

The History of



The National Association  
of Underwater Instructors

by Albert A. Tillman (NAUI #1)  
and  
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Photographs provided by NAUI, Scuba America archives, Zale Parry, Al Tillman, and John Oakes.

## Introduction

Those that undertook the challenge were more like walruses than *Homo sapiens*. The first men and women who made the underwater world their play or work area all but had gills hidden under their collars. Diving had existed as a tool of necessity since at least the time of Alexander the Great in 332 BC, but the true Golden Era of diving occurred in a young sports-oriented United States toward the middle of the twentieth century.

Hearty pioneers ventured into the sea with all types of makeshift equipment. With shingles for fins and coffee cans for masks, not even science fiction writers would dare to suggest some of the ideas that these pioneers constructed.

The turning point in this age of imagination came from two men, Jacques-Yves Cousteau and Emile Gagnon, and a small device they constructed called the Aqua-Lung™. That seemingly innocent adult toy first went on sale at Rene Bussoz's Sporting Goods Store in Westwood, California in 1949, and it soon changed diving in America forever.

The adventurous skin divers took this new invention and used it as a tool to supplement the "true" sport of breath-hold skin diving. The old pioneers were staunchly proud of their sport and the physical prowess that it required; they considered the Aqua-Lung™ to be for "sissies" who needed some extra help.

The Aqua-Lung™ made the underwater world accessible to everyone, not just those who were born with lungs made for Dizzy Gillespie's jazz ensemble. With this accessibility came an army of men, women, and children with no previous diving experience. A few hearty pioneers from the pre-scuba days who could foresee that people were going to get hurt gave up their aura of superiority and decided to bring diver education down to the masses. This is the story of these individuals and especially the most respected of the pioneering instruction programs, The National Association of Underwater Instructors (NAUI).

Readers will notice that the major portion of this book details the first decade of NAUI. Those formative years were the foundation blocks upon which NAUI was built. A book on the history of NAUI will never be truly complete because NAUI instructors and divers are adding new chapters every day. We hope that you enjoy this retrospective look at NAUI and that new chapters can be added long into the future.

It is also to be noted that the facts of this book are based as much as possible on the original documents that exist from over the years. We have noted on several occasions that the memories of the people who were there do not always concur with the records from the events themselves. Another way to look at it is to understand that many of the individuals were the pioneering founders of the "you-wouldn't-believe-the-size-of-the-fish-that-I-saw" era.

I am eternally thankful for the outstanding work of Zale Parry and my father, Al Tillman, in their work over the last two decades, interviewing hundreds of diving pioneers and saving valuable documents for their SCUBA AMERICA project. It is this project that will guarantee that the facts will last long after any of the pioneers remain to recall them. It is my sincere hope that they will soon publish all or part of this collection so others may have the opportunity to read of the adventures and experiences of these remarkable pioneers.

I hope that you enjoy this book and that it gives you a good insight into the people behind the extraordinary history of the National Association of Underwater Instructors. NAUI is in a unique position in the industry in that members own the organization and the leadership comes from the membership. In such an organization, history sometimes becomes lost. It was a pleasure for me to be asked to coordinate this project to record those facts before they are lost.

*Tom Tillman*

## Instructing the Masses

"Just put that thing in your mouth and breathe, but don't hold your breathe while you come back up - why? I don't know!"

Those words may be the first ever uttered to instruct someone in the use of SCUBA. Walt Hendrick Sr. told the story of a dive instructor, in the pre-NAUI era, instructing students by telling them to "don the equipment and roll overboard." Whether it was the experience of going underwater to play and work while holding your breath in skin diving, or taking your breathing air with you in SCUBA diving, there was almost total ignorance. The unknown was a great part of the lure of diving.

For the underwater pioneers there was a huge part of the planet, a vast water wilderness, that begged to be explored; places where no human had ever been before. The planets in outer space were better observed and less mysterious than the ocean until this point in our history. "There be dragons out there" was the litany of men who sailed the sea.

Beneath, however, lay this new realm for the diver where access is dependent upon artificial support of breathing and vision. Less obvious was the fact that tense new modifications of instinctive behavior patterns had to be taught in such a way that instinctive physical survival patterns, developed over millions of years, suddenly had to be modified. For instance, in an emergency under water, when a charge of adrenalin kicks in, the diver must be trained to override the natural preparation for fight or flight that causes us to hold our breath and tense our diaphragm. The mere thought of being trapped under tons of thick wetness without air makes many hearts leap. Safe passage to the surface with intact lungs demands open airways.

Skin diving naturally preceeded SCUBA diving onto the ark of outdoor sports activities in America. It took some skills and physical prowess but not much knowledge in those early days of mid-twentieth-century America. "Human walruses" seems the best way to describe the rugged, risk taking pioneers that first descended as sport divers.

The early 1950s were the peaking period for breath holding skin divers and with it came the emergence of the "bubble machine", Self Contained Underwater Breathing Apparatus (SCUBA). Skin divers used aids such as masks and fins to perform underwater, and there was great simplicity and freedom. The new device seemed to threaten some old dogs who weren't about to learn new tricks, but learning would be essential in this new kind of diving.

SCUBA diving was not adopted with ease by the small fraternity of skin divers when it rolled onto the diving scene in 1943. The rugged skin divers had just stuck snorkels in their mouths as a new piece of equipment; now there was another device to be added to their diverse paraphernalia.

It seemed simple to use at first glance, "just stick the mouthpiece in and breathe." The directions that came with the first Aqua-Lungs often said little more than that. The guy that sold one hardly went beyond giving the customer a pat on the back and a nebulous "good luck". Mel's Aqua Shop used to advertise training in one hour. The shop owner, Mel Fisher, had luck in other areas of diving by going on to become "The Richest Treasure Diver in History."

One of the early NAUI pages in Skin Diver Magazine introduced "Uncle Charlie, the best damn diving instructor in the whole wide world." Uncle Charlie was an actual person, but in this case he served as the symbolic figure of tribal elders who pass on survival knowledge to the young.

When diving, skin diving, arrived, it was a strange creature. What kind of a sport could it be where one jumps in the water, goes where there are no spectators, no human opponents, and

no score keeping. It was weird, certainly daring, and to do it you had to master a little equipment, hold your breath, swim vertically. The old pioneers in the 1930's and 1940's just did it.

The Uncle Charlie's, the first guys through the door to begin diving, learned through trial and error. They pillaged techniques from other sports such as swimmer's hyperventilation, pressurizing the ear drum and they invented the equipment, homemade much of it, to aide them in their invasion of the sea. No one taught them what to do. There wasn't anyone to teach them. They made a lot of mistakes and learned from experience. They got bumps and the common bonding exclamation shouted about at an old divers reunion was, "It's a wonder we didn't get killed."

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At the Coronado UDT Training Center a sign hung on a wall to justify classroom teaching and slow down the young recruits who just wanted to go do it, the sign read, "BY THE TIME YOU HAVE ALL THE EXPERIENCES NECESSARY ... YOU'LL BE DEAD."

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When SCUBA came on line in the early 50's, Uncle Charlie again took over the passing down of information, how-to-do-it instruction and tall fish tales - "My god the deadly killer whale is overhead." Sometimes even the best Uncle Charlie would put his two-hose Aqua-Lung® regulator on upside down while instructing a young convert.

It was also the era of the skin diving clubs. Clubs were simply the best way to perpetuate diving, to keep divers in the water. Perhaps a lot of fear was dispelled by doing a risk sport with others and there was a lot of just plain socializing that went with it, such as Bar-B-Q's on the beach and pooling money to charter a boat dive. There was the sharing of equipment, in some cases one Aqua-Lung® that each member could take a turn at.

Uncle Charlie took on a new role. No longer the freelance instructor, he took on official status as the club dive master. He gathered the lore about SCUBA by listening to the experiences of other divers and reading everything written, limited as it was.

Take a look at 1951 and perhaps the major influence and uniting factor in America emerged - Skin Diver Magazine. No SCUBA in that title. SCUBA wasn't even mentioned in the pages during those early years of Skin Diver. There were a few SCUBA how-to manuals, mostly local efforts, but nothing officially dominant to institutionalize the technology of diving with SCUBA. The main resource was the rather stuffy military publications; in the forefront was the U.S. NAVY diving manual.

Civilian diving manuals were extracted from it. It was the only bible for divers available and its stodgy recitation of numbered facts were considered sacrosanct. After all it was a government publication and SCUBA diving was a child of the wars of the time. Could our government afford to be wrong in such matters? We didn't think so then.

Clubs gathered together in geographical regions and the elders started to formalize what was being taught. Dive masters trained and learned agreed-upon knowledge and skills of SCUBA. They moved to develop a valid and unified curriculum. It was for Los Angeles County at the heart of America's most populous diving territory to launch the first public classes. The Southern California region has a vast ocean shoreline and islands, prime diving area everywhere.

In 1952, a memorandum was addressed to the CEO of the Los Angeles County Department of Parks and Recreation from County Sports Director Al Tillman. The memo pointed out the need for instruction in this new aquatic sport, that skin divers were diving in areas where no lifeguards were stationed, and some were going in with this strange, new, clanking breathing machine strapped to them. Weren't we in the business of creating safe sports activities asked the memo.

The result of this simple memo was that the largest Parks and Recreation District in the world decided that its ocean venues were one gigantic wilderness park and foresaw a mass interest in diving in it.

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### **The Memo that Started it All**

June 10, 1952

To: Paul Gruendyke, Director L.A. County Parks and Rec.

From: Al Tillman, Sports Director

Subject: Skin Diving Classes

A new sport - skin diving - is becoming popular in the area. Recently, while diving in Palos Verdes, I ran into several divers in the water with me who didn't know what they were doing. One had one of the new underwater breathing units that allows divers to stay under for long periods of time. I have purchased this equipment for evaluation.

The Palos Verdes area in question is not covered by the Lifeguards and serious problems could arise if an accident occurs and if the County doesn't act proactively. This activity falls into the sports category and I propose that my department get involved in this sport and provide training classes. I believe that diving will grow in the future and we have an obligation to make the sport as safe as possible.

Let's get together soon to discuss the possibilities of a County sponsored training program.

cc. N. S. Johnson

Chuck Bollinger

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Sure diving was a sport, albeit an odd one, but it was an aquatic sport and the nationally known Los Angeles County Lifeguard Service felt the ocean and the swimming pools were their domain. Fortunately, there was enough rapport and respect between the Sports Division and the Aquatics Division that a joint effort was undertaken.

The problem still remained - where was the official authority on what was to be taught. The Uncle Charlies and club dive masters had taken it the first distance and now a public agency, a government entity, was stepping in. Not everyone in diving was pleased with this intrusion. Divers loved the freedom of going diving and now they were going to be told what to do and how to do it; government regulated instruction gave off a feeling that something would be ruined. Perhaps it would, but there was the threat of many lives to be lost without it.

Los Angeles County looked about and hit upon Scripps Institute of Oceanography as the place to procure a point of authority. At Scripps rather informal classes were being conducted by a pioneer SCUBA diver named Conrad Limbaugh. In July, 1960, Skin Diver Magazine ran the story detailing the accidental death of Limbaugh ... SDM named Limbaugh "America's Greatest Diver" ... and this in an era filled with great diving pioneers. Limbaugh trained scientists in using SCUBA as a tool for research. Scripps' counterpart, Woods Hole, was also working with SCUBA and even had a book out by another pioneer, David Owen.

Los Angeles County sent two men to Scripps to be officially certified, Bev Morgan from the lifeguards and Sports Director Al Tillman who saw new, exciting programming in the area of SCUBA. A third man from the County named Ramsey Parks paid his own way and also attended. Morgan and Tillman spent every Tuesday learning about all areas of underwater sports activities.

A range of topics were covered including SCUBA, skin diving, first aid, sea life, underwater photography, underwater explosives, spearfishing, body surfing, and surfing. In an April 12, 1954, memo to Charles Bolinger, Tillman evaluated the training that he and Morgan were receiving by writing, "The department can do nothing in this field without qualified, informed personnel. The field of Underwater Sports Activities which includes unit diving, skindiving, spearfishing, etc. is one of those activities designed for a segment of our population. The growth is phenomenal and exceeds in growing popularity that of any other comparable field. Naturally, there are many limitations and yet there are also many new areas to be explored in this field."

These two representatives brought back the nucleus of what should be taught in public classes. Morgan wrote a manual for basic classes following the pattern of the Los Angeles County Lifeguard training manual. In the summer of 1954, the first public classes in sport diving, both skin and SCUBA, were introduced. The classes filled with no problem.

Various factors shifted the Los Angeles County program under the Sports Division at that point. The first public classes had shown two things:

- 1) There was a greater interest than was thought and more instructors would be needed than the County could pull from its paid staff.

- 2) SCUBA was going to soar in popularity supplanting skin diving as the dominant underwater sport.

The official step was an instructors training program. Los Angeles County proceeded to set up the first UICC (Underwater Instructor Certification Course) at Lynwood, California Natorium in the spring of 1955. From that course, made up of aquatic programmers from various public agencies, diving equipment manufacturers representatives, club dive masters and Los Angeles County personnel, some of NAUI's key pioneers taught and graduated.

The course information and SCUBA skills were substantiated by a board of advisors made up of respected leaders in various areas of diving and teaching. It was only twenty hours long and took place over four Saturdays. The participants weren't a bunch of novices; they brought a vast reservoir of diving experience into the course, their noses dripped water from a whole lot of skin diving and other aquatic activities. They were about to launch an explosion of formal diving instruction from which we would never turn back.

The Los Angeles County underwater program grew in all directions. More UICC's were spun off, one major course each year and each would run over a ten week period. The student training manual, Underwater Safety, was revised to Underwater Recreation for a more positive note. An instructor's manual to guide and standardize the teaching was published. Los Angeles became the guideline program for a lot of the U.S. and by the late 1950's was generating original research and resulting standard information for SCUBA know how. Skin diving, the original main core of the idea, rapidly took a subsidiary role to SCUBA diving.

LA County was besieged from everywhere with requests for materials to help set up similar programs. A special offering was launched to try and accommodate them, The National Underwater Provisional Certification Program was envisioned by Al Tillman to certify instructors on a national level, but it was politically taboo in taxpayer concerns for a county agency to work beyond its geographical borders. Despite this, some instructors in other places were sanctioned by mail to be provisional county instructors. The county kept track of all certified students, had a mail in survey to supervise content and continuing quality of each instruction, and developed an updating recertification system.

In other parts of the country ... Boston, Washington, Chicago, Miami, Texas, Seattle .. fledgling efforts emerged to establish regional instructor training programs, but the Los Angeles County program, with its solid base in a governmental agency and the broad population base

advanced ahead of the pack. It was a role model for others, but more importantly it became the rubber stamp for the creation of the cornerstone of all standardized national and international diving instruction ... The National Association of Underwater Instructors (NAUI).

NAUI was brewing in the innards of the Los Angeles County Program and the main architects of NAUI were part of the Los Angeles County program. National certification was being explored in other places as well. The Red Cross took a look at incorporating skin and SCUBA diving into their highly effective water safety program but passed on it in 1958 as being too major an undertaking. The YMCA, through its central think tank developed a national program in 1958, a nice adjunct to its aquatics programs. The YMCA had an abundance of indoor pools across the country. The problem was each YMCA was stubbornly autonomous and in many cases resisted the YMCA instigated program and chose to work with local dive shops and local instructional programs.

The YMCA also tried to get by with weekend training certification institutes to qualify instructors and perhaps failed in the beginning because their requirements fell far short of Los Angeles County's comparatively long and comprehensive course approach. Then later the limited system of the YMCA did not measure up to the NAUI approach.

Everybody meant well but the time was ripe for a face-to-face summit course to bring together the best practicing dive instructors from across the country and forge a national standard criteria for certified instructors. Air travel, the jet, came in as a force allowing divers to leave home and try different diving venues. It meant dive instruction could no longer focus just on local conditions, but that instruction must enable a certified diver to function effectively in a diversity of diving conditions and places. This would be enabled by confidence in a universal set of rules and skills.

On a hot August in 1960 just such a summit occurred. A fledgling organization calling itself the National Association of Underwater Instructors held a week long course in Houston, Texas, that would set the standard for professional instructor certification agencies in the decades to come.

## HOUSTON 1960

Divers are always going to put their feet up, lean their chairs back, and mull the question, what one event has had the most influencing impact on the development of diving?

The mulling can go on a long time until a voice says one thing, then another voice speaks, then another until, like popcorn, a number of remembered happenings have exploded into the thinking of everyone. It would be rare not to have the NAUI Houston Course of 1960 tossed in once or twice.

The territorial animals of SCUBA had gathered at the water hole that week of August 20-26, 1960, in humid and muggy Houston, Texas, at the new state-of-the-art Shamrock Hotel. Jet travel, the Underwater Society of America Convention, and dueling instructor programs coincided to give birth to that fated certification course. Lodging was \$3.50 per night and participants slept in four man rooms. The course cost \$75 and included instruction, tanks, pool, boat trip, and graduation dinner. Course





directors had originally predicted that 25 people would attend the historic course, but diving pioneers came from across North America to learn from the pioneers of diving instruction.



If you had been there you would have seen the Chicago contingent lumbering across the lobby - big guys - Ralph Erickson (who later founded PADI) and Al O'Neil, looking like they'd come to wipe out a rival gang. They outwardly projected the belligerent, you'd-better-be-good attitude toward the course and its instigators that probably stirred within every one of the 72 candidates who had enrolled. This was serious - no fun lark. They had all paid their way there as well

as the \$75 fee, but more importantly, they were risking a lot of themselves and their careers in diving by submitting themselves to measurement of their capacity to be instructors.

Dave Woodward and Eugene Winter, the group from the Northwest, had that indoor paleness that people from that part of America wore like a badge. They seemed prim and proper - pencils sharpened and neatly laid in a row, note-taking books open and at the ready, respectful front row eager beavers. They were the first ones in the classroom every day.

In contrast, the flaky guys from California flashed tans and a partying attitude. They talked easily to course mates from other parts of the country. They talked about movie stars taking up diving, sea lions and kelp and Gambaldi, big "goldfish" in the clear island waters of their coast. They were confident; after all, they had already had a top-of-the-line instructor training program.

The guys from New Orleans were smooth and laid back and silver-tongued charming. They talked about diving in the gulf like they were going to an oyster bar for polite conversation.



Captain Garry Howland, U.S. Air Force, was a chiseled, Lincolnesque kind of guy who would be used as a military poster boy. Later he would emanate a kind of goofy enthusiasm that made him seem more like the captain of a space ship from another planet. But in this course, Howland would zoom to the top and set the standard for everyone who went through a NAUI Instructor Certification Course in the future; he would be the number one graduate of NAUI

Houston.

A U.S. Navy dentist, Joe Bodner, would walk off with best written test score and so the military provided a level of achievement that set the disciplined pace for the existing chaos of civilian diving instruction. See appendix 1 if you want to see a copy of Part I of the written exam.

Florida's water rats were there, but they were more of the steady cracker/bubba types than the slick beach boys. They were dive shop operators like Joe Kingry, and they were privy to a lot

of underwater territory, oceans, sink holes, springs, and caves, but they also had a small town shrewdness.

The Canadians - serious guys, prim and proper types who iron their underwear, showed up with serious intent. They represented a nation and they intended to be equal partners even though Canada's population would probably fit into Houston city limits.

Texas was there - guys from the enterprising Southwest Council of Clubs who already had a formulated instructor program. They were good old boys, drawling and twanging good humor throughout the course and holding their own even if they seemed to speak a foreign language.

Something special had to happen with these divergent forces as they came together - either head on collision of dissension or a tough amalgam forged from sweat, tears, and anguish. Each of these pioneers brought to this place, at this fermenting time, a real desire for a unifying power bred of synergism of knowledge and experience. There were a few confrontations and rebel yells heard, but when the pieces dropped in place at the end of the week, no one could really go away without a feeling of new power; no one would just go back home and do the same old stuff. They were America's first full-blown, nationally certified instructors, and if they were going to have to show any stinkin' badge ala Treasure of Sierra Madre, then it would proudly be the NAUI one. Some didn't make it, only 53 of the 72 enrolled received full or provisional certifications, but those that did knew that they were the best of the best from across North America.

So what are some of the highlights of that Houston course? Perhaps we should step back in time and recall people and programs that gave birth to NAUI and its Houston Course.

