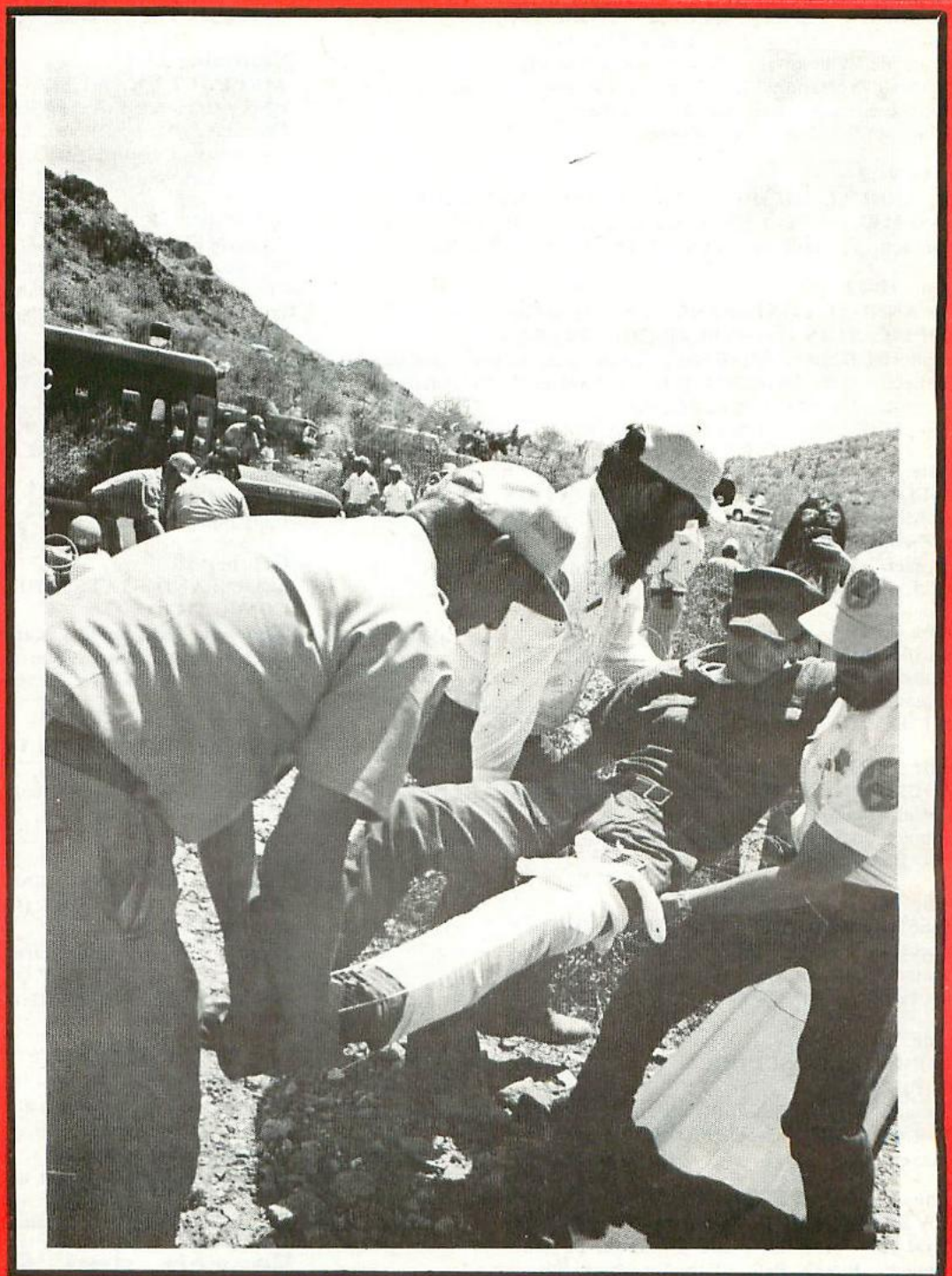
SUMMER 1981

SEARCH & RESCUE

MAGAZINE



ARIZONA'S MARICOPA COUNTY SHERIFF'S DEPARTMENT TRAINING

—

See Calendar of SAR Events this season!

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P.O. Box 153
MONTROSE, CA 91020

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CALENDAR

June 3 - July 7
WILDERNESS EDUCATION ASSOCIATION - PROFESSIONAL PROGRAM
Grand Teton, Wyoming
Contact: Wilderness Education Association
Rt. 1, Box 68, Alta, WY via Briggs, ID 83422

June 8-12
AIRCRAFT CRASH MANAGEMENT COURSE
Arizona State University, **Tempe, Arizona**
Contact: William H. Allen, Program Director,
Office of Professional Development, College of Engineering and Applied Sciences, Arizona State University,
Tempe, AZ 85281 602/838-9072

June 9-12
8th ANNUAL MICHIGAN EMERGENCY MEDICINE ASSEMBLY, Grand Hotel, **MacInac Island, Michigan**
Contact: Richard M. Nowak, MD 517/332-6500

June 10-12
6th ANNUAL CONFERENCE ON CLINICAL APPLICATION OF HYPERBARIC OXYGEN
Memorial Hospital Medical Center of **Long Beach, California**
Contact: G. B. Hart, MD, Director, Baromedical Department,
Memorial Hospital Medical Center,
2801 Atlantic Ave., Long Beach, CA 90801

June 10 - August 18
WILDERNESS EDUCATION ASSOCIATION - ALASKA PROGRAM
Kachemak Bay, Alaska
Contact: Wilderness Education Association,
Rt. 1, Box 68, Alta, WY via Briggs, ID 83422

June 13-14
NASAR BOARD MEETING
Dunfey Dallas Hotel, **Dallas, Texas**
Contact: Wes Reynolds, NASAR Secretary/Treasurer
P.O. Box 2123, La Jolla, CA 92038 714/268-3226

June 18-21
MOUNTAIN RESCUE ASSN. SPRING CONFERENCE
McCall, Idaho
Contact: Idaho Mountain Search & Rescue Unit, Inc.,
P.O. Box 741, Boise, ID 83701

June 20-21
MISSION COORDINATOR WORKSHOP
Breckenridge, Colorado
Contact: Jon Gunson, Box 1490,
Breckenridge, CO 80424 303/453-2130

June 21-27
NOR-CAL SAR SCHOOL
Cisco, California
Contact: William Tefertiller, Search Boss 1981
NOR-CAL SAR School, P.O. Box 1154,
Lafayette, CA 94549 415/758-3272

June 23-24 and 27-27
SEA SEARCH 1981
Royal Air Force Greenham Common, England
Contact: Wesley Bell, 305th Aerospace Rescue and Recovery Squadron, Selfridge ANGB, MI 48045
616/466-5535

July 18 and 23
AB TAYLOR MAN TRACKING SEMINAR
Colorado
Contact: Roz Brown 303/674-7977

July 8-10
TRAINING TECHNIQUES FOR TRAINERS
Chicago, Illinois
Contact: Glen Howard, Highill International,
48 West 48th St., Suite 1404,
New York, NY 10036 212/777-0003

September 9-13
NASAR ANNUAL CONFERENCE
Marc Plaza Hotel, **Milwaukee, Wisconsin**
Contact: Wes Reynolds, NASAR Secretary,
P.O. Box 2123, La Jolla, CA 92028 714/268-3266

September 15-19
AIRCRAFT CRASH SPECIALIST SCHOOL
AMFAC Hotel, **Los Angeles, California**
Contact: Mary S. Ward, Embry-Riddle Aeronautical University, Regional Airport,
Daytona Beach, FL 32014 904/252-5561

September 30 - October 3
PARAMEDIC CONFLICT: EXPECTATION vs REALITY
Glenwood Springs, Colorado
Contact: Health Search Inc.,
4869 N. Harrison, Suite 108, Fresno, CA 93704
Ellen Taliaferro, MD 303/751-3996
Ann Cullen 209/228-0920

October 2-4
BARSTOW DESERT RESCUE SQUAD
9th ANNUAL SEARCH & RESCUE SCHOOL
Barstow, California
Contact: Barstow Desert Rescue Squad,
P.O. Box 108, Barstow, CA 92311

October 10
MARYLAND STATEWIDE EMERGENCY CARE COMPETITION
Timonium Fairgrounds, Maryland
Contact: Committee Chairman Robert Lynch,
4227 Colchester Drive, Kensington MD 20795

October 23-26
DIVE RESCUE SPECIALTY SEMINAR
Catalina Island, California
Contact: Dive Rescue, 1449 Riverside Drive,
Fort Collins, CO 80524 303/482-0887

October 29-31
2nd ANNUAL CONFERENCE FOR PROGRAM AND MEDICAL DIRECTORS OF EMT-PARAMEDIC PROGRAMS
Sheraton Airport Hotel, **Denver, Colorado**
Contact: JRC EMT-P, P.O. Box 405,
Newton Highlands, MA 02161 617/894-7179

SEARCH AND RESCUE MAGAZINE provides a way for rescuers from coast to coast to keep current with significant SAR events. Every issue we run a 'Calendar' column that simply lists SAR related conferences, schools, seminars, and events sponsored in your local area. Lead time is important so let us help you by keeping us abreast of current events in your area early.

SAR

SEARCH & RESCUE

MAGAZINE
SUMMER 1981

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FEATURES & DEPARTMENTS

ADVISORY PANEL

SEARCH AND RESCUE MAGAZINE, SUMMER 1981.

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PUBLISHER'S FORUM

By DENNIS E. KELLEY

You may remember Oscar Madison's criptic and emphatic comment on TV"s *ODD COUPLE,*

"No one is missing in just 24-hours!"

In fact, it is true that the standard operating procedure for most police and sheriff departments is just that. A missing person report is not taken until after 24-hours except in the case of children and special circumstances. Believe me, there are many, many missing children reports daily in the average community!

However, for those of you in SAR who operate near hazardous areas know that 24-hours can mean life or death. Paradoxically, official policy says one thing and experienced judgment indicates another. Unfortunately, not every person answering emergency phones may be experienced.

There really is a need for an agency policy for this kind of emergency that is simple and practical. If you are using or have such a policy in your agency please forward it for publication and the benefit of our SAR community readers.

For the record, a 'faut pas' in the photo captions on the *Canadian Mountain Rescue* article in the Winter issue — the photos should be credited to Parks Canada.

Also a note on Tim Setnicka's *Helicopter SAR* article. Using a horse-collar for helicopter winch raising or lowering a rescurer or victim with a backpack on is very dangerous. Records show that a pack worn with the horse-collar seriously cuts off circulation to the arms with resultant falls and accidents. In addition, helicopter rappelling and winching with a belay is very controversial. Reader comment on this aspect of helicopter technology would be appreciated.

Finally, an item in the minutes of *ICSAR on SAR* in the U.S. Forest Service highlights an extremely different philosophy on the use of SAR volunteers. This apparent difference lies between the U.S. Forest Service (USFS) and U.S. Park Service (USPS). Apparently, the USFS seeks to enter into formal agreements, provide equipment, train and develop management capabilities in volunteer SAR organizations so that they can assume primary response responsibility.

On the otherhand, the USPS only uses SAR volunteers as a backup resource and only then under strict field supervision of USPS personnel. This assessment of internal policy by these two government agencies is backed up by first hand experience and discussions with executives of these organizations. The policy of the Bureau of Land Management (BLM) is not known by me except my experience indicates it is similar to the USFS. There are numerous reasons for these differences so please do not be too quick to judge. I will attempt to clarify some of them in future issues.

SAR

MARCH ON SAR

By BILL MARCH
Faculty of Physical Education,
The University of Calgary
2500 University Drive, N.W.
Calgary, Alberta, Canada T2N 1N4

MAMMUT The Swiss rope manufacturing firms have developed a fibre with specific properties for climbing ropes. The mode of construction involves a multiple plait system rather than a separate core/sheath. The result "is a perfectly balanced core sheath construction, making the maximum use of fibre strength." A brochure giving information on the rope is available from MOAC Wellington Mills, Duke Street, Manchester M3 4NF.

PLASTIC MAPS The Ordinance Survey have begun to publish maps of six popular outdoor areas in the U.K. on a tear resistant, waterproof plastic paper. It is claimed that the new synthetic paper resists wear along the folds and is not affecte the weather. This is good news for wilderness users since maps are becoming increasingly expensive. Perhaps the U.S. may follow suit with their national park maps.

CLOG TWIST LOCK CARABINER This is a new carabiner which utilizes a spring-loaded sleeve to provide an automatic lock. The sleeve requires a quarter turn to release the gate and automatically locks the gate when released. Bill Birkett of the U.K. field tested the crab and made the following comments:

Advantages:
1) Quick to lock and unlock
2) Doesn't jam like some worn screwgates
3) Automatic locking when belaying and rapelling

I would also add the advantage that vibration cannot undo the gate as so often happens with a screw gate carabiner.

Disadvantages:
1) Difficult to unlock with one hand
2) The broad locking sleeve does not give as good a grip as the knurled sleeve

I am not sure how effective the spring-twistlock would function under winter conditions — there is a distinct possibility of its freezing and jamming under certain conditions.

NEWS FROM HAMISH MacINNES *Hamish sent me* a news update on his latest equipment development. As usual 'the fox of Glencoe' has some interesting ideas incorporated in experimental casualty bag which he is developing at the Leishman Memorial Centre in Glencoe.

