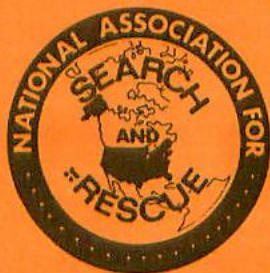


WINTER 1977

Search & Rescue

MAGAZINE

THE OFFICIAL PUBLICATION OF THE NATIONAL ASSOCIATION FOR SEARCH AND RESCUE



1977 HAL FOSS
SAR SERVICE
AWARD WINNER:
BILL SYROTUCK



SEARCH AND RESCUE MAGAZINE

P. O. Box 153
MONTROSE, CA. 91020

Utah Wing/CAP
105 Soldiers Circle
Fort Douglas
Salt Lake City, UT 84113

**BULK RATE
U. S. POSTAGE**

PAID

**PERMIT NO. 181
Montrose, Ca. 91020**

THE NASHVILLE EXPERIENCE

...ONE OF THE BEST...

The 9th National Association for Search and Rescue (NASAR) Convention held in Nashville, Tennessee on September 16-18, 1977 was far more than an ordinary convention. It was truly "The Nashville Experience."

It was one of the best events of this type I have yet attended. The Convention covered the entire gamut including lectures, seminars, workshops, field training programs, static displays and demonstrations with as many as five and six simultaneous sessions each hour and covered the spectrum from disaster management to use of dogs in Search and Rescue. The convention was both innovative and exciting.

The some 450-500 attendees included representatives from many federal, state and local agencies (military and civilian) and included emergency services, fire, police, medical, health and other agency representatives as well as the many others representing volunteer service organizations. Attendees traveled to Nashville from throughout the United States and the "four corners of the earth," as there were representatives from Alaska, South America, Taiwan, the Virgin Islands, Indonesia, and West Germany.

It would be difficult to evaluate or grade the programs for they were all excellent.

...DISASTER MANAGEMENT...

Of special interest to me were the sessions on "disaster management" and "communications." The disaster management program provided an opportunity to learn first hand some of the approaches to problems being used in the eastern states. Some of the Civil Defense personnel attending this session in addition to myself included those from Tennessee, Mississippi, Illinois, Kentucky, Virginia, Pennsylvania, Florida, Colorado and New York. Others may have been present but did not participate in the discussion.

Since Tennessee was the host agency, most of the session was an explanation of Tennessee programs and experiences, and a comparison discussion by the others. The Tennessee program had been around for a number of years in a dormant stage which blossomed into life in 1975. In a very short two-year span, the agency has grown from a skeleton force to approximately 70 people with this number expected to double in the next 12 months.

The state is divided into four staffed mutual aid regions. The emergency services people respond to every disaster in strike team force to support the local government and by Governor's order can (and do) actuate all elements of state government to also respond as needed. All staff are equipped with dark blue "jumpsuits" and orange caps with distinctive markings, as well as other equipment they may need on scene.

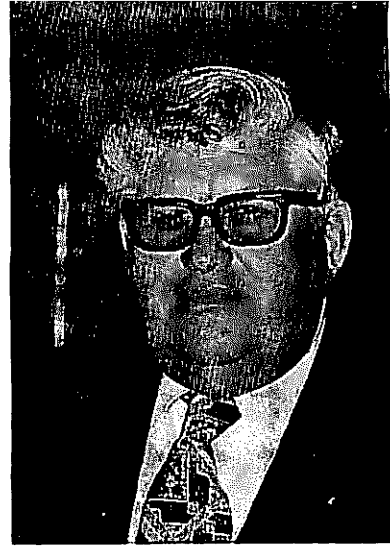
In the past year, the teams have responded to numerous disasters. Among these were 416 hazardous chemical spills, including the recent Rockford City disaster. Because of these spills, the Governor signed Executive Order #38 establishing the division of Civil Defense and Emergency Preparedness as the agency having responsibility and authority for coordination of all state agencies during accidents involving hazardous materials. The state agency is in the process of developing a 125 man force from state agencies spread from Memphis to Bristol in 12-20 man teams to deal with the chemical spills. \$100,000 has been committed to this project. This will include moneys for bright orange uniforms, acid suits and all other paraphernalia needed by the strike teams. \$85,000 will be spent to purchase five large vans complete with eight radios in each van on the various state and local frequencies to be used in support of the teams.

...SULPHURIC ACID SPILL...

It might be noted the Tennessee staff attendance at the Convention was depleted by three disasters that began opening day; seven railroad tank cars of sulphuric acid tumbled into a river in Southeastern Tennessee, a flood problem developed on the Tennessee-Kentucky line and the water supply evaporated in three cities in the west. I monitored radio traffic and heard them scramble a helo crew to transport radio equipment to a disaster. The helo was airborne within 15 minutes of the requesting call.

The state has a protected EOC staffed by warning controllers 24 hours a day and is in the process of developing a protected capability at regional levels. They are also developing a major training center on 97 acres adjacent to the University at Morristown Tennessee. The buildings were nearing

Donald R. Irwin
Senior Coordinator
Telecommunications Div.
State of California
Office of Emergency Services



completion as a modern, minimum-security prison facility when the uproar of local citizens forced the prison to seek other avenues. The classrooms, library, administration area, and cafeteria are completed and the dorms are near completion. The EOC for the area will also be constructed on the same grounds. It is planned to use the facility as a center of training not only for Civil Defense and Search and Rescue and training programs of other state agencies within Tennessee, but the surrounding states as well. Also, the FBI and the Federal Alcohol, Tobacco and Firearms (ATF) agency have asked for use of the facility for training purposes.

...HIGH RISE EVACUATION...

The highlights of the convention were the outdoor displays and demonstrations in the use of various rescue techniques ranging from the extricating of an injured driver from a crushed vehicle to the removal of victims from a skyscraper structure. The latter employed helicopters, baskets, nets and other paraphernalia normally associated here in the West with mountain rescue operations.

The primary purpose of my attendance was to observe the demonstration of satellite communications in emergency operations. The equipment for this demonstration was loaned by the Southern Regional Medical Consortium in Hattiesburg, Mississippi. (This group has been experimenting with satellite communications between ambulances and hospitals in a seven county area for the past year.)

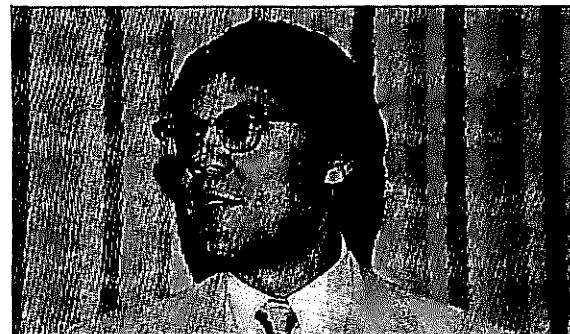
...SAR SATELLITES...

For the Nashville demonstration, two simulated emergencies were underway at the same time using two satellites; the Application Technology Satellite (ATS-6) located over the equator at 155° longitude, and the ATS-3 positioned over the Christmas Islands, both at an altitude of 22,000 miles.

One demonstration (ATS-6) was a simulated aircraft crash at the actual site of a crash in Smokey Mt. National Park that occurred in 1971, resulting in the deaths of four occupants by exposure because of the lack of communications and rescue capabilities. The crew in the Great Smokeys were coordinating their "rescue" via satellite with U.S.A.F. Search and Rescue Center, Scott AFB, Illinois. A satellite receiver in Nashville enabled the attendees at the convention to monitor the operation.

The second demonstration (ATS-3) involved the rescue of an "injured" motorist trapped in a crushed car. This experiment took place in the parking lot of the convention hotel. In the scenario, an accident had occurred, the state trooper arrived on scene, called for a rescue truck and an ambulance. The rescue crew using the newest equipment cut the crushed vehicle open and removed the "injured" driver. The ambulance crew took

Lloyd K. Mosemann, Deputy
Assistant Secretary of Air
Force for Logistics



COMPACT, LOW COST, DESK-TOP RECORDERS

AUTOMATICALLY DOCUMENT PHONE & RADIO CALLS

Omnicon cassette recording systems connect to your telephone or two-way radio system and provide a tape of all conversations with instant playback. *Undisputed Proof!*

VOICE ACTIVATED — Automatically starts recording the moment a message is received and stops at the conclusion of each message.

NEW OMNICON TALKING CLOCK:

Automatically places verbal time announcement at the end of each recorded message.

• All solid state • Synthesized male voice

Can be used in other application where continuous or on-demand audible time is required.

127 Grove Street, P. O. Box 623, Putnam, CT 06260
Tel. (203) 928-0377

OMNICON



TCE-124
TALKING
CLOCK



CTR-8FS
AUTOMATIC
RECORDER

over to stabilize the victim with the assistance of an emergency room doctor. The vital signs were transmitted from the portable "orange box" via satellite from Nashville, Tennessee, to the doctor in a hospital in Hattiesburg, Mississippi. After an exchange of information, the "patient" approached stability and the ambulance attendant asked the trooper to call for a Military Assistance to Safety and Transportation (MAST) helicopter for airlift of the patient. The trooper turned on the Loran-C locator in his vehicle, transmitted the readings to his dispatch center for relay to MAST Control. The helo pilot inserted the readings into his Long Range Aid to Navigation (LORAN-C) unit, then "flew the needle" to the scene. When he was within 50 feet of location, a red light flashed in the helo to alert the pilot. He landed, loaded the victim aboard and departed for the nearest hospital.

This was a factual demonstration of what can be done with current "state of the art" equipment. As indicated, the satellite communications came from Mississippi; the ambulance and the trooper vehicle were from Tennessee; the helo from the MAST unit at Fort Campbell, Kentucky; and the new rescue vehicle from the State of Illinois Department of Emergency Services; all brought together for the demonstration in Nashville. It gave those attending from the various states incentives or goals for which to strive.

The State of Tennessee could have performed the entire demonstration using their own equipment, rescue helo, etc. and with the loan of the satellite communications, but they felt it beneficial to all concerned to permit the participation of the other agencies.

...TWO MINUTE RESCUE...

An actual incident occurred within minutes after the completion of the demonstration on the Highway some 200 yards from the demonstration area. A car went out of control, crossed the median and glanced off five oncoming cars before crashing into a hedgerow barrier. The troopers and rescue unit were on scene within two minutes. I wonder what the driver thought — to have been rescued from his vehicle within two minutes after the collision in the middle of Tennessee by a rescue crew and vehicle from the State of Illinois.

The National Aeronautics and Space Administration (NASA) people from the Goddard Center talked of the role of other satellites: the orbiting weather service stations sending back to earth their pictures in vivid black and white (as seen on TV) and the infrared pictures and how these are used:

NEXT PAGE

The cover — The 1977 NASAR Hal Foss Service Award winner posthumously, Bill Syrotuck. Bill Syrotuck began his search and rescue career in 1961, when he became active in SAR dog training and had personally participated in over 150 SAR missions nationwide from 1964 to 1976. Bill's philosophy was that he always worked for one boss — the victim. His life was devoted to researching and inventing new ways to find the missing subject faster. He continuously exhibited skill and perseverance to this cause, both in the field and classroom.

Bill pioneered the SAR Management Courses presented yearly by NASAR, NPS, and several states. His research and techniques in strategy and tactics continue to be the backbone of SAR Management Philosophy. When not on SAR missions, he devoted all of his time to training. He was an instructor at all NPS and state SAR Management courses and USFS National Avalanche Schools, assisted with the Explorer SAR education program, presented annual seminars for units of the American Rescue Dog Association, presented continuing mission preparedness training to his own team. He was a noted speaker and lecturer world-wide and presented workshops at many NASAR Conferences.

Bill developed the goals and concepts of the American Rescue Dog Association which has become minimum reliable standards for SAR Dogs and handlers world-wide. He was continually looking for new techniques and better ways of doing things particularly through the establishment and maintenance of professional standards to SAR Dog training and SAR Management concepts.

Bill was the operation leader for his team for 9 years plus chairman and board member, a member of NASAR since its beginnings, served on several NASAR committees and advisory board, national president of the American Rescue Dog Association, president of the International Federation of Rescue Dogs Association, and was an honorary member of the Austrian Rescue Dog Brigade.

Bill's participation at state SAR conferences, NASAR conferences, and attendance at all Washington State SAR Council activities speak for his efforts to promote coordination and cooperation between all levels of the SAR community.

His technical contributions to the state of the art in SAR include: Co-developer of the searching dog concept for SAR; primary developer of SAR-dog-unit approach; studies and publications on lost person behavior and search concepts for locating them. Publications include: *Scent & the Scenting Dog* - 1972; *How to Start a SAR Dog Unit, Part I* - 1969; *Stat. Analysis of Lost Persons In Wilderness Areas* - 1972; *Stat. Analysis of Lost Persons In Wilderness Areas, No. 2* - 1973; *Some Grid Search Techniques for Locating Lost Individuals In Wilderness Areas* - 1974; *Introduction to Land Search Probabilities & Calculations* - 1975; *Analysis of Lost Person Behavior* - 1977; *Preliminary Analysis of Distribution of Downed Aircraft* - 1973.

Maj. Gen. Ralph Saunders —
U.S. Air Force Aerospace
Rescue and Recover Service
Commander

Rick LaValla — Washington
State SAR Coordinator and
NASAR President





Jim Brady — National Park Service, Albright Training Centr, Grand Canyon



Dr. Robert Lash — Tennessee SAR

Introducing SARPAK...

...the search and rescue (backpack) system designed to meet the critical care needs of personnel involved in outdoors rescue. SARPAK brings Advanced Life Support and Emergency Room facilities to the most inaccessible places—under the worst possible conditions.

SARPAK adds a new dimension toward improved EMS care in search and rescue, Ski Patrol, National Park Service, military and industrial applications.

SARPAK-1 contains: Digital Heart Rate/Temperature Meter, Aneroid Sphygmomanometer, "D" Type Oxygen Cylinder with Three-way Pressure Reducer, Demand Valve, disposable Oxygen Mask with connecting tubing, Oxygen Powered Aspirator, I.V. Pole, Splints, Cervical Collars, first aid supplies and more.