The original idea that Neal Hess had planned on was designing the organization as an offshoot from the YMCA program that had been founded in 1958 and implemented in 1959. Hess had suggested in a memo to Tillman on June, 18, 1960, that the Board of Directors would consist of Hess, Tillman, John Jones Jr., Bernie Empleton, Jim Young, Captain Behnke, Cmdr. Bond, Jack Whalen, and Jim Auxier. Empleton and Young were the leaders in the YMCA program and Hess felt their association would be necessary to the success of NAUI. Tillman, Hess and Jones eventually decided that NAUI could stand on its own and use Jones' Broward County program and Tillman's L. A. County program as the foundation for building the NAUI idea. NAUI would also become the official training arm of the Underwater Society of America. Hess had been the Society's Training Director prior to NAUI's founding.

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#### Albert Tillman (NAUI #1)

Albert Tillman is the kind of person that you had to have on your side, those that weren't were usually trampled by his drive to explore new horizons in recreation. The most diplomatic assessment of his personality was stated by Garry Howland in the film Sport Diving: Then and Now when he stated that, "Al Tillman is a very strong and dynamic person." Tillman's work and constant drive - has consistently led to his pioneering work in various areas of recreational management ... he even developed the first university academic program for commercial recreational professionals.



Tillman's career in diving reads like a timeline of the important moments in the sport of diving. He had his first memorable diving experience in 1938 at the age of ten when he first dove into the pristine waters off the pier in Redondo Beach, California. It was this moment that led him into a life-long love affair with the unknown mystery of the underwater world.

Tillman was born in central Los Angeles in 1928, a depression baby. His father was a police captain for MGM studios in its heyday and Al was an avid athlete growing up participating in high school and college sports and wrestling on KTLA television.

His interest in sports brought him into the Los Angeles County Parks Department and he eventually worked his way up to Sports Director, a position that allowed him to instigate what would become the first organized instructor training program in the nation. He was trained as a dive instructor under the tutelage of the famous Connie Limbaugh at Scripps Institute of Oceanography in 1953.

After completing his formal education at the University of Southern California, Tillman went on to receive a professorship at the California State College in Los Angeles in the Department of physical education, recreation and leisure studies and as Chief Diving Officer.

He has written several texts on SCUBA and recreation that became cornerstones of both fields. He was the author of Underwater Recreation, the text that was the foundation of the L.A. County program and served as an editor for both Skin Diver Magazine and Dive Magazine.

Based on his experience with founding and designing the L.A. County program, Tillman, in 1960, became a founding father of NAUI with Neal Hess, John Jones Jr. and Skin Diver Magazine. This led to a decade of service in NAUI leadership.

Tillman also served as a member of the National Scuba and Skin Diving Committee for the YMCA from 1960-1970. His affiliation with the YMCA in various roles has lasted for most of his life and dates back to working as a towel boy in his childhood at the Downtown Los Angeles YMCA.

Female diving pioneer Zale Parry and Tillman worked together to found the International Underwater Film Festivals. Their association has lasted over three decades and still is strong today as coauthors of the book, SCUBA AMERICA and the SCUBA AMERICA Dive History Project, which contains interviews with nearly every diving pioneer in North America. Tillman also co-starred with Dottie Frazier, the first female diving instructor, in the first civilian dive film, Introduction to Skin Diving.

Tillman worked for ZIV television and Ivan Tors as the technical advisor for the original Sea Hunt television series. Tors would send every script to Tillman to have him review the reality of underwater scenes and Tillman would give his opinions on accuracy. Most fans of the series will know that Tors did not always follow Tillman's advice and sacrificed reality for artistic license on numerous occasions.

It was Tillman's association with Tors that led a group of Canadian investors to ask Tillman to discover the feasibility of a diving operation to work in conjunction with a resort in the Bahamas. It was this simple inquiry that allowed Tillman to find the funding to build the first dedicated dive resort in the world, The Underwater Explorers Society (UNEXSO) in Freeport, Grand Bahama Island.

It should also be mentioned that Al Tillman personally certified thousands of divers and instructors over the years as an instructor trainer for NAUI, L.A. Co., NASDS, and the YMCA. In a Sports Illustrated article, writer Coles Phinizy wrote, "It is safe to say that if a gorilla could learn to dive, Al Tillman would be the one that could teach it." Tillman has been recognized for his work in diving having received the NOGI award for Distinguished Service in 1963 and the Reaching Out Award and induction into the Diving Hall of Fame in 1990.

In 1984, Tillman decided to teach for only one quarter per year and moved with his wife, Ruth and son, Tom, to their summer home in the Pacific Northwest. He spent his time off as President of the local Chamber of Commerce and as a legal advisor for the Technical Advisory Service for Attorneys, specializing in aquatics. Tillman finally fully retired as an emeritus Professor from CSULA in 1990 and went on to teach physical education at a small community college in Washington State for several years. He also worked as a management advisor to several athletic clubs in the Northwest following his retirement.

The greatest testament to Tillman's impact on diving is that the organizations that he founded still exist and thrive today. Now living in Anacortes, Washington, in the Pacific Northwest, Tillman is writing several books on a range of subjects, including working with Zale Parry on a comprehensive history of diving. He is the coordinator for a regional rare book and paper show and spends much of his time traveling around the world. He doesn't actively dive anymore, but lives on the water and spends much of his time fishing or catching crab. He is also still a very active athlete and even participated in the World Handball Championships in Ireland in 1994 as a Masters' Division player.

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The Los Angeles County instructor program was the primary template for NAUI. The training skills, much of the basic material, and the tests all flowed out of L.A. County and Al Tillman would be the primary director of the Houston course curriculum. Looking back in 1995, Garry Howland wrote, "(Al Tillman) ... was to become the vital force in the ICC program. He scheduled events, set up challenges and tested candidates every minute in that week-long course." Neal Hess, the Harvard Business School graduate, would manage the logistics, the fiscal aspects, the promotion, the procurement of guest experts and the facilities bookings. John Jones Jr., Broward County, Florida, Underwater Training Director, whose course outlines were so well structured that they became NAUI's foundation course outlines, would be a co-director of the certifying aspects of the Houston Course. Tillman, Hess and Jones were the CEOs of NAUI at that point.

The second most important partner in the founding of NAUI was Skin Diver Magazine and its two owners, Jim Auxier and Chuck Blakeslee. SDM gave great media exposure to L.A. County and gave Neal Hess an opportunity to draw in wannabe instructors from across the country by launching, in March of 1959, a column entitled, "Instructor's Corner." There was a surprising response to it from everywhere. Hess asked, as a matter of course, for outlines to be submitted and started publishing names of those who qualified. Hess, at that point, stood on his position as a Los Angeles County Instructor certified under Tillman's program and his position as training director for the Boston Sea Rovers. It granted an essence of authority by being mentioned and praised in the only significant media communication in diving, and Hess authored the column that guided Instructors across North America. No time could have been more right for NAUI to come into being. SDM was on the verge of moving beyond the breath-holding phase. The manufacturers' advertising was primarily SCUBA, the Clubs were becoming a pressure group and competition was forming in SCUBA magazine publishing. SDM would be the power behind NAUI birth, growth and development. The SDM support provided immediate credibility and served notice that NAUI intended to control instruction in America. Asked in 1995 why Skin Diver Magazine went with NAUI, Chuck Blakeslee said, "We saw a real need for good training in SCUBA diving instruction. We (Jim Auxier) knew that NAUI would be a money loser for us, but we felt that we had a responsibility to our readership. Tillman had a proven system with his Los Angeles County program and we went with his concept of what NAUI should be."

The roles of Tillman and Hess as the two “founding fathers” of NAUI are well accepted. In a 1980’s interview for the film Sport Diving: Then and Now, one of NAUI’s first Board members, Garry Howland, said, “The two of them got together and conceived this concept of having instructors across the country. ...With the enormous energy of Al Tillman and the foresight of Neal Hess, these two men founded instruction as we know it today.”

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#### Broward County and John Jones Jr. (NAUI #2)

The Underwater Diving Committee of the Broward County Aquatic council was under the dedicated and creative guidance of John Jones Jr. He had an amazing ability to preparing written materials that were clear, concise, and easy to follow.

The program in Broward County consisted of four levels of certification: a Junior Frogman Course, a Basic Diving Course, an Advanced Diving Course, and an Underwater Diving Instructor Course. The total number of required hours to move through this path of study was 64 hours of course work.

The pinnacle of this 64 hours of course work was a well designed Instructor Certification Course that had all of the requirements that would become standard practice in the industry. The requirements were as follows:

#### A. Prerequisites for Instructor Course

1. Minimum age 21.
2. Unexpired senior life saving certificate from ARC or YMCA.
3. A SCUBA course certificate from an approved program or satisfactory equivalent.
4. Two years diving experience with SCUBA.
5. Approval of application and payment of course fee.

#### B. Underwater Diving Instructor Course

1. Part I will consist of two 3-hour sessions consisting of written and practical examinations covering swimming and diving skills, water safety and diving knowledge.

2. Part II will consist of a minimum of eighteen hours class time devoted to teaching theory and techniques, teaching outlines, course content and practical teaching. In addition, an ocean test will be scheduled near the end or immediately following the completion of PART II.

#### c. Recertification Requirements

1. Teach a diving course each year.
2. Maintain a current senior life saving certificate.
3. Maintain a current standard first aid certificate.
4. Attend required number of recertification seminars.
5. Maintain high standards of personal conduct and integrity.

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#### NAUI NAME

Many names for the fledgling organization were bounced back and forth in correspondence between Hess, Tillman, Auxier and Jones. Hess’ original plan was for the National Diving Patrol to be the name of the organization. A group by the same name located in Boston and under the direction of Walter Finberg refused to allow Hess to use this name for the organization. Hess then proposed the name National Association of Sport Diving Instructors. Tillman countered with using the term “Underwater Instructors” which was the term that he used when planning the national certification program for L.A. County. In a June 28, 1960, memo, Hess agreed and the

name was adopted. The short form, NAUI, was perfect in an industry where the word Maui brought visions of lush and tropical diving locations.

Jim Auxier and Chuck Blakeslee had a joint conscience about diving. SDM subscribed to a clipping service which cut articles about diving out of newspapers and by 1959 many of these articles were "obituaries" about fathers and sons drowning while SCUBA diving. A magazine called Skin Diver saw that SCUBA had taken over diving and that it was a far more risky way to go underwater. They knew that something like NAUI had to come into being to protect the sport.

They knew about and supported local programs and had been especially supportive of the L.A. County program. But now something had to happen naturally. When asked why they supported Hess and Tillman's concept of NAUI, they said "because we felt we had strong stable people putting it together. Those guys had the courage and foresight, and there just wasn't anything else available."

They didn't feel Mel Fisher's ads at that time - "Teach you to dive in one hour" - were any kind of answer to giving diving a future.

## The Course

At the Houston course, four man teams were set up with a group leader assigned (see roster). This was an L.A. County device to pull and nurture leadership from the participating pack. It augmented the small staff and served as a liaison between those in charge and the candidates.

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The National Association of Underwater Instructors.

First ICC - Houston, TX - August 26, 1960

Roster of Instructors and Students

Students	Hometown	Assigned team	
Edward D. Ezekiel	Redwood City, CA	Team A*	passed
Richard DeYoung	San Francisco, CA	Team A	
Frank Liberatore	Farmingdale, NY	Team A	
Thomas McGee	Redwood City, CA	Team A	passed
Samuel Pick	Spokane, WA	Team B	passed
Richard Kimball	Harlington, TX	Team B*	passed
Bob Hollingsworth	Amarillo, TX	Team B	passed
Richard Rogers	LaJolla, CA	Team B	passed
Ray Pelle	Louisville, KY	Team C	passed
David Laskey	Ontario, Canada	Team C	passed
William Gebhart	Kent, OH	Team C	passed
Ralph Poplar	Kansas City, Missouri	Team C*	passed
David Woodward	Spokane, WA	Team D	passed
Richard Case	Tucson, AZ	Team D	
Garrald Howland	Biloxi, Miss	Team D*	passed
Don Santesson	Puerto Rico	Team D	
Richard Brown	Oak Lawn, Ill	Team E	passed
Albert O'Neil	Chicago, Ill	Team E	passed

D. R. Tussey	Dayton, OH	Team E	passed
Ralph Erickson	Chicago, Ill	Team E*	passed
Chuck Griswold	Seattle, WA	Team F	passed
A. R. Miser	San Jose, CA	Team F	passed
Jerry Dzindzeleta	Racine, Wisconsin	Team F*	passed
Arthur Cresse	Ft. Lauderdale, FL	Team F	passed
Crew Schmitt	Phoenix, AZ	Team G	
Don Evans	St. Clair, Mich.	Team G	passed
Luther Swift, III	Houston, TX	Team G*	passed
Edward Bell	San Marcos, TX	Team H	passed
Richard Long	San Jose, CA	Team H	passed
Jerry Stugen	San Jose, CA	Team H*	
Donald Bloye	New York, NY	Team H	passed
James Drew Jr.	West Palm Beach, FL	Team I*	passed
Donnie Weeks	Lubbock, TX	Team I	passed
Eugene Winter	College Place, WA	Team I	passed
Charles McAughan	Sun Valley, CA	Team I	
Ted Eckhart	Hulmeville, Penn.	Team J	passed
Charles Grogan	Levittown, PA	Team J*	
James Blackmore	Massena, NY	Team J	passed
Erwin Hutchins	Massena, NY	Team J	passed
Robert Smith	Austin, TX	Team K*	passed
Charles Carroll	Helena, Montana	Team K	passed
Eugene McDonald	Pensacola, FL	Team K	passed
Dr. Joseph Bodner	Bradford, Conn.	Team L	passed
Robert Michaelis	Sioux City, Iowa	Team L	
Russell Jacobs	Brookfield, Maryland	Team L*	passed
Joseph Dorsey	Baltimore, Maryland	Team L	passed
Richard Chamberland	Omaha, Nebraska	Team M	passed
Bruce Bradshaw	Orlando, FL.	Team M*	passed
Richard White	Orlando, FL	Team M	
Joe Kingry	Pensacola, FL	Team M	passed
Edwin Townsend	Long Island, NY	Team N*	passed
Clinton Christianson	Minneapolis, Minn	Team N	
James Chambers	Kenosha, Wisc.	Team N	passed
William Hyatt	Orlando, FL	Team N	passed
Jack Howard	Richmond, Mich	Team O*	passed
Thomas McDonald	Arlington, Virginia	Team O	passed
Jack Rudder	Lake Jackson, TX	Team O	passed
James Canady	Austin, TX	Team O	passed
David VanBuskirk	Freeport, TX	Team P	
Lewis Williams	Valparaiso, FL	Team P*	
Herbert Ingraham	Ancaster, Ontario	Team P	passed
Bob Staunton Jr.	Seattle, WA	Team P	passed
John Milne	Vancouver, B.C.	Team Q*	passed
Don Beer	Amarillo, TX	Team Q	passed
Richard Doehring	Houston, TX	Team Q	passed

John McGuire  
\* designates team leaders

Galena Park, TX

Team Q

**Instructors**

Neal Hess  
Prof. Albert Tillman  
John Jones Jr.  
Capt. A.R. Behnke Jr.  
Hal Lattimore  
Cmdr. George Bond  
Dr. Andreas Rechnitzer  
Harry Vetter

**subjects taught**

Introduction, Search Patterns, Pool Work  
Teaching Techniques, Ocean Tests, Written Test  
Life saving, CPR  
Medical Aspects  
Legal Aspects  
Physics  
Marine Biology, Oceanography, Graduation Speech  
Equipment

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One of the assigned leaders was Ralph Erickson, a really big Swede who looked as if he should have the nick name of King Kong and represent the pro wrestlers union. Ralph approached as if he were going to mug you but it was a facade over a nice, bright, serious persona. On the second day of the course, however, Ralph bulked up at the lunch table to complain to Neil Hess that there was too much time pressure to meet all the assignments the course seemed to require. He was representing his team's Chicago divers, including Al O'Neil, a big Irishman who personified clout and who was an instigator of turmoil through others. Erickson had courage and he could be soft spoken but with a cutting edge. He'd just picked the wrong time and place to have his say. Tillman, at that point, decided that the course was for real and he wouldn't be satisfied with a diva role, nor be a figurehead. He figuratively stepped in front of Hess and took the bullet. "Wrong time, wrong place to discuss this", Tillman told Erickson, drawing a line in the dirt; the guys who were running this course were not going to be intimidated. They had a track record in diving to stand on. There was a physical air to this encounter and course candidates at surrounding tables were watching with great attention. Perhaps it was a test, but it did allow course administrators a chance to publicly assert their full intention to run the course as they saw it and the inmates would not be allowed to take over the asylum.

There was the pressure of time for everyone. The staff found little time to sleep and the candidates were really hard-pressed to get their assignments ready on time, especially the oral presentations. Many couldn't sleep, even if they found a moment to try. It was just too exciting being part of a pioneer effort and hunkering down with many of the best divers in America.

Those who came under prepared and hadn't done their reading really had to scramble. They sought out the gurus, the guys who had a lot of knowledge and experience, and drained information out of them. Ray Tussey was a good example: ex UDT, handsome, smart, an athlete, a role model and willing to help others less endowed. Candidates wolfed down notes wherever they could. A candid photo of very-proper Herb Ingraham from Toronto - the kind of Canadian-English type you would expect to say, "toodle-oo" when he leaves - caught him enthroned on the toilet pouring over notes. Many did the same; boning up while brushing teeth was routine. It paid off for Herb, who became NAUI # 37.

It wasn't just the candidates who were scared about meeting the challenge. The staff wasn't all that sure of themselves, either. After all, who had ordained them to create the universe? Al Tillman had the whole L.A. County system as his creation to lean on, but he knew he had to do more than shuffle papers and talk fast. "Yeah, but what can he do in the water?" was surely the thinking.



Tillman chose the newly introduced mouth-to-mouth resuscitation on a diver's float which in those days was an auto inner tube. He had devised the method with the new artificial respiration technique for divers to use for towing a victim back to boat or shore. It was showcased as a main event at the Race for Life contest at the Big L.A. Sportsman Show. Two women were lined up from local university swim teams and diving instructors raced against the clock in making the rescue, replete with drum rolls, spot lights and an excited announcer. Two shows a day for the 10 day run of the show got the skill perfected for use in classes.

Tillman was sweating some in the Texas heat as he slid into the outdoor pool which was shaped like a shamrock. But he didn't count on the Irish symbol of luck to get him through; he'd practiced this tube rescue over and over again before coming to Houston. Every possible thing that could go wrong was rehearsed into the practice. As a college professor, he knew you'd better be ready to get shot down if you weren't way ahead of the students and hadn't had a lot of hands-on exposure to a skill you were going to teach. The future NAUI instructors hadn't seen this one before and it's very newness caught their fancy. They would go back home with a brand new skill to teach. It was the case of a skill that really worked and which a learner could experience immediate success. Tillman knew from experience that he'd picked well and that the candidates had something to look at besides a guy in a suit acting like he was in charge.

Andy Rechnitzer was good. He was NAUI's official scientist-oceanographer as well as a talented guest lecturer. He had played the same role with the L.A. County program in the 50's. Oceanography, everything one ought to know about water conditions, bottom geology, and marine creatures had become a cornerstone of diver training and no one anchored it in better than Rechnitzer. He had command of the podium and looked lean and chiseled and ready to physically dive into any situation.

Andy was no textbook diving scientist. His ears were wet all the time and he not only made the final course boat dive off the Flower Gardens in the Gulf but brought back some unusual coral whips to take back to his home base, Scripps Institute of Oceanography. So how do you get a bunch of three-foot gamy specimens home from Houston? You put them in your lap in a jet airplane and hope to charm the stewardesses. That jet probably still smells like the bottom side of a pier at low tide.

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Andreas Rechnitzer, Ph.D. (NAUI #57)

Andy was a close friend and colleague of the famous Conrad Limbaugh. These two men are the originators of a few diving traditions that have become a great part of the diving world. The "ditch and don" technique and the "buddy system" are two of the lasting contributions that can be found in diving instruction world wide and were the brain child of these two scientists. They can also be thanked for the controversial, although common, practice of harassing students in the name of "psychological preparation" for the dangers of diving ... I am sure many OW1 students have thought fondly of such a practice when their masks were ripped off during a pool dive.

The vital contributions made by Rechnitzer over the years to diving will always stand out. He was the first American to reach a depth of 18,500 feet and won the U.S. Navy's Distinguished Civilian Service Awards (presented by President Eisenhower) for leading an expedition resulting in a 38,800 foot dive in the Marianas Trench.