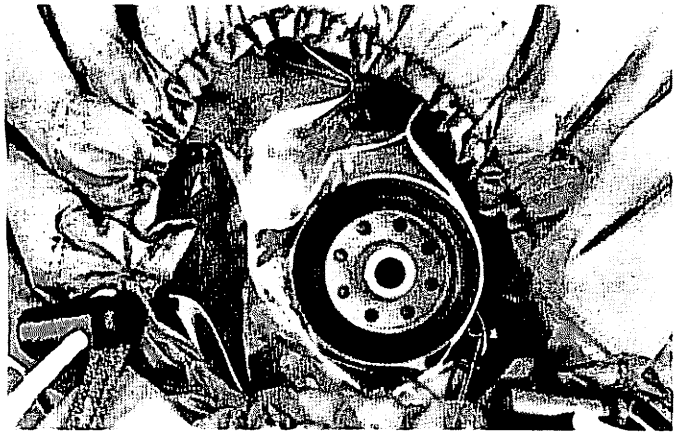
NEW CASUALTY BAG

The Mountain Rescue Committee of Scotland asked Mr. Hamish MacInnes to design a new type of casualty bag suitable for use in the adverse Scottish winter conditions.

MARCH ON SAR (Continued)

The prototype bag used the material Thinsulate which has very high insulating properties sandwiched between two layers of the tough, light, waterproof Bell flex. This material Hamish MacInnes used in the design of the Everest Summit Boxes. The patient lies on a bed of closed cell foam which is covered beneath with Cordura a very tough material which stands up to severe abuse. On top the foam is covered also with Bellflex. Where the Thinsulate and foam meets (actually they overlap) a heating tape (24v normally) is built in. This is for use when the patient is being transported by helicopter, etc.

The bag unzips (also with a velcroe overlap) over its length and along the bottom thus allowing the two Thinsulate flaps to be opened up. The patient has double Thinsulate sandwich cover and as indicated above, the foam base. The section for the feet is shaped to take ski or climbing boots, etc. The snug fitting hood (as can also take a crash helmet on patient's head) is Thinsulate lined. The bag also has nylon tape carrying loops which can also be used for pole attachments for emergency evacuation should a stretcher not be available for lesser injuries.



Incorporated in the design is a transparent face mask with a one-way valve. This allows free access of fresh air for the patient, but doesn't permit exhaled air to escape. This warm air is free to travel down the two flexible pipes built into the bag from the chin to the lower trunk. This unique feature allows a good 'fug' to develop within the bag. The bag can be hosed out after use and of course the materials irrespective of the waterproof covering are virtually non-absorbant. The bag is carried in a compact climb-type rucksack and weighs appox. 15 lbs.

At present tests are being carried out by Professor Nelson-Norman in Aberdeen and later it will be used by rescue teams throughout Scotland prior to manufacture. Mr. Alasdair Fraser, Hillcrest, Sherrifbrae, Forres made the prototype and should be in a position to manufacture these to special order once tests and modifications have been completed.

NEW BERGHAUS 'YETE' GAITERS A new super gaiter with a rubber rand to fit snugly around the welt of the climbing boot has been produced by Berghaus. A broad band of rubber extends under the instep as an extension of the rand. The gaiter is made in three sizes to fit boots size 39-48 continental. They are difficult to put on but once secure they keep out water and snow. If you decide to buy a pair make sure you take your boots with you to obtain the correct fit. Available from Berghaus, 34, Dean Street, Newcastle upon Tyne NE1 1PG, England. Telex 537728 B&G Haus G. SAR

NATIONAL STANDARD PROGRAM FOR OUTDOOR CERTIFICATION

By Paul Petzoldt
Rt. 1, Box 68
Alta, Wyoming via Driggs, Idaho 93422
(307) 353-2376 (307) 353-9914

The purpose of the National Standard Program for Outdoor Certification is to:

1. reduce deaths, injuries and searches in our wild outdoors and wilderness;
2. teach how to use and enjoy the outdoors without harming it;
3. set a nationally recognized standard of study and experience useful in hiring outdoor leaders and administrators and as information for parents, insurance companies, administrative agencies and the general public; and
4. teach the judgment necessary to lead safely in the outdoors.

A standard national program for the training and certification of outdoor leaders has been necessary for many years. During recent years a dramatic increase in deaths, injuries and expensive rescues made such a standard national program essential. Numerous liability suits were filed against leaders and the institutions they represented. Each year restrictive legislation was introduced in the Congress of the United States to inhibit freedom of action in the outdoors. Some of the legislation was encouraged by parents of casualties.

In addition, the wild outdoors and wilderness were being harmed by the users in spite of regulations. Educators and administrators were restricting the growth of outdoor and experimental education because of lack of dependable leadership and fear of liability. Insurance rates were raised and the U.S. Government demanded it be protected by insurance policies paid by the user before permits were issued for the use of public lands. Youth groups were not receiving the outdoor experience they deserved because of well-meaning but inadequate leadership. Colleges and schools were teaching courses in skiing, backpacking, canoeing, rock climbing, etc. but there was seldom a course that taught the judgments and gave the experience necessary for all outdoor activities. Teaching specialities without teaching the necessary judgments for using those specialties in the wilds promoted dangerous outings and environmental harm. There is no doubt that most of the above were the result of leaders who lacked education, experience and judgment. There is no doubt that a standard educational and experiential curriculum needs to be developed to eliminate such faulty leadership.

Continued on page 8

The BETSIE MISSION

By SSgt RICK BAGNALL
Air Force Office of Information
11000 Wilshire Blvd., Suite 10114
Los Angeles, CA 90024
(213) 824-7511

The members of the Detachment 24, 40th Aerospace Rescue and Recovery Squadron (ARRS) begin gathering around the coffee pot and another morning begins at Fairchild AFB near Spokane, Wash. There is the gab and talk of the missions to be flown that day when the phone on the dispatch desk breaks the din of conversation. The man on the desk yells, "It's the State Patrol and they need us to fly a BETSIE mission."

The alert crew scrambles to get their gear, the maintenance people get the aircraft prepared while the dispatcher contacts the 40th ARRS at Hill AFB, Utah to get permission to make the run.

So begins another BETSIE mission. But just what is a BETSIE mission? BETSIE stands for Baby Emergency Transport System of the Inland Empire.

BETSIE began in 1972 in conjunction with Military Assistance to Safety and Traffic (MAST), an intra-agency effort by the Department of Defense, Transportation, and Health, Education and Welfare. The MAST program provides certain civilian communities military helicopters equipped as air ambulances, flight crews, medical personnel and equipment and supplies that may be used to respond to serious medical emergencies.

"We knew there were a lot of babies out there that need intensive care capabilities and the Spokane area, known as the Inland Empire, had no capability in this field," said Nikki Nail, head nurse of the Neonatal Intensive Care Unit at Deaconess Hospital in Spokane.

The detachment at Fairchild is one of the avenues open to the hospitals. The Army National Guard in Spokane also makes helicopters available when possible. Airways Unlimited, using a fixed winged aircraft, is called when practical. If the services needed are only a short distance away or in town, then a ground ambulance can be used.

The only restriction for the use of military aircraft is that their support for civilian aeromedical transportation cannot compete with private, commercial enterprises, nor can it have any impact on the primary military mission.

The primary mission of the detachment is to provide training in rescue methods to military personnel attending the Air Force Survival School also located in Fairchild.

"Fairchild had always supported other areas of the city and county and when they were approached on the neonatal transport they were more than happy to be able to help," Mrs. Nail said.

In December 1973, the 40th ARRS detachment at Fairchild set up a voluntary system to respond to medical emergencies within 100 miles of Spokane. The test was designed to determine if the unit could support the MAST function without interferring with the unit's military mission.

The test ended in December 1974 and Det. 24 of the 40th ARRS was officially designated as a MAST unit.

The BETSIE program at Deaconess Hospital began slowly with only 23 transports by all modes in 1973. This figure grew to 198 transports in 1977 and to 300 transports logged by hospital in 1978. Det. 24 has participated in 135 transports since its MAST unit designation.

'In the beginning, only one doctor would go on the mission. Since then, they have trained nurses and respiratory specialists to go on the runs," Mrs. Nail said.

Continued

On these missions, they carry a special piece of equipment. "This portable incubator has saved more lives than any single item on BETSIE," Mrs. Nail added.

The March of Dimes in Spokane donated the first BETSIE incubator to Deaconess Hospital.

One mission that sticks in the minds of both the hospital staff and the crews at the base began early on July 17, 1978. The Washington State Patrol and Deaconess Hospital requested a pick-up of an infant at Republic, WA to be transported back to Deaconess. The infant was born 2½ months premature and was suffering from actue respiratory problems. Despite low clouds through the mountains on the trip home, the newborn was delivered to Spokane only minutes before the precious oxygen that had sustained him through the flight would run out. Hospital attendants met the helicopter on the helipad with a fresh bottle of oxygen to sustain the child.

Mrs. Nail said, "the outstanding relationship we have with Fairchild makes our program work where other cities have a problem. The guys are there to help whenever their mission permits. They are one bunch of dedicated guys."

The detachment helicopters can be configured to carry the BETSIE and can be adapted to perform just about any rescue.

The helicopter, the UH-IN, is unique in that it is one of the few light lift helicopters with a twin engine power plant. It is also equipped with auxiliary fuel tanks which allow sufficient fuel to remain airborne for approximately three hours. Communications equipment on the chopper consists of one UHF radio used for air traffic control, one VHF radio used for rescue flight following and one HEAR radio used for communicating with the Washington State Patrol, Northern Washington County Sheriffs and hospitals that are subscribers to the Washington EMS system. These radios allow the helicopter crews the flexibility to respond to an emergency situation as it develops.

A normal crew for a BETSIE consists of six people. There are two pilots, a flight mechanic, a doctor, a nurse and a respiratory therapist from the receiving hospital. The detachment possesses five aircraft and has a total of 14 pilots, five flight mechanics and five pararescue specialists.

Because of the mixed make-up of crews, both military and civilian, the military crew members from the detachment fly to the hospital regularly and brief the new people on safety around a helicopter and emergency procedures in the event of problems in flight. The hospital and the military exchange information on ways that can speed up the missions that could save a life.

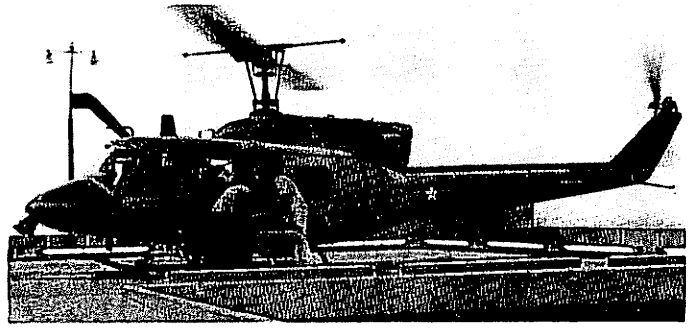
Mrs. Nail appreciates the safety briefings and the inflight emergency training more than most at the hospital. She recalls one mission in particular when they received a call to pick up a premature baby. A hospital in Omak, Washington contacted Deaconess Hospital and informed them that they had a real sick "preemie" that needed equipment that this small hospital didn't have. The call went out and the hospital and military crew was on its way.

"On our return run, we began to smell fuel real strong in the cabin and realized we had a ruptured main fuel line," Mrs. Nail said.

The crew took action immediately. The nurse and doctor strapped down the BETSIE and then strapped themselves in. The crews got the chopper down to the ground just as the engines began to sputter.

That problem was solved but they had another, the baby who was on a limited oxygen supply in the middle of a wheat field in 98 degree temperatures. The nurse and doctor pulled the BETSIE out of the chopper while the military crew gathered items from the helicopter to build a make-shift tent to place over the BETSIE and shield it from the intense heat. The pilot radioed for a back-up helicopter and gave the detachment their position and explained their urgent need to get the infant to the hospital.

"The back-up chopper arrived, we loaded the BETSIE aboard and proceeded to the hospital," she added. "The supplemental oxygen and emergency team was waiting for us on the helipad to rush the infant to the Neonatal Intensive Care Unit."



"The baby pulled through and is a fine healthy baby today," Mrs. Nail said. "Thanks to a quick-thinking, conscientious crew and the safety briefing we received, what could have been a disaster turned out to be another life saved," she added.

The BETSIE mission is entering its fifth year in existence for the Fairchild Detachment. They have recorded many saves that have taken them as far as the North Dakota border. They also serve as a back-up for Salt Lake, Utah and Denver, Colo. hospitals when they are full. The number of transports the detachment made to the hospital in 1978 was 44 and this year that number is expected to again grow.

The unit working together with the hospital gives these early arriving infants a better chance of life that a few years ago wouldn't have existed.

The Aerospace Rescue and Recovery Service's motto sums it all up in four words, ***"That Others May Live."***

SAR

SKI YOU CAN DO IT

ARM BANDS

Are your arms the first part of your body to get tired while ski touring? If so, use arm bands to help strengthen your poling muscles. Obtain two old bike inner tubes from your local bike shop. Cut each one in one place and then tie the two pieces together. Nail the knot about six feet up on the back of a tree or post. Tie a knot in each loose end for handles.

All that's left is to start pulling, one band at a time to simulate cross country poling. Start by standing fairly close to the tree or post. Then as you get stronger, move further back to increase the resistance or increase the time spent on the exercise. After using arm bands, you will be pleasantly surprised at the increased power of your poling while skiing.