SARPAK-2 contains: two "E" type Oxygen Cylinders, portable Battery Power Supply and additional first aid supplies.

SARPAK instruments are portable and may be easily transferred to a stretcher or litter. Rechargeable batteries provide up to 32 hours continuous monitoring of both heart rate and temperature and cylinder capacities furnish up to 4 1/2 hours of oxygen (at 6 lpm). Each SARPAK weighs less than 35 pounds when fully loaded.

Dealer Inquiries Invited

For more information call or write:

IMPACT INSTRUMENTATION, INC.

20 N. Van Brunt Street, Suite 11
Englewood, New Jersey 07631
(201) 567-2200



Rick Goodman — New Mexico Emergency Services Council and NASAR 2nd Vice President



Pete Zadra — Nevada Highway Patrol and SAR Coordinator

the GOES satellite and its role in the data collection process, receiving and retransmitting information on the status of the river flow along the entire length of the Mississippi for the Corps of Engineers as well as weather data from numerous California locations for the California Department of Forestry. These are two programs among 2,000 presently being retransmitted by GOES.

NASA has also developed and is perfecting a hand held-digital input device to interface with GOES to be used initially by mountain rescue teams and later possibly by the public who may wander the trails of the back country. With the device, the rescuer or back packer can signal for aid, identify his location and predicament, and the kinds of assistance needed.

...IN THE FUTURE...

Picture, if, you will, a major search operation in the High Sierras; a search base set up in a meadow miles removed from the nearest surface communications access point; search teams working out of the base scattered in all directions. If a team were to find the survivors, hours could lapse before sufficient help could arrive. But given the working tools, the picture changes. An ATS-3 satellite control station at the base camp; each team equipped with a hand-held digital data transmitter. A team finds the survivors, transmits location and status via GOES to an Earth Terminal. The information from the computer read-out is relayed to the Air Force Rescue Coordinating Center for immediate further relay to the waiting helicopter crews to start them moving in for pickup, and to the search base via ATS-3 to enable dispatch of further ground support to the "find" area.

These are brief highlights from only a few of the many great presentations and demonstrations at the 1977 NASAR Conference.

I would *strongly* recommend any agency planning to have personnel attend the NASAR Conference in Albuquerque in 1978 send *at least* two people to enable maximum coverage of the sessions. Obviously, the representatives should be interested in Search and Rescue and have knowledge of basic fundamentals to obtain maximum benefit.

If any kind of a usable report is to be developed for the staff back home, cameras and tape recorders are suggested and, if available, a portable cassette video tape recorder which would let the staff follow the action in the field demonstrations and to be used for future training purposes.

Nashville was a grand experience, but the folks from Albuquerque are already hard at work to make next year's NASAR program the best ever.



Tom Vines — Appalachian SAR Conference, Maryland



Glenn Brand — Mountain Rescue, Aspen, Colorado



THE FIRST RESCUE

By LCDR John F. Ebersole, USCG

(As Recounted by CWO Freddie G. Gilliken, USCG)

(Chief Warrant Officer Freddie G. Gilliken, born in 1878, is the eldest living Coast Guard officer. Son of a North Carolina owner of a small fleet of coastal schooners, Fred Gilliken at 21 turned down his father's offer to name him master of the fleet's newest schooner. The challenge of lifesaving work proving a stronger calling, three years later, in 1904, Gilliken joined the United States Lifesaving Service. In 1915 the Lifesaving Service was merged with the U. S. Revenue Cutter Service to form the present United States Coast Guard. Still nimble and alert at 99, "Cap'n" Gilliken lives with his daughter in the home he built for his wife in Marshallburg, N. C., in the early 1900's.)

...AN EARLIER SHIPWRECK SURVIVOR...

At 0400 Wednesday, 17 March 1915, the black English cook employed by the crew of Cape Lookout Coast Guard Station arose. As the cook, thought to be an earlier shipwreck survivor, set about preparing breakfast, he noted that the weather had taken a turn for the worse during the night. A howling southeast gale was competing with the sound of breakers crashing over the infamous shoals to the south.

The Coast Guard Station sits at the tip of the legendary Outer Banks, on what one early map called the "Promontorium Tremendum" (horrible headland). From this headland the shoals extend seaward some ten miles, separating North Carolina's Onslow and Raleigh Bays, and snaring the occasional seafarer who ventures too close.

As dawn broke to reveal a heavy overcast day of ominous gray, cook completed his preparations and passed the word to the surfman on night watch that he could call the others. The Station's keeper, or officer in charge, Fred Gilliken, and his crew of seven slept in quarters on the second deck of the white, two-story building with its distinctive, sharply pitched, red roof topped by a lookout's cupola.

Responding to the breakfast call, Bos'n Yeomans, the Station number-one surfman and second in command, turned from dressing to observe the day and the churning sea to the south. He was startled to see the unmistakable outline of a ship with the sail being furled, lying in the surf near the heat of the shoals.

...HE SOUNDED THE ALARM...

As he sounded the alarm, Surfman Yeomans and Keeper Gilliken ran to the small lookout tower atop the station. Through long glasses they were able to make out the vessel more clearly. A three-masted schooner of nearly 400 tons, she was of a type which frequently sought a lee in Cape Lookout Bight, behind the Station. Famous as a rendezvous for pirates such as Blackbeard, the Bight often served as anchorage for 20 or more vessels during the height of coastal merchant sail.

It appeared to Keeper Gilliken that this vessel had sailed into the shoals from the south, running before the wind and then broaching in the strong, erratic currents which predominate off Cape Point. The schooner's still furling sail indicated that she probably had grounded only a short time earlier, just before dawn. The surf broke over the ship as she lay firmly in the grip of the shoal's shifting sands.

Ignoring the temptation of hot breakfast, the Coast Guardsmen rushed from the Station, pulling on foul-weather clothing on the way, and began the half-mile trot to the protecting Bight where their motor lifeboat was moored. Preparing the boat for the job ahead and wishing fervently that the grounding had occurred closer to shore, where a breeches buoy could be used, Keeper Gilliken's thoughts turned to another rescue.

Several years earlier the American salt carrier MELROSE, shifting off course in the face of another sou'easter, had run ashore a short distance to the north of Cape Lookout, on Core Banks. Gilliken then had been the number-one surfman at Core Banks Station.

The surf had been too rough for a boat, he recalled. So, he and the crew had had to fire a line through the breakers with the Station's Lyle gun and prepare a breeches buoy. Once the messenger line had been shot aboard the schooner, the endless whip line with a tail block and an instruction board on how to secure the lines had been sent over. A three-inch line then had been secured to the whip line and fed across the 150 yards of raging surf, to be secured above the tail block.

The block and lines had been made fast to a crosstree on the mast of the MELROSE, grounded midway between Core Banks and Portsmouth Island Stations, some 20 miles apart. The crews of the two stations then had set up a portable tripod under the hawser, and buried a sand anchor to hold a block and tackle which would maintain the hawser tight. The breeches buoy, consisting of a ring life buoy supporting a pair of short canvas breeches, then had been suspended from a traveling pulley that could be drawn back and fourth along the three-inch hawser.

...SKEPTICAL ENCOURAGEMENT...

Gilliken vividly recalled the attempt of the first MELROSE crewman to enter the breeches buoy. The tail block had been secured to the mast with too much clack; the buoy could not be pulled close enough to the crosstree for boarding.

After repeatedly unsuccessful attempts from the shore to signal the MELROSE crew to shorten up the block, the keeper of Core Banks Station had directed Surfman Gilliken to get into the buoy, ride it to the MELROSE, shorten the whip, and start sending the crew ashore. To the skeptical encouragement of his fellow lifesavers, Gilliken recollected, he had willingly entered the swinging buoy and rocked across the tumult of water to the towering mast of the salt carrier.

Once over the ship, the buoy again stopped several feet from the mast. Gilliken had had to draw himself up out of the breeches and pull himself across the remaining distance hand over hand while dangling from the support of the hawser. He remembered how the sea had seemed to pound with increased fury against the wreck some 50 feet below, as if trying to knock him loose from the line. But years of launching and rowing surfboats had kept Gilliken's short, slight body in shape for the hazardous task.

Once safely to the mast, Gilliken had resecured the tail block and lowered himself through the rigging to the schooner's deck, where he had collected the frightened crew and instructed them how to get into the buoy. He then had seen each safely ashore before making his own escape.

...ELEVEN YEARS EXPERIENCE IN RESCUE...

But now there would be no breeches buoy for Gilliken; nor would there be anyone else to advise him what actions to take. At 37, Gilliken had a lifetime of familiarity with the sea and eleven years of experience as a member of the Lifesaving Service, which had become the Coast Guard only two months earlier. Upon leaving Core Banks the year before, he had been named Keeper of Cape Lookout Station. Rescue responsibility and decisions all would be his today.

As he ordered the engine of his motorized surfboat brought to life and the lines cast off, Keeper Fred Gilliken's trained eye scanned the boat which would carry him and his crew into the storm. Everything must be secured before they rounded the spit at the western edge of the Bight and left its protection to meet the full fury of the storm.

The boat was a "good, able craft," Gilliken said, highly regarded by him for routine assistance work. She was 36 feet in length and among the first power-driven boats acquired by the Lifesaving Service. She was built in England and was equipped with a Holmes engine. A pioneer in surfboat design, she featured a heavy lead keel to facilitate righting, and a self-bailing capability. These features would become standard on the Coast Guard surfboats for decades to follow. Her hull was of an unusual wooden construction with a double thickness of molded planking running from gunwale to gunwale. A single, hinged mast amidship (power still not being completely trusted) and a canopy-covered coxswain's station completed the boat's lines.

Watching the sturdy lifeboat make her way across the sheltered Bight, fishermen at anchor could see the Cape Lookout crew busily donning life jackets and stringing additional life lines. Later the fishermen would tell the Coast Guardsmen that they never expected to see crew or boat return from the raging, storm-tossed seas.

Underway at 0645, less than an hour after Surfman Yeoman's sighting, the Coast Guard crew would be several hours working their way to the stricken schooner. Struggling against an icy March wind estimated in excess of 40 knots, the seas approaching 20 feet, the small boat shook

herself free of wave after crashing wave as she alternated between being submerged and then tossed skyward. The crew, combating a chill factor of well below zero, fought to keep warm and to hold on.

...WAVES POUNDED THE SCHOONER...

By midmorning Gilliken had brought the rescuers to a point just off the shoal, near the wreck. By occasional glimpses of the shore, he estimated his position to be "abeam of Blue Fish Lump," a popular fishing spot during calmer weather. Now it was the resting place of the SYLVIA C. HALL.

Observing the schooner's nameboard, the Coast Guardsmen also could see the waves pounding against her sides with such intensity that sheets of spray and foam were seen flying over her crosstree. Later they would learn that she was carrying a cargo of lumber from Jacksonville, Florida to New York.

The schooner lay in the center of the breaking surf on an easterly heading, with a broken lifeboat trailing from her port side. The currents and uneven shoals worked the seas against the wind so that surf could be seen breaking from all directions.

Studying the surf and floating wreckage, Gilliken ordered Yeomans, who was at the helm, to begin a slow approach to the wreck while Gilliken attempted to point out a safe path between the more dangerous parts of the shoal. But just as they entered the breakers, a giant wave broke over them from astern, pounding upon them with tons of force. Two of the crew were knocked down, saved from going overboard by the extra lines rigged earlier. Tyra Moore, one of those thrown to the deck, received an injury to his hip, which gave him considerable pain and was thought broken.

The only damage to the boat was the loss of the coxswain's canopy. With the self-bailing features the boat carrying off the unwelcome water, it appeared that the rescue could continue. Then a giant wave broke, flooding the engine compartment. The engine quit!. Powerless, the Coast Guardsmen realized that they were at the mercy of the storm, and soon to join the SYLVIA C. HALL.

...THE ENGINE FLOODED...

Like lightning, Gilliken grabbed the helm, working it feverishly to keep the boat from broaching. Yeomans grasped the starting crank and began to whirl it with all his strength. The engineer, Del Mason, disappeared into the compartment to see what he could do about the engine, but not before entreating his shipmates to watch out for him should he be trapped in case the boat capsized. Then as quickly as it had stopped, the engine caught, allowing Gilliken to bring the boat around smartly to meet the seas head on again.

Thwarted in their initial attempt by the sea's overwhelming strength, the lifesavers withdrew from the shoal to attend to the injured Moore and the uncertain engine. From a point well clear of the surf line, the Cape Lookout crew spent the remainder of the day clawing into the seas and trying to correct the erratic performance of the wet engine. Moore was found to have no broken bones, but a severely painful bruise and possibly a fracture. Hunger and a wet, cold numbness added to his misery and that of his companions.


As darkness began its early descent over the bleak March sky, and the storm continued unabated, Keeper Gilliken realized there was little he could do. Engineer Mason continued to worry over the engine's performance. A low fuel state also was becoming a concern. With great reluctance, Gilliken directed the crew to return to the Station for food, fuel, dry clothing, and rest. The constant effort to "just hang on" all day had taken its physical toll of them all.

...IT WAS A BAD SIGHT...


Turning his "injured" lifeboat homeward, the keeper could imagine the fear and faltering hope which the crew of the SYLVIA HALL were experiencing by his departure. The captain of the HALL would tell him later that it was "a bad sight!"

While their departure was viewed with trepidation on the wreck, the Lookout crew's return to the Bight as night fell was cause for much relief among the waiting fishermen. They had lost sight of the surfboat soon after it had rounded the spit and dived into the building seas. Concerned that the Coast Guardsmen be "destroyed," the fishing fleet had sent out a search boat, only to have it turned back by the storm's fury.

During the night the Coast Guardsmen's luck took an upward turn. The storm began to moderate. Yet, Keeper Gilliken would leave nothing to chance. If the SYLVIA HALL crew were still alive, a question which haunted the surfmen all night, they were determined to bring that crew safely ashore. With this in mind, the Coast Guardsmen mustered at the boat house before dawn Thursday, the 18th. Assisted by the Station's horse, the crew hauled a 26-foot pulling surfboat to the Bight for launching. The Cape Lookout crew would take both of their boats for this second attempt.