Rechnitzer is also an accomplished scientific explorer. Among his adventures was the verification of the wreck of the U.S.S. Monitor. He also was a founding member of CEDAM and served as its president for several years.

He has been a dedicated member of NAUI for its entire existence and has served longer than any individual on the Board of Advisors. He has been recognized countless times for his contributions and is a two time winner of the NOGI Award.

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John Jones Jr. was the kind of a southern good ole boy you'd expect to meet at a small country store off a Tennessee highway. He was a smart and efficient organizer. He could put stuff on paper and have it make sense. He produced NAUI's official course outlines and that was only one of his main contributions at NAUI Houston.

John could drawl with the best of the southern U.S. down home guys and did a lot to pacify some of the restless and outspoken attempts to verbally have a shootout at the O.K. Corral with lecturers and staff. John wouldn't like to be called a father figure at the Houston course, but he was the best at talking away dissension among the troops. It also helped that he wasn't another hot shot Californian but pure south and out of Broward County, Florida - a long way from L.A. County.

The bailout was the final testing exercise. The ultimate challenge at that point in time, it was still new enough that some of the candidates had not done it before. It represented just how at ease with equipment underwater a person could be. So at the Shamrock pool on Thursday afternoon, no one had practiced the routine to a point where it was just too easy for them, and, eventually, the bailout version in open water replaced it.

The usual panic ensued and the old experienced diving instructors were busy explaining, encouraging, and tutoring their roommates in the techniques of the test. More than any of the material used at that course, the bailout test got the most questioning. "Well, hell, that ain't any skill you use underwater. What fool would get himself in such a predicament" paraphrases all the grumbling. Painstakingly, over and over, the staff patiently defended the bailout. Funny how those who criticized it, but got through it with high marks, stopped being critics.

George Bond was a bear of a man not entirely comfortable in the full dress uniform of a U.S. Navy Commander. A gruff macho giant, he had been a country doctor before developing much of the Navy's submarine escape technology.

His storytelling in a deep, common-man articulation impressed the candidate instructors. Here was a real-life, American hero-type who physically did his own experiments with a deep, full ascent. He was an example of a perfect figurehead expert which lent NAUI its aura of authority. He, probably more than any other - even more than Cousteau, was a major foundation block on which for NAUI to build.

Albert Behnke Jr. was a legend in 1960 - a kindly, rugged, soft spoken, godfather figure of diving medicine. He had to oversee the medical aspects of the U.S.S. Squallus rescue in 1937 and was the authentic backbone of much of U.S. Navy developed knowledge about underwater warfare and survival. He was also a key member of the team that founded the Naval Medical Research Center in Bethesda, Maryland. He, along with Bond, were bigger than life figures and the Navy diving activities were the birthing arena of what would transfer to civilian life and become a major American outdoor sport. The two of them provided the tone of authority and credibility for that Houston Course. Medical aspects were the scary and intellectually mystifying core of why diving needed well-trained instructors.

Hal Lattimore was a brash, diving, Texas lawyer who was signed up to talk about legal liability in diving to the instructor candidates. It was an excellent hip pocket course all by itself and worth the price of admission. Lattimore was confident and the perfect storyteller. His classic cases of people being sued are remembered to this day by graduates of NAUI Houston. One case was of a man causing a bear to roll garbage cans into a campsite which resulted in a miscarriage

in a pregnant woman, and terms like "proximate cause" roll off the tongues of that course's graduates (with some referral to notes). The legal side of instructing is one of the areas that didn't get the coverage in the years to follow at NAUI courses and certainly would not be done as well as those two hours in 1960.

Not all the memories of NAUI Houston were positive. Donnie Weeks, still a NAUI instructor in Texas, thinks ordinary divers today exceed the 1960 candidates at Houston, "A lot of those guys just weren't prepared, hadn't done much diving or read anything." Donnie, an infantile paralysis poster boy in his youth, may have been the first physically challenged, handicapped person any of those divers in 1960 had ever seen. Donnie probably has a right to downgrade the quality of those pioneer NAUI instructors based on his own preparedness and conscientious effort during the course, and graduation as NAUI #17.

One of diving instructions most controversial issues was whether students should be harassed to determine their resourcefulness and instant reactions to emergency situations. Things like flooding masks and turning off tank air were the ways some instructors set up their boot camp mentality reputations as tough course operators. Some instructors encouraged "horseplay" - students doing dirty tricks to each other such as pulling a weight belt release, and many students hated those instructors for taking up formal course time with it. But those same students were also grateful for that class harassment later on in unexpected situations during which they were able to cope.

At NAUI Houston, there seemed to be an equal split of opinions on this matter. NAUI took a stand by not incorporating this loose emergency training into the Houston Curriculum. What everyone has always agreed about is that it is more fun being harasser than harassee.

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Al Tillman on NAUI Houston:

"We were really proud of the L.A. County program by 1960 and I was ready for a new challenge. My regard for Jim Auxier and Chuck Blakeslee and Skin Diver Magazine made it easy for me to go along with the idea of the national training program that they were supporting. Neal Hess hustled together the logistics for the NAUI Houston course and brought me and John Jones Jr. together. Credit Hess for the smarts to put New England, Florida and Southern California representatives in charge. Those regions were diving population hot spots.

The course itself was pretty old hat for me after the L.A. County UICC's, but I was impressed with the big names on the guest staff, the diversity of personalities and regional differences among the candidates, and the feeling that we were taking a very serious step in establishing how diving would be taught in the future. What bothered me, coming from a public service background, was the lurking commercial interests that were moving into instruction."

Bill High on NAUI Houston:

"I was the Underwater Society of America Director of Conservation and enrolled in the NAUI Houston course. I went to the course for three days but the government called me back home on a job emergency. I felt the newness, the excitement, that this was a major breakthrough in diving."

Garry Howland on NAUI Houston reprinted in part of an article by Howland in the July/August, 1995 Sources Magazine:

"Some 70 students arrived in time for the beginning of the week-long program. I arrived in Houston Tuesday night, while most of the candidates came in Friday. They were assigned to

teams, given room assignments and a schedule for the program. We had been asked to bring our library to have available for study just as if there was going to be any spare time to read.

There was plenty of water work in the large hotel pool, with attendees role playing as individual divers, as diving students and as an instructors - heavy on the instructor part. The highlight of the diver portion was the famous NAUI bailout off the pool diving board into the deep end. As was the practice, you were to take all your dive equipment in your arms and leap into the water. That was to include your weight belt, if you wore one. In those days, as now, I seldom wear a weight belt, so I went in without one. Those who wore 10 and 20-pound weight belts cried foul because you had to tread water for 15 minutes after the bailout and recovery. They were dying, trying to stay on the surface without vests. So at the end of the exercise they insisted that I do the bailout over again to show I could do it with a weight belt. Piece of cake.

I had been diving for a long time before coming to Houston and had graduated from the U.S. Navy Underwater Swimmers School, awarded Diving Supervisor rating with a Gold Graduate certificate (Honor graduate). I was the Training Director for the State of Mississippi Council of Skin and Scuba Diving Clubs. On the Mississippi coast, I had helped start five dive clubs in as many cities and helped to keep them going before going to Houston. I worked with Walter Fineberg of the Boston Sea Rovers in writing an instructor's manual and I had written the regulations for the Air Force regarding the use of recreational SCUBA equipment. All this meant Houston became a real fun week.

The classroom work was top notch. Dr. Bond taught diving medicine, Dr. Benke taught dive tables, and Dr. Rechnitzer told us everything he knew about diving. Then Andy showed us "how" by finding and recovering a six foot Navy anchor during the open water work. It was a neat trick. After he found it, he needed a lift bag to get it to the surface, of course. On the bottom he talked me out of my U.S. Navy yoke type dive vest, which he tied off to the anchor; filling it with air brought the anchor to the surface. We towed the whole rig to the dive boat along with several sea fans he just had to have for study in his work. Back on the beach, Andy tied that anchor to the front bumper of his Volkswagen beetle and headed home.

At the graduation party at week's end, I put a Texas fifth (gallon) of whiskey in the middle of the table. Bond was sitting at this table and when he departed to the men's room, he picked that bottle up and took it with him. He planned to have that bottle at the end of the evening and was not going to let it out of his sight ; he didn't.

It was a long week, with long hours, long into the night - sometimes past midnight. Everyone worked very hard to succeed. A common purpose, team work, hard work and excellent leadership made the program successful - to form the core for what NAUI has become. NAUI came into existence on the basis of old-fashioned principles intended to have ladies and gentlemen serving ladies and gentlemen. We were guided by men of education from Boston, New Haven, Los Angeles, Biloxi and Fort Lauderdale who made up a good cross-section of diving in America. Subsequently, being advised by divers from around the world rounded out a great organization.

The highlight of the week for me was all the people that I met and the friendships I made that have lasted a lifetime - and being selected for the Board of Directors. The NAUI Founding Board of Directors were Joe Bodner #9, Neal Hess, John Jones #2 , Al Tillman #1 , and myself. "

John C. Jones Jr. on NAUI Houston: From an interview in the early 1970's

"Our program in Broward County ran parallel to the L.A. County program during the 1950's and there was a lot of reciprocal correspondence between Al Tillman and myself. At Houston, it was very good to meet and work with Al and put our two programs together to create the new NAUI concept. We debated a lot of things but we were always friends."

NAUI Houston did adopt the YMCA physical fitness test which included chin ups, pushups, and mile runs as part of instructor qualifying requirements. L.A. County never used it, but relied on swim and watermanship tests. There was a lot of grumbling about it being irrelevant, especially from guys who just weren't in shape to do it. It was a controversial issue, but those who got through it became big supporters.

Jerry Dzindzeleta, NAUI #5, in a letter looking back on the Houston course, wrote, "I think the greatest satisfaction was to have known, and in following years to have worked with, the men who conceived, labored, and succeeded in bringing into reality the first nationwide organization devoted solely to training of skin and SCUBA diving, The National Association of Underwater Instructors. In specific, those men whose skill and organizational knowledge made NAUI happen, Mr. Neal Hess and Mr. Al Tillman." The fresh water instruction outline that would become the standard for NAUI was created by Dzindzeleta. The salt water equivalent was created by Frank Scalli of the Boston Sea Rovers.

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The best Frank Scalli story that floats around was related to us by Joseph Libby Jr. in 1974. "Buster Crabbe (the infamous Tarzan) at a NAUI course led the pack in the water swim, was overtaken on the mile run by diminutive Frank Scalli, who promptly came out with 'what's the matter, Tarzan, can't keep up?' According to Libby, Crabbe replied: "If I could have caught the little SOB I'd have cheerfully strangled him"

One of the other great Scalli stories was told by Walter O'Neill. Apparently Scalli was startled during a pool lesson when one of the female students handed him her falsies.

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During the year to follow Houston, NAUI was basically on hold until the courses in Chicago, Toronto and Ft. Lauderdale. Neal Hess was wooing the manufacturers and trying to solidify NAUI as the training arm of the U.S.A. against formidable opposition.

Fred Calhoun, from the Northeast, in an abrupt, no-nonsense manner, was ruffling feathers in the Underwater Society of America. Calhoun's outlines for instruction were comprehensive and effective but probably ahead of their time. The Society was trying to bring together diving councils of clubs run by local politician types who were more into promoting the interests of home constituency than creating a meaningful directive force to unify all diving interests. Fierce pride in the superiority of the regional instruction programs springing up overnight kept the Society from moving strongly into instruction coordination.

Probably the importance of this allowed NAUI to move ahead, not bog down for the most part with politics. One problem that never quite got resolved in the early days was whether NAUI would be the ultimate high standard of certification or establish a minimum standard to meet for all instruction. Local programs in the YMCA and L.A. County went ahead with what they had and in some cases the instruction quantity and quality exceeded what NAUI required. The NAUI founders never intended to eliminate the high-level local programs and, in fact, encouraged the elite programs to reach beyond the minimum.

NAUI, as an ego thing with its leaders, found itself motivated beyond the minimum caretaker role and leaned toward being the best program in instructor certification. Some confusion always seemed to exist, ... do numbers getting bigger mean "best"? This would be an important influence on NAUI's growth and development from this point.

## WHAT HAPPENED AFTER HOUSTON

NAUI, in its first year following the Houston course, faced an inevitable leadership crises. Al Tillman and John C. Jones, career professionals with Los Angeles County Parks and Recreation and the American Red Cross, respectively, were strongly behind the idea that instruction in diving should maintain a public service and non-profit orientation. The original incorporation papers (signed by Tillman and Hess as president and secretary, respectively) that were filed with the state of California to form NAUI defined the organization's mission along those lines (see insert). Neal Hess's, on the other hand, graduate of the Harvard Business School, saw NAUI as a business venture and solicited backing from diving equipment manufacturers. The first post-Houston Board of Directors consisted of Tillman, Hess, Jones, Auxier, James Cahill, and Garry Howland. A separate Board of Advisors was also formed to involve experts in NAUI operations and add name credibility to the Association. The first members of the Board of Advisors were Capt. A. R. Behnke Jr., Cmdr. George Bond, Capt. Jacques-Yves Cousteau, and Dr. Andreas Rechnitzer.

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The articles of incorporation for NAUI stated that the organization was nonprofit and that "the primary purpose of this corporation is to promote and encourage through purposeful activity the education and training of the general public in the safety and techniques of participating in underwater activities."

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The issue from the very start was whether instruction was a moral obligation to be assumed or another commercial product from which to derive profit. It is perhaps so in all sports, but risk activities place an added responsibility on those who promote it and derive financial reward from it.

There was no wrong or right on this issue. There was the opportunity to fuse both concepts and that was what finally came to pass. But in these frontier years, the early 60's, there were narrow minded, territorial power struggles going on and the field sought control by strong advocacy of one side or the other of the instruction issue.

Skin Diver Magazine was caught in converging tides, pressured from all sides, manufacturers, dive shops, the clubs and independent instructors. Auxier and Blakeslee had to look at both advertising revenues and subscriptions to survive; but they didn't roll over. Instead they shifted even more support to NAUI as 1961 passed. The Instructors Corner was published for a final time in January of 1961 and the NAUI Page took over.

Hess had consigned the next NAUI course to Ralph Poplar in Kansas City, Missouri. Poplar had been the apparent active instructor there and had gone through the 1960 Houston Course with good results. Somehow the rapport between Poplar and Hess took a wrong turn and Poplar began a letter writing campaign criticizing Hess for failing to provide adequate guidance for running the course and pursuing his (Hess') personal monetary gains. Hess claimed Poplar just hadn't done the job and with only light sign ups, the course was simply canceled. Garry Howland, who was to be the key assistant to Poplar on the course said that Poplar never communicated with him and he had no idea what was going on.

Due to the pressure exerted by Poplar, Jim Auxier had Hess release NAUI's financial records for 1960 and many questions arose. Course fees for the Houston course raised \$4,950 for NAUI and Hess had raised \$1,800 from manufacturers, \$800 of which was supposedly refunded. Out of these funds Hess had paid himself \$900 as a salary and covered all of his own expenses. All

of the other instructors combined, including Jones and Tillman, received a total of \$1,744.95, which included all expenses, including those of Hess.

Hess recovered from this sufficiently and set up three courses for the summer of 1961, one in Toronto, one in Chicago, and one in Ft. Lauderdale. The Toronto course would be Canadian controlled primarily by Ben Davis who was a powerful force in the Underwater Society of America and considered by many to be the patriarch of diving in Canada. His involvement would help insure that NAUI would be recognized as the official training of the Society and get an early foothold in the Canadian diving scene.

The Toronto course, with 27 students, was held at the University of Toronto and was the first course for diving instruction held in Canada. The legal sponsor of the Toronto course was The Underwater Club of Canada (NAUI was only incorporated in the United States at this point). The Ontario Underwater Council and the Etobicoke Underwater Club also joined in as unofficial sponsors. Ben Davis was awarded NAUI #101 (numbers 1-100 were reserved for U.S. instructors). In a 1995 article, Larry Burden Jr., NAUI #5251 (his father was in the Toronto course and was NAUI #127), discussed that first Canadian course with Ben Davis, who is still active with NAUI at the age of 70. Davis recalled, "most of the participants were pretty strong swimmers and we threw some things at them then that we sure wouldn't today. The participants had to tread water for 15 minutes with their weights on and they had to show us that they could breathe off of tanks without a double hose regulator, that is, with no regulator at all, since single-hose units were not yet available."

The Toronto course also had its own Board of Directors. Members of this Board were Bruce Babcock, George Burt, Ben Davis, Ed Day, Herb Ingraham, Ken Lynn, and Bob Smith. This group of divers represented the management of the sponsoring Canadian organizations and loaned authority to NAUI in the local diving communities. Teachers at the course included Dr. Ed Lanpier, Neal Hess, Jerry Dzindzeleta, Ray Tussey, Al O'Neill, Cressy McCatty, Prof. Roger Dean, David Anderson, and Ben Davis. Only 22 of the 38 candidates were certified as NAUI instructors and eight received provisional certifications.

Ralph Erickson was the force to reckon with in Chicago and had done well as a graduate of the Houston course; he would be the local director in charge with Hess and Tillman as standby consultants and administrative staff. John Jones Jr. would head up the hometown Ft. Lauderdale course and bring the big□□□Ý diving population center of Florida face to face with the emerging NAUI.

Hess was setting the scene for the NAUI invasion of New England, which already had a strong instruction program history through the YMCA and the Boston Sea Rovers. Hess went for Jim Cahill, probably the strongest commercial force on the East Coast and a lovable, likable man. Cahill accepted a position on the NAUI Board of Directors. Ben Davis would also go on the Board which at this point in February, 1961, was made up of Tillman, Hess, Jones, Howland, Bodner, Cahill and Davis. But no Board of Directors meeting was held at this point and none would take place until 1962.

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Jim Cahill

No one could be more Irish American, charming, or New England bright than Jim Cahill. The principal figure in New England Divers Co., the East Coast power house distributor for the industry, he dictated a lot of procedures for the manufacturers. He was a former frogman officer in the U.S. Navy during World War II and a fabulous story teller. He was the kind of instructor everybody wants to have and he brought New England's power figures in diving instruction into

NAUI. He was a role model personality and extremely popular member of the NAUI Board of Directors during his tenure from 1962 to 1966.

He ran the 1962 Gloucester-Swampscott course in a friendly, tough way with a top of the field staff. It was a showcase NAUI course and anchored NAUI's wide acceptance in the early days.

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The manufacturers finally did come up with some support, but no records exist to show that anything more than SCUBA equipment was supplied for the staff. Hess kept a tight, close cover on all these negotiations.

The Chicago course was running concurrently with the Toronto course. Hess moved between the two with Tillman serving as the chief overseer in Chicago during the August 6-12 course. The course was held at the Glenview Naval Air Station and most of the 30 candidates felt the facilities were adequate if spartan. One of the highlights was the legendary physical educator Thomas Cureton, barrel chest and all stepping into the pool with only a bathing suit, nonchalantly controlling his buoyancy, and walking the length of the pool underwater, which left everyone there in awe. This was fresh-water country, Lake Michigan, and there was new information such as learning what a sershe (waves created by winds across a lake) is, and Limmology, the fresh water counterpart of oceanography.

Registration day was Sunday, August 6th and the candidates arrived at Barracks 26 of Glenview. Candidates and teachers alike shared the same quarters with the exception of NAUI's first female candidate, Nancy Gill, who stayed in the wave housing. The course was officially opened at 8 am by a speech by Hess. The Chicago course trainers included: Hess (physics of diving), Tillman (teaching techniques), Dr. Walter Kirker (medicine), Hal Lattimore (legal aspects), Donald McNaught (sea life), Ralph Erickson and Jerry Dzindzeleta (pool work), Al O'Neil (equipment) and fitness expert and diving author Bill Barada. The week's course work lasted from 8 am to 9:30 pm with three hours of breaks during that time.

The first female NAUI instructor, Nancy Gill (NAUI #92), graduated with the class. Only 24 of the 30 candidates were certified as NAUI instructors. The open water check out was in George Tobeman's Racine Aqualand Quarry, 60 miles north of Chicago. Local Jerry Dzindzeleta, who served on the staff, a Hess favorite from the days of mailing in course outlines to the Instructor's Corner, did a good job despite being treated rather cavalierly in the Chicago group.