Technical assistance provided by Eastern Professional Ski Touring Instructors.

OUTDOOR CERTIFICATION (Continued)

Many outdoor professionals, educators and administrators were in favor of a national outdoor certification program, but there was little agreement on how it could be accomplished. Over the years numerous meetings were held and numerous committees were appointed without resulting action. The meetings and committee studies did establish one important fact: no one school, agency or camp could develop a program for certification that would receive national recognition and credibility. It was apparent that a national independent committee, not representing any one organization or philosophy, was necessary for the creation of a National Standard Program for Outdoor Certification.

Many were searching for a method of certifying leaders by paper qualifications or by brief examinations. This approach was impractical. There was no way except by observance in the field, under actual conditions, to eliminate those with great skills and reputations who were unreliable or dangerous as group leaders. Some thought that proven experience was all that was necessary for certification, but many experienced specialists lacked the overall knowledge and judgment to plan and execute an outing. Others had dangerous blank spots in their learning which they themselves did not realize. Others thought they had a right to learn while assuming responsibility. Still others promoted a Russian roulette philosophy dangerous to themselves and their followers. The possibility of certification by past experience and paper qualifications was abandoned as a hopeless project. However, it was possible and practical to develop a program of education and experience. If this program or curriculum were given to teachers, administrators and students planning careers related to the outdoors, education and judgment would follow.

Finally, at one of the meetings on outdoor leadership problems, it was decided that the years of discussion warranted action. A group of public-spirited educators and professionals decided to do field experimentation to develop a proven curriculum. Dr. Frank Lupton, Western Illinois University, initiated the experiments with a group of students majoring in recreation. Charles Gregory, Pennsylvania State University, led a group of his students on an experimental program, and North Country Community College of New York offered an experimental program under the leadership of Jack Drury. Other certification courses followed with students from universities throughout the United States and Canada. Programs led by Paul Petzoldt were given to college and university teachers and professional groups.

By the end of the summer of 1980, several hundred students, teachers and professionals had taken the certification program in New York, Wyoming, Idaho and Alaska and the curriculum was standardized into an official National Standard Program for Outdoor Certification.

To administer the program, a national nonprofit educational institution was formed and approved by the U.S. Internal Revenue Service. Donations are tax deductible. It was named the Wilderness Use Education Association and later changed to the Wilderness Education Association.

Because the National Standard Program for Outdoor Certification was tested and proven, the Wilderness Education Association made the decision to encourage more universities to teach it and give certification in cooperation with the Association.

Some universities are introducing the certification courses in 1981 and others wish to follow as soon as arrangements can be formalized. Thus there will be large numbers of certified graduates in recreational and professional fields related to the outdoors. The Wilderness Education Association will make the certification courses available to professors, teachers, professionals *and students not attending* universities and colleges offering the certification program.

During the development of the curriculum for the National Standard Program, no grants or donations were solicited. The participants paid the expenses of their education and certification which were very modest. The inexpensive fee was made possible because of donations of service and advice by many interested

educators and professionals, by efficient operation and by avoiding the expenses of brochures, films or other types of expensive advertising. The Wilderness Education Association is proud of this accomplishment.

Now there *is* a need for extra financial support in the form of tax-deductible donations. The funds are needed for the liaison necessary to cooperate with universities giving the certification, for cooperation with administrative agencies managing our wild outdoors and for cooperation with certified leaders. It is necessary to have a revolving fund to give pay-back scholarships to participants, since many needing certification are in college or just graduating from college and understandably short of funds.

The certification program usually takes five weeks in the outdoors under the most realistic conditions. To accomplish the same purpose, some universities now giving certification in cooperation with the wilderness Education Association have a semester class in preparation for a four-week outdoor experience. Special three-week courses are designed for professionals. We expect the National Standard Program to improve and change with further experience.

The National Standard Program has proven that its certified people are capable of using the outdoors without harm. The philosophy and judgments taught promote the enjoyment of the outdoors and the ability to cooperate with all other legitimate users and permittees. Certified persons know their own limitations and won't lead groups into situations beyond their ability, thus avoiding unwarranted outdoor tragedies and destruction of the environment.

In addition to the knowledge and judgment of the National Standard Program, it is necessary for outdoor leaders and administrators to have the high level of skills demanded by specific activities such as mountain climbing, canoeing, kayaking, hunting, skiing, etc. The National Standard Program will help eliminate the problem of skilled specialists lacking in overall knowledge and judgment.

The Wilderness Education Association has taken the responsibility for further developing and promoting the National Standard Program for Outdoor Certification. Those graduating from the National Standard Program will be given a certificate attesting their status as outdoor leaders. Those with additional experience teaching outdoor programs may be given instructors' certificates. Especially qualified instructors will be certified to teach the National Standard Program.

The WEA wants the cooperation and help of all individuals and institutions interested in such a program. We want your advice and criticism and invite your participation.

SAR

LETTERS TO THE EDITOR

HELP!

Dear Editor,

I wrote to California and they didn't reply. I would like to get a job or volunteer in Search and Rescue where I will positively see action. I'm concerned about saving lives. I don't want to go in the Air Force or Coast Guard. I want to get involved civilian-wise.

Please answer,

James Schortmann
P.O. Box 3631,
Spfld. MA 01101

Dear Sir,

I am in high school now and really interested in search and rescue for a career but I do not know how to go about doing this. I would like to go to college but do not know of any colleges that offer courses or have majors in search and rescue. I live in Houston now and was wondering also if there are any search and rescue outfits, possibly police or fire department related, in Texas.

My school counselor does not know that much on the subject and since I subscribe to your magazine, I thought that you would be the ones to turn to.

Sincerely,

Eric Hallwert
7400 Stella Link #128
Houston, Texas 77025

Editor: Here are 2 samples of young people seeking to be of substance to the nation and its people but have no where to go. Can anyone help?

Sir:

I am writing in behalf of the Community and Skill Development Activities, a component of the Army Morale Support Activities Program, designed to provide organized leizure time activities in the Army community that will improve the quality of life for soldiers and their families by offering opportunities for self-fulfillment, skill development, social activity, and leisure-time enjoyment, located in Dexheim, Germany.

It is my desire to be well informed of current equipment/services. It would be greatly appreciated if you would send a 3 year subscription of *Search & Rescue Magazine.*

Neil C. Morrison
CSDA Coordinator

Dear Editor:

A NEW AND DIFFERENT MAGAZINE.

Wild is a new magazine for Australians and New Zealanders who enjoy the adventure of wild places.

Wild offers the advertiser access to rucksack enthusiasts: bushwalkers, ski tourers, canoeists, climbers and lightweight campers.

Wild will be published four times a year, in Winter, Spring, Summer and Autumn. Our first issue goes on sale at the end of June and features ski touring. Each issue will include practical information and is expected to become part of a valued collection of wilderness literature.

Yours sincerely,

Chris Baxter

P.O. Box 415
Publications Pty Ltd. 58A Lewisham Road,
Prahran Victoria 3181 Australia

Dear Dennis,

First of all, allow me to convey our appreciation for your kind words about our School in the Fall '80 Edition of *Search and Rescue Magazine.* Believe me, it was a genuine surprise and I wasn't expecting it, nor do I think we deserve the praise, but, in all modesty. . . we accept!

The Eighth Annual Search and Rescue School of Barstow, I deem, was a tremendous success. The attitude of the 300 students in attendance reflected this. The majority of the students were from California, however, Washington, Oregon, Utah, Nevada, Arizona and even Oklahoma were represented.

Already I have been receiving inquiries about the Ninth Annual from as far away as New York and Pennsylvania . . . I'm impressed!

Let's let the cat out of the bag then:

The Ninth Annual Search and Rescue School of Barstow will be held October 2, 3, 4 *near* Barstow. The location will be called "SAR CITY, USA." Everyone will be looking forward to it.

Many of the favorite subjects will again be on hand: tracking, map and compass, rescues, etc.

Jack Kearney has promised me to return for his ninth straight year (God bless you, Jack) and teach day and night tracking. Day and night map and compass will also be offered. There will be much more field or lab work this year than before, including tactical rock, tactical mine, survival, etc.

Registration fees are basically the same: Pre-registration $20 (deadline Sept. 19); Late registration $25, and group fees of $17.50 per person per group of ten or more. Five meals are included in the price.

We are working towards making this event for the whole family. More info on this later.

For more information, have your readers contact me at the below address or phone.

Sincerely yours in SAR

/s/ Brian Zane/School Director
P.O. Box 108
Barstow, CA 92311 (714) 253-7524

MN-8270-AL	Aircraft Accident Investigation
MN-8366-A	Aircraft Accident Prevention - Ground Accidents
MN-8983	Roll Rate Restrictions
MC-8991-A	Approaching the Speed of Sound
MC-10454	Boomerang (FOD)
MN-9480-A	Vision in Military Aviation - Sense of Sight
MN-9480-B	Vision in Military Aviation - Illusions
MN-9480-C	Vision in Military Aviation - Inflight Recognition and Closure
MN'9480-D	Vision in Military Aviation - Errors in Vision
MN-9797	Human Disorientation - Experimental Rotating Environments
MN-9929-B	Aviation Physiology - "Fit to Fly"
MN-9971	Doctor on the Flight deck
MN-10003-A	Navy Aviation Safety Program: Safety Is Your Business
MN-10003-B	Naval Aviation Safety Program: The Big Payoff
MN-10003-C	Naval Aviation Safety Program: The Oblong Window
MN-10745	Disasters Don't Just Happen
MN-11227	Man From Lox
MN-11375	Accident on the Way to Happening
MV-10537	A Night on Jack Rabbit Mesa
MV-10704	Ejection Vectors
NASA HQs-112	Hazards of Tire Hydroplaning to Aircraft Operation
NASA L957	Hazards of Tire Hydroplaning - A Sequel
NASA 5887	Tire Hydroplaning
SFP-1555	How to Stage a Disaster (Ordnance)
TF-15343	Aircraft Accident Investigation Board Part I
TF-1-5343	Aircraft Accident Investigation Board Part II
MN-360-B	Aerodynamics - Theory of Flight
MN-10871	At High Angle-of-Attack Characteristics
MN-8901	Structural Fatigue and Aircraft Service
MN-8617	Slow Speed Flight Characteristics of Swept Wing Aircraft
TF-462210	Advanced Helicopter Flight Principles - Part I
TF-462211	Advanced Helicopter Flight Principles - Part II
TF-463455	Lessons Learned from Aircraft Accidents - Fuel Exhaustion
TF-463488	Lessons Learned from Aircraft Accidents - Emotions
TF-463768	Lessons Learned from Aircraft Accidents - Know Your Aircraft
TF-468906	Helicopter - Vibrations & Resonance - Part IV - Ground Resonance
MISC. 58	Six on Six
MA-9559	First Aid - Part 4 - Resuscitation - Mouth-to-Mouth, Mouth-to-Nose
MN-8188-B	First Aid for All Hands - Asphyxia
MN-8414-A	Naval Aviation - Personal History - The Weapon Is Conceived
MN-8414-B	Naval Aviation - Personal History - The Weapon Is Tested
MN-8414-C	Naval Aviation - Personal History - The Weapon Is Developed
ME-5471	Placing the Right Man on the Job
MN-9994	VD Control - Leadership Responsibility
MN-10198-A	Hygiene for Men - You As a Male
MN-10198-B	Hygiene for Men - The Decision Is Yours
PAT-004	Patterns of Management
STY-001	Styles of Leadership
GEL-001	Strategy for Productive Behavior (Introduction)
GEL-002	Motivation Through Job Enrichment (Herzeberg)
GEL-003	The Self-Motivated Achiever (McClelland)
GEL-004	Understanding Motivation (Gellerman)
GEL-005	Theory X and Theory Y: The Work of Douglas McGregor (Beckhard, Bennis & Jones) Part I
GEL-006	Theory X and Theory Y: The Work of Douglas McGregor (Beckhard, Bennis & Jones) Part 2
GEL-007	Human Nature & Organizational Realities (Argyris)
GEL-008	The Management of Human Assets (Likert)
GEL-009	Motivation in Perspective (Conclusion)
EFF-005	Effective Executive Series - Managing Time
EFF-006	Effective Executive Series - What Can I Contribute?
EFF-007	Effective Executive Series - Focus on Tomorrow
EFF-008	Effective Executive Series - Effective Decision
EFF-009	Effective Executive Series - Staffing for Strength
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MC-1147	The Dryden File
MBO-001	Focus the Future (1 of 6 Films in The John Hur "Management by Objectives" Series)
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MN-11092-C	Lightning & Precipitation Static - Causes & Effects on Aircraft - Research, Development & Testing
MN-11092-D	Lightning & Precipitation Static - Causes & Effects on Aircraft - Future Aircraft Design Problems
MN-8205	All I Need Is a Conference
MN-8990	115 Volts - Deadly Shipmates
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MC-11233C	Motorcycle, Operation of the
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SAR

NEWS & RUMORS

THE NATIONAL REGISTRY OF EMERGENCY MEDICAL TECHNICIANS APPOINTS TERI TATMAN

COLUMBUS, OHIO, March 2, 1981 — Rocco V. Morando, Executive Director for the National Registry of Emergency Medical Technicians, announces the appointment of Teri Tatman as Community Relations Director. Ms. Tatman will replace Janet L. Schwettman, who has resigned to become Executive Producer of EMS Programming for the American Educational Television Network, Irvine, California.