The Beck Fanny Pack
A Specialized
Pack designed for
Rescue Teams

Write:  **Caribou**
Mountaineering

P.O. BOX 3696
CHICO, CA. 95927



UPI photo

...NORWEGIAN STEAM...

Expecting little change in sea conditions, Gilliken and Yeomans developed a plan whereby the motorboat with two men aboard would act as backup, while the pulling boat, with its reliable "Norwegian steam" ("muscle power") of the remainder of the crew, would make the rescue. Remembering the experience of the previous day, they did not want the larger, more vulnerable 36-footer to chance a trip into the surf unless absolutely necessary. Further, if the seas were rough as expected, she would not be able to go alongside the wreck to take off crew. They would have to come off from the job boom, and this would require dropping the mast on the 36-footer.

The anxious Coast Guard crew, divided between the two surfboats, departed promptly at dawn. Only the trusted cook was left to care for the Station. Even the badly limping Moore refused to stay behind, and took his place in the pulling boat.

With Surfman John Lewis and Engineer Mason as crew, the motor lifeboat once again rounded the spit and headed toward the shoal; the pulling boat was towed astern. While the wind had diminished considerably, the seas, as predicted, had moderated only slightly. The

temperature remained biting cold. Thus, the trip was nearly as rough, cold and wet as that of the previous day.

As the two lifeboats approached the HALL, Gilliken could see, with considerable relief, that the wreck, though badly beaten, was still intact. The chances of the crew's having survived the night were good.

Nearing the surf line, Gilliken ordered the towline cast off, and the crew of the pulling boat laid to their oars. They successfully navigated the surf that had nearly trapped them the day before, and moved close aboard the HALL. Rigging and debris hung everywhere from the lumber carrier. It was apparent to the pulling boat crew that the rescue would have to be theirs. It would be particularly dangerous for the motor surfer to maneuver among entangling debris which could foul the propeller.

The Coast Guardsmen halooed to the schooner's men on deck to rig a line from the job boom and lower themselves into the 26-footer, clear of the wreck. Two haggard survivors succeeded in reaching the pulling boat in this manner, while Gilliken barked orders to maintain the boat's precarious position against the continuing assault of the surf. But then he was forced to order the surfmen to pull clear. A freshening of the wind and a building of the seas made it too dangerous to remain any longer near the stranded vessel.

...THREE MORE TO SAVE...


Upon clearing the surf, the Station keeper learned from the two HALL men that there were three more aboard the wreck, including the captain. Allowing his men to regain their strength, Gilliken patiently watched the seas, waiting for an opportunity to re-enter the shoals. Then, as the storm began to show signs of exhaustion, he saw his chance. During a momentary lull, he headed the pulling boat back into the still deadly breakers.

Having seen the Coast Guard come and go without them twice before, the remaining HALL crew in quick succession executed the climb onto the boom and the heart-stopping drop into the surfboat. The surfmen were thankful for the rapid exodus as they called upon their last reserves of strength to maintain position and then pull out through the mounting waves of foam. But the former Lifesaving Servicemen's satisfaction in knowing that they had just saved all hands in their first rescue as Coast Guardsmen made the trip home all the easier. Their only regret was that they had not been able to save the shipwrecked crew's belongings.

Now, sixty years later, Chief Warrant Officer Fred Gilliken looks back onto the SYLVIA C. HALL as the most dangerous and demanding rescue of his 40-years career in the Lifesaving and Coast Guard. With unmistakable and justifiable pride, he also recalls that this was the first rescue of a shipwrecked crew in North Carolina under the then newly created Coast Guard.

Regardless of the name, Lifesaving Service or Coast Guard, "Captain" Fred Gilliken remembers that his crew was "Semper Paratus" (always ready).

RICO



— "T.M." Reg. —

SUCTION

EMERGENCY

MEDICAL

ASPIRATORS

SIMPLICITY — DEPENDABILITY

Available From All Leading Emergency Vehicle
Manufacturers, Their Distributors and Emergency
Equipment Supply Companies.

RICO SUCTION LABS
P.O. Drawer 2508
Burlington, N. C. 27215, U. S. A.
Telephone: (919) 584-1826



CBS STRIVES FOR REALISM

**Skip Stoffel, Director of
Emergency Services
Chelan County
Washington State**

Two men struggle desperately with a third toward the wreckage of a World War II cargo plane on the rocky floor of a small box canyon in the desert. Wreckage, clothing and other miscellaneous debris is scattered throughout the general area. The man in the middle hangs heavily on the two who struggle to support him. His face is sunburned, blistered, with skin tones that closely resemble the cooked shell of a lobster. There is no visible sign of perspiration, despite the intense heat.

From underneath the improvised shelter of crushed wings and luggage trunks a weak voice exclaims, "Is he alright? Tell me! Tell me!"

"He's bad Maggie, real bad."

"He's in heat stroke. Open up his shirt, split his pants; we've got to cool him off!"

One of the men hesitatingly offer, "We've got a little water left, should I...."

"Pour it on him! Get something to fan him. If we don't cool him down he will die in minutes." The three work feverishly to cool off the semiconscious large-framed man.

Moments later the distinctive WHOP, WHOP, WHOP of a helicopter can be heard in the distance. As the airship clears the brow of a low barren hill near the crash site, the three exchange looks of jubilation. The sleek grey Huey hovers to rest near the wreckage and two para-rescuemen exit and quickly run to the improvised shelter.

CONTINUED ON NEXT PAGE

A veritable army of behind-the-scenes personnel are needed for every sequence. It is amazing how quiet the set becomes during actual shooting.

I walked back to shelter from the flying sand as rescue chopper begins take-off warmup. Note stand at base of cactus on the left. All the vegetation was fake.





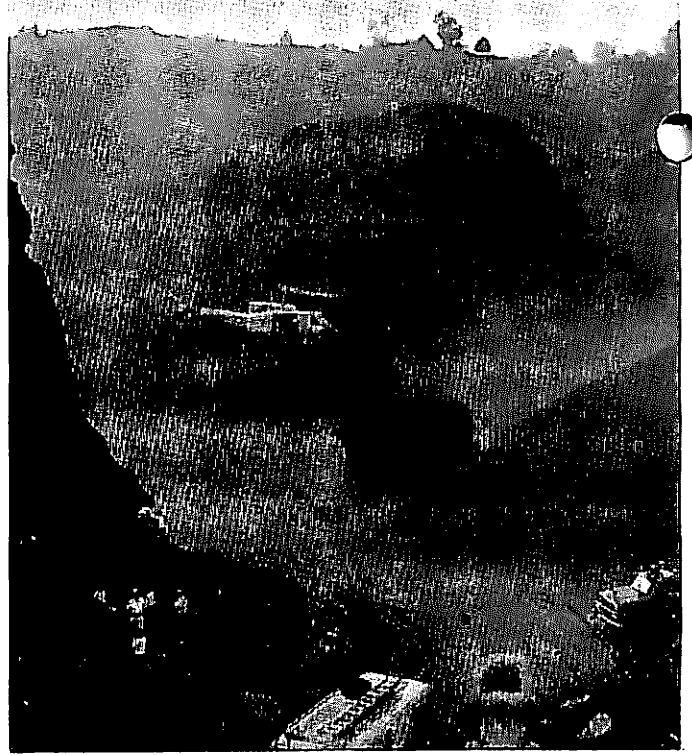
Actor Chris Stone runs to inform Air Force Pararescuemen that Spence has been in heat stroke. Film camera was under the wing shelter for this sequence.

"Hurry, heat-stroke!" exclaims one of the men as he turns toward the PJs. Above the sound of the helicopter a loud distinctive voice is heard, "Cut! Print that. Very nice, people. I think we'll need one more shot of the pararescue people exiting the helicopter and running toward the wreckage."

Although the scene could have taken place in any one of a hundred places across the nation during the hot months of summer, this one was in a Griffith Park canyon adjacent to Hollywood, California. This scene represented the culmination of a week's on-location shooting for the series, *SPENCER'S PILOTS*, at CBS Television. The episode is called "The Search" and deals heavily in survival and search and rescue.

In early July of this year, after teaching an aviation survival course for the Airplane Owners and Pilots Association (AOPA), I was contacted by CBS as a prospective consultant for the episode mentioned above. As a result of this initial contact I flew to Hollywood for two days to help develop the storyline for the prospective episode. After much deliberation and extensive questioning, writer William Froug was able to put together a good prospective story which represented a tremendous amount of authentic information regarding survival and search and rescue. I was elated at the fact that CBS was interested in getting the proper facts.

Last minute preparations are made for the dramatic rescue scene.



Detachment 5, 41st Rescue and Weather Reconnaissance Wing "Huey" makes a dust storm worse than one in the film. That afternoon's lunch was a bit gritty.

Nearly two months later, after commenting on needed changes in the storyline, I was again asked to participate as a technical advisor for the filming on location. Naturally, I jumped at the opportunity and was very shortly thereafter immersed in the excitement of film making in Hollywood. To say the very least, an experience of this kind is worth remembering for a number of reasons. From a coordinator's standpoint, I was bogged by the complexities of the movie industry. Similarities to SAR are amazing. The time and resources needed for some scenes would amaze the most experienced of operations leaders in search and rescue. As always, a multitude of individuals behind the scenes, all working together, bring about the final product — a finished film or a successful rescue.

My enthusiasm for clarity and correctness of detail was only superseded by Director Bruce Bilson's adamant stand that not everyone was a survival or search and rescue authority. Humans make mistakes, and even the best of us don't always follow the book. I had to agree, and despite my intermittent suggestions, the filming went on. Heck sakes, if everyone did absolutely the right thing, where would the jeopardy and drama come into play?

The episode deals with a good many details that are directly related to current SAR and survival problems: ELT malfunction, bouncing signals, air search tactics based on a multitude of factors, and survival priorities in a hot, waterless environment. These problems coupled with a realistic approach, rather than a traditional Hollywood solution, make the episode very plausible and realistic.

As a total stranger to the movie industry, there were a number of lasting impressions. We have all heard stories about snooty and self-centered stars and next-to-impossible directors; nothing could have been further from the truth during the complete filming. The entire set crew, directors, and especially the actors, could not have been more cordial or informative. Their willingness to listen and make changes for the sake of realism was indeed commendable.

From a personal standpoint, I can only say that it is very difficult to be involved in television production as a technical advisor without getting an inflated head, not to mention what it does for the ego. It is not every day that a national television network asks an individual for technical advice unless he works directly in the industry. I was flattered and extremely proud to have been a part of the production of this new series.

My personal "Thanks" are extended to everyone at CBS for a very memorable experience, and especially to special effects man, Larry Roberts, for the outstanding pictures and loan of his camera.

THE MULTI-AGENCY SAR PLAN: Lake Pontchartrain, LA

By Lt. T. P. Hart, USCG

INTRODUCTION

The purpose of this article is to show how the Eighth Coast Guard District Search and Rescue Branch planned, coordinated, tested, and adopted a search and rescue plan with a multitude of local civilian and federal agencies for a specialized area. From this article, others may be able to glean sufficient information to formulate a multi-agency SAR plan for needed areas within their geographic area of responsibility. The procedure we used and problems we faced are mentioned herein, and are useful as a guide for formulation of a plan, and a warning for problems to anticipate.

WHY A SAR PLAN FOR LAKE PONTCHARTRAIN?

Lake Pontchartrain, Louisiana is a specialized SAR area; it is widely used by pleasure boats, commercial tugs, and fishermen, and has many structures contained within owned by oil companies, power companies, and other private agencies. Additionally, two airports are on or near the Lake Pontchartrain shore-line with flight paths extending into the lake. The lake measures approximately 32 miles by 26 miles with many tributaries leading in and spilling out from it, and yet the charted maximum depth is only 16 feet (with an undetermineable depth of mud below the lake bottom). No known current charts exist for Lake Pontchartrain due to the large number of factors that would influence the current, including man-made and manually operated spillways that divert water from the Mississippi River through the Lake during high water season.

SAR cases in the past have shown that many agencies have an interest and feel they have a responsibility for SAR on the lake, and the need to coordinate these efforts became readily apparent. Since Lake Pontchartrain is considered the navigable waters of the United States, SAR responsibility is placed upon the Coast Guard by Federal Law, and we believed our best interest would be served by assuming a SAR Mission Coordinator's posture and coordinating all search units.

FORMULATION OF THE PLAN

Initial planning and personnel contacts were made from the Search and Rescue office to the 16 non-Coast Guard and 5 Coast Guard organizations (Table 1) that have a SAR commitment or interest in Lake Pontchartrain. Additionally, 18 other agencies (Table 2) were contacted. These could be useful in either providing information during a search, or politically useful in pushing the program during its inception. Simultaneously RCC was planning a workable grid system for search areas in the lake. Backing for a plan was received from members of the Louisiana State Government, and interest in a workable plan was expressed by the Governor's Office. Since Louisiana is a highly political State, the "interest" by the Governor assisted greatly in obtaining cooperation from many agencies. No formal agreements were made, (1) because they were deemed unnecessary, and (2) because most agency heads are elected officials, and agreements would not be binding on subsequent elected officials. Public pressure and media interest would serve to insure participation by many of the agencies; and as long as we could make the program both interesting and workable, most of the agencies would desire to participate, without the external pressure being a factor. By taking the initiative and using a positive approach in the program, we were able to obtain a positive response with a minimum of political inter-agency squabbling.

Once initial contacts were made, meetings were held individually with many of the agency heads to discuss the concepts, aims, and capabilities desired in the plan. These meetings were held specifically to promote good will and a cooperative attitude, and laid the groundwork for receipt of necessary information and a multi-agency meeting in the future.

Once verbal commitments were secured, RCC had to formulate the basic plan that would serve to put verbal concepts into workable form. Questionnaires were mailed to all agencies requesting necessary information on resources available and their capabilities, as well as how to effect call outs of their resources. The compilation of the returned information formed the basis for the RCC Controller's SAR planning.