One of the great stories is about graduate Hal Edick from the little logging town of Brookings, Oregon. Hal got more than his certificate as an instructor, he learned how to survive, barely, in a big city and he and Nancy Gill were an affectionate sweet twosome as a result of meeting during the course.

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Hal Edick

Hal Edick had never seen a big city before and going to the NAUI course took a bit of courage. Hal got to Chicago a few days early. He went down to swim in Lake Michigan and lost some clothes. When he went into a bar to get a drink and break a \$50 bill, the guy next to him grabbed the change and ran out the door. Looking for the suspect, Hal looked down an alley to see a man shooting at someone, then turn and point the gun at Hal - who ran, of course, almost all the way back to his room at the YMCA. But on his way he met his first transvestites at Washington Park. After this adventure the NAUI course itself was a cake walk.

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Hess and Tillman joined Garry Howland, Joe Bodner and John Jones at the Ft. Lauderdale course the next week. An out-of-season luxury hotel, the Galt Ocean Mile Hotel, was the site and



Ft. Lauderdale was magnificent in 1961, quiet and relaxing, a lush tropical paradise, quite a contrast to the sparse diving landscape of Chicago. Rooms were \$3.50 per night with a four person occupancy. Among the 39 candidates who enrolled, two were women.

Hess had made an error in trying to keep control by a kind of secret negotiations approach; he hadn't bothered to consult Tillman or Jones on what was really going on. They were the point of authority that was the foundation of NAUI in those years of infancy and Hess was fueling NAUI's growth and development with the respect of the programs that those two gentlemen had founded. In Skin Diver Magazine's NAUI Page, Hess would even write, "There is no question in my mind but that he (Tillman) is the cornerstone to safe diving in the United States via his work with Los Angeles County, the YMCA and NAUI." Hess didn't arrive from Toronto until the end of the course and meanwhile Tillman and Jones, along with Howland and Bodner, had a lot of time to discuss things. Notes were compared on Hess and a lot of questions arose on just what Hess was trying to personally build for himself with NAUI. Hess walked into some heavy dissension. He gave out equipment donated by manufacturers to try and woo the four Board members into his camp. It almost worked.

A late 1961 course was added to be held in Seattle, WA. The Seattle NAUI ICC was held in cooperation with the Washington Council of Skin Diving Clubs, Inc. and was held September 10 through 16, 1961. Graduates received certifications by both agencies. Housing was made available at the University of Washington for \$2.50 per day and tuition still remained \$75.00. Eugene Winters was the head instructor trainer with help from Bob Sheats, Dr. Shaw from the U.S. Navy, Dr. Fleming from the Oceanography Dept. at the University of Washington and Bill High. Al Tillman, assisted by Dave Woodward and Eugene Winters taught teaching practices and techniques and represented NAUI headquarters.

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Bill High (NAUI #175)

Some have proposed that Bill High's veins pulse with sea water instead of blood. The son of a Coast Guardsman, High was always close to the water. He learned to make a friend of the sea and spent childhood and adolescence as an avid fisherman.

His love of fishing led to his becoming an expert in fish. He attended the University of Washington and studied at their School of Fisheries. The avid fisherman became a fish expert and in doing so, took on skin diving as a tool to his studies.

When two fellow students exposed High to SCUBA in 1955, he was prepared and readily accepted this new tool for the study of fish. The professors were not so keen on this new "fun" toy that preoccupied the students, but High continued his support of SCUBA long after the two other students left the university. His chance finally came to prove the value of SCUBA when the Bureau of Fisheries provided him with an Aqua-Lung and a leaky dry suit and set him to work studying electrocuted salmon off river bottoms near a guide wire meant to help guide the salmon upstream.

Once the project came to a close, High went back to skin diving and became an avid spear fisher with the Puget Sound Mudsharks. He had now proved himself as an accomplished leader and was elected President of the Northwest Council of Diving Clubs in 1959. As president he was sent to the Underwater Society of America meeting in New Orleans in 1959 and also attended all of the Society's conventions as a delegate through 1970.

His contributions to the field of science are legend. In 1970 he was the senior scientist and crew chief for Tektite II, a 60 day saturation diving experience for him. High went on to serve as a senior scientist for NOAA of Hydro-Lab in 1971 and Flare Edal Lab in 1972. NOAA appointed

High the National Diving Coordinator for two years. All this time he maintained NAUI as the Northwest power house and was recognized by succeeding Glen Egstrom as president of the association in 1975.

High is still a vital force in diving. He is recognized as one of the foremost experts in SCUBA tank inspecting and certification having founded PSI Inc., and continues to train divers in the proper procedures for inspecting tanks (his company has trained over 3,000 qualified inspectors). He still lives in Seattle and probably still has sea water coursing through his veins. It is also of interest to note that other pioneer divers have discovered the draw of the Northwest ; Al Tillman, E. R. Cross, Dennis Graver, and many others can be found lurking in the rainy shadow of the Cascade Mountains.

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Graduation ceremonies were held at the Hub on the University of Washington campus and the outstanding students were Dr. Richard Koch (who tested with the highest scores), Frank Baker and Bill High. Only 13 of the 21 candidates received NAUI instructor status.

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Bill High recalls the 1961 Seattle Course:

"I was the only person to ever be the course director and an instructor candidate at the same time. I graduated number one from the course. Captain Dusty Rhodes (NAUI #176) was in the course and is still in Thailand running NAUI classes. Dr. Behnke was on the staff. Chuck Petersen, one of the great underwater photographers and Mac Thompson , who designed the Pisces deep submersible were enrolled. We did a 30 ft. bailout off Alki Point."

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Following the 1961 series of courses, Hess and Tillman, who both lived in Los Angeles were more or less the powering force at this point. On the drawing board were two courses, one in Gloucester, Mass. and one in Los Angeles, a direct assault on the two major strongholds of sophisticated diving instructor programs.

At this point NAUI decided to break its affiliation with the Underwater Society of America. Tillman and Howland had stopped in New Orleans on the way to Los Angeles. Tillman recalls that he attended a Society meeting and formally announced that NAUI was breaking away from its role as the "official" training arm of the Society but that the Association would still work with them on an unofficial basis.

There are different versions on the relationship between NAUI and the Underwater Society of America. It should be pointed out that the Society was really born at Houston also in 1960 with its first full-fledged convention. Struggling to bring together a variety of personalities and geographical concepts, it was easier for them to recognize NAUI as its training arm, but NAUI would operate autonomously. Howland recalls that he was appointed Director of Training for the Society for three years and operated out of Biloxi, Mississippi. High recalls that NAUI did become the "official" training arm of the Society but that there wasn't any hands on connection. Other sources involved in both organizations report that the Society saw NAUI as better organized than they were at that point in time and felt it better to use their energy for other aspects of diving while supporting the NAUI operation. The whole relationship has been misunderstood for decades. As late as 1978, according to articles in NAUI News, some NAUI members and leadership were under the misconception that NAUI was still the "official training arm" of the Society.

Hess and Tillman were now dueling over what exactly the NAUI mission was and how much of the previous criticism of Hess' efforts to personally deal with the manufacturers perhaps needed to be questioned. The debate went before Skin Diver Magazine's Jim Auxier, who still held the power to promote and keep NAUI alive. Somebody had to go and Skin Diver Magazine went along with Al Tillman's version of what NAUI should be.

Hess had done most of the hustling to put the NAUI courses together up until this point, but many questionable practices and allowances were uncovered. In a formal letter to Al Tillman, dated October 20, 1961, Hess resigned all affiliations with NAUI citing "business pressures". Skin Diver Magazine set up a NAUI office at its headquarters and put Al Tillman on the payroll as NAUI's Executive Director and President, Skin Diver Magazine's Director of Public Affairs and as the Executive Director of the International Underwater Film Festival. Garry Howland took over the position of Executive Secretary. The NAUI page would be expanded and Skin Diver Magazine would become fully supportive of NAUI.

With January 1962 came a complete reorganization of NAUI. At the annual Board meeting directors Tillman, Davis, Howland, Jones, Auxier and Cahill unanimously accepted the resignation of Neal Hess and a new era began. The new officers were elected and Garry Howland became President, John C. Jones became Vice-President and Jim Auxier became Secretary-Treasurer. Al Tillman became Executive Director. The actual operations of NAUI were transferred from the position of Executive Secretary to the newly reorganized position of Executive Director. This was the first time that all of the NAUI Board was able to be together at one place and time.

NAUI also moved all of its operations from Al Tillman's kitchen table into Skin Diver Magazine's offices in Lynwood, CA. The agreement stipulated that SDM would provide management of NAUI (Al Tillman), office accommodations, clerical support, mailings, and news space for a token fee of \$1500 a year. NAUI also offered a \$100 liability insurance (imagine only \$100 insurance in today's world) for the first time to instructors for \$10 per year.

The NAUI course in Southern California, Los Angeles County's territory, was held in Santa Monica and drew 51 candidates (the second largest since Houston). A number of the top Los Angeles County instructors enrolled for the cross over certification. Larry Cushman, who was to become NAUI's Chairman of the Board in 1974 was a member of the course. Also, Dewey Bergman, who pioneered dive travel with Sea and See went through with his long time friend, Roy Damron, who became a prime NAUI leader in Hawaii. The course had a prime staff made up, in part, of the current Board of Directors (Tillman, Jones, Cahill and Howland).

The Pacific Southwest course, as it was called, presented a session on the psychology of diving conducted by one of Tillman's colleagues at California State College in Los Angeles named Dr. Kalish. Legal aspects were taught by NAUI's incorporating attorney, David Jacobson, and Jim Stewart covered dangerous marine life. These subjects were given expanded attention in this particular course and were well received. Psychology, in particular, had been overlooked in earlier diving curriculums. Only 31 of the 51 candidates were certified at this course.

NAUI had now successfully invaded the Southern California scene and L.A. County leaders decided to just accept it as an added, geographically broader recognition. Neither replaced the other and what appeared to be shaping up as a battle for power in the region between Tillman's current project and the program he had founded before never took place, perhaps to the confusion of some instructors who wanted a final authority to be left standing and pull everything in instruction together.

The East Coast course at Swampscott (Gloucester, Mass) was the NAUI passport into the cluster of fine instruction programs already maturing in New England. Frank Scalli, Paul Tzimolous, Frank Singer, Walt Hendrick, Fred Calhoun and the leader, Jim Cahill, were destined

to become historical figures in diving over the years to follow and the course epitomized their great talents and potentials coming together. For NAUI, the Pacific Southwest course had just ignored the local regional giant (LA County) and did its own thing; but the New England course went into action with a perfect regional support team, a YMCA stronghold at the time, and NAUI came away a big winner.

After two years of operation, NAUI had conducted six instructor certification courses of real substance, supervised standards and drew in the leading instructors across North America. At this point, it was the most popular and effective national instruction program, and the strong foundation which would carry it through the years was established.

### 1963-1966 Era

NAUI was firmly entrenched in the Skin Diver Magazine offices by 1963 and joint operation identity benefitted both. Jim Auxier and Chuck Blakeslee had their fingers on the pulse of diving overall and guided NAUI with their wisdom. The "NAUI Page" and a NAUI Newsletter recruited new candidates for courses and reinforced the growing corps of certified instructors.

The procedure at that time was for an instructor to send in a list of trained students after a class's completion along with the class outline. Certification cards (later to be referred to as C-Cards) would be sent out by return mail. There was some grumbling over not having the cards for the last class session, so most instructors just submitted their preliminary course roster to circumvent the problem. A lot of trust was placed on the instructors not to issue cards to unsuccessful students. The course outline submitted was often just a copy of the NAUI recommended minimum course outline devised by John Jones Jr. NAUI was becoming wary of its liability in endorsing student certifications.

As complaints built up over questionably-trained students showing up at diving venues, some type of policing was needed. The L.A. County system of sending questionnaires out to most of the students on each roster was adopted. The questionnaire quizzed the graduates on course content and left open ended space for other feelings about the instruction received.

The returned questionnaires - over 80% were returned - were positive endorsements of the instructors in most cases. Here and there a disgruntled student would use it to get revenge. Unless additional complaints were received about the same instructor, the returned questionnaires were simply filed in NAUI headquarters. If a number of returned questionnaires showed that a specific course left out certain diving physics topics, especially those related to diver safety, the instructor would be notified. If the flawed teaching continued to be reported, a warning would be issued to the instructor stating that the instructor could lose certification if the area under question was not retroactively corrected. In some cases master instructors with good reputations were asked to sit in on courses and observe. Standardized instruction was thus policed and protected as a major role of NAUI administration.

In January of 1963, John Jones Jr. and Al Tillman also put together NAUI's first instructors manual. Jones did most of the work on getting this manual put together and Tillman oversaw the project. The book was designed in a "loose leaf" style so that the contents could be supplemented and updated as time passed. The manual included: Part I, General Procedures; Part II, Basic Course Procedures; Part III, Instructor Course Workbook Section; Part IV, Teaching Aspects; Part V, Medical Aspects; Part VI, Reference Reading; and Part VII, Membership Roster.

NAUI's Instructor Training Manual set the standards by which NAUI instructors were to conduct courses, and themselves, as representatives of the association. A code of ethics was

established that was part of the teaching standards. This may seem like just another step toward taking away the individual nature of these pioneer instructors that were part of NAUI, but in every copy sent out was a note from Al Tillman: "The Association is fully aware that in some areas and for specific teaching situations the above standards are not feasible. NAUI exists to serve individual instruction and not to create unrealistic obstacles. By the same token, we are a professional rather than commercial organization. Standards can be waived (if irrefutable justification is presented), but never lowered!" That simple statement told the membership that they had the power, but that nothing less than the best would be accepted.

Some 600 NAUI instructors were out there in 1963 expanding the role of NAUI into the student population. The NAUI membership number that each successful graduating instructor received turned out to be a matter of pride to many. Strangely enough, Al Tillman in his role as Executive Director was on the verge of abandoning the NAUI number (he holds NAUI #1 himself), when he realized that letters from instructors always signed off with name and NAUI number. It looked as if some of the fierce independence that typified instructors in past years had yielded to instructors who enjoyed recognition as an official member of an institutionalized and respected organization.

Meanwhile the concern for ensuring instructors were kept current and maintaining a high level of teaching skills was growing. The need for recertification called for another program. The L.A. County approach of seminars, workshops, and encampments was attempted but only a regional participation was possible. One such effort was a Catalina encampment in 1964. Eugene Winters directed it with Al Tillman at Camp Fox on Catalina Island. Jon Hardy (NAUI #1002), who would eventually head NAUI as Executive Director (Manager) in the 1970's, was the camp manager, and Pat Lamb, who would marry Jon Hardy, was in attendance as the NAUI headquarters secretary.

More instructors were needed to meet the growth of SCUBA across the continent. It was time to put on courses in Miami, Florida, the Northwest, northern California, and San Diego. San Diego was the home of two organizations that were the building blocks of diving on the west coast, The Bottom Scratchers and Scripps Institute of Oceanography.

There was no question that the instructor certification courses were the strength of NAUI as the major instructional influence in the diving world. The formative years of the early 1960's were filled with criticism. It took some strong self-assurance for the leaders to march straight ahead on their mission, even though, as they told themselves, "you'll never hear your name mentioned if all your life you aren't criticized." It was especially tough because there were strong differing opinions even among the key NAUI shapers and movers and so the criticism was often internal, and perhaps deserved. This criticism was also vital to help the organization grow and mature.

By the 1963-65 era the manufacturers were still sitting back taking a neutral stance. They were getting static from the certifying dive shop owners and their demands. John Gaffney's NASDS (National Association of Skin Diving Stores) was the key challenge and the manufacturers probably didn't want to create more alienation by jumping in fully behind NAUI. NAUI, struggling in the first years, could have used some commercial support, for it was doing the industry's job of training people to be safe. This, in turn, was a protection of the diving field from onerous legislation.

From the dive shop owners viewpoint, many of which had affiliations with NAUI as instructors or having hired NAUI instructors, the concept of instruction as a service was still in vogue rather than treating instruction as a saleable product.

The day-to-day operations at NAUI headquarters expanded as more instructors processed more students. But besides the vertical growth in numbers, there was the diversification into new programs such as the Junior Frogman program for youths, the formation of new specialized training courses for cave and ice diving, underwater photography, rescue diving, and a NAUI research bureau. The core activity of NAUI, the instructor certification course, also needed some re-tooling as NAUI's army of dedicated instructors became vocal about reforming and improving all aspects of the courses.

Much of this new programming was farmed out to regional NAUI leaders for tryout and development as pilot regional efforts. The clamor for improvement came from everywhere. It was certainly no time to sit back and be smugly complacent.

Other challenges arose that slowed much of this expansion and refining. Skin Diver Magazine was sold to Pederson Publishing Company and a new corporate mentality took over in September of 1963. Jim Auxier was retained as editor and NAUI was given new offices and secretarial help by the new owner. The new address was on Hollywood Boulevard in Hollywood, California.

Pederson executives looked at the bottom line fiscal aspects of supporting NAUI and weren't too interested in its public service values. Additionally they may have listened to some bad advice from their promotion people in that supporting one specific instruction program could effect advertising revenue from diving's commercial interests involved with other instruction programs.

The effect of Pederson's takeover was that the friendly handshake relationship that allowed both Skin Diver Magazine and NAUI to grow together came apart in the publishing conglomerate. NAUI's Board was not too shaken by this for it did seem the time had arrived when NAUI had the strength and reputation to stand on its own. NAUI headquarters went back on kitchen tables and its branch operations took on greater importance.

The branch operation was put into effect at the 1964 Board meeting in Annapolis, Maryland (where a NAUI instructor course was being held at the Naval Academy). There was to be an Atlantic Branch under John Jones Jr., a Canadian Branch under Ben Davis, and a Pacific Branch under Al Tillman. Branch managers received a \$600 management fee. Jones was elected President and Ray Tussey, new to the Board, was elected Secretary-Treasurer. Al Tillman was reappointed Executive Director.

Al Tillman was now involved in developing his idea of an Underwater Explorers Society (UNEXSO that he envisioned would be housed in a state-of-the-art resort facility with all the diving amenities and be located in Freeport, Grand Bahama Island. Financed by a group of Canadian investors, the Grand Bahama Underwater Explorers Club would also serve, at no cost to NAUI, as its international headquarters. NAUI was ready to go international at that time and Al Tillman, with the Board's approval, had even traveled to England to sign an agreement between NAUI and Charles Ellis of the British Sub Aqua Club advocating reciprocal recognition of divers and instructors.

As UNEXSO came into operation in 1964-65, three outstanding NAUI men were hired to staff this new James Bond-type of diving resort: Chuck Peterson, Dave Woodward, and Jack McKenney. The first year of the club's operation was very NAUI oriented and an instructors' course was held there, the first outside the U.S. or Canada. NAUI headquarters was officially opened in its Freeport site on December 12, 1965.

The first NAUI course held in Freeport was conducted by Hank Halliday (NAUI #504). The course was actually held at the Bell Channel Villas pool and in a local school classroom. UNEXSO was not quite up and running yet, but the success of the 51 candidates (nobody totally

failed the course) affirmed that Freeport would become a major site for diving and a long time stronghold for NAUI. The outstanding graduate of the course was William Alspaugh Jr. (NAUI #730).

At the 1966 Board meeting, Tillman was reappointed as President and Executive Director until another candidate could be found. The scope of the UNEXSO operation eventually required Al Tillman to take a leave from his position as a professor in California and withdraw from all administrative positions with NAUI. The NAUI Pacific Branch management went to Art Ullrich, the outstanding graduate of the San Diego NAUI course in 1964 and the Executive Director position went to John Jones Jr. NAUI Headquarters was transferred to Ft. Lauderdale with the plan of eventually moving it to Freeport.

At this point, with Skin Diver Magazine and Al Tillman out of leadership roles, and John Jones Jr. soon to follow them out, the principal founders of NAUI aside from Neal Hess, would give the organization a different look and move in new directions.

The NAUI motto, devised by Garry Howland based on the phrase "Peace through Air Power," and prominent on the original NAUI patch designed by Herb Ingraham (Houston NAUI #37) was "Safety through Education." This was nothing fancy but went right to the heart of the NAUI mission. The scope of the changes made to NAUI very well could have rewritten the motto to read "Safety through a lot more Education." Numbers, size, and revenue started to be strongly promoted from a rising new NAUI leadership. More decentralization and more branches would appear to be the effective way to better meet regional demands and groom new leadership.