As Community Relations Director, Ms. Tatman's responsibilities will include liaison with EMTs in the field for the purpose of providing relevant feedback to the Registry, editing NREMT publications, media contact, and education of the community in the area of Registry activities.

Ms. Tatman joins the Registry after two and one-half years with the Central Ohio Heart Chapter of the American Heart Association. As Director of Cardiopulmonary Resuscitation (CPR) for the Heart Chapter, her experience with administrating both Basic Cardiac Life Support and Advanced Cardiac Life Support programs for 47 Ohio counties brought her numerous contacts with emergency medical services, the American Medical Association, the American College of Emergency Physicians, the American Red Cross and a multitude of other organizations, hospitals, and industries.

Ms. Tatman is a graduate of Miami University, Oxford, Ohio, with a B.S. in Mass Communications. Other responsibilities include serving as vice president of the Board of Directors of the Miami University Alumni Club of Central Ohio and as an Area Coordinator for the Miami University Alumni Merit Scholarship Program.

Mr. Morando states, "The National Registry welcomes Ms. Tatman as a valuable asset to the organization and we look forward to continual growth and development through her efforts."

FERNO-WASHINGTON NAMES ENGINEERING MANAGER

Joe E. Shields has been appointed to the position of Engineering Manager for Ferno-Washington, Inc., Wilmington, Ohio, according to an announcement made by F-W President Elroy Bourgraf. In his new position, Mr. Shields will be responsible for the design and detail of new and modified products as they emerge from Research and Development. Prior to accepting his new position at Ferno-Washington, Shields spent 25 years with Superior Coach Division of Sheller-Globe Corporation in Lima, Ohio, most recently as contract coordinator. A graduate of Ohio College of Applied Science, University of Cincinnati, with an Associate degree in engineering, Shields is a certified Engineering Technician, certified by the Institute for Certification of Engineering Technicians.

304th ARRS RECEIVES AIR FORCE OUTSTANDING UNIT AWARD

SELFRIDGE ANGB, MICH.— The 304th Aerospace Rescue and Recovery Squadron, Portland IAP, Oreg., has been awarded the Air Force Outstanding Unit Award for their meritorious achievement during the Mount St. Helens eruption, May 18 to June 5, 1980.

In making the presentation, Maj. Gen. Sidney S. Novaresi, 4th AF commander, said "The unit's reaction to this catastrophic event was truly heroic. The dangers that unit aircrews faced each time they entered the disaster area were readily apparent, and the courage demonstrated by each aircrew member was most admirable. It was a unique demonstration of total teamwork."

The 304th ARRS is a part of the 403rd Rescue *and Weather* Reconnaissance Wing, Selfridge ANGB, Mich., the only rescue wing in the Air Force Reserve.

Continued on page 20

ON CALL WITH MOUNTAIN RESCUE

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Valencia, CA 91355
(805) 255-5431

Despite its Doonesbury reputation as the source of the mellow lifestyle and ultimate suntan, Los Angeles ranks among such Alpine cities, as Innsbruck, Chamonix, Berchtesgaden and Cortina, as a center of mountain rescue activity.

Instead of the classic image of knicker-clad mountaineers picking their way through the blue-ice glaciers of Mont Blanc or pulling the broken body of a climber off the Eiger's north face, mountain rescue teams in Los Angeles county are more likely to be searching for a lost infant or struggling to evacuate a skier from slopes overlooking the San Andreas Earthquake Fault and the Mojave Desert.

Actually, Los Angeles' rugged Santa Monica Mountains, the often snow-covered 9000-foot peaks along the Angeles Crest in the San Gabriel Mountains, and the Los Padres National Forest present a mountain rescue environment as challenging as any Alpine range in Europe.

Because the mountains are so close to the seven million residents of the Los Angeles area, rescue teams are more apt to be called out to assist unprepared city dwellers in distress rather than a seasoned climber at ease in high places.

Angelenos have a disturbing way of running their dirt bikes off cliffs, plunging their cars down steep canyons, crashing their private planes into mountain peaks in fog, falling off trails, skiing into streams, losing their children, wounding themselves while target shooting, being carried away in flash floods, becoming trapped in mudslides, or generally coming to grief in unforgiving mountains.

Although they might not realize it at the time, the one thing these numerous accident victims can count on is that specially organized and trained mountain rescue teams will be coming to their aid within minutes of the accident report reaching a Los Angeles County Sheriff's station.

But in contrast to the European practice of calling out professional climbing guides, police gendarmes, or military forces for rescue work, the seven mountain rescue teams in Los Angeles County are comprised entirely of $1-a-year volunteers who work for the Sheriff's Department in emergencies.

"That's the true spirit of volunteer effort, the response to a periodic emergency," said insurance executive Ben Pedrick, a 14-year veteran of mountain rescue work whose job as team inspector takes him from "base camp to being a grunt in the field."

"You couldn't pay enough for volunteers for a week's search. Volunteers aren't hampered by overtime.

"The teams here have a lot of senior people who take pride in being skilled. The other regions of the country look on California as professional because mountain rescue work here is so well organized with testing and restrictions."

Because California law places mountain search and rescue under the Sheriff's Department, team members are either sworn reserve deputies or civilian specialists while on call-outs.

Respectful on the teams' rescue orientation and civilian outlook, the Sheriff's Department assigns a regular deputy to *each team on a permanent* basis as a coordinator to ensure prompt logistical support and to free the volunteers for their specialized tasks.

The volunteer mountain rescue teams in Los Angeles County, the nation's most populous county, are unique because the volunteers command their own operations in the field, deploying large numbers of men, aircraft, and vehicles at their own discretion with practiced efficiency.

Rarely do civilian units enjoy such trust because in many other parts of the country law enforcement and government agenc prefer to direct operations themselves while relegating volunte to carrying out orders in the field.

"The county can't do without reserves, we've got to have trained specialists," said Captain Richard Winter, commander of the Sheriff's Department Reserve Forces Bureau, which acts as a training, personnel, and liaison office with the volunteer mountain rescue teams as well as with the Sheriff's posse and uniformed reserve officers.

"We justify the reserves in anticipation of disasters and unusual situations," Winter explained.

"We stay on that line. We don't know when a disaster will happen. We've had floods in Big Tujunga Canyon, the Malibu burn, and the 1971 Sylmar quake.

"The specialists have to be trained to do their job and have to stay proficient."

Much like Swiss army reservists or Israeli citizen soldiers with their rucksacks standing ready in their closets, mountain rescue volunteers in Los Angeles are ready to go when called. In the sudden clarity of a 3:30 a.m. phone call, all the volunteers have to do is roll out of bed, pull on their uniforms, lace up their mountain boots, grab their packs and orange parkas, and leave.

Israeli cabinet minister Moshe Dayan was so impressed with the Sheriff's reserves in Los Angeles that he personally asked the help of Sheriff Peter Pitchess for the Israeli mobilization and civil defense system.

Something about this ready-to-respond spirit seems out of sync with contemporary labor practices, time clocks, grievance procedures, and work rules. A quarter of a century before Howard Jarvis sounded the shrill rhetoric of the Proposition 13 tax crusade over the cost of local government, volunteer mount rescue teams in Los Angeles had already written the definition competent citizen support of the community.

"These dedicated men and women perform the duties of regular officers, thus increasing the Department's capability for service to the community," said Sheriff Peter Pitchess about the volunteer reserves.

"Los Angeles county taxpayers are still reaping the benefits of the program."

Sheriff's Department financial records show that volunteer mountain rescue teams, which total about 120 members in the county, performed without cost 12,851 hours of search and rescue work in fiscal year 1977-1978. If the county had tried to field regular deputies in their places, the Sheriff's Department would have had to pay $112,960 in hourly pay.

These figures are for actual operations only and do not include the teams' monthly training or classroom instruction.

Training includes sessions conducted by licensed physicians on cardio-pulmonary resuscitation and advanced first aid for heat injuries, snakebite, hypothermia, frostbite, and shock. Some rescue volunteers study at local junior colleges at their own expense for certification as emergency medical technicians to improve their life saving skills.

Working closely with the rescue teams are the Sheriff's Department's elite Emergency Service Detail of deputy-paramedics and a reserve company of doctors who rotate weekend duty in a rescue helicopter. While the mountain rescue teams specialize in technical recovery of victims, the paramedics and doctors provide immediate medical care.

The 20-25 members of each rescue team meet monthly for a field training exercise, which might involve rigging a Tyrole traverse cableway over a gorge, running an orienteering cou with maps and compasses, or practicing rock climbing.

A yellow triangle on top of a rescue volunteer's orange rock helmet means that he had undergone aircraft deployment and safety training with the Sheriff's Department's regular helicopter crews, whom the rescue teams hold in great respect. The

MOUNTAIN RESCUE (Continued)

volunteers learn how to exit a helicopter in a low hover by climbing out on the skids, how to rig a Stokes mountain stretcher so it can be winched into the sky, and how to rappel down a 90-foot nylon rope in five seconds.

The mountains of Southern California offer very few examples of clean, solid granite for anchoring the rope hauling and lowering systems that form the essence of technical mountain rescue work. So rescue volunteers have refined techniques for tying off their ropes on the shallow-rooted chaparral bushes that abound on California hills. Self-equalizing anchors of interwoven rope loops and nylon slings ensure that if one anchor point pulls out under stress that the load will immediately be transfered to other points without disruption.

"The knots and rigging used in rescue work are not classroom skills. Mountaineers have to be able to tie the knots upside down, blindfolded, and in the dark," explained rescue team inspector Pedrick.

"I even regview and practice my knots mentally to keep my skills up.

"Mountaineers have to learn to work together as a team, particularly in evacuation and rescue. They have to learn a lot of things they never had to know for sport climbing, such as the U.S. Border Patrol's techniques for man tracking by measuring a person's stride with a stick.

"Some teams like the China Lake unit even go out on tracking practice one day a week.

Snatched into the Sky, Sylmar Mountain Rescue Team volunteer Bruce Johnson rides a steel cable up into belly of Sheriff's Department Sikorsky helicopter while team officers Tony Fasciotti (l) and Walt Elsaesser (r) discuss training exercise.

"Rescue people are quite critical of their own performance. After each operation they hold group critique. If they screwed up, then they say they blew it."

Mountain rescue volunteers in Los Angeles tend to be fairly creative also, writing their own manuals on the subject, publishing *Search and Rescue Magazine,* and inventing equipment.

Besides their technical training, newly sworn volunteers on all but the Sierra Madre Team, which has civilian volunteer status, are required to attend a weekend course at the Sheriff's Academy in East Los Angeles. The 110-hour course on California law, rules of evidence, search and seizure, and use of force is designed to familiarize the rescue volunteers with the legal framework in which the Sheriff's Department operates rather than making them amateur policemen.

This consistent emphasis on training, safety, and seasoned judgment has resulted in mountain rescue volunteers in Los Angeles being older and more mature in assessing risks than those on more loosely formed teams.

"We have been very fortunate with the safety record for the mountain rescue teams because their training is excellent," said Captain Winter, who has worked 24 years with the Sheriff's reserves.

"There has been only one death among the mountain rescue teams. That was in the early 1960's when one man slipped and fell from a fallen tree on a river crossing. He fell upstream of the log, so the current sucked him under and his equipment held him down.

"The teams have gone out on their own and developed their own technical training. What do I know about mountain rescue?

"The Peace Officer Standards and Training Act has set the standards for regular and reserve deputies. But our Department has always believed in training in excess of standards. We try to make our guys aware of potential problems.

"In the eyes of the public, the mountain rescue teams are deputy sheriff's particularly when they're riding in a black and white. The citizen doesn't read that their badges are in the 8000 system as reservists.

"When you have the San Dimas Rescue Team on snow patrol up in San Gabriel Canyon, then sometimes it's prudent for them to be armed. We wouldn't put the teams out in jeopardy."

The question of whether to carry guns stirs internal debate among the rescue teams. Some teams reject guns completely while others carry them because of personal exposure.

Although the mountain rescue teams and the Sheriff's Department had a major falling out in the early 1970's over the issues of identity and law enforcement duties, both sides ultimately compromised to reach the present mutually supportive relationship. Bolstered by their affiliation with the national Mountain Rescue Association, the volunteer teams concentrate on rescue work while the Sheriff's Department provides support, protection, and handled law enforcement duties.

After a while, mountain rescue volunteers develop an intuitive sense of when mountain emergencies might occur. When cold Pacific storms moving down out of Alaska dump snow on the San Gabriel Mountains, rescue volunteers stack army surplus wool pants on top of their rucksacks and stay near a telephone on Sunday evenings, the time when hikers, skiers, and fliers frequently fail to return to their families.

Autumn brushfires driven by strong, dry Santa Ana winds almost inevitably mean a call-out to assist the County Fire Department in evacuating residents from fire-threatened areas and patrolling rural roads for stragglers.

When unseasonably heavy snows closed Interstate 5 over the Grapevine last winter, mountain rescue volunteers patrolled the snow-choked highway, checked abandoned cars, and dug out stranded motorists. Volunteers pushed through to the tiny, isolated mountain town of Gorman to assist its lone deputy Sheriff, Brian Tilley, who had used a four-wheel-drive truck and a pair of cross-country skies to rescue more than 150 persons from vehicles buried in deeply drifting snows.