The next step was to come up with a workable grid system for Lake Pontchartrain. The desired parameter was for the best possible search from the least capable unit, i.e. a small outboard with a magnetic compass. Lake Pontchartrain has an excellent divider and visual reference through the center, the 26 mile causeway; therefore, the grid system was divided into 23 East and 18 West grids. The grids were set up using East-West, North-South Magnetic bearings based on visual references in and around the lake. A line of electrical towers in the lake were useful as grid boundaries, and with concurrence and assistance from the local power company, we placed markers on several towers to act as grid corner points and make the specific towers stand out from the other towers as visual references. Other reference points used included bridge spans, light houses, radio towers, and even the tallest building in New Orleans. Although there are imperfections in the grid system, it is a starting point, and continuous evaluation over a period of time in varied conditions will allow for a future refinement to the grids that may improve searches. It is realized that the search units will, for the most part, not be able to conduct perfect search patterns, but by keeping the grids as small as possible, the areas will at least be searched semi-effectively.

Once the grids were designed, and initially evaluated as workable, special charts were printed for distribution to all agencies that had indicated a willingness to assist. Three separate charts were printed, one being a grid chart of the entire lake made up for each agency's base of operations. The other two charts were half-lake grid charts, printed on waterproof paper for use aboard the search units.

A workable communications plan was the next necessity. Many of the units do not carry VHF-FM marine radios, but rather, since many are law enforcement units, carry a low-band FM radio with the individual agency and Statewide law enforcement frequencies. This lack of common frequencies placed the requirement of having five separate communications links in the plan; a VHF-FM control, VHF-FM on scene, low-band FM on scene, VHF aircraft on scene, and a UHF air to surface control frequency. If any unit was unable to contact the On Scene Commander, or relay to the On Scene Commander via another unit, all were instructed to pass information to their home base for relay to the OSC via RCC. At the present time we are attempting to obtain permission for several of our local units to obtain and install a low band FM radio to insure that all units can communicate with the Coast Guard On Scene Commander.

In order to insure effective response within the program in the RCC (as the SAR Mission Coordinator) an SMC folder specifically for Lake Pontchartrain was devised and made immediately available to the controller. The folder consists of contact lists, resources available, an action check off list, a communications plan, and various data forms. All controllers and assistant controllers were then briefed on the use and purpose of the plan. Included in the briefing and incorporated into the plan were a listing of available units to act as OSC (including Navy River Division boats in the area), the concept of an Aviation Training Center HUI6 to act as sub-OSC for aircraft, planned dispatching of controller, assistant controller and/or local group personnel to act as OSC, and extra miscellaneous equipment available through various sources that can be dispatched to the scene if needed. Once initiated, the folder is continually updated with changes to personnel, telephone numbers, and resources available, thereby insuring a current and workable plan.

A special folder with pertinent information and data forms has also been compiled for the On Scene Commander. This requires the person designated as the OSC to report to RCC on his way to the OSC platform, be briefed on the situation, and obtain a useful packet of information. When time does not permit the OSC to report to RCC first, the packet of information can be sent via another vessel to the OSC.

When all facets of the plan had been developed, a meeting was called with the various agencies involved. This meeting allowed the different agencies to see exactly how much actual interest in the plan was evident, gave the assurance that, not only was the Coast Guard willing to cooperate with agencies, but also desired their assistance, and further showed that the Coast Guard was taking the positive steps towards accomplishment by setting forth a plan that all could work within. The meeting further provided a forum for all agencies to propose modifications to the plan, and many constructive comments were actually obtained.

At this point we could only hope that the various agency representatives would take the necessary information back to their respective organizations, and insure that necessary personnel were fully indoctrinated in its use. The next logical progression was to test the plan for its overall effectiveness, and ascertain any problem areas that needed revision.

THE SAREX

A multi-agency SAREX was planned for a four hour period spanning both daylight and darkness. All agencies were contacted in advance and requested to participate. Each agency that agreed to participate supplied

RCC with a list of units that would be available so that the SMC could effect some preplanning of the exercise. Group New Orleans provided six mannequins (donated by a local department store) as primary SAREX targets, and several small floats as secondary targets. The basic scenario was planned and mailed to the agencies in advance, and was designed to insure a coordinated on scene time for all units. Call out commenced one hour prior to on scene time, and grid assignments were made at that time. The scenario was so constructed as to not allow aircraft to launch immediately upon call out (due to simulated thunderstorms in the area), which gave a single on scene time for air and surface units. The Group New Orleans SAR officer was dispatched aboard CGC PT SPENCER as OSC, and the local Auxiliary Flotilla Captain was also dispatched as an assistant to the OSC. One HU16 from the Aviation Training Center in Mobile was brought over to act as sub-OSC for aircraft coordination. Response included a total of 9 fixed wing aircraft, 4 helicopters, and 38 vessels to search 33 grids. Prior to deployment, notes indicating medical problems were pinned to the mannequins. This extra input for the SAREX was utilized to both elicit response from the search units, as well as add an extra dimension to the workload of the OSC. Within the first 1½ hours, four of the six mannequins were located. Simulated sighting reports were then relayed from RCC to give him indications of the highest probability areas for the remaining mannequins. As darkness approached, all aircraft, with the exception of the Coast Guard helicopter, were released from the search. Prior indications from all agencies was a desire not to fly their aircraft at night, especially under exercise conditions. Most of the pilots were only VFR trained and qualified, and the organizations considered night flying unsafe for the resultant probability of detection. The OSC aboard CGC PT SPENCER, with far superior navigational capability than most of the other vessels searching, gathered several of the other search units together and conducted a PM search pattern using his radar to insure proper spacing. The resultant search pattern was monitored on the LORAN C continuous Plotter being evaluated aboard, and showed a very effective search. The remaining two mannequins were located by the vessels searching in darkness. The floats deployed as secondary search objects proved to be ineffective targets due mainly to the large number of similar objects used as crab pot markers in the lake. Very few of these were actually recovered.

Five days after the exercise a debriefing was conducted with most of the participants present. Many constructive comments were fielded, and mi-

problems resolved. The one major problem encountered during the exercise was the constant nemesis of mass search efforts, communications. Various contingencies were suggested, including:

- (1) Utilization of a Sheriff's communications platform until the OSC vessel arrives on scene.
- (2) Using the Sheriff's van as a relay should communications difficulty arise even when the OSC is on scene.
- (3) Divide East and West grid areas into sub-OSC areas, and designate a separate frequency for each area.
- (4) Have all agencies with extra portable communications equipment make the equipment available to any search unit that may need a communications set.

FUTURE PLANS

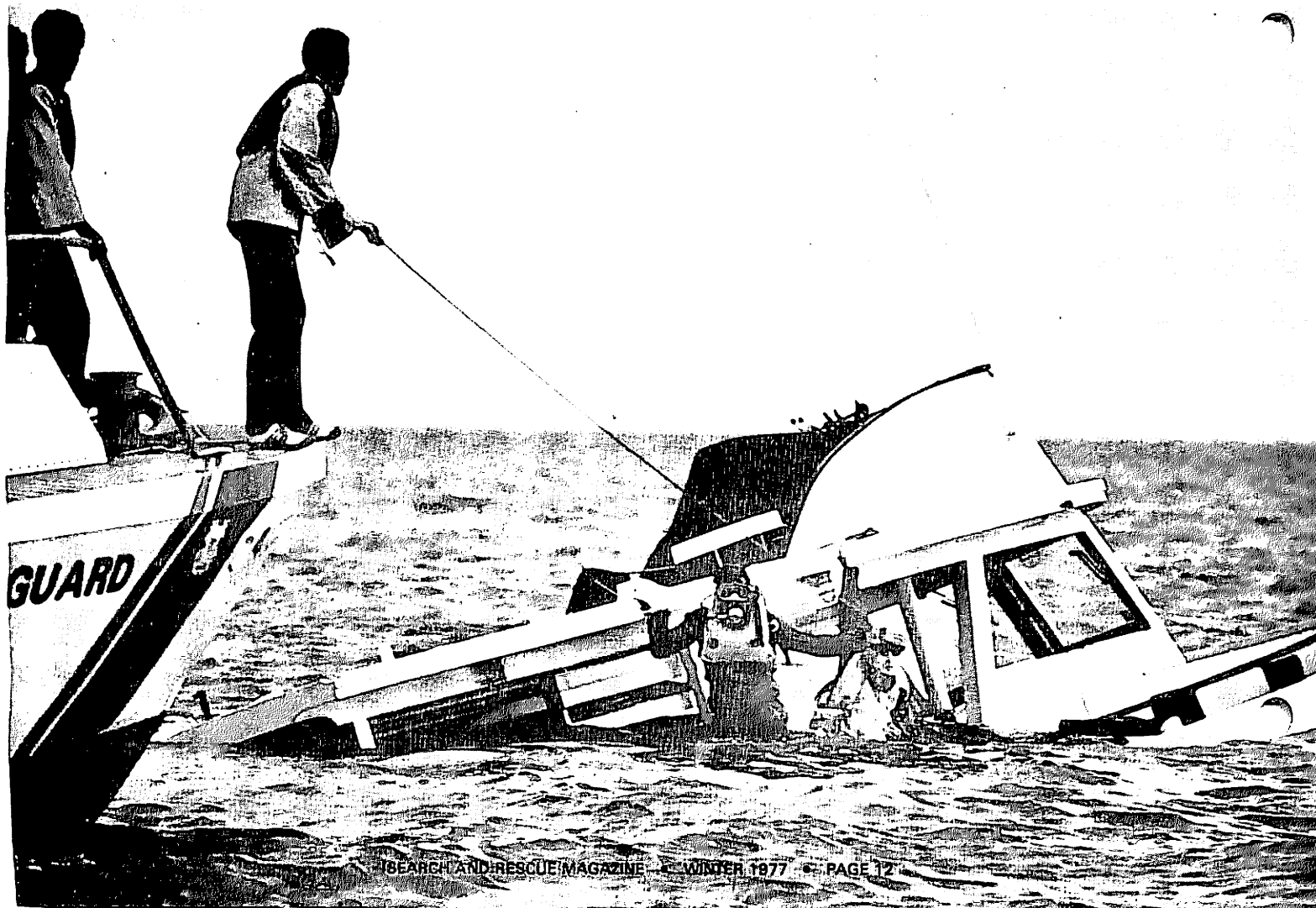
The Lake Pontchartrain SAR Plan will be a usable system provided two important points are acknowledged and acted upon by RCC.

(1) That continuous update of information is necessary to keep the plan current; this includes, but is not limited to, updates of units available, contact lists, and unit capabilities.

(2) That, if no actual SAR is encountered whereby the plan can be put into use, SAREX's must be conducted using the different agencies several times per year. This will insure that any new personnel will be familiar with the plan and will also insure that interest in having a workable plan is maintained. With media coverage of SAREX's, the local community will also be aware that a workable plan is in effect, and the agencies will be more likely to continue participating. By debriefing after each actual case or SAREX, refinements to the plan can be accomplished, and the best possible workable solutions will evolve.

The Lake Pontchartrain SAR Plan can also be used as a basis for setting up a regional disaster plan as recommended after the major airliner crash near Miami or as a basis for callout, coordination and communications should a major disaster occur in the area while no plan is available to insure a coordinated response. It can also be useful as a tool for requesting assistance from participating agencies on minor incidents in which the Coast Guard has insufficient units to respond in a timely manner.

The Lake Pontchartrain SAR Plan as presently in effect took slightly over one year from its inception to the SAREX that tested its capabilities.



The need for a workable plan was evident from local interest, and the logical SMC was the Coast Guard. Since the anticipation of a major incident was the basis for the plan, SMC in this case would be RCC, not the local Group Office. Call-out would be the responsibility of RCC as the SMC, and therefore RCC set up the plan. This same type of plan, however, could be set up by a group office or even a station (for a relatively smaller area and case).

For RCC New Orleans, important contacts with, and information on local agencies has been gained through the plan, and a good solid basis for future disaster planning has been established.

TABLE 1

I. NON-COAST GUARD

- Louisiana Wing, Civil Air Patrol
- Jefferson Parish Sheriff's Department
- Louisiana Air National Guard
- Louisiana State Police
- Orleans Parish Levee Board
- St. John the Baptist Sheriff's Dept.
- East St. John Search and Rescue
- St. Bernard Parish Sheriff's Dept.
- St. Tammany Parish Sheriff's Dept.
- St. Charles Parish Sheriff's Dept.
- Mandeville Police Department
- U.S. Navy Coastal River Division 22
- Tangipahoa Parish Sheriff's Dept.
- Louisiana Wildlife and Fisheries
- Pontchartrain Levee District

2. COAST GUARD
 - USCG Air Station New Orleans
 - Aviation Training Center Mobile
 - Group New Orleans
 - Station New Canal
 - CGC POINT SPENCER
 - Coast Guard Auxiliary Division IV

TABLE 2

- New Orleans Fire Department
- Orleans Parish Coroner
- USAF RCC, Scott AFB, II.
- FAA/Aircraft Identification Division
- U.S. Army Corps of Engineers
- Houston Sector Air Traffic Control
- Jefferson Parish Coroner
- Lakefront Airport
- Louisiana Civil Defense
- Mandeville Harbor Master
- New Orleans International Airport
- Naval Air Station Alvin Callander Field
- St. Tammany Parish Coroner
- St. John Parish Coroner
- Tangipahoa Parish Coroner
- U.S. Marines-4th Marines, Gulfport
- Louisiana State Aviation Division

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 1, Chapter 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 Rumpelstiltskin 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.

GET YOUR TOP NOTCH ARTICLES IN OUR SCARCE BACK ISSUES OF SEARCH AND RESCUE MAGAZINE

Please send the issues of *Search and Rescue Magazine* that are checked below:

(All issues are \$2.25 each postpaid)

I am enclosing \$ _____

- | | |
|--------------------------------------|--------------------------------------|
| <input type="checkbox"/> FALL 1973 | <input type="checkbox"/> WINTER 1973 |
| <input type="checkbox"/> SPRING 1974 | <input type="checkbox"/> SPRING 1975 |
| <input type="checkbox"/> SUMMER 1974 | <input type="checkbox"/> SUMMER 1975 |
| <input type="checkbox"/> FALL 1974 | <input type="checkbox"/> FALL 1975 |
| <input type="checkbox"/> WINTER 1974 | <input type="checkbox"/> WINTER 1975 |
| <input type="checkbox"/> SPRING 1976 | <input type="checkbox"/> SUMMER 1976 |

Please Print

Name _____

Address _____

City _____ State _____ Zip _____

Mail Order Today To:

SEARCH AND RESCUE MAGAZINE

P. O. Box 153

Montrose, CA. 91020 USA

PHONE: (213) 248-3057

Figure 1. — Adding crystals to scanner.