Daily operations continued on through this changing of the guard and venue. New challenges were arising in competitive organizations. New national agencies were formed and NASDS would go for a larger share of the instructors and change its name to National Association of Skin Diving Schools, replacing the word stores with schools. Local instructional programs were still hanging on with a fierce local pride and the Canadian Council of Clubs asked that NAUI only evaluate their courses and not actually run them.

Criticism of a special program called the Affiliate NAUI Instructor Program finally put that effort on ice. Designed to deter strong area instructors who hadn't made it to a NAUI course but could carry a whole region another way, it gave them a face saving way to come on board. About 30 excellent instructors joined the NAUI ranks before the program was abandoned. The requirements were extremely difficult and no one became a NAUI affiliate that wasn't extremely qualified. Dissident factions develop in every organization that want to take it over or desert and begin rival efforts.

In the end of that 1962-65 era, Art Ullrich, a constantly harsh and exacting critic of the existing operation moved strongly to expand the Pacific Branch (still the most populous diving region) and advocate a new centralization back to the Pacific Branch. On the other hand, Ralph Erickson, disgruntled with the changing NAUI picture and having his Chicago course canceled without consultation, moved with John Cronin of U.S. Divers to put in operation the Professional Association of Diving Instructors (PADI).

NAUI, under the new leadership factions, decided to proliferate instructor courses and expand its ranks, hopefully while maintaining the uniformity and continuity of its standards. So NAUI embarked on a sort of franchise program, letting instructor courses happen under new and different staffs everywhere. The result was more instruction and more students from them. More revenue resulted and NAUI moved into the computer world to handle the increased volume of business. Indeed, NAUI, by necessity had to move from a non-profit public service role to a business operation to survive. A debate will still ensue among NAUI people as to whether NAUI

then got better or just bigger and more complex. The term “card factory and souvenir shops” came into the vocabularies of the traditionalists who felt quality was being sacrificed for quantity.

It might help to understand the course of NAUI’s development by looking at the students of these diving instructors. The country was in the middle of the Vietnam War and lots of young men were not around. The counter-culture youth movement was challenging everything traditional. Risk taking could be done with drugs, jetting to other destinations for resort diving was just beginning, and two job families weren’t producing big discretionary incomes. Diving was still relatively inexpensive and instruction was the best bargain of all. The major issue that really effected all diving instruction was what came in as a criticism on a majority of student questionnaires, not enough open water time during beginning courses. The one dive finish to a course as a sort of party after the class would not be enough; now all instruction programs would duel about having multiple open water dives a necessity before C-Cards were issued.

By the end of the 1960’s there were almost two thousand certified NAUI instructors and that number was growing at an incredible pace. NAUI had been born of a critical need as diving moved from the simplicity and naivete of diving in the 1950’s into the 1960’s where diving became a recreational activity visible and sought after by thrill seekers across the continent. The NAUI tree had been planted in those early years upon which new leaders would build over the next decades. Changes were to be made and programs expanded to incredible dimensions, but the basic idea of NAUI will remain a good idea as long as people venture into the unknown.

## **1966-1969**

Garry Howland had arranged for Art Ullrich to receive one of the NAUI Board of Director’s personal scholarships for him to attend the San Diego course in June of 1964. Art realized at that course that there was room at the top of NAUI. The curriculum and organization were still fermenting and Art was an organizer extraordinaire. He openly criticized NAUI materials and testing and the course administrator, Dave Woodward. This open attack of NAUI was the preface for his future move into NAUI leadership. In an interview by SCUBA America, Ullrich said that he later “apologized fifteen times to Dave Woodward.”

Al Tillman later took Ullrich’s criticism and energy and had him feed tests into the March Field Computers to make them more effective. This became NAUI’s first foray into the world of computers.

When the time came that Tillman and the board decided to decentralize NAUI into branches and move the world headquarters to Freeport, Grand Bahama Island, Ullrich was appointed as Pacific Branch Manager and took over administration of over 50 percent of NAUI instructors.

Ullrich could see that “the Board was very conservative, split by personality conflicts, and satisfied to sit a rock on top of what had been established.” He attended the 1966 Board meeting with Dave Podowitz. They were not there by invitation, but had gone to evaluate their chances at moving onto the Board. With support from Podowitz and Eugene Winters stepping aside to avoid a split vote, Art became a Board member by 1967.

The shift of headquarters from the West Coast to John Jones Jr. on the East Coast brought on a period of stagnation for NAUI. Jones had to deal with numerous personal problems. Ullrich



questioned the lack of active administration and felt there "were problems like liability insurance, part time administration, inferior record keeping that demanded the rock be pushed off." Ullrich felt that three instructor courses a year would doom NAUI and that the market must be expanded.

Some of the new programs were very promising. Tillman and Jones worked out a plan with Donald Higgins and E. E. Hoisington to make NAUI the official instruction agency for the Boy Scouts of America. Skin diving instruction was encouraged for all Boy Scouts, and NAUI SCUBA training was offered to Scouts over the age of 16.

In 1966 eight NAUI courses were held and the number increased to 24 in 1967. Real money was finally beginning to come into the NAUI account.

In 1966 Ullrich was named Airman of the Year for his work with NAUI. The Air Force had supported him during these years. They provided free air travel and allowed him the time to pursue his interests in the area of diving.

NAUI was experiencing rapid growth at this point. Numbers across the board were growing and Ullrich was the main architect of this growth. Some criticized NAUI for building an unwieldy bureaucracy, but most supported Art based on the numbers.

He eventually hired his wife Gloria as a part time employee of the Pacific Branch and maintained the offices in his garage in Grand Terrace, California. This position eventually built up to 40 hours per week. The growth was too big and the NAUI Board moved to create a total of nine branches in 1968. Art left the service to go to work for Dr. Bruce Halstead in the private sector. He also rented office space and put his wife to work full time. The branch gross went from \$10,000 to \$60,000. Based on this success Art was elected vice-president of NAUI and was appointed Executive Director at a salary of \$600 per year.

By 1969, NAUI had grown so large that a full time chief had to be found to manage the growth. Ullrich went to the board and demanded a centralized NAUI headquarters once again and creation of a full-time General Manager position, with an annual salary of \$12,000. The Board agreed to let Ullrich have what he requested and he became NAUI's first full time General Manager.

In 1969, NAUI instructors Larry Cushman (NAUI #206), John Reseck (NAUI #949), and Glen Egstrom (NAUI #937) joined forces to organize the first International Conference of Underwater Educators (ICUE) or otherwise known as IQ1.

The Board of Directors in 1969 consisted of Ben Davis-president, Art Ullrich-vice-president, Dr. Joe Bodner-secretary/treasurer, W. H. Halliday, J. F. Cahill, John Jones and Al Tillman.

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Art Ullrich (NAUI #601)

Art Ullrich was born in San Antonio, Texas in 1936 and was the son of a pharmacist and a nurse. Art was driving into community pools early in life and owned his first Voit mask and Churchill fins at age seven.

He was married in 1953 and decided to make a career for himself in the Air Force, joining in 1954. Four years later he found himself stationed in Biloxi at Keesler Air Force Base. There he discovered the Fintwister, a pioneer diving club, and met a man that would be like a brother, Capt. Barry Howland.

By 1962, his old buddy Howland had moved up in the NAUI ranks, at the time NAUI was the most prestigious organization in the country. When Art transferred to March Air Force Base in California in 1963, he vowed to break into the hierarchy of NAUI.

He did eventually break into NAUI and served with NAUI administration from 1964-1977. In 1978, Ullrich left the field of diving to become a Real Estate Broker.

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## 1970-1980

In September of 1970, Glen Egstrom would move into the position of President, Larry Cushman was elected vice-president, Dr. Joseph Bodner was elected Secretary/Treasurer, and Frank Scalli was elected as a new member to the Board of Directors. The transition would be complete. NAUI expanded across the ocean, holding its first course in Japan in 1970. NAUI Japan was created in 1979. The international aspects of NAUI continued to grow. In 1972, NAUI Canada was formed as its own independent organization and the first ICC was held in Mexico in September of 1974.

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INSERT EGSTROM PROFILE - Still waiting for return call to Zale. Glen is on vacation for holidays.

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On May 1-8, 1971, NAUI held its first Diving Medicine Course designed to teach physicians about the medical aspects of divers. The course was taught by renowned diving physicians Drs. George Bond, Edward Tucker, and John Clements and was held at UNEXSO in the Bahamas. The course was open only to physicians and basic SCUBA instruction was available to those who weren't already certified.

NAUI also became the United States representative to the Technical Committee of the World Underwater Federation (CMAS) in 1972.

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"One of the funniest situations I have ever witnessed involving diving types was during IQ4 in Miami in 1972. At a party after the Saturday night film festival, John Resnick boasted that he could lift any three men with only one hand. Glen Egstrom and two others in the room took the bait. Reseck had them lie down side-by-side on their backs on the floor. Then he intertwined their arms and legs around each others so that they would 'stay together.' After a bit of ceremonial huffing and puffing, Reseck stood over Egstrom, who was in the middle, grabbed his belt, and like a flash unzipped Egstrom's fly and poured a drink in. And you know, Reseck was able to lift all three men with only one hand! I have never laughed so hard or seen Egstrom so flustered. I don't know if Egstrom has ever found the opportunity to pay Reseck back yet, as he promised. When he does it will be good" --Jeanne Bear Sleeper.

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The 1970s were a time of continued global expansion for NAUI. A NAUI instructor named Dusty Rhodes (NAUI #179) had been living in Thailand for some time and teaching YMCA instructor courses (he couldn't teach NAUI ITC's because of the policy at the time that a representative from NAUI HQ be present). While teaching YMCA courses, Rhodes had always remained loyal to NAUI and continued to petition NAUI to allow him to hold ITC's in Thailand. When a new branch administration came in Rhodes was finally given permission to hold the ICC. A full and active NAUI chapter now exists in Thailand.

Ullrich took NAUI in some risky directions from 1970 to 1975. Numbers were the new key and NAUI was ahead in the industry during the first few years of the 1970's because of its high

reputation earned during the 1960's. Courses and materials proliferated in NAUI and the organization grew too big to successfully manage. The country was in a downward decline due to the recession and NAUI's reputation and numbers began to decline along with it.

In 1970, NAUI actually went broke. Bill High sent Ullrich \$2,000 out of his own pocket to make payroll and keep the headquarters door open. According to High, "NAUI was going broke with its low cost registration of students and failing to keep graduating students as customers for future classes and materials. They (NAUI) may have gotten into too big an operation, but then they really needed to expand and grow."

Four important staff people conjured up the idea of the NAUI Divers Association (NDA) - Ullrich, Cargile, Hardy, and Graver. The problem from the very beginning of organized instruction was how to keep divers diving after the first excitement of just being underwater wore off. It wasn't reliable to depend on one diver calling another and saying "let's go diving".

LA County had worried this one for quite a while and had formulated an advanced diver program. The same idea found a right time in NAUI because Ed Cargile, a versatile ex-SEAL who crossed over from sport, to scientific, to military, to commercial in his experience and thinking, headed it up. NAUI proceeded to offer NAUI divers a chance to keep involved for a \$20 annual fee. For this they got a four-color magazine, Divers World, an entree to a series of seminars all over the country, covering underwater photography, marine biology, wreck and night diving, and just anything new in diving.

The branch managers initiated the request and in came Cargile with guest experts from all areas of diving, pacing every seminar with 300-350 NDA and NAUI members. It was a bargain for divers and probably overall an economic break even for NAUI in general. Cargile got it off the ground during his 1972-1974 stint with NAUI. NDA went on a level pace until present, but diver drop out still bothers the industry and NAUI especially.

In 1975, the NAUI Board of Directors felt that NAUI's decline was the fault of management and made changes. Ullrich stepped down to a lesser role as Special Projects Coordinator and Jon Hardy was elevated to run the show. It was a graceful ending to Ullrich's role with NAUI and he moved on to a new role as Training Coordinator for Commercial Diving Center in Wilmington, California. He remained on the NAUI Board until 1977, but the days of running NAUI like the old dive clubs had passed and great organizers like Ullrich had to yield power to the new businessmen of the industry. Bill High replaced Glen Egstrom as President of the Board. The Board also decided to increase its number from seven and nine. Each member was to be from a different geographic region to increase local representation.

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Jon Hardy (NAUI #1002)

Jon Hardy was born in Glendale, California in 1938 and failed his first swim test because he was a sinker. A lean and mean man, he was an excellent skin and SCUBA diver since his teens. Jon would rather run out of air deep than get cold without his wet suit. As a kid he memorized the narrative of Cousteau's Silent World, with a flashlight under a blanket it became his SCUBA textbook. Oh yes, he did go beyond "don't hold your breath" by taking a Mel Fisher three hour course in the Hermosa, California, Biltmore pool with a used DA regulator he bought from Mel's Aqua Shop.

As a long distance runner in track, Jon found in skin diving a parallel - agony and loneliness. But he loved it and became one of the leaders in the national YMCA SCUBA program as an instructor and instructor trainer. He pursued diving day-in and day-out as a young manager

of the Camp Fox Y Camp on Catalina Island. A lot of the diving was to 130 ft. depths without regard for the tables.

Jon as a recreation management student had classes with Professor Al Tillman at Cal State University in Los Angeles. He also became acquainted with the L.A. County program and would become an L.A. County certified instructor at age 21 in the 10 UICC.

NAUI had outgrown its capacity to operate effectively and Jon , a certified NAUI instructor, having served a hitch as a U.S. Navy officer, was brought in as Special Projects Manager to form the NDA in 1971-72. Jon challenged what he saw as wrong management decisions and left NAUI to just dive awhile. His criticisms, however, were not unheeded and as had happened before, the critic got his chance to "do things." Jon went back into NAUI as General Manager from 1975-79.

Jon gave NAUI consummate leadership, was a role model for other leaders to follow, and changed the thrust of the program from certifying to training. As the best of instruction potential was creamed off in the early years, training became essential to prepare the less experienced and less qualified to instruct.

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Jon Hardy came into NAUI headquarters in the early 1970's as the Board, under Egstrom, clashed with General Manager Art Ullrich's concepts of the operation. Such conflict at the leadership level plagued NAUI from its very beginning. Jon Hardy recalls "the Board lived in a dream factory and that some at the top level had outlived their usefulness." Bill High saw conflict resulting from "each Board member pursuing his own pet project."

This was a tough decade for NAUI as it discovered that quality control wasn't easy as you get bigger and quality was the core of NAUI's reputation. Hardy seemed to represent both a passion for diving and NAUI, coupled with "business savvy". "Lack of business savvy" was a catchall phrase to explain any and all things that were failing with NAUI. Great ideas existed in abundance, but the budgeting and operating procedures to carry them out did not have a significant person to make them happen.

Jon Hardy faced a big deficit, but carried on valiantly. It would seem that NAUI had been underfinanced since it started unless the non-profit status and use of volunteers was strictly adhered to. Many felt, non-profit or not, you couldn't survive without operating "like a business". The competition in diving instruction seemed to be all business in their approach. Each succeeding NAUI "manager" tends to explain each NAUI failure by saying "dedicated nice guy, but he wasn't trained to manage" about his predecessor.

In 1972-73 NAUI certified 83,000 divers. Larry Cushman came up with the idea that NAUI should be selling continuing education to those divers; it could be a NAUI money machine.

Jon Hardy had done one stint with NAUI in 1971-73 and left until the Board brought him back in 1974. He had been an ardent critic of Board decisions about "NDA as a rip off" and a 1/2 million dollar contract made by the Board with Jeppesen to produce training materials (NAUI revenue was only \$400,000 a year at this point). Jeppesen defaulted and NAUI lost money in the deal.

During the 1970's NAUI had trouble getting a proper budget in place, taking on projects to produce revenue that ultimately put NAUI further in debt. The industry was also faced with legislation in key venues such as L.A. County and Florida that forced some dive shops out of business. Fighting this legislation cost NAUI and other organizations a lot in resources and money, but aided in bringing the instruction agencies closer together with the goal of self-regulation.

Another key issue arose in the 1970's over where certified instructors should be teaching. The YMCA advocated a 1950's approach through dive clubs, while NASDS and PADI saw dive stores as the appropriate venue. NAUI, under the influence of university oriented Glen Egstrom, Lee Somers and John Kramer (representing AAHPER) decided that instruction should outlet through the schools which could hold onto things when everybody else was in trouble. It was an honest miscalculation in hindsight. Certainly there was dignity and guaranteed quality in the school concept, but NAUI had taken a wrong turn at this point. The dive shop was geared toward the daily walk in public off the street and the average person felt it a stable and less threatening presence. The dive shops were an easy way to offer instruction and NAUI demanded standards much higher than other organizations. NAUI continued to do the quality job of producing instructors that built its reputation, and the proud men and women who held NAUI certifications didn't want to see the program watered down. Many of these instructors, however, participated in cross-over training that enabled them to teach under PADI or NASDS as well.

There were also some major changes in instructor certification in 1974. The ICC was replaced with a two step Instructor Qualification Course (IQC) to certify Assistant Instructors (AI's) followed by an Instructor Training Course (ITC) to fully certify instructors. The main water skill testing was now done in the IQC, while more time was focused on training instructors in the ITC instead of the time spent testing their basic skills.

The door to women opened a bit more in the 1970's. Pioneers like Zale Parry, Helen Drew, Nancy Gill, Noreen Rouse were ahead of their time. Jeanne Sleeper came into NAUI headquarters from 1975 to 1980 as Director of Instructor Training. She was motivated by Sea Hunt to become a diver and eventually began certifying at the University of Minnesota, being the first female ITC Director and running the NAUI Midwest Branch. It established women as great potential leaders for NAUI. More importantly, diving in general would see women gain prominence and respect.

Dennis Graver came aboard NAUI headquarters in 1974 to put together NAUI training materials after the Jeppesen deal fell through. He would soon leave to help develop materials for PADI, and NAUI would be left with no solid training materials that would appeal to the shops until 1985 when Graver returned to NAUI.

By 1976, when Bill High (NAUI #175) was elected President of the NAUI Board, there were almost 5,000 certified NAUI instructors. By the end of the decade there would be 5,704 and the age for instructor qualification was reduced from 21 to 18.

NAUI was still undergoing a lot of financial troubles toward the end of the 1970's. Many instructors were concerned about the future of the organization. In 1979 a group of NAUI instructors took the initiative by contacting John Englander (NAUI #1148), who had taken over UNEXSO. Englander ran for the Board unsuccessfully in 1979 but returned the following year to win the election and even be appointed president. John Englander would help turn NAUI around financially and probably help save the NAUI idea.

In 1979, John Englander was with President Bill High and General Manager Ken Brock (who had replaced Jon Hardy in 1979) overseeing the first NAUI Japan course, but nobody said anything about the organization being \$200,000 in debt. In some ways it reflects the good and bad of a democratic organization that belongs to its members. Electing a Board prevents corruption of power, but it also means that sustained leadership and resulting continuity gets lost as well as accountability at times.

If the 1970's could be summed up for NAUI it might be said that at this premier organization of diving instruction grew faster than it could keep up with in terms of money and leadership. Good ideas from good minds were attempted - the NDA, the Jeppesen plan for an

ultimate training system, the continued elevation of standards, the efforts to outlet through schools - but there were too many ideas, too many diverging opinions between Board and staff, not enough money for everything, negative legislation and fierce competition. In the face of it all, however, NAUI stood tall, new leadership arose out of the ranks, and the general public still envisioned "quality" when the NAUI name was heard.

## 1980 to 1990

At the board meeting in March of 1980 John Englander was elected president of NAUI's Board of Directors. He ran for the position after being encouraged by several board members who felt that Englander had the experience and drive to turn NAUI's financial situation around. NAUI had been running at a loss and some believed that NAUI was on the verge of bankruptcy.

John Englander had earned himself a reputation in the diving industry as a top notch financial manager. Englander had been hired as manager of UNEXSO in 1973 and was able to build a highly successful business while maintaining many of the original ideas that Tillman had dreamed of for UNEXSO. By 1980, NAUI and UNEXSO were both similar in size with approximately one million dollar budgets.

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John Englander (NAUI #1148)

John Englander is a great example of diving's second generation of industry leaders. He went through a NAUI ICC at UNEXSO in 1968 at 18 years old. Four years later he graduated from Dickinson College in Carlisle, PA with a B.S. in geology and economics. Soon after graduation he went back to UNEXSO as an instructor and within 2 years he took control of the organization.