Continued

MOUNTAIN RESCUE (Continued)

It is almost a basic premise of rescue work that when bad weather grounds sophisticated aircraft, then human beings will have to go in on foot to do the job. Last October, while fog kept helicopters tied to their landing pads, rescue volunteers tracked a lost fisherman by following the imprints of his boots with their flashlights.

Some rescues are so improbable, so hazardous that they draw on all of a volunteer's energy, skill, and nerve.

A severe rainstorm struck Southern California in February, 1978, unleashing a torrent of muddy water and debris down the normally anemic trickle in Soledad Canyon's river bed. The sudden surge of water carried away mobile homes, smashed down the compound fences of a wild animal ranch, set free three fully grown lions, and trapped four film technicians on a newly created island in the river.

Amidst the chaos of screaming wild animals in the ruined film compound, pounding rain, sinking vehicles, landslides, panic in a nearby mobile home park, and a hastily organized search for the lions, the Sylmar Volunteer Mountain Rescue Team began its attempt to save the four men cut off on the island.

"It was a scary night, both with the lions and with the water," said Walt Elsaesser, an accomplished climber and officer on the Sylmar team.

"The water was particularly scary because you never know what it will do."

While the Sylmar team assessed the disaster before them, Sheriff's deputies were combing the sodden brush in the canyon for the three escaped lions, stars of a movie in the making.

"I remember the dispatcher calling all the units, saying 'This is not a lion hunt. I repeat, this is not a lion hunt.' Then there was only silence," Elsaesser said.

"We had three or four deputies with shotguns loaded with solid one-ounce lead slugs standing guard over us. We had enough protection, so the lions weren't our main worry."

Originally the Sylmar team had hoped that the rain would abate and the river subside enough to allow them to reach the trapped film workers without resorting to a technical rescue.

Rescue volunteers guide stretcher over rocks and overhanging lips as team members raise weight of victim and rescuer with artificial advantage system rigged with ropes, pulleys, carabiners, and clamps in training in Mojave Desert.

"When the river kept rising, we decided we had better go for it," Elsaesser said.

"We got out our fabulous .22 caliber line gun and tried it three or four times. But the guys on the island kept missing the li line that it shot.

"Finally Ray Chacanaca, one of the founding members of the team, and I got a rock, tied a rope to it, and started swinging it like Tarzan."

The four film workers caught the rock with the rope and used it to haul across the river a light steel cable, which they wrapped twice around a large oak tree on the island. From the other bank the Sylmar team anchored the cable and rigged up a tyrolean traverse with pulleys on the cable.

Because the men on the island were afraid to trust the slack cable, someone from the rescue team had to climb out on the cable to test its anchors and bring across the traverse harness.

"I finally spoke up and said that I would go," Elsaesser said. "I like that sort of thing, and besides, I didn't want to do any heavy lifting."

Elsaesser tied a rope to himself, hoisted himself onto the cable, and then began to monkey his way across. At midpoint over the river, the cable hung only inches above the water.

"As I was going across this sucker, the water was cresting in different places," Elsaesser said.

"It was the scariest thing I have ever done. I knew damn well that there was nothing I could do if I went into the water. I remembered that the only mountain rescue death in the county had been in a flood situation.

"Although the rain had stopped by this time, it was still pretty noisy. I got across, climbed down out of the tree, checked the anchor, and had the team pull up tension on the cable.

"Those guys on the island were so scared. You couldn't believe their faces when I got off that cable."

Elsaesser cinched each man in turn into a climbing seat and chest harness, which he clipped onto a pair of pulleys riding the cable. The rest of the Sylmar team simply hauled each m... across the river while Elsaesser tugged back the empty harness after each passage.

By the time that the four men were safely across the river it was almost daylight. The Sylmar team had to decide whether Elsaesser should attempt to cross the cable system again and abandon the equipment or wait for a helicopter. "There was no way that I was going across that river again," said Elsaesser. "Besides, with all that rain, we figured we would probably need our cable system again real soon.

While the Sylmar team struggled with the technical rescue, Sheriff's deputies and animal trainers searched for the frantic lions in the storm. Despite orders to remain inside, trailer park residents ventured outside and spooked two of the lions, forcing deputies to shoot them. The third lion was killed when it appeared to lunge at a trainer who was attempting to put a chain on its collar.

After Elsaesser was lifted out by helicopter, the Sylmar team returned their trucks to the Sheriff's station, cleaned up, and joined the rest of the Los Angeles commuters on their way to work.

Not all searches or rescue operations are this dramatic or successful.

A teenager who falls to his death while playing on a crumbling sandstone and mud cliff must still be reached, carefully bundled up, and turned over to the County Coroner's Office.

When a small plane slams into a mountain in fog or darkness, shattering itself and its occupants, mountain rescue volunteers are called out to pick up the pieces. Often a plane has been down for several days before it is spotted by the Civil Air Patrol, so the bodies of the occupants have begun to decompose or have been ravaged by small game animals.

Sometimes the violence of the Los Angeles drug scene spills over into the mountains when hikers discover a barely recognizable body that turns out to be that of an angel dust or heroin dealer who made one deal too many. In these cases the

MORE MOUNTAIN RESCUE

mountain rescue teams do the initial body recovery while ıicide investigators take over the death investigation.

Nobody on mountain rescue teams find body recovery work very amusing. Even after a few months of rescue work, volunteers begin to question seriously the human capacity for reason and self preservation. Many accidents appear needless because the victims have disregarded even the most fundamental rules of safety.

"In the old days mountaineers used to rescue mountaineers," lamented one veteran rescue specialist. "But today I don't think we've ever rescued anyone with mountain experience. The Angeles Crest is not a wilderness. People with mountain experience have no business getting lost." After a while all the incidents recorded on the rescue teams' logs begin to sound all the same.

Last summer an inexperienced hiker without water, shirt, or proper shoes decided to traverse a steep ridge on a hot morning. But he lost his nerve and began to suffer from heat exhaustion as he crouched in fright above a gorge. It ultimately took the combined efforts of the Forest Service, Fire Department, Sheriff's Department, a mountain rescue team, and two helicopters to bring the man to safety.

A group of hard-drinking "friends" decided to abandon one of their companions in darkness at Pyramid Lake. When the young man's family reported him missing late at night, the "friends" could not be bothered to answer the Sheriff's Department's phone calls about the victim's medical problems or area in which he was left. A mountain rescue team spent a long, cold Sunday night in tick-infested brush searching for the missing man, who was finally located wet but safe with a bottle of run in his pocket.

On April 1, a group of teenagers from the city decided to explore a remote canyon and perhaps smoke some dope. In their stupor they became confused, separated from each other, and lost. A helicopter, a Forest Service patrol, and a mountain rescue m spent half a day searching for them. "I often think there is a arre relationship between drugs and alcohol and young people," said Montrose Search and Rescue Team captain Dennis Kelley, a rescue volunteer since 1967. "So often these accidents are a matter of poor judgment.

Somteimes deliberate maliciousness threatens rescuers. One false report of a crashed private plane and injured occupants brought out two Fire Department helicopters, one Sheriff's Department helicopter, one fire engine, a paramedic unit, several patrol cars, and a hasty scramble of a mountain rescue team during business hours.

In some mountain areas tough city residents who enjoy blasting signs, tables, trashcans, and bathrooms with high-powered guns occasionally turn their weapons in the direction of mountain rescue teams for a little real-life sport. Despite these hazards and the stiff demands of time, training, and skill, mountain rescue volunteers continue to respond unhesitatingly when the phone rings in the middle of the night. Their $1 a year does not go very far in paying for lost parkas, ripped pants, worn boots, poison oak, tick bites, wear-and-tear on personal cars, and general aggravation in responding to real and false alarms.

Besides the $1 a year, the other benefits the mountain rescue teams receive are entirely intangible — a brief handclasp from a victim before he is winched into a helicopter, a penned thank-you note from a backpacker rescued from a freak summer storm, the quiet satisfaction of having helped in an emergency.

"A sociologist wrote a research paper about mountain disasters, saying that mountain search and rescue operations are unique because there is a greater commitment to the victim on the part of the volunteers," said Kelley. "There is a consensus to a singular purpose. The victim has priority."

lthough they prefer to indulge in self-depreciating humor, mountain rescue volunteers will admit in a more sober mood that they acknowledge an unspoken obligation to come to the assistance of their fellow human beings in distress. If they can act on this moral premise while having fun in the mountains with well-trained colleagues in an elite volunteer group, then that is all the justification they need to lead a double life with their mountain rescue gear standing ready in closet or car. "Mountain rescue people are embarrassed to talk about public service because it would ruin their macho image," conceded one veteran rescue volunteer.

Maneuvering a stretcher over the lip of a cliff is often the trickiest aspect of technical rescue operations as these volunteers discover during a training exercise.

Although some rescue volunteers come to the teams with extensive experience in climbing, skiing, and mountaineering, other volunteers, particularly in recent years, come with only their willingness to help and their ability to learn quickly. A Sheriff's deputy who has worked with Reserve Forces for years described this pattern by saying that these volunteers seemed to have too much energy and caring to remain passively on the sidelines of life.

"Motivation is a curious thing," said Kelley. "There are several aspects. One, I think is from the field of social biology, the genetic drive towards altruism. Then there is also a certain level of immaturity and escapism in mountain rescue. "Volunteers have a subtle background urge to belong. The volunteers need to belong. The Sheriff's Department gives them an opportunity to belong to a most prestigious organization.

"Sometimes it's difficult for the teams to maintain their own identities in the shadow of the Sheriff's Department. Although the Department's orientation is towards law enforcement first, it has given in on some issues.

"There are not simple answers. You tend to get people in your own image. It's difficult to get mountaineers and people comfortable at night in the wilderness instead of gun and police type people. The Department has a prestigious image.

"But ever since I've been around, a lot of quality people have been coming into mountain rescue. Even though there are artificial barriers that filter out some good people, I still think there will always be quality people coming into mountain rescue."

SAR

INTERAGENCY COMMITTEE ON SEARCH & RESCUE (ICSAR)

By A. J. McCULLOUGH
Secretary, ICSAR
U.S. Coast Guard (G-OSR-4/73)
400 - 7th Street, S.W.
Washington, D.C. 20590

First Session - 1981 (ICSAR 1-81)
26 January, 1981, Washington, D.C.

MINUTES

The meeting convened at 1030, 26 January 1981 at the Department of Transportation Headquarters building with the Chairman, RADM J.D. Costello presiding. Persons present were as at Attachment A. The Chairman welcomed the members of the National Association of Search and Rescue (NASAR) that were present.

Agenda Item 1. Minutes of the Fourth Session - 1981. The minutes of ICSAR 4-80 held on 28 October 1980 were approved unanimously.

Agenda Item 2. Follow-up on the Bi-National Conference on Disaster Preparedness. The Bi-National Conference on Disaster Preparedness held in Mexicali, Baja California on 16-17 October 1980 was previously discussed at the last ICSAR meeting. Additional information was presented today. The sponsors of the conference are:

Commission of the Californias	County of Imperial
State of Baja California	County of San Diego
State of California	

The Secretary reported that a possible follow-up meeting in Washington mentioned at ICSAR 4-80 did not occur. However a number of recommendations for SAR coordination have come out of the conference in a draft form. These drafts are attached as Attachment B. The ICSAR plans to exchange views with the State Department observer through a meeting between Colonel Sentimore, Mr. Holcomb, Mr. McCullough and Mr. Martines. The meeting will be held this afternoon. Mr. Ackerson of the FEMA Office of International Affairs has sent a letter to his counterpart in Mexico calling attention to, among other things, the recommendations that were made in search and rescue and suggesting that these be the subject of an ad hoc group set up by the disaster agreement with the Mexicans. (See attachment C.)

Agenda Item 5. National Maritime SAR Program Facilities Plan. The Chairman remarked that last year the Committee took it upon itself to act as the medium for the coordination and review of this plan. In that the Committee intends to review the document annually, the Secretary was directed to distribute it with the proposed changes if any. The DOD Member advised that DOD has problems with the administration of the working agreements which result from implementation of the plan. It was agreed that action on individual agreements would be withheld pending resolution of the most efficient way to formulate the agreements.

This completed the business items on the agenda. The Presentations followed.

Agenda Item 3. Presentation on: Field Studies of Multi-organizational SAR Responses in National Disaster and Remote Area Settings. The Chairman introduced Dr. Thomas D. Drabek of the University of Denver who made the presentation. An outline of the presentation is at Attachment D. The related material that was available at the meeting is at Attachments E, F and G. Questions and answers followed and there was interest expressed in the fothcoming book: *Managing Multiorganizational Emergency Responses: Emergency SAR Networks in Natural Disasters and Remote Area Settings,* Boulder, Colorado: Institute of Behavioral Science, the University of Colorado (Anticipated Springs, 81). There was discussion of the means to generate good circulation of the book. Dr. Drabek advised that he would eventually, provide the Committee Secretary with a copy of all the papers resulting from the project.

Agenda Item 4. Presentation: An Evaluation of Cooperat Search and Rescue in the National Forests. The Chairm introduced Mr. E. V. Andersen of the U.S. Forest Service who made the presentation. Attachment H is an outline of the presentation and attachment I is a copy of the two year study that was prepared as background material for a bill before the 96th Congress, HR #3559.