THE POCKET SCANNER — A COMMUNICATIONS ALTERNATIVE

By Jon Gunson,
Summit County Rescue
Group, Colorado
Photos by Rick Hum

A primary factor in any search and rescue situation is our response time. On a rescue it can literally mean the difference between life or death for the subject, while on a search the theoretical search area expands geometrically with time and delays can mean searching under the handicaps of darkness or foul weather.

There seem to be three common methods for rescue teams to solve the callout problem:

...THREE COMMON CALLOUT METHODS...

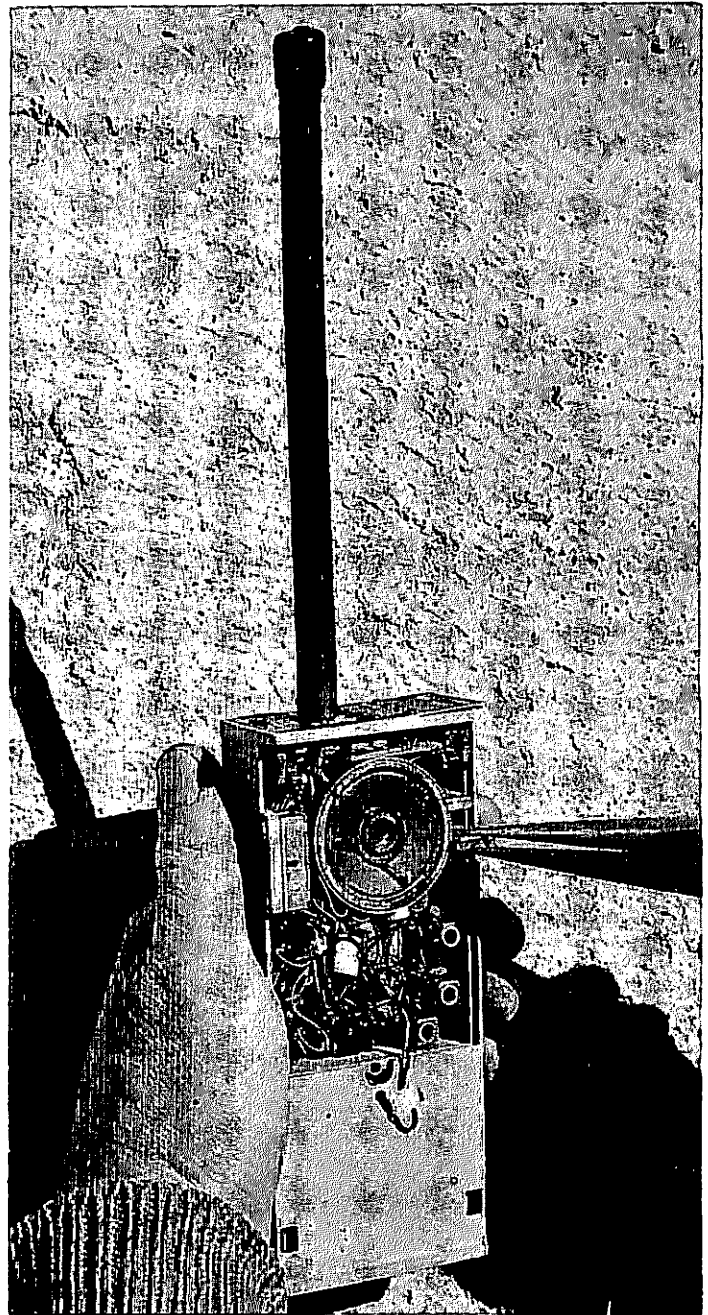
1. The "call-chain" method (or variations thereof) involves the first person contacted calling two people who each call two more people, etc., until the message pyramids through the call list. This method has the advantage of being comparatively fast but suffers the disadvantage that, much as in the old party game, the message and instructions are often confusing or incorrect by the time they have been relayed through the entire list of phone calls. Also, unless it is used constantly, there is the potential for breaks in the "chain" which could leave out large segments of the call list.

2. The "call-person" method is the second type of commonly used procedures. It consists of one or two people methodically going through the call list and contacting each individual one at a time. It has the advantage of giving you an accurate record of who has been contacted and who is responding but it is extremely time consuming. A contact type phone call takes an average of 2 to 3 minutes to make. This means that even with two callers it can take 30-45 minutes (sometimes even an hour) to call and give the necessary instructions to 25-30 individuals. This time calculation can go even higher when you figure that some individuals will require two or three calls before they can be located.

3. Consequently, for the third callout method, we conclude that the well-equipped rescue group must have either its own air-raid siren or portable, individual pagers. After the first 3:00 A.M. alert the siren would leave us with a definite P.R. problem so the pagers seem to be the ideal answer. If each member has his own pager the entire group can be alerted in a matter of seconds. The more sophisticated models even allow a message to be transmitted along with the alert tone. The only disadvantage to the pager system seems to be the price. The individual units usually cost from \$200 to \$300 depending on the brand and features selected. In addition, the central activation system must be purchased if one is not available through some cooperative agency such as the Sheriff's Office.

...SPEED AND EFFICIENCY VS COST...

Our group was faced with this same dilemma: speed and efficiency verses cost. For a group of volunteers, it's hard to justify that kind of expense for a single purpose, specialized piece of equipment for each member. To us it seemed like a lot of that \$300 price tag was being spent for the tone-activated selectivity feature of the pagers. This feature allows you to select one specific person and page him directly and individually without disturbing other people on the system. It's perfect for paging doctors, ambulance attendants, policemen, etc., where only one or two people need to respond and you want to select those individuals. The problem is that most rescue teams don't really need this feature. When the call goes out the entire group is usually needed and consequently the selectivity feature of the pagers is not used. Thus, we would be spending extra money for a sophistication we didn't need.



SEND \$1.00
FOR CATALOG
REFUNDABLE WITH
FIRST \$10.00 ORDER

Largest inventory of camping, hiking and backpacking equipment in the mid-south from the biggest names in equipment.

THE CAMP & HIKE SHOP
4674 Knight-Arnold Road
Memphis, Tenn. 38118
Phone 1-901-365-4511
Wholesale & Retail

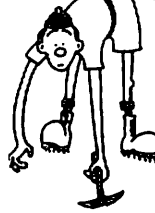


Figure 2. — Scanner testing and selection.

Then one of our "radio nut" members hit upon the idea of using pocket scanners as paging devices. The scanner is a radio receiver which automatically checks (scans) a series of preselected frequencies to see if they are broadcasting. It stops on an active frequency until the message is completed and then resumes scanning until another transmission is received. You must purchase a separate crystal for each of the frequencies you wish to monitor and plug them into the scanner (figure 1). Some scanners can listen to as many as sixteen channels or more but most pocket models have four frequencies which they scan.

As with the other systems there are advantages and disadvantages. Initially we felt that the primary advantage was one of cost. Most pocket scanners retail for \$100 to \$120 and a wholesale price on ten units or so can easily bring the price down into the \$75 to \$90 range. This would allow us to buy three or four scanners for the cost of one pager. The primary disadvantage is that you may have to constantly listen to all of the other radio traffic on a channel in order to hear a SAR callout. We solved this problem by applying to the FCC for our own licensed frequency which we use only for SAR related activities in the county. We were surprised (and encouraged) at how smoothly and easily we got a license; the whole process took about two months.

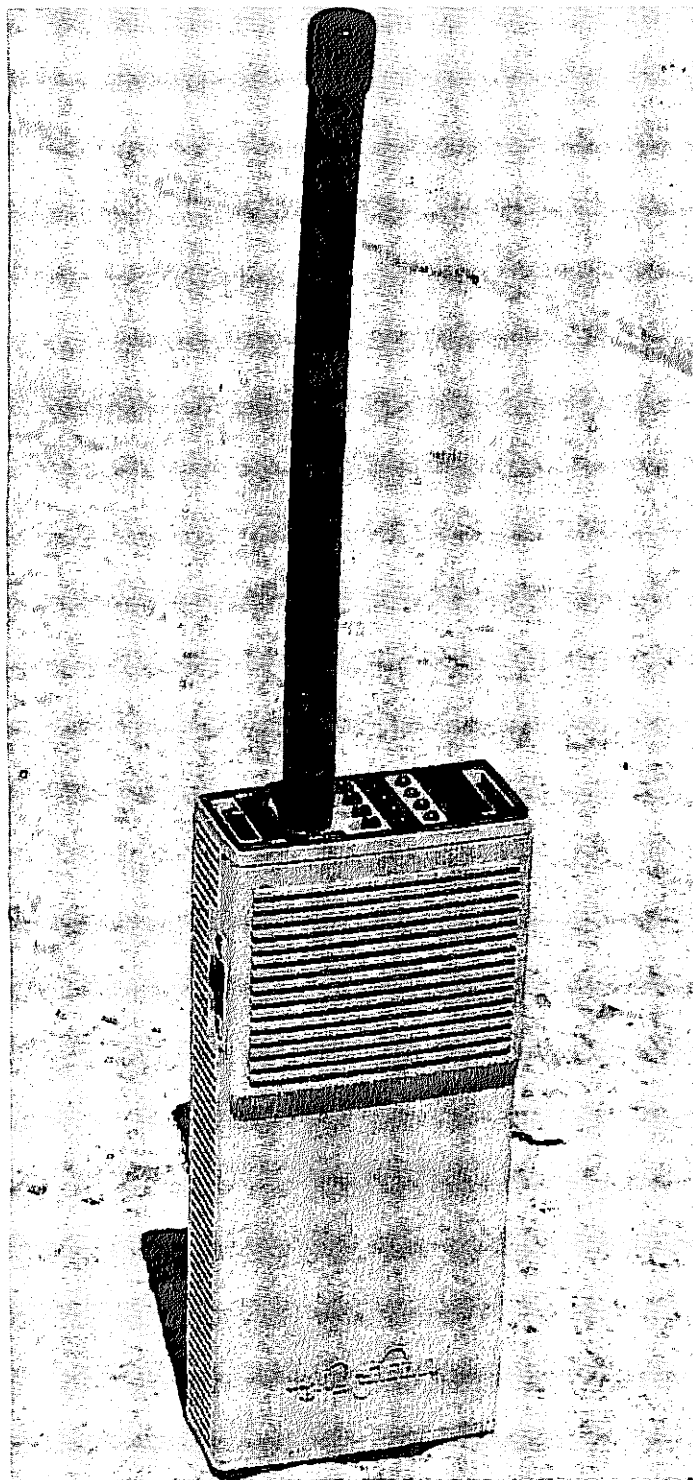
...A BASE STATION...

For this method you should also have a base station of some sort and we were lucky to find an available "slot" in an already operating 100 watt transmitter, so all we had to pay for was the cost of the additional crystals. Of course, having our own frequency has other advantages for running a mission beyond the callout phase. However, even if your team can't have its own separate channel you can eliminate some of the radio traffic problem by purchasing a scanner with certain features.

After some extensive testing, the scanner we finally selected was the Hy-Scan which is made by Hy-Gain Electronics (figure 2), but there are many on the market in a similar price range and with similar features. The switches on the top of the scanner allow you to switch off frequencies you don't want to listen to. Thus if we are in some public or business situation we can switch off all but our SAR paging frequency and nothing will be heard unless it is activated. Even a team without a private frequency could select a paging channel which doesn't have a lot of normal traffic and switch off the others when necessary.

Another possible disadvantage is that scanners are larger than pagers (figure 3). Most pocket model scanners measure about 6 1/2" h x 3" w x 1 1/2" d, while pagers are consistently smaller. After wearing one while, however, you seem to get used to the size and it doesn't seem to be a major problem. Both the scanner and the pager use rechargeable batteries and both seem to last about 24 hours before needing recharging. However, after using scanners for awhile we found a new potential advantages over pagers.

CONTINUED ON NEXT PAGE



Handyman ALL-Purpose JACK

Gets you out of bad spots

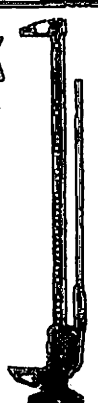
Lifts- Pulls- Pushes USE AS A WINCH

7000 LB. CAPACITY CLAMP — HOIST

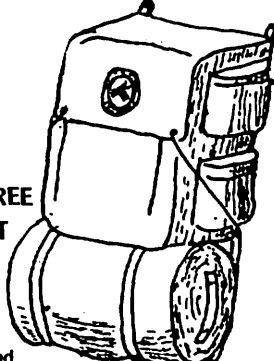
Available in 42" — 48" and
60" models

USER-AGENTS WANTED! Demonstrate to
FRIENDS... Your
HANDYMAN Pays for itself in a Few Orders... and
Additional Orders Pay You **GOOD EXTRA CASH!** Rush
your Name and Address for **FREE** Details!