Englander returned to UNEXSO just at the right time. After Tillman had sold his shares in the organization citing lack of support by the financial backers, UNEXSO was turned over to Dave Woodward who was faced with the same lack of support that plagued Tillman. Englander took over UNEXSO when it was on the verge of bankruptcy and was able to implement programs that turned the company around and bring it back up to the standards that Tillman had envisioned in the 1960's ,while making it profitable for the first time.

It was due to this proven management skill that Englander was brought in as a NAUI Board member and president at a key point to help complete the financial turnaround that Bill High had begun.

Englander is also the founding president of the Bahamas Diving Association. The BDA is an organization of dive operators and charter boats that work together to promote diving in the Bahamas.

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The night before the election the current president, Bill High shared a room with Englander and they discussed the future of NAUI and its current problems. Englander was interviewed on this and other subjects by Dennis Reeves Cooper for the book, *The Underwater Explorers Society: Silver Anniversary History* , and recalled that High resented the fact that Englander would get the credit for the financial turnaround of NAUI after the hard work that High had done to accomplish the task. Englander pointed out that he (Englander) would also take the blame if NAUI went bankrupt over the next year. They came to an acceptance of the situation that evening and have apparently remained friends over the years since.

Englander started the year by asking for one year to turn NAUI's financial situation around, but that it would only work if Englander had complete control. The full turnaround took Englander 18 months, but by the end of 1980 NAUI financial statements showed a surplus of \$90,000.

Englander really dug in as president, certainly "coming to live at the headquarters for weeks at a time," examining every detail, doing cost accounting, and eliminating costly projects. Marshall McNott came in as Executive Director. McNott was the first manager to come in without a diving background; he had been a fund raiser for an evangelist. Some hard-ball belt tightening seemed to do the trick. However, some NAUI leadership feels the turnaround had begun years before, as the economy changed, and NAUI rebutted the PADI invasion with a more easy to use system. Recovery was inevitable. NAUI had a valued product.

NAUI needed a fresh start, a new look, and a new headquarters. In 1981, NAUI HQ moved into a new building located at 4650 Arrow Highway in Montclair, California, its current location. NAUI also wasn't adverse to borrowing ideas; after all, the other organizations had certainly not hesitated to use a lot of what NAUI had created. It is a little known fact that one of the largest competitors of the NAUI program held its first course using the materials and applicant mailing list for a NAUI scheduled course. NAUI materials merely had the name NAUI whited out and the name of the new organization added in its place.

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Larry Cushman (NAUI #206)

In an interview before his death for the book, Scuba America, NAUI President Larry Cushman looked back on his association with NAUI. "My careers in commercial diving were never as fulfilling as my involvement with NAUI. It was a great idea, pure and clean from the very beginning and came from a few divers with a real caring about people and protecting diving as a safe sport. Mistakes were made in trying to keep up with the competition and grow bigger, but it was easier to clean the air when we got back to the founders original idea of the mission of NAUI."

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Although an attempt to bring NAUI into the computer age dates back to 1963, no real changes in this area occurred until 1982. The first two computer systems were a "disaster" and NAUI continued to operate effectively despite this. What everyone learns today in a growing world, profit or non-profit, is you either pay to stay technologically in step or you're doomed. Somehow the bills got paid in the worst of times; sometimes the money came out of the pockets of personally-dedicated NAUI leaders, but organizations must continue to stay in tune with society. Ben Davis described it nicely when he said, "The NAUI light shines no matter how dark it gets ... and, after all, we all came through the same machine and are proud of it.Ó"

In 1983, NAUI News was discontinued and the NDA News was created. The new NDA News was a joint effort between NAUI and its partner organization, NDA. The reasoning behind the discontinuation of NAUI News was that NDA News was able to be sent out at a lower postal cost due to the non-profit status of NDA.

In 1985, Dennis Graver came back to NAUI and did what he did for PADI in 1982; he put together a simple modular training program. The idea, born out of a meeting with John Cronin, Dick Bonin, Paul Tzimolous, and Graver was spun out of a brainstorming session of "what's the easiest way to teach someone to dive?" It put NAUI in a new favorable position to better serve dive shops rather than just the independent instructor. Ted Bohler's Pro Manual for NAUI gave NAUI a solid universal text to standardize instruction, a map, so to speak, on getting a diver into

the water quickly and effectively. Bohler also gave NAUI its first small specialty booklets on things like night diving, simple and effective. There had always been manuals and materials around, but a lot of it was too complex and needed a training class to understand and use it.

Unified training standards were brewing (pushed by the negative legislation attempts of the 1970's) and NAUI worked closely with the National Association for Cooperation in Aquatics to help standardize training across the United States. In 1985, the Recreational Scuba Training Council (RSTC) developed the minimum training standards for entry level certification. NAUI, as did most other agencies, adopted the Industry Training Standards in 1986. These standards required four open water dives and other minimum requirements for beginning certification.

Sam Jackson became Executive Director in 1987. He epitomized the quality of leadership that NAUI produced for the diving industry. He came in to NAUI headquarters with the promise of no Board interference and he gave NAUI another fresh start, inserted marketing acumen, got the computers in gear, and more or less got NAUI ready for the twenty-first century. NAUI membership also elected Nancy Guarascio to its highest office in 1987 to become NAUI's first female president.

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Sam Jackson (NAUI #2972L):

Sam Jackson became a NAUI instructor in 1971. He came to the diving industry after a career in marketing for a computer company. He seemed to be the perfect candidate for a leadership position in NAUI and he moved up through its ranks with an exceptional record.

Before going to California to serve as NAUI's Executive Director, Jackson was president of NAUI Canada. After accepting the position of Executive Director for NAUI he spent eight long years getting NAUI in balance after some shaky years and against fierce competition. That yeoman effort was rewarded by the Diving Equipment and Marketing Association in May of 1995 when they wooed him away from NAUI to serve as their Executive Director ... probably the top position in the dive industry, even above that of Executive Director of either NAUI or PADI.

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In 1989, the NDA News was changed to Sources: the Journal of Underwater Education.

1990's and the future

As we sit entrenched mid way through the 1990's and ponder whether NAUI has outlived its mission, or can soar to new heights, we can take great pride in the 17,000 plus certified instructors and the millions of certified divers who were given the best instruction imaginable. More important, NAUI never let diving become a superficial experience in people's lives. This has not been easy, for there has been the temptation to sell out in times of financial crisis. As we compare the divers today against those in the beginning, we now have everybody in a hurry to get it done, get diving and forget all the science and esoteric curriculum and watermanship. There seems to be a feeling with the new breed of would-be divers that all of this colorful, technologically trendy equipment will take them diving and take care of everything without too much effort on their parts. There's a whole lot of "I-don't-want-to-read-the-directions-just-help-me-get-the-stuff-on" attitude out there. Tom Tillman recalls sitting on the shore on Catalina Island in the mid-1980's with his father during an open water check-out trip, "I will never forget when dad came up after teaching divers all day, sitting down and saying 'You may as well send the equipment out by remote control. They just don't care about the adventure



of diving. It's all color-coordinated snorkels and BC's and who has the most expensive equipment.' It was a profound observation in its simplicity coming from a diving dinosaur like dad, but it said a lot about what diving has become over the years."

Who are these new people whom Chuck Blakeslee reports seeing fill the water of his old diving hole in Laguna Beach. Chuck says, "they had just used up all the space and were lined up to go in, like an amusement park. I just went to my favorite spot in Lake Tahoe and two hundred divers filled the parking area, gearing up to go in. Some of them looked pretty soft compared to the old time divers."

It seems to be a youngish market, newly affluent baby-boomers, college students, the usual risk-takers, people getting ready to travel to exotic places where diving is exquisite, people seduced by films on TV. It's not an inexpensive, casual experience anymore.

Diving still lures lots of people into trying it out, but retaining them, giving them a long term interest that they can handle with expertise has continued to be the failing of all organizations. The quality of their training introduction to the sport will determine their passion for it and how long they stick with it.

Tom Hemphill (NAUI #2491L) says that even the instructor candidates today are different from those in the beginning years. The old time instructors were inspired to help others share in their joy of going underwater; the new instructors were motivated to certify so they could go to the tropics and play macho instructor/guide to tourists. Hemphill feels we need to get back to making local diving attractive again, divers need to get wet more often even with cold water and limited visibility. This last Halloween, Hemphill once again ran an underwater pumpkin hunt and the divers loved having a reason to don their equipment and go under, having something to do with what they have been taught.

The 1990's have brought with it a whole new level of diver education and communication. Technology has continued to grow and NAUI's involvement in the computer world has come a long way since Al Tillman first asked Art Ullrich to use government computers to improve NAUI testing in 1963.

In 1994, NAUI introduced CD Rom training materials to supplement the regular course of studies. This move demonstrated NAUI's commitment to training in all media.

Under the direction of Mike Williams and with help from Wally Barnes, NAUI also pioneered another first by being the first instruction agency to have a strong presence on the Internet and create an official World Wide Web site. The Internet has also become the means for current and important discussions regarding diver education. Here is an example of a typical conversation that occurs on an Internet newsgroup:

From: delonghc@ix.netcom.com (Hugh C. De Long )

Date: 1995/07/23

newsgroups: rec.SCUBA

n <DC32Lp.4sK1@austin.ibm.com> robkil@austin.ibm.com (Robert H.

Killian) writes:

>I happen to be a NAUI Adv. Diver, and I like the agency, but

>what I've noticed is that regardless of certification agency

>or level of experience, it's the instructor and the students

>attitude that make the difference.

What you say here, I definitely agree.

>If you take what you are doing seriously you will be a safe

>diver. If you think SCUBA is just any ol rec sport you're  
>going to die.

I believe this to be crap. I know that people in this sport should take it seriously, but the above statement is too extreme. I've seen plenty of divers I wouldn't call serious and they aren't likely to die. Yes people get injured and they should be aware of the risks, but the percent of divers out there that get injured is lower than the number of 'serious' divers you run across.

>It shouldn't be about who's a PADI Waddie or a NAUI Wowie,  
>it's who just blew by his/her safety stop or just chipped  
>a big piece of coral off the reef? I've seen newbies do  
>it and I've seen Dive masters do it, both PADI and NAUI...  
>Nuff Said,  
>Rob Killian

Everyone should be aware of the risks and take the appropriate precautions, but scare tactics serve no one.  
Hugh C De Long  
NAUI 14636

Environmental issues have also become a great concern for NAUI and the nation as a whole. In a step to aide in the preservation of the environment NAUI signed an environmental management agreement with NOAA on January 17, 1992. The agreement was signed by NAUI's Executive Director, Sam Jackson, Hillary Viders, Ph.D., NAUI's environmental liaison, and Trudy Coxie and Bill Harrigan from NOAA.

In 1994, NAUI discontinued the NDA and it was reorganized under the name International Underwater Foundation (IUF). This allowed even greater tax breaks, but the original mission of continuing education and awareness for all divers continues.

The essence of NAUI in its 35-plus years is that despite our differences there is a deep sense of belonging to an organization with dignity and integrity. The pride in that belonging unites us into a force that has greatly influenced and directed the recreational diving field. The mission of NAUI was clearly stated in its beginning that it would provide a non-profit service to the public of the finest education possible and with which beginning and advanced divers would be assured that their safety and well being would be protected and uncontaminated by commercial influence. NAUI instructors would be the most effective device for learning diving that could be produced.

We are in the final decade of the twentieth century and NAUI will probably have seen over 20,000 instructors certified by the end of the century. We have much to look forward to and every one of the 20,000 instructors or those that come after will be the pioneers of the next chapter of NAUI history. One person can make a difference and working together NAUI can continue promoting SAFETY THROUGH EDUCATION.

## Appendix 1

Here is part I of the written test that those 72 diving pioneers took during that first NAUI course in August on 1960. Take the challenge and see if you can beat or match the high score of 204. Remember that this test was taken over three decades ago and many of the answers are different today.

### NATIONAL ASSOCIATION OF UNDERWATER INSTRUCTION WRITTEN CERTIFICATION EXAMINATION AUGUST 1960

There are two major portions of this examination: the self-contained knowledge part and the open book part. They consist of a variety of question types, involving both objectivity and subjectivity.

1. You will be allowed to qualify an answer in any part of the test, however unnecessary or erroneous reasoning will be evaluated as uncertainty and a percentage of the weighted points will be deducted.
2. You must answer all questions.
3. Certain parts of the test are identified as "Mandatory Correctness" which means they must be considered as separate units and must be answered for a passing grade. It is possible to receive an overall passing grade on the examination and yet not be accepted for certification if one of the "Mandatory Correctness" sections is incorrectly answered.

PART I - Self-contained or closed book examination. Two hours.

PART II - Open Book Examination. Two hours.

You may clarify any questions by consulting the Staff, but do not discuss any of the material with other examinees.

#### PART I - SECTION I Possible 15 Points

Matching - Place letter symbol in front of number symbol - you must match the best relationships.

- |                   |   |
|-------------------|---|
| 1. Sting Ray      | A. 2 Atm. absolute pressure             |
| 2. Pre-test       | B. Partial pressures                    |
| 3. 33 Feet        | C. Most crucial ascent time             |
| 4. 66 Feet        | D. Ability and knowledge classification |
| 5. Dalton's Law   | E. Futuristic SCUBA                     |
| 6. Target Plan F. | A breathing resistance solution         |

- |                       |                                      |
|-----------------------|--------------------------------------|
| 7. 79% N2 21% O2      | G. Purging of CO2                    |
| 8. Benecke            | H. Dangerous Marine Life             |
| 9. 10 Feet to surface | I. The inventor of hyperventilation  |
| 10. Venturi           | J. 44.1 psi                          |
| 11. Human stroke      | K. Compressed air                    |
| 12. Mouth-to-mouth    | L. Breath holding                    |
| 13. Voluntary Apnea   | M. Faulty mask adjustment            |
| 14. Hyperventilation  | N. Survival swim method              |
| 15. Martinis Law      | O. Tube rescue contest               |
|                       | P. An artificial breathing method    |
|                       | Q. Oxygen built up                   |
|                       | R. Beginning swim method             |
|                       | S. Rapture of the deep               |
|                       | T. Developed no decompression tables |
|                       | U. Super Nelson                      |

## PART I - SECTION II

Possible 60 points

MULTIPLE CHOICE - Place alphabetical symbol of closely related choice in front of number.

1. The best method of determining stoppage of breathing: (A) Condensation on face plate placed in front of mouth; (B) hand on diaphragm; (C) checking the pulse.
2. Sea urchin wounds should be: (A) Cauterized; (B) soaked and cleaned; (C) immersed in vinegar and soda.
3. The most important aspect of the Mouth-to-Mouth respiration method: (A) Opening of air way by chin extension; (B) closing of the nasal passages; (C) hand pressure on the abdomen.
4. The outstanding spear fisherman consider that success in spearing fish has a luck factor of: (A) 5%; (B) 50%; (C) 80%.
5. Registering record catches in fish is based upon the rules(s): (A) Completely submerged; (B) No-SCUBA; (C) No assistance; (D) all.
6. Spear fisherman consider the following factor(s) mandatory in successful spear fishing: (A) Power heads; (B) Large, heavy fins; (C) Water poise and lack of motion; (D) natural negative buoyancy; (E) all.
7. A stingray wound is a: (A) puncture; (B) Abrasion; (C) incision; (D) Laceration.
8. Pretesting a class helps to: (A) eliminate misfits; (B) Classify abilities; (C) Set a pattern for course.
9. The instructor will usually have his morning class: (A) facing east; (B) facing west; (C) facing north.
10. Liability in a diving accident on a class dive will be based upon: (A) prudent action; (B) insurance; (C) signed waivers.
11. The two most important selection factors in purchasing fins are: (A) color; (B) weight; (C) fit; (D) flexibility; (E) size adjustment.
12. To escape the pull of a rip tide: (A) swim parallel to beach; (B) swim toward the beach; (C) swim away from beach.
13. Plastic plates in masks are not to be recommended because: (A) they scratch, fog, and warp; (B) distort, telescope, and restrict; (C) tunnel, reflect, and depreciate.

14. The greatest change in pressure is encountered between: (A) Sea level and 33 feet; (B) 33 feet and 60 feet; (C) 60 feet and 150 feet; (D) 150 feet and 300 feet.
15. One of these is probably not a reaction to nitrogen narcosis: (A) dizziness; (B) courageous; (C) suicidal; (D) Responsible; (E) antagonistic.
16. An instructor should establish: (A) chaos; (B) social equality; (C) identity; (D) superiority; (E) all of these; (F) none of these.
17. The best procedure with shivering students is to: (A) ignore them; (B) give them reason why they are shivering; (C) try to sell them a rubber suit; (D) all of these; (E) none of these.
18. The best regulator on the market is: (A) the two hose, two stage; (B) an individual interpretation; (C) the one you use; (D) any regulator sold by a reputable manufacturer; (E) all of these; (F) none of these.
19. When going out through a heavy surf the tube should be: (A) pushed ahead; (B) under the diver; (C) trailed behind; (D) held over the head.
20. Oxygen makes up about what percent of our atmosphere? (A) 15%; (B) 20%; (C) 33%; (D) 80%.
21. A given volume of gas is reduced to what percent when taken down to 33 feet below sea level? (A) 25%; (B) 100%; (C) 50%; (D) 33%.
22. Which is not a symptom of Carbon dioxide poisoning? (A) headache; (B) nausea; (C) dizziness; (D) bleeding from the sinuses.
23. The pressure at 66 feet is how many times greater than at sea level: (A) 1; (B) 2; (C) 3; (D) 4.
24. The toxic effects of oxygen can occur in depths as shallow as: (A) 33 feet; (B) 100 feet; (C) 45 feet; (D) 50 feet.
25. Which piece of equipment should not be placed in the necessary group: (A) face plate; (B) float; (C) fins; (D) weights.
26. Ear injury can result in water pressure as shallow as: (A) 5 feet; (B) 10 feet; (C) 18 feet.
27. Which of the following "rays" cannot inflict a sting wound? (A) Bat; (B) Manta; (C) Sting; (D) Eagle rays.
28. The best method of entering very shallow water where rays are present is: (A) Shuffling feet; (B) run fast; (C) float over the top; (D) step lightly.
29. Very fine sand on a flat upper beach would indicate what type of surf conditions: (A) strong; (B) slight; (C) pounding surf; (D) rip currents.
30. The bullseye in the target plan approach to teaching refers to material that is: (A) important; (B) superfluous; (C) basic; (D) valuable.
31. Which gas is the natural product of respiration: (A) nitrogen; (B) carbon monoxide; (C) carbon dioxide; (D) oxygen.
32. Which of the following presents the least danger for SCUBA divers? (A) marine life; (B) pressure effects; (C) faulty equipment.
33. What is the most practical solution to the diving accident problem? (A) public education; (B) legislation; (C) supervised diving areas.
34. The sum of atmospheric and gauge pressure is called: (A) gauge; (B) total; (C) absolute; (D) delaying and bends.
35. The air reserve is a safety device to permit: (A) deeper diving; (B) longer diving time; (C) safer ascent; (D) delaying and bends.
36. At what approximate percentage does the carbon dioxide content cause a severe respiratory distress? (A) 3%; (B) 5%; (C) 8%; (D) 10%.
37. Which piece of equipment should not be used by a beginning diver? (A) face plate; (B) float; (C) fins; (D) SCUBA.
38. Fat tissue has a great affinity for: (A) oxygen; (B) nitrogen; (C) carbon dioxide; (D) water.