Mr. Andersen opened by pointing out the common mistake of confusing the National Forests with the Department of Interior's National Parks. A primary difference is that the National Forests are in proprietary jurisdiction ie: local law and responsibility prevails. The Forest Service policy is to support strong local leadership but the Forest Service will intervene if local talent defaults. A percentage of the money earned by the Forests is returned to the community and for this reason Congress opposed making additional funds available for SAR in the National Forests. **The Department also believes that if the Federal Government took a lead role in SAR in the Forests it would undermine the volunteer effort.**

Agenda Item 6. Presentation on: SAR Stage to Disaster Recovery Stage Hand-off During Disaster Operations. The FEMA Member introduced Mr. A. W. Holmes of FEMA's Disaster Response and Recovery Branch. An outline of the presentation is at Attachment J. Mr. Holmes cited the 1980 Cuban Refugee movement to Florida as an example of the situation under study. He exhibited a flow chart which showed the route to activation of FEMA and the designation of a Federal Coordination Officers (FCO) in a particular case. The FCO is placed to orchestrate the federal assistance that is to follow. The FCO evaluates the need for federal assistance. The authority to task federal agencies is placed with the Regional Director.

In a question and answer session the Chairman commen that the law "allows" agencies to offer help with less analysis the need. Colonel McElhaney pointed out that as opposed to making a firm agreement with a state emergency services office, the Air Force RCC works on a case by case basis with the state agency designated by the governor. Mr. Holmes estimated that the time required to declare a disaster would be twelve hours in a typical case such as a tornado.

Agenda Item 7. Other Business. The next meeting was tentatively scheduled to be held at the FAA's Technical Center in Atlantic City in late April with agreement on a date to be coordinated by the Secretary. The meeting adjourned at 1230.

ATTENDANCE

MEMBERS	AGENCY	Attached TO
RADM John D. Costello	DOT	USCG
LTCOL Gilbert L. Sentimore	DOD	USAF
Mr. Thomas E. McGunigal	NASA	HQ
Mr. Thomas H. Holcomb	FEMA	HQ
Mr. Roy E. Kolly	FCC	HQ
ALTERNATE MEMBERS		
CAPT. William J. Russell	DOT	USCG
Mr. Arys H. Huizinga	DOC	MARAD
Mr. Jeffrey B. Young	FCC	HQ
ADVISORS		
COL. James W. McElhaney	DOD	AFRCC
CAPT Merrill K. Wood	FAA	HQ
Mr. Bernard J. Trudell	NASA	GSFC
AD HOC ADVISORS		
Mr. J. David Upchurch	AOPA	
Mr. Art Jones	NASAR	
SECRETARIAT		
Mr. A. J. McCullough	DOT	
LCDR John G. Carroll	DOT	
OBSERVERS		
Mr. E. Andersen	DOA	
Mr. E. Martines	DOS	

SAR

SEARCH & RESCUE MAGAZINE INDEX

FALL 1973
★ Washington State SAR Conference ★ A Visit with Jon Wartes ★ A Child is Lost, by Lena Reed ★ Chapter 1 of Mountain Search for the Lost Victim.

WINTER 1973
★ A Rescue Worth Mentioning ★ The use of String Lines for Subject Confinement, Search Area Segmentation, and Grid Sweep Control, by Jon Wartes and Bill Rengstorf ★ Mountain Rescue Association Spring Business Meeting ★ Fort Jackson Search and Rescue Squad, by PFC Larry Strawther ★ Part 2 of Mountain Search for the Lost Victim.

SPRING 1974
★ Driver Survives 500 Foot Plunge ★ National Association of SAR Coordinators Annual SAR Conference ★ Simulated Plane Crash ★ Heated Oxygen Hypothermia Treatment ★ Part 2, Chapter 2 of Mountain Search for the Lost Victim.

SUMMER 1974
★ Surf Rescue, by Bill Wagner ★ 1st National SAR Council, by Blair Nilsson ★ National SAR School Graduation Speech ★ The Rescue People, by George Sibley ★ Part 1, Chapter 3 of Mountain Search for the Lost Victim.

FALL 1974
★ A Tribute to Hal Foss, by Dyer Downing ★ Harold A. Foss Obituary, by Rick LaValla ★ Land Search Organization, by Lois McCoy ★ How State Conferences Began, by Lena Reed ★ International Mountain Rescue Conference, by Judy Bechler.

WINTER 1974
★ The Rescue Group Nobody Knows—SAROC, by Lois McCoy ★ Search Theory, by Dennis Kelley ★ The role of the State SAR Coordinator, by Paul Koenig ★ Developing a Search Plan, by Andrew Hutchison ★ Caldwell Search ★ Utah SAR Seminar, by Paul Koenig.

SPRING 1975
★ Federal Agency Roster ★ A Visit with Peter J. Pitchess Los Angeles County Sheriff ★ 6th Annual National Association of SAR Coordinators Conference ★ Mt. Stuart Rescue, by Paul Williams ★ Man-Tracking, by Lois McCoy ★ INLAND SAR '75.

SUMMER 1975
★ Rappelling, by Bill March ★ Oregon SAR Conferences, by Galen McBee ★ NASARC Advisory Council Minutes, by Paul Koenig ★ Aerial Reconnaissance in SAR, by Lt.Cdr. Scott Ruby, USN ★ National Jeep SAR Association Convention ★ Anatomy of a SAR Conference, by Wes Reynolds and Lois McCoy ★ LANTSAR '75, by Lois McCoy ★ NASARC Awards Program.

FALL 1975
★ How to Teach Yourself Tracking Techniques, by Jack Kearney ★ The Dilemma of Helicopter Rescue, by Paul Williams ★ Snowmobile Rescue Units in Northeast Support CD, by Vincent J. Tuscher ★ The Changing Face of SAR in Baja California, by Lois McCoy ★ Northern California SAR Seminar, by Jim Presentati ★ Avalanche Recovery, by Blair Nilsson.

WINTER 1975
★ National Association of Search and Rescue Coordinators 6th Annual Conference ★ Communications - The Visible Part of Planning, by Lois McCoy ★ Emergency Preparedness Bibliography, by Skip Stoffel ★ Search and Rescue Dogs, by Kenny MacKenzie.

SPRING 1976
★ Vehicle Tracking, by Gar Salzgebar ★ Establishing Search Areas, by Robert J. Mattson ★ Mountain Flying ★ River Crossing, by Bill March ★ Northwest Bloodhounds Search and Rescue, by Lena Reed ★ Flight For Life, by George L. Seaton.

SUMMER 1976
★ The Rumplestilskin Effect, by Lois McCoy ★ Safety in Helicopter Operations, by Lt.Com. L. B. Beck, USN ★ Search and Rescue in Oregon, by John Olson ★ Uniform Map System, by Ev Lasher ★ NASAR Spring Advisory Council Meeting ★ "Go the Second Mile," by Stan Bush ★ Basic Living, by Mike Humfreville ★ CB Radios for SAR Communications, by Lt.Col. Homer Dillow, USAF.

FALL 1976
★ Nicaraguan Jungle Survival, by S. Wicker-Guerrero ★ That Faithful Old Albatross, by Jerry Hagan ★ Medical Emergency Triage Tag, by Robert Blodgett and W. Murphy ★ USAF Search and Rescue Films ★ Plane Crash!, by Skip Carnes ★ Teach Yourself Tracking, by Jack Kearney ★ Emergency Transmitter Location, by Bruce Gordon and Lou Dartanner.

WINTER 1976
★ One Walked Away, by Bruce Schweiger ★ Glacier!, by Bill March ★ Editor Wild Plants, by Dan Hensley ★ Health Foods vs C-Rations for Survival ★ Cheyenne, Editorial.

SPRING 1977
★ Basic Snowcraft, by Bill March ★ European Search & Rescue, by Robin Burton ★ Fruit Salad Caper, by Lois McCoy ★ Use of a Metal Detector in Avalanche SAR, by Jon Gunson ★ EMT Plan for Mountain Search & Rescue Teams, by Lyn J. Morgan.

SUMMER 1977
★ Ground Anchors, by Bill March ★ Salt Tablets. . Yes or No?, by Sandy Bryson ★ Tornado! Funnel of Fury, by Grover Brinkman ★ Search and Rescue is Going to the Dogs!, by Bob Koenig and Marcia Koenig ★ Pikes Peak. . .Colorado's Longest Vertical Rescue, by Mike Taigman ★ Race Against the Tide, by Mary Jane Beck ★ Survival in Cold Water, by Robin Burton.

FALL 1977
★ Comptroller General's Report to the Congress, by GAO ★ California SAR Support Program, by Wayne Kranig ★ Summary of Federal SAR Conference, by Col. Bruce Purvine ★ Interrogation: Remember Your P's and Q's, by Tom Valenzuela, Jr. ★ Improving SAR Proficiency, by Lee Lucas.

WINTER 1977
★ The Nashville Experience, by Donald Irwin ★ The First Rescue, by LCDR John Ebersole USCG ★ CBS Strives for Realism, by Skip Stoffel ★ The Multi-Agency SAR Plan, by Lt. T. P. Hart USCG ★ The Pocket Scanner, by Jon Gunson.

SPRING 1978
★ New York Fire Department Auto Rescue, by Wayne T. Parola ★ Lloyd K. Mosemann Speech ★ Deep Water Rescue Breathing, by Albert L. Pierce ★ East Meets West, by Dick Sale ★ The Cass Cave Incident, by Bill Clem ★ The First Step in the "Second Mile," by Stan Bush ★ The U.S. Coast Guard Auxiliary, by LCDR John Ebersole ★ Mountain Rescue in Britain, by Bill March ★ The Ambulance in the Valley, by Joseph Malines.

SUMMER 1978
★ Man Lifted Off Flaming Silo in Daring Helicopter Rescue, by Millie Ball ★ ICSAR = The Interagency Committee on SAR, by Lois Clark McCoy ★ Alaska Plane Crash!, by Rollo Pool ★ The ELT is the Best Search Tool Currently Available, by Robert J. Mattson ★ Emergency Locator Transmitters, by NTSB ★ Air and Ground E.L.T. Direction Finding, by Bruce Gordon.

FALL 1978
★ Rescue on Mt. Watkins, by Tim Setnicka ★ Belaying, by Bill March ★ Ascenders in Rescue, by Eric Fuller ★ SAR Stats: Fact or Fiction ★ Altimeter Evaluation, by Ray Hague ★ The Rescue Pack, by John Wehbring.

WINTER 1978
★ Introduction to AFRCC, by Col. Butera, USAF ★ Selected SAR Missions ★ Computer Applications ★ Communications ★ State Organizations ★ Volunteer Organizations ★ ELT ★ Weather ★ Data Collection ★ Federal ★ ITAP.

SPRING 1979
★ Mtn. Rescue Saves Trucker, by Steve Blakely ★ The Shepherds vs the Hounds, by Sandy Bryson ★ Dogs in Disaster Search, by Bill Dotson ★ How the Bloodhounds Do It, by Lena F. Reed ★ They Sniff Out Drugs, by Tom Alex ★ Bloodhounds, by James T. Beck ★ Ranger Service Dogs, by Sandy Bryson ★ What Goes Down Must Come Up, by Bill Clem.

THOSE DARING YOUNG MEN IN THEIR LIFESAVING BOATS

By LEONE RICHARDSON
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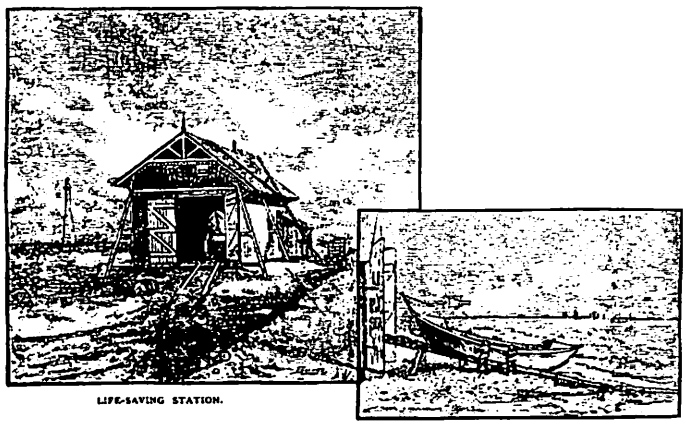
In extreme cold weather the lifelines become rigid and clogged with ice as they swayed in and out of the water and the unlucky survivor, halfway to shore in the breeches buoy, was suspended in the breakers or ensnarled in floating cordage and debris from the wreck where he dangled helplessly in the freezing water. It was then that the daring surfman, working his way through the boiling surf at the risk of his own life, released the wretched victim and guided him safely to shore . . . ."

More than a hundred years ago an anonymous historian wrote that paragraph as part of his story about the early days of the United States Lifesaving Service and the brave deeds of the gallant surfmen attached to the stations. *Scribner's Monthly Magazine* published his story in January 1880. It began:

"No portion of the ten thousand or more miles of the sea and lake coastline of the United States, extending through every variety of climate and containing every feature of coast danger to the mariner, can exhibit a more terrible record of shipwreck than the long stretch of sandy beaches lying between Cape Cod and Cape Hatteras. Of this region, the New Jersey coast is notoriously the worst."

His story continued, "Here (in New Jersey) in 1848, the Government placed a few rude huts that formed the nucleus from which the United States Lifesaving Service has developed."



LIFE-SAVING STATION.

SELF-RIGHTING BOAT ON WAYS.