HARRAM MFG. CO., Dept. 71, Bloomfield, In 47424



"PACKFRAMES" — Our Specialty

COMFORTABLE, TROUBLE FREE
BACKPACK OUTFITS TO FIT
PEOPLE 3'6" to 6'6" TALL

CATALOG AVAILABLE

Please send 25¢, name, address and
zip code to:

ANTELOPE CAMPING EQUIPMENT
21740 Granada Avenue
Cupertino, Ca. 95014

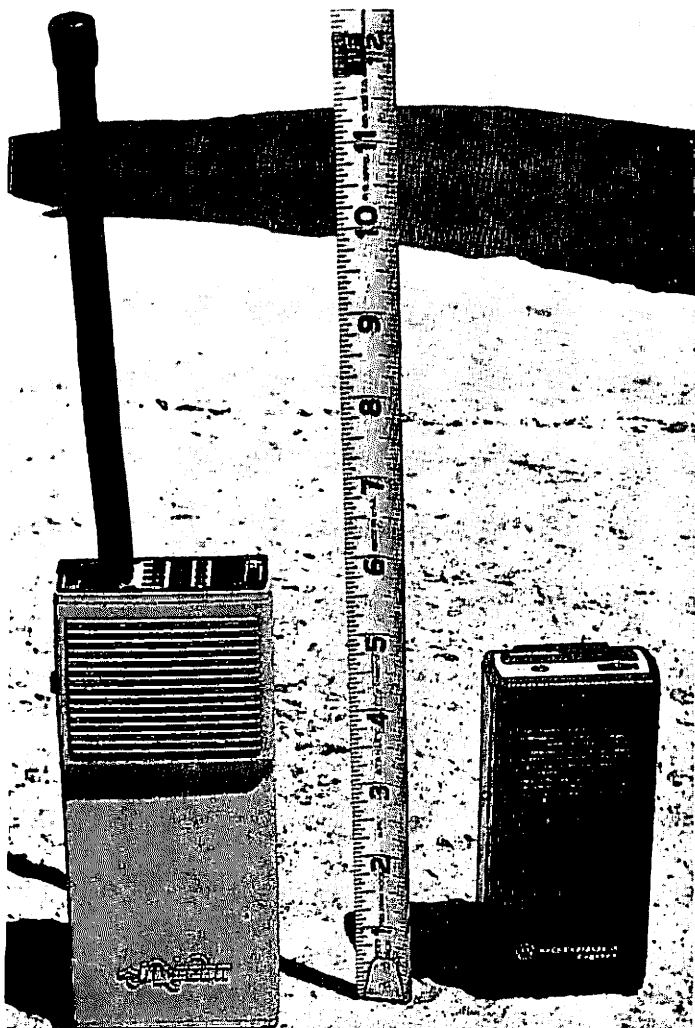


Figure 3. — Scanner vs. Pager for size.

In some cases being able to listen to all of the radio traffic is a real asset. Many of our SAR calls come in from patrol cars and other agencies and hearing the initial conversations on the matter gives us a little pre-warning that we might be needed so we can start getting the wheels in motion. Once the team is activated we can continue to monitor the applicable frequencies for further developments such as a change in rendezvous points or a cancellation of the mission. The major advantage, however, is that out in the field the scanners really supplement our radio capabilities. A field team leader with a radio can easily give instructions to each end of a large search line if the flankers have scanners. In a cliff evacuation, it's extremely helpful for all topside personnel to hear the radio traffic between the litter and the top so that they can perform their jobs better.

...ONE-WAY VS TWO-WAY COMM...

There are many similar situations in SAR work where, admittedly, a radio would do the job best by allowing two-way communications, but a one-way message is better than no message at all and a scanner costs one tenth as much as a radio.

Although most pocket scanners on the market are similar, there are some basic differences and we would highly recommend some careful comparison of features and performance as well as price:

- * Check the controls for durability; protruding knobs and switches catch on things and can get knocked off.
- * Make sure it has some means of switching off the channels you don't want to listen to (otherwise your members may sometimes shut off the whole unit).
- * A durable leather case with a belt clip is handy for carrying and impact resistance.
- * Make sure it will accept rechargeable batteries and that they can be recharged without removing them from the scanner.
- * Make sure you can still listen to the scanner while it is recharging (some units automatically shut off when the charger is plugged in).
- * Check the service life of the unit between recharging (we found some brands which seemed to use a lot more current than others and would only last 6-8 hours on a full charge).
- * Check the sensitivity. This determines how weak of a signal you will be able to hear from your base station, which allows your members to be a greater distance away and still hear the callout.

As with everything else in this business of search and rescue the pocket scanner is not the ultimate answer and it won't work for all teams. In a heavily populated area the overlap of frequencies and the large amount of radio traffic may cause problems. There are advantages and disadvantages but to coin a well used SAR phrase, "If it works, use it!"

PUBLISHER'S FORUM

DENNIS E. KELLEY

.... **MIKE WINTCH** of Bureau of Land Management has moved to Sacramento and the Young Adult Conservation Corps.... Lt. Cmdr. **DALE HAAN**, the junior helicopter pilot at the China Lake Naval Weapon Center, is looking forward to flying his first mission to the top of Mt. Whitney 14,500.... Major **BILL LANGLEY** of Air Force Rescue Coordination Center says only 5 U.S. military aircraft can be in Mexico at the same time.... **DAVE MARTIN**, author of the General Accounting Office report on SAR, indicates related congressional meetings have not yet begun.... **DON IRWIN** of California Office of Emergency Services (OES) Communications Div. says Los Angeles County has spent \$187,000 on RACES program.... Apollo 9 Astronaut **RUSTY SCHWEICKART** has been hired by California's Governor Jerry Brown to help solve communications problems, hopefully including SAR, with satellites.... **LOIS CLARK MCCOY** celebrated her birthday October 1.... **LARRY PENBERTH** of Mountain Safety Research is in Europe.... Dr. **JAY DRANZ**, Project consultant MAST Program, as Co-chairman of the HEW Tri Regional Workshop keeps tabs on his panel.... **ALAN REAMS**, Los Angeles County Accounting Offices says that since April 1975 \$58,760 was paid to other California Counties on 26 SAR expense sharing claims.... **RICK LAVALLA**, NASAR President announced Operation Clamwake whereby NASAR and AFRCC will work together to improve the liaison between the states and federal resources.... **BILL YOUNG**, Fresno County Assistant Sheriff, is proposing a regional SAR mutual aid agreement in California.... **BILL WADE**,

who spent 11 months in New Zealand on exchange program before becoming Assistant Chief Ranger at Great Smokey N.P. reports no use of mantracking there.... **BOB MOODY**, California OES, Law Enforcement Div., suggests possibility of State SAR Awards Board.... Major **JAN LARSON**, AFRCC, says new ELT on 405 MHz will transmit in bursts with intelligence such as license number, etc.... **DON BEST** has returned to SAR on the San Diego Sheriff's SAR team.... **BUTCH FARABEE** of Yosemite NP says they recently had a visit from Japanese Mountain Rescue Group.... **TIM SETNICKA** of Yosemite NP SAR Coordinator writing mountain rescue book.... **JIM BIGELOW** of California Civil Air Patrol is scheduled to receive citation for SAR efforts by President Carter.... **BLAINE PETERSON** and **LESLIE GRITMAN** of Idaho got married on slopes of Mt. Hood August 20.... **PETE ZADRA**, Nevada SAR Coordinator says he'll use Nevada Highway Patrol Microwave system to monitor for ELT's.... **SAMMY SNIDER**, Pennsylvania SAR Coordinator has 5 airplane crashes per week.... **LLOYD K. MOSEMANN**, Deputy Assistant Secretary of the Air Force, announced the following: Return transportation for SAR volunteers \$300,000, VHF/FM radios in USAF C-130 planes for SAR communications with local agencies. The Interagency Committee on SAR (ICSAR) charter is being rewritten to strengthen committee. US Dept. of Interior to be on ICSAR.... **ANDY HUTCHISON** of Park Service Headquarters says SAR management overhead team will first be used in Alaska.... **GENE HARRISON** of Maryland Appalachian SAR Committee is busy at FCC searching for clear channel for national SAR frequency.... **TOM DRABEK** Ph.D., University of Denver, Dept. of Sociology Professor, has Nat. Sci. Foundation research funding for "SAR actions following large scale natural disaster".... **JON GUNSON**, Colorado's Summit County Rescue Group is developing new mission report....



EDITORIAL — OLD COORDINATORS NEVER DIE?

30 Years. That's about the span of active search and rescue in this country. And during that time we've gone from the earliest efforts where someone was lost or injured, local citizens assembled, and brought them out dead or alive to fairly sophisticated training, coordination and procedures.

We have many outstandingly efficient coordinators now throughout the country. But how did they learn and how do they function? Largely by trial-and-error they developed the concepts and techniques that now make them efficient. But they won't be around forever and we must make the training of new coordinators one of our prime goals.

The work has started with the excellent courses at the National SAR School, the work being done by Jim Brady and the Albright Training Center and in some other areas. But — unfortunately — they reach only a few people.

In training coordinators there are problems —

- Some 'old hands' are reluctant to give up their 'secrets'.
- If we are victim oriented we want the best man for the job and can't afford to turn a major mission over to a novice.
- There's the 'tightrope' of balancing the old 'traditional' ways against new ideas. Old is not always best and new is not always right just because it is new.
- Some professional coordinators can't even describe how they do it. At a workshop I was asked what I would do immediately after a mission notification. It took several hours just to describe the decisions I would make in the first 30 seconds!
- We can't tailor all training into one course. Coordination of underwater recovery missions is totally different from that of rock rescue or Baja search.

But we *must* do the training. I propose that we combat our unit and area prides, coordinate all efforts at one site (Albright) (?), research and TRAIN.

Here's a proposed approach —

- Get your professional coordinators together individually and in workshops and pick their brains — use novices to ask the obvious questions the professional never considers.
- Compile the data and get it to that central source.
- Prepare an ELABORATE training manual. The material we have now is good, but is fragmented in many different books, monographs and tapes.
- Use this to train the trainers (Jim Brady is starting this) and then new coordinators.
- Write a field manual that outlines the training with coordinated check lists for all missions and special modules for special environments.
- Bring in the new coordinators and have them work with the 'pro's' Then as they learn have them run the show under supervision.
- Develop evaluative criteria to check on their performance.
- And establish updating and retraining seminars.

The critical point is that we cannot expect our experienced coordinators to be with us forever.

And we need their expertise fed into a consolidated program NOW so that 50 years from now the mission coordinators won't have to 'reinvent the wheel'. How about it, NASAR, do you accept the challenge?

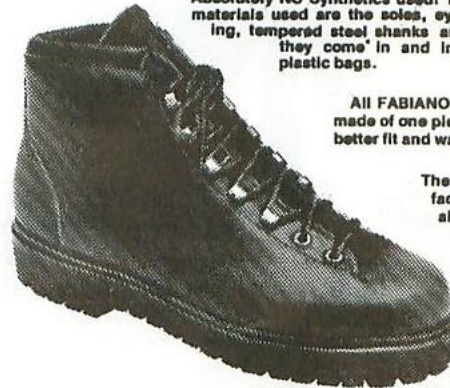
By **Stan G. Bush, President**
The Colorado Search and Rescue Board



why buy synthetics for the same price as leather?

All FABIANO BOOTS are constructed with Genuine Leather (Vero Cuolo) linings, soles, uppers & midsoles (where applied).

(WE ARE NOT RESPONSIBLE FOR STATEMENTS OR ADVERTISING NOT OUR OWN)



Absolutely NO Synthetics used! The only man-made materials used are the soles, eyelets, hooks, beading, tempered steel shanks and laces, the box they come in and individually wrapped plastic bags.

All FABIANO upper designs are made of one piece construction for better fit and waterproofing.

The only boot manufactured, that makes all sizes in 3 true widths from 4 to 16.

WHEN BETTER BOOTS ARE MADE — FABIANO WILL MAKE THEM!

Fabiano

SEND FOR FREE HIKING & MOUNTAINEERING BOOT BROCHURE:
Fabiano shoe co., inc.
DEPT. A-15, 850 SUMMER ST., SO. BOSTON, MA. 02127

Searchin' for a good DF?



L-Tronics has the best available direction finders at an affordable price! They're factory built, complete units — not kits.

Our Little L-Per portable DF meets the demands of emergency teams in the field. It is rugged, rain resistant, adaptable to vehicles and aircraft, sensitive, accurate, and easy to operate. Base price \$175.

Our Aircraft DF for permanent mounting in search planes gives you a high-quality receiver and indicator. Low-cost options include remote meter and DF with comm radios. Base price \$190.

Both the Aircraft DF and the L-Per are available on frequencies from 100-300 MHz, carry full warranties, money-back trials.

Contact L-Tronics, SAR Dept., 5546 Cathedral Oaks Road, Santa Barbara, CA 93111 (Telephone 805-967-4859)

LOIS SEZ

Interview with Mr. Bardyl Tirana, Director - DCPA

DATELINE: ABOARD THE "QUEEN MARY", OCTOBER 4th, 1977. If you are trying to interview a Director of a Federal Agency aboard ship in the Long Beach Harbor and he is known to run 4 miles a day, where would you look for him? Obviously, the answer is to follow the reporter from the L. A. Times and he'll lead you right to Mr. Bardyl (pronounced to rhyme with New Deal) Tirana, the new head of the U. S. Defense Civil Preparedness Agency (DCPA).

As an interviewer for "Search and Rescue Magazine" we asked Mr. Tirana if he felt that the "Ultimate Rescue" could be defined as rescue from nuclear attack — and after some thought, he allowed that the Ultimate Rescue was to remove the *possibility* of any such nuclear attack. Now that seemed to us the epitome of Gene Fear's Preventive SAR program — and a most quotable "quote" from this spokesman from the Department of Defense's Civil Preparedness Agency.

DCPA is one of the agencies now being looked at by the President's Plan for the Reorganization of the Government and so its eventual federal program and directions of emphasis are still in a state of flux. However, Mr. Tirana and Mr. Greg Schneiders, Director of White House Special Projects, gave some interesting indications for the future that sounded very helpful to the SAR needs which we all share.

1. The Defense Civil Preparedness Director no longer reports through the Secretary of the Air Force, but directly to the Secretary of Defense, Mr. Harold Brown. In the sense that direct communication increases the effectiveness of any group or agency, this sounds like a positive first step to productive decision making.

2. The "dual use" concept for DCPA funding of projects other than nuclear, has now been agreed to by the Department of Defense (of which DCPA is a part). This means that funds will now be made available to the State Civil Defense and Emergency Preparedness Agencies for projects which will provide increased survivability in the event of natural and man-made disaster. There is only the caveat that they must also qualify as increasing the total strength of that state's civil preparedness in the case of the threat of enemy attack. Obviously there is a great deal of merit in this approach since if a state or local government cannot successfully save life and protect property in time of flood, tornado or earthquake, the chances of effective response to enemy attack are next to zip — zero!

