and Flash Gordon compressed into one.)

Aquaventure is currently logging an average of 675 dives per week, covering some 48 available reef trips. The Post IQ7 program is nothing more than a normal week with an extra Bar-B-Q, several more parties, tossing in 3 more lectures and seminars, a treasure hunt, photo contest, picnic, movies, slides and sho & tells, and something all of us have wanted for years, a "GIMMICK FAIR." This fair will display products from all the major manufacturers. These products cannot only be seen, felt and handled but actually checked out by the diver to take along on his next reef trip.

The Hotel Bonaire and its bungalows are starting to receive reservations along with the Flamingo Beach Club. All the hotels are setting aside many rooms available only to divers and their families. E WOWO, the Caribbean's wildest discotheque will be open for special parties. Hertz is adding extra cars to the rental line to accommodate the expected guests and divers.



It is no doubt the Post IQ7 dives will be exciting and fun filled. "Programming and designing fun things for the kind of folks that love sailing and diving is a pleasure," says Capt'n Don. The Captain has catered to divers and their fun packed vacations dating back to the early fifties when he was windjamming the top-mast schooner Valerie Queen between Long Beach and Catalina.

For information and prices contact any of the following: Lisind International, 5 World Trade Center, New York City. The Bonaire Tourist Information Offices, 685 Fifth Avenue, New York City. —or just write Capt'n Don, Bonaire, Netherlands Antilles.

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Calendar of Events

INSTRUCTOR QUALIFICATION COURSES:

Oct. 3-5 **Moncton, NB**
Canada, NAUI Canada
Box 510, Etobicoke, Ont., Canada

INSTRUCTOR QUALIFICATION AND TRAINING COURSES:

Aug. 9-17 **Norfolk, VA**
Ron Johnson, Director
Old Dominion Univ., Norfolk, VA 23508

Aug. 14-24 **Chicago, IL**
Jim Foley, Director
7944 W. 163rd Ct., Tinley Park, IL 60477

Aug. 14-24 **Albany, NY**
Fred Calhoun, Director
Box 291, Back Bay Annex,
Boston, MA 02117

Aug. 23-31 **Seattle, WA**
Spence Campbell, Director
3522 NE 170 Pl., Bellevue, WA 98007

Aug. 23-30 **Santa Cruz, CA**
Homer Fletcher, Director
2273 Cove Ave., Los Angeles, CA 90039

Sept. 6-13 **Palm Beach Shores, FL**
Glenn Taylor, Director
Box 15933, West Palm Beach, FL 33406

YMCA TO NAUI CROSSOVER COURSES:

Aug. 16-17 **Albany, NY**
Fred Calhoun, Director
Box 291, Back Bay Annex
Boston, MA 02117

SEMINARS, SYMPOSIUMS AND WORKSHOPS:

August **ADP Planning Seminar**
Honolulu, HI
Hank Vogt, Director
33 Nawiliwili St., Honolulu, HI 96825

Sept. 13-14 **Sea-Space '75 Symposium**
Box 77035
Houston, TX 77027
Attn: Jack Allyn

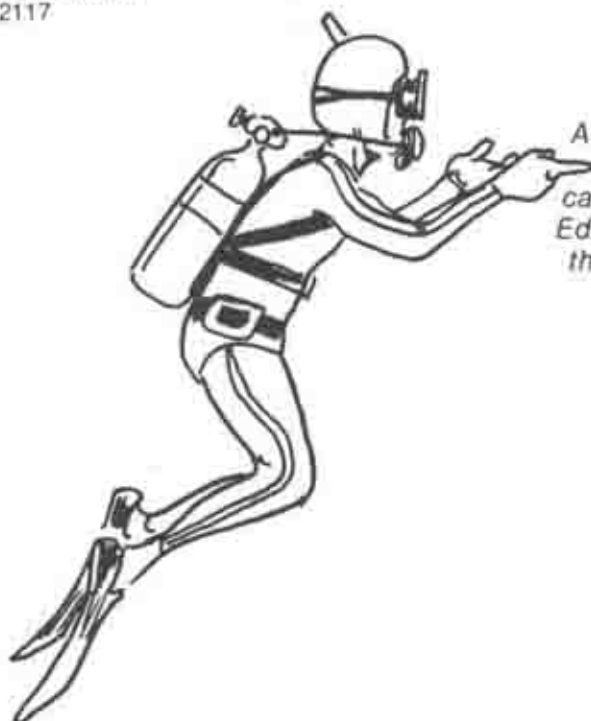
Sept. 20 **Underwater Film Review**
Boston, MA
Fred Calhoun, Director
Box 291, Back Bay Annex,
Boston, MA 02117

Sept. 25 **NAUI/NDA General Membership Meetings**
Miami, FL
NAUI Headquarters, Box 630
Colton, CA 92324

Sept. 26-28 **IQ7 Miami, FL**, NAUI Headquarters
Box 630, Colton, CA 92324

Oct. 4-5 **North Atlantic Underwater Convention**
Rockport, MA
Fred Calhoun, Director
Box 291, Back Bay Annex,
Boston, MA 02117

November **Equipment Technology Seminar**
Chicago, IL
Don Pittan, Director
Box 142, Berwyn, IL 60402



We would be happy to list Sport, Advanced and Specialty Courses by NAUI Instructors as part of our calendar. Just get your listing to the Editor 6 weeks before the first day of the month of the issue in which you would like the listing to appear.

— Book Review —

by Art Ullrich, Director of
Special Projects

DIVERS & CAMERAS—Joe Strykowski
212 pages, hard bound 6x9 1974 \$5.95

Divers and Cameras is a newcomer in the underwater photo text field and it is a good one at that. Strykowski has taken the technical subject of photography and the problems encountered making photos underwater, and blended them into one easy-to-understand text.

Joe provides a great deal of technical data, and then explains how to apply the information to develop skills and techniques of practical camera handling underwater.

From simple pocket cameras to expensive and complex underwater movie making, the twelve well-illustrated chapters move in logical sequence to cover the major factors involved in the art and science of underwater photography.

Of all the texts available, this has to stand at the top of the stack, both in quality and complete coverage.

It is an extremely useful text for the experienced shutter bug as well as the beginner and is easily adapted to underwater photo classes.

Get this one for your library!



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