39. Water is approximately how many times more dense than air: (A) 7; (B) 2; (C) 4; (D)  $3\frac{1}{3}$ .
40. Which is the least desirable type of lung? (A) open circuit; (B) closed circuit; (C) demand type; (D) free flow type.
41. A fish is not actually where it appears - you see it because of: (A) reflection; (B) refraction; (C) convection; (D) conduction.
42. Which of the following would prove most dangerous to a diver: (A) arm cramp; (B) leg cramp; (C) stomach cramp; (D) sea sickness.
43. Sharks are considered dangerous because: (A) of their speed; (B) of their teeth; (C) they are unpredictable.
44. Which of the following can be done the previous night to help the following day's diving meet the most? (A) vitamins; (B) breathing deeply; (C) good night's sleep; (D) refer to tide tables.
45. Which is not a basic law applicable to diving physics: (A) Boyles Law; (B) Newtons Law; (C) Charles Law; (D) Henrys Law.
46. Which is the best rule of thumb to use in all circumstances: (A) extreme caution; (B) fast action; (C) common sense; (D) medication.
47. Tank and regulator valves should be lubricated with: (A) very light grease; (B) Dow-Corning silicone grease; (C) graphite; (D) very heavy grease; (E) never by the student.
48. A diver's vital capacity probably can be increased after three months of practice by: (A) 50%; (B) 30%; (C) 20%; (D) 57%.
49. The danger of shallow water blackout is intensified by: (A) rip currents; (B) Hypersalinity; (C) Emphysema; (D) Hyperventilation.
50. Shallow water blackout by skindivers is most closely related to: (A) Daltons Law; (B) Charles Law; (C) Boyles Law; (D) Henrys Law.
51. Entrapment in quick sand by a diver is most directly based upon his: (A) vital capacity; (B) specific gravity; (C) refractibility; (D) body structure.
52. Ear, sinus and mask squeeze are diving illnesses explained by: (A) Hippocrates Oath; (B) water density; (C) Boyles Law; (D) Thermocline.
53. The Navy multidive tables are limited to depths above (A) 150 ft.; (B) 180 ft.; (C) 190 ft.; (D) 220 ft.
54. Artificial respiration should be started: (A) before the doctor arrives; (B) immediately; (C) after drainage; (D) all; (E) none.
55. Some studies show that the percentage of lives saved in comparison to minutes after breath stoppage is: (A) 25% by 6 min.; (B) 50% by 4 min.; (C) 25% by 4 min.; (D) 50% by 6 min.
56. Movements of water masses in a thermocline can be determined by civilian divers by use of: (A) a dye bottle with loose cap; (B) a weighted can of talc; (C) a Nansen bottle; (D) a twirley bend.
57. The best general dive pattern according to Dr. Rechnitzer is: (A) a circle; (B) a grid; (C) a rectangle; (D) none of these.
58. The reactions to panic follow a pattern of (A) flight or fight; (B) sink or swim; (C) ascent or descent; (D) choke or overbreathe.
59. Salvage awards are based upon what percentage of the value: (A) 75-90%; (B) 14-35%; (C) 10-30%; (D) 60-75%.
60. The last thing to check before jumping in with SCUBA is: (A) air supply; (B) reserve adjustment; (C) the area below; (D) your buddy.

#### PART I - SECTION III

Possible 100 points

COMPLETION - Please print the best word or phrase to complete accurate meaning to each statement.

1. Early symptoms of bubbles in the blood can be noted through the following test\_\_\_\_\_.
2. The limiting depth for free ascent is \_\_\_\_\_ because\_\_\_\_\_.
3. A crab's hard shell prevents growth therefore at intervals of approximately one year a \_\_\_\_\_ process takes place.
4. An instructor is liable when he is \_\_\_\_\_.
5. An increase in pressure on a diver without proper equalization results in the \_\_\_\_\_.
6. Respiration, exposure suits, and weight belts can radically effect \_\_\_\_\_.
7. The four body parts of major importance in a diver's physical examination are \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.
8. The leading contributors to diver's fatigue are hard work, panic, and \_\_\_\_\_.
9. Breath holding is known by the technical term \_\_\_\_\_.
10. Four broad sources of underwater communication are sight, \_\_\_\_\_, and \_\_\_\_\_.
11. What are the characteristics of a victim of excess carbon monoxide? \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.
12. Name two classifications of SCUBA: \_\_\_\_\_ and \_\_\_\_\_.
13. Name three types of entry into the water while wearing SCUBA. \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
14. Name the two types of surface dives. \_\_\_\_\_ and \_\_\_\_\_.
15. What are the two classifications of skin diving equipment? \_\_\_\_\_ and \_\_\_\_\_.
16. Auxier and Blakeslee are names closely associated with \_\_\_\_\_.
17. The standard tank is rated at \_\_\_\_\_ cubic feet and is generally filled to \_\_\_\_\_ psi and weighs approximately \_\_\_\_\_ pounds.
18. Two safety aids in surface swimming with SCUBA are the float and \_\_\_\_\_.
19. The last decompression stop nearest the surface listed in the NAVY decompression table regardless of how deep the dive was is \_\_\_\_\_.
20. Three methods of equalizing the pressure in the air spaces of the head are \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.
21. Recompression treatment is necessary for \_\_\_\_\_ or \_\_\_\_\_.
22. You should never ascend with SCUBA faster than \_\_\_\_\_ feet per minute.
23. Two kinds of reserve systems are \_\_\_\_\_ and \_\_\_\_\_.24. \_\_\_\_\_ is perhaps the most serious and most easily developed complication which can occur in diving.
25. The last piece of equipment tied on to a SCUBA diver is \_\_\_\_\_.
26. The redissolving of gases into the circulatory system is called \_\_\_\_\_.
27. The distance between the crests of waves is called the \_\_\_\_\_.
28. The laws of physics applied to diving are \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
29. List 5 natural underwater clues used for orientation without surfacing: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
30. List ten dangerous marine animals or water conditions

_____	_____
_____	_____
_____	_____
_____	_____

31. Locating yourself at sea by sight-lining objects is called taking your \_\_\_\_\_.

(32 through 37 are worth 6 points each)

32. List for Air Embolism

Cause

Prevention

Symptoms

First

Aid

Treatment

(no #33 appeared on the test)

34. List for the bends

Cause

Prevention

Symptoms

First

Aid

Treatment

35. Carbon Monoxide Poisoning

Cause

Prevention

Symptoms

First

Aid

Treatment

36. Carbon Dioxide Poisoning

Cause

Prevention



Symptoms

First

Aid

Treatment

37. Oxygen Poisoning

Cause

Prevention

Symptoms

First

Aid

Treatment

□□□î

38. If the total lung volume of a breath-holding skin diver is 5 liters at the surface of a fresh water lake, his lung volume will be \_\_\_\_\_ at 33 feet. Without weights, he will be \_\_\_\_\_ buoyant at this depth.

39. If the oxygen partial pressure is 160mm/hg at 1 atmosphere absolute, the partial pressure of oxygen in air compressed to 3 atm. gauge pressure would be \_\_\_\_\_. 7 atm. absolute pressure would be \_\_\_\_\_.

40. At approximately \_\_\_\_\_ in depth, a 2% oxygen mixture would be adequate for human needs.

#### PART I - SECTION IV

Possible 50 points

TRUE OR FALSE - You may write qualifications for controversial questions.

1. Research has indicated that the majority of diving deaths result from lack of proper education, and not mechanical failure.
2. An air bottle should never be completely exhausted to prevent any undue dirt or moisture from getting in.
3. When selecting a face plate or fins fir should be of prime importance.
4. It is always best to attach any equipment to the body with as many straps as possible.
5. The lack of oxygen can occur without warning.
6. Cold water causes a greater use of oxygen.
7. It is possible to use leg strokes other than the flutter kick in diving.
8. The jackknife surface dive is best when diving in kelp.
9. Air embolism is caused by a rapid ascent anytime while holding the breath.
10. Whenever a swimmer contracts any type of cramp, he will usually drown unless someone is able to assist him immediately.
11. The need for oxygen increases as the exercise increases.
12. It is usually all right to dive by yourself as long as you tell a friend where you will be diving.

13. Nitrogen Narcosis is now considered to exist when diving between 30 and 100 feet.
14. Anyone can dive with a SCUBA unit as long as they are over 15 years old.
15. Persons with excessive fat tissues are more likely to develop the bends.
16. The atmospheric pressure increases 14.7 pounds per square inch for every 30 feet.
17. An increase in respiration is a good indication of a CO<sub>2</sub> build-up.
18. The toxic effects of oxygen becomes extremely dangerous in depths greater than 33 feet.
19. Diving with sinus trouble or colds is safe if you do not exceed the 33 ft. level.
20. Air supply duration is easily determined.
21. It is safe to interchange the gases in the oxygen and air tanks.
22. It is correct to say "tunnel vision" is a symptom of oxygen poisoning.
23. A good safety release should operate easily with one hand.
24. Air embolism will occur when a skindiver, using no air supply, swims down 33 feet and ascends while holding his breath.
25. Rubber equipment will last longer if rinsed off with fresh water after being exposed to salt water.
26. A fishing license is not required when the diver is only going to be getting abalone.
27. It is better to use up all your air in order to make your unit lighter when you know you will have to swim in through the surf and breakers.
28. Skin diving and SCUBA diving are no more dangerous than most other outdoor sports when the proper precautions are taken and the right attitude is used.
29. "Bird Cage" refers to an undererable snorkel attachment.
30. The knife is a basic piece of equipment for protection.
31. Ear plugs are permissive if ears are infected.
32. Sea water provides more buoyancy than fresh water.
33. A fishing license is not necessary for pismo clams.
34. Rip currents are the best way to get out from the beach when diving.
35. Face masks with plastic lens are safer because they don't break.
36. Fluids are considered incompressible.
37. Claustrophobia is a psychological illness created momentarily when the air supply is shut off.
38. Skin diving experience is a vital factor in safe SCUBA diving.
39. Diving Club membership is primarily an outlet for recognition of a record catch.
40. One should begin equalizing at 30 feet.
41. Air embolism is a serious problem even at 9 feet.
42. A thermocline usually has cold water over warm caused by surface wind and solar heating.
43. Air embolism can occur while skin diving.
44. The air we breathe contains 69% nitrogen.
45. Lower the head as first aid care with an air embolism victim.
46. It is possible to stay at 33 feet for 5 hours without decompressing.

## Appendix 2

### NAUI ADMINISTRATION

Board of Directors President/Chairman

1960 - 1962 and 1964 - 1966    Albert Tillman (NAUI #1)

1962 - 1964	Garry Howland (NAUI #13)
1966-1968	John Jones Jr. (NAUI #2)
1968-1969	Ben Davis (NAUI #101)
1970 - 1974	Glen Egstrom, Ph.D. (NAUI #937)
1982 - 1983	Larry Cushman (NAUI #206)
1975-1979	William "Bill" High (NAUI #175)
1980 - 1981 and 1984 - 1986	John Englander (NAUI #1148)
1987 and 1991	Nancy Guarascio
1988 - 1990	Ken Heist (NAUI #1036)
1992 - 1993	Robert "Bob" Brayman
1994	Bret Gilliam
1995 - present	Keith Sliman

#### Board of Directors Membership

Albert Tillman (NAUI #1)  
 Garry Howland (NAUI #13)  
 John Jones Jr. (NAUI #2)  
 Ben Davis (NAUI #101)  
 Glen Egstrom (NAUI #937)  
 Larry Cushman (NAUI #206)  
 Bill High (NAUI #175)  
 John Englander (NAUI #1148)  
 Nancy Guarascio (NAUI #5008)  
 Ken Heist (NAUI #1036L)  
 Robert Brayman (NAUI #6058L)  
 Bret Gilliam (NAUI #3234L)  
 Keith Sliman (NAUI #3417)  
 Neal Hess  
 Art Ullrich (NAUI #601)  
 Jim Auxier  
 Ray Tussey  
 Jim Cahill  
 Dr. Joseph Bodner (NAUI #9)  
 John Reseck Jr. (NAUI #949)  
 Lee Somers, Ph.D. (NAUI #A-13)  
 Fred Calhoun (NAUI #380)  
 Roy Damron (NAUI #207)  
 Michael Kevorkian (NAUI #449)  
 Paul Tzimoulis (NAUI #347)  
 Jeff Bozanic (NAUI #5334L)  
 Ronnie Lynn Damico (NAUI #2972L)  
 Lawrence Beagan  
 Ken Kizer (NAUI #6799)  
 John Wozny (NAUI #1442)  
 Mark Flahan (NAUI #2080)  
 Susan Lucas

Barry Allen (NAUI #1794)  
Lou Fead(NAUI #1413)  
D. Lee Kvaines(NAUI #628)  
David McLaren  
John Wenzel (NAUI #3861)  
W. H. Halliday  
Sam Jackson  
Butch Hendrick  
Rick Fernandez (NAUI #6741L)  
Alan Pottasch (NAUI #5884)  
Doug DeProy  
Lyn Nelson

Board of Advisors Membership

James Stewart (NAUI #A-88)  
Dr. James Councilman  
Capt. Albert Behnke  
Cmdr. George Bond  
Capt. Jacques Cousteau  
Dr. Bruce Halstead  
Dr. Edward Lanphier  
Hannes Keller  
Dr. Andreas Rechnitzer (NAUI #57)  
David Smith  
Dr. Arthur Bachrach  
Ben Davis (NAUI #101)  
Dr. Robert Gregg  
Michael Wagner  
Henry Veix (NAUI #8227L)  
James Corry (NAUI #7184)  
Roy Damron (NAUI #204)  
John Daniels (NAUI #938)  
Mike Emmermann (NAUI #7914L)  
Homer Fletcher (NAUI #1833)  
Leaonard Greenstone (NAUI #2336)  
Paul Heinmiller (NAUI #5141)  
Bill High (NAUI #175)  
Garry Howland (NAUI #13)  
Karl Huggins (NAUI #5900)  
Larry Killough  
Mike Lang (NAUI #5879)  
James Miller, Ph.D.  
Tom Mount  
Alan Pottasch (NAUI #5884)  
John Reseck (NAUI #949)  
Jens Rubschlager  
Art Ullrich (NAUI #601)

Ron Villarreal (NAUI #5035)  
Phyllis Villarreal (NAUI #1857)  
Dr. James Vorosmarti

#### NAUI Office Administration

1960 - 1961	Neal Hess - Executive Secretary
1961 - 1962	Garry Howland - Executive Secretary
1962 - 1967	Albert Tillman - Executive Director
1967 - 1968	John Jones Jr. - Executive Director
1968 - 1974	Art Ullrich - General Manager
1974 - 1978	Jon Hardy - General Manager
1979 - 1980	Ken Brock - General Manager
	Drew Richardson-General Manager
- 1986	Marshall McNott-Executive Director
1986 - 1987	Dennis Graver - Interim Executive Director
1987 - 1995	Sam Jackson - Executive Director
1995 - ????	Dale Fox - Interim Executive Director

#### Appendix 3

#### NAUI AWARD WINNERS

##### **Outstanding Service Award**

This is NAUI's oldest award, having been in existence in its present form since 1975, and its highest.

It is awarded to NAUI members who distinguish themselves for service provided to the association. The award consists of a special bronze sculpture depicting NAUI's original logo that was designed and cast by Bob Straight, NAUI #895L. The sculpture is affixed to a plaque. An embroidered cloth emblem designed to be worn in conjunction with the NAUI Instructor emblem is also presented. Candidates for these awards are nominated by the NAUI Branch Managers or field instructors. The majority of nominations are traditionally submitted by Branch Managers, National Liaisons and other field representatives, though any member of NAUI may nominate a NAUI member for the award.

NAME	NAUI #	Year
David Addyman	1211	1975
William Alevizon	13217	1994
Barry Allen	1794	1975
Joaquin Alzaga	12743	1994
Noylis Amair	12556	1995
Bruce Anderson	1443	1990
Alta Andrews		1989
Daniel Anguiano	12091	1992
Susan Arnest	2243L	1983
Mitchell Arnett	10502	1995
Ross Bachman	413	1975

Arthur Bachrach		1995
Ronald Bangasser	3909L	1983
Susan Bangasser	3910L	1979
Robert Barkley	15369	1995
Wally Barnes	1716	1994
Ira Barocas	10126	1990
Steven Barsky	2076	1988
Luc Baumont	Z9829	1994
Christopher Baye	11257	1994
James Beard	11123	1992
Jeffrey Bertsch	11189	1995
Gregory Blackburn	7230	1984
Reginald Boer 6375L	1983	
Lawrence Bolnick	6298	1984
Jolie Bookspan	7636	1992
Cheri Boone	4851	1987
Jeffrey Bozanic	5334L	1984
Robert Brandeberry	2938L	1991
Richard Brantley	6865	1987
Robert Brayman	6058L	1985
Charles Brown		1976
H. Brown	3416L	1993
James Brown	6186L	1985
Albert Bruton	2081	1982
Warran Buck	114	1975
George Buetow	2980	1979
Edward Busigo	12004	1993
Stephen Byron	8139	1988
Fred Calhoun	380	1975
Gerald Calhoun	7071	1994
Spencer Campbell	A29	1975
Patricia Carroll	7512	1991
Paul Casabona	14487	1994
John Choate	2368	1979
Chris Christensen	A14	1976
Eugene Clark		1991
C. Clemens	Z1752	1991
Janice Cockrell	6932	1991
Alan Company	Z1533	1991
George Conger	4853	1984
Darin Connors	11040	1994
Paul Cook	8069	1994
James Corry	7184	1985
Nick Craig	3480L	1994
Derik Crotts	10943L	1995
Lawrence Cushman	206	1977
Ron Dalton	12219	1993

Ronnie Damico	2972L	1983
Roy Damron	207	1979
John Daniels	938	1975
Peter Davidson	5359	1982
C. Davis	101	1975
David Diffie	13055	1993
Ralph Dodds	11080	1994
Darren Douglass	6473	1990
Sylvia Earle	1991	
Norris Eastman	4591	1994
Dallas Edmiston	4099	1979
Glen Egstrom 937	1978	
Gerald Eisenstat	2590	1976
Harry Ellis	4330L	1983
Marsha Ellis		1985
Michael Emmerman	7914L	1994
John Englander	1148	1977
Leslie Farnel	6092	1989
Lou Fead	1413	1976
L. Fernald	3204	1988
Richard Fernandez	6741L	1991
John Fine	4431	1991
Mark Flahan	2080	1975
Homer Fletcher	1833	1978
Ian Francis	6471	1987
Kevin Freeland	8705L	1992
Judith Friedel	3107	1982
Kenneth Frisco	1933	1982
Robert Fronk	605	1977
Bernard Fuersich	8940	1993
Joseph Gallant	1795	1975
James Gatacre	6969	1995
Steven Gerrard	5608	1988
Bret Gilliam	3234L	1979
Dennis Graver	1103L	1975
Danny Grizzard	3550	1992
Nancy Guarascio	5008	1984
William Hall	11519L	1994
David Hanson	5907L	1992
Jon Hardy	1002	1978
James Haynes	2115	1977
John Heine	5924	1992
Paul Heinmiller	5141	1982
Kenneth Heist	1036L	1975
Walter Hendrich II	1724L	1983
Walter Hendrick Sr.	391	1978
Roger Hess		1993

James Hicks	4490	1983
Bruce Higgins	5001L	1983
William High	175	1975
R. Hill	9243	1986
Robert Hoffman	2908	1984
William Horn	1993	
Garrauld Howland	13	1975
Karl Huggins	5900	1987
Susan Innes	9325	1990
Richard Jacoby	2987	1995
Kenneth Jardine	11041	1994
Judith Jennet	5365	1985
Dean Johnson	10594	1993
James Joiner	965	1978
C. Jones	8690	1988
John Jordan	14830L	1995
Robert Keene	6272	1985
Fred Keller	9406	1989
Henry Ketels	1092	1982
Michael Kevorkian	449	1975
Jennifer King	6867	1995
William King	6297	1995
Elizabeth Kintzing	7133	1995
Denis Kirwan	A82	1990
Kenneth Kizer	6799	1984
Mason Klinck	10135	1992
Gregory Kocher	2193	1976
Ron Kormanik		1989
Stefan Kozak	104	1975
Larry Kray	11312	1995
Lee Kvalnes	628	1977
Camille Lajaunie	D3781	1993
John Lake	5815	1984
Robert Landers	1039	1984
Michael Lang	5879	1993
Howard Latham		1991
Robert Leahy	2568	1986
Lawrence LeMay	3006	1987
K. Li	10765L	1992
Norman Lichtman	2825L	1994
Billy Liu	5037L	1992
John Livingstone	5405	1981 & 1984
Harvey Livschitz	8010	1988
Christopher Logue	15577	1995
Kenneth Loyst	2976	1989
Donald MacKenzie	1069	1977
Bruce Mackin	8925	1992