NASAR believes that *dual use* is an extremely positive step for Federal emphasis. If nuclear attack rates as #10 on the scale of cause for human suffering, there is still a great number of "persons in distress" from causes #1 through #9 and on a daily basis. Floods, chemical spills, lost or injured family members, air crashes, forest fires and drought related problems cause injury and loss of life and property. Rescue is needed on a daily basis, on land as it is at sea.

One new beginning, already under way in Mr. Tirana's shop, is a look at satellite communications for disaster control and logistic problems. Impressed by the dramatic improvement demonstrated during the Johnstown floods by the American Red Cross, COMSAT and NASA, Mr. Tirana is moving forward with further such developmental projects in his Emergency Operations System Research Division.

Since Search and Rescue and all other humanitarian response are (for the short term) "cost increasing" rather than "profitable" ventures, NASAR welcomes every opportunity to piggy-back our SAR developmental needs upon state and federally funded programs. Local government, traditionally the level of government tasked with the protection of life and property, is also the "poor boy" of government. Therefore, we all need to look for help where the funding is.

We are impressed with Mr. Tirana and Mr. Schneiders. They are bright, sincere, adroit, young, personable and quoteable. They also have funding.

Lois McCoy, NASAR Executive Secretary



From the publishers of SARM comes the first and only serious attempt at documenting the basics of this important search technique.

By
Roland Robbins

INTRODUCTION TO THE STEP-BY-STEP METHOD

If you are in any way involved in Search and Rescue then you should be aware of the latest techniques in Mantracking.

In collaboration with the U.S. Border Patrol at El Cajon, California (most notably our good friends and patient instructors Ab Taylor and Jack Kearney), the China Lake Mountain Rescue Group has compiled and edited a book on this most useful and challenging skill.

Mantracking is a 120 page, soft-bound manual complete with numerous descriptive diagrams and pictures.

What is the success record for these men who so diligently practiced and taught the art of tracking? As of mid-1975, the record stands that on *all* missions involving children, on which the Border Patrol has been requested, the subjects have been found alive and well.

"This sort of record gets attention. Realistically it is more than we can hope to continue. However it is a dramatic indication that, properly employed, tracking can be a rapid method of search."

Ab Taylor, U.S. Border Patrol

SPECIAL INTRODUCTORY OFFER

Send this coupon now!

Order now and save \$1.00 off the regular price of \$8.95

Mail to: SEARCH & RESCUE MAGAZINE, Box 153 L, Montrose, CA 91020

Send me _____ Name _____
copies of Man- Street _____
tracking at the City _____
Special Intro- Price _____
ductory Price of \$7.95 each. State _____ Zip _____

- Check Enclosed
- Master Charge
- Bank Americard

Card No.:

(Call. residents add 6% sales tax)

DEALER INQUIRIES WELCOMED

NEWS AND RUMORS



MILITARY CONTROL?

The following telegram was sent to Governor Brown at 3:15 p.m., Friday, August 12, 1977.

TELEGRAM

TO: The Honorable Edmund G. Brown, Jr.
Governor of California
State Capitol
Sacramento, California 95814

The California Emergency Services Association, representing the grass roots level of civil preparedness in the counties and cities throughout the state, wishes to express its vital concern to any plan which would subordinate the California Office of Emergency Services under the direct control of the State Military Forces. We believe any such plan would impose a much greater financial burden on the taxpayers and weaken the ability of local governments in responding to local disaster conditions.

We highly recommend that any reorganization plan which is contemplated should be reviewed by the Governor's Emergency Council, as a part of the Council's duties, as prescribed in the Emergency Services Act of 1970 as amended.

Michael J. Regan
President
California Emergency Services Assoc.

SLAKEBIT KILLS MAN

SAN DIEGO (AP)—A snakebite claimed the life of a La Jolla man who was bitten while cleaning up around a construction site.

Roger W. Huckaby, 49, died shortly after arriving for treatment at San Diego hospital with two puncture marks on his hand made by the reptile, identified by the coroner's office Saturday as a rattlesnake.

SAR CLAIM

SAN LUIS OBISPO—The parents of a Los Angeles woman killed in a plane crash three months ago have filed a one million dollar claim. They accuse San Luis Obispo County Officials of failing to check a report of a bright flash in the mountains.

Attorney Marvin Rowen of Beverly Hills has filed the claim for the parents of Susan Daniels. Rowen says the County has until September 30th to respond to the claim. If it is refused, he says he will file a suit.

The woman died in the crash of a light plane in the hills east of Cuesta Grade in late May. The bodies of Miss Daniels and an unidentified man were not found until eight days later.

The County Coroner says the two died of exposure and might have lived if found earlier.

In the claim, filed August 16th, Rowen says the Sheriff's Office took no action on a telephoned report of a bright flash seen in the hills the night of the crash.

The other victim has not been identified. He was first believed to be a Frenchman, but that person was found alive in Paris.

from Steve Gale. KVEC

6 DAYS CRAWLING WITH 2 BROKEN LEGS

NOTTINGHAM, Eng. (UPI)—Going up was the easy part. Coming down the mountain, Doug Scott says he broke both his legs and had to crawl for six days to reach help.

Scott, 36, was flown home over the weekend from Pakistan, where he suffered the leg fractures in the descent from the summit of the previously unconquered 24,000-foot Ogre Mountain in the Karakoram Range.

He was accompanied on the descent by fellow Briton Chris Bonington, who broke a rib and a wrist.

Two years ago, Scott and Bonington became the first climbers to reach the summit of Mt. Everest by way of the difficult southwest face.

Speaking from his hospital bed Sunday night, Scott said, "It was getting dark when we started to come down. I was at full stretch on the rope, pressing against ice, when I swung over and smashed into a wall of rock. My legs took the full impact, and I knew I had broken one."

He said they managed to get down to a ledge they had chipped out and "it took six days to get back to base, on my knees through snow steps and over rocks and ice."

At the base camp, Scott had to wait five days for porters. It was another four days before he reached a nearby village.

MEXICO O.K.'S CB RADIO USE

"The use of citizen band radios in Mexico by motorists has now been officially approved." This announcement was made at a press conference held at Automobile Club headquarters Sept. 14 by Arq. Guillermo Rossell de la Lama, the Mexican minister of tourism, and is the latest development in Mexico's expanding tourist aid program.

Effective Sept. 28, three channels were set aside for the exclusive use of CB's in automobiles and boats. Tourists and Mexican citizens will be able to use the following frequencies for the purposes specified when traveling in Mexico: Channel 11 (27.065 Mhz.) for emergencies; Channel 13 (27.085 Mhz.) for service; and Channel 14 (27.095 Mhz.) for locating persons.

While it had been fairly certain that the Mexican government would move in this direction, it was not official until the channels were designated.

from Auto Club News Pictorial

**Find yourself!
Join NASAR.**

P.O. BOX 2123, LA JOLLA, CA 92037

Keep us in the know

about your changes of address. When you move, drop us a line with your new address so we can get you *Search and Rescue Magazine* on schedule. But PLEASE, send us both your new and OLD address, just to help keep our records straight.

SEARCH AND RESCUE MAGAZINE
P.O. BOX 153
MONTROSE, CA 91020

NOW'S THE TIME

TO CHECK OFF
YOUR CHRISTMAS LIST
SEND IN YOUR ORDERS
NOW

FOR SEARCH & RESCUE
MAGAZINE

CHRISTMAS GIFT SUBSCRIPTIONS

Complete the enclosed self-addressed, stamped envelope, and mail today. Subscription rates - \$7.00 for one year, \$12.00 for two years.

TURN YOUR FRIENDS ON TO SEARCH AND RESCUE



Surplus City

A DIVISION OF S & S SALES

SUPPLIERS OF GENUINE GOVERNMENT SURPLUS AND NEW COMMERCIAL EQUIPMENT

THE BEST PRICES ON

- LITTERS
- FIRST AID EQUIPMENT
- DEHYDRATED FOODS
- C-RATIONS
- SURVIVAL EQUIPMENT
- LEVIS
- TOPO. MAPS
- BACKPACK EQUIPMENT



SPECIALIZING IN JEEP PARTS MILITARY AND CIVILIAN

- WINCHES
- MANUALS
- TOPS
- BODY PARTS
- TIRES
- ELECTRICAL
- TRANSMISSIONS

**"IF WE DON'T HAVE IT,
WE'LL FIND IT"**

CALL OR WRITE TODAY . . .

SURPLUS CITY

**11796 Sheldon Street
Sun Valley, Ca. 91352**

(213) 767-3666

LETTERS TO THE EDITOR



Dear Mr. Kelley, Editor:

RE "One Walked Away" printed in Winter 1976 SEARCH & RESCUE MAGAZINE

1. The Air Force Rescue Coordination Center (AFRCC) was disappointed in the content and implications contained in the stories "One Walked Away" in the Winter 1976 edition, and particularly with Mr. Carl Heller's contribution "More On - One Walked Away" in the Spring 1977 edition. This SAR effort involved numerous dedicated agencies, and our participation is recorded as AFRCC SAR Mission 8-436 which was initiated on 27 April 1976. A summary of events is provided to clarify how this SAR effort developed, and to inform your readers of the unusual scenario requiring aircraft search, from the AFRCC viewpoint. This basic scenario is repeated often in the state of California every year. (All times for this mission have been converted to local California time from the AFRCC Log which is kept in Greenwich, or Zulu, time.

2. The Cessna 182, N52855, piloted by Dr. Jay M. Fuller, departed Oakland at approximately 11:30 AM on Monday the 26th of April 1976. Dr. Fuller was accompanied by Ms. Lauren Elder and Ms. Jean Noller. Dr. Fuller did not file a flight plan (contrary to Mr. Heller's article) and the purpose of the flight was to go to Death Valley to recover a pet which was lost on a previous camping trip, then to return to Oakland. One hour and 52 minutes after take off, the pilot contacted Fresno Flight Service Station and advised he was heading east and the air was smooth at his altitude of 9500 feet. However, he did not report his position and a direct flight from Oakland to Fresno would only have taken approximately one hour.

3. Because there was no flight plan filed, there was no notification of the aircraft being overdue until Dr. Fuller's babysitter contacted Oakland Flight Service Station on Monday evening (26 April). This inquiry initiated an Information Request (INREQ) message to all FAA stations along the route of flight. The AFRCC received this message at 0151 AM on Tuesday morning (27 April). At 0224 AM Tuesday morning the AFRCC received an Alert Notice (ALNOT) from Oakland FSS, which indicated the responses to the INREQ had not located the missing aircraft. The INREQ is a communications check, and the ALNOT initiates airport searches. As a sidelight here, AFRCC records show there is an average of 49 hours time lapse from the time of last known position until an ALNOT is issued when a pilot does not file a flight plan with FAA. This time lapse is reduced to an average of 3 hours when a flight plan is filed.

4. With receipt of the INREQ, the AFRCC ascertained that no Emergency Locator Transmitter (ELT) distress signals were being received. With the ALNOT in hand, and while the FAA was accomplishing time consuming airport checks, the AFRCC initiated an investigation to determine the aircraft owner, the condition of nav aids and comm equipment on the aircraft, the weather enroute and at destination, the pilot's qualifications and flying habits, the purpose of the flight and probable route of flight. Information collected did not locate the aircraft, so at 0720 AM (27 April) the AFRCC launched a USAF Rescue HC-130 from McClellan AFB, California, for an electronic search for ELT signals in the High Sierras and for weather reconnaissance on which to plan the impending search. Earlier, at 0348 AM (27 April) the AFRCC had contacted the California Wing Civil Air Patrol and initiated actions to organize a first light search. At 0345 AM the AFRCC had requested a radar computer analysis from Oakland Air Route Traffic Control Center (ARTCC) on the remote possibility the aircraft could be identified and tracked. By 1000 AM it was determined there was no ELT signal, airport checks were complete, weather was acceptable for search in the High Sierras and without a flight plan or an enroute position report, the aircraft could not be identified in the radar computer. Therefore, it was going to be a difficult search of the Sierras and only human eyes would make the find. Additionally, the AFRCC had advised the California Office of Emergency Services, the Inyo County Sheriff and the Nevada Civil Air Patrol Wing of the missing aircraft.

5. During the afternoon, the California CAP and a Navy helo from NAS Lemoore located another aircraft crash.

6. At 1930 PM (27 April) the AFRCC received word the crash site of N25855 had been located by a private pilot on the west side of Kearsarge Pass at about the 12,500 foot elevation. Darkness, weather and the high altitude of the site prevented further efforts until daylight. During Tuesday night, the AFRCC coordinated with the Inyo County Sheriff, the US Forest Service, China Lake Naval Air Station, Edwards Air Force Base and the Civil Air Patrol to organize and plan a helicopter recovery for first light on Wednesday morning.

7. The AFRCC received word at 1150 PM Tuesday night (27 April) from the Inyo Sheriff's office that Ms. Lauren Elder had walked down the mountain from the crash site and had reported the Doctor and Ms Noller were deceased. This did not alter the search and rescue plans, but only added to the urgency. At 0120 AM, Mr. Heller advised the AFRCC that the China Lake Navy SAR helo was unavailable, but a Navy fuel truck would be dispatched to Independence to support an Air Force SAR helo from Edwards AFB. The Inyo Sheriff's office advised they would provide a fixed wing aircraft to locate the crash site, vector in the helo and provide communications relay.

8. At 0730 AM, Wednesday 28 April, Sequoia National Park advised they were flying a fixed wing aircraft with the private pilot who had made the original crash site find. This aircraft could not locate the crash site in Kearsarge Pass as reported, or in Independence Pass. By 0900 AM (28 April) the crash site was located in Shepherds Pass, and recovery operations were begun. These operations were complicated by the extreme altitude, lack of a helo landing spot and winds and turbulence. At 1340 PM (28 April) the AFRCC was notified that Dr. Fuller and Ms Noller had been located. Evacuation of the deceased was accomplished by the rangers from Sequoia and Kings Canyon National Parks, in whose jurisdiction the crash site was ultimately located.