Records show that even before 1848, the Humane Society of Massachusetts had built a few crude shelters along Cohasset Beach, between Boston and Plymouth. But the New Jersey huts were the first to be established under the protection of the United States Government.

The huts were poorly built and held only the essential accommodations. Volunteers from among the local fishermen made up the crew. Congress continued small appropriations from time to time, however, it was not until 1871 that Mr. Sumner I. Kimball put together a practical, workable system. Mr. Kimball remained as General Superintendent in charge of the Lifesaving Service until 1915 at which time it merged with the United States Coast Guard.

For the first seven years the service was limited to the coasts of Long Island and New Jersey. Later it was expanded until a chain of stations stretched along the Atlantic Coast from Cape Cod to Cape Hatteras. Eventually, the service was extended to the Lake and Pacific Coasts.

Those early stations were established at the more danger and exposed points along the coast. They consisted of two three small, wooden buildings huddled together in lonely defiance of the elements. At some of the more isolated stations, the peevish squawk of the seagulls and the drone of the wind scudding through the booming surf were the only sounds.

The first floor of the main building held the surf boat which was fully equipped and mounted on a light, four-wheeled carriage. The mortar-cart, loaded with rescue supplies including the breeches buoy, stood alongside.

The furnishings of the kitchen and sleeping quarters were plain but comfortable and the storerooms bulged with provisions and spare parts for replacement and repairs.

All members of the six-man crew, including the keeper-in-charge, were chosen from among the local fishermen who were thoroughly familiar with the portion of the beach upon which they lived. This knowledge of the habits of the local surf was invaluable in their performance as surfmen. The life of a station surfman in 1880 often was a lonely one but his days were never idle — not even those days when no emergency occurred. Each morning brought its routine of drills and the endless duties of keeping the buildings and apparatus in repair. The nighttime hours were divided into three watches. At the beginning of each watch, two men left the station on patrol duty. One went to the right of the station, the other to the left, each to walk his lonely beat until he met the patrolman from the adjacent station.

If the weather was foul, the watches were maintained throughout the daylight hours. Storms came up with incredible swiftness and the shrieking winds of such a storm whipped the sea to a fury and could drive a ship on the rocks and cause an offshore disaster where all had been calm and bright just a short time before.

The beach patrol was not an easy job. Imagine, if you will, what it was like for the patrolman to struggle through the wrath of winter storm while whirlwinds of sand cut like tiny knives and rain and snow and hail and sleet, whipped by the icy blasts, clung in frozen festoons to his face and clothes.

When the darkness of night added to his misery and the feeble light from his lantern showed only a blank curtain of snow and slush and sand, it was his life-long familiarity with the contours of the shore that enabled him to complete his patrol.

The patrolman, in addition to his lantern, carried a signal which, when ignited, emitted a sputtering red flame. When he observed a vessel driven ashore in the storm he lighted this torch and waved it back and forth to warn the unwary ship to stand off and to assure it that its predicament had been noted. Then he hurried back to his station to notify the keeper and start the rescue operations.

At the direction of the station-keeper, the men threw open the doors of the boatroom and drew out the carriage bearing the fully equipped lifeboat. The wheels of the heavy boat and carriage sank into the soft sand but the men grasped the ropes and, bending almost double, dragged their burden through the howling storm toward the wreck. When they arrived at the scene of the disaster,

OFF TO A WRECK.

THOSE DARING MEN (Continued)

the men launched the lifeboat from a point opposite the wreck. The station-keeper stood upright at the steering oar to guide the [illegible] through the surging breakers and the surfmen, their backs t[illegible]ed to the foaming waters, plied their oars in strict obedience to his signals and commands.

They were not always successful in their first try to reach the stranded vessel. No matter how carefully they maneuvered the heavy boat, a treacherous wave, reaching high in the dreadful turmoil, could hurl their small craft against the hull of the ship and send her spinning almost out of control.

Once the lifeboat was filled with survivors from the vessel, the crew started on its perilous return to the beach. If conditions were favorable, the keeper ran the boat close in behind a roller and by quick work of the oarsmen kept well ahead of the following one and reached the beach in safety. For a wild, erratic sea, he might throw out a "drag" to check his headway so to prevent a swift running comber from hoisting the boat high upon its crest and causing it to "broach to" or capsize.

When conditions were such that the lifeboat could not be used, the mortar-cart was ordered out and, like the boat-carriage, it was drawn by the surfmen to the scene of the wreck. With the mortar-cart in place on shore opposite the wreck, the members of the crew loaded the projectile-gun, placed the shot-line box in position and arranged the hawser and hauling lines and tackles. They set beach lanterns and torches in the sand around the scene of operations and, last of all, raised the breeches buoy from the mortar-cart and attached it to the hawser.

The story in *Scribner's Magazine* describes the action:

"And now the gun is fired! The shot with its line goes flying against the gale, over the wreck into the sea beyond. The line falls across a friendly spar or rope, and is soon seized by the eager, benumbed hands of the sailors, whose glad shouts faintly heard on shore, make known to the lifesavers their success. The surfmen [illegible]ect the whip (an endless line), the tail-block and tally-board t[illegible]ne shotline already being hauled in by the impatient sailors. The whip passes rapidly toward the wreck and arriving there the sailors make fast the tail-block in accordance with the directions on the tally-board and show a signal to the shore. Hauling upon one part of the whip, the surfmen then send over the hawser attached to the other part along with a second tally-board which directs how and where the end of the hawser should be secured to the wreck.

"The tackles now connecting the sand-anchor and the shore-end of the hawser are hauled upon until the hawser is straight and taut . . . The breeches buoy is drawn to and fro on the hawser and, by means of it, the shipwrecked people are brought safely to shore."

Such operations could be extremely hazardous because sometimes in a storm when a strong current ran between the ship and the shore, the lines became twisted and entangled or were completely swept away by the heavy seas; or the motion of the wreck, as it was lifted and rolled about by the powerful seas, was violent enough to snap and break the heavy lines like so much thread.

The breeches buoy was not suitable for transporting women or children or invalids, or for rescuing a large number of people when time was short. In such cases, the life car was used with the same rope arrangement as the breeches buoy.

The life car was actually a small, water-tight, covered boat. Both bow and stern were tapered to a point and, under favorable conditions, the surfmen fastened a line to each end and drew it through the water between the ship and the shore. More frequently, however, it was fastened to the hawser with a sliding a[illegible]chment that permitted it to float on the surface of the water [illegible]e holding it on course between the wreck and the shore. It could transport five or six adults at a single trip.

When all survivors had been removed from the wreck and guided back to the station, there was still much to be done. The weary surfmen stoked the neglected fire, gave warm food and dry clothing to all survivors, applied poltices and bandages to the bruised and wounded, and dispensed remedies and stimulants as needed. Then the refugees were put to bed and covered with warm blankets. It was not until all survivors were taken care of that the exhausted surfmen could rest.

Occasionally, a shipwrecked person reached the shore in an unconscious state and seemingly lifeless. The surfman was trained in ther use of a series of hand-pressures applied to the chest and, as described in the *Scribner's* story, he proceeded ". . . in alternately producing artificial expiration and inspiration, in imitation of natural breathing, which may be expected to ensue if the patient is not really dead."

It was in 1780 that Mr. Lionel Lukin, an English coachmaker, designed the first model for the self-righting and self-bailing lifeboat. The boat had great stability and was difficult to capsize. But if it *did* capsize, it instantly righted itself — and when full of water, it emptied itself in less than 20 seconds.

The self-righting process was accomplished by means of the installation of a heavy iron keel and the placing of two large air-chambers high in the bow and stern. When the boat capsized, the keel was drawn back into the water by the force of gravity while the submerged air-chambers rose to the surface at the same time.

The property of self-bailing was produced by the insertion of a floor several inches above the load-line, and the installation in that floor of a series of tubes that extended down through the bottom of the boat. The top of each tube was fitted with a valve that opened downward from the pressure of any water in the boat and which closed automatically as soon as the pressure ceased.

The draft and great weight of the self-righting and self-bailing lifeboat generally prevented its use along the flat, sandy beaches of the Atlantic Coast. It was most effective and popular along the coasts of the Great Lakes where many stations were located inside harbors and fronting on smooth, deep water where it was easy to launch the huge boats directly from their ways.

LAUNCHING THE SURF-BOAT.

The surfmen of 1880 showed little liking for life belts or cork jackets or other safety precautions. Rigid rules for use of the safety devices were laid down but the men avoided them whenever they could. They especially disliked the "life-saving dress" that was invented by Mr. Clark S. Merriman of Villisca, Iowa, in 1872. The practicability of the outfit was demonstrated by Captain Paul Boynton who floated and swam across the English Channel in such a suit, but the surfmen were not impressed by his exploits.

The "dress" consisted of a water-proof garment inflated with air just enough to sustain the weight required, while allowing full freedom of action in swimming. Vital heat was retained in the body by a layer of air between the body and the dress. The garment was made of india-rubber and consisted of a hood that fitted tightly around the face, a short jacket, trousers, boots and gloves — and all were connected to form a waterproof, airtight suit. The suit was ugly and cumbersom but it was used to great advantage in rescuing persons from small boats that had been carried out away from the beach and capsized. Then the surfmen in their lifesaving togs could rush into the breakers, swim far out into the frigid waters and drag the half-drowned, half-frozen victims safely back to shore.

Continued

THOSE DARING MEN (Continued)

While the men of the lifesaving service were ready for emergency duty at all times, they had their hours of relaxation. Our storyteller of 1880 described those leisure hours:

"Among the people of the coast, more than elsewhere perhaps, a pronounced religious sentiment prevails; hence carousing and gaming and other immoralities were rarely indulged in. Especially is this true at the stations where prohibitory regulations add their restraint. Each station is provided with a substantial library of well-selected books, the donations of generous people . . . a source of much entertainment and instruction to the men. In fine, clear weather . . . the men gather in the messroom and while away the time rehearsing the legends of the coast, spinning yarns, singing, or listening to the tuneful strains of violin or flute.

"Now and then, when the moon was full, there is a 'surprise party' at the station. From the neighboring settlements come friends and relatives of the surfmen bringing cakes and pastries and other good things from their houses. Then all is joy unconfined. The boatroom is cleared of carriage and cart and the merry dance goes round.

"Do not imagine, however, that in these festivities the patrol is relaxed. Not at all; the rule if inflexible, and its violation would be discovered. Indeed, who knows that the beach walk is not then doubled and that, with wife or sweetheart to share his vigil, the patrolman yearns not for the pleasures at the station?"

The early plan for the organization of the Lifesaving Service was simple but effective. The coastline of the United States was divided into twelve districts — eight on the Atlantic Coast, three on the Great Lakes, and one on the Pacific Coast. Each district was under the immediate charge of a superintendent who was required to be a resident of that district and thoroughly familiar with the character and peculiarities of the coastline. And to each district was assigned an inspector who was also the commanding officer of the revenue cutter serving that district.

The entire Service was under the charge and management of a General Superintendent whose office was a Bureau of the Treasury Department of the United States Government. A Board of Examination was set up later that kept the Service well exempt from political domination.

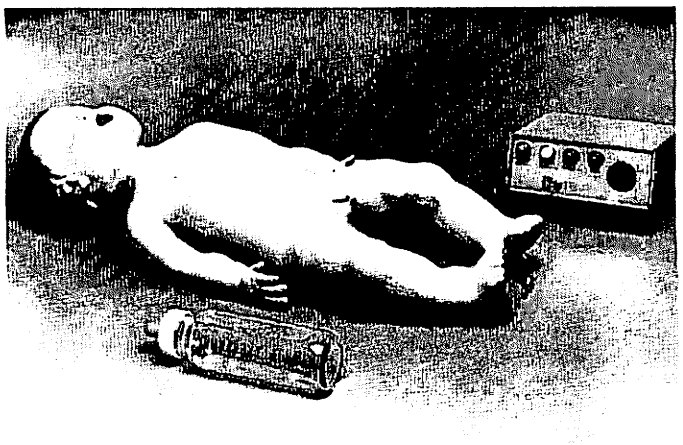
Statistics taken from records of 1880 show that from the date of the establishment of the Lifesaving Service in November 1871 to the 30th of June 1878, a total of 578 disasters occurred within the jurisdiction of the Service. The number of persons on board those vessels was 6,287 and the number saved was 5,981. The Service did not claim to have saved the entire 5,981 survivors because frequently a number of shipwrecked passengers reached the shore without assistance. However, it is certain that a large proportion of those saved would have perished if it had not been for the bravery and endurance of the loyal surfmen.

Our storyteller ended his narrative with three recommendations for improvement of the Lifesaving Service as it was in 1880. Hi first recommendation was that one additional man be assigned to each station. Then when a wreck occurred, the additional man could be left behind to guard the property and keep the station in comfortable condition to welcome the drenched, frozen, wounded and famished survivors as well as the exhausted rescue crew.

The assignment of one or two draft horses to each station was his second recommendation. The men would then be spared the labor of hauling the heavy equipment for miles to a wreck and would have more time and strength for their actual rescue work.

The third recommendation of our perceptive historian of 1880 was for the payment of pensions to those in the Lifesaving Service who had been permanently disabled in the line of their duty and to widows and children of those who had perished in their endeavor to save lives. He elaborated ". . . The guns trained to *destroy* life in the services of the country carry this grateful condition. *The guns trained to save* life — no less in the service of the country — have the right to carry it also. The professional skill of these men, their unfaltering energy and endurance, their steady bravery in the hour of supreme ordeal and at all times their sober fidelity to duty however hard or irksome, are beyond all tribute." SAR

NEWS AND RUMORS Continued



SIMULAIDS MARKET NEW CPR MANIKIN, 9-MONTH-OLD BILLY III

Simulaids, Inc., has designed and is now marketing a new baby CPR manikin which represents the latest refinements in the field.