Klaus Mahser	13199	1994
Vincent Malkoski	8876	1988
Leon Manry	2378	1976
Francis Marcoux	6844	1993
James Marshall	4932	1995
John McAniff		1977
Jack McKenney	306	1978
James McMahan	888	1975
David Michael	1921	1989
Ronald Miskavich	1976	1979
Wayne Mitchell	3565L	1986
Britton Mockridge	2036	1979
Joseph Mokry	7429	1995
Rick Moore	5304	1991
Scott Morgan	9565	1994
Bruno Morris	12746	1992
Donald Morris	1110	1983
Andrew Mrozinski	9760L	1995
Scott Munro	6791L	1987
Burhaneddin Muntasser	9650	1990
Milledge Murphey	7179	1988
Rusty Murray	4469	1988
David Nagle	2511	1979
Donna Nawrocki	5923	1989
Franklin Nawrocki	4017	1983
Peter Nawrocky		1994
Mike Nelson	11892	1995
Cliff Newell	12105	1995
Michael Nomad	1737	1985
Nancy Norton		1993
Richard Norton	9514	1991
Mark Novak	2989	1983
Patrick O'Donovan	7168	1989
Timothy O'Leary	10144	1994
James Oakley	5178	1987
Daniel Orr	5612	1984
Ozzie Osborne	3640	1979
Joseph Osterheim	6199	1987
Judith Ovard	10360	1990
William Page	1547	1988
Duncan Pattenden	9534	1992
John Pauli	5069	1991
Kenneth Peisker	11178	1993
Brian Perry	10336	1993
Albert Pierce	1292	1982
Andrew Pilmanis		1989
Martin Poirier	10040L	1994

Alan Pottasch	5884	1990
Richard Powell	3479	1984
Lawrence Price	8757	1987
Peter Price	3886	1994
Gerald Putnam	4861	1982
Scott Raish	4812	1984
A. Rechnitzer	57	1995
John Reseck Jr.	949	1977
Dorthe Reshef	7605L	1988
Arthur Rhodes	176	1987
Howard Ring	1219	1976
Margaret Rioux	5956	1992
Terrence Rioux	5958	1992
John Rogers	3024	1978
Robert Rollins	11125	1992
Daniel Romance	6421L	1993
Richard Rutkowski	4005	1977
Robert Rutledge	5127	1984
Valorie Rutledge	7596	1986
Ronald Ryan	7205L	1991
George Safirowski	8921L	1992
NOAA Sanctuary Program		1991
Frank Scalli	A90	1992
William Schane	2529	1982
Raphael Scharf	3494	1991
Rikki Schick	B6265	1992
Gerald Schnabel	2464	1988
Ray Scott	5792	1989
Stuart Seiff	4142L	1983
Ralph Shamlan		1976
Randolph Shaw	9102L	1994
Michelle Shearer	9999	1987
Robert Sheridan	2992	1984
David Sipperly	8282	1990
Ken Skitt	4000	1988
Cheryl Slabey		1992
Jeanne Sleeper	2648	1977
Keith Sliman	3417	1988
Susan Smiley	4870	1991
C. Smith	2299	1976
James Smith	2452	1991
Stephen Soh	6993	1988
Lee Somers	A-13	1978
Steven Spandorf	13349L	1995
Vic Sparks	10039	1994
James Squires	8879	1995
Kimberly Staman	10618	1990

Gregg Stanton	3509	1992
Edward Stetson	7157	1995
James Stewart	A-88	1976
David Stillman	5962	1989
Phillip Stuart-Sharkey	4505	1982
Herbert Sugden	8552	1994
Richard Swain	2542	1983
Quinten Swanepoel	8006	1988
Yue-Ming Tam	8243L	1990
Glenn Taylor	3070	1975
Larry Taylor	5912	1988
Hans Telford	6539	1985
Tommy Thompson		1978
Erick Tichunk		1995
John Tolzmann	7701	1989
Darlene Tomalis	5469	1985
Michael Tong	7865L	1992
Michael Tongg	2407	1982
Henry Tonnemacher	4286	1982
Laurel Touchette	4259	1978
Harry Truitt	2482	1979
Paul Tzimoulis	347	1976
Edward Uditis	1293	1982
Arthur Ullrich Jr.	601	1977
Charles Vallance	4660	1984
Raymond VanHook	2623	1977
Shirley VanHook	2141	1977
Patrick Van Mullem	5168	1985
Henry Veix	8227L	1991
Hillary Viders	10107L	1990
Phyllis Villarreal	1857	1991
Ron Villarreal	5035	1991
Noel Voroba	3683	1983
William Walker	4324	1989
Stan Waterman		1991
Diane Weller	5314	1985
John Wenzel	3861	1983
Kathy Weydig	11520	1994
Kenneth Wheeler	9063	1992
Robert Widmann	2055	1978
Anthony Wiley	8288	1993
Michael Williams	3413	1979
Sharon Williams	3414	1985
Steve Williams	9455	1992
Jack Witt	3905	1978
Rudolph Wittwer	8708	1994
John Wozny	1442	1982

Johhny Wyatt	5759	1986
Su Yen	4315L	1990
Suk Yoon	8626	1992
John Young	10118	1992
Ron Young		1976
Andrea Zaferes	10533	1992
Jeffrey Zilliox	11632	1995

### **Continuing Service Award**

This is awarded to NAUI members who have previously received an Outstanding Service Award and who have continued to distinguish themselves through further service to the Association. The award consists of a star affixed to a plaque and an embroidered cloth emblem - designed to be worn with the NAUI Instructor emblem. Candidates for these awards are nominated by the NAUI Branch Managers or field instructors. Awardees are selected by a committee comprised of NAUI members on the NAUI Headquarters staff.

NAME	NAUI #	Year
Barry Allen	1794	1979
Susan Bangasser	3910L	1983
Wally Barnes	1716	1995
Steven Barsky	2076	1994
Cheri Boone	4851	1991
Jeffrey Bozanic	5334L	1986
Robert Brayman	6058L	1990
Charles Brown		1978
Fred Calhoun	380	1978
Spencer Campbell	A-29	1979 & 1985
Chris Christensen	A-14	1978
James Corry	7184	1987, 1991, & 1992
Lawrence Cushman	206	1983 & 1985
Roy Damron	207	1981
C. Davis	101	1978
Harry Ellis	4330L	1995
Marsha Ellis		1993
John Englander	1148	1982 & 1983
Lou Fead	1413	1979 & 1988
Mark Flahan	2080	1978, 1982, & 1992
Homer Fletcher	1833	1988
Judith Friedel	3107	1986
Kenneth Frisco	1933	1992
Robert Fronk	605	1979 & 1982
Joseph Gallant1	795	1991
Nancy Guarascio	5008	1993
Paul Heinmiller	5141	9187
Kenneth Heist	1036L	1978, 1984, & 1994

Walter Hendrick II	1724L	1990
Bruce Higgins	5001L	1985, 1990, & 1993
William High	175	1985
R. Hill	9243	1991
Tom Ho	7059	1995
Robert Hoffman	2908	1985 & 1989
Garrauld Howland	13	1983 & 1985
C. Jones	8690	1989
Henry Ketels	1092	1988 & 1992
Michael Kevorkian	449	1985
Kenneth Kizer	6799	1992
Mason Klinck	10135	1994
Lee Kvalnes	628	1979, 1981, & 1985
John Lake	5815	1988
Vincent Malkoski	8876	1992
Leon Manry	2378	1979
Wayne Mitchell	3565L	1988 & 1991
Scott Munro	6791L	1994
Milledge Murphey	7179	1990
David Nagle	2511	1982 & 1993
Franklin Nawrocki	4017	1989
Daniel Orr	5612	1992
Ozzie Osborne	3640	1982
William Page	1547	1991
John Reseck Jr.	949	1987 & 1990
Dorthe Reshef	7605L	1994
Howard Ring	1219	1988
Richard Rutkowski	4005	1982
Robert Rutledge	5127	1988 & 1992
Valerie Rutledge	7596	1988 & 1992
Ronald Ryan	7205L	1993
William Schane	2529	1989
Ray Scott	5792	1995
Ken Skitt	4000	1991
Keith Sliman	3417	1990 & 1993
Stephen Soh	6993	1989
Kimberly Staman	10618	1992
Phillip Stuart-Sharkey	4505	1988 & 1992
Richard Swain	2542	1985
Quinten Swanepoel	8006	1995
Larry Taylor	5912	1995
Edward Uditis	1293	1985
Arthur Ullrich Jr.	601	1981
Patrick Van Mullem	5168	1986
Henry Veix	8227L	1995
Hillary Vidars	10107L	1991
Kathy Weydig	11520	1995

**The Albert Pierce Medal for Heroism**

The Albert Pierce Medal for Heroism was established by the Board of Directors in 1992 following a study organized by Board Member Jeff Bozanic. Its purpose is to recognize personal valor above and beyond the call of duty as exhibited during lifesaving or rescue operations. With the permission of his wife, the award is named to posthumously honor research and contributions made by Albert Pierce, NAUI #1292, during his lifetime of work in diving instruction and diving lifesaving.

The award consists of a medal specially cast by Bob Straight, NAUI #895L, based on a design proposed by Mike Williams. If the rescuer was injured during the conduct of the rescue, the medal with a special palm is to be conferred.

NAME	NAUI #	Year
Michael Bohnenberger	5559	1993
Stanley Cwiklinski		1992

**Honorary NAUI Membership**

The Board of Directors formalized the designation of Honorary Membership in 1992. NAUI Honorary Membership may be awarded to recognize outstanding, long-term efforts of non-NAUI members to promote recreational diving, marine conservation, or marine education.

NAME	NAUI #	Year
James Arkison	H-1	1988
Lloyd Bridges	H-2	1988
E.R. Cross	H-3	1991
Betty Cummins	H-4	1993
Clive Cussler	H-5	1995

**Outstanding Training Support Award**

Until 1992, NAUI had no award to specifically support one very dedicated and self-sacrificing group of NAUI members. This group is comprised of long-term Assistant Instructors, Divemasters, and Skin Diving Instructors who have chosen to make a contribution to diving by assisting in the training programs of NAUI Instructors, rather than by running their "own" courses as Instructors.

The concept of a support award for such persons was sparked by Larry Nelson, NAUI #6095, who submitted an article to Sources magazine thanking NAUI Assistant Instructors Pat Adams and Doug Robinson for ten years of support for his training programs. In a letter with the article, he expressed regret that there was not an award that could be made to recognize really significant contributions of long-term, professional Assistants.

The award consists of an embroidered cloth emblem suitable for wear with any leadership certification emblem. There will be five-year and ten-year versions, utilizing silver and gold devices, respectively.

NAME	NAUI #	Year
Pat Adams	Z7223	1991
Robert Kaufman	DM1141	1992
Howard Latham	Z4436	1993
Angelo Parlato	DM4297	1995
Doug Robinson	Z7222	1991
Allen Sirois	DM3242	1993
Garry Tank	DM4503	1995

### **The IUF Environmental Enrichment Award**

For decades, in the name of progress, humans have squandered the natural resources of our planet. Of particular concern to the diving community is the continuing damage to the marine environment and the fear that marine ecosystems will lose their ability to regenerate.

In conjunction with its goal of environmental education, NAUI approved in 1992 an annual Environmental Enrichment Award to recognize individuals and organizations for achievements in environmental conservation. The award concept was developed by Hillary Viders, NAUI #10107L, then the NAUI/NDA Environmental Liaison. The award was approved by the Board of Directors of NAUI and the Board of Governors of NDA as an NDA award. In accordance with the redesignation of NDA as IUF in 1994, the award is an IUF award.

NAME	NAUI #	Year
Marjorie Bank		1994
Dacor Corp.		1993
Cordell Expeditions		1995
Harry Hauck	1723	1993
Norine Rouse	1040	1992
Don Stewart		1995
John Stoneman		1995
Gulf Team		1994

### **The Leonard Greenstone Diving Safety Award**

The Leonard Greenstone Diving Safety Award was created in 1973 by Leonard Greenstone, NAUI #2336, who commissioned the award and donated the monies creating its support fund. It was first presented in 1974.

NAME	NAUI #	Year
Dr. Arthur Bachrach		1983
Dr. Peter Bennet		1985
Dr. Charles Brown		1977
James Corry	7184	1989
Trevor Davies		1992
Jefferson Davis		1981
Dr. Glen Egstrom	937	1976
Dr. Paul Heinmiller	5141	1991
Walter Hendrick II	1724L	1984

William High	175	1978
Dr. Karl Huggins	5900	1990
Richard Long	A-49	1994
John McAniff		1988
Dan Orr	5612	1995
Albert Pierce	1292	1987
Dr. Lee Somers	A-13	1975
Merrill Spencer		1974
James Stewart	A-88	1986
J. Morgan Wells	4175	1993

### **Dr. Charlie Brown Memorial Award**

The Dr. Charlie Brown Memorial Award was created to posthumously recognize and commemorate the contributions made by Dr. Charles V. Brown of Laguna Beach, California. For many years, Dr. Brown dedicated himself to service to the sport diving community. He lectured at Instructor Certification Courses, made IQ presentations, wrote articles and support materials for diver training and made himself available in every way to serve the diver and diving safety. He did this on a volunteer basis, unselfishly, and in a non-profit capacity. The basis for the award, therefore, is volunteer service and contributions to the diving community of a substantial nature, ideally by an individual not a professional in the diving field. The award was created in 1985 through the joint efforts of Bob Widmann, NAUI #2055, Chairman of the Charlie Brown Memorial Foundation and Mike Williams, NAUI #3413, contributor of the perpetual trophy and then Chairman of the Standing Awards Committee at NAUI Headquarters.

NAME	NAUI #	Year
James Corry	7184	1991
Christopher Duecker		1987
Michael Emmerman	7914L	1994
Homer Fletcher	1833	1990
Takashi Hattori		1988
Walter Hendrick Sr.	1724L	1986
Dr. Kelly Hill	9243L	1993
Dr. James Hughes		1992
William Schane	2429	1989
John Wozny	1442	1995

### **Michael M Kevorkian Memorial Scholarship**

This scholarship was founded with the permission and assistance of the family of Michael Kevorkian, NAUI #449L, shortly after his death, to offer an outstanding NAUI Instructor Candidate NAUI Instructor Training Course tuition. NAUI administers the scholarship fund and solicits contributions.

NAME	NAUI #	Year
Ziad Al-Sokary	D7612	1994
Monika Dittli	Z10944	1995
Kerry Pate	12508	1992
Rhett Price	12420	1991



Christopher Prutzman	D5535	1993
James Sidden	11224	1989
Kathy Weydig	11520	1990

# NATIONAL ASSOCIATION OF UNDERWATER INSTRUCTORS

P.O. BOX 111, LYNWOOD, CALIFORNIA — c/o SKIN DIVER MAGAZINE



JAMES F. CAHILL



JIM AUXIER



NEAL HESS



GERRALD H. HOWLAND



JOHN C. JONES, JR.



AL TILLMAN

## BOARD OF DIRECTORS

### MR. JAMES F. CAHILL

Mr. Cahill is a former Lieutenant in the Naval Underwater Demolition Team 2 (Navy Frogman). Chairman of the Governors Committee to study Scuba and Skin Diving in Massachusetts. Member of the Massachusetts Marine Fisheries Advisory Commission and Senior Diver at the Texas Tower disaster recovery operation.

### MR. JIM AUXIER

Editor, "Skin Diver Magazine"

Jim Auxier has been closely associated with divers and diving activities since 1944. Skin diving became a full time job for Jim in 1951 when he and partner Chuck Blakeslee founded Skin Diver Magazine.

### MR. AL TILLMAN

Mr. Tillman is former Director, Underwater Activities, Los Angeles County Department of Parks and Recreation, Associate Professor Public Recreation at Los Angeles State College.

### MR. JOHN C. JONES, JR.

Mr. Jones is Director, Underwater Training, Broward County, Florida, Red Cross. Mr. Jones pioneered the training of scuba instructors in Florida.

### MR. NEAL HESS

Mr. Hess is instruction editor, "Skin Diver Magazine," and Director of Instructor Certification, Underwater Society of America.

### CAPT. GERRALD H. HOWLAND

Capt. Howland, USAF, is an Air Force Instructor Training Officer at Randolph AFB, Texas. He was the leading student at the NAUI 1960 Houston course.



CAPTAIN A. R. BEHNKE, JR.



COMMANDER GEORGE F. BOND



CAPTAIN J. Y. COUSTEAU



DR. ANDREAS B. RECHNITZER

CO-SPONSORED BY  
THE UNDERWATER SOCIETY OF AMERICA and SKIN DIVER MAGAZINE

The National Association of Underwater Instructors is a nonprofit organization whose purpose is to promote high standards of instruction, through sanctioned instructors, for non-military divers who use self-contained underwater breathing apparatus (SCUBA) and skin diving equipment. Through its objectives, NAUI ultimately hopes to open to all qualified people the science, wonders, and adventures of the underwater world.

NAUI is incorporated in the State of California and files State and Federal income tax forms and offers training and certification for instructor aspirants in North America. The governing body of NAUI, the Board of Directors, consists of a maximum of seven. These Board of Directors appoint the President, Vice President and Executive Secretary, as the executive officers of NAUI.

The Board of Directors meet once each year to determine NAUI policies and fiscal estimates. They also authorize the certification of all successful NAUI graduates. This Board certifies the training and teaching competency of NAUI instructors.

Current NAUI President is Mr. Tillman; Vice President is Mr. Jones, and Mr. Hess is Executive Secretary.

Certification as an instructor requires attending the NAUI 60-hour course in skin diving and scuba teaching, passing tests designed to demonstrate the applicant's qualifications for classroom and pool instruction and to assure that instructors possess technical knowledge of basic principals. A file will be maintained for each certified instructor at NAUI Headquarters, Lynwood, California.

The Board of Directors will select and provide instructor trainers for each official course. Courses will be offered at various locations in North America to meet the demands. Mr. Eugene Winter, Head, Dept. of Physical Education in Walla Walla College, will serve as instructor trainer for Washington, Oregon, Idaho and British Columbia. Mr. Frank Scalli, Maldon, Massachusetts for New England, Mr. Edward Ezekiel, Redwood City, California, for Northern California and Nevada, and Mr. John C. Jones, Jr., Ft. Lauderdale, Florida.

NAUI reaches its objectives by holding 60-hour instructor training, testing, and certification courses, and the production of diving literature, films, etc.

NAUI also compiles statistics on diving accidents so that hazards may be spotted before they become major causes of concern. Further, NAUI, through Dr. Andreas B. Rechnitzer, provides counseling to people who wish to make water sciences their lifetime work.

NAUI is financed by income from the training, testing and certification courses, sale of diving literature and generous grants from manufacturers of diving equipment.

## BOARD OF ADVISORS

**COMMANDER GEORGE F. BOND** — Medical Corps, U. S. Navy  
Commander Bond was Squadron Medical Officer, Submarine Base, Pearl Harbor 1951-1956 and Assistant Officer in Charge U.S. Naval Medical Research Laboratory, U.S. Naval Submarine Base, New London, Connecticut until last year when he was promoted to Officer in Charge of the same installation.  
Commander Bond is a member of the American Medical Association and was Regional Consultant to the President's Commission on the Nation's Health for six years. Commander Bond is a Qualified Submarine Medical Officer and a Qualified Deep Sea and Scuba Diver, U.S.N.

### CAPTAIN A. R. BEHNKE, JR., U.S.N. (ret.)

Captain Behnke entered the Harvard School of Public Health as a research fellow working with problems dealing with exposure to high pressure. Dr. Behnke was Instructor U.S. Naval Medical School 1937 to 1942. In 1939, he participated in the five months of rescue and salvage operation incident to the U.S.S. Squalus disaster. During World War II he carried on intensive investigations in the applied physiology of respiration under high

altitude, surface and deep sea conditions, and has been connected with the investigation work at the Naval Medical Research Institute since its foundation.

### DR. ANDREAS B. RECHNITZER

Dr. Rechnitzer is the Scientist in Charge of Project NEKTON, using the most unique submersible, the bathyscaphe, "Trieste." He is a biological oceanographer with his Ph.D. from UCLA. He received the Distinguished Civilian Service Award from President Eisenhower, February, 1960 and is a life member of the National Geographic Society.

### CAPTAIN J. Y. COUSTEAU

Capt. Cousteau is first known as the co-inventor of the world famous "Aqua-Lung". The "Calypso" under his direction has sailed over the world doing general oceanographic investigation, making movies, doing research work and preparing material for the National Geographic Society and scientific groups. He is president of the World Underwater Federation and is author of the popular book "The Silent World".

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**DON J. EVANS**  
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**EDWARD EZEKIEL**  
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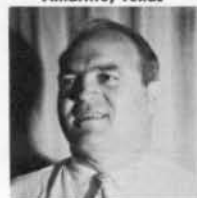
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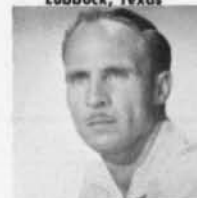
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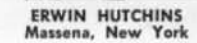
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