9. Although a long narrative, these are the essential facts known to the AFRCC concerning this SAR effort. Mr. Heller was provided with this information by the AFRCC, by the National Parks Service Rangers, by the Inyo County Sheriff's office and by written reports from China Lake and Edwards AFB SAR units. The facts do not support Mr. Heller's contentions; hence, we in the AFRCC take exception to much of what he has written.

For the Commander
Bruce M. Purvine, Colonel, USAF
Director, Inland SAR

Dear Dennis:

RE "SALT" TABLETS FOR SAR? printed in the Summer 1977 SEARCH & RESCUE MAGAZINE titled "Salt Tablets...Yes or No"

I understand the most recent first aid information, supported by doctors from the American Heart Association, recommends against unsupervised consumption of salt tablets in favor of appropriate food, high-fluid intake with preconditioning for the activity (in this case SAR) involved — which was the thesis of my original article.

Sandy Bryson

Dear Dennis,

RE "TAKE THAT TABLET WITH A GRAIN OF SALT" SEARCH & RESCUE MAGAZINE - SUMMER 1977

It is very distressing that your magazine as "The Official Publication of the National Association for Search & Rescue" should publish an article of such questionable quality.

While misuse of salt supplements has some controversial aspects, these are not properly dealt with and the remainder of the article is very misleading and at times totally erroneous.

The first essential for any searcher is to be in top physical condition, but even when this is maintained there is a constant likelihood of being thrust into search circumstances that are hotter than those for which one is currently acclimatized. This includes an increased chance of having to work at maximum output under adverse conditions. *Anytime* you work hard in a situation that is more than 10°F hotter than the past 2 weeks of your conditioning, excess sodium is lost via sweat along with other body nutrients (potassium, magnesium, iron, phosphorus, calcium, zinc, chlorides, and several amino acids). For many people the excess loss is *twice* their daily intake.

NEXT PAGE



PYRAMID FILMS
presents

CardioPulmonary Resuscitation (CPR) "NEW PULSE OF LIFE"

Produced by Pyramid Films. Shows the latest techniques of Basic Life Support, stressing the ABC principles of cardio-pulmonary resuscitation.

14 International Awards. Available in 9 languages.
30 min/color Sale \$350 Rent \$30

Burn Treatment "BURN EMERGENCY"

Produced by Sheldon Renan. Demonstrates what to do for victims of various kinds of burns until they can reach a hospital or burn center.

25 min/color, with study guide
Sale \$350 Rent \$35

Pre-Hospital Emergency Care "THE TRAUMA PATIENT"

Produced by Medi-cine Productions. Utilizes patient problems in typical field emergency incidents. Demonstrates the appropriate sequence for stabilizing vital functions.

22 min/color Sale \$325 Rent \$30

All films available
in 16mm, super 8,
and video cassette.



Ask for new
77/78 catalog

Phone or write . . .

PYRAMID FILMS

Box 1048, Santa Monica, CA 90406

Phone: (213) 390-FILM

LETTERS TO THE EDITOR, *continued*

The amount of salt lost can readily be tasted on the skin after hard work and frequently can be observed as dry white deposits on dark clothing. The salt conserving mechanisms of the body do not become effective until 4-7 days of working in the heat and by this time the average search is terminated. Supplemental salt is often necessary.

Water loss via the lungs is salt free; however, in working individuals it rarely exceeds 1 pint/day (except at altitude) while water lost via sweat averages 8-12 pints per day in similar working situations. Unquestionably these large water losses must be replaced by frequent forced drinking — ideally every 20-30 minutes while working.

Comparing the potassium balance of a hospitalized patient on diuretic drugs to that of a SAR worker is also in error. The author is obviously not aware of the current furor over the problem of malnutrition in hospitalized patients. A SAR worker should concentrate on using foods that are high in potassium, such as meat, nuts, dried fruit, melons and the juice of grapefruit, orange, and tomatoe. (Juices are more concentrated than the fruit itself). The rationale for this is threefold: 1) The average American diet tends to be low in potassium, 2) urinary loss of potassium continues even in the presence of a deficiency, 3) recent research from the University of Nebraska demonstrated that people engaged in regular vigorous activity undergo a slow insidious loss of potassium.

The potassium content of salt tablets is not large enough to serve as a dietary supplement; its presence is intended to enhance the absorption of the sodium as is the calcium carbonate — a non-absorbable form of calcium that acts as an antacid in the digestive tract thereby reducing the gastric upset experienced by some.

I wish to make the following observations and recommendations based on personal observations while on searches and a comprehensive review of heat literature.

1) Those most susceptible to heat syndromes are the unacclimatized, the overweight, the physically unfit, those over 45-50 years, those small in stature and those with medical conditions of various sorts. These people do show up on searches and therefore become the responsibility of the Search Director — a sometimes impossible task. It therefore becomes the moral responsibility of every trained searcher to become intimately familiar with the hazards and prevention of heat syndromes, thereby preventing problems in both themselves and "the other guy."

2) Physically fit, acclimatized individuals are not immune to heat syndromes. Through negligence they too can become salt and/or water depleted and are more likely to develop muscle cramps in hot and cool weather due to their sweat losses during hard work. Their increased capacity for hard work also enables them to produce so much internal heat that they exceed the cooling capacity of their sweating mechanism. These people will not have dry skin as they go into heat stroke. Trained searchers must learn to maximize cooling and minimize internal and external heat loads.

3) Mild forms of salt and water depletion are very common in both hot and cool environments. The symptoms of lethargy, loss of appetite, or vague nausea are frequently passed off as being due to "bad water" or something similar, until the individual upon questioning reveals very inadequate eating or drinking habits. Trained searchers must learn to maintain optimal intakes of food, salts and water for both themselves and others.

Since it is not possible to deal with all these aspects in even one or two articles, the individual will have to make some effort at self education. Hopefully the 1978 NASAR Convention will cover much of this material in detail.

Jean Syrotuck
Research Associate
Immunology & Nutrition
University of Washington
(Search & Rescue Dog Association)

155.160 MHz REPEATER

Dear Ms. McCoy:

This is in reply to your letter of August 29, 1977, concerning vehicular (mobile) repeater operations in the Special Emergency Radio Service.

Vehicular repeater operations in the Public Safety Radio Services are covered under Section 89.12 (e). Briefly, this section states that mobile stations (in your case the mobile station is "portable repeater") utilizing mobile service frequencies above 25 MHz may be used for the purpose of providing extended talkback range for low power hand-carried transmitters. Hand-carried transmitters whose communications will be relayed by such a repeater may be assigned a separate frequency for this use.

Operations on this additional frequency, however, are limited to a maximum output power of 2.5 watts. In short, search and rescue entities may use "portable repeaters" with an input frequency of 155.160 Mhz (walkie talkie transmit channel) and with an additional special emergency frequency for the output.

We hope this information will be helpful to you.

Charles A. Higginbotham
Chief, Safety and Special Radio
Services Bureau
Federal Communications Commission
Washington, D.C. 20554

Dear Dennis,

RE 'IMPROVING SAR PROFICIENCY'

Thank you for the great job in publishing the MRA position paper on certification of SAR personnel. I hope to see a continuing dialog in the pages of SAR Magazine concerning the points raised in the paper.

I am writing to set the record straight as to authorship of the paper. CARL HELLER, past President of California Region of MRA and founding member and President of the China Lake Mountain Rescue Group for many years, worked with me so closely that I cannot now separate Carl's ideas from mine. I would say that Carl contributed more to the substance of the paper than I did. PHIL UMHOLTZ, President of MRA and founding member and past Unit Leader of the Bay Area Mountain Rescue Unit, read the entire paper and made many suggestions which improved the style and phrasing.

The paper was discussed in concept at two MRA Board meetings, and dissected line-by-line by the MRA Executive Committee before being approved for publication. It truly represents the views of MRA members throughout North America. It is for this reason that I wish to correct the impression that the paper represents the views of only one person.

Lee Lucas
Mountain Rescue Association

MOUNTAIN SEARCH
FOR THE LOST VICTIM

by DENNIS KELLEY

This is the how-to book on mountain and wilderness search for a missing person. It was written for search and rescue teams, law enforcement and government agencies, students of search theory and youth groups.

This book is the first of its kind devoting itself entirely to advancing the state-of-the-art of mountain search.

283 Pages \$7.50/copy

Mail this coupon with check or money order in the amount of \$7.50 per copy (postage paid) for your copy of MOUNTAIN SEARCH FOR THE LOST VICTIM to:

DENNIS E. KELLEY
P. O. Box 153
Montrose, California 91020, USA

No. of Copies: _____ Amount Enclosed \$ _____

Name _____

Address _____

City _____

State _____ Zip _____

CALENDAR

NOVEMBER 4-13, 1977

Nordic Patrol Workshop, National Ski Patrol System, Steamboat, Colorado

Contact: David Hodgdon, National Nordic Advisor
29 Westwood Terrace, Dedham, MA 02026
(617) 326-2543

NOVEMBER 11-13, 1977

Mountain Medicine '77, Pinkham Notch Camp of the Appalachian Mountain Club, Gorham, New Hampshire

Contact: Cecil M. Jones, Registrar
72 Chester St., Worcester, MA 01805

NOVEMBER 12-19, 1977

Emergency Medical Services Week sponsored by the American Association of Trauma Specialists

Contact: AATS
29 So. LaSalle St., Chicago, IL 60603
(312) 782-7372

NOVEMBER 14-16, 1977

The Trauma Patient: Care and Complications, Marriott Hotel, Cleveland, Ohio

Contact: Mark A. Mandel, M.D., American College of Surgeons Committee on Trauma, University Hospitals of Cleveland
2065 Adelbert Rd., Cleveland, OH 44106

NOVEMBER 15-16, 1977

National EMS Policymakers Symposium, Sheraton-Fort Worth Hotel, Fort Worth, Texas

Contact: Lee Shuck, HEW Div. of EMS
6525 Belcrest Rd., Rm. 320
Hyattsville, MD 20782 (301) 436-6290

NOVEMBER 17-19, 1977

Symposium on Trauma, Radisson Muehlebach Hotel, Kansas City, Kansas

Contact: American Trauma Society,
875 North Michigan Ave., Chicago, IL 60611

NOVEMBER 17-20, 1977

SAR Resource Seminar, Central Washington State College, Ellensburg, Washington

Contact: Rick LaValla, Washington State SAR Coordinator
4220 East Martin Way, Olympia, WA 98504
(206) 753-5255

NOVEMBER 18-20, 1977

Mountain Rescue Association Fall Conference, Tempe, Arizona

Contact: Abbe Keith, MRA Executive Secretary
P.O. Box 396, Altadena, CA 91001
(213) 791-1731

DECEMBER 2-4, 1977

Cold Weather Survival Course by Aviation Safety Institute at Aspen, Colorado

Contact: John b. Galipault, President ASI
(800) 848-7386

DECEMBER 4-8, 1977

15th Annual SAFE Symposium, Hotel Sahara, Las Vegas, Nevada

Contact: Kerin Jaszowski, SAFE National Office
P.O. Box 631, Canoga Park, CA 91303
(213) 340-3961

DECEMBER 13-14, 1977

National EMS Facility/Categorization Symposium, Radisson Hotel, Minneapolis, Minnesota

Contact: Lee Shuck, HEW Div. of EMS
6525 Belcrest Rd., Rm. 320
Hyattsville, MD 20782 (301) 436-6290

SEARCH AND RESCUE MAGAZINE invites listings of upcoming events pertaining to the rescue and emergency care fields. Please send entries to Calendar, Search and Rescue Magazine, P.O. Box 153, Montrose, CA 91020. (213) 248-3057

JANUARY 1978

National Jeep SAR Assn., National Board Meeting, Provo, Utah

Contact: Joye Crouch
P.O. Box 391, Morgan, UT 84050

MID-JANUARY 1978

NASAR Executive Committee Meeting

Contact: Lois McCoy, NASAR Executive Secretary
P.O. Box 2123, LaJolla, CA 92038
(714) 276-7228

JANUARY 30 - FEBRUARY 3, 1978

National Search and Rescue School, State SAR Coordinators' Course, Governors Island, New York, New York

Contact: Lt. Cmdr. Billy Cunningham, U.S. Coast Guard, Officer in Charge, National SAR School, U.S.C.G. Training Center, Governors Island
New York, NY 10004 (212) 264-3313

FEBRUARY 15-16, 1978

Paramedic Symposium, Radisson Muehlebach Hotel, Kansas City, Missouri

Contact: Lee Shuck, HEW Div. of EMS
6525 Belcrest Rd., Rm. 320
Hyattsville, MD 20782
(301) 436-6290

MARCH 2-5, 1978

NASAR Spring Business Meeting, Eglin AFB, Florida.

Search & Rescue

MAGAZINE

Adventure For a Reason!

Search and Rescue Magazine, tells you about the events, activities and life of the Search and Rescue Community. We provide you with the most recent technological developments for all related fields on a national and international basis.

Search and Rescue Magazine brings you the latest survival techniques with complete first-hand reports of major search and rescue operations across the country. We write of persistent problems in the area of search and rescue, critique existing procedures and discuss newly developed technology. Search and Rescue Magazine tells you how to use, protect and enjoy the wild outdoors... and all so that "Others May Live."



DO IT NOW! Yes, I want a 3-year subscription and am enclosing \$16.
 Yes, I want a 2-year subscription and am enclosing \$12.
 Yes, I want a 1-year subscription and am enclosing \$7.

Name _____

Address _____

City _____ State _____ Zip _____

MAIL TO: SEARCH & RESCUE MAGAZINE
P.O. Box 153, Montrose, Ca. 91020 USA

Mountain House Freeze Dried Food

1st CHOICE

with outdoor people everywhere



Eat better with either Compressed or regular Freeze Dried Food.

Over 100 pre-cooked entrees and other foods...add hot water; ready in 5 to 10 minutes.



M MOUNTAIN HOUSE®

Freeze Dried Foods.



Woodsy Owl says...
"give a hoot, don't pol-
lute." Pack out non-
combustible portions of
used packages.

For a free Customer Catalog, send a stamped,
(24¢ postage) self-addressed envelope to
Oregon Freeze Dry Foods, Inc., Dept. SR
P.O. Box 1048, Albany, Oregon 97321.