The manikin, named Billy III, is a replica of a nine-month old boy that weighs 11 pounds, 12 ounces and is 22 inches long. This newest product was designed not only to attain a higher degree of realism, but also to be suited for the latest techniques in administering and teaching CPR. It has, for example, a brac pulse which conforms to standards for CPR and ECC published by JAMA last year.

The manikin has internal electronic sensors which are wired to a light box console that gives an instant readout of how well CPR is being administered. Colored lights indicate correct finger position, ventilation puff-pressure, proper compression of the sternum, over-ventilation, and over-compression of the chest.

Billy III has an internal lung that inflates when MMR or bag-mask ventilation is correctly administered and which causes a discernable chest rise. It has an internal life-like rib cage for realistic practice of cardiac compression.

Realism has been taken into consideration in the weight distribution of the various body parts. And the outer skin is made of a special, soft and resilient plastic simulating the feel of a human body.

Simulaids, which manufactures a line of infant and baby CPR manikins, maintains that training on babies is especially important because the resuscitation procedure is different from that used on adults. Kevin Sweeney, president of the 20-year-old company, also points out that CPR on babies has a higher success rate.

The company's infant and baby line includes various age groups starting with the Premie manikin, a premature infant that is 15 inches long.

Billy III has been constructed so that effective cleaning and sanitizing can be done simply and without disassembling the manikin. This, too, responds to up-to-date requirements of CPR instructors.

The manikin and console light box come with a deluxe, leatherette-covered wood carrying case.

Details of all the manikins as well as Simulaids' disaster kits, simulated wounds, OB manikin, injection training arms and hands, and inflatable splints are described in literature available by calling toll-free: 800-431-4310 (N.Y. State: call 914-679-2475 collect) or by writing Simulaids, Inc., 271 Tinker Street, Woodstock, New York 12498.

Continued

DE ANZA RESCUE UNIT (DARU)

WINTERHAVEN, Feb. 22nd — Winterhaven was the scene for a tragedy involving a Mexican farm worker, his wife, and two children, a boy six and a three-year old girl. On Saturday evening four subjects apparently went to the home of Daniel Diaz, 32, in an attempt to rob him. In this attempt Daniel was shot, the children injured and the mother, Maria Raquel Rivera de Diaz, 28, was kidnapped. None of this was known until Sunday morning when a terrified little boy contacted his uncle after spending the night with his sister and the body of their father. Although in a state of shock, this little boy was able to give the Sheriff's Dept. an account of his father's death, his mother's abduction, and a description of the suspects and their vehicle. An immediately search of the nearby area was started in hopes that Maria could be found. De Anza Rescue Unit (DARU) was asked to assist in this operation. There was actually no specific area to search because it was, and is, unknown what the suspects had in mind for the victim, or which direction they had gone. However, in spite of an abundance of searchers, both on the ground and in the air, as well as on the river, no sign of the woman or the suspect vehicle was found. The search was called off Sunday night and the DARU members secured at 2100 hrs. On Monday the Sheriff's Office continued a more limited operation, and although it was cancelled Monday evening, the Dept. of Fish and Game is still continuing a search of the river. At this time there is no new information regarding the whereabouts of either the suspects or the victim. Hopes for the woman's survival become less with each passing hour. This type operation is unlike the usual DARU searches in that there was not actual starting point or physical sign to follow. It hopes that Maria could be found. It was important in everyone's mind that this be done on the chance that she was laying out there injured and in need of help. Cooperating in this massive effort were members of the Sheriff's Dept., Sheriff's Posse, Border Patrol, the State Dept. of Fish and Game, the Yuma Rescue Squad and DARU. Also there were concerned individuals who contributed their time and effort. Needless to say this type of operation does not actually stop just because officially it must be shut down. Persons in the area continue on their own on the faint hope that some clue will be found. If there are any further developments in this case we will report them to you in another newsletter.

NOTE: It is extremely difficult in this type situation to take actual note of everyone participating. If we have neglected anyone we apologize.

Continued

CARDIOPULMONARY RESUSCITATION (CPR) FILMS REVISED

Pyramid's award-winning Basic Life Support - CPR films have been revised according to the "Standards and Guidelines for Cardiopulmonary Resuscitation (CPR) and Emergency Cardiac Care (ECC) as published in the *Journal of the American Medical Association,* August 1, 1980.

CPR FOR CITIZENS - Revised 1981. Highly recommended by experts for training lay citizen first responders, this film includes: 1) Airway management, 2) Choking, 3) Mouth-to-mouth breathing, and 4) External cardiac compression.

27 minutes, color, 16mm:$395 Video:$295 Rent:$40

NEW PULSE OF LIFE - Revised 1980. The winner of ten first place awards. Include: 1) Airway and breathing, 2) External cardiac compression, 3) One and two rescuer CPR, and 4) Infant resuscitation.

27 minutes, color, 16mm:$395 Video:$295 Rent:$40

NEW BREATH OF LIFE - Revised 1980. A definitive resuscitation film that includes: 1) Airway management, 2) Choking, and 3) Mouth-to-mouth breathing.

24 minutes, color, 16mm:$395 Video:$275 Rent:$40

NEW 1981 FILMSTRIP RELEASE

CPR: BASIC LIFE SUPPORT. A new modular program designed to demonstrate basic life support techniques: 1) Airway and breathing, 2) External cardiac compression, and 3) Choking. Includes 3 filmstrips/audiocassettes and study guide.

Set:$250 Individual Stripes:$90

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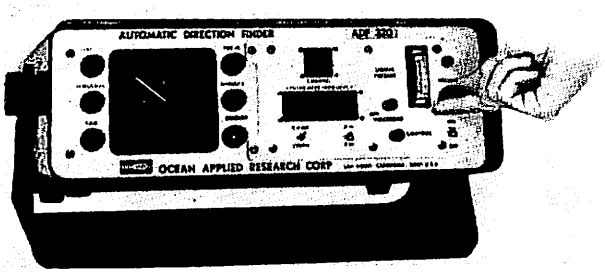
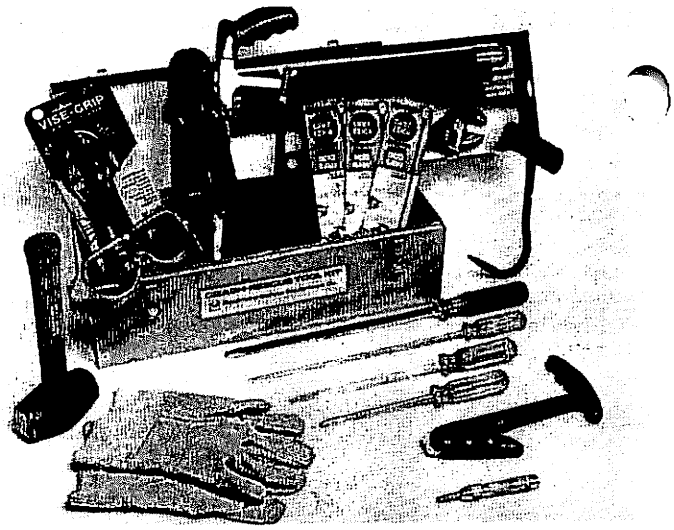
O.A.R. INTRODUCES NEW "WIDE COVERAGE" VHF BAND RADIO DIRECTION FINDERS FOR 1981

New, "wide frequency range" variations of the popular Model ADFS-320 VHF Band Automatic Direction Finder were recently announced by O.A.R., a Division of General Indicator Corporation. O.A.R. manufactures a line of compact, portable, radio locating aids for security, law enforcement, search-and-rescue, air traffic control, marine navigation, industrial communications, and military applications.

Customers can now order the Model ADFS-320 as a standard, stock item with full frequency coverage between 108 and 174 MHz. Wider range versions such as 70-250 MHz, 25-250 MHz, and 100-500 MHz are also available. The compact, portable receiver contains a CRT direction display, field-strength meter, speaker, all operating controls, and runs from battery or AC power. Tuning is accomplished using a manually programmed synthesizer with 1 kHz resolution. Several "custom-design" type features are offered as standard options with the Model 320, including choice of interchangeable automobile roof/aircraft or ship/base-station type antenna mounts; factory pre-programming of the synthesizer for switch selection of 1 to 99 customer specified frequency channels; addition of frequency scanning circuit; addition of "track-and-hold" for the CRT direction display (to retain bearings on short signal transmissions); digital bearing readout (in addition to CRT display); and an economical "remote control" system, with microprocessor based computer, for operating 1 to 10 distant ADF sites over telephone lines or microwave link.





CRASH-RESCUE TOOL KIT IDEAL FOR RESCUE SQUAD/AMBULANCE TEAMS

Rockford Safety Equipment Company's Crash-Rescue Tool Kit combines all the little tools needed for fast and efficient rescue into a compact, convenient tool box for easy and fast response to the emergency scene.

The Kit contains the high quality equipment to meet the needs of just about every type of rescue situation. It contains tools to cut through metal, webbing, rope, wood and plastic.

Its 18¼"x7"x7¼" steel fabricated box carries all the tools, and a removable partitioned tray keeps things orderly and accessible for maximum efficiency.

For complete information on Rockford Safety Equipm Company **CRASH-RESCUE TOOL KITS** and our complete li... of emergency medical products, call or write today for your free copy of, "Emergency Medical Care Products & Rescue Extrication Equipment," (EMP-5). Contact Rockford Safety Equipment Company, 4620 Hydraulic Road, P.O. Box 5166, Rockford, Illinois 61125. Call (toll free): 1-800-892-9435 (Illinois accounts), or 1-800-435-9451 (rest of U.S.A.).

NEW 1981 EDITION EMERGENCY MEDICAL CATALOG

New EMP-5 Products Catalog now available!

Rockford Safety Equipment Company announces a new 180-page catalog describing Emergency Products and Life Saving Equipment. The catalog, EMP-5, is entitled "Emergency Medical Care Products and Rescue Extrication Equipment" and illustrates a wealth of products and equipment for the entire Emergency Medical Care and Emergency Service Industry. Thousands of products from bandages to sophisticated electronic pulsemeters and cardiopulmonary resuscitation valves are described and priced. All items in the catalog are in stock, ready for immediate off-the-shelf shipment. The catalog stresses "one souce of supply" and a "conserve energy — shop by mail" theme.

This colorful catalog is easy to read with complete descriptions, drawings and photos of the numerous products available to the people purchasing in the first aid and emergency care field.

The catalog is especially valuable and a must for fire departments, rescue squads, ambulance services, hospitals, police departments, trauma centers, emergency medical technicians, nursing homes, day care centers, funeral homes, civil defense centers, military bases, prisons, colleges and universities, med... and nursing schools, mine rescue units, national ski pat... ambulance manufacturers, industrial plants and local and state government institutions.

Write or call for your free copy of EMP-5 catalog today! Contact: Rockford Safety Equipment Company, 4620 Hydraulic Road, Rockford, Illinois 61109. Phone: 815/ 874-7891.

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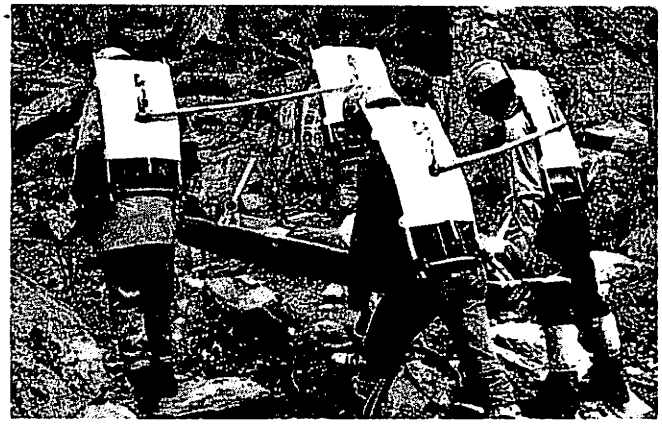

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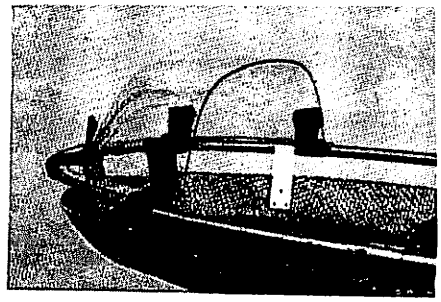

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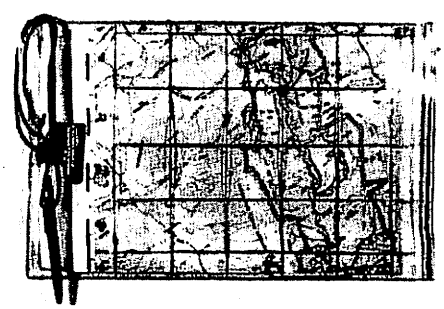

New! ARALUEN SEARCH-CONTROL CLIPBOARD holds search maps firmly in 9"x14" rain-proof transparent pouch. Grid markings on outside of pouch permit recording search progress by grease pencil provided.
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